

CALIFORNIA NATIVE PLANT SOCIETY'S

INVENTORY

OF RARE AND ENDANGERED
VASCULAR PLANTS OF CALIFORNIA



FEBRUARY 1994 / SPECIAL PUBLICATION NO. 1 / FIFTH EDITION

GEOGRAPHIC CODES

[Counties, islands, states, and others]

ALA = Alameda
 ALP = Alpine
 AMA = Amador
 ANA = Anacapa Isl. (VEN Co.)
 BUT = Butte
 CAL = Calaveras
 CCA = Contra Costa
 COL = Colusa
 DNT = Del Norte
 ELD = El Dorado
 FAR = Farallon Isls. (SFO Co.)
 FRE = Fresno
 GLE = Glenn
 HUM = Humboldt
 IMP = Imperial
 INY = Inyo
 KING = Kings
 KRN = Kern
 LAK = Lake
 LAS = Lassen
 LAX = Los Angeles
 MAD = Madera
 MPA = Mariposa
 MRN = Marin
 MEN = Mendocino
 MER = Merced
 MOD = Modoc
 MNO = Mono
 MNT = Monterey
 NAP = Napa
 NEV = Nevada
 ORA = Orange
 PLA = Placer
 PLU = Plumas
 RIV = Riverside
 SAC = Sacramento
 SBA = Santa Barbara
 SBD = San Bernardino
 SBR = Santa Barbara Isl. (SBA Co.)
 SBT = San Benito
 SCL = Santa Clara
 SCM = San Clemente Isl. (LAX Co.)
 SCR = Santa Cruz
 SCT = Santa Catalina Isl. (LAX Co.)
 SCZ = Santa Cruz Isl. (SBA Co.)
 SDG = San Diego

SFO = San Francisco
 SHA = Shasta
 SIE = Sierra
 SIS = Siskiyou
 SJQ = San Joaquin
 SLO = San Luis Obispo
 SMI = San Miguel Isl. (SBA Co.)
 SMT = San Mateo
 SNI = San Nicolas Isl. (VEN Co.)
 SOL = Solano
 SON = Sonoma
 SRO = Santa Rosa Isl. (SBA Co.)
 STA = Stanislaus
 SUT = Sutter
 TEH = Tehama
 TRI = Trinity
 TUL = Tulare
 TUO = Tuolumne
 VEN = Ventura
 YOL = Yolo
 YUB = Yuba

AZ = Arizona
 BA = Baja California
 GU = Isla Guadalupe, Baja
 ID = Idaho
 NM = New Mexico
 NV = Nevada
 OR = Oregon
 SA = South America
 SO = Sonora, Mexico
 TX = Texas
 UT = Utah
 WA = Washington
 WY = Wyoming

+ = Occurs in this state and others
 ++ = Widespread outside of California
 * = Extirpated from preceding quad or county
 ? = Uncertainty about distribution or identity
 ?* = Uncertainty about distribution, but extirpated if once present
 (*?) = Occurrence confirmed, but possibly extirpated

HABITAT CODES

AlpBR = Alpine boulder and rock field
 AlpDS = Alpine dwarf scrub
 BgFns = Bogs and fens
 BUFRs = Broadleaved upland forest
 CBScr = Coastal bluff scrub
 CCFrs = Closed-cone coniferous forest
 Chprl = Chaparral
 ChScr = Chenopod scrub
 CmWld = Cismontane woodland
 CoDns = Coastal dunes
 CoPrr = Coastal prairie
 CoScr = Coastal scrub
 DeDns = Desert dunes
 GBGrS = Great Basin grassland
 GBScr = Great Basin scrub
 InDns = Inland dunes
 JTWld = Joshua tree "woodland"
 LCFrs = Lower montane coniferous forest
 MDScr = Mojavean desert scrub
 Medws = Meadows and seeps
 MshSw = Marshes and swamps
 NCFrs = North Coast coniferous forest
 PbPln = Pebble (Pavement) plain
 PJWld = Pinyon and juniper woodland
 Plyas = Playas
 RpFRs = Riparian forest
 RpScr = Riparian scrub
 RpWld = Riparian woodland
 SCFRs = Subalpine coniferous forest
 SDScr = Sonoran desert scrub
 STWld = Sonoran thorn woodland
 UCFrs = Upper montane coniferous forest
 VFGrs = Valley and foothill grassland
 VnPls = Vernal pools

(descriptor) = Pertains only to the habitat immediately preceding
 / descriptor = Pertains to all habitats preceding

Cover: *Enceliopsis covillei*, the CNPS Logo plant, photographed at Wildrose Canyon in Inyo County by Mark W. Skinner

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*Amsinckia
grandiflora*

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The California Native Plant Society is an organization of laypersons and professionals united by an interest in California plants. The Society is open to everyone, and exists to conserve and protect California native plants in their natural habitat, and to educate members and the public about the California flora. CNPS achieves this through the publication of educational materials, distribution of scientific information, promotion of legal protection for rare plants and their habitats, local advocacy of plant protection, and fostering of appropriate horticultural use of California native plants.

Inquiries concerning membership, other Society publications, and activities should be directed to CNPS, 1722 J St., Suite 17, Sacramento, CA 95814.

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Introduction

One of California's greatest natural treasures is its plants. Our state's mountain ranges, deserts, and extensive coastline, along with its unusual summer-dry climate, set the stage for the development of a complex and fascinating flora. The numbers themselves are impressive. About 6300 flowering plants, gymnosperms, ferns, and fern allies are native here, more than we find in the entire northeastern United States and adjacent Canada, an area ten times larger than California. Another thousand plants are weedy introductions to the state or escapes from gardens and agricultural fields. Although Texas has more genera and families, California's is the largest state flora in the nation.

One of the California flora's outstanding features is that more than one-third (36%) of its native species, subspecies, and varieties are endemics, plants that are restricted to a particular locality or habitat within the state. If we define the flora in terms of the California Floristic Province—a unit including the Klamath Region of the northwestern part of the state and adjacent southwestern Oregon, along with that portion of California west of the Cascade-Sierra Nevada axis, and a part of northern Baja California—then the degree of endemism (about 48%) is remarkable for a continental flora. Most of these endemics are rare or uncommon plants.

It has been argued that many endemics are plants becoming extinct because of old age, and that we are seeing their demise after a long evolutionary history. Others argued, quite to the contrary, that rare plants are merely evolutionary children that have not had time to spread. We now realize that while some endemics, such as the coast redwood, are indeed ancient relicts, most are of relatively recent origin (see *Rarity in Vascular Plants*, below).

Why does California have so many rare plants, especially so many that are endemic? The primary factor may be our climate, a regime of dry summers and cool, wet winters. Only in the Mediterranean Basin, Chile, and parts of Australia and South Africa do we find similar climates. Each is famous for its array of rare and endemic plants adapted to this unusual climatic regime. A second factor is topography and latitudinal diversity. Within the boundaries of this state are extremes—from low, subtropical desert to habitats above timberline, from northern temperate rain forests in Del Norte County to arid succulent scrub in San Diego County. A third factor is the richness of geological formations and the resulting diversity of soil types. The broken topography of the state, combined with a tremendous diversity of climates and soil types, has resulted in ample opportunities for genetic isolation and speciation. The result has been impressive adaptive radiations within such groups as *Arctostaphylos*, *Astragalus*, *Castilleja*, *Eriogonum*, *Gilia*, *Lupinus*, *Mimulus*, *Phacelia*, and many genera in the Asteraceae, to name only a few. Most of our rare plants, then, are specialists, adapted to a particular combination of climate and substrate. For a more detailed treatment of the California flora, endemism, and rare plants, see Barbour and Major (1988), Elias (1987), Hickman (1993), Lewis (1972), Ornduff (1974), Raven and Axelrod (1978), Smith and Sawyer (1988), Stebbins (1978 a & b, 1980), and Stebbins and Major (1965).

California's flora, especially its rare plants, are increasingly threatened by the spread of urbanization, by our conversion of land to agriculture, by alteration of natural hydrological cycles, by recreational activities and non-native plants and animals, and by pollution. The unique habitats that harbor rare plants are being destroyed. For example, 90-95% of vernal pools in the State are gone, and native grasslands in the Central Valley occupy but 1% of their former extent. About forty plants probably became extinct in the last century. Hundreds more are endangered and could perish if present trends continue. Arguments for conservation of rare plants, animals, and natural communities range from aesthetic, to moral, to economic or ecological. This is not the proper forum for an extended discussion of the value of rare plants and the merits of their preservation, so we refer readers to several excellent reviews that are cited in the *Bibliography*. We strongly believe, however, that failure to conserve the biological diversity of our planet may well prove disastrous.

One of the most effective ways of preserving California's native flora is to assemble, evaluate, and distribute information on our rare and endangered plants. The purpose of this *Inventory* is to summarize this information, and in doing so, to promote thoughtful conservation planning. The material contained herein has been contributed and reviewed by professional and amateur botanists from throughout the state. Without their cooperation, this book would not have been possible.

We welcome suggested additions, deletions, nomenclatural changes, and transfers from one list to another. We are especially eager to have errors brought to our attention. Please write the CNPS Botanist, California Native Plant Society, 1722 J St., Suite 17, Sacramento, CA 95814.



*Amsinckia
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Rarity in Vascular Plants

Peggy L. Fiedler

Vascular plant species can be rare for an astounding variety of reasons. Broadly speaking, however, a species is either rare because it lives in a very limited habitat (natural rarity), or because its habitat has been converted by humans to other uses (anthropogenic rarity). Natural rarities are those species that have always been rare during their evolutionary history, or currently are rare by today's standards. Anthropogenic rarities are those species that were formerly widespread, but through negative interactions with human populations, are either greatly fragmented or restricted to a few small, imperiled populations. Each general class of rarity has its own set of consequences that must be considered for a species' conservation and management.

Patterns of Rarity

What does it mean to be rare? Essentially, using the word "rare" makes a statement about the geographic distribution and population abundance of a particular species. Rarity, in fact, describes three very different biological possibilities (Figure 1). A rare taxon can be A) broadly distributed, but never abundant where found (e.g., *Cypripedium californicum*); B) narrowly distributed or

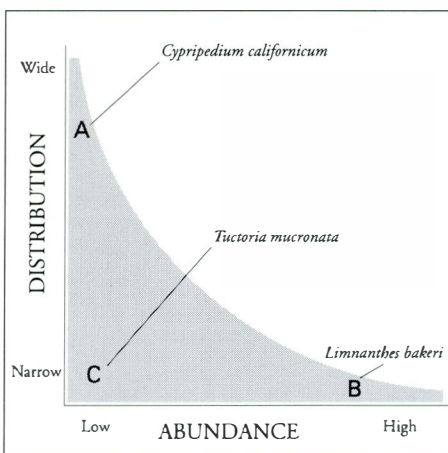


Figure 1. The term "rarity" is used to describe a spectrum of combinations of abundance and distribution patterns. All of the shaded area is often considered "rare" (Adapted from Fiedler and Ahouse 1992).

clumped, and abundant where found (e.g., *Limnanthes bakeri*); or, C) narrowly distributed or clumped, and not abundant where found (e.g., *Tuctoria mucronata*). Geographic distributions of rarity can also include a temporal dimension, such that a rare species is defined by its abundance, distribution, and persistence through evolutionary time (Fiedler and Ahouse 1992). Patterns of distribution and abundance that define rarity have been generally described for animals (Mayr 1963) and plants (Drury 1974, 1980), but seldom have they been applied to specific problems in biological conservation.

A particularly persuasive classification of natural rarities was proposed by Rabinowitz (1981), who explicitly tied habitat specificity to geography and abundance (Figure 2). This system identifies seven possible forms of rarity, six of which can be used to classify rarities for floristic regions, as has been done for the British Isles (Rabinowitz, Cairns, and Dillon 1986), but not yet for California. One of the limitations of this scheme, however, is that the causes of rarity (e.g., limited habitats) are not distinguished from the consequences of rarity (e.g., decreased genetic variation), and both may have implications for rare plant management. The goal of conserving biological diversity will be best served if politicians, developers, and conservationists recognize that there are different types of rarity among plants, and that each may require a different form of protection and management.

Causes of Rarity

Although rare plants can be classified by different patterns of distribution and abundance, as is done above, this does not explain the many biological and anthropogenic factors causing these patterns. Fiedler and Ahouse (1992) identi-

fied thirteen general categories of factors that probably contribute to rarity, including ten that were related to the biology of rare species and three that were related to human activities. Within each category, they listed up to ten specific causes of rarity. For example, the general category "Human Uses" includes the specific causes of horticultural trade, aboriginal uses, a species' role in ancient and/or modern medicine, and a species' role in past or present industry; the general category of "stochasticity" includes both demographic and environmental causes. There are literally dozens of causes that contribute to plant rarity, but the brief discussion below emphasizes only the major biological explanations.

In California, many vascular plant species are rare because they are either new species (i.e., "neoendemics") or old ones (i.e., "paleoendemics"). Neoendemics are frequently found in geologically youthful habitats, and often their rarity is partly a function of their youth: in some cases these plants have not had time to greatly expand their range from their point of origin to their climatic limits (Stebbins and Major 1965). Such taxa include members of the *Limnanthes floccosa* complex from vernal pools, and *Linanthus arenicola* and *Oenothera californica* ssp. *eurekaensis* from the Mojave Desert. *Clarkia lingulata*, of the Sierra Nevada foothills, is another well-known neoendemic. In contrast, some of our most famous rare or restricted species, such as *Abies bracteata*, *Carpenteria californica*, *Lyonothamnus floribundus*, *Pinus radiata*, *P. torreyana*, and *Sequoiadendron giganteum*, are paleoendemics which were once more broadly distributed, but have retreated to their current ranges in response to climatic change.

Stebbins and Major (1965) presented an extensive analysis of California's endemic plants, many of them rarities in the

Geographic Range:	Large		Small	
	Wide	Narrow	Wide	Narrow
Habitat Specificity:	Widespread taxa	Predictable taxa	Unlikely endemic taxa	Endemic taxa
Large, Dominant, Local Populations	COMMON PLANTS	<i>Downingia humilis</i>	<i>Allium munzii</i>	<i>Calochortus tiburonensis</i>
Small, Non-dominant, Local Populations	SPARSE PLANTS <i>Achnatherum lettermanii</i>	<i>Torreya californica</i>	NON-EXISTENT?	<i>Lathyrus jepsonii</i> ssp. <i>jepsonii</i>

Figure 2. Seven forms of rarity, after Rabinowitz (1981), with examples from the California flora.

flora. Their classification is based upon age, systematic position, and cytology, and includes the paleoendemics, as well as schizoendemics, patroendemics, and apoendemics. Most representatives of the last three categories are neoendemics, though some are of moderate or even relatively old age.

Schizoendemics have more or less simultaneously diverged from a common ancestor, as have many of the rare taxa in *Ceanothus* sect. *Cerastes* such as *C. roderickii* and *C. ophiochilus*. The remaining two categories are especially important because they contain most of California's rare species. Patroendemics are diploid species of limited geographic distribution that are related to, and probably ancestral to, a more recent and widespread species. Patroendemics and their probable descendants include, among many others, the very restricted endemic *Clarkia imbricata* (n = 8) and its derived polyploid *C. purpurea* (n = 26); *Galium clematis* (n = 11) and *G. californicum* (n = 44, 66); and *Tonestus* (formerly *Haplopappus*) *eximius* (n = 9) and *T. peirsonii* (n = 45). In contrast to patroendemics, apoendemics are defined as polyploids of limited geographic distribution that are either sympatric or parapatric to more widespread diploid (or lower degree polyploid) species, from which they are likely descended. Apoendemics pairs include the rare *Dudleya saxosa* ssp. *saxosa* (n = 68, 85)

and its probable parent *D. saxosa* ssp. *aloides* (n = 17), which is also a rare plant; *Lomatium repostum* (n = 22) and *L. lucidum* (n = 11); and *Penstemon heterodoxus* var. *shastensis* (n = 16) and the more widespread *P. heterodoxus* var. *heterodoxus* (n = 8). Raven and Axelrod (1978) thoroughly summarize the origin of California endemics, and Kruckeberg and Rabinowitz (1985) discuss the biology of endemic plant species in detail.

Many rare species in California and elsewhere are restricted to specific soil types and are therefore considered "edaphic endemics." The mechanism of plant adaptation and subsequent restriction to unusual soils which generates edaphic endemics is complex, but typically involves physiological tolerance to mineral imbalances or toxic minerals. California's serpentinite flora is well-known worldwide, and contains both common and rare species, including 282 taxa in this *Inventory* (see *Ecological Characteristics of California's Rare Plants*, below). Familiar rarities include *Calochortus tiburonensis*, *Streptanthus morrisonii*, and *Hesperolinon*, a genus composed almost exclusively of rare serpentinite endemics. Kruckeberg's (1984) monograph on California serpentines provides an excellent starting point for understanding the evolution, distribution, and management of rare serpentinite plant species.

In conclusion, there are many reasons why California has so many rare

species, and likely as many ideas about why any vascular plant species might be rare (Fiedler 1986). Only infrequently does a single "cause" by itself truly explain why a species is rare. Indeed, many rare and endangered species in California that began as natural rarities have, through one form or another of human-induced detrimental changes in their populations and/or habitat, become anthropogenic rarities needing immediate protection and recovery.

And although some taxa are rare because of some particular aspect of their biology (such as poor seed dispersal or germination), and still others may be rare because they are old, genetically depauperate, and "on their way out" (Stebbins 1942), it is impossible to generalize about why species are rare. It is important, therefore, to understand the biology of a rare taxon, to know the genesis of its rarity, and to understand current threats to a species and its habitat. Armed with such knowledge, rare plant taxa in California and elsewhere can be appropriately managed and will have much better chances for long-term survival.

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Ecological Characteristics of California's Rare Plants

Bruce M. Pavlik and Mark W. Skinner

The rare plants of California are known to us in very general terms. They have been found, named, described, watched, sometimes utilized, and in a few cases, studied. But overall, many of the specifics regarding these unusual and remarkable organisms remain unknown. How do they live their lives? What are the events that control growth or promote stability in their populations? What other plants, animals, and microbes do they live with or depend on? Are there certain life history traits or habitat preferences that predispose taxa to rarity, endangerment, or extinction? Only when our rare flora is understood ecologically will we have a firm foundation for making the crucial decisions that can secure its future.

This edition of the *Inventory*, along with the new *Electronic Inventory* (see *The CNPS Electronic Inventory...*, below) includes new data and new ways of accessing data that will enhance our ecological understanding of rare plants in the California flora. For example, we have added data fields to describe the duration, growth form, leaf type, mode of nutrition, substrate preference, and blooming period for each taxon. This kind of information can be immediately useful for conducting better searches during environmental impact studies, giving consultants and field biologists a more precise idea of what to look for, when, and how likely it is they will find it at any given time. But beyond its practical applications, this information can also be used to answer questions of concern to ecologists, conservation biologists, and reserve managers. What are ecological characteristics of California's rare plants? Can this knowledge be used proactively for conservation purposes? Will our existing system of nature reserves slow the erosion of plant diversity by protecting the natural communities

that contain the most rare plants? Here we present a preliminary analysis.

Duration as an Ecological Characteristic

The data field "duration" describes the longevity of individual plants in the active phase of their life cycle. Annual plants, for which our flora is famous, grow rapidly from seed to reproduce in less than a year. Perennial plants grow steadily and reproduce over two or more years. According to Raunkier (1934) only about 13% of the world's flora are annuals, while 87% are perennial. Raven and Axelrod (1978) determined that 29% of all plants in California are annuals. If we examine *Inventory* List 1A, a relatively high proportion (53%) of plants presumed to be extinct are annuals (Table 1). Although List 2 is deficient in annuals as one might predict (these are mostly plants from the perennial-rich continental flora of other states), the other lists conform to the California norm (26-36% annuals).

This "annual enrichment" on List 1A raises the intriguing question of whether a life cycle with short duration predisposes plants to extinction. Is it trickier to be an annual or perhaps riskier to depend on seeds in the soil for withstanding adversity? Populations of small, short-lived organisms (plants or animals) undergo frequent and sometimes drastic

changes in size for a wide variety of reasons. Such changes can exacerbate the effects of competition (annual plants never "hold their ground" for very long), reduced pollen flow (especially in obligate outcrossers), and random but natural events that impact the population (e.g., the chance arrival of hungry herbivores). A growing body of research in conservation biology does suggest that annual plants are more prone to extinction than their perennial relatives, but that the introduction of non-native species, fire suppression, overgrazing, and other byproducts of human activity are usually the most important factors. Most of the extinct annuals in California were subjected to a combination of anthropogenic factors, and dozens of annual plants on List 1B occur in highly modified habitats and are now in serious decline. These plants may swell the ranks of List 1A in future editions of this *Inventory*.

Habitat Preference

Human activity is likely to be the other chief cause of "annual enrichment" for an obvious reason: annual plants tend to be found in lowland habitats that are prone to agricultural and urban development. Lowland habitats are the first to be altered or destroyed as pioneers and settlers establish an intensive pattern of land use. Subsequent migration, population

Table 1. The number and proportion of taxa on each CNPS list that are of annual or perennial duration. The "ann/per" column accounts for taxa that can be both.

CNPS List	Annual Taxa	(%)	Perennial Taxa	(%)	Ann/Per Taxa	(%)	Total Taxa
1A	18	52.9	16	47.1	0	0.0	34
1B	257	30.0	593	69.2	7	0.8	857
2	48	17.7	222	81.6	2	0.7	272
3	17	36.2	29	61.7	1	2.1	47
4	138	25.9	391	73.5	3	0.6	532

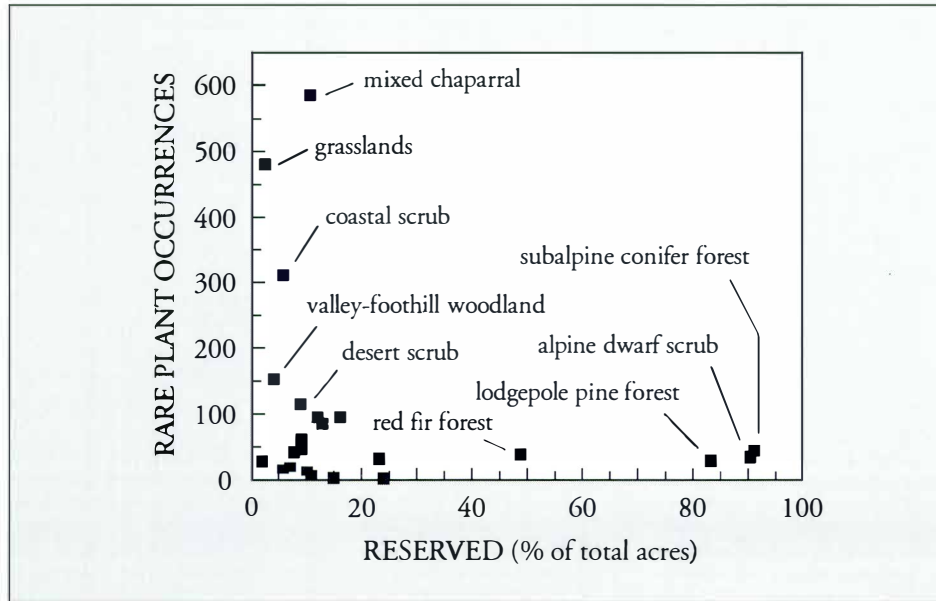


Figure 1. Communities that contribute the largest number of rare plant occurrences to the California Natural Diversity Data Base are those which have a low percentage of their acreage in parks and preserves.

growth, and economic development concentrate along shorelines, navigable rivers, and valley bottoms to ultimately displace the lowland biota. The richness of the lowland biota itself is also a contributing factor to overall losses: temperate grasslands and Mediterranean shrublands rank among the most species-rich communities on the planet (Ashton 1992). A disproportionate number of extinct annuals and the high degree of endangerment in the flora as a whole are the inevitable result of human exploration and exploitation of species-rich, lowland habitats.

This idea is supported if we rank

habitats within the *Inventory* according to how many plants each contributes to the CNPS Lists (Table 2). Most extinction (indicated by List 1A) has been associated with low elevation grasslands, coastal scrub, wetlands, and oak woodlands. Endangerment (List 1B) is also associated with grasslands and oak woodlands, but species-rich chaparral rises to the top of the ranking. High elevation habitats that also have fewer native species, such as Great Basin grasslands and alpine scrub, contribute only a handful of rare plants to the *Inventory* despite their considerable acreage. Essentially, rarity in the flora is strongly associated with the

lowland, Mediterranean habitats that best characterize the California Floristic Province (see *The Natural Communities Program*, below). These are the habitats of the Spanish missions, the ports, the livestock industry, of rich floodplain soils, of suburbia, and of expensive ocean views where intensive development has taken place (see Barbour *et al.* 1993). Rare plant conservation strategies should, therefore, emphasize the most species-rich, depleted habitats in order to establish an effective system of preserves for the California Floristic Province.

Unfortunately, lowland, species-rich habitats have been relatively ignored by our existing system of preserves and parks. By combining geographic information on rare plant occurrences from the California Natural Diversity Data Base (see *The Natural Diversity Data Base...*, below) with information on land use by habitat (Jensen *et al.* 1990), we see that from the standpoint of rare plants, California's protected areas (wilderness areas, research reserves, national and state parks, wildlife refuges, and recreational sites) are in the wrong places. Areas with the greatest degree of protection from development and high-intensity uses are at high elevations with relatively few rare plant occurrences (Figure 1). For example, approximately 90% of the state's alpine scrub habitat is preserved, but this accounts for fewer than 50 out of over 9,000 rare plant occurrences in the Data Base. On the other hand, the state's coastal scrub contributes 310 occurrences, but

Table 2. The top-ranking habitats of California's rare plants according to CNPS list. The number of taxa in the fifth edition of the *Inventory* is shown for each list and habitat in parentheses.

Rank	List 1A	List 1B	All Lists
1	valley/foothill grasslands (10)	chaparral (299)	chaparral (516)
2	marshes/swamps (9)	cismontane woodland (164)	lower montane conif. forest (359)
3	coastal scrub (8)	valley/foothill grasslands (157)	cismontane woodland (311)
4	meadows (5)	lower montane conif. forest (149)	valley/foothill grasslands (247)
5	chaparral (3), cismontane woodland (3)	coastal scrub (126)	coastal scrub (211)

only about 6% of this habitat is now protected. Although the lack of preserves at low elevations has, in part, produced the current geography of threatened plants, we cannot minimize the need for more lowland protection to benefit plant diversity in California.

Chemical and Physical Substrate

There are other revealing and potentially useful ecological patterns that emerge from the *Inventory*. Serpentinite endemism is a well-known feature of the California flora, and serpentinite substrates (e.g., rocky serpentinite outcrops and their derived soils) contribute the most rare taxa to the CNPS lists (Table 3). Carbonates, such as limestone and dolomite, are also havens for rare and endemic plants, especially when found in the dry, isolated, and ancient mountain ranges of eastern California. Other substrates with unique chemistry are much less likely to support rare plants, including gabbro (16 taxa) and gypsum (2). In terms of physical features, rare plants in the *Inventory* occur most often on sandy and rocky substrates. Many of these taxa are found on coastal and desert dunes, serpentinite rocks, granitic domes, and limestone bajadas. On the other hand,

Table 3. The top-ranking chemical and physical substrate characteristics of California's rare plants (from all CNPS lists). The number of taxa in the 5th edition of the *Inventory* is shown for each substrate characteristic in parentheses. Chemical and physical categories are not mutually exclusive.

Rank	Chemical Characteristic	Physical Characteristic
1	serpentinite (282)	sandy (166)
2	granitic (103)	rocky (144)
3	carbonates (89)	clay (78)
4	volcanic (77)	gravel (64)
5	alkaline (61)	barrens, openings (35)

rare plants are seldom found on unstable talus (8 taxa) and scree (2).

Analysis of other data fields in the *Inventory* can provide additional insight into the ecology of California's rare flora. More fields will undoubtedly be added in the future (e.g., climate zone, elevation range) to expand our understanding of the environmental factors associated with these singular organisms. A detailed database, combined with increased accessibility via computer, will also help to focus and strengthen conservation strategy in the future. This brief examination of three fields (duration, habitat, and substrate) suggests that more attention be paid to the problems of annual plants at low elevations, especially those on

serpentinite, rocky, or sandy substrates. When combined with new approaches to biodiversity preservation, including multiple listing, habitat-based management plans instead of single species stewardship, development of large preserve networks, and the protection of rare or species-rich natural communities, the ecological view of the *Inventory* will help secure the future of California's unique flora.

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A History of the CNPS Rare Plant Program and Inventory

Rare plant studies have been a focus of the California Native Plant Society since its beginning. In 1968, G. Ledyard Stebbins, who was then President of the Society, started a card file of California plants with a distribution of less than one hundred miles. These cards were sent to botanists to solicit comments. Under the direction of Roman Gankin, Chairman of the newly formed Rare Plant Committee, these comments were evaluated and many more plants were suggested for consideration. Several in-house lists, composed of over 800 plants, were circulated during the next three years. The first widely distributed CNPS list appeared in 1971 and contained 520 plants.

At the same time, W. Robert Powell became Director of the Rare Plant Project. Early in 1973 a major effort was mounted to update and expand our information. Again in-house lists were circulated. The high-point of these activities occurred in July 1974, when a number of professional and amateur botanists from throughout the state met for a mapping session at the University of California at Davis. This provided an excellent opportunity for the participants to share their knowledge, often incomplete, of California's rare and endangered plants. It should be emphasized that from the beginning, CNPS rare plant investigations have been based upon the first-hand knowledge and field experience of a statewide network of botanists who have been generous in their cooperation. We continue to map locations in detail, confirm the existence of plants in the field, and record changes in population size as we refine our database.

In December 1974, the Society published the first edition of its *Inventory of Rare and Endangered Vascular Plants of California*, under the editorship of W. Robert Powell. In its Main List were 704 plants of primary concern. A second list

of 554 plants constituted a group of rare, but not currently endangered plants. In addition, 135 plants were listed as having limited distributions, but not as being rare. This brought the total of plants included in the first edition to 1393 species, subspecies, and varieties. At the time of its publication, the CNPS *Inventory* was the most detailed compilation of rare plant data for any state in the nation. It quickly became the most widely used reference on the subject in California, and the prime source of information for botanists, private consultants, conservationists, and the staffs of city, county, state, and federal agencies.

Many of these same individuals, in return, provided new information, refinements, and corrections. CNPS responded by issuing supplementary lists of additions and deletions. With each passing year, it became more obvious that a second edition of the *Inventory* was needed. In November 1979, the United States Fish and Wildlife Service and CNPS co-sponsored a second review conference, once again on the Davis campus. About fifty specialists gave freely of their time and energy to amend and correct provisional lists that CNPS had developed for a proposed second edition.

The second edition appeared in 1980, with James P. Smith, Jr., R. Jane Cole, and John O. Sawyer, Jr. as editors. There were several format changes. This time 1,383 plants were arrayed in four lists, the first one entitled "Presumed Extinct in California." This was done in an effort to bring special attention to 44 plants that were then known from historical collections only. It became a challenge to see if any of them could be rediscovered, and several of them were! The plants on these four lists were adopted by the California Department of Fish and Game as constituting its "species-of-concern" list, now called the Special Plants list. A supplement to the

second edition was published in 1981, and another in 1982.

The appearance of the new edition was followed quickly by two other major events in the Society's Rare Plant Program — the hiring of Richard York as a full-time botanist and the signing of a Memorandum-of-Understanding with the California Department of Fish and Game's Natural Diversity Data Base (NDDDB). The rare plant data that already existed in our files, together with the accelerated pace of acquiring new information, had outstripped the capacity of our group of volunteers to maintain current manual files and to respond to inquiries in a timely fashion. A full-time employee had become a necessity. Our agreement with the Data Base led to establishing the CNPS botanist's office and files within the facilities of the California Department of Fish and Game, the state agency charged with inventorying rare, threatened, endangered, and sensitive plants and with preparing the documentation needed for state listing of these plants. For a more complete history of the Society's Rare Plant Program and the role of the CNPS Botanist, see Berg and Skinner (1990), Powell (1975, 1978), Powell *et al.* (1981), Smith (1987, 1990), and York *et al.* (1982).

Planning for the third edition of the *Inventory* began in late 1982. Meetings were held the following year to discuss possible format changes and to solicit information on incompletely known plants. In July 1983, through the generosity of many CNPS members, the Rare Plant Program was able to purchase a microcomputer. The work of entering all of our rare plant data into the computer began that summer and was completed in a relatively short time. In February 1984, we once again held a statewide meeting of amateur and professional botanists at the University of California at

Davis. The third edition was published later that same year.

Work on the fourth edition began in March 1987, with the conversion of our computerized data to MS-DOS compatible dBase III+ files. Advances in database management software improved our ability to organize and analyze the data and allowed electronic coordination with Department of Fish and Game botanists at the NDDDB. To update our information, a list of proposed status changes was circulated to more than 200 data contributors for review. We also requested that any new status or distribution information be brought to our attention at that time. Meetings were held in Sacramento and Berkeley in December 1987, to discuss final status recommendations and to receive outstanding field survey data. These solicitations resulted in an avalanche of documentation.

In assimilating this information, we systematically reevaluated the rarity and endangerment ratings for more than 700 of our highest priority plants. County and topographic quad data were compared with NDDDB computer files. Habitat occurrence data were assembled, categorized, and computerized for more than 1300 plants. This information was reviewed by botanists at the Natural Diversity Data Base, Department of Fish

and Game Endangered Plant Project, and The Nature Conservancy. The fourth edition was published in September 1988.

Work on the fifth edition commenced in earnest in Spring 1991, when we conducted primary research for two new fields of information, life form and blooming time. In June 1991 we circulated a request for new information to the data contributors, now numbering about 370. Later that year we began the laborious process of library and herbarium research on the more than 300 plants which are newly added to this addition, and on the more than 35 plants shifted from List 4 to one of the higher priority lists. Also in late 1991, we commenced a detailed comparison with the taxonomic concepts and other information contained in *The Jepson Manual*, the monumental new work on California's flora. This task extended into June 1992, and entailed hundreds of name, status, and distribution changes. In April of 1992, we circulated preliminary review lists of status changes and new plants to the contributors. We received well over 100 responses with thousands of suggested changes and improvements. In August 1992, all proposed changes to date were reviewed in Sacramento by the Rare Plant Scientific Advisory Committee (RPSAC) and several knowledgeable

guests, and by July 1993 the first complete draft of the data in this volume appeared for review. RPSAC members and a number of other selected experts reviewed the data one final time in Fall 1993, and hundreds of last minute changes and corrections were made at that time.

Along the way a number of steps were taken to ensure that the fifth edition met the high standards established in the past. Every entry in the *Inventory* has been scrutinized to ensure accuracy of the data and consistency between the geographical information recorded by county, by topographic quad, and by what is implied in the notes. In those few cases where information remains incomplete, we have explicitly requested it in the notes. The notes themselves have been extensively reworked for content, style, and consistency, and greatly expanded in many cases. We compared county and topographic quad data, information on rare plant threats, and habitat with NDDDB computer files, and researched all discrepancies. We developed habitat information for the fifty plants which lacked it in the 1988 edition, so that only one plant's habitat is now unknown. Likewise, we researched all the List 1, 2, and 3 plants for which we lacked topographic quad information; but two unknowns remain.

Numerical Analysis of This and Previous Editions

As the following numerical comparison of the plants in the five *Inventory* editions demonstrates, the size of California's rare and endangered flora continues to grow (Table 1). The percentages given below indicate the portion of the total native flora in California represented by the plants on a particular list for the different editions. We estimate that the flora as currently described contains 6300 native species, subspecies, and varieties. This is the number of native taxa that are fully described in *The Jepson Manual* (about 6000), plus the approximate number that receive peripheral mention as minor taxa.

There is a net addition of 182 plants (27% increase) to our highest priority List 1B since the 1988 edition. Almost 80 of these have been upgraded to List 1B from a lower priority list, in some cases because we have learned more about their rarity or endangerment, but usually because conditions have worsened and they are now more seriously endangered than before. This is perhaps the most sobering single fact to emerge during preparation of this edition; nearly 14% of California's native plants are either exceedingly rare or seriously endangered. Our best efforts to date simply have not been sufficient to stem the further deterioration of what is arguably the Nation's most remarkable flora.

During the first fourteen years since publication of the first edition, the *Inventory* grew at a cumulative rate of 0.8% per year. In the last five years we have identified 313 new rare and endangered plants (Table 2), and the *Inventory* has grown 2.5% per year. There are at least four reasons for this increase: rare plants have been overlooked in the past (invoked in 63% of recent cases), more plants are becoming endangered as habitat loss and other threats accelerate (32% of cases), many new plants have been described in California in the last 5 years (15% of cases), and taxonomic changes have "cre-

ated" new rare plants (7% of cases). (Note that combinations of these factors resulted in some plants being added to the *Inventory*, hence the foregoing percentages total greater than 100%.)

A disproportionate number of the taxa that are new to this *Inventory* have been assigned to List 2 (Table 2). In the

1988 edition, List 2 represented only 11% of the plants, but this list comprises 26% of the newly added plants in the fifth edition. We suspect this is due as much to reexamination of herbarium material during preparation of *The Jepson Manual* as it is to continued botanical exploration on California's fringes, where

Table 1. Numerical comparison of the five CNPS *Inventory* editions. We have reevaluated percent of flora for past editions based on 6300 native plants in California.

List or Appendix	Taxa	%Flora
1974, 1st EDITION		
1. Very Rare & Rare and Endangered	704	11.1%
Appendix I— Rare and Not Endangered	554	8.8%
Appendix II— Mostly of Limited Distribution	135	2.1%
TOTAL	1393	22.0%
1980, 2nd EDITION		
1. Presumed Extinct in California	44	0.7%
2. Rare and Endangered	656	10.4%
3. Rare, But Not Endangered	446	7.1%
4. Rare in California, But Not Elsewhere	237	3.8%
TOTAL	1383	22.0%
1984, 3rd EDITION		
1A. Presumed Extinct in California	34	0.5%
1B. Rare or Endangered in California and Elsewhere	604	9.6%
2. R/E in California, More Common Elsewhere	198	3.1%
3. Need More Information	114	1.8%
4. Plants of Limited Distribution	449	7.1%
TOTAL	1399	22.2%
1988, 4th EDITION		
1A. Presumed Extinct in California	39	0.6%
1B. Rare or Endangered in California and Elsewhere	675	10.7%
2. R/E in California, More Common Elsewhere	177	2.8%
3. Need More Information	149	2.4%
4. Plants of Limited Distribution	508	8.1%
TOTAL	1548	24.6%
1994, 5th EDITION		
1A. Presumed Extinct in California	34	0.5%
1B. Rare or Endangered in California and Elsewhere	857	13.6%
2. R/E in California, More Common Elsewhere	272	4.3%
3. Need More Information	47	0.8%
4. Plants of Limited Distribution	532	8.4%
TOTAL	1742	27.7%

most List 2 plants occur. There are undoubtedly many more of these border plants remaining to be discovered in California. Fortunately, we were able to reexamine the plants on List 3 and reclassify or delete many of these, and our thorough research on the new additions meant that we could assign most to Lists 1, 2, or 4. The 47 plants on List 3 in the fifth edition (Table 1) represent just 3% of the plants in this *Inventory*.

California's rare flora is disproportionately rich in subspecies and varieties as compared to the flora as a whole (Table 3). This is unsurprising since subspecies and varieties typically have smaller ranges than species, and are thus biologically rarer to begin with, and consequently more susceptible to disruption. Subspecies and varieties are morphologically, genetically, and geographically distinctive, and much of California's floristic diversity is expressed at this infra-specific level. It is therefore essential that our conservation efforts include these ranks as well as full species if we are to preserve the California flora as the remarkable living evolutionary laboratory that it is.

Uses of the CNPS *Inventory*

The California Native Plant Society has invested a great deal of time, energy, and money to gather this rare plant information for one purpose: to promote the preservation of rare plants and their habitats. Our responsibilities are best served by complete and accurate information upon which to make sound conservation judgments and recommendations. Although there remain gaps to be filled, errors to be corrected, and refinements to be made, the information is here for all to use. The challenge for us is to use it wisely.

We encourage conservationists, consultants, planners, researchers, and resource managers to use this *Inventory* to

Table 2. Percentage of fourth edition taxa on each list compared to the number and percentage of new fifth edition taxa on each list.

CNPS List	% 4th Edition	Taxa New to 5th Edition	% New Taxa
1A. Presumed Extinct in California	3%	3	1%
1B. Rare or Endangered in CA and Elsewhere	44%	136	43%
2. R/E in California, More Common Elsewhere	11%	82	26%
3. Need More Information	10%	12	4%
4. Plants of Limited Distribution	33%	80	26%
TOTAL	100%	313	100%

Table 3. Comparison of taxonomic rank of plants in the California flora, in current and previous editions of the *Inventory*, and of the taxa new to this edition.

Taxonomic Rank	CA Native Flora	4th Edition	Taxa New to 5th Edition	5th Edition
No. Full Species	4839	1095	175	1182
No. Subspecies or Varieties	1159	453	138	560
% Full Species	81%	71%	56%	68%

educate landowners and public policy makers about rare plant conservation. The information it contains should serve to direct efforts to identify, protect, and manage California's rarest botanical resources. Consultants and planners preparing environmental documents should review this information to determine the potential for resource conflicts and the scope of botanical surveys needed. Conservationists and resource managers can use the same information to review environmental documents and prepare public testimony to influence decision makers, and to guide rare plant protection and preserve acquisition and management. The CNPS policies reproduced as

Appendices in this volume should also be consulted for further guidance in these areas.

We are committed to the dissemination of accurate biological information to facilitate plant conservation in California. We offer our assistance to all involved in this arena. Computerization allows us to sort and analyze this information in many useful ways, most of which are now available to the general public through release of the CNPS *Electronic Inventory*. The appendices in this edition are just a few examples of what we can do. For more information, contact the CNPS Botanist.

The Rare, Threatened, and Endangered Plants of California

The heart of the CNPS *Inventory* is the summary of the distribution, rarity, endangerment, and ecology of our state's rare, threatened, and endangered vascular plants. We present these plants in a single alphabetical list that includes all the plants of concern to the CNPS Rare Plant Program. We also include entries for those that were considered but rejected for one or more reasons, as well as other scientific names that have been used in the standard literature or in previous editions of this *Inventory*. Each entry for a plant of concern to CNPS is referred to as a record.

The Basis for Inclusion

Only vascular plants, those with a specialized conducting system made up of xylem and phloem tissue, are included in this *Inventory*. This botanical designation refers to the plant groups commonly called ferns, fern allies, gymnosperms (cone-bearing seed plants), and flowering plants. Algae, fungi, lichens, mosses, and liverworts are not vascular plants and are not treated here.

A plant must also be native to California to be included. Ornamentals, plants escaped from cultivation, and naturalized plants are excluded. So are the sporadic, sterile hybrids that sometimes occur under natural conditions. The relatively trivial color variants and occasional departures from typical vegetative or floral conditions, referred to by botanists as "forma," are similarly excluded.

A plant must also be rare in California. This criterion is, admittedly, more arbitrary. Since no statistically precise definition of rarity has been developed, differences in assessing this critical feature do exist. Most of the plants that were considered but not included in this book were eliminated because we determined them to be too abundant. Because this reference focuses on California, plants that are rare in our state but

more common or even widespread elsewhere are included.

A very small number of plants that are still somewhat abundant in California, but which are threatened or declining, are also listed. Most of these are the very attractive or curious ones that have horticultural appeal to the commercial or private collector. The pitcher plant (*Darlingtonia californica*) and Mojave fish-hook cactus (*Sclerocactus polyancistrus*) are examples.

Widespread Plants in Decline

A number of California plants are seriously declining, but remain too common to be appropriately placed on List 4, our "watch" list of limited distribution plants. These plants are fairly widespread and sometimes even common, but each is experiencing systematic decline in all or part of its range. The inclusion on the fourth edition watch list of certain declining plants of somewhat restricted distribution was controversial. Valley oak (*Quercus lobata*) is a notable example of a plant included on the last watch list because it warrants monitoring. It has been drastically reduced in abundance in some areas, it is threatened with extirpation in a portion of its range, and its ability to regenerate is low in many areas. Nevertheless, it cannot be considered rare under any concept.

Consequently, in this edition, valley oak and plants like it have been rejected in favor of stricter adherence to the "rare and endangered" criteria implied by the title of this volume. A few of the other widespread plants in serious decline that were included in the previous edition or considered for inclusion in this one, but ultimately were rejected, are: *Chorizanthe fimbriata* var. *fimbriata*, *C. fimbriata* var. *laciniata*, *Cupressus* (= *Chamaecyparis*) *lawsoniana*, *Erodium macrophyllum*, *Fritillaria biflora*, *Pinus lambertiana*, *Taxus brevifolia*, and *Washingtonia filifera*. There

are many others. Overall, we judged that their presence on the lists would compromise the integrity of the endeavor as a whole. However, their exclusion in no way minimizes the genuine threat to these plants, many of which will soon be candidates for inclusion on CNPS priority lists if present trends continue. By raising public concern and focusing research and attention, we hope to keep these plants from declining further.

The Scientific Names, Common Names, and Family Names of Plants

The plants in this *Inventory* are presented alphabetically by their scientific names, the technical names that have been properly published for them according to the *International Code of Botanical Nomenclature*. They are the first line in each of the records.

In its simplest form, a scientific name has three parts. The first is the genus or generic name. It is always capitalized. The second part is the specific epithet, often incorrectly called "the species name." Together, these two components make up the species name. If a scientific name is presented in its most complete form, these two words will be followed by the names of one or more persons, often in an abbreviated form, who first published the specific epithet or subsequently published a taxonomic modification of the plant. These names are the authorities. If a portion of an authority occurs within parentheses, then the author in parentheses originally placed the epithet in a different genus or species, or once assigned it to a different taxonomic rank. The name cited outside the parentheses is that of the person who published the combination as it now appears.

Often the scientific name is more complex because botanists have recognized categories below the level of species. The two most useful are the subspe-

cies (abbreviated *ssp.*) and the *variety* (abbreviated *var.*) These names are also given according the *Code* and they have their own authorities.

Consider the example *Penstemon newberryi* Gray var. *sonomensis* (Greene) Jeps. *Penstemon* is the genus or generic name; *newberryi* is the specific epithet; Gray, for Asa Gray, is the author of the specific epithet; *var.* is the abbreviation for variety; *sonomensis* is the varietal epithet; (Greene), for Edward L. Greene, first described the var. *sonomensis* as a full species; and Jeps., for Willis Lynn Jepson, modified its taxonomic position and made it a variety of *P. newberryi*. Note that generic names, along with specific, varietal, and subspecific epithets, appear in italics or are underlined.

We have made every effort to use the currently accepted scientific names that appear in *The Jepson Manual* (Hickman, 1993; see *Coordination with The Jepson Manual*, below). Most of them have been in use for some time and are the scientific names that appear in Munz (1959, 1968, 1974), and Abrams (1923-1960). We have also relied heavily for our nomenclature on recent monographs and revisions, many of which are cited in the notes at the end of each record. Because of this recent systematic work, some names that were used in earlier editions of the *Inventory* have been abandoned; these appear alphabetically with cross-references to the currently preferred name.

Each of the plants also has a common or vernacular name. It is presented on the second line of each record. We include these because it is often easier for many of us to refer to a plant by a more familiar sounding name. Of course, the majority of the plants in this book have no real common names. Most of them were coined by Leroy Abrams for his *Illustrated Flora of the Pacific States*. In other instances, we simply followed his lead by contriving names, usually by translating the Latin or Greek roots into English or by selecting an appropriate geographical reference or person's name. We have at-

tempted to follow Kartesz and Thieret (1991) in matters of capitalization, spelling, and hyphenation of common names.

The second line in each record also includes the technical name of the family to which the plant belongs. Note that all of these names end with the suffix "-aceae." A few plant families have older, alternative names that the *International Code* allows to be used because their widespread acceptance predates formal nomenclature. Gramineae is a perfectly acceptable alternative for Poaceae; Compositae for Asteraceae; Cruciferae for Brassicaceae; Umbelliferae for Apiaceae; Leguminosae for Fabaceae; and Labiatae for Lamiaceae. However, these old names are gradually losing favor, so we have used the standardized, modern names for these families.

Unpublished Names

We have declined to include a small number of putatively rare taxa that have been brought to our attention, because these entities lack effectively published scientific names. As we receive notice that a manuscript has been accepted and scheduled for publication in a botanical journal, we will evaluate each unpublished plant for inclusion in future editions. In a few cases we have included taxa with new names or combinations which are in the process of being published. In these cases we have usually included the journal of imminent publication but not the page numbers.

Coordination with *The Jepson Manual*

Publication of *The Jepson Manual* stimulated a great deal of taxonomic research, much of which changed the way we think about the California flora. Most of these floristic changes needed to be incorporated into this edition of the *Inventory*. Because of the sheer volume of alterations, this process proved to be the single most arduous task we encountered during editing of the fifth edition.

During the simultaneous prepara-

tion of the *Inventory* and *The Jepson Manual*, we worked closely with the editors of the *Manual* to achieve correspondence in taxonomy and rarity designations. *The Jepson Manual* editors graciously agreed that entries would include code words indicating placement on the CNPS rarity lists, and this practice has been followed. For our part, we made every attempt to incorporate *Jepson Manual* taxonomic concepts and new names into the fifth edition, but for scientific or logistic reasons this was not always possible. Accordingly, careful readers will find some discrepancies between taxa, rarity designations, and nomenclature in *The Jepson Manual* and those in this edition of the *Inventory*. This is true in part because some rare plants are local forms of highly variable taxa. Authors writing for *The Jepson Manual* sometimes considered them to be subtle variants not warranting taxonomic recognition, but for the several reasons presented below, many are recognized here.

Above all, *The Jepson Manual* was intended to be useful to a wide audience, and explicitly provided instructions to contributing authors to take a "broad brush" approach to their taxonomic groups. This meant that some morphologically, genetically, and geographically distinctive taxa were not included, or were mentioned only peripherally. The "Guide for Contributors," prepared by Editor James Hickman, includes the following instructions (p. 4):

"Our primary goal is to produce a guide for identification by a wide spectrum of users, most of whom will not be professional botanists. Therefore, insofar as possible, formal recognition should be reserved for taxa that are morphologically distinct, and keys and descriptions should emphasize features visible with little or no magnification. Slight morphological variants and morphologically indistinct taxa that differ only in aspects of chemistry,

cytology, physiology, or ecology will neither be included nor fully treated otherwise, although they will be noted in important cases."

The Jepson Manual clearly benefits from and incorporates a vast amount of research that was unavailable to its predecessors. The new information does not, however, always result in increased taxonomic clarity, thus it is unrealistic to regard *The Jepson Manual* as the final statement in California plant taxonomy. In the "Philosophy" section of the *Manual*, Hickman notes (p. 1): "...intensive study does not necessarily lead to an easier or simpler taxonomic treatment. As taxonomists learn more about the complexities of variation patterns, their best taxonomic assessments automatically change. It may become more difficult to represent what is known in a taxonomic scheme."

As a further complication, because of the increasing gap between the number of taxa and the number of professional monographers, many authors had limited previous knowledge of the groups for which they were preparing treatments. Hickman notes (p. 1.):

"Some authors approached certain groups as taxonomic authors for the first time; they confronted a different set of challenges. Almost uniformly, they found that time did not allow a study of the intensity they wished and that more was unknown than they believed when they started. Some treatments in *The Jepson Manual* are simultaneously tentative and the best currently possible. In such situations, there was an attempt to point out clearly what problems remain and to suggest specific further work."

The important message here is that, without diminishing its own scientific validity in the least, *The Jepson Manual* itself notes numerous places where there is potential room for different taxonomic conclusions. This could result either from

further research, or by an equally valid but alternate scientific interpretation involving both the biological evidence and the rules of nomenclature.

Because taxonomic concepts and the names we apply to them are scientific hypotheses, it is reasonable and expected that here we would adopt a "conservative" approach toward plant taxonomy, an approach we hope will reduce *ex post facto* lamentation over taxa that have been shown to be distinct only after their disappearance. We are concerned about protection of California's plant genetic diversity as it is expressed at all levels of taxonomic variation, not just the level of major variants, about which there is usually widespread scientific agreement. We can partially address this concern through recognition of taxa that are in taxonomic flux or in need of additional clarification.

Therefore, in the event of legitimate disagreement between botanical experts, the *Inventory* will continue to recognize problematic taxa pending further study that may resolve their status. In such cases we have retained existing taxonomic concepts and scientific names, and indicated in the notes section for each entry if and where a plant may be found in *The Jepson Manual*.

Adoption of *The Jepson Manual's* Taxonomic Concepts in the CNPS *Inventory*

Below we indicate explicitly how CNPS will handle the various kinds of taxonomic differences between *The Jepson Manual* and the *Inventory*. The different correspondences between names in these two sources are summarized as follows:

1. **Taxa with full recognition in the *Manual*.** These are obviously not a problem, and are correspondingly treated in the *Inventory*.

Example: The vast majority of rare and endangered taxa in this edition of the *Inventory*.

2. **Taxa embedded in other entries in the *Manual* with only a very brief**

treatment. In general, these will be retained in the *Inventory* fifth edition with the message, "See 'Species X' in *The Jepson Manual*."

Example: In *The Jepson Manual*, *Castilleja uliginosa* (CNPS List 1A) is considered under *C. miniata* ssp. *miniata* with the note: "Plants from lowland southern outer North Coast Ranges (Pitkin Marsh, Sonoma Co., +/- 240 meters) with yellow inflorescences have been called *C. uliginosa* Eastw., Pitkin Marsh indian paintbrush." The *Inventory* reads: "See *C. miniata* ssp. *miniata* in *The Jepson Manual*."

3. **Taxa synonymized in the *Manual* but retained in the *Inventory*.** In these cases, we have exercised our independent scientific expertise, determined that the evidence is equivocal, and elected to adopt an alternate conclusion supported elsewhere in the taxonomic literature. Rare and endangered plants that are synonymized in *The Jepson Manual* but which merit CNPS's continued recognition will be retained in the *Inventory* fifth edition with the message, "A synonym of 'Species X' in *The Jepson Manual*."

Example: *Dichanthelium lanuginosum* var. *thermale* (CNPS List 1B) is synonymized under *Panicum acuminatum* var. *acuminatum* in *The Jepson Manual*. The *Inventory* reads: "A synonym of *Panicum acuminatum* var. *acuminatum* in *The Jepson Manual*."

4. **Taxa synonymized in both the *Manual* and the *Inventory*.** Most rare and endangered plants that are synonyms in *The Jepson Manual* will be deleted from the *Inventory* fifth edition with the message, "Considered but rejected: a synonym of 'Species X'; a common taxon."

Example: *Chorizanthe staticoides* ssp. *chrysacantha* is synonymized under *C. staticoides* in *The Jepson Manual*. The *Inventory* reads:

“Considered but rejected: a synonym of *Chorizanthe staticoides*; a common taxon.”

5. **Taxa not mentioned in the *Manual* and retained in the *Inventory*.** *The Jepson Manual* does not include some rare and endangered plants which either are not in Munz (1959, 1968) or else are listed as synonyms in Munz. Because of space constraints these plants are not listed as synonyms in *The Jepson Manual*, so it is difficult to track their synonymy there. If we were unable to identify the accepted synonym in *The Jepson Manual* or elsewhere, but believe the plant to be worthy of recognition, it will be retained with the message, “Not in *The Jepson Manual*.”

Example: *Echinocereus engelmannii* var. *howei* is included in the *Inventory* fifth edition but is not mentioned in *The Jepson Manual* treatment of *Echinocereus*. The *Inventory* reads: “Not in *The Jepson Manual*.”

The CNPS Lists

The third line of each record contains three elements of information, the first of which is the CNPS List for that plant. We have created five lists in an effort to categorize degrees of concern. They are described as follows:

List 1A: Plants Presumed Extinct in California

The 34 plants of List 1A are presumed extinct because they have not been seen or collected in the wild in California for many years. Although most of them are restricted to California, a few are found in other states as well. In many cases, repeated attempts have been made to rediscover these plants by visiting known historical locations. Even after such diligent searching, we are constrained against saying that they are extinct, since for most of them rediscovery remains a distinct possibility. Note that care should

be taken to distinguish between “extinct” and “extirpated.” A plant is extirpated if it has been locally eliminated, but it may be doing quite nicely elsewhere in its range.

We segregate these plants on their own list to highlight their plight and encourage field work to relocate extant populations. Since the publication of the fourth edition, thirteen plants thought to be extinct in California have been rediscovered. These are *Chorizanthe orcuttiana*, *Clarkia mosquinii* ssp. *mosquinii*, *C. mosquinii* ssp. *xerophila*, *Lycium brevipes* var. *hassei*, *Malacothamnus abbotii*, *Malaxis monophyllos* ssp. *brachypoda*, *Monardella douglasii* var. *venosa*, *Phacelia amabilis*, *P. parishii*, *Plagiobothrys diffusus*, *Scheuchzeria palustris* var. *americana*, *Sidalcea keckii*, and *Trifolium amoenum*. These rediscoveries are unfortunately countered by the addition of ten plants to List 1A: *Castilleja uliginosa*, *Erigeron mariposanus*, *Eschscholzia rhombipetala*, *Malacothamnus parishii*, *Montia howelii*, *Plagiobothrys glaber*, *P. hystericulus*, *P. lithocaryus*, *Poliomintha incana*, and *Ranunculus hydrochariodes*.

All of the plants constituting List 1A meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and are eligible for state listing (see *Conserving Plants with Laws and Programs...*, below). Should these taxa be rediscovered, it is mandatory that they be fully considered during preparation of environmental documents relating to the California Environmental Quality Act (CEQA).

List 1B: Plants Rare, Threatened, or Endangered in California and Elsewhere

The 857 plants of List 1B are rare throughout their range. All but a few are endemic to California. All of them are judged to be vulnerable under present circumstances or to have a high potential for becoming so because of their limited

or vulnerable habitat, their low numbers of individuals per population (even though they may be wide ranging), or their limited number of populations. Most of the plants of List 1B have declined significantly since the arrival of non-indigenous humanity in California.

All of the plants constituting List 1B meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and are eligible for state listing. It is mandatory that they be fully considered during preparation of environmental documents relating to CEQA.

List 2: Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere

Except for being common beyond the boundaries of California, the 272 plants of List 2 would have appeared on List 1B. From the federal perspective, plants common in other states or countries are not eligible for consideration under the provisions of the Endangered Species Act. Until 1979, a similar policy was followed in California. However, after the passage of the Native Plant Protection Act, plants were considered for protection without regard to their distribution outside the state.

All of the plants constituting List 2 meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and are eligible for state listing. It is mandatory that they be fully considered during preparation of environmental documents relating to CEQA.

List 3: Plants About Which We Need More Information — A Review List

The 47 plants that comprise List 3 are united by one common theme — we

lack the necessary information to assign them to one of the other lists or to reject them. For this edition we reviewed the previous 149 plants on List 3, and with the aid of new information offered by our contributors, we shifted most to another list or deleted them.

Nearly all of the plants remaining on List 3 are taxonomically problematic. For each List 3 plant we have provided you with the known information, indicated in the Notes where assistance is needed, and tentatively assigned the taxon to a more definite list. Data regarding distribution, endangerment, ecology, and taxonomic validity will be gratefully received.

Some of the plants constituting List 3 meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and are eligible for state listing. We recommend that List 3 plants be evaluated for consideration during preparation of environmental documents relating to CEQA.

List 4: Plants of Limited Distribution —A Watch List

The 532 plants in this category are of limited distribution or infrequent throughout a broader area in California, and their vulnerability or susceptibility to threat appears low at this time. While we cannot call these plants "rare" from a statewide perspective, they are uncommon enough that their status should be monitored regularly. Should the degree of endangerment or rarity of a List 4 plant change, we will transfer it to a more appropriate list.

Very few of the plants constituting List 4 meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and few, if any, are eligible for state listing.

Nevertheless, many of them are significant locally, and we recommend that List 4 plants be evaluated for consideration during preparation of environmental documents relating to CEQA. This may be particularly appropriate for the type locality of a List 4 plant, for populations at the periphery of a species' range or in areas where the taxon is especially uncommon or has sustained heavy losses, or for populations exhibiting unusual morphology or occurring on unusual substrates (see *Ecological Characteristics of California's Rare Plants*, above).

The R-E-D Code

Even before the publication of the first edition, CNPS determined that attempts to categorize plants solely on the degree of threat, as embodied in such terms as rare, threatened, or endangered, were too restrictive. This is so primarily because the question of rarity frequently interferes with the question of endangerment (see *Rarity in Vascular Plants*, above). With few exceptions, endangered plants are also rare. However, some plants of more widespread occurrence are endangered and their numbers have declined because of commercial or private exploitation for horticultural use. Many cacti, lilies, orchids, succulents, and insectivorous plants fall into this category. In other cases, very rare plants occur in stable habitats such as alpine fell fields. Typically these plants cannot realistically be described as endangered, except perhaps through stochastic extinction associated with small population sizes or numbers.

In an attempt to increase the refinement of assigning plants to categories, we use a scheme that combines three complementary elements that are scored independently. These components are: rarity, which addresses the extent of the plant, both in terms of numbers of individuals and the nature and extent of distribution; **endangerment**, which embodies the perception of the plant's vulnerability to extinction for any reason; and **distribution**, which focuses on the overall range

of the plant.

Together these three elements form the R-E-D Code. It is presented on the third line in each paragraph summary. Each element in the code is divided into three classes or degrees of concern, represented by the number 1, 2, or 3. In each case, higher numbers indicate greater concern. The system is summarized as follows:

R (Rarity)

- 1—Rare, but found in sufficient numbers and distributed widely enough that the potential for extinction is low at this time
- 2—Distributed in a limited number of occurrences, occasionally more if each occurrence is small
- 3—Distributed in one to several highly restricted occurrences, or present in such small numbers that it is seldom reported

E (Endangerment)

- 1—Not endangered
- 2—Endangered in a portion of its range
- 3—Endangered throughout its range

D (Distribution)

- 1—More or less widespread outside California
- 2—Rare outside California
- 3—Endemic to California

An R-E-D Code of 3-3-3 indicates that the plant in question is limited to one population or several restricted ones, that it is endangered throughout its range, and that it is endemic to California. A summary of the R-E-D code system appears on the inside back cover for easy reference.

State and Federal Status

The last element on the third line of each record gives the plant's official status under state or federal law (the abbreviations are explained on the inside back cover of the *Inventory*). Our definitions conform to those found in California

state law and federal regulations. For a more complete discussion, see *Conserving Plants with Laws and Programs...* and *The Endangered Species Act...*, below, and *The CNPS Lists*, above. For plants that have no current state or federal legal standing we have either printed "CEQA," indicating that CEQA consideration is mandatory (Lists 1 and 2), or "CEQA?," indicating that we recommend evaluation for CEQA consideration (Lists 3 and 4).

Distribution

The fourth line in each record gives the abbreviation of each county or island in California and other states and countries where we know the plant to exist. We record only natural occurrences of rare plants, or occurrences that have been reestablished within the species' historical range as part of an approved recovery plan. For example, although both *Juglans californica* var. *hindsii* and *Pinus radiata* are widely planted within the state, we track only the few natural occurrences of these taxa. When we indicate that a particular plant occurs in a particular county, we are making a positive statement that is based upon specimens, photographs, the literature, or field observations. In no way does this imply that a plant does not occur in other counties in California or in other states. Our understanding of plant distribution constantly improves, and new localities for rare plants are frequently discovered, often in unpredictable circumstances.

County and other geographic abbreviations used here are explained on the inside front cover, along with our usage of the symbols "*" and "?", which, respectively, express extirpation and uncertainty.

Quads

To provide more detailed location information, we have also cited the U.S. Geological Survey (USGS) 7.5 minute quadrangle map for more than 1200 plants on CNPS Lists 1, 2, and 3. This information appears on the fifth line of

each record. We employ a modified version of the quadrangle numbering system previously used by the California Department of Water Resources. Please see *Appendix I* to translate this system's quad numbers into USGS topographic map names or vice versa. In those few cases where a quad is listed without a letter following the number, this indicates that our occurrence data are too vague to pinpoint its location on a 7.5 minute quadrangle. As with counties, when we indicate that a plant has been reported from an area on a topographic quad, this is based on hard data. In no way does this imply that a plant does not occur on a topographic quad we have not listed; rather, it may be there but botanists have yet to find it.

Habitat Types

The next line of each record presents one or more habitats in which a rare, threatened, or endangered plant is typically found. This information, compiled from field survey forms, unpublished reports, original descriptions, floras, and herbarium material, is provided for all the plants in the *Inventory* except one, the enigmatic *Arenaria macradenia* var. *kuschei*. Habitat information based upon field observations is given priority whenever possible. Note that for habitats which typically occur within a broader matrix of another habitat, we usually list both. For example, a rare plant from Meadows occurring in a matrix of Lower Montane Coniferous Forest would be coded LCFrs, Medws. We are indebted to Robert F. Holland and John O. Sawyer, Jr. for contributing the following brief characterizations, which are presented in taxonomic rather than alphabetical order. Please refer to Holland (1986) for a more complete discussion of the types and their classification. CNPS's upcoming classification of plant communities, due to be published later this year, will not use the system presented here (see *The Natural Communities Program*, below). However, crosswalks

will be provided to guide the user from the new system to this one.

CoDns (Coastal dunes)

Herbs or shrubs on coastal sand deposits from Del Norte to San Diego counties. Cover usually low near the beach, increasing with distance from salt spray and blowing sand.

DeDns (Desert dunes)

Sand accumulations east of the Pacific Crest from Modoc to Imperial counties. Vegetation on desert dunes varies considerably. Active dunes usually support only sparse herbs and grasses, but partially stabilized or stabilized dunes often will support shrubs, including mesquite and creosote bush.

InDns (Inland dunes)

Mostly herbs, although shrubs may be locally important. Sand accumulations in and around the Great Valley.

CBScr (Coastal bluff scrub)

Dense shrubs, prostrate to 1-2 m tall. Typically on fairly steep, rocky sites exposed to considerable wind and salt spray because of proximity to the ocean. Many plants succulent, especially to the south. Found from Del Norte to San Diego counties.

CoScr (Coastal scrub)

Dense shrubs 0.5 to 2 m tall with scattered grassy openings. Many plants dormant, even deciduous, during periods of water stress. Most sites have shallow rocky soils, frequently with a southern or western exposure. Many taxa adapted to fire by stump sprouting or high seed production.

SDScr (Sonoran desert scrub)

Widely scattered creosote bushes with the considerable space between them sometimes occupied by ephemeral, colorful shows of annuals following particularly wet winters. Succulents and microphyllous trees conspicuous, especially

in rocky environments. The part of Munz's (1959) "Creosote Bush Scrub" found roughly south of the San Bernardino/Riverside county line.

MDScr (Mojavean desert scrub)

Widely scattered creosote bushes with the considerable space between them sometimes occupied by ephemeral, colorful shows of annuals following particularly wet winters. At elevations of 2000' or higher, succulents or microphyllous trees lacking. This habitat type constitutes most of Munz's (1959) "Creosote bush scrub" found north of the San Bernardino/Riverside county line.

GBScr (Great Basin scrub)

Shrubs, ranging in height from very short, <20 cm, on very cold sites or shallow soils to 1 or 2 m tall on warmer sites where soils are deeper. Perennial grasses occupy much of the space between shrubs. Found on the Modoc Plateau, high Cascade Range, Warner Mountains, High Sierra Nevada, and North Coast Ranges.

ChScr (Chenopod scrub)

Usually gray, intricately branched, microphyllous shrubs most commonly on fine-textured, alkaline and/or saline soils in areas of impeded drainage. Diversity usually low to monotonous. Salt-bushes and greasewood frequently dominate. This vegetation occurs from Modoc County south to Mexico, including parts of the Great Valley and Inner South Coast Ranges.

Chprl (Chaparral)

Impenetrably dense, evergreen, leathery-leaved shrubs that are active in winter, dormant in summer, and adapted to frequent fires either through resprouting or seed carry-over. There is a characteristic florula of fire-following annuals and short-lived perennials. Mature stands may exceed 3-4m in height. It occurs on diverse substrates, many of which support distinctive suites of

edaphic indicators. Chaparral may be successional to conifer forests or oak woodlands, as tree seedlings can be found beneath the shrub canopies.

CoPrr (Coastal prairie)

Dense, fairly tall (<1 m) perennial sod- and tussock-forming grasses and grass-like herbs. They occur in two distinct settings: sandy marine terraces within the zone of coastal fog (usually <350 m elevation, within a matrix of Northern Coastal Scrub), or on fine-textured soils of ridgetops beyond coastal fogs (usually >750 m, within a matrix of Mixed Evergreen or North Coastal Conifer Forests). Intermittent from the Santa Cruz area north to southern Oregon.

GBGr (Great Basin grassland)

Perennial sod-forming and bunch grasses. Presumed to have once been widespread on the Modoc Plateau and northeastern California. Currently represented as scattered, mostly small, islands in areas where grazing pressure has been low and fire frequencies higher than surrounding scrubs. Both upland and bottom-land forms occur.

VFGrs (Valley and foothill grassland)

Introduced, annual Mediterranean grasses and native herbs. On most sites the native bunch grass species, such as needle grass, have been largely or entirely supplanted by introductions. Stands rich in natives usually found on unusual substrates, such as serpentinite or somewhat alkaline soils.

VnPls (Vernal pools)

Seasonal amphibious environments dominated by annual herbs and grasses adapted to germination and early growth under water. Spring desiccation triggers flowering and fruit set, resulting in colorful concentric bands around the drying pools.

Medws (Meadows and seeps)

More or less dense grasses, sedges,

and herbs that thrive, at least seasonally, under moist or saturated conditions. They occur from sea level to treeline and on many different substrates. They may be surrounded by grasslands, forests, or shrublands.

Plyas (Playas)

Non-vascular plants and sparse, gray shrubs on poorly drained soils with usually high salinity and/or alkalinity, due to evaporation of water from closed basins. Found from the Modoc Plateau to Sonoran Desert and in the San Joaquin Valley.

PbPln (Pebble or Pavement plain)

Herb- and grass-dominated openings of low cover, dominated by several cushion-forming plants endemic to dense, clay soils armored by a lag gravel of quartzite pebbles. Many of the dominant taxa are themselves rare plants. Found only in the San Bernardino Mountains.

BgFns (Bogs and fens)

Wetlands, typically occupying sites sub-irrigated by cold, frequently acidic, water. Plant growth dense and low growing, dominated by perennials herbs or low shrubs. Saturated soils frequently allow substantial accumulations of "peat." From the Klamath Ranges to North Coast Ranges, along the North Coast and in the northern Sierra Nevada.

MshSw (Marshes and swamps)

Emergent, suffrutescent herbs adapted to seasonally or permanently saturated soils. These include salt, brackish, alkali, and fresh water marshes, as well as swamps, with their woody dominants and hydrophytic herbs. Found throughout California.

RpFrs (Riparian forest)

Broadleaved, winter deciduous trees, forming closed canopies, associated with low- to mid-elevation perennial and in-

intermittent streams. Most stands even-aged, reflecting their flood-mediated, episodic reproduction. These habitats can be found in every county and climate in California.

RpWld (Riparian woodland)

Broadleaved, winter deciduous trees with open canopies associated with low to mid-elevation streams. Most stands even-aged, reflecting their flood-controlled, episodic reproduction. This type tends to occupy more intermittent streams, often with cobbly or bouldery bedloads.

RpScr (Riparian scrub)

Streamside thickets dominated by one or more willows, as well as by other fast-growing shrubs and vines. Most plants recolonize following flood disturbance.

CmWld (Cismontane woodland)

Trees deciduous, evergreen, or both, with open canopies. Broadleaved trees, especially oaks, dominate, although conifers may be present in or emergent through the canopy. Understories may be open and herbaceous or closed and shrubby. This type occurs on a variety of sites below the conifer forests in Mediterranean California.

PJWld (Pinyon and juniper woodland)

Open stands of round-topped conifers to 5 m. Understories frequently comprised of shrubs and herbs seen in adjacent stands lacking trees. They often form broad ecotones between higher elevation forests and lower elevation scrublands or grasslands.

JTWld (Joshua tree woodland)

Joshua trees with open canopies are usually the only arborescent species present. Shrubstories typically are diverse mixtures of microphyllous, evergreen shrubs, semi-deciduous shrubs, semi-succulents, and succulents.

STWld (Sonoran thorn woodland)

Succulents, microphyllous herbs and shrubs, especially of rocky environments. Tree-like plants the visual dominant.

BUFr (Broadleaved upland forest)

Stands of evergreen or deciduous, broadleaved trees 5m or more tall, forming closed canopies. Many, but not all, with very poorly developed understories. Several are seral to montane conifer forests. It includes the "Mixed Evergreen Forest" of the Coast Ranges.

NCFrs (North Coast conifer forest)

Needle-leaved evergreen trees in usually quite dense stands that may attain impressive heights. Usually on well-drained, moist sites within the reach of summer fogs, but not experiencing much winter snow. This type occurs in the wetter parts of the North Coast Ranges.

CCFr (Closed-cone conifer forest)

Dense, even-aged stands dominated by serotinous-coned conifers. Most stands are even-aged due to fire establishment. Usually associated with sterile, rocky soils, strong and steady winds, and impaired drainage. Many open stands have understories composed of chaparral or coastal scrub species from surrounding areas. Found in most areas, except for the Great Valley or deserts.

LCFr (Lower montane conifer forest)

Open to dense stands of conifers found at lower and middle elevations in the mountains. Broadleaved trees may be present in the understory. Shrubstories may be dense assemblages of chaparral species, especially in seral stands. The upper limit of lower montane coniferous forests more or less coincides with the elevation of maximum annual precipitation.

UCFr (Upper montane conifer forest)

Open to dense conifer forests, found at high elevations in the mountains. Trees tend to be somewhat shorter than at

lower elevations. Shrubstories tend to be open, drawn from adjacent montane chaparral species, or lacking. Above the elevation of maximum precipitation, with growing seasons curtailed by winter snow accumulations.

SCFr (Subalpine conifer forest)

Conifer forests and associated clearings of highest elevations of tree establishment. This type occurs in areas where substantial snowpack accumulation and cold temperatures limit the growing season to three months or less.

AlpBR (Alpine boulder and rock field)

Fell-fields, talus slopes, and meadows found above forest line. Favorable sites may develop continuous turf, but in most areas plants are tucked between large nurse rocks that provide protection from harsh winter conditions.

AlpDS (Alpine dwarf scrub)

Compact, woody subshrubs above forest line, adapted to short growing seasons resulting from snow accumulation or harsh winter winds.

Life Form

This field briefly describes plant duration and life form. The information was newly developed for this edition, primarily from published and unpublished literature and from herbarium material. Our simplified classification system is as follows:

Duration:

Annuals grow from seed and reproduce within a single year

Perennials live more than one year

Annual/Perennials are variable depending on environment and conditions

Growth Form:

Herbs are herbaceous and lack above-ground woody tissue

bulbiferous herbs have fleshy underground storage organs typically derived from scale leaves

(this category includes corniferous and other similar plants in which storage organs have other origins)

rhizomatous herbs have underground stems (rhizomes), typically bearing shoots which develop into new plants

stoloniferous herbs have above-ground runners (stolons) which typically root and produce new plants

Shrubs are smaller woody perennials that retain most of their above-ground woody tissue and are typically many-stemmed

leaf succulents have thick, fleshy leaves

stem succulents have thick, fleshy stems and reduced or absent leaves

Trees are larger woody perennials that retain all of their above-ground woody tissue and are typically single-stemmed

Vines are twining woody perennials requiring external support for growth

Leaf Condition (shrubs, trees, vines only):

Deciduous plants shed their leaves for part of the year

Evergreen plants retain their leaves for the entire year

Special Habitat:

Aquatic plants are submerged or floating on the water surface

Emergent plants are rooted in water but bear some foliage out of the water

Epiphytic plants are attached above-ground to some other plant

Mode of Nutrition:

Saprophytic plants live on existing organic matter in the soil

Hemiparasitic plants are connected to host plants and derive energy, water, and minerals from them, but also maintain their own functional root systems or photosynthetic surfaces

Parasitic plants are connected to host plants and rely solely on them for energy, water, and nutritional requirements

Carnivorous plants trap insects and other small animals and derive nourishment from them

As in most classifications, some of the above distinctions are somewhat arbitrary, particularly the divisions between growth forms. Furthermore, plant growth form can vary depending on geography and local environmental conditions. Perennials that are often referred to as either suffrutescent herbs or subshrubs present special difficulties. Generally, if these plants die back seasonally to the ground or to a small crown of woody tissue we classified them as herbs, and if they retain much or all of their woody above-ground tissue we called them shrubs.

Blooming Period

This new field of information provides the months when each rare plant is typically in bloom. For ferns and other spore-bearing plants, we have given the months when spores are released and

spore-bearing structures such as sori are typically present on the plant. We have not included any comparable information for gymnosperms.

With other ecological information now available in the *Inventory*, biologists can now fine-tune rare plant surveys by specifying plants which occur in particular habitats, their general appearance, and when they are identifiable, that is, when they bloom.

Notes

Many records include additional notes on distribution, endangerment, relationship to names in *The Jepson Manual*, or important literature citations. We have again included information about legal status and endangerment in neighboring states in the notes; official state designations are specifically indicated as such and capitalized, as in "State-listed as Endangered in OR." In this edition we have made a special effort to indicate missing information about distribution, endangerment, or taxonomy for each entry, in the hope that knowledgeable users will fill in the gaps. Abbreviations that are commonly used in the notes are explained on the inside back cover.

Status Report

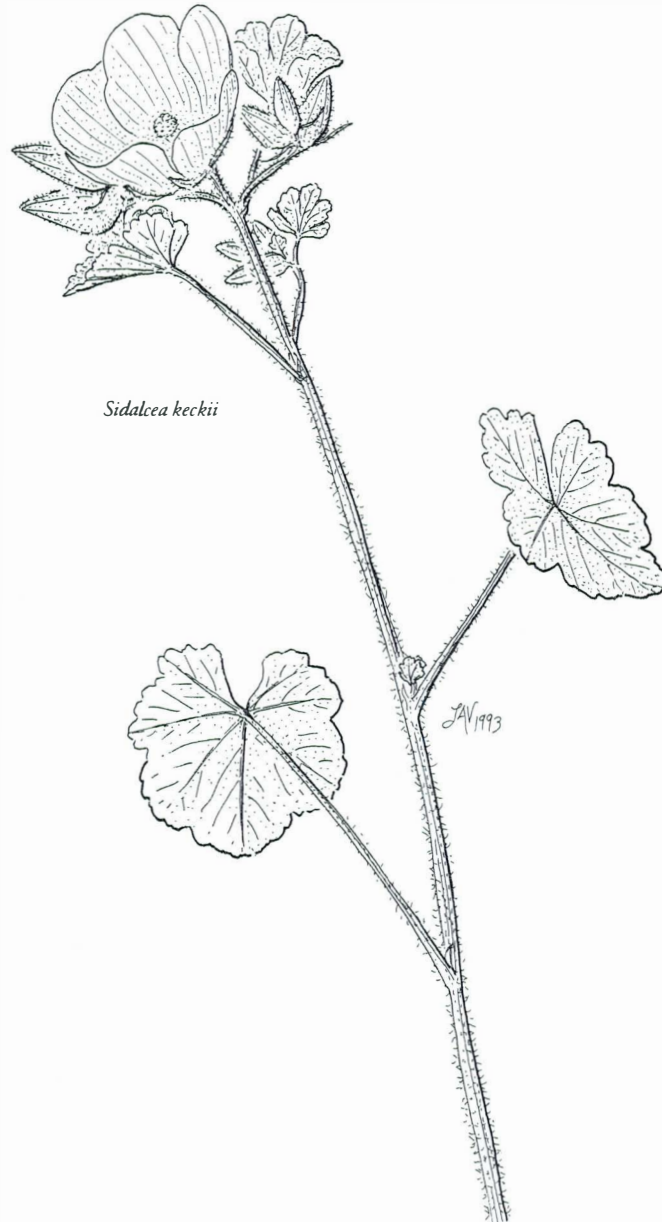
If a rare plant status summary report is available from the Natural Diversity Data Base, the year of its most recent update is given. Status Reports are available for 475 of the plants in this volume.

The CNPS *Electronic Inventory*—A New Tool for Conserving Rare Plants

The CNPS *Electronic Inventory* is a computer application that provides instant, simplified access to the detailed information contained in this *Inventory*. The application takes advantage of Microsoft *FoxPro's* state-of-the-art database programming capabilities, and its menu-driven features allow for easy familiarization with the program's sophisticated search and report routines. Purchase of the *FoxPro* run-time license allows CNPS to distribute the *Electronic Inventory* without requiring users to obtain any additional software.

With this new tool, resource planners, conservationists, consultants, and academicians can now view the *Inventory*, search for plants based on hundreds of specific criteria, and report on search results using customized, flexible report formats. The *Electronic Inventory* allows speedy and thorough development of lists of plants that might be affected by development proposals or other human disturbances, and we expect it to rapidly become indispensable for conservation planning activities such as preserve siting and rare plant surveys.

Moreover, the *Electronic Inventory* now replaces this volume as the most up-to-date compilation of rare, threatened, and endangered California plants. We ask users wishing access to the current, official CNPS status to consult the *Electronic Inventory* herewith.



Conserving Plants with Laws and Programs under the Department of Fish and Game

Sandra Morey and Ken Berg

Californians face the daunting challenge of protecting one of the world's most diverse and unique floras amid the pressures imposed by the Nation's most populous state. Public concern for natural areas and species at risk has resulted in a patchwork of state environmental laws and regulations which agencies and citizens use to protect habitats for native plants and natural plant communities. California's tradition of citizen activism has played a key role in the development and use of these laws. Continuing this history of public support and involvement is critical to our future success.

As the primary trustee agency for wildlife, fish, and plants, the California Department of Fish and Game (DFG) has a central role in identifying, protecting, and managing the rare plants and natural plant communities in California. Within the constraints of its legal authority and limited funding, the Department of Fish and Game works cooperatively with federal, state, and local governments, businesses, conservation organizations, and citizens to conserve plant populations and habitats.

Identification

Identification of rare plants and natural plant communities is the first essential step in the conservation process. The Natural Diversity Data Base (NDDDB) is one of the Department of Fish and Game's most visible and successful identification programs. The two articles that follow this one highlight the process and accomplishments of this effort, and the vital roles that the CNPS *Inventory* and membership play.

Another Department identification effort, which is less well-known but equally important, is the Significant Natural Areas Program. This program analyzes NDDDB information to identify places

that have significant populations or assemblages of rare species, or best examples of common plant communities. The resulting inventory of Significant Natural Areas is used by Department staff, other agencies, and citizens to guide land use planning and public and private land acquisition efforts. For further details on the Significant Natural Areas Program, see Hoshovsky (1992).

Protection

Legal Protection via State Law

The legal framework and authority for the State's program to conserve plants is woven from four pieces of legislation: the California Endangered Species Act (CESA), the Native Plant Protection Act (NPPA), the California Environmental Quality Act (CEQA), and the Natural Communities Conservation Planning Act (NCCPA). Under these laws, the State conserves plants through listing, habitat acquisition and protection, review of local land use planning, multispecies conservation planning, stewardship, recovery, research, and education.

State Listing

Under State law, plant species may be formally designated rare, threatened, or endangered by the California Fish and Game Commission, a five member board appointed by the Governor to establish the policies by which the DFG operates. State listing is a way of formally recognizing the plight of a species and the need to protect its habitat. Once a species is officially listed, it has a greater chance of being protected. Listed plants are generally given greater attention during the land use planning process by local governments, public agencies, and landowners than are plants that have not been listed. State-listed threatened and endangered species and designated candidates are pro-

ected from taking except for scientific or management purposes, which requires a permit or agreement from the DFG. In addition, State agencies are required to formally consult with the DFG on State projects which may affect listed threatened or endangered species or candidates.

State listing of plants began in 1977 with the passage of the Native Plant Protection Act. The NPPA directed the DFG to carry out the Legislature's intent to "preserve, protect and enhance endangered plants in this State." The NPPA gave the California Fish and Game Commission the power to designate native plants as endangered or rare, and to require permits for collecting, transporting, or selling such plants.

In 1984 the state legislature enacted the California Endangered Species Act in recognition of the tremendous threats facing California's native plant and animal populations and their habitats. This legislation declares that deserving plants and animals will be given protection by the state because they are of ecological, educational, historical, recreational, aesthetic, economic, and scientific value to the people of the state. CESA established that it is state policy to conserve, protect, restore, and enhance endangered species and their habitats.

The California Endangered Species Act expanded upon the original NPPA and enhanced legal protection for plants. To align with Federal regulations, CESA created the categories of "threatened" and "endangered" species. It grandfathered all "rare" animals into the Act as threatened species, but did not do so for rare plants. Thus, there are *three* listing categories for plants in California: rare, threatened, and endangered.

The following definitions are found within the two acts (Fish and Game Code Sections 1901, 2062, and 2067). A native plant is endangered when "its prospects

of survival and reproduction are in immediate jeopardy from one or more causes.” A native plant is **threatened** when “although not presently threatened with extinction, it is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts...”. A native plant is **rare** when “although not presently threatened with extinction, it is in such small numbers throughout its range that it may become endangered if its present environment worsens.” The CESA also creates a “candidate” category. A **candidate** is a taxon that has been officially noticed by the Commission as being under review by the DFG for addition to the rare, threatened, or endangered species lists.

The CESA establishes a process by which individuals, organizations, or the DFG can submit petitions to the Fish and Game Commission requesting that a species, subspecies, or variety of plant or animal be added to, deleted from, or changed in status on the State lists of rare, threatened, or endangered species. The factors that contribute to determining the need to list a species include the present or threatened modification or destruction of habitat, competition, predation, disease, overexploitation by collectors, or other natural occurrences or human-related activities.

We strongly advise individuals and organizations to consult with the CNPS Botanist and the DFG’s Endangered Plant Program staff prior to preparing listing petitions. A standard petition format is available from the Fish and Game Commission Office at 1416 Ninth Street, Sacramento, CA 95814.

Listing Actions, 1988-1993

Table 1 presents a summary of plant listing actions taken by the Fish and Game Commission between 1988-1993. Together with CNPS and concerned individuals, the DFG and the Commission have made great progress in listing and protecting plant species during recent years. However, listings have become in-

Table 1. Plant listing actions under the California Endangered Species Act, 1988-1993.

Year	No. of Petitions— Petitioner	No. of Designated Candidates	No. of Plants Listed or Denied
1988	26 - CNPS	25 designated 1 denied	
1989			22 listed 3 denied
1990	1 - individual 1 - DFG	1 designated 1 denied	
1991	8 - CNPS	5 designated	1 listed
1992		2 designated 1 withdrawn*	3 listed
1993			2 listed 1 denied** 1 decision pending
TOTAL	36 petitions	33 designated candidates	28 listed (78% of petitions)

* The petition for *Allium tuolummense* was withdrawn by CNPS.

** *Arctostaphylos morroensis* is now included in a multispecies regional planning effort, and was not listed.

creasingly controversial, and more landowners and project proponents have publicly opposed plant listings. With increased controversy surrounding plant listings, the DFG has had to increase its efforts to notify all potentially concerned parties, and to more thoroughly document the need for each listing. Staffing to administer the listing process has not increased, however, and the ability of the Department to adequately address other aspects of plant conservation has been reduced. Recognizing this situation, the CNPS has coordinated with the Department in submitting petitions for only the highest priority plants in the state. Appendix VI contains a complete roster of species listed under State law as of December 1993, as well as candidates for listing.

Habitat Protection

The Department of Fish and Game protects, maintains, and enhances plant and animal populations and natural communities through direct acquisition of habitat, conservation easements on private lands, and management agreements with public and private agencies and organizations. The Department works with conservation partners including The Na-

ture Conservancy, CNPS, local land trusts, U.S. Forest Service, U.S. Bureau of Land Management, and other public agencies and organizations to promote conservation of all wildlife resources. The DFG Lands and Natural Areas Program coordinates Department activities associated with the acquisition, lease, or management of suitable lands, which are approved by the Wildlife Conservation Board.

Currently, the Department administers over 753,000 acres in California, much of which has been designated by the Fish and Game Commission as Wildlife Areas or Ecological Reserves. Over 8,000 acres have been acquired in fee title specifically for the protection of endangered plant populations and their habitats. Examples of DFG plant reserves include Table Bluff in Humboldt County, Pine Hill and Salmon Falls in El Dorado County, Bonny Doon in Santa Cruz County, and Baldwin Lake in San Bernardino County. Many Department lands acquired for other wildlife species also contain populations of rare plants or special natural communities. Funding for acquisitions comes from a variety of sources, including bond acts such as 1988’s Proposition 70 that have allowed the

purchase and protection of more than 200,000 acres of wildlife habitat.

Local Land Use Planning

California has a strong state law which provides for protection of species during the land use planning process. This law is the California Environmental Quality Act, enacted in 1970. CEQA requires government agencies to consider environmental impacts of projects and to avoid or mitigate them where possible. Under CEQA, Environmental Impact Reports (EIR's) must be prepared to disclose environmental impacts of a project and outline project alternatives. Through the EIR process, the public can review proposed project plans and influence the process through public comment.

DFG regional staff work with project proponents, local governments, and other agencies to guide adequate environmental review and to design appropriate mitigation. CEQA provides protection not only for State-listed species, but for any species which can be shown to meet the criteria for State listing (CEQA Section 15380). The DFG recognizes that Lists 1A, 1B, and 2 of the CNPS *Inventory* consist of plants that, in a majority of cases, would qualify for listing, and the Department recommends they be addressed in EIR's. However, a plant need not be in this *Inventory* to be considered under CEQA if it is a *de facto* rare, threatened, or endangered species. In addition, the DFG recommends, and local governments may require, protection of plants which are regionally significant, such as locally rare species, disjunct populations of more common plants, or plants on the CNPS Lists 3 and 4.

To guide documentation of potential impacts to plants, the DFG has adopted *Guidelines for Assessing Effects of Proposed Developments on Rare and Endangered Plants and Plant Communities*, adapted from those prepared by the CNPS (see *Guidelines...*, below). These guidelines are given out to all project proponents, lead agencies, and the interested

public when they request DFG participation or information.

Due to lack of adequate staffing, the DFG is unable to comment on every project that may pose significant environmental impacts. In addition, we have learned that small, piecemeal mitigation efforts, which in the past usually involved the transplantation of endangered plant populations, usually fail. For mitigation of project impacts, the Department now requires the protection of intact habitat and restoration of degraded habitat, rather than transplantation of plant populations.

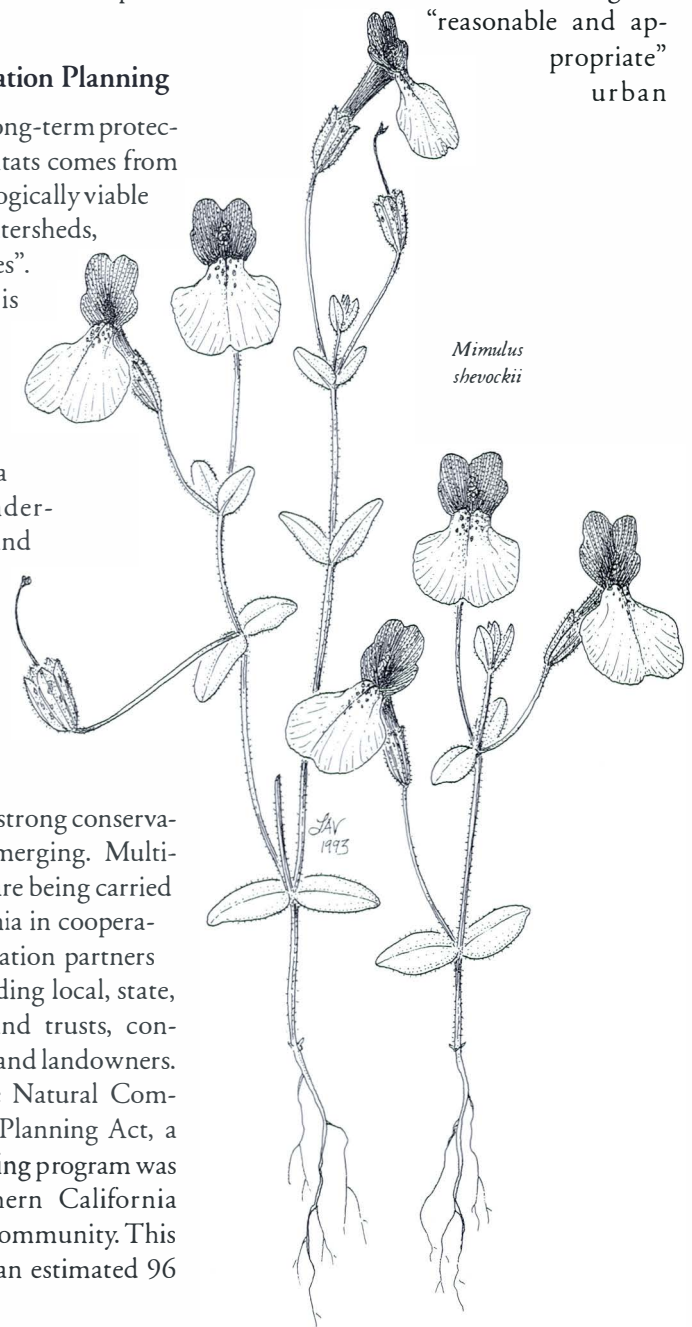
Multispecies Conservation Planning

The most effective long-term protection for species and habitats comes from protection of larger, ecologically viable sites, including whole watersheds, ecosystems, or "landscapes".

Consequently, the DFG is increasingly focusing its efforts on regional multispecies planning throughout the state. In 1991, DFG signed a Memorandum of Understanding with 10 State and Federal agencies to improve statewide coordination of biological diversity conservation. By improving communication and coordination at both state and regional levels, strong conservation partnerships are emerging. Multispecies planning efforts are being carried out throughout California in cooperation with many conservation partners with similar goals, including local, state, and federal agencies, land trusts, conservation organizations, and landowners.

In 1991, under the Natural Communities Conservation Planning Act, a pilot conservation planning program was initiated for the southern California coastal sage scrub plant community. This community is home to an estimated 96

endangered plant and animal species, including the Federally-threatened California gnatcatcher. The NCCPA was enacted to promote long-term protection of species and habitats via regional, multispecies planning, before the special measures provided by CESA become necessary. The NCCPA does not supersede CESA or CEQA, but gives the Department the authority to enter into agreements with any person or entity to protect areas large enough to ensure the continued existence of multiple species and their habitats, while allowing for "reasonable and appropriate" urban



growth. Because many rare plants have very narrow distributions, large scale natural community-based conservation efforts must be carefully planned to include their habitat in the preserve areas.

DFG is involved in other multispecies conservation planning efforts for plants throughout California, including western El Dorado County, Sonoma County's Santa Rosa Plains, San Luis Obispo's Morro Bay region, western Riverside County, the Owens Valley, and a large scale effort in the western Mojave Desert.

Management

In 1991, DFG established 15 new positions, including six plant ecologists, which were placed in its five regional offices to work on complex conservation issues and recovery of endangered plants and habitats (see *Appendix X*). The establishment of this program has greatly increased the Department's ability to conserve rare plant species and plant communities throughout the state.

The DFG is conducting interagency recovery workshops to identify management and recovery priorities and to track the implementation and success of on-the-ground efforts. The Department contracts with public agencies, organizations, and individuals to implement these management and recovery activities. Projects can be as simple as fencing a fragile alkaline meadow from livestock, or as complex as developing a regional plan for protection of a rare natural community which spans several counties.

Academic researchers throughout California work with the Department under Memoranda of Understanding to answer questions which may be important to the conservation of listed plant populations. Research may focus on popu-

lation genetics, reproductive strategies of plants, long-term population trends, habitat characterization, or other pertinent research topics.

A variety of funding sources are available to the DFG to promote recovery of endangered plant populations and to restore degraded habitats. Funding sources include the California Endangered Species Tax Check-Off Fund, U.S. Fish and Wildlife Service support under the Federal Endangered Species Act Section 6 provisions for cooperation with the states, the Tobacco Tax and Health Initiative (Proposition 99), the Department of Parks and Recreation's Off-Highway Vehicle Fund, the Environmental License Plate Fund, the California Emergency Drought Recovery Program, and the California Department of Transportation Environmental Enhancement and Mitigation Grants.

Continued Public Support Is Essential

Every resident and visitor to California has the ability to help conserve our dwindling native plant habitats. Involvement and support from California Native Plant Society members and other concerned citizens is the essential ingredient for effective plant conservation. It affects every aspect of our efforts: the strength of laws, the staffing, funding, and management support available to implement and enforce them, and the political support essential to retain and improve them. Moreover, information and citizen involvement is often what swings the pendulum of decision-making toward a conservation alternative.

The Department of Fish and Game works to improve public awareness of native plants and to increase support for

plant conservation in a variety of ways. One recent effort has assisted the Department of Education's development of the Endangered Species Education Project, initiated by state Senator Gary Hart in 1989. Through this program, students in public schools conduct projects to raise public awareness of the plight of local endangered species and help garner support to protect them. Awards are given to the most creative projects. The California Native Plant Society and Audubon Society have helped distribute project information packets to hundreds of teachers and schools.

Other Department public outreach activities include developing interpretive services at Wildlife Areas and Ecological Reserves, publishing the monthly wildlife conservation magazine *Outdoor California*, coordinating Project Wild, a program to train public school teachers, and leading the Endangered Species Campaign to encourage contributions to the Endangered Species Tax Check-Off Fund.

In a democracy, citizen involvement greatly influences the quality of government. To improve State government efforts in plant conservation, citizens must take an active role. California's voiceless plants need us to speak for them. Their futures and ours depend on it.

Sandra Morey is the Coordinator of the Endangered Plant Program, California Department of Fish and Game, 1416 9th St., Sacramento, CA 95814. Ken Berg, former Coordinator of the Endangered Plant Program, is now the National Botanist for the Bureau of Land Management, 2800 Cottage Way, Sacramento, CA 95825.

The Natural Diversity Data Base: California's Natural Heritage Program

Roxanne L. Bittman

The Natural Diversity Data Base (NDDDB) is one of California's most valuable tools for rare plant conservation. As part of the Natural Heritage Division of the California Department of Fish and Game, the NDDDB inventories the locations of the state's rarest species and natural communities. Its goal is to help conserve California's biotic diversity by providing government agencies and the private sector with information so that wise land-use decisions and resource management can occur. The NDDDB is used to identify important natural areas, and also in project planning to avoid conflicts between environmental and development interests.

Using the NDDDB to Protect Rare Plant Populations

There are many potential applications for the NDDDB records, but those concerning land development and environmental impact review are especially important. Rapid population growth and economic expansion need to be carefully reconciled with protection of California's resource base, and project developers must often consult with DFG's Natural Heritage Division. The developer, usually with a specific geographic location of concern, requests information on the rare plants, animals, and natural communities that may occur at that location. NDDDB data, along with data from the CNPS *Inventory*, thus often constitute the first cut for developers or their consultants when devising a "potentials list" of special plants, animals, and communities that may occur in a project area. This is then followed by surveys for rare species and natural communities during the appropriate time of year by qualified biologists and ecologists (see *Guidelines...*, below).

Consider, for example, the results of a search of the Middletown 7.5 minute

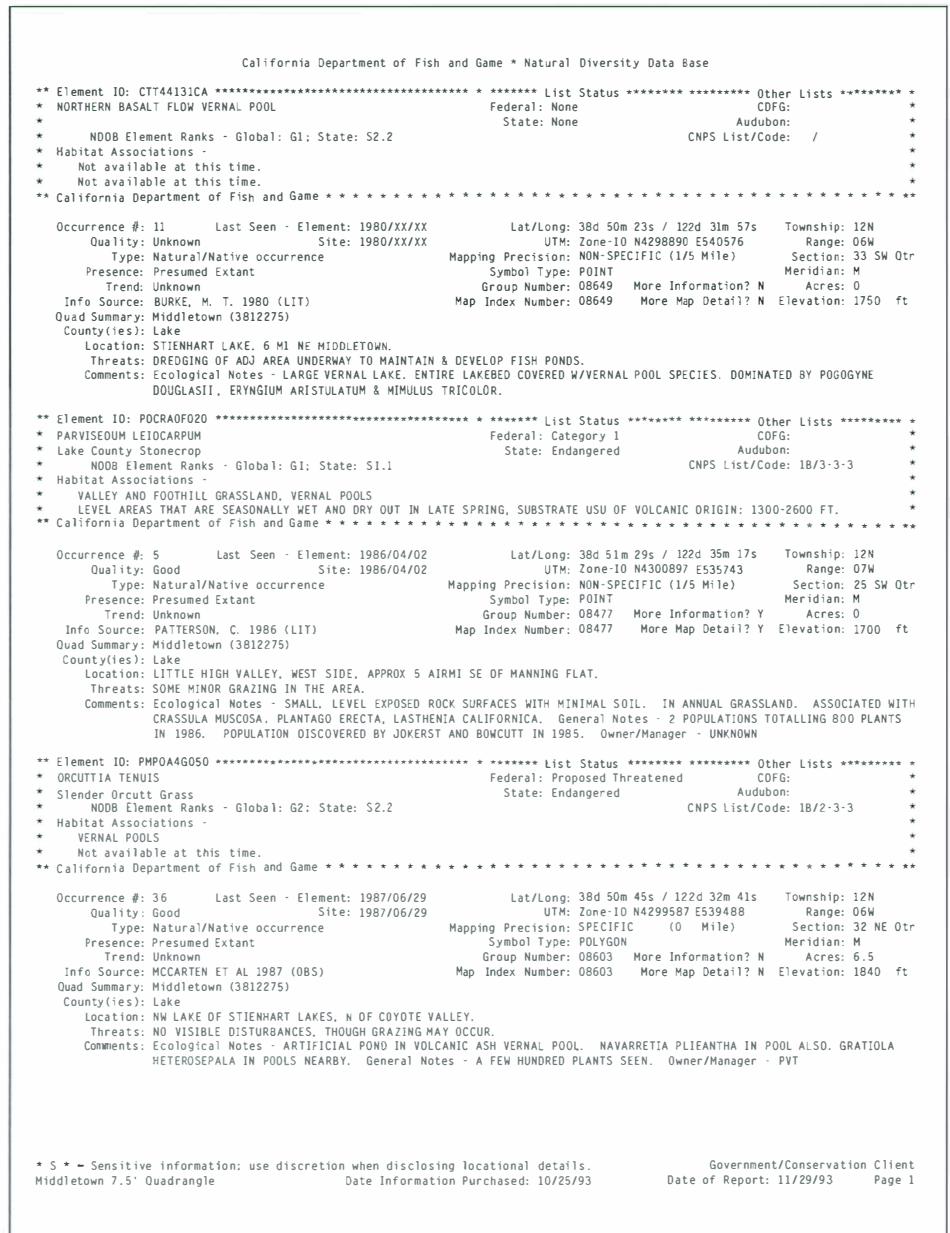


Figure 1. Sample NDDDB text output from a search of the Middletown 7.5 minute quadrangle.

quadrangle (quad), which hypothetically contains a proposed development project (Figure 1). This search revealed the presence of two rare plants and one rare natural community in the vicinity. The impacts on the biological resources of this proposed project can then be evaluated by the developers' consultants, and issues

of project feasibility, cost, and mitigation can be adequately addressed. If such information is obtained early in the planning process, needless conflicts, stalled permits, and the costs of project delay might all be avoided. It should be emphasized that acquisition of NDDDB data is not in itself sufficient to satisfy the re-

quirements of the California Environmental Quality Act. Biological surveys, performed by qualified personnel at the appropriate time of year, are essential to document what is actually present on the parcel of concern.

Citizens or conservation groups interested in the protection of biological diversity in California are also encouraged to use the NDDDB. Customers can access the NDDDB in a number of ways, depending on their needs. The most popular way is by purchasing *RareFind*, a menu-based program in *FoxPro*, which allows access to all of the textual information in the NDDDB. Data can be accessed by searching for individual counties, quads, or taxa, and various reports are possible. Another common way to acquire NDDDB data is to request the textual and graphic information for a particular area (a quad, for example). These data are presented as a vellum overlay to a specific topographic map along with an accompanying text report on the rare elements appearing on the overlay.

NDDDB information is available on a cost reimbursement basis. The most common users are conservationists, state and federal agencies, consultants, and researchers. NDDDB data are half-price for conservation organizations and other non-

profit groups. Often NDDDB reports are offered free to citizens interested in reporting back to us regarding the current condition and quality of populations or stands of rare elements.

In general, NDDDB data for plants are made available to CNPS Chapters on a yearly basis. Some CNPS Chapters receive *RareFind*, and others receive text reports, along with copies of vellum overlays at the 1:100,000 scale. You may request information for local areas by contacting us at the address below. Most requests take about two weeks to process. Requests for large amounts of data may require special processing; contact the NDDDB for details.

Updating the Data Base: Contributions from the Field

As of November 1993, the NDDDB computer files contained approximately 9,210 records on 775 plants (out of 1,751 plants on the Special Plants list), 9,993 records on 337 animals (out of 608 animals on the Special Animals list) and 2,343 records on 87 of our most endangered natural communities (out of the approximately 135 rare natural communities on the list). Biologists throughout the state have contributed to collection of these data which describe the loca-

tions, ecology, and status of California's rare, threatened, and endangered plants, animals, and natural communities. The original data set for plants largely stemmed from herbarium records from institutions such as the University of California Berkeley, California Academy of Sciences, U.C. Riverside, Rancho Santa Ana, Humboldt State University and others. Recent, updated plant location data comes largely from surveys done by members of the California Native Plant Society, agency biologists, and consultants. Data contributions are encouraged.

To contribute information on population fluctuations, new locations, and habitat integrity, we encourage you to use California Native Species Field Survey Forms (see *Appendix IX*). We have new and improved versions of the forms for both species and natural communities available from the NDDDB to anyone who wants them. Attaching a location map to the form is essential to ensure that we accurately enter the information into the computer.

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The Natural Communities Program

Todd Keeler-Wolf

The Natural Diversity Data Base (NDDDB) Natural Communities program has the responsibility of maintaining up-to-date records of the state's rare natural communities. This is a separate function from that of the NDDDB rare plant program but it is in every way analogous. The rationale for inventorying natural communities in conjunction with individual species is grounded in the philosophy of the community as an amalgamation of species interacting within a common physical environment (an ecosystem). As such, the community responds to natural or unnatural environmental changes and can be thought of as an indicator of the overall health of the ecosystem and its component species.

The natural communities inventory is a kind of coarse filter which maintains surveillance on a broader spectrum of biological diversity than can be accomplished through monitoring only the individual rare species. A detailed understanding of the distribution and population dynamics of each species in the entire state would be ideal. However, 1742 taxa of plants are considered rare enough in California to include within the CNPS *Inventory*, and maintaining records on the total native flora (about 6300 taxa) is beyond our current capabilities (a subset of about 775 plant taxa are actively tracked in the NDDDB plant program). Hence, the natural communities program is a practical compromise focused on sustaining the biological firmament of the state.

Defining Natural Communities

Although they are complex assemblages of species, communities do share certain similarities with species. Like species, some communities are commonplace, some naturally rare, and some have become rare as a result of anthropogenic influences. California's environmental

variation is extreme, from coast to mountains to deserts, and from sand to serpentinite outcrops to flooded alkaline sinks. Like plants, a given natural community typically occurs in only a small portion of this environmental spectrum, and species composition in different communities varies widely and is often non-overlapping. The consequence of this diversity, coupled with a vast range of detrimental impacts, is some communities which contain a wealth of rare species and are indeed rare themselves, and other communities that are rare, but do not contain rare species. Although the NDDDB maintains records for only the rare types, the classification system we use considers all of California's naturally occurring communities.

Natural communities are usually most easily defined by their dominant plant species, and many familiar communities are so described. Redwood Forest, Coast Live Oak Woodland, and Valley Needlegrass Grassland are easily classified on this basis. However, some, such as Mixed Evergreen Forest or Northern

Mixed Chaparral, are not clearly dominated by a single species and may be co-dominated by several. Other communities, exemplified by Montane Dwarf Scrub or Mojave Mixed Woody and Succulent Scrub, have such distinct structural characteristics that they are most easily described structurally. Yet others have sparse vegetative cover, or overriding physical or chemical properties, and are named solely by their physical characteristics (e.g., Northern Fore dune, Fen, Freshwater Seep, Dry Alpine Talus, and Scree Slope).

The NDDDB inventory is based upon a classification devised by Cheatham and Haller (1975) to guide selection of sites for inclusion in the University of California Natural Reserve System. Their scheme recognized about 250 community types. California NDDDB ecologists have modified this system over the past decade and added several new types. Currently, the Data Base recognizes about 280 individual communities as endpoints within a multi-level hierarchy. About 135 of these are considered rare enough to warrant tracking (Table 1). The habitat clas-

Table 1. Examples of common and rare natural communities identified by the NDDDB. Further descriptions can be found in Holland (1986).

Community Name	NDDB Number	Geographic Range
<i>Common Natural Communities:</i>		
Mojave Creosote Scrub	34100	Mojave Desert 2000-4000 ft.
Chamise Chaparral	37200	Cismontane CA 200-5000 ft.
Coast Live Oak Woodland	71160	Coast Ranges S. of Mendocino County
Northern Juniper Woodland	72110	Modoc Plateau, NE. CA
Sierran Mixed Coniferous Forest	84230	Mid-elevation mountains W. of deserts
<i>Rare Natural Communities:</i>		
Relictual Interior Dunes	23200	S. San Joaquin Valley
Ione Chaparral	37000	Central Sierra foothills
Valley Sacaton Grassland	42120	Great Valley
Sycamore Alluvial Woodland	62100S.	Coast Ranges, S. Sierra foothills
Washoe Pine - Fir Forest	85220	NE. CA Mtns. bordering Great Basin

sification system used in this edition of the CNPS *Inventory* is an adaptation of that used by NDDDB, equivalent to the mid-levels of the classification hierarchy. These generalized community types are described earlier in this volume (see *Habitat Types*, above).

Over the past few years, the California NDDDB inventory has become widely used by various state and federal agencies, conservation groups, and consultants to identify and protect sensitive natural communities. As the CNPS *Inventory* goes to press the NDDDB community classification is undergoing major evolution from a descriptive non-technical system to a more finely-honed, data-driven classification. This more technical approach is necessary because of the increasing awareness by conservationists that the ecosystem, and not the individual species, is the level of protection that will afford the greatest ecological security for the long term. Yet, in order to achieve community-level conservation we must have rigorous, defensible,

community definitions. The CNPS Plant Communities Program, in conjunction with the NDDDB, is currently striving to achieve this long-term goal.

Conservation at the Community Level

California's Natural Community Program provides support to the CNPS Plant Communities Committee, a balanced cross-section of State agencies, academia, private consulting firms, and CNPS members. The State and this Committee are working together to develop a uniform system for describing and recognizing California's plant communities, beginning with the rarest and most imperiled. With diagnostic, unambiguous definitions and accurate distributional information, we hope to be able to present scientifically supportable community descriptions which will eventually be the foundation for legislation to protect the state's rare and threatened ecosystems. Another benefit of this coordinated effort is a forthcoming book describing the

state's plant communities, including an inventory of the rare types.

The NDDDB currently has about 2300 individual records of rare communities—a small number compared to the almost 10,000 plant records. The natural community database has always encouraged submission of information about rare communities, and has devised its own field survey form to facilitate input of this information (see *Appendix IX*). To further refine our classification, we are now especially interested in receiving detailed records for as many different rare communities as possible. Field survey forms, complete community lists, rarity information, and descriptions of the communities are available from our office.

Todd Keeler-Wolf is the Vegetation Ecologist at the Natural Diversity Data Base, Department of Fish and Game, 1416 9th St., Sacramento, CA 95814.

Guidelines for Assessing Effects of Proposed Developments on Rare Plants and Plant Communities

James R. Nelson

The following recommendations, adopted by the California Native Plant Society and the California Department of Fish and Game, are intended to help those who prepare and review environmental documents determine **when** a botanical survey is needed, **who** should be considered qualified to conduct such surveys, **how** field surveys should be conducted, and **what** information should be contained in the survey report. Additional considerations and techniques for surveying rare plants are found in Nelson (1987).

Survey Guidelines

1. Botanical surveys that are conducted to determine the environmental effects of a proposed development should be directed to all rare, threatened, and endangered plants and rare plant communities. The plants are not necessarily limited to those species which have been "listed" by State and Federal agencies but should include any species that, based on all available data, can be shown to be rare and/or endangered.
2. It is appropriate to conduct a botanical field survey to determine if, or the extent that, rare plants will be affected by a proposed project when:
 - a. Based on an initial biological assessment, it appears that the project may damage potential rare plant habitat;
 - b. Rare plants have historically been identified on the project site, but adequate information for impact assessment is lacking; or
 - c. No initial biological assessment has been conducted and it is unknown whether or not rare plants or their habitat exists on the site.
3. Botanical consultants should be selected on the basis of possession of the following qualifications (in order of importance):
 - a. Experience as a botanical field investigator with experience in field sampling design and field methods;
 - b. Taxonomic experience and a knowledge of plant ecology;
 - c. Familiarity with the plants of the area, including rare species; and
 - d. Familiarity with the appropriate State and Federal statutes related to rare plants and plant collecting.
4. Field searches should be conducted in a manner that will locate any rare or endangered species that may be present. Specifically, rare plant surveys should be:
 - a. Conducted at the proper time of year when rare or endangered species are both "evident" and identifiable. Field surveys should be scheduled to coincide with known flowering periods, and/or during periods of phenological development that are necessary to identify the plant species of concern.
 - b. Floristic in nature. "Predictive surveys" (which predict the occurrence of rare species based on the occurrence of habitat or other physical features rather than actual field inspection) should be reserved for ecological studies, not for impact assessment. Every species noted in the field should be identified to the extent necessary to determine whether it is rare or endangered.
 - c. Conducted in a manner that is consistent with conservation ethics. Collections of rare or suspected rare species (voucher specimens) should be made only when such actions would not jeopardize the continued existence of the population and in accordance with applicable State and Federal permit regulations. Voucher specimens should be deposited at recognized public herbaria for future reference. Photography should be used to document plant identification and habitat whenever possible, but especially when the population cannot withstand collection.
 - d. Conducted using systematic field techniques in all habitats of the site to ensure a reasonably thorough coverage of potential impact areas.
5. Reports of botanical field surveys should be included in or with environmental assessments, negative declarations, EIR's and EIS's, and should contain the following information:
 - a. Project description, including a detailed map of the project location and study area.
 - b. A written description of biological setting referencing the community nomenclature used, and a vegetation map.
 - c. Detailed description of survey methodology.
 - d. Dates of field surveys.
 - e. Results of survey (including detailed maps).
 - f. An assessment of potential impacts.
 - g. Discussion of the importance of rare plant populations with consideration of nearby populations and total species distribution.
 - h. Recommended mitigation measures to reduce or avoid impacts and a monitoring program to measure the success of the mitigation.
 - i. List of all species identified.
 - j. Copies of all California Native Species Field Survey Forms or Natural Community Field Survey Forms.
 - k. Name of field investigator(s).
 - l. References cited, persons contacted, herbaria visited, and disposition of voucher specimens.

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The Endangered Species Act and Rare Plant Protection in California

Jim A. Bartel, Mark W. Skinner, and Jan C. Knight

Designed by Congress to slow or stop anthropogenic extinctions of various species of fish, wildlife, and plants in the United States, the Endangered Species Act also protects foreign species and species threatened by non-human causes. President Richard Nixon signed the Endangered Species Act (Act or ESA) in December 1973, and in so doing repealed much of the Endangered Species Conservation Act of 1969, which had replaced the Endangered Species Preservation Act of 1966. This new law extended Federal protection for the first time to plants and to animals other than vertebrates, mollusks, and crustaceans, and established a category for threatened species to protect plant and animal species before they reach dangerously low numbers. Although amended several times since its passage in 1973, the ESA remains essentially intact. The Act is administered primarily by the U.S. Fish and Wildlife Service (Service) in the Department of the Interior, and to a lesser extent by the National Marine Fisheries Service in the Department of Commerce. For simplicity's sake, the discussion below focuses on Service implementation of the Act.

Terminology under the Endangered Species Act

"Endangered" and "threatened" are words often used loosely or interchangeably in a variety of contexts. Nonetheless, according to the provisions of the Endangered Species Act and its implementing regulations, crucial legal differences exist between "listed" endangered and threatened species, "proposed" endangered and threatened species, and "candidate" species. Discrimination between these terms is essential because the level of protection afforded these three groups varies greatly.

Section 3 of the Act defines an endangered species as any species, includ-

ing subspecies, "in danger of extinction throughout all or a significant portion of its range." The Service considers varieties to be equivalent to subspecies and, thus, these are also covered under the Act. This section further defines threatened species as any species "likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." "Federally-listed" or "listed" indicates that a species has been designated as endangered or threatened through publication of a final rule in the *Federal Register*.

Proposed endangered and threatened species are those species for which a proposed regulation, but not a final rule, has been published in the *Federal Register*. **Candidate** species are taxa the Service is considering for listing as endangered and threatened species which have yet to be the subject of a proposed rule. The Service periodically publishes a notice of review in the *Federal Register* listing the current candidate species. The latest notice was published on September 30, 1993 (*Federal Register* 58:51144-51190).

The Service divides candidate species into two categories. **Category 1** candidates are "taxa for which the Service currently has on file substantial information on biological vulnerability [relating to autecology and distribution] and threat(s) to support the appropriateness of proposing to list the taxa as endangered or threatened species." **Category 2** candidates are "taxa for which information now in the possession of the Service indicates that proposing to list them as endangered or threatened species is possibly appropriate, but for which substantial data on biological vulnerability and threat(s) are not currently known or on file to support the immediate preparation of rules." Thus, the two categories delimit level of information and *not* degree of threat or biological vulnerability.

Category 3 consists of non-candidates, plants previously considered candidates and included on past lists. These former candidate plants have been grouped into three subcategories: extinct (3A), taxonomically invalid or not meeting the Service's definition of a species (3B), or too widespread or not threatened at this time (3C).

California has 626 candidate species, 136 in Category 1 (including 20 that are thought to be extinct) and 490 in Category 2, as well as 240 former candidates in Category 3. There are currently 58 proposed and 48 Federally-listed plants in California (see *Appendix VII* for a complete roster).

Protection under the Endangered Species Act

Candidate Species

Candidate species are afforded no protection under the Endangered Species Act. Although most Federal agencies with resource management responsibilities (i.e., Forest Service, Bureau of Land Management, Fish and Wildlife Service) accord some level of protection or management consideration to candidates, such policies are not mandatory under the Endangered Species Act, nor should they be confused with legal mandates of the Act. However, the Service is required through Section 4(b)(C)(iii) to monitor the status of Category 1 candidate species "to prevent their extinction while awaiting listing" (*Federal Register* 58:51146).

Because many candidate plants may be more imperiled than some listed endangered and threatened species, the Service, upon request, provides "technical assistance" to Federal, state, and local agencies, on the appropriate conservation and management of candidate species. In addition, interagency or conservation agreements between the Service

and other Federal agencies can be developed to protect candidates, as illustrated by agreements reached with the Forest Service to protect the Shirley Meadows star-tulip (*Calochortus westonii*) and Rawson's flaming-trumpet (*Collomia rawsoniana*).

Proposed Species

Proposed species are granted limited protection under the Endangered Species Act. Essentially, proposed taxa must be addressed by Federal agencies in biological assessments (a document required by Section 7 of the Act for certain Federal projects or actions). Also, Federal agencies must confer with the Service regarding any action or project "likely to jeopardize the continued existence" of a proposed species. The Service typically reviews project plans and species information to determine the effects of a Federal action on a proposed species. This "conference," like the technical assistance for candidates, is only an advisory process. Any recommendations to modify or abandon the project and/or undertake protective measures for proposed species are not mandatory on the Federal agency conferring with the Service.

Listed Endangered or Threatened Species

Designated endangered and threatened plants receive the full protection of the ESA, but first they must be listed. The listing process is covered in Section 4 of the Act, and may be initiated either through citizen petitions or internal Service actions. There are no timetables for listings generated internally within the Service, but listings petitioned by individuals or organizations are subject to a schedule imposed in Section 4(b): (1) within 90 days of receipt of a petition, the Service must publish in the Federal Register (FR) whether the petitioned action may be or is not warranted; (2) if the petitioned action may be warranted, the species must be proposed for listing in FR within one year of the petition's

receipt; and (3) if proposed, a final rule (regulation) listing the species must be published in FR within one year of the proposal's publication. For proposed species, the one year period before publication of a final listing decision can be extended by the Service for up to six months to allow for receipt of additional information. Opponents of listings occasionally attempt to circumvent the listing process by petitioning for this delay, during which the Service impartially evaluates any new information relevant to a final listing decision.

For internally generated listings, including those covered by CNPS's suit (which is described later in this article), taxa to be protected through listing are generally grouped by the Service into packages based on similar geography, threats, habitat, or taxonomy. Among other advantages, these multi-species packages allow imperiled taxa to be proposed and listed with a minimum of effort, and facilitate the development of recovery plans for coherent clusters of taxa which have similar recovery needs.

Recovery plans address the crux of endangered species protection at the Federal level: The ESA is not a listing law, but on the contrary, its purpose is to recover listed species to the degree that they no longer require the protection of the Act. Section 4(f) requires that the Service develop recovery plans for all endangered or threatened species. These plans direct Service recovery monies and outline actions that can be taken by appropriate public and private agencies in efforts to recover listed species. Recommendations described in recovery plans are binding neither on other public agencies nor on private organizations or individuals. For recovered, delisted taxa, section 4(g) of the Act provides for a system to monitor taxa to ensure their continued survival.

As it now stands, however, the recovery process will require broader and more uniform implementation to be effective for plants. Currently, recovery plans have not been written and approved by the

Service for most listed plants in California, nor have most written plans been fully implemented in California or nationwide. Although most listed taxa are plants, almost all recovery monies nationwide are spent on animals: in 1990 the highest ranked plant in terms of recovery expenditures was 57th on the list, and only 24 animals accounted for more than half of all recovery expenditures. Overall, very few taxa and only one plant nationwide have been delisted because of recovery. However, this record is expected to improve if Congress acknowledges that the Service and other Federal resource managers, including the U.S. Forest Service, Bureau of Land Management, and Bureau of Reclamation, have been unable to fully recover listed species because of insufficient staffing and funding.

Section 5 of the Act governs land acquisition, and allows Federal agencies within the Department of Interior (e.g., Bureau of Land Management, Park Service, and Fish and Wildlife Service) and Forest Service to implement a program to conserve listed plants via "the land acquisition and other authority under the Fish and Wildlife Act of 1956, as amended, the Fish and Wildlife Coordination Act, as amended, and the Migratory Bird Conservation Act, as appropriate" to acquire endangered or threatened plant habitat by purchase, donation, or otherwise. More importantly, this section allows these Federal agencies to use funds from the Land and Water Conservation Fund Act of 1965, as amended, for habitat acquisition.

Section 6 of the Act enables the Service to enter into management and conservation agreements with state agencies. Under management agreements, states can administer or manage any area established for the conservation of a listed species. Conservation agreements (also called cooperative agreements) enable the Service to financially assist state agencies such as the California Department of Fish and Game (DFG) to develop programs for endangered and threatened

species protection. Actions typically funded by the Service include research, species management, monitoring candidate and listed species, and other recovery activities described in recovery plans. The Service and DFG have undertaken a number of such projects for plants under California's cooperative agreement. Recent creative uses of Section 6 cooperative funds include promotion of multispecies conservation planning for the ensemble of eight gabbro endemic plants in western El Dorado County, habitat suitability studies for *Cordylanthus palmatus*, and reintroduction efforts for *Amsinckia grandiflora*.

Section 7, which mandates inter-agency cooperation to protect listed species, provides plants with the most significant protection conferred by any of the 18 sections of the Act. Section 7(a)(1) directs Federal agencies, in consultation with the Service, to use their respective resources in furtherance of the purposes of the Act by carrying out programs for the conservation of listed species. Section 7(a)(2) requires Federal agencies, in consultation with the Service, to ensure "that any action authorized, funded, or carried out by such agency... is not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of [critical] habitat."

If a proposed activity affects a listed species and is contingent on one or more Federal actions, "formal consultation" with the Service is initiated by the affected Federal agencies, and the Service is requested to issue a biological opinion. Formal consultation may result in a required modification or rarely abandonment of a proposed Federal action or project, if the Service determines that such activity is likely to jeopardize the species or adversely modify its critical habitat. Although a Federal agency or state governor may seek an exemption, typically the "reasonable and prudent alternatives" resulting from a Service "jeopardy opinion" must be adopted by the

Federal agency to eliminate jeopardy to listed species. However, most agency consultations (89%) are resolved informally, and contrary to public opinion, most formal consultation (91%) does not result in issuance of jeopardy opinions (GAO 1992). Moreover, fewer than 1% of formal consultations result in cancelling of projects; in the five years 1987-1991, only 18 projects were cancelled nationwide as a result of Section 7 formal consultations (Barry *et al.* 1992). The viewpoint espoused by some critics of the ESA, that Section 7 consultations under the Act result in cancelling urgently needed projects throughout the country, is simply not true. Instead, in the vast majority of cases, economic development and endangered species protection go hand in hand.

Formal consultations for plants are increasing dramatically, in part because the number of listed plants is increasing, but more significantly, because many recently listed plants either occur on Federal land or there is common Federal "nexus" with otherwise private actions that may affect their habitat. For example, private development can be affected by Section 7 if Federal authorization or Federal funds are involved, as they are in the U.S. Army Corps of Engineers jurisdiction over placing of fill in vernal or other wetlands. Development of vernal pools, which are isolated wetlands according to the provisions of the Clean Water Act, requires a Section 404 permit from the Corps if a listed species is affected. This Federal action triggers the consultation process, and provides the Service with an opportunity to encourage project redesign or other mitigation measures to avoid jeopardy to listed species. (For further information on Section 7, refer to the final procedural regulations published on June 3, 1986 [*Federal Register* 51:19925-19963].)

Section 7(e) establishes the Endangered Species Committee, popularly referred to as the "God Squad." This seven member Committee is composed of cabi-

net level and other presidential appointees. If a Federal agency receives a jeopardy opinion during formal consultation, it may apply to the Committee for exemption from the requirement of Section 7(a)(2) that no Federal agency action jeopardize an endangered or threatened species. An exemption has never been sought for an action affecting a Federally-listed plant, but the process recently received national attention over the exemption requested (and partially granted) for agency timber sales affecting the northern spotted owl.

Section 9 of the Endangered Species Act prohibits the removal and reduction to possession (i.e., collection) of endangered and threatened plants from lands under Federal jurisdiction. It further prohibits the removal, cutting, digging, damage, or destruction of listed plants on any other area in knowing violation of a state law or regulation. Plants, however, do *not* enjoy the full protection accorded animals under this section against "take" (i.e., harass, harm [which includes significant habitat modification or degradation], pursue, hunt, shoot, wound, kill, trap, capture, or attempt to engage in any such conduct). Nevertheless, as with animals, Section 9 makes illegal the international and interstate transport, import, export, and sale or offer for sale of endangered and threatened plants.

Habitat Conservation Plans (HCP's) are developed to grant the incidental take of listed species on non-Federal land, and are authorized in Section 10(a) of the Act. Individuals, corporations, and state or local agencies may apply to the Service for a Section 10(a) permit to initiate the planning process. Issuance of incidental take permits allows the sacrifice of individuals or habitat in one area in exchange for protection and enhancement of populations or habitat in other areas. This flexibility typically promotes concentration of impacts and development, and enables the protection of essential habitat in the large blocks required for survival of most taxa. Although the scope

of Habitat Conservation Planning varies from parcels to ecosystems, larger scale efforts are typically more worthwhile. One of the most successful HCP's established the 13,000 acre Coachella Valley Preserve to protect the Coachella Valley fringe-toed lizard (*Uma inornata*) from development in the Palm Springs area. HCP's are not written or implemented for plants; since listed plants are not protected from take or destruction on private land. However, if they occur within the boundaries of an HCP, listed and candidate plants are typically incorporated into the planning process. Furthermore, ecosystem planning processes similar to HCP's have been initiated for plants on private lands, but only when there is sufficient interest from local government, and a Section 7 nexus such as the Clean Water Act Section 404 permitting process which governs fill of wetlands. Such ecosystem planning is currently underway for three vernal pool plants of Sonoma County's Santa Rosa Plain, *Lasthenia burkei*, *Limnanthes vinculans*, and *Blennosperma bakeri*, and their associated sensitive animals.

Recent Legal Settlements Will Speed Listings

The numbers of listed and proposed plant species throughout the nation will increase dramatically as the result of recently settled lawsuits brought against the Service to eliminate the existing listing backlog for both plants and animals. Nationally, the number of Category 1 plants that comprise the listing backlog is nearly an order of magnitude greater than that for all classes of animals combined. In California, the 1991 out-of-court settlement between the Service and the California Native Plant Society requires the Service to propose 159 plant taxa for endangered or threatened status by early 1996. The Service is making

steady progress toward this goal; in addition to 52 taxa listed and proposed under the settlement agreement, over 60 plant species are contained in draft proposed rules undergoing internal Service review. CNPS is participating in this process in many ways. Local experts and the Rare Plant Program provide the Service with distributional and status information, and the CNPS Botanist has used the *Inventory* database to help Service biologists establish a relevant priority order for listings which will ensure that the most threatened taxa are protected first. In the near future, numbers and categories of candidate and listed plant species will change relatively rapidly as status reviews are completed and qualified species achieve endangered or threatened status. We ask that you consult the Service for the latest information.

Reauthorization of the ESA

Congressional action on the scheduled 1992 Endangered Species Act reauthorization was delayed by elections until 1993, and still the battle rages on. Early hearings on the issue indicate strong support to substantially modify key provisions of virtually all critical sections of the Act. These proposed modifications emphasize incorporation of economic analyses and assessment of "takings" of private property into the Section 4 listing process, establishing mandatory time schedules for preparation of recovery plans in Section 4, weakening the requirements for interagency cooperation under Section 7, weakening the prohibitions against "take" of listed species in Section 9, changing habitat conservation planning and the permit granting process for "take" in Section 10, and adding requirements to compensate private individuals for economic losses resulting from listed species protection. The next reauthorization clearly promises to be a

debate over the fundamental concepts, processes, and protections that comprise endangered and threatened species conservation as we now know it under the Act.

The Future

Although few taxa have been formally recovered and delisted since the Act's initial passage in 1973, the Endangered Species Act has been instrumental in protecting habitat and slowing the population decline of hundreds of species across the United States, including many of California's rarest plants. The Service's responsibilities to protect and recover California's rare plants are expanding geometrically as more taxa are listed and the pace of development and population growth in California accelerates. It is essential that the U.S. Congress reauthorize a strong ESA, and appropriate sufficient funds in the future for the Service to add essential staff for Section 7 consultations, listing activities, and preparation and implementation of multi-species recovery plans. Given the anticipated success of Interior Secretary Bruce Babbitt's fledgling National Biological Survey, with its emphasis on ecosystem protection to minimize the need for future listings, and the continued cooperation of agencies and organizations like the DFG and CNPS, California's rare flora will stand a fighting chance.

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Sensitive Plant Management on the National Forests and Grasslands in California

Ronald E. Stewart

California has a total land area of 101.5 million acres. Of this total area, 20 million acres are National Forest System (NFS) lands. These lands are divided into 18 national forests and one national grassland managed by the Pacific Southwest Region (Region 5) of the Forest Service, U.S. Department of Agriculture. Portions of the Toiyabe National Forest managed by the Intermountain Region (Region 4), and the Siskiyou and Rogue River National Forests managed by the Pacific Northwest Region (Region 6), also are within California.

The Forest Service is mandated by Federal law to manage these lands for multiple uses. Multiple-use resource management provides a sustainable supply of water, forage, wildlife, wood, recreation, and other renewable resources to benefit the American people, while ensuring the productivity of the land and protecting the quality of the environment. The Forest Service is committed to practicing the highest standards of land and resource stewardship. Management of national forests in California is intended to promote integrity of ecosystems, biological diversity, fish and wildlife habitat, and forest and rangeland health, as well as provide a sustainable supply of renewable resources. Managing for endangered, threatened, and sensitive species, the rarest of the resources under our care, is essential to meeting these objectives.

What Is a Sensitive Plant Species?

Sensitive is a term used by the Forest Service to designate plant species known or highly suspected to occur on NFS lands that are considered valid candidates for Federal threatened or endangered classification under the Endangered Species Act of 1973 (as amended, 1988; see *The Endangered Species Act...*, above).

The term "sensitive" is used to distinguish potential candidates for listing from plants officially listed as "rare," "threatened," or "endangered," terms that have legal meanings under Federal and state laws.

Of all the National Forest Regions, Region 5 contains the largest assemblage of sensitive plant species in comparison to its land base. In fact, of the more than 7,000 vascular plants occurring in California, well over half are known to occur on NFS lands. This is due to the diversity of topography, geography, geology and soils, climate, and vegetation that occur on NFS lands in California, the same factors that account for the exceptionally high endemic flora of the State.

Nearly 300 vascular plants known to occur on NFS lands have been identified as Forest Service sensitive and need further evaluation or require special management to ensure long-term species viability. Of these, 100 are endemic to NFS lands. The Region has the sole responsibility for the viability and long-term conservation of these species. At present, seven plants that occur on NFS lands in Region 5 are Federally-listed as threatened or endangered, and five are proposed for listing. Additional listings under the Federal ESA are anticipated.

Early in 1975, Region 5 issued plant policy direction concerning endangered, threatened, and sensitive species which developed into the current Sensitive Plant Program. Activities of the Sensitive Plant Program include field verification of known or reported locations of sensitive plants, preparation of individual population records, field reconnaissance of projects such as timber harvests and input to environmental documents, identifying basic research needs, monitoring key populations, and preparing individual species management guides.

How Is the Region 5 Sensitive Plant List Developed?

Region 5 developed its list of sensitive plants from a variety of sources, including plant species published in the *Federal Register* as under review for Federal listing by the U.S. Fish & Wildlife Service. The list is periodically validated by botanists affiliated with major scientific institutions, the California Native Plant Society (CNPS), and the Endangered Plant Program and Natural Diversity Data Base (NDDDB) of the California Department of Fish and Game. The Region 5 sensitive plant list also takes into account the taxa listed under State law as endangered, threatened, or rare. Any State-listed species which may need special management on NFS lands is considered for the list. In addition, the Region 5 sensitive plant list incorporates the professional field knowledge of Forest Service botanists and ecologists.

The Region 5 sensitive plant list is subject to additions and deletions as new data are obtained, taxonomic problems clarified, or as revisions to the source documents are made. Generally, the plant list is revised every other year. The Region 5 sensitive plant list is available upon request from the Forest Service Regional Office in San Francisco.

What Is the Forest Service Policy for Sensitive Plants?

Implementation of the Sensitive Plant Program is outlined in Forest Service Manual (FSM) Section 2670, "Threatened, Endangered, and Sensitive Plants and Animals." The FSM and the Forest Land Management Plans provide the working policies and framework for implementing all Forest Service activities and evaluating possible effects on endangered, threatened, proposed, or sensitive species.

Additionally, a Region 5 "Threatened and Endangered Plants Program Handbook" (R-5 FSH 2609.25), developed in 1988, provides direction for day-to-day management of the sensitive plant program and technical procedures to implement the program at the project level. Both the FSM direction and Region 5 handbook are available for public review at any Forest Service office.

Key parts of FSM 2670.22 concerning sensitive taxa are:

1. Develop and implement management practices to ensure that species do not become threatened or endangered because of Forest Service actions.
2. Maintain viable populations of all native and desired non-native wildlife, fish, and plant species in habitats distributed throughout their geographic range on NFS lands.
3. Develop and implement management objectives for populations and/or habitat of sensitive species.

In addition, FSM 2670.32 states that the Forest Service will:

1. Assist states in achieving their goals for the conservation of endemic species.
2. Review programs and activities, through a biological evaluation, to determine their potential effect on sensitive species.
3. Avoid or minimize impacts to species whose viability has been identified as a concern.
4. If impacts cannot be avoided, analyze the significance of potential adverse effects on the population or its habitat within the area of concern and on the species as a whole.
5. Establish management objectives, in cooperation with the states, when projects on National Forest System lands may have a significant effect on sensitive species' population numbers or distributions.

Each national forest has a Threatened & Endangered Species Program Manager responsible for the implemen-

tation of the Sensitive Plant Program within that forest. Region 5 national forests with high concentrations of sensitive plants have a professional botanist on staff and/or other highly trained biologists working on sensitive plant management issues. The Region currently has 28 full-time botanists.

How Are Sensitive Plants Actually Managed?

Distribution patterns, habitats, and ecological parameters differ for each of the 300 sensitive plants in Region 5. We have learned first-hand that protecting and conserving these taxa does not necessarily entail segregating sensitive plants from other forest development or management activities.

Past management activities and practices often provide important insights for assessing ecological requirements, and management opportunities and constraints for species. Some species require frequent burning, others are early successional taxa, while others prefer a specific microenvironment for optimal population size and vigor. Timing, intensity, and frequency of a proposed action are the key factors in biological evaluations of proposed forest activities.

For example, a timber harvest could have no effect, adverse effect, or beneficial effect on a sensitive plant occurrence depending on whether or not the proposed action is evaluated and planned in terms of the species' ecological needs. This is well illustrated by the Shirley Meadows star-tulip (*Calochortus westonii*), which is endemic to the Sequoia National Forest. The ecological requirements of this species suggested that selective thinnings of dense conifers could be accomplished when the plants were dormant in the fall, thus creating a more open, park-like environment for this species. Numbers of Shirley Meadows star-tulips have increased markedly under this prescription. Historically, tree thinning was probably accomplished by low-intensity ground fires, but with the

successful fire suppression efforts of this century, a shift towards denser white fir and incense-cedar has occurred in what would otherwise be an open mixed conifer-black oak forest.

Experience in maintaining viable populations of sensitive species in dynamic forest, woodland, chaparral, and grassland ecosystems throughout their range on NFS lands has taught us that "fence them and leave them" is not always the best prescription. The key objective for long-term sensitive species management is not how much forest management the species can *take*, but rather, what kind of forest management does the species *need* to assure long-term conservation. Some sensitive plants require prescribed management treatments, while others, including some sensitive plants occurring on restrictive or unique habitats such as the Pebble Plains on the San Bernardino National Forest or species of serpentinite substrates, simply need to be "left alone." In these situations, we manage by reducing ground disturbing activities. Sensitive plant stewardship in Region 5 is indeed a dynamic and challenging part of multiple-use resource conservation.

As the national forest inventories for sensitive plants are completed, long-range species and/or habitat management guides are prepared and incorporated into forest plans. These guides are not intended to be exhaustive, but are designed as "work plans" providing site-specific objectives, activities, and time tables for implementation. The guides specify monitoring and periodic review to ensure that the guide is working to benefit the species. As new data become available, they are incorporated into species management guides. Effective implementation of these guides should ensure the long-term viability of sensitive species, thereby preventing the need to list the species under Federal law.

Forest Supervisors and District Rangers can best manage sensitive plants on the NFS lands they administer if they

have the most current information. Therefore, forests have developed specific methodologies for collecting and maintaining sensitive plant data. In addition, Region 5 has signed a Memorandum of Understanding with CNPS and NDDDB. All of the sensitive plant data generated by Region 5 are forwarded annually to NDDDB and shared freely with CNPS. This provides all interested parties with the current distribution, population trends, condition, and vigor for each sensitive species that is inventoried and managed on NFS lands in California.

What Are Region 5 Forest Service Accomplishments Regarding Botanical Conservation?

Region 5 developed the first Sensitive Plant Program in the Forest Service, and has a long history of conserving rare and unique plants and plant communities. Throughout NFS lands in California there exists a great wealth of places with unusual scenic, historic, prehistoric, and biological values that merit special attention and management. Botanical Areas are one of the categories of "Special Interest Areas" (SIA's) that are identified in FSM section 2462. Like other SIA's, botanical areas are established to protect

sensitive resources, and where appropriate, to foster public education and enjoyment. As of January 1, 1992, 35 botanical areas had been formally established by the Regional Forester pursuant to 36 CFR 294.1a and incorporated into final Forest Land Management Plans. Several potential botanical areas, many containing sensitive plant species, are being evaluated with CNPS's assistance. Qualifying botanical areas will be established through amendments to Forest Plans with full public review under the National Environmental Policy Act.

Other sensitive plant occurrences are within the 26 Research Natural Areas (RNA's, FSM Section 4060) established for non-manipulative research and study. Many proposed RNA's await establishment. RNA's are recommended jointly by the Station Director (of the research branch of the Forest Service) and Regional Forester and are established by the Chief of the Forest Service in Washington, DC.

Botanical values and biological diversity are also provided by the 3.9 million acres of Congressionally designated Wilderness, and the nearly 320 acres per mile of protected riparian area along the 959 miles of Congressionally-designated Wild and Scenic Rivers in California's NFS lands. For more detailed informa-

tion on native plant diversity and special area designations on the national forests in California, see Shevock (1988).

Conclusion

Sensitive plants on the national forests and grasslands are a unique and scientifically valuable resource. I personally encourage CNPS to continue to assist the Forest Service in our sensitive plant inventory and conservation strategy efforts. CNPS members concerned with sensitive plant management need to continue to coordinate conservation efforts with Forest personnel at the local level, as they have during CNPS's participation in the recent development of Forest Land Management Plans (Meyer 1990). This involvement has been beneficial for sensitive resources on California's National Forests, and educational for both CNPS members and Forest Service planners and biologists. Working together, we can continue to conserve and manage for viable populations of sensitive plant species occurring on the national forests and grasslands in California.

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Rare Plant Conservation on Bureau of Land Management Lands

Edward L. Hasty

The Bureau of Land Management (BLM) manages about 17.1 million acres of public lands in California, including some in almost every one of California's 58 counties. These public lands are habitat for many of the rare plants included in this *Inventory*. Currently, 205 special status plants are known to occur on BLM lands in California. An additional 146 special status plants are suspected to occur on BLM lands, but their presence has not yet been documented.

Special Status Plants

BLM uses the term "special status plants" to include all of the following: 1) Federally-listed and proposed species; 2) Federal candidate species; 3) State-listed species; and 4) sensitive species. Sensitive species are those species that do not meet any of the first three criteria, but which are designated by the State Director for special management consideration. Plants on List 1B (Plants Rare, Threatened, or Endangered in California and Elsewhere) of the CNPS *Inventory* that do not meet any of the first three criteria are considered sensitive by BLM in California. Sensitive plants receive the same level of protection as Federal candidate species.

Nationwide Bureau policy on the management of special status species (both plants and animals) is given in BLM Manual 6840. California's policy on the management of candidate and sensitive plants predates the national policy and is generally more restrictive. California's policy was first developed in 1977 in recognition of the fact that many candidate and sensitive plants require the same level of conservation as Federally-listed plants. The policy, largely unchanged since 1977, reads as follows:

"Pending formal listing all candidate and sensitive plant species are

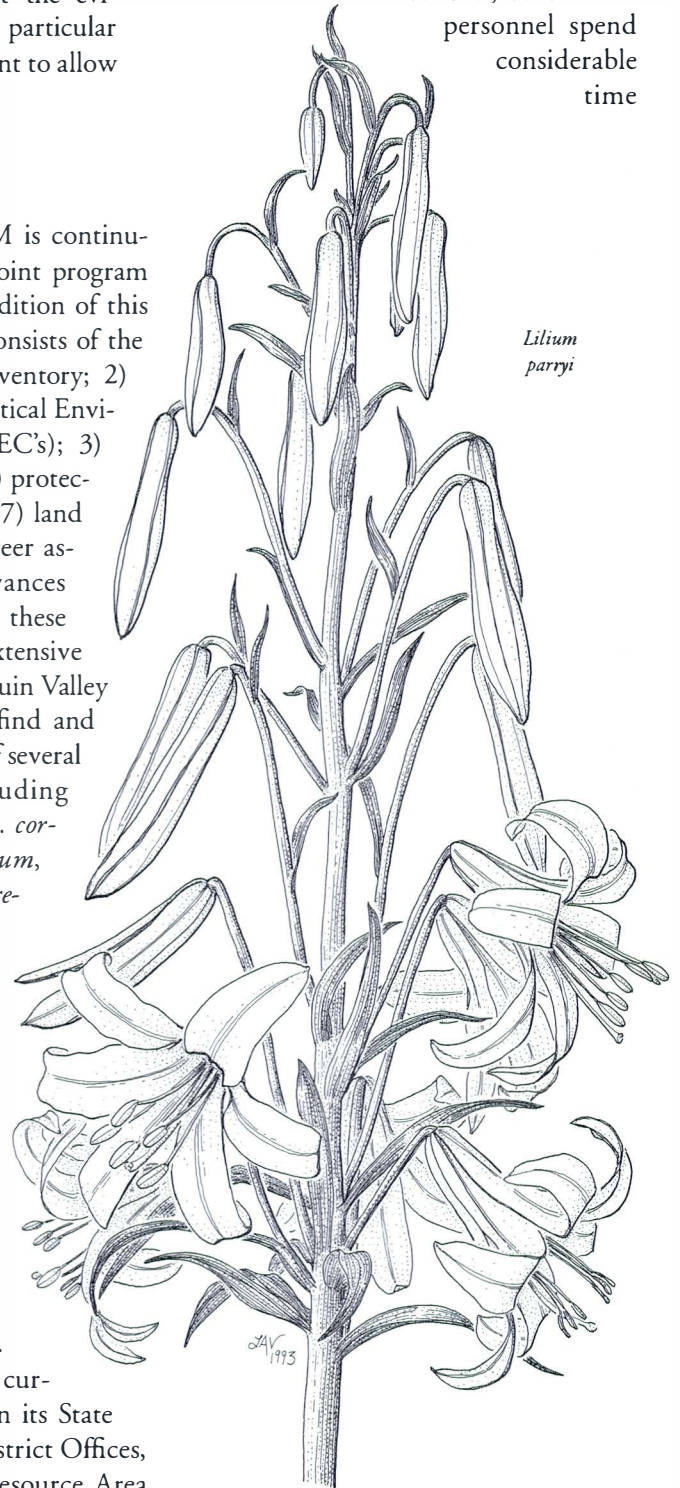
afforded the full protection of the Endangered Species Act unless the BLM State Director judges on a case-by-case basis that the evidence against listing a particular plant species is sufficient to allow a specific action."

The BLM Program in California

In California the BLM is continuing to pursue the eight-point program outlined in the previous edition of this *Inventory*. This program consists of the following elements: 1) inventory; 2) designation of Areas of Critical Environmental Concern (ACEC's); 3) monitoring; 4) research; 5) protection; 6) public education; 7) land acquisition; and 8) volunteer assistance. Significant advances have been made in all of these areas. Examples include extensive inventories in the San Joaquin Valley and adjacent foothills to find and document new locations of several rare plant species (including *Acanthomintha obovata* ssp. *cordata*, *Antirrhinum ovatum*, *Caulanthus californicus*, *Eremalche kernensis*, *Eriastrum hooveri*, and *Lembertia congonii*), acquisition of more than 100,000 acres of valuable rare plant and animal habitat in the Carrizo Plain, and designation of 26 ACEC's covering more than 300,000 acres specifically to protect rare plants (six more are currently proposed for this purpose).

In California, BLM currently employs botanists in its State Office, in all four of its District Offices, and in eight of its 15 Resource Area

offices, for a total of 13 botanists. The target is to have at least 22 botanists in place by the year 2000. In addition to botanists, other BLM personnel spend considerable time



Lilium parryi

and effort on rare plant management.

The Bureau has recently prepared a nationwide plan entitled *Rare Plants and Natural Plant Communities: A Strategy for the Future* (BLM 1992). This plan will guide the Bureau's management of rare plants through the year 2000. It sets forth the objectives of the plan and identifies the funding and personnel required to accomplish them. California's objectives are to inventory more than six million acres of public lands for rare plants, to monitor all of the rare plants on public lands, to conduct 65 studies on the biology and management of rare plants, to complete 95 rare plant management plans, to construct habitat improvement projects benefitting 40 rare plants, and to acquire more than 6,000 acres of significant rare plant habitat.

A very exciting chapter in biological conservation began recently with the signing, on September 19, 1991, of the Memorandum of Understanding (MOU) on California's Coordinated Regional Strategy to Conserve Biological Diversity (Strategy). Ten State and Federal agencies are party to the MOU: The Resources Agency, California Department of Fish and Game, California De-

partment of Forestry and Fire Protection, California Department of Parks and Recreation, State Lands Commission, University of California, U.S. Forest Service, U.S. Fish and Wildlife Service, National Park Service, and BLM. County governments and public interest groups, including the California Native Plant Society, will play important roles in implementing the Strategy.

The Strategy is an important step toward conserving biological diversity in California, and implementation of the strategy's concepts will do much to preserve California's rare flora. The emphasis will be on the conservation of communities and ecosystems, including those that harbor rare plants and plant communities. Planning will cross all land ownerships, both public and private, and focus on *biological* boundaries rather than political ones.

The most important tool in executing the Strategy on the ground will be Coordinated Resource Management and Planning (CRMP). CRMP is a resource planning, problem solving, and management process that allows for direct participation of everyone in a given planning area concerned with natural resource

management. The grass roots involvement that CRMP fosters is vital to developing effective and workable conservation plans.

The CRMP process has a long and successful history in California. This cooperative approach has been used successfully in the Coachella Valley and the Carrizo Plain to preserve the rare biological resources of those areas, while at the same time allowing needed development to continue. In the Western Mojave Desert a CRMP is underway that will result in a plan to conserve the biological diversity of eight million acres of public and private lands, while providing for continued socio-economic growth. Many other efforts are either already underway or will be shortly.

All those interested in conserving California's rare flora should make an effort to be involved in these local planning efforts. Only by working together can we preserve the biological diversity for which California is famous.

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Rare Plant Conservation — A Global Perspective

Tim Messick

Native plant societies are now fairly common throughout the United States, but few conservation organizations outside this country are devoted entirely to native plant conservation. Many conservation organizations both inside and outside the United States work to save threatened native plants and plant communities through their efforts to protect threatened sites or wildlife species or through specialized working groups for botanists. The number and variety of these organizations and their activities is too great to summarize here, but a useful perspective can be gained from looking at the coordination and facilitation provided by one organization, The World Conservation Union.

The Coordinating Role of IUCN

The World Conservation Union, or IUCN (the acronym is a holdover from its former name, the International Union for Conservation of Nature and Natural Resources), is an umbrella organization of conservation organizations, scientific institutions, resource management agencies, and national governments joined together to promote the protection and sustainable use of living resources. IUCN counts more than 50 nations, 90 government agencies, and 450 nongovernmental organizations among its members, with over 100 countries represented by one institution or another. More than 75 conservation, scientific, and educational organizations in the United States are members of IUCN; CNPS has been a member since 1985.

In addition to its organizational and governmental members, over 3000 individual scientists and other conservation specialists are members of six commissions: the Commission on Ecology, Commission on Education and Communication, Commission on National Parks and

Protected Areas, Commission on Environmental Strategy and Planning, Commission on Environmental Law, and Species Survival Commission. Working groups within each commission provide advice and carry out projects on specific sites, resources, problems, needs, or groups of organisms. CNPS members have participated in projects of the North American Plants Specialist Group of the Species Survival Commission by helping to identify California's most critically threatened plants, and by contributing sections to a book on centers of plant diversity.

IUCN provides training and organizational support for hundreds of conservation projects each year, many of which benefit threatened plants as well as threatened ecosystems and impoverished people. The World Wide Fund for Nature, or WWF (formerly World Wildlife Fund), works closely with IUCN (whose international headquarters are in the same building) to provide economic support for many plant conservation projects in developing countries.

Many of IUCN's plant conservation efforts have been organized through their Plant Conservation Office at Kew Gardens, and the World Conservation Monitoring Centre in Cambridge, England. Projects have included the development of a worldwide database on threatened plants (similar to those developed for California by CNPS and the Natural Diversity Data Base), development of computer software to help botanic gardens acquire and manage collections of threatened plants, development of the Botanic Gardens Conservation Strategy, consultation on projects saving plants from extinction, and publication of books. Among the plant conservation books produced or sponsored by IUCN are *The IUCN Plant Red Data Book* (Lucas and Synge 1978), *The Biological Aspects*

of Rare Plant Conservation (Synge 1981), *Plants in Danger: What Do We Know?* (Davis *et al.* 1986), *Green Inheritance: The World Wildlife Fund Book of Plants* (Huxley 1985), and the forthcoming *Centres of Plant Diversity: A Guide and Strategy for their Conservation* (Heywood, in prep.).

IUCN and its member organizations have aggressively promoted the establishment, implementation, and strengthening of international treaties that benefit plants and other resources, such as the Convention on International Trade in Endangered Species (CITES) and the Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar Convention).

CNPS's involvement with IUCN has included participation in the 1984 and 1988 IUCN General Assemblies, providing information to IUCN and others on CNPS's Rare Plant Program, sending complimentary copies of the *Inventory* and the proceedings of CNPS's 1986 rare plant conference to selected botanical institutions in 15 lesser developed countries, and contributing chapters on important botanical sites in California to the *Centres of Plant Diversity* book.

"Think Globally, Act Locally"

The World Conservation Union recognizes CNPS as a strong leader in plant conservation in the western United States. But one of the challenges facing CNPS in the coming years will be to "think globally" more often while continuing to "act locally." Understanding conservation goals and principles in a global context can lead to better action on conservation priorities and methods at home. Thinking globally can help focus the momentum of global conservation priorities on site-specific and species-specific native plant conservation issues in California. Membership in the

global conservation community gives CNPS opportunities to encourage developing plant conservation movements abroad and to learn from the problems, experiments, and creativity of other groups with goals similar to ours.

The World Conservation Union has, appropriately, provided leadership in "global thinking" in recent years. In 1980, IUCN published the *World Conservation Strategy* (IUCN 1980). This strategy for "living resource conservation for sustainable development" emphasized that humanity exists as a part of nature and that the future of humanity is dependent on the conservation of nature and natural resources. It asserted that conservation cannot be achieved without development that alleviates poverty. The World Conservation Strategy stressed three objectives:

- maintenance of essential ecological processes and life-support systems
- preservation of genetic diversity
- sustainable use of species and ecosystems.

Throughout the 1980's the World Conservation Strategy was tested through development of over 50 national and sub-national conservation strategies. A decade of experience and debate clarified the complexity of environmental problems and increased the urgency for action.

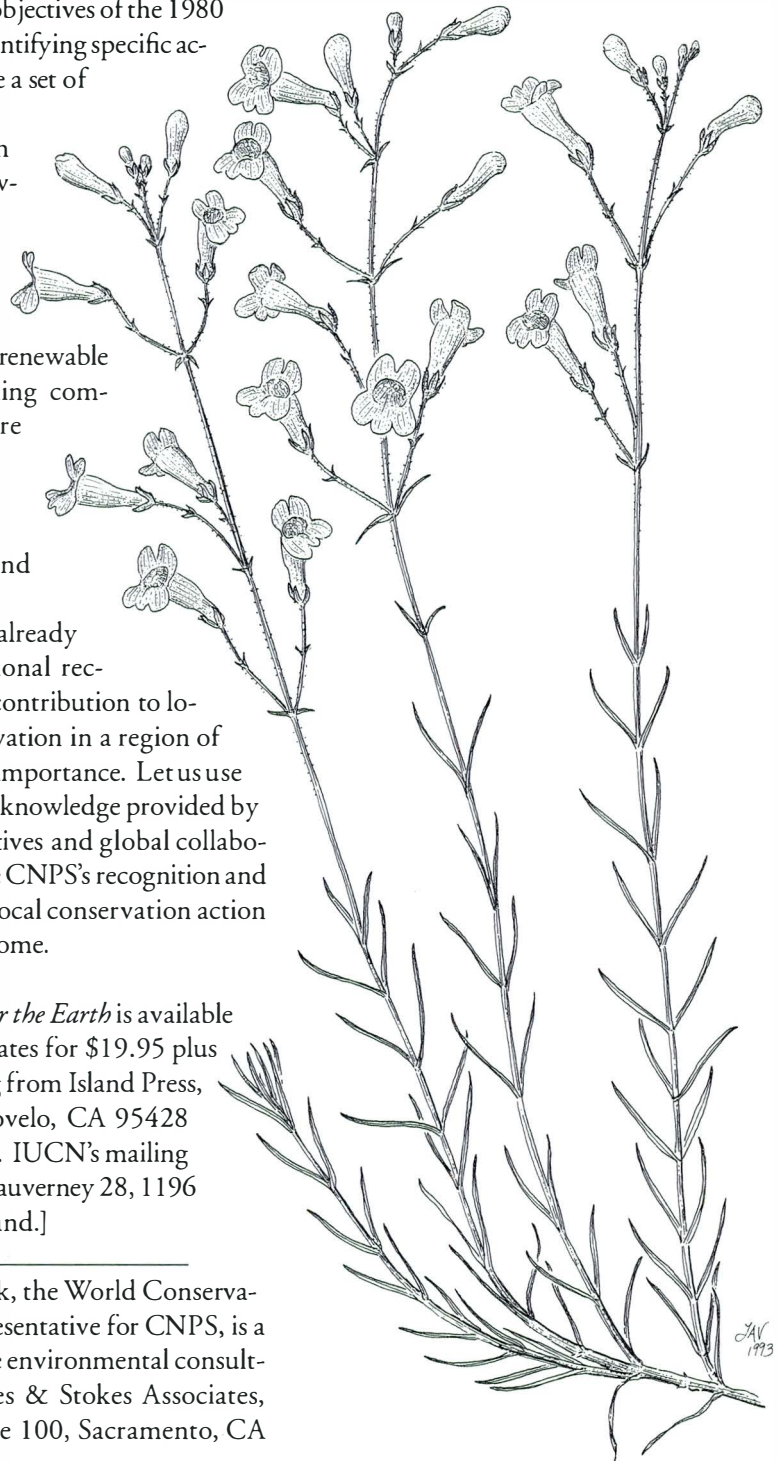
In October 1991, The World Conservation Union, the United Nations Environment Program, and the World Wide Fund for Nature released *Caring for the Earth: A Strategy for Sustainable Living* (IUCN, UNEP, and WWF 1991), as a successor to the World Conservation Strategy. *Caring for the Earth* is a strategy of mutually reinforcing actions at individual, local, national, and interna-

tional levels based on an ethic of caring for nature and for people. It strengthens the original objectives of the 1980 document by identifying specific actions to promote a set of conservation principles which include: conserving the Earth's vitality and diversity, minimizing depletion of nonrenewable resources, enabling communities to care for their own environments, and integrating development and conservation.

CNPS has already earned international recognition for its contribution to local plant conservation in a region of global botanical importance. Let us use the wisdom and knowledge provided by worldly perspectives and global collaboration to increase CNPS's recognition and effectiveness in local conservation action in the years to come.

[Note: *Caring for the Earth* is available in the United States for \$19.95 plus tax and shipping from Island Press, P. O. Box 7, Covelo, CA 95428 (800/828-1302). IUCN's mailing address is Rue Mauverney 28, 1196 Gland, Switzerland.]

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*Penstemon
filiformis*

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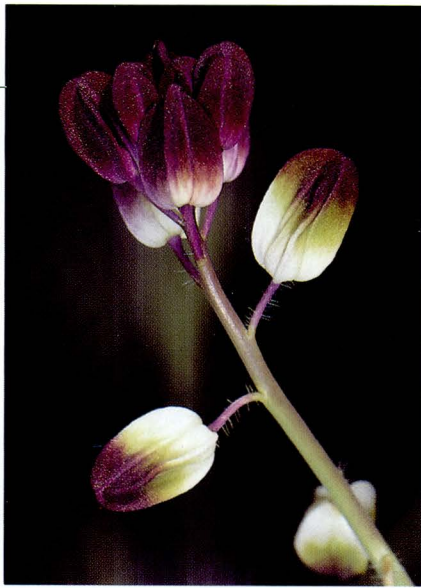
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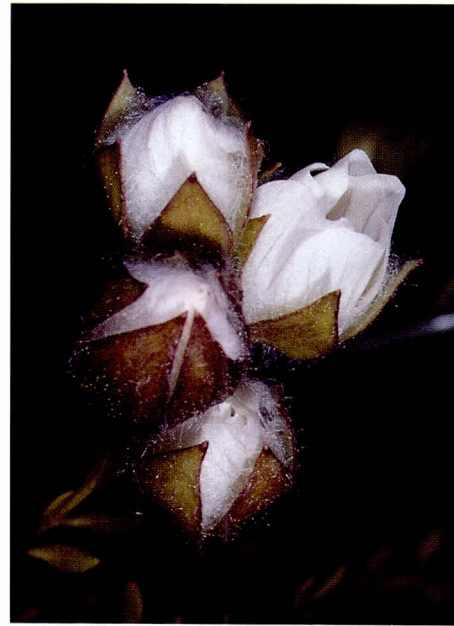
Caulanthus californicus



Amsinckia furcata



Lasthenia conjugens



Limnanthes floccosa ssp. *californica*



Opuntia basilaris ssp. *treleasei*



Mimulus pictus

Rare plants of grasslands, oak woodland, and vernal pools. *Amsinckia furcata*, *Caulanthus californicus*, and *Opuntia basilaris* ssp. *treleasei* all occur in the grasslands of the southern San Joaquin Valley and surrounding hillsides. Conversion to agriculture, urbanization, and energy development have extirpated many occurrences of the latter two species. *Mimulus pictus*, from the oak woodland belt of the southern Sierra, is one of the prettiest of the rare monkey-flowers. *Lasthenia conjugens* occurs in vernal pools to the north and east of San Francisco Bay, and *Limnanthes floccosa* ssp. *californica* is known from vernal pools and swales near Chico in BUT Co.; both are severely endangered by urbanization and conversion to agriculture.



Suaeda californica



Ferocactus viridescens



Chorizanthe howellii



Penstemon albomarginatus



Phacelia nashiana



*Brodiaea filifolia**Linanthus killipii*

Rare plants of Southern California, the Central Coast, and dunes and deserts.

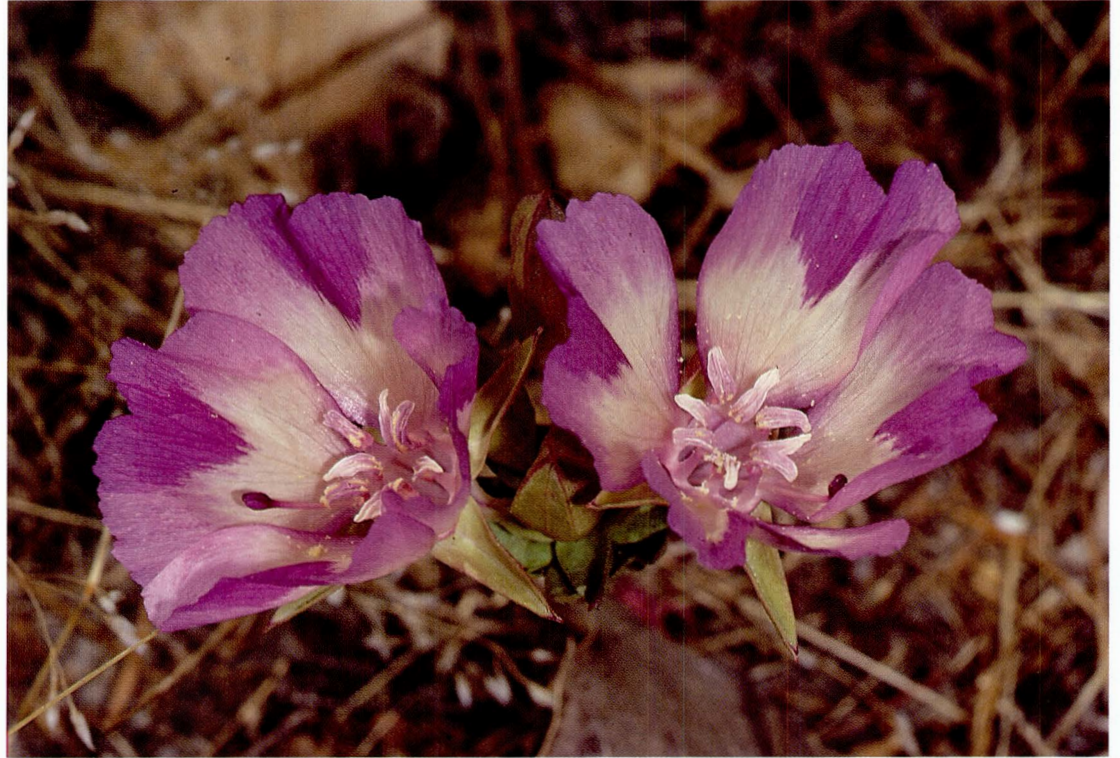
Ferocactus viridescens occurs in maritime succulent scrub in coastal San Diego County, a habitat much favored by land developers. *Suaeda californica* has been eliminated from San Francisco Bay by destruction of its coastal salt marsh habitat, and is now found only at Morro Bay in San Luis Obispo Co.

Chorizanthe howellii is a dune-loving plant with only five occurrences in MEN Co., where it is being obliterated by the ice plant (*Carpobrotus edulis*) in the photo.

Phacelia nashiana and *Penstemon albomarginatus* are rare plants that occur only in specialized microhabitats within the vast Mojave Desert. *Clarkia speciosa* ssp. *immaculata*, *Eriogonum crocatum*, and *Calochortus obispoensis* occur along the Central Coast, the last two on special soil types: *Eriogonum* occurs only in volcanic soils, and, like so many California rare plants, the *Calochortus* occurs in serpentine grasslands.

Linanthus killipii mostly occurs near rapidly developing Big Bear Lake. *Brodiaea filifolia* has been much reduced by urbanization in coastal southern California.

*Clarkia speciosa* ssp. *immaculata**Eriogonum crocatum*♦ *Calochortus obispoensis*

*Fritillaria biflora* var. *ineziana**Calochortus tiburonensis**Streptanthus albidus* ssp. *peramoenus**Clarkia imbricata**Arctostaphylos imbricata*

Rare plants of the San Francisco Bay area, the Coast Ranges, and Channel Islands. Although recognized by Jepson many years ago, *Fritillaria biflora* var. *ineziana* is a new addition to the fifth edition. Other plants of serpentinite grasslands of the Bay Area, all threatened primarily by urbanization, include *Calochortus tiburonensis*, *Streptanthus albidus* ssp. *peramoenus*, and *Arctostaphylos imbricata*. *Clarkia imbricata* is known from only one natural occurrence in the world, in the front yard of a private residence. *Erysimum teretifolium* is threatened by sand mining, and by urbanization of its curious habitat, ponderosa pine forest on inland marine sands in SCR Co. *Lotus argophyllus* var. *niveus*, *Malacothamnus fasciculatus* var. *nesioticus*, and *Dudleya nesiotica* are endemic to SCZ Isl., where they have been reduced by non-native plants, and overgrazing and browsing by livestock and pigs. Although controlled or eliminated on most of the Channel Islands, feral animals continue to brutalize the vegetation on SCT, SCZ, and SRO islands.

*Lotus argophyllus* var. *niveus*



Erysimum teretifolium



Malacothamnus fasciculatus var. *nesioticus*



Dudleya nesiotica



Pale swallowtail butterflies pollinate *L. kelloggii*



L. occidentale



A white-lined sphinx moth visits *L. parryi*

Pollination diversity in rare true lilies. Most plants require pollinators for reproduction, and insect and other herbivores are dependent on plants for food.

Rare plants are embedded in complex and mysterious interactions with other members of their ecosystems, and mutual dependence is often the rule.

Therefore, the ecosystem consequences of altered plant diversity are significant, but are unpredictable and often unnoticed by human observers. The lack of appropriate plant and animal associates is one reason that most transplantations of rare plants fail.

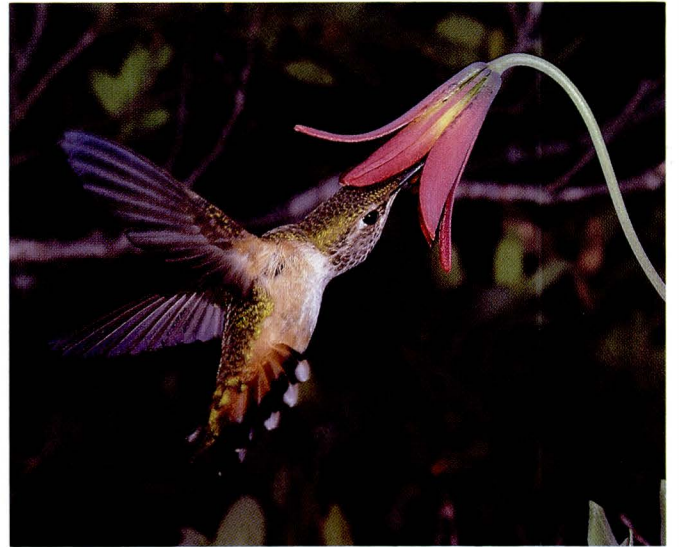
Western *Lilium* feed a wide variety of pollinating animals, and illustrate just part of the broad range of animal associates of rare plants. *L. kelloggii* is visited here by a pale swallowtail butterfly (*Papilio eurymedon*), *L. maritimum* by a *Bombus* bumblebee, *L. parryi* by a white-lined sphinx moth (*Hyles lineata*), and *L. bolanderi* by an immature/female Allen's hummingbird (*Selasphorus sasin*). *L. rubescens*, shown without any visitors, is pollinated by a combination of bees, butterflies, and probably moths, and *L. occidentale* by Allen and rufous hummingbirds. Rare lilies support non-pollinating associates too, such as this black and yellow syrphid fly feeding on pollen at an anther of *L. parryi*, and this camel cricket resting on a flower of *L. kelloggii*, probably after stealing nectar from the flower.



L. rubescens ♦



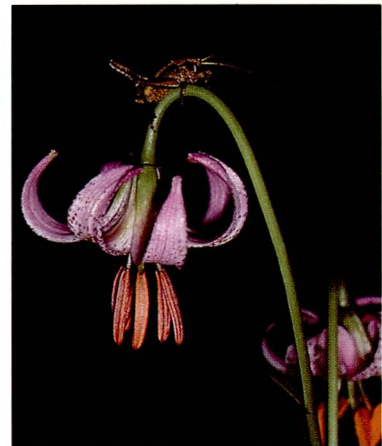
A bumblebee pollinates *L. maritimum*



An Allen's hummingbird pollinates *L. bolanderi*



Syrphid flies often eat *L. parryi* pollen



A camel cricket resting on *L. kelloggii*

*Galium californicum* ssp. *sierrae**Allium tuolummense**Fremontodendron decumbens*

Rare endemic shrubs, and plants of the Sierra foothills. *Fremontodendron decumbens* and *Galium californicum* ssp. *sierrae* are part of a rare plant ensemble that occurs primarily in the gabbro chaparral of ELD Co., where urbanization is fragmenting this unique habitat.

Allium tuolummense and *Verbena californica* are serpentinite endemics from the unusual outcrop called the Red Hills in TUO Co., where they are partially protected on BLM land. *Carpenteria californica* is in a monospecific genus from the Sierra foothills, and an example of a paleoendemic which once had a much broader range. Although it occurs by roadsides, *Neviusia cliftonii* was only just discovered in 1992 on SHA Co. limestones, illustrating in dramatic fashion how much more there is to know about California's rare flora.

*Carpenteria californica**Neviusia cliftonii*◆ *Verbena californica*

Abies amabilis (Dougl.) Forbes

"Pacific silver fir" Pinaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: SIS, OR, WA+
 Quads: 702B, 736A
 Habitat: UCFrs
 Life Form: Tree (evergreen)
 Blooming: N/A
 Notes: Known in CA only from isolated groves. See *Fremontia* 16(3):19-20 (1988) for information on 736A occurrence.

Abies bracteata (D. Don) Nutt.

"bristlecone fir" Pinaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: MNT, SLO
 Habitat: LCFrs
 Life Form: Tree (evergreen)
 Blooming: N/A
 Notes: Endemic to the Santa Lucia Mtns.

Abies lasiocarpa

See *Abies lasiocarpa* var. *lasiocarpa*

Abies lasiocarpa (Hook.) Nutt. var. *lasiocarpa*

"subalpine fir" Pinaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: SIS, AZ, ID, NV, OR, WA+
 Quads: 684A, 701C, 702A, 719C, 719D
 Habitat: Medws, SCFrs, UCFrs
 Life Form: Tree (evergreen)
 Blooming: N/A
 Notes: See *Madroño* 20(8):413-415 (1971) for distributional information.

Abronia alpina Bdg.

"Ramshaw Meadows abronia" Nyctaginaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C1
 Distribution: TUL
 Quads: 306B*, 329C, 330D
 Habitat: Medws (gravelly margins)
 Life Form: Perennial herb
 Blooming: July-August
 Notes: Known from only two extant occurrences at Ramshaw Meadows and Templeton Meadows. Threatened by trampling from cattle and trail construction. See *Botanical Gazette* 27:444-457 (1899) for original description, and *Aliso* 7(2):201-205 (1970) for discussion of rediscovery.
 Status Report: 1989

Abronia maritima Wats.

"red sand-verbena" Nyctaginaceae
 CNPS List: 4 R-E-D Code: 1-2-2 State/Fed. Status: CEQA?
 Distribution: ANA, LAX, ORA, SBA, SCM, SCT, SCZ, SDG, SLO, SMI, SNI, VEN, BA
 Habitat: CoDns
 Life Form: Perennial herb
 Blooming: February-November
 Notes: Nearly extirpated in southern California; more common to north? Hybridizes with *A. latifolia* and *A. umbellata*. See *Botany of California* 2:4 (1880) for original description.

Abronia nana Wats. ssp. *covillei* (Heimerl) Munz

"Coville's dwarf abronia" Nyctaginaceae
 CNPS List: 4 R-E-D Code: 1-2-1 State/Fed. Status: CEQA?
 Distribution: INY, MNO, SBD, NV
 Habitat: GBScr, JTWld, PJWld, UCFrs / carbonate, sandy
 Life Form: Perennial herb
 Blooming: May-August
 Notes: Threatened by carbonate mining and vehicles in the San Bernardino Mtns., and by grazing in the White and Inyo Mtns. See *Smithsonian Miscellaneous Collections* 52:197 (1908) for original description, and *Manual of Southern California Botany*, pp. 150, 598 (1935) by P. Munz for taxonomic treatment.

Abronia umbellata Lam. ssp. *breviflora* (Standl.) Munz

"pink sand-verbena" Nyctaginaceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: /C2
 Distribution: DNT, HUM, MEN, SON, OR
 Quads: 503D, 537B, 569A, 569D, 585A, 585D, 654B, 655A, 672A, 672B, 672C, 689D, 706A, 706D, 723B, 723D, 740C
 Habitat: CoDns
 Life Form: Perennial herb
 Blooming: July-September
 Notes: Most occurrences have few plants. Threatened by vehicles and foot traffic. State-listed as Endangered in OR.

Acacia minuta ssp. *minuta*

Considered but rejected: Not in CA; name misapplied to *A. farnesiana* var. *farnesiana*; a non-native plant

Acacia smallii

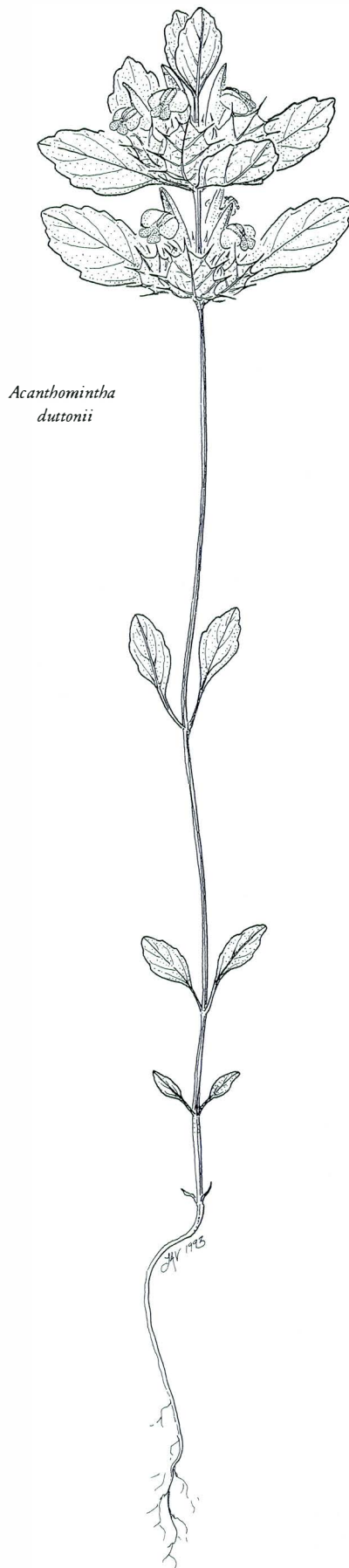
Considered but rejected: Not native; misapplied to *A. farnesiana* var. *farnesiana*

Acalypha californica

Considered but rejected: Too common

Acanthomintha duttonii (Abrams) Jokerst

"San Mateo thorn-mint" Lamiaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/FE
 Distribution: SMT
 Quads: 428B*, 429A, 448D*
 Habitat: Chprl, VFGrs / serpentinite
 Life Form: Annual herb
 Blooming: April-June
 Notes: Known from only two extant natural occurrences; most historical occurrences have been extirpated. Seriously threatened by development. State-listed as *A. obovata* ssp. *duttonii*; USFWS also uses this name. See *Illustrated Flora of the Pacific States* 3:635 (1951) by L. Abrams for original description, and *Madroño* 38(4):278-286 (1991) for revised nomenclature.
 Status Report: 1986



*Acanthomintha
duttonii*

Acanthomintha ilicifolia (Gray) Gray

"San Diego thorn-mint"

Lamiaceae

CNPS List: 1B R-E-D Code: 2-3-2 State/Fed. Status: CE/CI

Distribution: SDG, BA

Quads: 10A, 10B*, 10C, 11A*, 20C, 21B, 21D, 22A, 22B, 22C*,
22D, 34C, 35B, 35C, 35D, 36D

Habitat: Chprl, CoScr, VFGrs, VnPls / clay

Life Form: Annual herb

Blooming: April-June

Notes: Approximately one-third of the historical occurrences have been extirpated; those remaining threatened by urbanization, road construction, vehicles, and grazing. Several occurrences introduced as mitigation for development, but few have survived. See *Proceedings of the American Academy of Arts and Sciences* 8:368 (1872) for original description.

Status Report: 1993

Acanthomintha lanceolata Curran

"Santa Clara thorn-mint"

Lamiaceae

CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?

Distribution: ALA, FRE, MER, MNT, SBT, SCL, STA

Habitat: Chprl (serpentinite), CoScr

Life Form: Annual herb

Blooming: March-June

Notes: Possibly threatened by grazing, and by proposed reservoir in MER Co.

Acanthomintha obovata Jeps. ssp. *cordata* Jokerst

"heart-leaved thorn-mint"

Lamiaceae

CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?

Distribution: LAX, SBA, SLO, VEN

Habitat: Chprl (openings), CmWld, PJWld, VFGrs / clay

Life Form: Annual herb

Blooming: April-July

Notes: Possibly threatened by vehicles and grazing. See *Madroño* 38(4):278-286 (1991) for original description.

Acanthomintha obovata ssp. *duttonii*

See *Acanthomintha duttonii*

Acanthomintha obovata Jeps. ssp. *obovata*

"San Benito thorn-mint"

Lamiaceae

CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: /C2

Distribution: FRE, MNT, SBT, SLO

Habitat: Chprl, VFGrs / heavy clay, alkaline, serpentinite

Life Form: Annual herb

Blooming: April-June

Notes: Threatened by grazing.

Achillea millefolium var. *gigantea*

Considered but rejected: A synonym of *A. millefolium*; a common taxon

Achnatherum aridum (M.E. Jones) Barkworth

"Mormon needle grass" Poaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: INY, MNO, SBD, AZ, NV+
 Quads: 200A, 248B, 248C, 249C, 249D, 369C, 390D, 431A
 Habitat: JTWld, PJWld / carbonate
 Life Form: Perennial herb
 Blooming: May-July
 Notes: See *Phytologia* 74(1):1-25 (1993) for revised nomenclature.

Achnatherum diegoense (Swallen) Barkworth

"San Diego County needle grass" Poaceae
 CNPS List: 4 R-E-D Code: 1-2-1 State/Fed. Status: CEQA?
 Distribution: ANA, SCZ, SDG, SMI, SNI, SRO, BA
 Habitat: Chprl, CoScr / often mesic
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Previously known only from the mainland; now also from several of the Channel Islands. See *Phytologia* 74(1):1-25 (1993) for revised nomenclature.

Achnatherum lemmonii (Vasey) Barkworthvar. *pubescens* (Crampton) Barkworth

"pubescent needle grass" Poaceae
 CNPS List: 3 R-E-D Code: 3-2-3 State/Fed. Status: /C3b
 Distribution: LAK, TEH
 Quads: 565D, 596A, 596B
 Habitat: Chprl, LCFrs / serpentinite
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Move to List 1B? Taxonomic questions remain, since plant co-occurs with nominate variety. A synonym of *A. lemmonii* in *The Jepson Manual*, but author now believes it is distinct. Threatened by grazing. See *Leaflets of Western Botany* 7(9):220 (1955) for original description, *Madroño* 31(1):48-56 (1984) for alternate taxonomic treatment, and *Phytologia* 74(1):1-25 (1993) for revised nomenclature.
 Status Report: 1977

Acleisanthes longiflora Gray

"angel trumpets" Nyctaginaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: RI V, AZ, NM, TX+
 Quads: 58A
 Habitat: SDScr (carbonate)
 Life Form: Perennial herb
 Blooming: May

Adolphia californica Wats.

"California adolphia" Rhamnaceae
 CNPS List: 2 R-E-D Code: 1-2-1 State/Fed. Status: CEQA
 Distribution: SDG, BA
 Quads: 10B, 10C, 11A, 11D, 22A, 22B, 22D, 35B, 35C, 35D, 36A, 36D
 Habitat: Chprl, CoScr, VFGrs / clay
 Life Form: Shrub (deciduous)
 Blooming: December-April
 Notes: Threatened by urbanization, road construction, and grazing.

Agastache parvifolia

Considered but rejected: Too common

Agave shawii (Engelm.) Gentry

"Shaw's agave" Liliaceae
 CNPS List: 2 R-E-D Code: 3-3-1 State/Fed. Status: /C2
 Distribution: SDG, BA
 Quads: 11B, 11D, 22B
 Habitat: CBScr, CoScr
 Life Form: Shrub (leaf succulent)
 Blooming: September-May
 Notes: Known in CA from fewer than five native occurrences. Occurrence at Border Field SP is very small. Torrey Pines SP and Cabrillo NM occurrences are probably planted.

Agave utahensis (Engelm.) Gentry

"Utah agave" Liliaceae
 CNPS List: 4 R-E-D Code: 1-2-2 State/Fed. Status: /C3c
 Distribution: INY, SBD, AZ, NV, UT
 Habitat: JTWld, MDScr, PJWld / carbonate or volcanic
 Life Form: Shrub (leaf succulent)
 Blooming: May-July
 Notes: Includes *A. utahensis* vars. *eborispina* and *nevadensis*. See *Four Seasons* 3(3):6 (1970) and *Intermountain Flora* 6:538 (1977) for distributional information.

Agave utahensis var. *eborispina*

See *Agave utahensis*

Agave utahensis var. *nevadensis*

See *Agave utahensis*

Ageratina shastensis (D.W. Taylor & Stebb.)R.M. King & H. Robinson

"Shasta ageratina" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: SHA
 Habitat: Chprl, LCFrs / carbonate
 Life Form: Perennial herb
 Blooming: June-September
 Notes: See *Madroño* 25(4):218-220 (1978) for original description.

Agoseris elata

Considered but rejected: Too common

Agropyron scribneri

See *Elymus scribneri*

Agrostis aristiglumis

Considered but rejected: A synonym of *A. microphylla*, a common taxon

Agrostis blasdalei Hitchc.

"Blasdale's bent grass" Poaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: 1C2
 Distribution: MEN, MRN, SCR, SON
 Quads: 409D, 485B, 485C, 502C, 503A, 503D, 520B, 569A,
 569D
 Habitat: CBScr, CoDns, CoPrr
 Life Form: Perennial herb (rhizomatous)
 Blooming: May-July
 Notes: Known from fewer than fifteen occurrences. Historical occur-
 rences need field surveys. Threatened by agriculture and recre-
 ation. Includes *A. blasdalei* var. *marinensis*, which is state-listed
 Rare.
 Status Report: 1988

Agrostis blasdalei var. *blasdalei*

See *Agrostis blasdalei*

Agrostis blasdalei var. *marinensis*

See *Agrostis blasdalei*

Agrostis clivicola var. *clivicola*

Considered but rejected: A synonym of *A. densiflora*; a common
 taxon

Agrostis clivicola var. *punta-reyesensis*

Considered but rejected: A synonym of *A. densiflora*; a common
 taxon

Agrostis hendersonii Hitchc.

"Henderson's bent grass" Poaceae
 CNPS List: 3 R-E-D Code: 3-2-2 State/Fed. Status: 1C2
 Distribution: BUT?, CAL, MER, SHA, OR*
 Quads: 421B, 459A, 477B*, 575A?, 646A
 Habitat: VFGrs (mesic), VnPls
 Life Form: Annual herb
 Blooming: April-May
 Notes: Move to List 1B? Field surveys needed. Identity of BUT Co.
 plants remains questionable. One occurrence extirpated by con-
 struction of Comanche Reservoir; possibly threatened by develop-
 ment. Candidate for state listing in OR, but probably extinct
 there. Very similar to *A. microphylla*; study needed. USFWS uses
 the name *A. microphylla* var. *hendersonii*. See *Journal of the Wash-*
ington Academy of Sciences 20(15):381 (1930) for original descrip-
 tion, *Madroño* 3:230 (1936) for first CA record, and *Leaflets of*
Western Botany 3(12):258 (1943) for second CA record.
 Status Report: 1979

Agrostis hooveri Swall.

"Hoover's bent grass" Poaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: SBA, SLO
 Habitat: Chprl, CmWld, VFGrs / sandy
 Life Form: Perennial herb (stoloniferous)
 Blooming: June

Agrostis humilis Vasey

"mountain bent grass" Poaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: ALP, MPA, Tuo, NV, OR, WA, ++
 Quads: 454A, 454C, 489C, 506D
 Habitat: AlpBR, Medws, SCFrS
 Life Form: Perennial herb
 Blooming: July-September
 Notes: To be expected elsewhere in CA; need information. On re-
 view list in OR. Intergrades with *A. thurberiana*. See *Madroño*
 25(4):232 (1978) for first CA record.

Agrostis microphylla var. *hendersonii*

See *Agrostis hendersonii*

Allium anserinum

Considered but rejected: Known only from the type; see *A. parishii*,
 of which it is probably a synonym

Allium atrorubens Wats. var. *atrorubens*

"Great Basin onion" Liliaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: LAS, MNO, AZ, NV, OR+
 Quads: 470A, 470B, 470C, 620D
 Habitat: GBScr, PJWld
 Life Form: Perennial herb (bulbiferous)
 Blooming: May-June
 Notes: See *Botany of the King Exploration*, p. 352 (1871) for original
 description, and *Madroño* 39(2):83-89 (1992) for distribution in
 CA.

Allium cratericola

Considered but rejected: Too common

Allium davisiae

Considered but rejected: Too common; a synonym of *A. lacunosum*
 var. *davisiae*

Allium fimbriatum var. *munzii*

See *Allium munzii*

Allium fimbriatum Wats. var. *purdyi* (Eastw.) Ownbey & Aase

"Purdy's onion" Liliaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: COL, LAK
 Habitat: Chprl, CmWld / serpentinite
 Life Form: Perennial herb (bulbiferous)
 Blooming: May

Allium fimbriatum var. *sharsmithiae*

See *Allium sharsmithae*

Allium hickmanii Eastw.

"Hickman's onion" Liliaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C1
 Distribution: MNT, SLO
 Quads: 271B, 272A, 295B, 365B, 366C, 366D
 Habitat: CCFrs, Chprl, CoPrr, CoScr, VFGrS
 Life Form: Perennial herb (bulbiferous)
 Blooming: April-May
 Notes: Known from fewer than twenty occurrences. Threatened by urbanization, grazing, road construction, and military activities. See *Bulletin of the Torrey Botanical Club* 30:483-502 (1903) for original description.
 Status Report: 1977

Allium hoffmanii Traub

"Beegum onion" Liliaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: HUM, SHA, TEH, TRI
 Habitat: LCFrs (serpentine)
 Life Form: Perennial herb (bulbiferous)
 Blooming: June-July
 Notes: See *Plant Life* 28:63 (1972) for original description.
 Status Report: 1979

Allium howellii Eastw. var. *clokeyi* Traub

"Mt. Pinos onion" Liliaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: VEN
 Habitat: GBSr
 Life Form: Perennial herb (bulbiferous)
 Blooming: April-June

Allium jepsonii (Traub) Denison & McNeal

"Jepson's onion" Liliaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: BUT, TUO
 Quads: 457B, 458B, 591C, 592D
 Habitat: CmWld, LCFrs / serpentine or volcanic
 Life Form: Perennial herb (bulbiferous)
 Blooming: May-June
 Notes: Known from only two more or less extended occurrences. See *Plant Life* 28:63 (1972) for original description, and *Madroño* 36(2):122-130 (1989) for revised nomenclature.

Allium membranaceum

Considered but rejected: Too common

Allium monticola

Considered but rejected: Too common

Allium monticola var. *keckii*

Considered but rejected: A synonym of *A. monticola*; a common taxon

Allium munzii (Traub) McNeal

"Munz's onion" Liliaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CT/C1
 Distribution: RIV
 Quads: 68A, 68B, 68D, 69A, 69B, 69D, 86C, 86D, 87D
 Habitat: Chprl, CmWld, CoScr, PJWld, VFGrS / clay
 Life Form: Perennial herb (bulbiferous)
 Blooming: March-May
 Notes: Known from fewer than ten occurrences. Threatened by urbanization, mining, agriculture, and non-native plants. Cleveland NF has adopted species management guidelines. State-listed as *A. fimbriatum* var. *munzii*.
 Status Report: 1989

Allium nevadense Wats.

"Nevada onion" Liliaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: SBD, AZ, NV, OR+
 Quads: 176A, 224C
 Habitat: PJWld
 Life Form: Perennial herb (bulbiferous)
 Blooming: April-May
 Notes: Known in CA from about five occurrences. See *Botany of the King Exploration*, p. 351 (1871) for original description, and *Madroño* 39(2):83-89 (1992) for distribution in CA.

Allium parishii Wats.

"Parish's onion" Liliaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: IMP, RIV, SBD, AZ
 Habitat: JTWld
 Life Form: Perennial herb (bulbiferous)
 Blooming: April-May

Allium sanbornii Wood var. *congdonii* Jeps.

"Congdon's onion" Liliaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: ELD, MPA, NEV, PLA, TUO
 Habitat: Chprl, CmWld / serpentine or volcanic
 Life Form: Perennial herb (bulbiferous)
 Blooming: April-July
 Notes: See *Flora of California* 1(6):275 (1922) by W.L. Jepson for original description, and *Madroño* 36(2):122-130 (1989) for taxonomic treatment.

Allium sanbornii Wood var. *sanbornii*

"Sanborn's onion" Liliaceae
 CNPS List: 4 R-E-D Code: 1-2-2 State/Fed. Status: CEQA?
 Distribution: BUT, CAL, ELD, NEV, PLA, SHA*, TEH, YUB, OR
 Habitat: Chprl, CmWld, LCFrs / serpentine, gravelly
 Life Form: Perennial herb (bulbiferous)
 Blooming: May-September
 Notes: Consists of small, widely scattered populations. On review list in OR. See *Proceedings of the Academy of Natural Sciences of Philadelphia* 20:171 (1868) for original description, and *Madroño* 36(2):122-130 (1989) for taxonomic treatment.

Allium sanbornii var. *tuolumnense*

See *Allium tuolumnense*

Allium sharsmithae (Traub) McNeal

"Sharsmith's onion" Liliaceae
 CNPS List: 1B R-E-D Code: 2-1-3 State/Fed. Status: CEQA
 Distribution: ALA, SCL, STA
 Quads: 425B, 445D
 Habitat: CmWld (serpentinite)
 Life Form: Perennial herb (bulbiferous)
 Blooming: March-May
 Notes: Known only from the Mt. Hamilton Range.

Allium shevockii McNeal

"Spanish Needle onion" Liliaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: KRN
 Quads: 282C, 283D
 Habitat: UCFrs (rocky)
 Life Form: Perennial herb (bulbiferous)
 Blooming: June
 Notes: Known from only two occurrences at Spanish Needle. See *Madroño* 34(2):150-154 (1987) for original description.

Allium siskiyouense Traub

"Siskiyou onion" Liliaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: DNT, HUM, SIS, TRI, OR
 Habitat: LCFrs, UCFrs / sometimes serpentinite
 Life Form: Perennial herb (bulbiferous)
 Blooming: June-July

Allium tribracteatum Torr.

"three-bracted onion" Liliaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: CAL, TUO
 Quads: 472C, 473B, 473D, 474A, 474B, 474C, 474D, 475A, 475D, 491A, 491D
 Habitat: Chprl, LCFrs, UCFrs / volcanic
 Life Form: Perennial herb (bulbiferous)
 Blooming: April-July
 Notes: Recent field work has located several new populations. Threatened by vehicles. See *Report of the Pacific Railroad Expedition* 4:148 (1857) for original description, and *Aliso* 11(1):27-35 (1985) for revised treatment.

Allium tuolumnense (Traub) Denison & McNeal

"Rawhide Hill onion" Liliaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C1
 Distribution: TUO
 Quads: 458B, 458C, 458D
 Habitat: CmWld (serpentinite)
 Life Form: Perennial herb (bulbiferous)
 Blooming: May
 Notes: Known from approximately twenty occurrences. Threatened by grazing and mining. See *Plant Life* 28:63 (1972) for original description, and *Madroño* 36(2):122-130 (1989) for revised nomenclature.

Allium yosemitense Eastw.

"Yosemite onion" Liliaceae
 CNPS List: 1B R-E-D Code: 2-1-3 State/Fed. Status: CR/C3c
 Distribution: MPA, TUO
 Quads: 437B, 437C, 438A, 438D, 456C
 Habitat: BUFRs, Chprl, CmWld, LCFrs / rocky, metamorphic
 Life Form: Perennial herb (bulbiferous)
 Blooming: May-July
 Notes: Known from fewer than twenty occurrences, most of which are inaccessible. See *Leaflets of Western Botany* 1:132-133 (1934) for original description, *Fremontia* 8(1):15-18 (1980) for information on rediscovery, and *Aliso* 11(1):27-35 (1985) for taxonomic treatment.
 Status Report: 1990

Alopecurus aequalis Sobol. var. *sonomensis* Rubtzoff

"Sonoma alopecurus" Poaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C2
 Distribution: MRN, SON
 Quads: 467B, 485C, 485D, 501A, 502A, 502B, 502D, 503A
 Habitat: MshSw (freshwater), RpScr
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Known from fewer than five native occurrences. Two occurrences introduced in 1987 (485C, 485D), but as of 1993 both appear to have failed. Historical localities need field surveys. Threatened by cattle trampling and wetland habitat loss. See *A. aequalis* in *The Jepson Manual*.

Ambrosia chenopodiifolia (Benth.) Payne

"San Diego bur-sage" Asteraceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
 Distribution: SDG, BA
 Quads: 10C, 11A, 11D
 Habitat: CoScr
 Life Form: Shrub
 Blooming: April-June
 Notes: Known in CA from approximately ten occurrences. Threatened by development.

Ambrosia pumila (Nutt.) Gray

"San Diego ambrosia" Asteraceae
 CNPS List: 1B R-E-D Code: 3-3-2 State/Fed. Status: /C2
 Distribution: RIV, SDG, BA
 Quads: 9B, 10B, 11A, 11D, 21C, 22C, 22D, 35D, 36A, 50C*, 68C, 68D
 Habitat: Chprl, CoScr, VFGrs, VnPIs / often in disturbed areas
 Life Form: Perennial herb (rhizomatous)
 Blooming: June-September
 Notes: Historical occurrences need field surveys. Many occurrences have been extirpated in SDG Co. Threatened by development. See *Madroño* 39(2):157 (1992) for first RIV Co. record.

Ammobroma sonorae

See *Pholisma sonorae*

Ammoselinum giganteum Coult. & Rose

"desert sand-parsley" Apiaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: RIV, AZ+
 Quads: 62A, 62B
 Habitat: SDScr
 Life Form: Annual herb
 Blooming: March-April
 Notes: Known in CA only from Hayfields Dry Lake. Field surveys needed.
 Status Report: 1989

Amsinckia furcata

See *Amsinckia vernicosa* var. *furcata*

Amsinckia grandiflora (Gray) Greene

"large-flowered fiddleneck" Boraginaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/FE
 Distribution: ALA, CCA, SJQ
 Quads: 444B, 444C, 445A, 464A, 464D
 Habitat: CmWld, VFGrs
 Life Form: Annual herb
 Blooming: April-May
 Notes: Known from only three natural occurrences. Reduced by agriculture, development, and grazing; currently threatened by non-native plants and possibly by altered fire frequency. Recent reintroductions have occurred (444B, 444C, 464A, and 464D) as part of State and Federal recovery work. See *Botany of California* 1:525 (1876) for original description, and *Conservation Biology* 7(3):510-526 (1993) for population biology.
 Status Report: 1985

Amsinckia lunaris Macbr.

"bent-flowered fiddleneck" Boraginaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: ALA, CCA, LAK, MRN, SCR, SHA, SIS
 Habitat: CmWld, VFGrs
 Life Form: Annual herb
 Blooming: March-June
 Notes: Most Bay Area records are old; current status unknown.

Amsinckia spectabilis var. *macrocarpa*

Considered but rejected: Too common

Amsinckia vernicosa H. & A. var. *furcata* (Suksd.) Hoov.

"forked fiddleneck" Boraginaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: /C2
 Distribution: FRE, KNG, KRN, SBT, SLO
 Habitat: CmWld, VFGrs
 Life Form: Annual herb
 Blooming: March-May
 Notes: Many new populations found in 1991 and 1992; more common than previously thought. Most new populations are relatively unthreatened; others threatened by mining and grazing. See *American Journal of Botany* 44:529-536 (1957) for discussion of taxonomy.

Amsinckia vernicosa var. *vernicosa*

Considered but rejected: Too common

Androsace elongata L. ssp. *acuta* (Greene) Robbins

"California androsace" Primulaceae
 CNPS List: 4 R-E-D Code: 1-2-2 State/Fed. Status: CEQA?
 Distribution: ALA, CCA, FRE, KRN, LAX*, SBD, SDG, SIS, SJQ, SLO, TEH?, OR, BA
 Habitat: Chprl, CmWld, CoScr
 Life Form: Annual herb
 Blooming: March-June
 Notes: Highly localized and often overlooked; many occurrences extirpated. Does plant occur in TEH Co.? Very rare in Southern California. See *Manual of the Botany of the Region of San Francisco Bay*, p. 238 (1894) by E. Greene for original description, and *American Midland Naturalist* 32:132-163 (1944) for taxonomic treatment.

Androsace filiformis Retz.

"slender-stemmed androsace" Primulaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: SIS, OR, WA, ++
 Quads: 732C, 733D
 Habitat: Medws, UCFrs
 Life Form: Annual herb
 Blooming: June-August

Androstephium breviflorum Wats.

"small-flowered androstephium" Liliaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: INY, SBD, AZ, NV+
 Quads: 158C, 204C, 204D
 Habitat: MDScr (bajadas)
 Life Form: Perennial herb (bulbiferous)
 Blooming: March-April
 Notes: Need quads for INY Co. See *Madroño* 31(3):192 (1984) for distributional information.

Angelica arguta

Considered but rejected: Too common

Angelica callii Math. & Const.

"Call's angelica" Apiaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: FRE, KRN, TUL
 Habitat: CmWld, LCFrs / mesic
 Life Form: Perennial herb
 Blooming: June-July
 Notes: See *Madroño* 24(2):78-83 (1977) for original description.

Antennaria flagellaris (Gray) Gray

"stoloniferous pussytoes" Asteraceae
 CNPS List: 4 R-E-D Code: 1-2-1 State/Fed. Status: CEQA?
 Distribution: LAS, MOD, ID, NV, OR, WA+
 Habitat: GBScr
 Life Form: Perennial herb (stoloniferous)
 Blooming: April-June
 Notes: Previously known in CA from fewer than ten occurrences, but approximately 50 new populations discovered in last four years. Somewhat threatened by mining. See *Madroño* 30(2):129 (1983) for first CA record.

Antennaria marginata Greene

"white-margined everlasting" Asteraceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: SBD, AZ, NM+
 Quads: 105A
 Habitat: LCFrs, UCFrs
 Life Form: Perennial herb (stoloniferous)
 Blooming: May-August
 Notes: Known in CA only from the South Fork Santa Ana River area. See *Pittonia* 3:290 (1898) for original description.

Antennaria pulchella Greene

"beautiful pussy-toes" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: ALP, ELD, FRE, INY, MNO, TUL, TUO, NV
 Habitat: AlpBR (stream margins), Medws
 Life Form: Perennial herb (stoloniferous)
 Blooming: June-September
 Notes: Mostly unthreatened due to remoteness of habitat. See *Leaflets of Botanical Observation and Criticism* 2:149 (1911) for original description, and *Madroño* 37(3):171-183 (1990) for taxonomic treatment.

Antennaria racemosa

Considered but rejected: Too common

Antennaria suffrutescens Greene

"evergreen everlasting" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: /C3c
 Distribution: DNT, HUM, OR
 Habitat: LCFrs (serpentinite)
 Life Form: Perennial herb (stoloniferous)
 Blooming: January-July
 Notes: See *Pittonia* 3:277 (1898) for original description.
 Status Report: 1979

Antirrhinum cyathiferum Benth.

"Deep Canyon snapdragon" Scrophulariaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: RIV, AZ, BA, SO
 Quads: 65A, 65B
 Habitat: SDScr (rocky)
 Life Form: Annual herb
 Blooming: February-April
 Notes: Known in CA only from the Deep Cyn. area.

Antirrhinum filipes

Considered but rejected: Too common

Antirrhinum ovatum Eastw.

"oval-leaved snapdragon" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: /C3c
 Distribution: KRN, MNT, SBA, SBT, SLO, VEN
 Habitat: Chprl, CmWld, PJWld, VFGrs / clay or gypsum, often alkaline
 Life Form: Annual herb
 Blooming: May-November
 Notes: Relatively abundant in 1991, but appears only in favorable years. Threatened by grazing and vehicles. See *Bulletin of the Torrey Botanical Club* 32:213 (1905) for original description.

Antirrhinum subcordatum Gray

"dimorphic snapdragon" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C3c
 Distribution: COL, GLE, LAK, TEH
 Quads: 533A, 533C, 534B, 563C, 564A, 564B, 564C, 564D, 580A, 596A, 596C, 596D, 630D
 Habitat: Chprl, LCFrs / sometimes serpentinite
 Life Form: Annual herb
 Blooming: April-July
 Notes: Threatened by road maintenance and grazing. See *Proceedings of the American Academy of Arts and Sciences* 20:306 (1884) for original description.
 Status Report: 1978

Antirrhinum virga Gray

"tall snapdragon" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: LAK, MEN, NAP, SON
 Habitat: Chprl (rocky openings, often serpentinite)
 Life Form: Perennial herb
 Blooming: June-July
 Notes: See *Proceedings of the American Academy of Arts and Sciences* 7:373 (1868) for original description, and *Systematic Botany Monographs* 22:53-57 (1988) for taxonomic treatment.

Aphanisma blitoides Moq.

"aphanisma" Chenopodiaceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: /C2
 Distribution: ANA, LAX, ORA, SBA, SBR, SCM, SCT, SCZ, SDG, SNI, SRO, VEN, BA
 Quads: 11B, 22B, 71B, 71D, 73A, 90C*, 141D, ANAC, SBRA, SMC, SCMN, SCMS, SCTE, SCTW, SCZA, SNIC, SROS
 Habitat: CBScr, CoScr / sandy
 Life Form: Annual herb
 Blooming: April-May
 Notes: In steep decline on mainland, also declining on islands. Known from only three occurrences on SNI Isl. Last seen on SCZ and SRO islands in 1932. Threatened by urbanization, recreational development, and foot traffic, and by feral herbivores on SCT, SCZ, and SRO islands.

Arabis aculeolata Greene

"Waldo rock cress" Brassicaceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: /C3c
 Distribution: DNT, SIS, OR
 Quads: 720B, 736B, 736D, 738B, 738D, 739A, 739B
 Habitat: BUFRs, LCFrs, UCFrs / serpentinite
 Life Form: Perennial herb
 Blooming: April-June
 Notes: Known in CA from fewer than ten occurrences. Threatened by logging and mining. On watch list in OR. See *Rhodora* 43(511):352-353 (1941) for taxonomic treatment, and *Contributions from the Gray Herbarium* 204:151 (1973) for taxonomic information.

Arabis blepharophylla H. & A.

"coast rock cress" Brassicaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: CCA, MRN, SCR, SFO, SMT, SON
 Habitat: BUFRs, CoPrr, CoScr
 Life Form: Perennial herb
 Blooming: February-April
 Notes: See *Rhodora* 43(511):348-349 (1941) for taxonomic treatment, and *Contributions from the Gray Herbarium* 204:149-154 (1973) for taxonomic information.

Arabis bodiensis Roll.

"Bodie Hills rock cress" Brassicaceae
 CNPS List: 1B R-E-D Code: 2-1-2 State/Fed. Status: /C2
 Distribution: FRE, INY, MNO, TUL, NV
 Quads: 330A, 391C, 393C, 470A, 470B, 487A, 487B, 487C
 Habitat: GBSr, PJWld, SCFRs?
 Life Form: Perennial herb
 Blooming: June-August
 Notes: On watch list in NV. See *Contributions from the Gray Herbarium* 212:113 (1982) for original description.

Arabis breweri var. *austinae*

Considered but rejected: Too common

Arabis breweri Wats. var. *pecuniaria* Roll.

"San Bernardino rock cress" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: SBD
 Quads: 105D
 Habitat: SCFRs (rocky)
 Life Form: Perennial herb
 Blooming: March-August
 Notes: Known from only two occurrences in the San Geronio Wilderness Area. See *Rhodora* 43(511):409 (1941) for taxonomic treatment.
 Status Report: 1979

Arabis cobrensis M.E. Jones

"Masonic rock cress" Brassicaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: MNO, MOD, NV, OR+
 Quads: 451C, 470A, 486C, 487C, 690C
 Habitat: GBSr, PJWld / sandy
 Life Form: Perennial herb
 Blooming: June-July
 Notes: See *Rhodora* 43(511):455-457 (1941) for taxonomic treatment.

Arabis constancei Roll.

"Constance's rock cress" Brassicaceae
 CNPS List: 1B R-E-D Code: 1-2-3 State/Fed. Status: /C3c
 Distribution: PLU, SIE
 Quads: 573B, 589A, 589B, 589C, 590A, 590B, 605B, 606A, 606C
 Habitat: Chprl, LCFrs / serpentinite
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Threatened by road widening, logging, mining, and urbanization. See *Contributions from the Gray Herbarium* 201:4-6 (1971) for original description.
 Status Report: 1979

Arabis dispar M.E. Jones

"pinyon rock cress" Brassicaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: INY, MNO, SBD, TUL, NV
 Quads: 103D, 131D, 283B, 302A, 302C, 304A, 304B, 372A, 412C, 434C
 Habitat: JTWLD, MDScr, PJWld / granitic, gravelly
 Life Form: Perennial herb
 Blooming: March-June
 Notes: Rare in SBD Co. See *Contributions to Western Botany* 8:41 (1898) for original description.

Arabis fernaldiana Roll. var. *stylosa* (Wats.) Roll.

"stylose rock cress" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-1-2 State/Fed. Status: CEQA
 Distribution: MNO, NV
 Quads: 433B
 Habitat: GBSr (carbonate)
 Life Form: Perennial herb
 Blooming: June-July
 Notes: Known only from three occurrences. See *Rhodora* 43(511):430-432 (1941) for taxonomic treatment.

Arabis hoffmannii (Munz) Roll.

"Hoffmann's rock cress" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C1
 Distribution: ANA*, SCZ
 Quads: ANAC*, SCZB
 Habitat: CBSr (volcanic cliff ledges)
 Life Form: Perennial herb
 Blooming: February-April
 Notes: Rediscovered independently in 1985 by T. Hesseldenz and S. Junak on SCZ Isl.; now known from only three extant occurrences. Reduced by feral herbivores, but now relatively unthreatened due to reduction of feral sheep population and inaccessibility of one occurrence. See *Rhodora* 43(511):407 (1941) for taxonomic treatment.

Arabis johnstonii Munz

"Johnston's rock cress" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C1
 Distribution: RIV
 Quads: 66A, 66B, 66C, 66D
 Habitat: Chprl, LCFrs / often on eroded clay
 Life Form: Perennial herb
 Blooming: February-June
 Notes: Known from fewer than ten occurrences in the San Jacinto Mtns. Threatened by residential development in Garner Valley and fuelbreak maintenance on Desert Divide. See *Bulletin of the Southern California Academy of Sciences* 31:62-63 (1932) for original description, and *Rhodora* 43(511):467-468 (1941) for taxonomic treatment.

Arabis koehleri Howell var. *stipitata* Roll.

"Koehler's stipitate rock cress" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-1-2 State/Fed. Status: /C3c
 Distribution: DNT, SIS, OR
 Quads: 722A, 738B, 738D, 739B, 739C, 740D
 Habitat: Chprl, LCFrs / serpentinite
 Life Form: Perennial herb
 Blooming: March-July
 Notes: On watch list in OR. See *Rhodora* 43(511):426 (1941) for taxonomic treatment.

Arabis lignifera

Considered but rejected: Unable to verify the two reported CA locations in INY and MNO counties.

Arabis macdonaldiana Eastw.

"McDonald's rock cress" Brassicaceae
 CNPS List: 1B R-E-D Code: 2-3-2 State/Fed. Status: CE/FE
 Distribution: DNT, MEN, TRI, OR
 Quads: 600B, 686B, 739B, 739C, 740A
 Habitat: LCFrs, UCFrs / serpentinite
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Threatened by mining. Endangered in OR. Protected in part at Red Mtn. ACEC (BLM), MEN Co. See *Rhodora* 43(511):350 (1941) for taxonomic treatment, and *Contributions from the Gray Herbarium* 204:149-154 (1973) for taxonomic information.
 Status Report: 1988

Arabis microphylla Nutt. var. *microphylla*

"small-leaved rock cress" Brassicaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: MNO, MOD, PLU, NV, OR, WA+
 Habitat: PJWld (volcanic or granitic crevices)
 Life Form: Perennial herb
 Blooming: July
 Notes: See *Rhodora* 43(511):426-428 (1941) for taxonomic treatment.

Arabis modesta Roll.

"modest rock cress" Brassicaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: /C3c
 Distribution: NAP, SIS, TRI, OR
 Habitat: Chprl, LCFrs
 Life Form: Perennial herb
 Blooming: March-July
 Notes: Intergrades with *A. oregana* in SIS Co.; may be a variety of that plant. Endangered in OR. See *Rhodora* 43(511):350-352 (1941) for taxonomic treatment, and *Contributions from the Gray Herbarium* 204:149-154 (1973) for taxonomic information.
 Status Report: 1979

Arabis oregana Roll.

"Oregon rock cress" Brassicaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: /C3c
 Distribution: LAK, MOD, NAP, SIS, TRI, OR
 Habitat: Chprl, LCFrs / serpentinite
 Life Form: Perennial herb
 Blooming: May
 Notes: Many collections in Klamath region. Exact taxonomic status of NAP Co. occurrence needs to be determined. See *Rhodora* 43(511):349-350 (1941) for taxonomic treatment, and *Contributions from the Gray Herbarium* 204:149-154 (1973) for taxonomic information.

Arabis parishii Wats.

"Parish's rock cress" Brassicaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: SBD
 Quads: 104B, 105A, 105B, 126D, 131C, 131D, 132D
 Habitat: PbPln, PJWld, UCFrs / quartzite on clay, or sometimes carbonate
 Life Form: Perennial herb
 Blooming: April-May
 Notes: Endemic to the San Bernardino Mtns. Threatened by vehicles, carbonate mining, development, grazing, and road construction. See *Rhodora* 43(511):468-469 (1941) for taxonomic treatment.

Arabis pinzlae Roll.

"Pinzl's rock cress" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-1-2 State/Fed. Status: /C2
 Distribution: MNO, NV
 Quads: 450D
 Habitat: AlpBR, SCFrs (scree or sandy)
 Life Form: Perennial herb
 Blooming: July
 Notes: Known in CA from only one occurrence in the White Mtns. On watch list in NV. See *Contributions from the Gray Herbarium* 212:110 (1982) for original description, and *Madroño* 37(1):64 (1990) for first CA record.

Arabis pulchra M.E. Jones var. *munciensis* M.E. Jones

"Darwin rock cress" Brassicaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: INY, SBD, NV+
 Quads: 104D, 327, 349B, 349C, 370A, 370B, 372A, 390C, 412D
 Habitat: ChScr, MDScr / carbonate
 Life Form: Perennial herb
 Blooming: April
 Notes: Need precise locality information for quad 327. See *Rhodora* 43(511):459-460 (1941) for taxonomic treatment.

Arabis pygmaea Roll.

"Tulare County rock cress" Brassicaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: INY, TUL
 Habitat: Medws (edges), SCFrs / volcanic or granitic, gravelly
 Life Form: Perennial herb
 Blooming: June-July
 Notes: See *Rhodora* 43(511):476 (1941) for taxonomic treatment.

*Arabis rigidissima*See *Arabis rigidissima* var. *rigidissima**Arabis rigidissima* Roll. var. *demota* Roll.

"Carson Range rock cress" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-2-2 State/Fed. Status: /C1
 Distribution: PLA, NV
 Quads: 554D
 Habitat: BUFRs, UCFrs / rocky
 Life Form: Perennial herb
 Blooming: August

Notes: Known in CA from only two occurrences near Martis Pk., and in NV from eleven occurrences in the Carson Range. Threatened by logging. Proposed for state listing as Critically Endangered in NV. Not in *The Jepson Manual*. See *Journal of the Arnold Arboretum* 64:498 (1983) for original description.

Arabis rigidissima Roll. var. *rigidissima*

"Trinity Mtns. rock cress" Brassicaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: HUM, SIS, TRI
 Habitat: UCFrs (gravelly or rocky)
 Life Form: Perennial herb
 Blooming: July-August

Notes: See *Rhodora* 43(511):380-381 (1941) for original description.

Arabis serpentinicola Roll.

"Preston Peak rock cress" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: DNT, SIS, OR*
 Quads: 738A, 738D
 Habitat: LCFrs, NCFrs, UCFrs / serpentinite
 Life Form: Perennial herb
 Blooming: June-July

Notes: Known from fewer than five occurrences in the Preston Pk. area. On review list in OR. See *A. macdonaldiana* in *The Jepson Manual*; *A. serpentinicola* is probably a variety of that plant. See *Contributions from the Gray Herbarium* 204:150 (1973) for original description.

Status Report: 1979

Arabis shockleyi Munz

"Shockley's rock cress" Brassicaceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: /C3c
 Distribution: INY, SBD, NV+
 Quads: 104B, 130C, 131C, 131D, 326A, 390D, 410C
 Habitat: PJWld (carbonate or quartzite)
 Life Form: Perennial herb

Blooming: May-June
 Notes: See *Bulletin of the Southern California Academy of Sciences* 31(2):61 (1932) for original description, and *Rhodora* 43(511):457 (1941) for taxonomic treatment.

Status Report: 1979

Arabis tiehmii Roll.

"Tiehm's rock cress" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-1-2 State/Fed. Status: /C2

Distribution: MNO, NV
 Quads: 453B, 454A, 457B

Habitat: AlpBR (granitic)

Life Form: Perennial herb

Blooming: August

Notes: Known in CA from fewer than five occurrences near Tioga Crest. On watch list in NV. See *Journal of the Arnold Arboretum* 64:496 (1983) for original description.

Arctomecon merriamii Cov.

"white bear poppy" Papaveraceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: /C2

Distribution: INY, SBD, NV

Quads: 248B, 248C, 249A, 249D, 275D, 323B, 323C, 325D, 346B, 349A, 368C, 368D, 369B, 370A, 370B, 370D, 389C

Habitat: ChScr, MDScr

Life Form: Perennial herb

Blooming: April-May

Notes: Historical occurrences need field surveys. Threatened by mining and vehicles. On watch list in NV. See *Proceedings of the Biological Society of Washington* 7:65-80 (1892) for original description, and *Mentzelia* 3:2-5 (1977) for species account.

Status Report: 1977

Arctostaphylos acutifolia

Considered but rejected: A synonym of *A. patula*, a common taxon

Arctostaphylos andersonii Gray

"Santa Cruz manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2

Distribution: SCL, SCR, SMT

Quads: 406C, 407D, 408B, 408C, 408D, 428A, 428D, 429A, 448C, 448D

Habitat: BUFRs, Chprl, NCFrs / openings, edges

Life Form: Shrub (evergreen)

Blooming: November-April

Notes: Known only from the Santa Cruz Mtns.; has been confused with other species merged with it as varieties. Threatened by development. See *Proceedings of the American Academy of Arts and Sciences* 11:83 (1876) for original description, and *North American Flora* 29:98 (1914) for additional information.

Arctostaphylos auriculata Eastw.

"Mt. Diablo manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C3c

Distribution: CCA

Quads: 464A, 464B, 464C, 464D

Habitat: Chprl (sandstone)

Life Form: Shrub (evergreen)

Blooming: January-March

Notes: Known from fewer than twenty occurrences. See *Bulletin of the Torrey Botanical Club* 32:202 (1905) for original description, and *American Midland Naturalist* 23:622 (1940) for taxonomic treatment.

Status Report: 1977

*Arctostaphylos bakeri*See *Arctostaphylos bakeri* ssp. *bakeri**Arctostaphylos bakeri* Eastw. ssp. *bakeri*

"Baker's manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CR/C3c
 Distribution: SON
 Quads: 500C, 502B, 503A, 518A, 518C
 Habitat: BUFRs, Chprl / often serpentinite
 Life Form: Shrub (evergreen)
 Blooming: February-April
 Notes: Known from fewer than ten occurrences. Threatened by road construction and widening, non-native plants, and dumping, and potentially by development. See *Leaflets of Western Botany* 1:115 (1934) for original description.
 Status Report: 1988

Arctostaphylos bakeri Eastw. ssp. *sublaevis* Wells

"The Cedars manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CEQA
 Distribution: SON
 Quads: 518C, 519A, 519B, 519C, 519D
 Habitat: CCFrs, Chprl / serpentinite seeps
 Life Form: Shrub (evergreen)
 Blooming: April-May
 Notes: See *Four Seasons* 8(2):58-68 (1988) for original description.

Arctostaphylos canescens ssp. *malloryi*See *Arctostaphylos malloryi**Arctostaphylos canescens* Eastw. ssp. *sonomensis* (Eastw.) Wells

"Sonoma manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CEQA
 Distribution: HUM, LAK, MEN, SON, TEH
 Quads: 501B, 550D, 597C, 597D, 670C, 670D
 Habitat: Chprl, LCFrs
 Life Form: Shrub (evergreen)
 Blooming: January-March
 Notes: Much of Rincon Ridge (SON Co.) threatened by development. See *Four Seasons* 7(3):42-46 (1985) for status update, and *Madroño* 35(4):330-341 (1988) for revised nomenclature.

Arctostaphylos canescens var. *sonomensis*See *Arctostaphylos canescens* ssp. *sonomensis**Arctostaphylos catalinae* Wells

"Santa Catalina Island manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: SCT
 Quads: SCTN
 Habitat: Chprl (volcanic)
 Life Form: Shrub (evergreen)
 Blooming: February-May
 Notes: Recovering vigorously after removal of most feral goats. See *Madroño* 19(6):193 (1968) for original description.

*Arctostaphylos cinerea*Considered but rejected: A hybrid between *A. canescens* and *A. viscida**Arctostaphylos confertiflora* Eastw.

"Santa Rosa Island manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C1
 Distribution: SRO
 Quads: SROE, SRON
 Habitat: BUFRs, CCFrs, Chprl / sandstone
 Life Form: Shrub (evergreen)
 Blooming: February-April
 Notes: Threatened by cattle grazing and feral herbivores.

Arctostaphylos cruzensis Roof

"La Cruz manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: MNT, SLO
 Quads: 247D, 271B, 271D, 272A, 296B
 Habitat: BUFRs, CBScr, CCFrs, Chprl, CoScr, VFGrs / sandy
 Life Form: Shrub (evergreen)
 Blooming: December-March
 Notes: Known from fewer than twenty occurrences.

Arctostaphylos densiflora M.S. Baker

"Vine Hill manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/C2
 Distribution: SON
 Quads: 502A
 Habitat: Chprl (acid marine sand)
 Life Form: Shrub (evergreen)
 Blooming: February-March
 Notes: Known from only one extant occurrence on the Sonoma Barren near Forestville. Threatened by fungal infection. See *Leaflets of Western Botany* 1(4):31-32 (1932) for original description.
 Status Report: 1987

Arctostaphylos edmundsii J.T. Howell

"Little Sur manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: MNT
 Quads: 320E, 344B, 344C, 344D
 Habitat: CBScr, Chprl / sandy
 Life Form: Shrub (evergreen)
 Blooming: November-April
 Notes: Known from fewer than ten occurrences. Threatened by foot traffic and non-native plants. Includes *A. edmundsii* var. *parvifolia*, which is state-listed Rare. See *Leaflets of Western Botany* 9(12):188-196 (1961) for information.
 Status Report: 1977

Arctostaphylos edmundsii var. *edmundsii*See *Arctostaphylos edmundsii**Arctostaphylos edmundsii* var. *parvifolia*See *Arctostaphylos edmundsii**Arctostaphylos elegans*Considered but rejected: A synonym of *A. manzanita* ssp. *elegans*, a common taxon*Arctostaphylos franciscana*See *Arctostaphylos hookeri* ssp. *franciscana*

Arctostaphylos gabrielensis Wells

"San Gabriel manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: LAX
 Quads: 136A
 Habitat: Chprl (rocky)
 Life Form: Shrub (evergreen)
 Blooming: March
 Notes: Endemic to Mill Creek Summit divide in the San Gabriel Mtns. See *Four Seasons* 9(2):46 (1992) for original description.

Arctostaphylos glandulosa Eastw. ssp. *crassifolia* (Jeps.) Wells

"Del Mar manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 3-3-2 State/Fed. Status: /PE
 Distribution: SDG, BA
 Quads: 22A, 22B, 35B, 35C, 36A, 36D
 Habitat: Chprl (maritime, sandy mesas and bluffs)
 Life Form: Shrub (evergreen)
 Blooming: December-April
 Notes: Threatened by agricultural conversion and development on coastal bluffs. See *Madroño* 1(4):86 (1922) for original description, and *Four Seasons* 7(4):5-27 (1987) for taxonomic treatment.

Arctostaphylos glutinosa Schreib.

"Schreiber's manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: SCR
 Quads: 408B, 408C, 409D
 Habitat: CCFrs, Chprl / diatomaceous shale
 Life Form: Shrub (evergreen)
 Blooming: November-April
 Notes: Known from fewer than ten occurrences. Threatened by road construction. See *American Midland Naturalist* 23:620-621 (1940) for original description.
 Status Report: 1977

Arctostaphylos hearstiorum

See *Arctostaphylos hookeri* ssp. *hearstiorum*

Arctostaphylos hispidula Howell

"Howell's manzanita" Ericaceae
 CNPS List: 4 R-E-D Code: 1-2-2 State/Fed. Status: /C3c
 Distribution: DNT, HUM, SON, OR
 Habitat: Chprl (serpentinite or sandstone)
 Life Form: Shrub (evergreen)
 Blooming: March-April
 Notes: Threatened by mining. Endangered in OR.

Arctostaphylos hookeri D. Don ssp. *franciscana* (Eastw.) Munz

"Franciscan manzanita" Ericaceae
 CNPS List: 1A Last Seen: 1942 State/Fed. Status: /C2
 Distribution: SFO*
 Quads: 448B*, 466C*
 Habitat: CoScr (serpentinite)
 Life Form: Shrub (evergreen)
 Blooming: February-April
 Notes: Plant now occurs only in cultivation. See *Bulletin of the Torrey Botanical Club* 32:201-202 (1905) for original description.
 Status Report: 1977

Arctostaphylos hookeri D. Donssp. *hearstiorum* (Hoov. & Roof) Wells

"Hearst's manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CE/C2
 Distribution: SLO
 Quads: 271B, 272A
 Habitat: Chprl (maritime), CoPrr, CoScr, VFGrs / sandy
 Life Form: Shrub (evergreen)
 Blooming: February-April
 Notes: Known from fewer than five occurrences in the Arroyo de la Cruz area. Threatened by grazing and rangeland conversion. See *Four Seasons* 2(1):2-4 (1966) for original description.
 Status Report: 1987

Arctostaphylos hookeri D. Don ssp. *hookeri*

"Hooker's manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CEQA
 Distribution: MNT, SCR
 Quads: 366C, 387A
 Habitat: CCFrs, Chprl, CoScr / sandy
 Life Form: Shrub (evergreen)
 Blooming: February-May
 Notes: Threatened by agriculture, development, fire suppression, and competition with introduced *Eucalyptus*.

Arctostaphylos hookeri D. Don ssp. *montana* (Eastw.) Wells

"Mt. Tamalpais manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: MRN
 Quads: 467A, 467B
 Habitat: Chprl, VFGrs / serpentinite
 Life Form: Shrub (evergreen)
 Blooming: February-April
 Notes: Known from fewer than twenty occurrences in the Mt. Tamalpais area. See *Madroño* 19(6):193-210 (1968) for revised nomenclature.

Arctostaphylos hookeri D. Don ssp. *ravenii* Wells

"Presidio manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/FE
 Distribution: SFO
 Quads: 448B*, 466C*
 Habitat: Chprl, CoPrr, CoScr / serpentinite
 Life Form: Shrub (evergreen)
 Blooming: February-March
 Notes: Known from only one extant native occurrence at the Presidio in San Francisco; plants there apparently belong to a single clone. Five of six historical occurrences extirpated by urbanization; currently threatened by non-native plants, and possibly by foot traffic and vandalism. Plantings made at the Presidio in 1987. USFWS uses the name *A. pungens* var. *ravenii*. See *Madroño* 19(6):200-201 (1968) for original description.
 Status Report: 1988

Arctostaphylos hooveri Wells

"Hoover's manzanita" Ericaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: MNT, SLO
 Habitat: Chprl (rocky)
 Life Form: Shrub (evergreen)
 Blooming: April-June

Arctostaphylos imbricata Eastw.

"San Bruno Mtn. manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/C1
 Distribution: SMT
 Quads: 448B
 Habitat: Chprl
 Life Form: Shrub (evergreen)
 Blooming: February-May
 Notes: Known from fewer than five occurrences near San Bruno Mtn. Threatened by urbanization and alteration of fire regimes. See *Proceedings of the American Academy of Arts and Sciences* 20:149-150 (1931) for original description.
 Status Report: 1988

Arctostaphylos insularis

Considered but rejected: Too common

Arctostaphylos intricata var. *intricata*

Considered but rejected: Too common; a synonym of *A. glandulosa* ssp. *glandulosa*

Arctostaphylos intricata var. *oblongifolia*

Considered but rejected: Too common; a synonym of *A. glandulosa* ssp. *glandulosa*

Arctostaphylos klamathensis Edwards, Keeler-Wolf & Knight

"Klamath manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: SHA, SIS, TRI
 Quads: 682B, 682C, 683A, 683D, 700C, 700D
 Habitat: Chprl (montane), SCFRs, UCFrs / sometimes serpentinite
 Life Form: Shrub (evergreen)
 Blooming: May-June
 Notes: Possibly threatened by road maintenance. See *Four Seasons* 6(4):17-21 (1983) for original description.

Arctostaphylos luciana Wells

"Santa Lucia manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: SLO
 Quads: 221A, 246B, 246C, 246D, 270C
 Habitat: Chprl (shale)
 Life Form: Shrub (evergreen)
 Blooming: February-March

Arctostaphylos malloryi (Knight & Gankin) Wells

"Mallory's manzanita" Ericaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: COL, SHA, TRI
 Habitat: Chprl, LCFrs / volcanic
 Life Form: Shrub (evergreen)
 Blooming: April-July
 Notes: To be expected in GLE and TEH counties. See *Four Seasons* 6(4):23 (1983) for original description and 9(2):54-59 (1992) for revised nomenclature.

Arctostaphylos manzanita ssp. *elegans*

Considered but rejected: Too common

Arctostaphylos manzanita Parry ssp. *laevigata* (Eastw.) Munz

"Contra Costa manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CEQA
 Distribution: CCA
 Quads: 464A, 464B, 464C
 Habitat: Chprl (rocky)
 Life Form: Shrub (evergreen)
 Blooming: January-February

Arctostaphylos manzanita ssp. *roofii*

Considered but rejected: Too common

Arctostaphylos mendocinoensis Wells

"pygmy manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CEQA
 Distribution: MEN
 Quads: 569D
 Habitat: CCFrs (acidic sandy clay)
 Life Form: Shrub (evergreen)
 Blooming: January
 Notes: Narrowly endemic to the Mendocino Plains. See *Four Seasons* 8(3):25-35 (1988) for original description.

Arctostaphylos mewukka Merriam ssp. *truei* (Knight) Wells

"True's manzanita" Ericaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: BUT, PLU, YUB
 Habitat: Chprl, LCFrs
 Life Form: Shrub (evergreen)
 Blooming: March-May
 Notes: See *Four Seasons* 3(1):19 (1969) for original description and 9(2):60-63 (1992) for revised nomenclature.

Arctostaphylos montana

See *Arctostaphylos hookeri* ssp. *montana*

Arctostaphylos montaraensis Roof

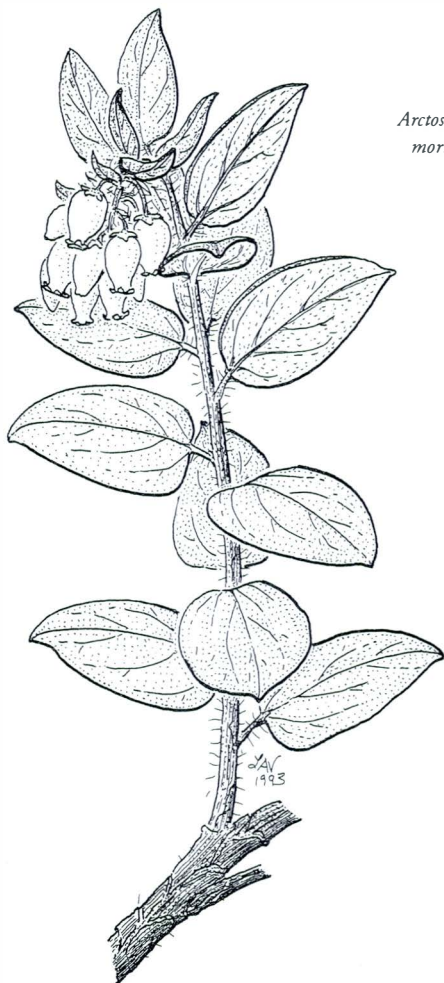
"Montara manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: SMT
 Quads: 448B, 448C
 Habitat: Chprl (maritime), CoScr
 Life Form: Shrub (evergreen)
 Blooming: January-March
 Notes: Known from approximately ten occurrences. Threatened by development and vehicles.

Arctostaphylos montereyensis Hoov.

"Monterey manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: MNT
 Quads: 343A, 365B, 365C, 366D
 Habitat: Chprl, CmWld, CoScr / sandy
 Life Form: Shrub (evergreen)
 Blooming: February-March
 Notes: Known from fewer than ten occurrences.

Arctostaphylos morroensis Wies. & Schreib.

"Morro manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 2-3-3 State/Fed. Status: /PE
 Distribution: SLO
 Quads: 246C, 247D
 Habitat: Chprl, CmWld, CoDns (pre-Flandrian), CoScr
 Life Form: Shrub (evergreen)
 Blooming: January-March
 Notes: Known from fewer than twenty occurrences in the Morro Bay area. Threatened by urbanization. See *Madroño* 5:38-47 (1939) for original description.



Arctostaphylos morroensis

Arctostaphylos myrtifolia Parry

"Ione manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C1
 Distribution: AMA, CAL
 Quads: 476A, 476B, 477A, 477B, 493C, 494B, 494C, 494D, 495A
 Habitat: Chprl, CmWld / acidic Ione clay or sandy
 Life Form: Shrub (evergreen)
 Blooming: November-February
 Notes: Threatened by mining and fungal infection. Protected in part at ACEC (BLM), AMA Co. See *Pittonia* 1:34 (1887) for original description, *Ecology* 45(4):792-808 (1964) for ecological discussion, and *Changing Seasons* 1(4):4-19 (1982) for species account.
 Status Report: 1977

Arctostaphylos nissenana Merriam

"Nissenan manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: ELD, TUO
 Quads: 458B, 509B, 510A, 525C, 526A, 526D
 Habitat: CCFrs, Chprl
 Life Form: Shrub (evergreen)
 Blooming: February-March
 Notes: Known from approximately ten occurrences. Threatened by development. See *Proceedings of the Biological Society of Washington* 31:102 (1918) for original description, and *Four Seasons* 1(4):7-15 (1966) for species account and 6(4):12-16 (1983) for range extension information.

Arctostaphylos nortensis Wells

"Del Norte manzanita" Ericaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C2
 Distribution: DNT, OR?
 Habitat: Chprl, LCFrs (open) / often serpentinite
 Life Form: Shrub (evergreen)
 Blooming: February
 Notes: Plant may occur in adjacent OR. See *Four Seasons* 8(1):50 (1988) for original description and 9(2):54-59 (1992) for revised nomenclature.

Arctostaphylos obispoensis Eastw.

"Bishop manzanita" Ericaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: MNT, SLO
 Habitat: CCFrs (serpentinite)
 Life Form: Shrub (evergreen)
 Blooming: February-March

Arctostaphylos osoensis Wells

"Oso manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C2
 Distribution: SLO
 Quads: 247D
 Habitat: Chprl, CmWld / dacite porphyry buttes
 Life Form: Shrub (evergreen)
 Blooming: February-March
 Notes: Narrowly endemic to the mountains north of Los Osos Valley. Eventual urbanization a threat. Occurs with *A. tomentosa* ssp. *daciticola*. See *Four Seasons* 9(2):45 (1992) for original description.

Arctostaphylos otayensis Wies. & Schreib.

"Otay manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: SDG
 Quads: 10A, 10B, 10D, 20D, 33D, 48D
 Habitat: Chprl, CmWld / volcanic
 Life Form: Shrub (evergreen)
 Blooming: January-March
 Notes: Historical occurrences need field surveys. See *Madroño* 5:43 (1939) for original description.

Arctostaphylos pacifica

Considered but rejected: A hybrid

Arctostaphylos pajaroensis Adams

"Pajaro manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 2-3-3 State/Fed. Status: /C2
 Distribution: MNT, SCR*
 Quads: 386B, 386C, 386D, 387A, 408B*
 Habitat: Chprl (sandy)
 Life Form: Shrub (evergreen)
 Blooming: December-March
 Notes: Never abundant, and now severely threatened by development in Pajaro Hills area, where habitat loss has occurred.

Arctostaphylos pallida Eastw.

"pallid manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/C1
 Distribution: ALA, CCA
 Quads: 465B, 465C, 466A
 Habitat: BUFRs, Chprl, CmWld / siliceous shale
 Life Form: Shrub (evergreen)
 Blooming: December-March
 Notes: Known from fewer than twenty occurrences. Threatened by urbanization, alteration of fire regimes, non-native plants, and fungal infection. See *Leaflets of Western Botany* 1:76-77 (1933) for original description, and *Four Seasons* 7(4):28-46 (1987) for ecological assessment.
 Status Report: 1987

Arctostaphylos parvifolia

Considered but rejected: A hybrid between *A. glandulosa* and *A. nevadensis*

Arctostaphylos pechoensis Dudl.

"Pecho manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 2-3-3 State/Fed. Status: /C2
 Distribution: SLO
 Quads: 221A, 221B, 222A, 246B, 246C, 247B, 247D, 270C
 Habitat: CCFrs, Chprl, CoScr / siliceous shale
 Life Form: Shrub (evergreen)
 Blooming: November-March
 Notes: Narrowly endemic to siliceous shale in coastal mountains of SLO Co. Threatened by urbanization.

Arctostaphylos peninsularis Wells ssp. *peninsularis*

"Peninsular manzanita" Ericaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: RIV, BA
 Quads: 65C
 Habitat: Chprl
 Life Form: Shrub (evergreen)
 Blooming: April-May
 Notes: Plants from northwestern SDG Co. and adjacent RIV Co. formerly considered *A. peninsularis* ssp. *peninsularis* are *A. rainbowensis*. Not in *The Jepson Manual*. See *Madroño* 21(5):268-273 (1972) for original description and 39(4):285-287 (1992) for taxonomic treatment.

Arctostaphylos pilosula Jeps. & Wies.

"Santa Margarita manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: MNT, SLO
 Quads: 220B, 245C, 245D, 246B, 270C, 271A, 296A
 Habitat: CCFrs, Chprl / shale
 Life Form: Shrub (evergreen)
 Blooming: December-March
 Notes: Threatened by road maintenance and vehicles.

Arctostaphylos pilosula ssp. *pilosula*

See *Arctostaphylos pilosula*

Arctostaphylos pilosula ssp. *p. moens*

See *Arctostaphylos wellsii*

Arctostaphylos pseudopungens

Considered but rejected: A synonym of *A. pungens*, a common taxon

Arctostaphylos pumila Nutt.

"sandmat manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: MNT
 Quads: 366A, 366C, 366D
 Habitat: CCFrs, Chprl, CoDns, CoScr / sandy
 Life Form: Shrub (evergreen)
 Blooming: February-May
 Notes: Known from fewer than twenty occurrences. Threatened by urbanization and military activities at Fort Ord.
 Status Report: 1977

Arctostaphylos pungens ssp. *chaloneorum*

Considered but rejected: A synonym of *A. pungens*, a common taxon

Arctostaphylos pungens ssp. *laevigata*

See *Arctostaphylos manzanita* ssp. *laevigata*

Arctostaphylos purissima Wells

"La Purissima manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 2-3-3 State/Fed. Status: CEQA
 Distribution: SBA
 Quads: 145A, 145B, 170A, 170B, 170C, 170D, 171A, 195D, 196B, 196D
 Habitat: Chprl (sandy)
 Life Form: Shrub (evergreen)
 Blooming: November-May
 Notes: Threatened by urbanization.

Arctostaphylos rainbowensis J. Keeley & Massihi

"Rainbow manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CEQA
 Distribution: RIV, SDG
 Quads: 50A, 50B, 51A, 51B?, 69D
 Habitat: Chprl
 Life Form: Shrub (evergreen)
 Blooming: January-February
 Notes: Previously called *A. peninsularis* or considered to be a hybrid between *A. glandulosa* and *A. glauca*. Threatened by conversion to avocado orchards. Not in *The Jepson Manual*. See *Madroño* 41(1):x-x (1994, in press) for original description.

Arctostaphylos refugioensis Gankin

"Refugio manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: SBA
 Quads: 143A, 145B, 169A, 169D, 170C
 Habitat: Chprl (sandstone)
 Life Form: Shrub (evergreen)
 Blooming: December-March
 Notes: See *Four Seasons* 2(2):13-14 (1967) for original description.
 Status Report: 1979

Arctostaphylos regismontana Eastw.

"Kings Mtn. manzanita" Ericaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: SCR, SMT
 Habitat: BUFRs, Chprl, NCFrs / granitic or sandstone
 Life Form: Shrub (evergreen)
 Blooming: January-April
 Notes: See *Leaflets of Western Botany* 1:77 (1933) for original description.

Arctostaphylos roofii

Considered but rejected: A synonym of *A. manzanita* ssp. *roofii*; a common taxon

Arctostaphylos rudis Jeps. & Wies.

"sand mesa manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C1
 Distribution: SBA, SLO
 Quads: 145B, 170B, 170C, 171A, 195B, 196A, 196B, 196D, 220C, 221D
 Habitat: Chprl, CoScr / sandy
 Life Form: Shrub (evergreen)
 Blooming: November-February
 Notes: Severely reduced on Nipomo Mesa; more widespread on Burton Mesa.

Arctostaphylos silvicola Jeps. & Wies.

"Bonny Doon manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: SCR
 Quads: 408A, 408B, 408C, 408D
 Habitat: Chprl, CCFrs, LCFrs / inland marine sands
 Life Form: Shrub (evergreen)
 Blooming: February-March
 Notes: Known from fewer than twenty occurrences. Threatened by sand mining and urbanization.

Arctostaphylos stanfordiana Parry ssp. *decumbens* Wells

"Rincon manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CEQA
 Distribution: SON
 Quads: 501A, 501B, 518B
 Habitat: Chprl (rhyolitic)
 Life Form: Shrub (evergreen)
 Blooming: February-April
 Notes: Known from fewer than ten occurrences. Seriously threatened by development, road construction, vehicles, and viticulture. See *Four Seasons* 4(2):16-17 (1972) for original description and 9(2):60-63 (1992) for revised nomenclature.

Arctostaphylos stanfordiana ssp. *hispidula*

See *Arctostaphylos hispidula*

Arctostaphylos stanfordiana Parry ssp. *raichei* Knight

"Raiche's manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 2-3-3 State/Fed. Status: /C2
 Distribution: LAK, MEN
 Quads: 534A?, 535B, 550A, 550D
 Habitat: Chprl (often serpentinite)
 Life Form: Shrub (evergreen)
 Blooming: February-April
 Notes: Threatened by urbanization. See *Four Seasons* 7(3):16-20 (1985) for original description.

Arctostaphylos stanfordiana var. *repens*

See *Arctostaphylos stanfordiana* ssp. *decumbens*

Arctostaphylos tomentosa (Pursh) Lindl. ssp. *daciticola* Wells

"dacite manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C2
 Distribution: SLO
 Quads: 247D
 Habitat: Chprl, CmWld / dacite porphyry buttes
 Life Form: Shrub (evergreen)
 Blooming: March
 Notes: Narrowly endemic to the mountains north of western Los Osos Valley. Eventual urbanization a threat. Occurs with *A. osoensis*. See *Four Seasons* 9(2):60 (1992) for original description.

Arctostaphylos tomentosa (Pursh) Lindl. ssp. *eastwoodiana* Wells

"Eastwood's manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 2-3-3 State/Fed. Status: CEQA
 Distribution: SBA
 Quads: 170A, 170B, 171A, 196B
 Habitat: Chprl (sandy)
 Life Form: Shrub (evergreen)
 Blooming: March
 Notes: Known only from the La Purisima Ridge, Burton Mesa, and Point Sal areas. Threatened by urbanization. See *Madroño* 19(6):197 (1968) for original description.

Arctostaphylos tomentosa (Pursh) Lindl. ssp. *insulicola* Wells

"island manzanita" Ericaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: SCZ, SRO
 Habitat: CCFrs, Chprl
 Life Form: Shrub (evergreen)
 Blooming: December-February
 Notes: Possibly threatened by feral herbivores. See *Madroño* 19(6):197 (1968) for original description.

Arctostaphylos tomentosa (Pursh) Lindl.ssp. *subcordata* (Eastw.) Wells

"Santa Cruz Island manzanita" Ericaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: SCZ, SRO
 Habitat: CCFrs, Chprl
 Life Form: Shrub (evergreen)
 Blooming: March-April
 Notes: Possibly threatened by feral herbivores. See *Madroño* 19(6):198 (1968) for original description.

Arctostaphylos truei

See *Arctostaphylos mewukka* ssp. *truei*

Arctostaphylos uva-ursi var. *leobreweri*

Considered but rejected: A synonym of *A. uva-ursi*; a common taxon

Arctostaphylos uva-ursi var. *marinensis*

Considered but rejected: A synonym of *A. uva-ursi*; a common taxon

Arctostaphylos uva-ursi ssp. *monoensis*

Considered but rejected: A synonym of *A. uva-ursi*; a common taxon

Arctostaphylos uva-ursi var. *suborbiculata*

Considered but rejected: A synonym of *A. uva-ursi*; a common taxon

Arctostaphylos virgata Eastw.

"Marin manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C3c
 Distribution: MRN
 Quads: 467A, 467B, 467E, 484C, 485C, 485D
 Habitat: BUFRs, CCFrs, Chprl, NCFrs / sandstone or granitic
 Life Form: Shrub (evergreen)
 Blooming: January-March
 Notes: Known from fewer than twenty occurrences. Threatened by fire suppression.

Arctostaphylos viridissima (Eastw.) McMinn

"white-haired manzanita" Ericaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: SCZ
 Habitat: CCFrs, Chprl / shale
 Life Form: Shrub (evergreen)
 Blooming: January-March
 Notes: Possibly threatened by feral herbivores.

Arctostaphylos wellsii Knight

"Wells's manzanita" Ericaceae
 CNPS List: 1B R-E-D Code: 2-3-3 State/Fed. Status: CEQA
 Distribution: SLO
 Quads: 220C, 221A, 221B, 246B, 247D?, 270C
 Habitat: CCFrs, Chprl / sandstone
 Life Form: Shrub (evergreen)
 Blooming: December-April
 Notes: Threatened by urbanization. See *Madroño* 19(6):192-210 (1968) for original description, and *Four Seasons* 8(3):12-16 (1989) for revised nomenclature.

Arenaria howellii

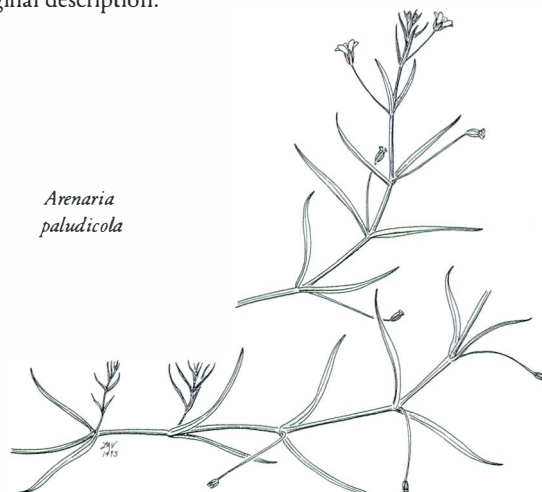
See *Minuartia howellii*

Arenaria kingii ssp. *compacta*

Considered but rejected: Too common

Arenaria macradenia Wats. var. *kuschei* (Eastw.) Maguire

"Forest Camp sandwort" Caryophyllaceae
 CNPS List: 3 R-E-D Code: ?-?-3 State/Fed. Status: /C2
 Distribution: SBD
 Quads: unknown
 Habitat: unknown
 Life Form: Perennial herb
 Blooming: June-July
 Notes: Move to List 1B? Known from only a single collection made in 1929 at "Forest Camp, SBD Co., 4000 feet"; need quad. See *Proceedings of the California Academy of Sciences* IV 20:140 (1931) for original description.

*Arenaria paludicola* Rob.

"marsh sandwort" Caryophyllaceae
 CNPS List: 1B R-E-D Code: 3-3-2 State/Fed. Status: CE/FE
 Distribution: LAX*, SBD*, SCR*, SFO*, SLO, WA*
 Quads: 107D*, 221D, 408D*, 466C*
 Habitat: MshSw (freshwater)
 Life Form: Perennial herb (stoloniferous)
 Blooming: May-August
 Notes: Nearly extinct: fewer than twenty plants found in 1993. Only known extant occurrence near Black Lake on Nipomo Mesa is threatened by development and encroaching *Eucalyptus* groves, which may be altering the hydrology of the area. See *Proceedings of the California Academy of Natural Sciences* 3:61 (1863) for original description.
 Status Report: 1990

*Arenaria rosei*See *Mimuartia rosei**Arenaria ursina* Rob.

"Big Bear Valley sandwort" Caryophyllaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C1

Distribution: SBD

Quads: 104B, 105A, 105B, 131C, 131D

Habitat: PbPln, PJWld / mesic, rocky

Life Form: Perennial herb

Blooming: May-August

Notes: Threatened by development, grazing, foot traffic, trampling, and vehicles. See *Proceedings of the American Academy of Arts and Sciences* 29:294 (1894) for original description.

Status Report: 1979

Argemone munita ssp. *robusta*Considered but rejected: A synonym of *A. munita*, a common taxon*Argyrochosma limitanea* (Maxon) Windham var. *limitanea*

"cloak fern" Pteridaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA

Distribution: SBD, AZ, BA, ++

Quads: 225D

Habitat: PJWld (carbonate)

Life Form: Perennial herb (rhizomatous)

Fertile: April-October

Notes: Known in CA only from the New York Mtns. See *Madroño* 25:55 (1978) for first CA collection, *Phytologia* 41(6):431-437 (1979) for nomenclature, and *American Fern Journal* 77:37-41 (1987) for revised nomenclature.

Aristocapsa insignis (Curran) Reveal & Hardham

"Indian Valley spineflower" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?

Distribution: MNT, SBT?, SLO

Habitat: CmWld

Life Form: Annual herb

Blooming: May-September

Notes: Does plant occur in SBT Co.? Threatened by development. See *Bulletin of the California Academy of Sciences* 1:275 (1885) for original description, *Great Basin Naturalist Memoirs* 2:169-190 (1978) for taxonomic treatment, and *Phytologia* 66(2):83-88 (1989) for revised nomenclature and taxonomic treatment.

Arnica cernua Howell

"serpentine arnica" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?

Distribution: DNT, HUM, SIS, OR

Habitat: LCFrs (serpentine)

Life Form: Perennial herb (rhizomatous)

Blooming: April-July

Notes: Possibly threatened by logging.

Arnica fulgens Pursh.

"hillside arnica" Asteraceae

CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA

Distribution: LAS, MOD, PLU, NV, OR, WA, ++

Quads: 590D, 674D, 691B?, 693C

Habitat: GBScr, LCFrs, Medws / mesic

Life Form: Perennial herb (rhizomatous)

Blooming: May-August

Notes: Is plant more widespread in CA? Similar to *A. sororia*. See *Rhodora* 90:245-275 (1988) for taxonomic treatment.

Arnica sororia Greene

"twin arnica" Asteraceae

CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA

Distribution: LAS, MNO, MOD, NV, OR, WA, ++

Quads: 451C, 487C, 660C, 674C, 708A, 724A

Habitat: GBScr, PJWld

Life Form: Perennial herb (rhizomatous)

Blooming: May-July

Notes: Similar to *A. fulgens*. See *Ottawa Naturalist* 23:213 (1910) for original description, and *Rhodora* 90:245-275 (1988) for taxonomic treatment.

Arnica spathulata Greene

"Klamath arnica" Asteraceae

CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?

Distribution: DNT, HUM, SIS, TRI, OR

Habitat: LCFrs (serpentine)

Life Form: Perennial herb (rhizomatous)

Blooming: May-July

Arnica spathulata ssp. *spathulata*See *Arnica spathulata**Arnica tomentella*

Considered but rejected: Taxonomic problem, but needs reevaluation

Arnica venosa Hall

"Shasta County arnica" Asteraceae

CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: /C3c

Distribution: SHA, TRI

Habitat: CmWld, LCFrs / often in disturbed areas

Life Form: Perennial herb (rhizomatous)

Blooming: May-June

Notes: Threatened by logging. Some plants seem intermediate to *A. discoidea*.

Arnica viscosa Gray

"Mt. Shasta arnica" Asteraceae

CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: /C3c

Distribution: SIS, TRI, OR

Habitat: SCFrs

Life Form: Perennial herb (rhizomatous)

Blooming: August

Notes: Endangered in OR. See *Proceedings of the American Academy of Arts and Sciences* 13:374 (1878) for original description.

Artemisia cana ssp. *bolanderi*

Considered but rejected: Too common

Artemisia palmeri Gray

"San Diego sagewort" Asteraceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
 Distribution: SDG, BA
 Quads: 9B, 10A, 11D, 21C, 21D, 22A, 22B, 22C, 35C, 35D
 Habitat: Chprl, CoScr, RpFrS, RpScr / sandy
 Life Form: Shrub (deciduous)
 Blooming: July-September
 Notes: Known in CA from fewer than twenty occurrences. Threatened by development.

Asarum marmoratum Piper

"marbled wild-ginger" Aristolochiaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: DNT, SIS, OR
 Quads: 738A, 739A
 Habitat: LCFrs
 Life Form: Perennial herb (rhizomatous)
 Blooming: April-July
 Notes: See *Proceedings of the Biological Society of Washington* 29:99 (1916) for original description, and *Brittonia* 42(1):33-37 (1990) for taxonomic treatment.

Asclepias cryptoceras ssp. *cryptoceras*

Considered but rejected: Not in CA

Asclepias solanoana Woodson

"serpentine milkweed" Asclepiadaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: COL, GLE, LAK, MEN, NAP, SHA, SON, TEH, TRI, YOL
 Habitat: Chprl, CmWld, LCFrs / serpentinite
 Life Form: Perennial herb
 Blooming: May-August
 Notes: Not common where it occurs. Some occurrences threatened by grazing, vehicles, logging, mining, or geothermal development. See *Proceedings of the American Academy of Arts and Sciences* 10:76 (1874) for original description, and *Madroño* 24(3):159-177 (1977) for information on floral ecology.

Aspidotis carlotta-halliae (Wagn. & Gilb.) Lellinger

"Carlotta Hall's lace fern" Pteridaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: ALA, MNT, MRN, SBT, SLO
 Habitat: Chprl, CmWld / generally serpentinite
 Life Form: Perennial herb (rhizomatous)
 Fertile: January-December
 Notes: Fertile hybrid between *A. californica* and *A. densa*; sometimes backcrosses. See *American Journal of Botany* 44:738-743 (1957) for original description, and *American Fern Journal* 58:141 (1968) for revised nomenclature.

Asplenium septentrionale (L.) Hoffm.

"northern spleenwort" Aspleniaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: SHA, TEH, TUL, OR, ++
 Quads: 331A, 626A, 643C, 644D
 Habitat: Chprl, LCFrs, SCFrS, UCFrs / rocky
 Life Form: Perennial herb (rhizomatous)
 Fertile: July-August
 Notes: Known in CA from fewer than ten occurrences. Endangered in OR. See *Madroño* 25(4):232 (1978) for distributional information.

Asplenium trichomanes

See *Asplenium trichomanes* ssp. *trichomanes*

Asplenium trichomanes L. ssp. *trichomanes*

"maidenhair spleenwort" Aspleniaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: DNT, ID*, OR, ++
 Quads: 740C
 Habitat: LCFrs (rocky)
 Life Form: Perennial herb (rhizomatous)
 Fertile: May-July
 Notes: Extirpated in ID. See *Madroño* 29(1):57 (1982) for first CA record.

Asplenium trichomanes-ramosum L.

"green spleenwort" Aspleniaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: SIE, ID, NV, OR, WA, ++
 Quads: 572C
 Habitat: SCFrS (carbonate in granitic cliffs)
 Life Form: Perennial herb (rhizomatous)
 Fertile: June-August
 Notes: Known in CA only from the Sierra Buttes. Endangered in ID and OR. See *Madroño* 12:128 (1953) for first CA record.
 Status Report: 1980

Asplenium vespertinum

Considered but rejected: Too common

Asplenium viride

See *Asplenium trichomanes-ramosum*

Aster brickellioides var. *brickellioides*

Considered but rejected: Too common; a synonym of *A. brickellioides*

Aster chilensis var. *lentus*

See *Aster lentus*

Aster greatae Parish

"Greata's aster" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: LAX
 Habitat: Chprl (mesic canyons)
 Life Form: Perennial herb (rhizomatous)
 Blooming: August-October
 Notes: To be expected in SBD Co. See *Phytologia* 71(3):167-170 (1991) for nomenclatural correction.

Aster lentus Greene

"Suisun Marsh aster" Asteraceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: CCA, NAP, SAC, SJQ, SOL
 Quads: 463A, 479C, 480B, 480C, 480D, 481C, 481D, 482A, 482C, 483A, 483D, 498D
 Habitat: MshSw (brackish and fresh water)
 Life Form: Perennial herb (rhizomatous)
 Blooming: August-November
 Notes: Seriously threatened by marsh habitat alteration and loss. Grades into *A. chilensis*. USFWS uses the name *A. chilensis* var. *lentus*. See *Manual of the Botany of the Region of San Francisco Bay*, p. 180 (1894) by E. Greene for original description.
 Status Report: 1977

Aster paludicola

Considered but rejected: A synonym of *A. occidentalis* var. *yosemiteanus*; a common taxon

Aster peirsonii

Considered but rejected: Too common

Astragalus agnicidus Barneby

"Humboldt milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/C1
 Distribution: HUM
 Quads: 617A
 Habitat: BUFrs (disturbed openings)
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Rediscovered in 1987 by R. Sutherland, R. Bittman, and K. Berg near Miranda. Only known occurrence is voluntarily protected by landowner; previously grazed by deer, but now fenced. See *Madroño* 14:37-40 (1957) for original description, *Fremontia* 16(1):13-14 (1988) for discussion of rediscovery, and *Fremontia* 20(4):21-22 (1992) for management update.
 Status Report: 1987

Astragalus albens Greene

"Cushenbury milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /PE
 Distribution: SBD
 Quads: 130C, 131B, 131C, 131D
 Habitat: JTWld, PJWld / carbonate or granitic
 Life Form: Perennial herb
 Blooming: March-May
 Notes: Known from fewer than twenty occurrences. Threatened by carbonate mining and vehicles. See *Bulletin of the California Academy of Sciences* 1:156 (1885) for original description, and *Fremontia* 16(1):20-21 (1988) for discussion of mining threats.
 Status Report: 1988

Astragalus allochrous Gray var. *playanus* (M.E. Jones) Isely

"playa milk-vetch" Fabaceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
 Distribution: SBD, AZ, NM, TX, UT+
 Quads: 173B, 174A
 Habitat: MDScr (sandy)
 Life Form: Perennial herb
 Blooming: April
 Notes: Known in CA only from near Goffs. Includes *A. wootoni* var. *wootoni*. See *Contributions to Western Botany* 8:6 (1898) for original description.

Astragalus anxius Meinke & Kaye

"troubled milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: CEQA
 Distribution: LAS
 Quads: 675C
 Habitat: GBSr, PJWld, UCFrs / volcanic
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Known from only one large occurrence in the Ash Valley RNA (BLM) and on adjacent private lands. See *Fremontia* 16(1):15-17 (1988) for brief species account (as *A. tegetarioides*) and BLM management plans, and *Madroño* 39(3):193-204 (1992) for original description.

Astragalus argophyllus T. & G. var. *argophyllus*

"silverleaf milk-vetch" Fabaceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: INY, LAS, MNO, AZ, ID, NV, UT+
 Quads: 413B, 432C, 638D
 Habitat: Medws, Plyas / alkaline
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Threatened by grazing, but BLM will fence both LAS Co. occurrences. See *Memoirs of the New York Botanical Garden* 13:626-628 (1964) for revised nomenclature.

Astragalus atratus Wats. var. *mensanus* M.E. Jones

"Darwin Mesa milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: CEQA
 Distribution: INY
 Quads: 304C, 304D, 349D
 Habitat: GBSr, JTWld, PJWld / volcanic clay, gravelly
 Life Form: Perennial herb
 Blooming: April-June
 Notes: Known from only five collections near Darwin. Historical occurrences need field surveys. See *Memoirs of the New York Botanical Garden* 13:473 (1964) for taxonomic treatment.

Astragalus austinae

Considered but rejected: Too common

Astragalus bicristatus Gray

"crested milk-vetch" Fabaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: RIV, SBD
 Habitat: LCFrs, UCFrs / rocky
 Life Form: Perennial herb
 Blooming: May-August

Astragalus brauntonii Parish

"Braunton's milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /PE
 Distribution: LAX, ORA, VEN
 Quads: 87C, 87D, 109B, 110A, 111B, 111C*, 111D*, 112B,
 112C*, 112D, 113A, 138D
 Habitat: CCFrs, Chprl, CoScr, VFGrs / recent burns or disturbed
 areas, carbonate
 Life Form: Perennial herb
 Blooming: March-July
 Notes: Known from fewer than ten extant occurrences. Threatened by
 development and alteration of local fire regimes. See *Bulletin of the
 Southern California Academy of Sciences* 2:26-27 (1903) for original
 description, and *Fremonia* 19(3):6-7 (1991) for species account.
 Status Report: 1980

Astragalus breweri Gray

"Brewer's milk-vetch" Fabaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: COL, LAK, MEN, MRN, NAP, SON, YOL
 Habitat: Chprl, CmWld, Medws, VFGrs / often serpentinite,
 volcanic
 Life Form: Annual herb
 Blooming: April-June
 Notes: Populations have been lost to development and road con-
 struction. See *Systematic Botany* 17(3):367-379 (1992) for dis-
 tributional information.

Astragalus californicus

Considered but rejected: Too common

Astragalus cimae M.E. Jones var. *cimae*

"Cima milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 3-2-2 State/Fed. Status: /C3c
 Distribution: SBD, NV
 Quads: 200A, 200B, 200C, 201A, 201B, 201D, 224C, 225D,
 226A, 226B, 226D
 Habitat: GBSscr, JTWld, PJWld / clay
 Life Form: Perennial herb
 Blooming: April-May
 Notes: Known in CA from fewer than twenty occurrences. Threatened
 by grazing. On watch list in NV. See *Memoirs of the New York Botani-
 cal Garden* 13:505-508 (1964) for taxonomic treatment.

Astragalus cimae var. *sufflatus*

Considered but rejected: Too common

Astragalus clarianus Jeps.

"Clara Hunt's milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CT/C1
 Distribution: NAP, SON
 Quads: 500B, 516C, 517C, 517D
 Habitat: CmWld, VFGrs / serpentinite, volcanic clay
 Life Form: Annual herb
 Blooming: March-April
 Notes: Known from only five occurrences. Threatened by recrea-
 tional development and non-native plants; largest known popula-
 tion covered by dredge material in 1990. See *Manual of the
 Flowering Plants of California*, p. 578 (1925) by W.L. Jepson for
 original description, and *Systematic Botany* 17(3):367-379 (1992)
 for distributional information.
 Status Report: 1989

Astragalus clevelandii Greene

"Cleveland's milk-vetch" Fabaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: COL, LAK, NAP, SBT, YOL
 Habitat: Chprl, CmWld / serpentinite seeps
 Life Form: Perennial herb
 Blooming: June-September

Astragalus condonii

Considered but rejected: Too common

Astragalus crotalariae (Benth.) Gray

"Salton milk-vetch" Fabaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: IMP, RIV, SDG, AZ, BA
 Habitat: SDSscr (sandy or gravelly)
 Life Form: Perennial herb
 Blooming: January-April

Astragalus deanei (Rydb.) Barneby

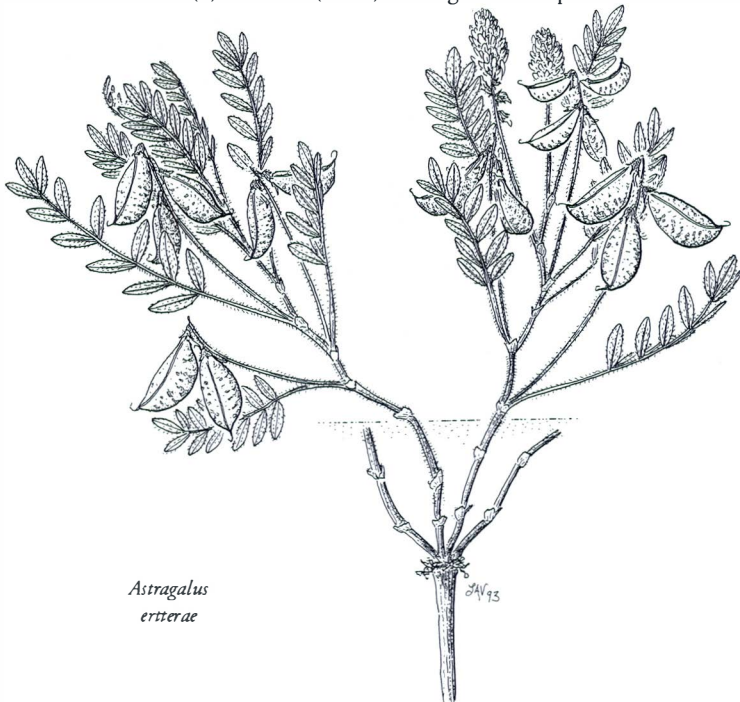
"Dean's milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C2
 Distribution: SDG
 Quads: 9B, 9C, 10B, 11A, 20B, 21C, 21D
 Habitat: Chprl, CoScr, RpFrs
 Life Form: Perennial herb
 Blooming: March-May
 Notes: Known from approximately ten occurrences. Seriously threat-
 ened by development in foothills. See *North American Flora* 24:355
 (1929) for original description, and *Memoirs of the New York Botanical
 Garden* 13:845-846 (1964) for taxonomic treatment.
 Status Report: 1979

Astragalus douglasii (T. & G.) Gray
var. *perstrictus* (Rydb.) Munz

"Jacumba milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: /C2
 Distribution: IMP, SDG, BA
 Quads: 7A, 7B, 8A, 8B, 8D, 19D
 Habitat: Chprl, CmWld, VFGrs / rocky
 Life Form: Perennial herb
 Blooming: April-June
 Notes: Many occurrences are small.

Astragalus erterae Barneby & Shevock

"Walker Pass milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: KRN
 Quads: 259A
 Habitat: PJWld (sandy, granitic)
 Life Form: Perennial herb
 Blooming: April-May
 Notes: Known in CA from only three occurrences near Walker Pass.
 See *Aliso* 11(4):585-588 (1987) for original description.



Astragalus erterae

Astragalus funereus M.E. Jones

"black milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 3-2-2 State/Fed. Status: /C2
 Distribution: INY, NV
 Quads: 326B, 368A, 368D, 369C
 Habitat: MDScr (sometimes carbonate)
 Life Form: Perennial herb
 Blooming: March-May
 Notes: Known in CA from only five occurrences. On watch list in NV. See *Contributions to Western Botany* 12:11-12 (1908) for original description, and *Memoirs of the New York Botanical Garden* 13:686-688 (1964) for taxonomic treatment.
 Status Report: 1979

Astragalus geyeri Gray var. *geyeri*

"Geyer's milk-vetch" Fabaceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: INY, MNO, NV, OR, WA+
 Quads: 372B, 412D
 Habitat: ChScr, GBScr / sandy
 Life Form: Annual herb
 Blooming: May-August
 Notes: State-listed as Sensitive in WA. See *Memoirs of the New York Botanical Garden* 13:894-895 (1964) for taxonomic treatment.

Astragalus gilmanii Tides.

"Gilman's milk-vetch" Fabaceae
 CNPS List: 4 R-E-D Code: 1-2-2 State/Fed. Status: /C2
 Distribution: INY, NV
 Habitat: GBScr, PJWld / gravelly
 Life Form: Perennial herb
 Blooming: May-July
 Notes: On watch list in NV.

Astragalus insularis Kell. var. *harwoodii* Munz & McBurn.

"Harwood's milk-vetch" Fabaceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
 Distribution: IMP, RIV, SDG, AZ, SO
 Quads: 6B, 13D, 18B, 19A, 30A, 61A, 61D
 Habitat: DeDns
 Life Form: Annual herb
 Blooming: January-May

Astragalus inversus M.E. Jones

"Susanville milk-vetch" Fabaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: LAS, MOD, SHA, SIS
 Habitat: GBScr, LCFrs
 Life Form: Perennial herb
 Blooming: May-September

Astragalus inyoensis

Considered but rejected: Too common

Astragalus jaegerianus Munz

"Lane Mtn. milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /PE
 Distribution: SBD
 Quads: 206A, 206B, 206C
 Habitat: JTWld, MDScr / granitic, sandy or gravelly
 Life Form: Perennial herb
 Blooming: April-June
 Notes: Threatened by grazing and vehicles, and by Army activities at Ft. Irwin. See *Leaflets of Western Botany* 3:49-80 (1941) for original description.
 Status Report: 1977

Astragalus johannis-howellii Barneby

"Long Valley milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: CR/C3c
 Distribution: MNO, NV
 Quads: 433B, 433C, 433D, 434A, 486C
 Habitat: GBScr (sandy loam)
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Known in CA from approximately twelve occurrences. Threatened by grazing, vehicles, and mining. Usually found in swales in vicinity of former or present hot springs activity. See *Leaflets of Western Botany* 8(5):124-125 (1957) for original description, and *Memoirs of the New York Botanical Garden* 13:467-468 (1964) for taxonomic treatment.
 Status Report: 1986

Astragalus kentrophyta Gray var. *danaus* (Barneby) Barneby

"Sweetwater Mtns. milk-vetch" Fabaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: FRE, INY, MNO, TUO
 Habitat: AlpBR, SCFRs (rocky)
 Life Form: Perennial herb
 Blooming: July-September

Astragalus kentrophyta Gray var. *elatus* Wats.

"spiny-leaved milk-vetch" Fabaceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
 Distribution: INY, NV
 Quads: 372A, 412B
 Habitat: SCFRs (sometimes carbonate)
 Life Form: Perennial herb
 Blooming: June-September
 Notes: Threatened by parking lot construction at Schulman Grove in the Ancient Bristlecone Forest area. See *Memoirs of the New York Botanical Garden* 13:367 (1964) for taxonomic treatment.

Astragalus lentiformis Gray

"lens-pod milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: PLU
 Quads: 586B, 586C, 587A, 587B, 587C, 588A, 588D, 603C
 Habitat: GBScr, LCFrs / volcanic
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Threatened by road maintenance.

Astragalus lentiginosus Hook. var. *antonius* Barneby

"San Antonio milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: LAX, SBD
 Quads: 131C, 134C, 134D, 135A
 Habitat: LCFrs, UCFrs
 Life Form: Perennial herb
 Blooming: April-July
 Notes: See *Leaflets of Western Botany* 4(5):100 (1945) for original description, and *Memoirs of the New York Botanical Garden* 13:926-927 (1964) for taxonomic treatment.

Astragalus lentiginosus Hook. var. *borreganus* M.E. Jones

"Borrego milk-vetch" Fabaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: IMP, RIV, SBD, SDG, AZ, BA, SO
 Habitat: MDScr, SDScr / sandy
 Life Form: Annual herb
 Blooming: February-May
 Notes: See *Memoirs of the New York Botanical Garden* 13:953-954 (1964) for revised nomenclature.

Astragalus lentiginosus var. *chartaceus*

Considered but rejected: Not in CA

Astragalus lentiginosus Hook. var. *coachellae* F. Shreve & Wiggins

"Coachella Valley milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /PE
 Distribution: RIV
 Quads: 82B, 82C, 82D, 83A, 83B
 Habitat: SDScr (sandy)
 Life Form: Annual herb
 Blooming: February-May
 Notes: Known from fewer than twenty occurrences in the Coachella Valley. Threatened by vehicles, wind energy development, and urbanization. See *Memoirs of the New York Botanical Garden* 13:951-952 (1964) for taxonomic treatment.

Astragalus lentiginosus Hook. var. *kernensis* (Jeps.) Barneby

"Kern Plateau milk-vetch" Fabaceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
 Distribution: INY, TUL, NV
 Quads: 306B, 306C, 307D, 329C, 330D, 394A
 Habitat: Medws (xeric), SCFRs / sandy
 Life Form: Perennial herb
 Blooming: June-July
 Notes: See *Memoirs of the New York Botanical Garden* 13:929 (1964) for taxonomic treatment.

Astragalus lentiginosus Hook. var. *micans* Barneby

"shining milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /PT
 Distribution: INY
 Quads: 390C, 391D
 Habitat: DeDns
 Life Form: Perennial herb
 Blooming: April-June
 Notes: Recovery plan has been completed by BLM for the Eureka Dunes. Threatened by vehicle trespass and non-native Russian thistle. See *Leaflets of Western Botany* 8(1):22 (1956) for original description, *Memoirs of the New York Botanical Garden* 13:952-953 (1964) for taxonomic treatment, and *Biological Conservation* 46:217-242 (1988) for population biology.

Astragalus lentiginosus Hook. var. *piscinensis* Barneby

"Fish Slough milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /PE
 Distribution: INY, MNO
 Quads: 413B, 413C, 432A, 432C
 Habitat: Plyas (alkaline)
 Life Form: Perennial herb
 Blooming: June-July
 Notes: Known from eight occurrences near Fish Slough. Threatened by fisheries development, agriculture, grazing, and vehicles. Protected in part at Fish Slough ACEC (BLM). See *Brittonia* 29:376-381 (1977) for original description.

Astragalus lentiginosus var. *semotus*

Considered but rejected: Too common

Astragalus lentiginosus Hook.var. *sesquimetralis* (Rydb.) Barneby

"Sodaville milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 3-3-2 State/Fed. Status: CE/PT
 Distribution: INY, NV
 Quads: 390A
 Habitat: Medws (alkaline)
 Life Form: Perennial herb
 Blooming: June-July
 Notes: Known in CA from only one occurrence at Big Sand Spring; only two occurrences known in NV. Threatened by trampling by cattle and feral burros. Protected at Big/Little Sand Springs ACEC (BLM). State-listed as Critically Endangered in NV. See *Leaflets of Western Botany* 4(5):116 (1945) for original description, and *Brittonia* 29:376-381 (1977) for discussion of CA occurrence.
 Status Report: 1987

Astragalus lentiginosus Hook. var. *sierrae* M.E. Jones

"Big Bear Valley milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: SBD
 Quads: 105A, 105B, 131C, 131D
 Habitat: MDScr, Medws, PJWld, UCFrs / gravelly
 Life Form: Perennial herb
 Blooming: April-August
 Notes: Endemic to Big Bear Valley and Baldwin Lake region, where it is threatened by urbanization. See *Revision of North American Species of Astragalus*, p. 124 (1923) by M. E. Jones for original description, and *Memoirs of the New York Botanical Garden* 13:925 (1964) for taxonomic treatment.

Astragalus leucolobus M.E. Jones

"Big Bear Valley woollypod" Fabaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: LAX, RIV, SBD, SDG?
 Quads: 65C, 104B, 105A, 130C, 131C, 131D, 134B, 134C, 134D
 Habitat: LCFrs, PbPln, PJWld, UCFrs / rocky
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Does plant occur in SDG Co.? Threatened by development and vehicles.

Astragalus macrodon (H. & A.) Gray

"Salinas milk-vetch" Fabaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: KRN, MNT, SBT, SLO
 Habitat: Chprl (openings), CmWld, VFGrs / sandstone, shale, or serpentinite
 Life Form: Perennial herb
 Blooming: April-June

Astragalus magdalenae Greenevar. *peirsonii* (Munz & McBurn.) Barneby

"Peirson's milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: CE/PE
 Distribution: IMP, SDG(?), AZ, BA
 Quads: 2A, 2B, 13C, 14A, 14B, 14D, 27C, 28A, 28D, 30A, 30D, 47D(?)
 Habitat: DeDns
 Life Form: Perennial herb
 Blooming: December-April
 Notes: Known in CA from fewer than twenty occurrences. Is plant extant in SDG Co.? Threatened by vehicles in the Algodones Dunes. See *Bulletin of the Southern California Academy of Sciences* 31:67 (1932) for original description, and *Memoirs of the New York Botanical Garden* 13:928 (1964) for taxonomic treatment.
 Status Report: 1987

Astragalus miguelensis Greene

"San Miguel Island milk-vetch" Fabaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: ANA, SCM, SCZ, SMI, SRO
 Habitat: CBScr, CoDns
 Life Form: Perennial herb
 Blooming: March-July
 Notes: Blooms intermittently throughout the year.

Astragalus mojavensis Wats. var. *hemigyris* (Clokey) Barneby

"curved-pod milk-vetch" Fabaceae
 CNPS List: 1A Last Seen: 1941 State/Fed. Status: /C2
 Distribution: INY*, NV
 Quads: 327A*
 Habitat: JTWld, MDScr / carbonate
 Life Form: Annual herb
 Blooming: April-June
 Notes: Only CA record is from Darwin Mesa in 1941. Field work needed. Proposed for state listing as Critically Endangered in NV. See *Madroño* 6:220 (1942) for original description, and *Memoirs of the New York Botanical Garden* 13:1025 (1964) for taxonomic treatment.
 Status Report: 1980

Astragalus monoensis

See *Astragalus monoensis* var. *monoensis*

Astragalus monoensis Barneby var. *monoensis*

"Mono milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CR/C2
 Distribution: MNO
 Quads: 433C, 434A, 434B, 451C, 452A, 452B, 452C, 453D
 Habitat: GBScr, UCFrs / pumice flats
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Known from fewer than twenty occurrences. Threatened by road maintenance, vehicles, and sheep grazing. See *Leaflets of Western Botany* 4:55 (1944) for original description, and *Systematic Botany* 8(4):423 (1983) for revised nomenclature.
 Status Report: 1986

Astragalus monoensis Barneby var. *ravenii* (Barneby) Isley

"Raven's milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: FRE, INY, MNO
 Quads: 373A, 373B, 414B, 451C
 Habitat: AlpBR, UCFrs / gravelly
 Life Form: Perennial herb
 Blooming: July-September
 Notes: Known from approximately five occurrences. See *Aliso* 4:131 (1958) for original description, *Memoirs of the New York Botanical Garden* 13:967-968 (1964) for taxonomic treatment, and *Systematic Botany* 8(4):423 (1983) for revised nomenclature.
 Status Report: 1979

Astragalus nevini Gray

"San Clemente Island milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C1
 Distribution: SCM
 Quads: SCMC, SCMN
 Habitat: CoDns, CoScr, VFGrs
 Life Form: Perennial herb
 Blooming: February-July
 Notes: Known from fewer than twenty occurrences.

Astragalus nutans M.E. Jones

"Providence Mtns. milk-vetch" Fabaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: IMP, RIV, SBD
 Habitat: JTWld, MDScr, PJWld, SDScr / sandy or gravelly
 Life Form: Annual herb
 Blooming: March-June

Astragalus oocarpus Gray

"San Diego milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: SDG
 Quads: 20A, 20B, 20D, 33A, 33B, 33C, 33D, 34A, 49D, 66B
 Habitat: Chprl (openings), CmWld
 Life Form: Perennial herb
 Blooming: May-August
 Notes: Known from approximately twenty occurrences. Threatened by development, road maintenance, and recreation.

Astragalus oophorus Wats. var. *lavini* Barneby

"Lavin's milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 3-2-2 State/Fed. Status: /C2
 Distribution: MNO, NV
 Quads: 487C, 487D
 Habitat: GBScr
 Life Form: Perennial herb
 Blooming: June
 Notes: Known in CA only from the Bodie Hills. On watch list in NV. See *Brittonia* 36(2):167-173 (1984) for original description.

Astragalus pachypus Greene var. *jaegeri* Munz & McBurney

"Jaeger's milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C2
 Distribution: RIV
 Quads: 48A, 49A, 49B, 50B, 84A, 84B, 84C, 85D
 Habitat: Chprl, CmWld, CoScr, VFGrs / sandy or rocky
 Life Form: Shrub
 Blooming: December-June
 Notes: Known from about six occurrences; to be looked for in northern SDG Co., west of Warner Springs. Some habitat probably lost during creation of Vail Lake; also threatened by urbanization. See *Bulletin of the Southern Academy of Sciences* 31:67 (1932) for original description, and *Memoirs of the New York Botanical Garden* 13:489 (1964) for taxonomic treatment.

Astragalus panamintensis

Considered but rejected: Too common

Astragalus pauperulus Greene

"depauperate milk-vetch" Fabaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: BUT, PLA, SHA, TEH, YUB
 Habitat: CmWld, VFGrs / vernal mesic, volcanic
 Life Form: Annual herb
 Blooming: March-May
 Notes: See *Systematic Botany* 17(3):367-379 (1992) for distributional information.

Astragalus platytropis Gray

"little big-pod milk-vetch" Fabaceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
 Distribution: INY, MNO, NV, ++
 Quads: 369B, 369C, 372A, 410C, 412B, 413A, 488A, 488B, 488D, 489C,
 Habitat: AlpBR, PJWld, SCFrs / usually carbonate, granitic, or pumice-sand
 Life Form: Perennial herb
 Blooming: June-September
 Notes: Threatened by grazing, trampling, and vehicles. See *Proceedings of the American Academy of Arts and Sciences* 6:526 (1865) for original description, and *Memoirs of the New York Botanical Garden* 13:979-981 (1964) for taxonomic treatment.

Astragalus preussii Gray var. *laxiflorus* Gray

"Lancaster milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 3-3-2 State/Fed. Status: CEQA
 Distribution: LAX, AZ, NV
 Quads: 161A, 161B
 Habitat: ChScr
 Life Form: Perennial herb
 Blooming: March-May
 Notes: Known in CA only from near Lancaster, where extremely rare; only reported once in recent years. More field work needed. See *Proceedings of the American Academy of Arts and Sciences* 13:369 (1878) for original description, and *Memoirs of the New York Botanical Garden* 13:576 (1964) for taxonomic treatment.

Astragalus preussii Gray var. *preussii*

"Preuss's milk-vetch" Fabaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: INY, SBD, AZ, NV, UT
 Quads: 273C, 273D
 Habitat: ChScr, MDScr / clay
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Known in CA from only one or two occurrences. More field work needed. See *Proceedings of the American Academy of Arts and Sciences* 6:222 (1864) for original description, and *Memoirs of the New York Botanical Garden* 13:575-576 (1964) for taxonomic treatment.

Astragalus pseudiodanthus Barneby

"Tonopah milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 3-2-2 State/Fed. Status: /C3c
 Distribution: MNO, NV
 Quads: 469B, 469D
 Habitat: GBSCr (stabilized dunes)
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Known in CA from fewer than ten occurrences. Threatened by grazing. See *Leaflets of Western Botany* 3:99 (1942) for original description, and *Systematic Botany* 8:422 (1983) for alternate taxonomic treatment as *A. iodanthus* var. *pseudiodanthus*.

Astragalus pulsiferae Gray var. *pulsiferae*

"Pulsifer's milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 2-1-2 State/Fed. Status: CEQA
 Distribution: LAS, MOD, PLU, SIE, NV
 Quads: 586A, 586C, 586D, 604C, 621A, 624C, 639D, 656C, 676B, 692A
 Habitat: GBSCr, LCFrs, PJWld / volcanic, sandy or rocky
 Life Form: Perennial herb
 Blooming: May-August
 Notes: Need quads for SIE Co. Plant is fairly widespread, but populations are small. See *Proceedings of the American Academy of Arts and Sciences* 10:69 (1874) for original description, and *Memoirs of the New York Botanical Garden* 13:970-972 (1964) for taxonomic treatment.

Astragalus pulsiferae Gray var. *suksdorfii* (Howell) Barneby

"Suksdorf's milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 3-1-2 State/Fed. Status: /C2
 Distribution: LAS, PLU, SHA, WA
 Quads: 606B, 624C, 625D, 676B
 Habitat: GBSCr, LCFrs / volcanic, often rocky
 Life Form: Perennial herb
 Blooming: May-August
 Notes: Endangerment information needed. Known from fewer than ten herbarium collections; rarer than var. *pulsiferae*. Need quads for SHA Co. State-listed as Threatened in WA. See *Erythraea* 1:111 (1893) for original description, and *Memoirs of the New York Botanical Garden* 13:968-971 (1964) for taxonomic treatment.

Astragalus pycnostachyus Gray var. *lanosissimus* (Rydb.) Munz & McBurn.

"Ventura marsh milk-vetch" Fabaceae
 CNPS List: 1A Last Seen: 1967 State/Fed. Status: /C2*
 Distribution: LAX*, ORA*, VEN*
 Quads: 72A*, 90B*, 111D*, 112D*, 114B*, 141D*
 Habitat: MshSw (coastal salt)
 Life Form: Perennial herb
 Blooming: July-October
 Notes: Recent attempts to rediscover this plant have been unsuccessful. Habitat lost to urbanization. See *North American Flora* 24:357-358 (1929) for original description, and *Memoirs of the New York Botanical Garden* 13:813 (1964) for taxonomic treatment.
 Status Report: 1978

Astragalus rattanii Gray var. *jepsonianus* Barneby

"Jepson's milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CEQA
 Distribution: COL, GLE, LAK, NAP, TEH, YOL
 Quads: 516A, 516B, 517A, 532D, 533C, 533D, 547C, 564A, 612B
 Habitat: CmWld, VFGrs / often serpentine
 Life Form: Annual herb
 Blooming: April-June
 Notes: Most occurrences are small and widely scattered. See *Aliso* 4:137 (1958) for original description, *Memoirs of the New York Botanical Garden* 13:1052 (1964) for taxonomic treatment, and *Systematic Botany* 17(3):367-379 (1992) for distributional information.

Astragalus rattanii Gray var. *rattanii*

"Rattan's milk-vetch" Fabaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: COL, GLE, HUM, LAK, MEN, SON, TEH, TRI
 Habitat: CmWld, LCFrs / gravelly streambanks
 Life Form: Perennial herb
 Blooming: April-July
 Notes: See *Systematic Botany* 17(3):367-379 (1992) for distributional information.

Astragalus ravenii

See *Astragalus monoensis* var. *ravenii*

Astragalus sepultipes

Considered but rejected: Too common

Astragalus serenoii var. *serenoii*

Considered but rejected: Not in CA

Astragalus serenoii (Kuntze) Sheld. var. *shockleyi* (M.E. Jones) Barneby

"naked milk-vetch" Fabaceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
 Distribution: INY, MNO, NV
 Quads: 350B, 391B, 392B, 392C, 411C, 411D, 412B, 412C, 431A
 Habitat: ChScr, GBSCr, PJWld / alkaline, granitic alluvium
 Life Form: Perennial herb
 Blooming: May-July

Astragalus shevockii Barneby

"Shevock's milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C3c
 Distribution: TUL
 Quads: 283D, 307B, 308A
 Habitat: UCFrs (granitic sand)
 Life Form: Perennial herb
 Blooming: June-July
 Notes: See *Brittonia* 29:376-381 (1977) for original description.

Astragalus subvestitus (Jeps.) Barneby

"Kern County milk-vetch" Fabaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: KRN, TUL
 Habitat: GBScr, Medws (xeric), PJWld / gravelly or sandy
 Life Form: Perennial herb
 Blooming: June-July
 Notes: See *Flora of California* 2(1):361 (1936) by W.L. Jepson for original description, and *Memoirs of the New York Botanical Garden* 13:685-686 (1964) for revised nomenclature.

Astragalus tegetarioides

See *Astragalus anxius*

Astragalus tener Gray var. *ferrisiae* Liston

"Ferris's milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C2
 Distribution: BUT, COL*, SOL*, SUT*, YOL*
 Quads: 497B*, 497C*, 498D*, 530B*, 544A*, 546A*, 546D*, 560B, 561A, 561B, 593C*
 Habitat: Medws (vernally mesic), VFGrs (subalkaline flats)
 Life Form: Annual herb
 Blooming: April-May
 Notes: Rediscovered in 1989 by V. Oswald in Butte Sink WA (DFG); known only from two extant occurrences. Most historical habitat destroyed by agriculture. See *Brittonia* 42(2):100-104 (1990) for original description, and *Systematic Botany* 17(3):367-379 (1992) for distributional information.

Astragalus tener Gray var. *tener*

"alkali milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CEQA
 Distribution: ALA*, CCA*, MER, MNT*, NAP*, SBT*, SCL*, SFO*, SJQ*, SOL, SON*, STA*, YOL
 Quads: 365B*, 385B*, 385C*, 403A, 423B*, 423C*, 423D, 424A*, 427B*, 428A*, 446A*, 447A*, 447B*, 447D*, 462A*, 463C*, 465A*, 465C*, 466A*, 466C*, 466D*, 481B, 484B*, 497B*, 498A*, 498C, 498D, 499D*, 500D*, 513B, 513C*, 514A*, 514D*
 Habitat: Plyas, VFGrs (adobe clay), VnPls (alkaline)
 Life Form: Annual herb
 Blooming: March-June
 Notes: Last Bay Area collection in 1959. Threatened by habitat destruction, especially agricultural conversion, and protected only at Jepson Prairie Preserve (TNC), SOL Co. See *Proceedings of the American Academy of Arts and Sciences* 6:206 (1864) for original description, and *Systematic Botany* 17(3):367-379 (1992) for distributional information.

Astragalus tener Gray var. *titi* (Eastw.) Barneby

"coastal dunes milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/C1
 Distribution: LAX*, MNT, SDG
 Quads: 11B*, 22B, 36B, 90A*, 112D*, 366C
 Habitat: CBScr (sandy), CoDns
 Life Form: Annual herb
 Blooming: March-May
 Notes: Known from only three extant occurrences; SDG Co. occurrences have not been documented since the 1970's. Threatened by urbanization, recreational activities, and non-native plants. See *Bulletin of the Torrey Botanical Club* 32:195-196 (1905) for original description, and *Memoirs of the New York Botanical Garden* 13:1048 (1964) for taxonomic treatment.
 Status Report: 1987

Astragalus traskiae Eastw.

"Trask's milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CR/C2
 Distribution: SBR, SNI
 Quads: SBRA, SNIC
 Habitat: CBScr, CoDns
 Life Form: Perennial herb
 Blooming: March-July
 Notes: Populations on SBR Isl. declined severely (65%) between 1986 and 1989. Possibly threatened by Navy activities on SNI Isl. See *Proceedings of the California Academy of Sciences* III 1:102 (1898) for original description, and *Memoirs of the New York Botanical Garden* 13:461-463 (1964) for taxonomic treatment.
 Status Report: 1990

Astragalus tricarinatus Gray

"triple-ribbed milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /PE
 Distribution: RIV, SBD
 Quads: 65D, 83A, 83B, 104D
 Habitat: JTWld, SDScr / sandy or gravelly
 Life Form: Perennial herb
 Blooming: February-May
 Notes: Known from approximately four occurrences near Whitewater and Morongo Valley. Threatened by vehicles.

Astragalus trichopodus var. *trichopodus*

Considered but rejected: Too common

Astragalus umbraticus Sheld.

"Bald Mtn. milk-vetch" Fabaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: HUM, OR
 Habitat: CmWld
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Possibly threatened by logging. Endangered in OR.

Astragalus webberi Gray

"Webber's milk-vetch" Fabaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: PLU, SIE
 Quads: 605C, 605D, 606D
 Habitat: LCFrs
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Known from approximately ten occurrences. Undocumented in SIE Co.; need quads. See *Botany of California* 1:154 (1876) for original description.

Astroblepis cochisensis (Goodd.) Benham & Windham

"scaly cloak fern" Pteridaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: SBD, AZ, BA+
 Quads: 249D
 Habitat: JTWld, PJWld / carbonate
 Life Form: Perennial herb (rhizomatous)
 Fertile: April-October
 Notes: Need quad for occurrence in the Providence Mtns. See *Madroño* 25:57 (1978) for distributional information, *Phytologia* 41(6):431-437 (1979) for nomenclature, *American Journal of Botany* 75:138 (1988) for taxonomic discussion, and *American Fern Journal* 82(2):57 (1992) for revised nomenclature.

Atriplex cordulata Jeps.

"heartscale" Chenopodiaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: ALA, BUT, CCA*, FRE, GLE, KNG, KRN, MAD, MER, SJQ*, SOL, STA*, TUL
 Quads: 215B, 216A, 216C, 287B, 287C, 288A, 288B, 288C, 288D, 359A*, 360A, 381A*, 381D, 401B*, 401D*, 403A, 403B*, 403C*, 403D, 423B, 423C, 424A*, 445B, 463A*, 463D, 481C, 481D*, 561D, 562B
 Habitat: ChScr, VFGrs (sandy) / saline or alkaline
 Life Form: Annual herb
 Blooming: May-October
 Notes: Need quads for KNG and SJQ counties.

Atriplex coronata Wats. var. *coronata*

"crownscale" Chenopodiaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: ALA, CCA, FRE, KNG, KRN, MER, MNT, SJQ?, SLO, STA
 Habitat: ChScr?, VFGrs, VnPls / alkaline
 Life Form: Annual herb
 Blooming: April-October
 Notes: Does plant occur in SJQ Co.? Similar to *A. cordulata* and *A. vallicola*. See *Proceedings of the American Academy of Arts and Sciences* 9:114 (1874) for original description.

Atriplex coronata Wats. var. *notatior* Jeps.

"San Jacinto Valley crownscale" Chenopodiaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C1
 Distribution: RIV
 Quads: 68A, 84C*, 85A, 85C, 85D
 Habitat: Plyas, VnPls / alkaline
 Life Form: Annual herb
 Blooming: April-August
 Notes: Known from one extended but fragmented population in the San Jacinto Valley. Threatened by flood control, agriculture, urbanization, grazing, and vehicles. See *Manual of the Flowering Plants of California*, p. 325 (1925) by W.L. Jepson for original description.
 Status Report: 1988

Atriplex coulteri (Moq.) D. Dietr.

"Coulter's saltbush" Chenopodiaceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: CEQA
 Distribution: ANA, LAX, ORA, RIV, SBA, SBD, SCM, SCT, SCZ, SDG, SMI, SRO, BA
 Quads: 10C, 11A, 11B, 11D, 22C, 34A, 49D, 52B, 70C, 71B, 71D, 87B, 113D, 142A, 142B, 143A, 145B, 170C, ANAC, SCMC, SCTN, SCTS, SCTW, SCZA, SCZB, SCZC, SMIE, SROE, SRON
 Habitat: CBScr, CoDns, CoScr, VFGrs / alkaline or clay
 Life Form: Perennial herb
 Blooming: March-October
 Notes: Few recent sightings. Need quads for RIV Co. Threatened by development, and probably by feral herbivores.

Atriplex depressa Jeps.

"brittlescale" Chenopodiaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CEQA
 Distribution: ALA, CCA, COL, FRE, GLE, KRN, MAD, MER, SOL, STA*, TUL, YOL
 Quads: 265A, 288D, 334B*, 334D*, 335B*, 358C*, 359A, 359B, 359D*, 360A, 381A*, 401B*, 401D*, 402A, 403A, 423B*, 424A*, 443B*, 445B, 463C, 481B, 498D, 513B, 514A*, 546A, 547A, 562B, 562D, 578C*
 Habitat: ChScr, Plyas, VFGrs / alkaline or clay
 Life Form: Annual herb
 Blooming: May-October
 Notes: Closely related to *A. minuscula* and *A. parishii*; a synonym of the latter in *A California Flora* (1959) by P. Munz. See *Pittonia* 2:304 (1892) for original description.

Atriplex joaquiniana A. Nels.

"San Joaquin spearscale" Chenopodiaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: ALA, CCA, COL, GLE, MER, NAP, SAC, SBT, SCL*, SJQ*, SOL, TUL*, YOL
 Quads: 340D, 385B*, 385C*, 403A, 403B, 406D*, 423C, 427B*, 445B, 462A*, 463C, 463D, 464A, 464B*, 464C*, 465D*, 480B*, 480C*, 481D*, 483A, 498C*, 498D, 499D*, 500D, 511A, 513B*, 530B*, 547A, 547C, 562B, 564A, 578C*
 Habitat: ChScr, Medws, VFGrs / alkaline
 Life Form: Annual herb
 Blooming: April-September
 Notes: Need historical quads for TUL Co. Threatened by grazing, agriculture, and development.

Atriplex minuscule Standl.

"lesser saltscale" Chenopodiaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CEQA
 Distribution: FRE*, KRN, MAD, MER*, TUL*
 Quads: 241B, 287C*, 288D*, 334C*, 334D*, 359B*, 359D*,
 381A, 381C, 401B*, 401C, 401D*, 402A*
 Habitat: ChScr, Plyas, VFGrs / alkaline
 Life Form: Annual herb
 Blooming: May-October
 Notes: Known from fewer than five extant occurrences. Historical occurrences extirpated by agriculture. Closely related to *A. depressa* and *A. parishii*; a synonym of the latter in *A California Flora* (1959) by P. Munz. See *North American Flora* 21:51 (1916) for original description.

Atriplex pacifica Nels.

"South Coast saltscale" Chenopodiaceae
 CNPS List: 1B R-E-D Code: 3-2-2 State/Fed. Status: /C2
 Distribution: ANA, LAX, ORA*, RIV, SCM, SCT, SCZ, SDG,
 SNI, SRO, VEN*, BA
 Quads: 10C(*?), 11B, 22A, 22B, 22C*, 52A, 52D, 68A, 71B*,
 71D*, 73A, 85C, 85D, 90C*, 141D*, ANAC, SCTE, SCTN,
 SCTS, SCZC, SNIC
 Habitat: CBSCr, CoScr, Plyas
 Life Form: Annual herb
 Blooming: March-October
 Notes: Many known occurrences extirpated; need information. Need quads for SCM and SRO islands. Greatly reduced by urbanization on mainland. See *Proceedings of the Biological Society of Washington* 17:99 (1904) for original description.

Atriplex parishii Wats.

"Parish's brittlescale" Chenopodiaceae
 CNPS List: 1B R-E-D Code: 3-3-2 State/Fed. Status: /C2
 Distribution: LAX*, ORA*, RIV, SBD*, SDG*, BA
 Quads: 66D*, 68A, 71B*, 71D*, 72A*, 83D*, 85C, 89D*, 90C*,
 111A*, 111C*, 131D*
 Habitat: ChScr, Plyas, VnPls
 Life Form: Annual herb
 Blooming: June-October
 Notes: Plant collected only once (1993) in CA since 1974; probably still extant in BA. Threatened by development, agricultural conversion, and grazing. Taxonomic reevaluation indicates plant is only from southern California, but is closely related to more northern *A. depressa* and *A. minuscule*. See *Proceedings of the American Academy of Arts and Sciences* 17:377 (1882) for original description.

Atriplex patula ssp. *spicata*

See *Atriplex joaquimiana*

Atriplex serenana Nels. var. *dauidsonii* (Standl.) Munz

"Davidson's saltscale" Chenopodiaceae
 CNPS List: 1B R-E-D Code: 3-2-2 State/Fed. Status: CEQA
 Distribution: LAX(*?), ORA, RIV, SBA, SDG, SRO, VEN, BA
 Quads: 71B, 71D, 73A(*?), 85D, 88A, 140B
 Habitat: CBSCr, CoScr / alkaline
 Life Form: Annual herb
 Blooming: April-October
 Notes: Is plant extirpated from LAX Co.? Need quads for SBA and SDG counties and SRO Isl. See *North American Flora* 21:57 (1916) for original description.

Atriplex tularensis Cov.

"Bakersfield smallscale" Chenopodiaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/C2*
 Distribution: KRN(*?)
 Quads: 214B?, 215A*, 239C*
 Habitat: ChScr
 Life Form: Annual herb
 Blooming: June-October
 Notes: Possibly extinct. Three historical occurrences extirpated by agriculture; only remaining occurrence at Kern Lake Preserve (TNC) is probably an undescribed form of *A. serenana*, not *A. tularensis* as thought. Immediate taxonomic study warranted. Threatened by lowering of water table. See *Contributions from the U.S. National Herbarium* 4:182 (1893) for original description, and *Fremontia* 19(2):15-18 (1991) for species account and discussion of management.
 Status Report: 1993

Atriplex vallicola Hoov.

"Lost Hills crownscale" Chenopodiaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: FRE, KNG, KRN, MER, SLO
 Quads: 218A, 218B, 242A, 242D, 243C, 265B*, 265D, 266A,
 289C, 290D, 359B, 381C, 383B
 Habitat: ChScr, VFGrs, VnPls / alkaline
 Life Form: Annual herb
 Blooming: May-August
 Notes: Threatened by grazing and agricultural conversion. Plants from SLO Co. are probably an unnamed new taxon. See *Leaflets of Western Botany* 2(8):130-131 (1938) for original description.
 Status Report: 1988

Ayenia compacta Rose

"ayenia" Sterculiaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: RIV, SBD, SDG, BA
 Quads: 7C, 19A, 19B, 20D, 32A, 32B, 32C, 32D, 33A, 47D, 61B,
 62B, 65C, 65D, 66A, 79D, 83D, 176A
 Habitat: MDSCr, SDSCr / washes
 Life Form: Perennial herb
 Blooming: March-April

Azolla mexicana C. Presl

"Mexican mosquito fern" Azollaceae
 CNPS List: 4 R-E-D Code: 1-2-1 State/Fed. Status: CEQA?
 Distribution: BUT, KRN, LAK, MOD, NEV, PLU, SCL, SDG,
 TUL, AZ, BA, GU, NV, OR, ++
 Habitat: MshSw (ponds, slow water)
 Life Form: Annual/Perennial herb
 Fertile: August
 Notes: Too common? Difficult to distinguish from *A. filiculoides*,
 which is common. See *American Fern Journal* 34(3):69-84 (1944)
 for a review of New World *Azolla*.

Baccharis malibuensis

Considered but rejected: Not yet published

Baccharis plummerae

See *Baccharis plummerae* ssp. *plummerae*

Baccharis plummerae Gray ssp. *glabrata* Hoov.

"San Simeon baccharis" Asteraceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CEQA
 Distribution: SLO
 Quads: 271A, 271B, 272A
 Habitat: CoScr
 Life Form: Shrub (deciduous)
 Blooming: June
 Notes: Known only from San Simeon and Arroyo de la Cruz. Prob-
 ably threatened by grazing. See *Vascular Plants of San Luis Obispo*
County, p. 302 (1970) by R. Hoover for original description.

Baccharis plummerae Gray ssp. *plummerae*

"Plummer's baccharis" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: ANA, LAX, SBA, SCZ, VEN
 Habitat: BUFRs, Chprl, CmWld, CoScr / rocky
 Life Form: Shrub (deciduous)
 Blooming: August-October

Baccharis vanessae Beauch.

"Encinitas baccharis" Asteraceae
 CNPS List: 1B R-E-D Code: 2-3-3 State/Fed. Status: CE/PE
 Distribution: SDG
 Quads: 22A, 34C, 35C, 35D, 36D, 51B
 Habitat: Chprl (sandstone)
 Life Form: Shrub (deciduous)
 Blooming: August-November
 Notes: Known from fewer than twenty occurrences. Almost extir-
 pated from Encinitas area. Threatened by development and recre-
 ation. See *Phytologia* 46(4):216-222 (1980) for original
 description, and *Madroño* 40(2):133 (1993) for range extension
 information.
 Status Report: 1987

Bacopa nobisiana

Considered but rejected: A synonym of *B. rotundifolia*, a common,
 non-native taxon

Balsamorhiza hookeri Nutt. var. *lanata* Sharp

"woolly balsamroot" Asteraceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CEQA
 Distribution: SIS
 Quads: 716C, 717B
 Habitat: CmWld
 Life Form: Perennial herb
 Blooming: April-June
 Notes: Known only from the Shasta Valley area. Probably reduced by
 grazing. See *Annals of the Missouri Botanical Garden* 22:130
 (1935) for original description.

Balsamorhiza macrolepis Sharp var. *macrolepis*

"big-scale balsamroot" Asteraceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CEQA
 Distribution: ALA, BUT, MPA, NAP, PLA, SCL, TEH
 Quads: 406D, 438D, 446A, 447A, 465C, 482B, 528A, 528D,
 575A, 630D
 Habitat: CmWld, VFGrs / sometimes serpentinite
 Life Form: Perennial herb
 Blooming: March-June
 Notes: See *Annals of the Missouri Botanical Garden* 22:132 (1935) for
 original description.

Balsamorhiza sericea W.A. Weber

"silky balsamroot" Asteraceae
 CNPS List: 4 R-E-D Code: 2-1-2 State/Fed. Status: /C2
 Distribution: SIS, TRI, OR
 Habitat: LCFrs (serpentinite)
 Life Form: Perennial herb
 Blooming: April-May
 Notes: On watch list in OR. Perhaps not distinct from *B. macrolepis*
 var. *platylepis*. See *Phytologia* 50(5):357-359 (1982) for original de-
 scription.

Benitoa occidentalis

See *Lessingia occidentalis*

Bensoniella oregona (Abrams & Bacig.) Morton

"bensoniella" Saxifragaceae
 CNPS List: 1B R-E-D Code: 3-3-2 State/Fed. Status: CR/C2
 Distribution: HUM, OR
 Quads: 653A, 671D
 Habitat: BgFns, LCFrs (openings), Medws / mesic
 Life Form: Perennial herb
 Blooming: July
 Notes: Known in CA from fewer than ten occurrences. Threatened
 by logging and grazing. Candidate for state listing in OR. See
Contributions from the Dudley Herbarium 1:95 (1929) for original
 description, and *Leaflets of Western Botany* 10:181 (1965) for re-
 vised nomenclature.
 Status Report: 1987

Berberis fremontii Torr.

"Fremont barberry" Berberidaceae
 CNPS List: 3 R-E-D Code: ??-1 State/Fed. Status: CEQA?
 Distribution: SBD, SDG, AZ, BA, NV, SO, ++
 Quads: 7B, 7C, 8A*, 9B, 131D*, 200A, 200B, 224C, 225D
 Habitat: Chprl, JTWld, PJWld / rocky
 Life Form: Shrub (evergreen)
 Blooming: April-June
 Notes: Taxonomy extremely complex; as treated here includes *B. haematocarpa* and *B. higginsiae*, but these may be distinct taxa. Definitive study needed. See *Report on the U.S. and Mexican Boundary Survey*, p. 30 (1859) by W. Emory for original description, and *Phytologia* 52:221-226 (1982) for relationship between *Berberis* and *Mahonia*.

Berberis higginsiae

See *Berberis fremontii*

Berberis nevini Gray

"Nevin's barberry" Berberidaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/C1
 Distribution: LAX, RIV, SBD, SDG
 Quads: 33A, 49A, 49B, 49C, 50A, 67C, 106C, 108B, 110B, 111A, 137C*, 137D*, 138A, 163D
 Habitat: Chprl, CmWld, CoScr, RpScr / sandy or gravelly
 Life Form: Shrub (evergreen)
 Blooming: March-April
 Notes: Many historical occurrences have been extirpated. Threatened by development and road maintenance. Angeles NF has adopted species management guidelines. State-listed as *Mahonia nevini*. See *Synoptical Flora of North America* 1(1):69 (1895) for original description, and *Journal of the Linnean Society of London* 57(369):354 (1961) for revised nomenclature.
 Status Report: 1987

Berberis pinnata Lag. ssp. *insularis* Munz

"island barberry" Berberidaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CE/C1
 Distribution: ANA*, SCZ, SRO
 Quads: ANAC*, SCZA, SCZB, SROW
 Habitat: CCFrs, CmWld, CoScr
 Life Form: Shrub (evergreen)
 Blooming: March
 Notes: Known from fewer than ten occurrences. Last seen on ANA Isl. in 1978. Threatened by feral herbivores. State-listed as *Mahonia pinnata* ssp. *insularis*. See *Changing Seasons* 1(3):14 (1981) for revised nomenclature.
 Status Report: 1987

Berberis sonnei

Considered but rejected: A synonym of *B. aquifolium* var. *repens*; a common taxon

Bergerocactus emoryi (Engelm.) Britt. & Rose

"golden-spined cereus" Cactaceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
 Distribution: ORA*, SCM, SCT, SDG, BA
 Quads: 10C, 11A, 11B, 11D, 22B, SCMC, SCMN, SCMS, SCTN, SCTS, SCTW
 Habitat: CCFrs, Chprl, CoScr / sandy
 Life Form: Shrub (stem succulent)
 Blooming: May-June
 Notes: Need historical quads for ORA Co. Threatened by development and horticultural collecting.

Blennosperma bakeri Heiser

"Sonoma sunshine" Asteraceae
 CNPS List: 1B R-E-D Code: 2-3-3 State/Fed. Status: CE/FE
 Distribution: SON
 Quads: 483B, 500C, 501B, 501C, 501D, 502A
 Habitat: VFGrs (mesic), VnPls
 Life Form: Annual herb
 Blooming: March-April
 Notes: Threatened by urbanization, grazing, and agriculture. See *Madroño* 9:103-104 (1947) for original description.
 Status Report: 1977

Blennosperma nanum (Hook.) Blake var. *robustum* J.T. Howell

"Point Reyes blennosperma" Asteraceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CR/C2
 Distribution: MEN, MRN
 Quads: 485B, 485C, 569A
 Habitat: CoPrr, CoScr
 Life Form: Annual herb
 Blooming: March
 Notes: Known from fewer than fifteen occurrences. Possibly threatened by grazing. Plants found near Fort Bragg in 1988 appear closest to this taxon. Some Pt. Reyes populations intermediate to var. *nanum*. See *Leaflets of Western Botany* 5:105-108 (1948) for original description.
 Status Report: 1988

Blepharidachne kingii (Wats.) Hack.

"King's eyelash grass" Poaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: INY, MNO, NV+
 Quads: 302A, 327C, 347C, 390C, 412D, 431A
 Habitat: PJWld (carbonate)
 Life Form: Perennial herb
 Blooming: May

Blepharizonia plumosa (Kell.) Greene ssp. *plumosa*

"big tarplant" Asteraceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CEQA
 Distribution: ALA, CCA(*), SJQ*, STA*, SOL*
 Quads: 443C*, 444B*, 445B, 446A, 462C*, 465A(*), 481C(*),
 481D(*?)
 Habitat: VFGrs
 Life Form: Annual herb
 Blooming: July-October
 Notes: Need historical quads for SOL Co. Very limited; possibly extant only on private property in the hills near Livermore, ALA Co. Historical occurrences probably extirpated by agriculture and non-native plants. See *Proceedings of the California Academy of Sciences* 15:49 (1873) for original description.

Bloomeria humilis Hoov.

"dwarf goldenstar" Liliaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CR/C1
 Distribution: MNT?, SLO
 Quads: 272A
 Habitat: CBScr, Chprl, VFGrs
 Life Form: Perennial herb (bulbiferous)
 Blooming: June
 Notes: Known in SLO Co. from only two occurrences in the Arroyo de la Cruz area. Does plant occur in MNT Co.? See *Plant Life* 11:20-22 (1955) for original description.
 Status Report: 1988

Boerhavia annulata

Considered but rejected: Too common; a synonym of *Anulocaulis annulatus*

Bolandra californica Gray

"Sierra bolandra" Saxifragaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: ALP, AMA, CAL, ELD, MPA, STA, TUO
 Habitat: LCFrs, UCFrs / mesic, rocky
 Life Form: Perennial herb
 Blooming: June-July

Boschniakia hookeri Walp.

"small groundcone" Orobanchaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: DNT, HUM, MEN, MRN, OR, WA+
 Quads: 467A, 467B, 550D
 Habitat: NCFrs
 Life Form: Perennial herb (rhizomatous, parasitic)
 Blooming: April-August
 Notes: How rare is plant outside CA? Need quads for DNT and HUM counties. Parasitic on *Gaultheria shallon* and *Vaccinium* spp. See *Report of the Pacific Railroad Expedition* 3:479 (1844-45) for original description.

Botrychium ascendens W. Wagner

"upswept moonwort" Ophioglossaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: /C2
 Distribution: BUT, ELD, TEH, NV, OR, ++
 Quads: 607B, 607C
 Habitat: LCFrs (mesic)
 Life Form: Perennial herb (rhizomatous)
 Fertile: July-August
 Notes: Known in CA from only two occurrences: near Jonesville on the BUT and TEH Co. border, and south of Fallen Leaf Lake, ELD Co. Candidate for state listing in OR. See *American Fern Journal* 76(2):33-47 (1986) for original description, and *Madroño* 36(2):131-136 (1989) for discussion of Jonesville records.

Botrychium crenulatum W. Wagner

"scalloped moonwort" Ophioglossaceae
 CNPS List: 1B R-E-D Code: 2-1-2 State/Fed. Status: /C2
 Distribution: BUT, LAX, MOD?, SBD, TEH, TUL, ID, OR, UT+
 Quads: 105A, 105B, 135D, 306C, 607B, 607C
 Habitat: BgFns, LCFrs, Medws, MshSw (freshwater)
 Life Form: Perennial herb (rhizomatous)
 Fertile: June-July
 Notes: Scattered but not common anywhere in CA. Does plant occur in MOD Co.? On review list in ID, and a candidate for state listing in OR. See *American Fern Journal* 71(1):20-30 (1981) for original description, and *Madroño* 36(2):131-136 (1989) for distributional information.

Botrychium lunaria (L.) Sw.

"moonwort" Ophioglossaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: MNO, MOD, TUO, NV, OR, WA, ++
 Quads: 690B
 Habitat: Medws, SCFrs, UCFrs
 Life Form: Perennial herb (rhizomatous)
 Fertile: August
 Notes: Need quads for MNO and TUO counties. Endangered in OR, and state-listed as Sensitive in WA.

Botrychium minganense Victorin

"Mingan moonwort" Ophioglossaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: BUT, FRE, TEH, AZ, ID, OR, WA, ++
 Quads: 394D, 607B, 607C
 Habitat: LCFrs (mesic)
 Life Form: Perennial herb (rhizomatous)
 Fertile: July-August
 Notes: Threatened in ID, endangered in OR, and state-listed as Sensitive in WA. See *Bulletin of the Torrey Botanical Club* 83(4):261-280 (1956) for comparison with *B. lunaria*, and *Madroño* 36(2):131-136 (1989) for CA records.

***Botrychium montanum* W. Wagner**

"western goblin" Ophioglossaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: BUT, TEH, OR, WA, ++
 Quads: 607B, 607C
 Habitat: LCFrs (mesic)
 Life Form: Perennial herb (rhizomatous)
 Fertile: July-August
 Notes: Endangered in OR, and state-listed as Sensitive in WA. See *American Fern Journal* 71(1):20-30 (1981) for original description, and *Madroño* 36(2):131-136 (1989) for first CA records.

***Botrychium pinnatum* St. John**

"northwestern moonwort" Ophioglossaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: SIS, ID, NV, OR, WA, ++
 Quads: 701D
 Habitat: LCFrs?, Medws
 Life Form: Perennial herb (rhizomatous)
 Fertile: September-October
 Notes: Known in CA only from near Etna. Threatened in ID, endangered in OR, and state-listed as Sensitive in WA. See *American Fern Journal* 19:11-15 (1929) for original description.

Botrychium pumicola

Considered but rejected: Not in CA; only known CA occurrence on Mt. Shasta a misidentification

Bouteloua simplex

Considered but rejected: Not in CA

***Bouteloua trifida* Thurb.**

"red grama" Poaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: INY, SBD, AZ, NV, SO, ++
 Quads: 176A, 201A, 201C, 225D, 249A, 274C, 298D, 323B
 Habitat: MDScr (carbonate, crevices)
 Life Form: Perennial herb
 Blooming: May-September
 Notes: See *Proceedings of the American Academy of Arts and Sciences* 18:177 (1883) for original description, and *Annals of the Missouri Botanical Garden* 66(3):399-400 (1979) for taxonomic treatment.
 Status Report: 1987

***Boykinia rotundifolia* Parry**

"round-leaved boykinia" Saxifragaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: LAX, ORA, RIV, SBA, SBD, SDG, VEN
 Habitat: Chprl (mesic), RpWld
 Life Form: Perennial herb
 Blooming: June-July

Brickellia frutescens

Considered but rejected: Too common

Brickellia knappiana

Considered but rejected: A hybrid

Brickellia nevinii

Considered but rejected: Too common

Brodiaea coronaria* (Salisb.) Engler**ssp. rosea* (Greene) Niehaus**

"Indian Valley brodiaea" Liliaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/C2
 Distribution: COL, GLE, LAK, TEH
 Quads: 547B, 547C, 548A, 548C, 564A, 596B, 596C
 Habitat: CCFrs, Chprl, VFGrs / serpentine
 Life Form: Perennial herb (bulbiferous)
 Blooming: May-June
 Notes: Known from fewer than twenty occurrences. Threatened by vehicles and dumping. Protected in part at ACEC (BLM), LAK Co. See *Bulletin of the California Academy of Sciences* 2:137 (1886) for original description, and *American Midland Naturalist* 22:560-561 (1939) for revised nomenclature.
 Status Report: 1987

***Brodiaea filifolia* Wats.**

"thread-leaved brodiaea" Liliaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/C1
 Distribution: LAX, ORA, RIV, SBD, SDG
 Quads: 35B, 35C, 36A, 36D, 65C, 68A, 68B, 69A, 69C, 69D, 70D, 85C, 85D, 107A, 109A
 Habitat: CoScr, CmWld, VFGrs, VnPls / clay
 Life Form: Perennial herb (bulbiferous)
 Blooming: March-June
 Notes: Seriously threatened by residential development, agriculture, and vehicles. May hybridize with *B. orcuttii* and *B. terrestris* ssp. *kernensis*. See *Proceedings of the American Academy of Arts and Sciences* 17:381 (1882) for original description.
 Status Report: 1987

***Brodiaea insignis* (Jeps.) Niehaus**

"Kaweah brodiaea" Liliaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CE/C2
 Distribution: TUL
 Quads: 308A, 308B, 308C, 309D, 332A, 332B, 332C, 332D, 333A
 Habitat: CmWld, VFGrs / granitic or clay
 Life Form: Perennial herb (bulbiferous)
 Blooming: April-June
 Notes: Known only from the Tule and Kaweah River drainages. Threatened by residential development, road maintenance, grazing, and non-native plants. See *Flora of California* 1(6):288 (1922) by W.L. Jepson for original description, and *University of California Publications in Botany* 60:52 (1971) for revised nomenclature.
 Status Report: 1993

***Brodiaea kinkiensis* Niehaus**

"San Clemente Island brodiaea" Liliaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: SCM
 Quads: SCMC, SCMS
 Habitat: VFGrs (clay)
 Life Form: Perennial herb (bulbiferous)
 Blooming: May-June
 Notes: Known from fewer than twenty occurrences. Feral herbivores removed from SCM Isl., and vegetation recovering. See *Madroño* 19:223-225 (1966) for original description.

Brodiaea leptandra

Considered but rejected: Too common; a synonym of *B. californica* var. *leptandra*

***Brodiaea orcuttii* (Greene) Baker**

"Orcutt's brodiaea" Liliaceae
 CNPS List: 1B R-E-D Code: 1-3-2 State/Fed. Status: /C2
 Distribution: ORA, RIV, SDG, BA
 Quads: 9B, 10A, 10C, 20A, 20C, 21B, 21C, 22A, 22B, 22C, 22D, 33C, 33D, 34A, 34D, 35A, 35B, 35C, 49D, 50B, 51A, 65C, 68C, 69C, 69D
 Habitat: CCFrs, Chprl, CmWld, Medws, VFGrS, VnPls / clay, sometimes serpentine
 Life Form: Perennial herb (bulbiferous)
 Blooming: May-July
 Notes: Historical occurrences need field surveys. Santa Rosa Plateau (RIV Co.) populations are rare and declining. Threatened by development, vehicles, road construction, and dumping. May hybridize with *B. filifolia*. See *Bulletin of the California Academy of Sciences* 2:138 (1886) for original description, and *University of California Publications in Botany* 60:59-61 (1971) for taxonomic treatment.
 Status Report: 1977

***Brodiaea pallida* Hoov.**

"Chinese Camp brodiaea" Liliaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/C1
 Distribution: TUO
 Quads: 458B, 458C
 Habitat: VFGrS (vernal streambeds, serpentine)
 Life Form: Perennial herb (bulbiferous)
 Blooming: May-June
 Notes: Known from only one extended occurrence near Chinese Camp. Threatened by residential development. Hybridizes with *B. elegans*. See *Leaflets of Western Botany* 2:129-130 (1938) for original description.
 Status Report: 1977

Bromus polyanthus

Considered but rejected: A synonym of *B. carinatus* var. *carinatus*; a common taxon

Buddleja utahensis

Considered but rejected: Too common

Bursera hindsiana

Considered but rejected: Unable to verify presumed CA occurrence in southern SDG Co.

***Bursera microphylla* Gray**

"elephant tree" Burseraceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: IMP, SDG, AZ, BA
 Quads: 7A, 18B, 18C, 19A, 31C, 31D, 46B
 Habitat: SDScr (rocky)
 Life Form: Tree (deciduous)
 Blooming: June-July
 Notes: Known in CA from fewer than twenty occurrences. Threatened by horticultural collecting. State-listed as Highly Safeguarded in AZ.

Cakile edentula* ssp. *californica

Considered but rejected: Not native; a synonym of *C. edentula*

***Calamagrostis bolanderi* Thurb.**

"Bolander's reed grass" Poaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: HUM, MEN, SON
 Habitat: BgFns, CCFrs, CoScr, Medws?, MshSw (freshwater)
 Life Form: Perennial herb (rhizomatous)
 Blooming: June-August

***Calamagrostis crassiglumis* Thurb.**

"Thurber's reed grass" Poaceae
 CNPS List: 2 R-E-D Code: 3-3-1 State/Fed. Status: /C2
 Distribution: DNT, HUM?, MEN, MRN, SON, WA, ++
 Quads: 485C, 502A, 569D, 585D, 740C
 Habitat: CoScr (mesic), MshSw (freshwater)
 Life Form: Perennial herb (rhizomatous)
 Blooming: June-July
 Notes: Known in CA from fewer than ten occurrences. Undocumented in HUM Co.; need quads. Threatened by grazing at Pt. Reyes NS. State-listed as Threatened in WA. See *C. stricta* ssp. *inexpansa* in *The Jepson Manual*. See *Botany of California* 2:281 (1880) for original description.

Calamagrostis densa

Considered but rejected: A synonym of *C. koelerioides*; a common taxon

***Calamagrostis foliosa* Kearn.**

"leafy reed grass" Poaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CR/C3c
 Distribution: DNT, HUM, MEN
 Habitat: CBSCr, NCFrs / rocky
 Life Form: Perennial herb
 Blooming: May-August
 Notes: Many occurrences located in the King Range of HUM Co. Threatened by grazing. See *Contributions from the U.S. National Herbarium* 3:83 (1892) for original description.
 Status Report: 1987

***Calamagrostis ophitidis* (J.T. Howell) Nygren**

"serpentine reed grass" Poaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: LAK, MRN, NAP, SON
 Habitat: Chprl, Medws, VFGrS / serpentine
 Life Form: Perennial herb
 Blooming: April-June

Calamintha chandleri

See *Satureja chandleri*

Calandrinia breweri Wats.

"Brewer's calandrinia" Portulacaceae
 CNPS List: 4 R-E-D Code: 1-2-2 State/Fed. Status: CEQA?
 Distribution: CCA, LAX, MEN, MNT, MPA, MRN, NAP, SBA,
 SBD, SCL, SCR, SCZ, SDG, SLO, SMT, SON, VEN, BA
 Habitat: Chprl, CoScr / disturbed sites, burns
 Life Form: Annual herb
 Blooming: March-June
 Notes: How common is this plant? Plant appears to be widely scattered but uncommon everywhere, and most collections are old. Field surveys needed. See *Proceedings of the American Academy of Arts and Sciences* 11:124 (1876) for original description.

Calandrinia maritima Nutt.

"seaside calandrinia" Portulacaceae
 CNPS List: 4 R-E-D Code: 1-2-1 State/Fed. Status: CEQA?
 Distribution: ANA, LAX, ORA, SBA, SBR, SCM, SCT, SCZ,
 SDG, SRO, VEN, BA
 Habitat: CBScr, VFGrs / sandy
 Life Form: Annual herb
 Blooming: March-May

Calliandra eriophylla Benth.

"fairyduster" Fabaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: IMP, SDG, AZ, BA+
 Quads: 12B, 13A, 13B, 13C, 13D, 26A, 26C, 26D, 32C, 32D
 Habitat: SDScr (sandy)
 Life Form: Shrub (deciduous)
 Blooming: January-March

Calochortus catalinae Wats.

"Catalina mariposa lily" Liliaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: LAX, ORA, SBA, SCT, SCZ, SDG, SLO, SRO, VEN
 Habitat: Chprl, CmWld, CoScr, VFGrs
 Life Form: Perennial herb (bulbiferous)
 Blooming: February-May
 Notes: Threatened by development.

Calochortus clavatus Wats. var. *avius* Jeps.

"Pleasant Valley mariposa lily" Liliaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C1
 Distribution: AMA, ELD, MPA*
 Quads: 420D*, 492A, 508B, 508C, 508D, 509A, 509B*, 524C
 Habitat: LCFrs (Josephine silt loam and volcanic)
 Life Form: Perennial herb (bulbiferous)
 Blooming: June-July
 Notes: Threatened by development and logging.

Calochortus clavatus Wats. var. *clavatus*

"club-haired mariposa lily" Liliaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: LAX, SBA, SBT, SLO
 Habitat: Chprl, CmWld, VFGrs / generally serpentinite
 Life Form: Perennial herb (bulbiferous)
 Blooming: June

Calochortus clavatus Wats. var. *gracilis* Ownbey

"slender mariposa lily" Liliaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: LAX
 Quads: 108B, 109A, 109B, 135D, 137B, 138A,
 Habitat: Chprl
 Life Form: Perennial herb (bulbiferous)
 Blooming: March
 Notes: Threatened by development. See *Annals of the Missouri Botanical Garden* 27(4):371-561 (1940) for original description.

Calochortus clavatus Wats. ssp. *recurvifolius* (Hoov.) Munz

"Arroyo de la Cruz mariposa lily" Liliaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: SLO
 Quads: 272A
 Habitat: CBScr, Chprl (maritime), CoPrr, LCFrs
 Life Form: Perennial herb (bulbiferous)
 Blooming: June-July
 Notes: Known from fewer than ten occurrences. Threatened by grazing. See *Leaflets of Western Botany* 10:121-128 (1964) for original description.
 Status Report: 1977

Calochortus coeruleus var. *nanus*

Considered but rejected: A synonym of *C. elegans*; a common taxon

Calochortus coeruleus var. *westonii*

See *Calochortus westonii*

Calochortus concolor

Considered but rejected: Too common

Calochortus dunnii Purdy

"Dunn's mariposa lily" Liliaceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: CR/C2
 Distribution: SDG, BA
 Quads: 9C, 10A, 10B, 10D, 19C, 20A, 20D, 21A, 33D, 49C
 Habitat: CCFrs, Chprl / gabbroic
 Life Form: Perennial herb (bulbiferous)
 Blooming: May-June
 Notes: See *Proceedings of the California Academy of Sciences* III 2:147 (1901) for original description.
 Status Report: 1987

Calochortus elegans var. *oreophyllus*

Considered but rejected: A synonym of *C. elegans*; a common taxon

Calochortus excavatus Greene

"Inyo County star-tulip" Liliaceae
 CNPS List: 1B R-E-D Code: 2-3-3 State/Fed. Status: /C2
 Distribution: INY, MNO
 Quads: 351B, 351C, 351D, 372B, 372C, 393A, 393B, 393C,
 413A, 413B, 413C, 414A, 432C, 432D, 451A, 451D
 Habitat: ChScr, Medws (alkaline)
 Life Form: Perennial herb (bulbiferous)
 Blooming: April-July
 Notes: Most occurrences are remnants of former populations and have few plants. Threatened by groundwater pumping, development, road maintenance, and grazing.

Calochortus greenei Wats.

"Greene's mariposa lily" Liliaceae
 CNPS List: 1B R-E-D Code: 3-2-2 State/Fed. Status: /C1
 Distribution: MOD, SIS, OR
 Quads: 682B, 695D, 716A, 732B, 732C, 733B, 733C, 733D,
 734D
 Habitat: PJWld, UCFrs / volcanic
 Life Form: Perennial herb (bulbiferous)
 Blooming: June-August
 Notes: Known in CA from fewer than twenty occurrences. Threatened by development, horticultural collecting, grazing, and vehicles. Candidate for state listing in OR. See *Proceedings of the American Academy of Arts and Sciences* 14:264 (1879) for original description.

Calochortus longebarbatus

See *Calochortus longebarbatus* var. *longebarbatus*

Calochortus longebarbatus Wats. var. *longebarbatus*

"long-haired star-tulip" Liliaceae
 CNPS List: 1B R-E-D Code: 1-2-2 State/Fed. Status: /C2
 Distribution: MOD, SHA, SIS, OR, WA
 Quads: 662B, 662C, 677B, 679B, 680A, 693B, 693C, 694A,
 694B, 694C, 694D, 695C, 695D, 696C, 696D, 710D, 711D
 Habitat: LCFrs (openings and drainages), Medws / clay
 Life Form: Perennial herb (bulbiferous)
 Blooming: June-July
 Notes: Many occurrences have few plants. Threatened by grazing, and possibly by logging and vehicles. Endangered in OR, and state-listed as Threatened in WA. See *Proceedings of the American Academy of Arts and Sciences* 17:381 (1882) for original description.
 Status Report: 1980

Calochortus monanthus Ownbey

"single-flowered mariposa lily" Liliaceae
 CNPS List: 1A Last Seen: 1876 State/Fed. Status: /C2*
 Distribution: SIS*
 Quads: 734D*
 Habitat: Medws
 Life Form: Perennial herb (bulbiferous)
 Blooming: June
 Notes: Known only from the type locality along the Shasta River, now mostly converted to agriculture. Rediscovery attempt in 1990 was unsuccessful. See *Annals of the Missouri Botanical Garden* 27:371-560 (1940) for original description.
 Status Report: 1977

Calochortus nudus var. *shastensis*

Considered but rejected: A hybrid

Calochortus obispoensis Lemmon

"San Luis mariposa lily" Liliaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C3c
 Distribution: SLO
 Quads: 221A, 221B, 221D*, 246B, 246C, 246D, 247D, 271A
 Habitat: Chprl, CoScr, VFGrs / often serpentinite
 Life Form: Perennial herb (bulbiferous)
 Blooming: May-July
 Notes: Threatened by grazing, development, road construction, and recreation, and potentially by mining. See *Journal of Ecology* 75:977-995 (1987) for population biology.

Calochortus palmeri Wats. var. *munzii* Ownbey

"Munz's mariposa lily" Liliaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: RIV
 Quads: 66A, 66B, 67A, 84D
 Habitat: Chprl, LCFrs
 Life Form: Perennial herb (bulbiferous)
 Blooming: June-July
 Notes: Known from only a few occurrences in the San Jacinto Mtns. See *Aliso* 4:88 (1958) for original description.

Calochortus palmeri Wats. var. *palmeri*

"Palmer's mariposa lily" Liliaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: KRN, LAX, RIV, SBD, SLO
 Quads: 65C, 66D, 104A, 104B, 105A, 105B, 131C, 132C, 133C,
 133D, 135C, 212B, 212C, 237A, 238A, 245D
 Habitat: Chprl, LCFrs, Medws / mesic
 Life Form: Perennial herb (bulbiferous)
 Blooming: May-July
 Notes: Declining rapidly; occurs in wet meadows which are heavily grazed. See *Proceedings of the American Academy of Arts and Sciences* 14:266 (1879) for original description, and *Annals of the Missouri Botanical Garden* 27:459 (1940) for taxonomic treatment.

Calochortus panamintensis Ownbey (Reveal)

"Panamint mariposa lily" Liliaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: INY
 Habitat: PJWld
 Life Form: Perennial herb (bulbiferous)
 Blooming: June-July
 Notes: See *Annals of the Missouri Botanical Garden* 27(4):371-561 (1940) for original description.

Calochortus persistens Ownbey

"Siskiyou mariposa lily" Liliaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CR/C2
 Distribution: SIS
 Quads: 717B, 718A, 735D
 Habitat: LCFrs, NCFrs / rocky
 Life Form: Perennial herb (bulbiferous)
 Blooming: June-July
 Notes: Threatened by disturbance and non-native plants. Klamath NF has adopted species management guidelines. See *Annals of the Missouri Botanical Garden* 27:448 (1940) for original description.
 Status Report: 1987

Calochortus plummerae Greene

"Plummer's mariposa lily" Liliaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: LAX, RIV, SBD, VEN
 Quads: 66B, 67A, 69A, 84A*, 84B, 85B, 86B, 105C, 105D, 106B, 106C, 106D, 107B, 107C, 108A, 108C*, 109A, 109D?, 110A, 110B*, 110C*, 111D*, 112C, 112D*, 113A, 113C, 113D, 114A, 131D, 133C, 134D*, 135D, 136C*, 136D, 137D, 138A, 138C*, 138D, 140B
 Habitat: Chprl, CmWld, CoScr, LCFrs, VFGrs / granitic
 Life Form: Perennial herb (bulbiferous)
 Blooming: May-July
 Notes: Significantly reduced by development, and continues to decline. Less common at higher elevations. Hybridizes with *C. weedii* var. *intermedius* in the San Jose Hills and Puente Hills. See *Pittonia* 2:70 (1890) for original description, and *Annals of the Missouri Botanical Garden* 27:515 (1940) for taxonomic treatment.

Calochortus pulchellus Benth.

"Mt. Diablo fairy-lantern" Liliaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CEQA
 Distribution: CCA, SOL?
 Quads: 464A, 464B, 464C, 464D, 465A, 465B, 482C, 499A?
 Habitat: Chprl, CmWld, VFGrs
 Life Form: Perennial herb (bulbiferous)
 Blooming: April-June
 Notes: Does plant occur in SOL Co.? Threatened by grazing and urbanization. See *Journal of Ecology* 75:977-995 (1987) for population biology.

Calochortus raichei Farwig & Girard

"The Cedars fairy-lantern" Liliaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: SON
 Quads: 519A, 519B, 519C, 519D
 Habitat: CCFrs, Chprl / serpentinite
 Life Form: Perennial herb (bulbiferous)
 Blooming: May-August
 Notes: Endemic to The Cedars near Guerneville. Potentially threatened by mining and road construction. See *Herbertia* 43(1):2-9 (1987) for original description, and *Fremontia* 15(2):18 (1987) for species account.
 Status Report: 1990

Calochortus simulans (Hoov.) Munz

"San Luis Obispo mariposa lily" Liliaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: SLO
 Habitat: Chprl, CmWld, VFGrs / decomposed granitic
 Life Form: Perennial herb (bulbiferous)
 Blooming: April-May

Calochortus striatus Parish

"alkali mariposa lily" Liliaceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: /C2
 Distribution: KRN, LAX, SBD, NV
 Quads: 102A, 131A, 131B, 131D, 135C, 161A, 161B, 185C, 185D, 186C, 186D, 206C, 215B, 235B?, 235C, 236B, 260A, 260B, 260C, 260D, 283C, 284C
 Habitat: Chprl, ChScr, Medws (alkaline)
 Life Form: Perennial herb (bulbiferous)
 Blooming: April-June
 Notes: Threatened by grazing, urbanization, and road construction. On watch list in NV.
 Status Report: 1980



Calochortus raichei

Calochortus tiburonensis Hill

"Tiburon mariposa lily" Liliaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CT/PT
 Distribution: MRN
 Quads: 466B
 Habitat: VFGrs (serpentinite)
 Life Form: Perennial herb (bulbiferous)
 Blooming: March-June
 Notes: Known from only one occurrence at Ring Mtn. Preserve (TNC) on the Tiburon Peninsula. See *Madroño* 22(2):100-104 (1973) for original description, and *Journal of Ecology* 75:977-995 (1987) for population biology.
 Status Report: 1988

Calochortus umbellatus Wood

"Oakland star-tulip" Liliaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: ALA, CCA, MRN, SCL, SCR*, SMT
 Habitat: BUFRs, Chprl, LCFrs, VFGrs / often serpentinite
 Life Form: Perennial herb (bulbiferous)
 Blooming: March-May
 Notes: Protected at Ring Mtn. Preserve (TNC) on Tiburon Peninsula, MRN Co.

Calochortus uniflorus

Considered but rejected: Too common

Calochortus venustus var. *sanguineus*

Considered but rejected: A synonym of *C. venustus*; a common taxon

Calochortus weedii Wood var. *intermedius* Ownbey

"intermediate mariposa lily" Liliaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: LAX, ORA, RIV
 Quads: 49B, 52B, 68A, 68D, 69B, 70A, 70B, 70C, 70D, 71A, 71D, 87C, 88A, 88B*, 109D
 Habitat: Chprl, CoScr, VFGrs / rocky
 Life Form: Perennial herb (bulbiferous)
 Blooming: May-July
 Notes: Threatened by development, road construction, and fuel modification. Hybridizes with *C. plummerae* in San Jose Hills and Puente Hills. See *Annals of the Missouri Botanical Garden* 27(4):519 (1940) for original description.

Calochortus weedii Wood var. *vestus* Purdy

"late-flowered mariposa lily" Liliaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: MNT, SBA, SLO, VEN
 Quads: 140B, 141A, 141B, 142A, 142B, 143A, 164A, 166D, 168D, 169D, 190C, 296D
 Habitat: Chprl, CmWld
 Life Form: Perennial herb (bulbiferous)
 Blooming: June-August
 Notes: Field studies needed, especially in the Santa Lucia Range. Threatened by grazing and development. See *Proceedings of the California Academy of Sciences* III 2:133 (1901) for original description.

Calochortus westonii Eastw.

"Shirley Meadows star-tulip" Liliaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C1
 Distribution: KRN, TUL
 Quads: 258D, 259D, 261A, 285A, 285D, 332A
 Habitat: BUFRs, LCFrs, Medws / granitic
 Life Form: Perennial herb (bulbiferous)
 Blooming: May-June
 Notes: Many new occurrences found in 1991. Threatened by logging and road construction. Sequoia NF has adopted species management guidelines. See *Proceedings of the California Academy of Sciences* IV 20:136 (1931) for original description.
 Status Report: 1977

Calycadenia fremontii

Considered but rejected: Too common

Calycadenia hooveri Carr

"Hoover's calycadenia" Asteraceae
 CNPS List: 1B R-E-D Code: 2-1-3 State/Fed. Status: /C2
 Distribution: CAL, MAD, MER, MPA, STA
 Quads: 400A, 420B, 420C, 421A, 440B, 441A, 441B, 459D, 477B
 Habitat: CmWld, VFGrs / rocky
 Life Form: Annual herb
 Blooming: July-September
 Notes: Most of occurrences are on private land. See *Brittonia* 27:136 (1975) for original description.

Calycadenia oppositifolia (Greene) Greene

"Butte County calycadenia" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: BUT
 Habitat: Chprl, CmWld, VFGrs / volcanic or serpentinite
 Life Form: Annual herb
 Blooming: April-July

Calycadenia tenella

Considered but rejected: Too common

Calycadenia villosa DC.

"dwarf calycadenia" Asteraceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CEQA
 Distribution: KRN*, MNT, SLO
 Quads: 213D*, 244B*, 245A, 245D*, 246C*, 269D*, 270A*, 271B*, 292B*, 294C*, 295B, 318C*
 Habitat: Chprl, CmWld, Medws, VFGrs / rocky
 Life Form: Annual herb
 Blooming: May-October
 Notes: Known from only two extant occurrences. Probably consists of northern and southern unrecognized subspecies. Habitat lost to construction of San Antonio Reservoir; also threatened by urbanization, vehicles, and non-native plants.

Calyptridium parryi Gray var. *hesseae* Thomas

"Santa Cruz Mtns. pussypaws" Portulacaceae
 CNPS List: 3 R-E-D Code: ??-3 State/Fed. Status: CEQA?
 Distribution: MNT, SBT, SCL, SCR*
 Quads: 407D*, 408C*, 408D*
 Habitat: Chprl, CmWld
 Life Form: Annual herb
 Blooming: June-July
 Notes: Move to List 1B? Location, rarity, and endangerment information needed, especially quads for MNT and SBT counties.

Calyptridium pulchellum (Eastw.) Hoov.

"Mariposa pussypaws" Portulacaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C2
 Distribution: FRE, MAD, MPA
 Quads: 397C, 398B, 418C, 418D, 419B
 Habitat: CmWld (sandy)
 Life Form: Annual herb
 Blooming: April-May
 Notes: Known from fewer than twenty occurrences. Threatened by development and grazing. USFWS uses the name *Cistanthe pulchella*. See *Bulletin of the Torrey Botanical Club* 29:79 (1902) for original description, *Leaflets of Western Botany* 2(13):222-225 (1940) for revised nomenclature, *Brittonia* 27:197-208 (1975) for taxonomic treatment, and *Madroño* 28:188 (1981) for distributional information.
 Status Report: 1977

Calyptridium quadripetalum Wats.

"four-petaled pussypaws" Portulacaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: GLE, LAK, NAP, SON, TEH, TRI
 Habitat: Chprl (sandy or gravelly, usually serpentinite)
 Life Form: Annual herb
 Blooming: April-June
 Notes: See *Proceedings of the American Academy of Arts and Sciences* 20:356 (1885) for original description.

Calystegia atriplicifolia Hallier f. ssp. *buttensis* Brummitt

"Butte County morning-glory" Convolvulaceae
 CNPS List: 3 R-E-D Code: ??-3 State/Fed. Status: /C2
 Distribution: BUT
 Quads: 592D
 Habitat: LCFrs
 Life Form: Perennial herb (rhizomatous)
 Blooming: May-July
 Notes: Move to List 1B? Location, rarity, and endangerment information needed. Variable. See *Kew Bulletin* 35(2):327 (1980) for original description.

Calystegia collina (Greene) Brummittssp. *oxyphylla* Brummitt

"Mt. Saint Helena morning-glory" Convolvulaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: /C2
 Distribution: LAK, NAP, SON
 Habitat: Chprl (serpentine)
 Life Form: Perennial herb (rhizomatous)
 Blooming: May-June
 Notes: See *Kew Bulletin* 35(2):328 (1980) for original description.

Calystegia collina (Greene) Brummitt ssp. *venusta* Brummitt

"South Coast Range morning-glory" Convolvulaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C2
 Distribution: FRE, MNT, SBA, SBT
 Habitat: Chprl, CmWld, VFGrS / serpentinite or sedimentary
 Life Form: Perennial herb (rhizomatous)
 Blooming: May-June
 Notes: Many new occurrences located in 1991-92. Relatively abundant and tolerant of disturbance. See *Kew Bulletin* 35(2):328 (1980) for original description.

Calystegia macrostegia (Greene) Brummittssp. *amplissima* Brummitt

"island morning-glory" Convolvulaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C2
 Distribution: SBR, SCM, SNI
 Habitat: CBScr, VFGrS / rocky
 Life Form: Perennial herb
 Blooming: February-May
 Notes: Doing well on SBR and SNI islands. See *Kew Bulletin* 35(2):327 (1980) for original description.

Calystegia malacophylla (Greene) Munzvar. *berryi* (Eastw.) Brummitt

"Berry's morning-glory" Convolvulaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: FRE, TUL
 Habitat: Chprl
 Life Form: Perennial herb (rhizomatous)
 Blooming: July-August
 Notes: May hybridize with *C. occidentalis* ssp. *fulcrata*. See *C. malacophylla* var. *malacophylla* in *The Jepson Manual*. See *Kew Bulletin* 29:502 (1974) for taxonomic revision.

Calystegia peirsonii (Abrams) Brummitt

"Peirson's morning-glory" Convolvulaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: /C2
 Distribution: LAX
 Habitat: Chprl, ChScr, CmWld, CoScr, LCFrs
 Life Form: Perennial herb (rhizomatous)
 Blooming: May-June
 Notes: Threatened by grazing. Intergrades with *C. longipes*, *C. occidentalis* ssp. *occidentalis*, mainland coastal *C. macrostegia* ssp., and perhaps *C. sepium* ssp. *limnophila*. See *Illustrated Flora of the Pacific States* 3:387 (1951) by L. Abrams for original description, and *Annals of the Missouri Botanical Garden* 52(2):214-216 (1965) for revised nomenclature.
 Status Report: 1979

Calystegia sepium (L.) R. Br.ssp. *binghamiae* (Greene) Brummitt

"Santa Barbara morning-glory" Convolvulaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CEQA
 Distribution: LAX*, ORA, SBA
 Quads: 71A, 71B, 72A, 111D*, 142B
 Habitat: MshSw (coastal)
 Life Form: Perennial herb (rhizomatous)
 Blooming: April-May
 Notes: Move to List 1A? Need information on current status of known occurrences. Probably reduced by wetland modification and urbanization. See *Bulletin of the California Academy of Sciences* 2:417 (1887) for original description.

Calystegia soldanella

Considered but rejected: Too common

Calystegia stebbinsii Brummitt

"Stebbins's morning-glory" Convolvulaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/C2
 Distribution: ELD, NEV
 Quads: 510B, 526C, 527D, 542A, 542D
 Habitat: Chprl (openings), CmWld / serpentinite or gabbroic
 Life Form: Perennial herb (rhizomatous)
 Blooming: May-June
 Notes: Known from fewer than fifteen occurrences. Threatened by development, vehicles, and road maintenance. See *Kew Bulletin* 29:499 (1975) for original description.
 Status Report: 1993

Calystegia subacaulis H. & A. ssp. *episcopalis* Brummitt

"Cambria morning-glory" Convolvulaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: SLO
 Quads: 271D
 Habitat: Chprl, CmWld
 Life Form: Perennial herb (rhizomatous)
 Blooming: April
 Notes: Intergrades with ssp. *subacaulis*. See *Kew Bulletin* 35(2):327 (1980) for original description.

Camissonia benitensis Raven

"San Benito evening-primrose" Onagraceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /FT
 Distribution: FRE, SBT
 Quads: 339B, 339C, 339D, 340B, 340D, 363D
 Habitat: Chprl, CmWld / serpentinite alluvium
 Life Form: Annual herb
 Blooming: May-June
 Notes: Known only from the New Idria area. Threatened by vehicles. Protected in part at ACEC (BLM). See *Contributions from the U.S. National Herbarium* 37(5):332-333 (1969) for original description.
 Status Report: 1988

Camissonia boothii (Dougl.) Ravenssp. *alyssoides* (H. & A.) Raven

"Pine Creek evening-primrose" Onagraceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: LAS, NV
 Habitat: GBSscr (sandy)
 Life Form: Annual herb
 Blooming: April-July
 Notes: Usually common during favorable springs, as in LAS Co. in 1993. See *Contributions from the U.S. National Herbarium* 37(5):362-364 (1969) for taxonomic treatment.

Camissonia boothii (Dougl.) Raven ssp. *boothii*

"Booth's evening-primrose" Onagraceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: INY, MNO, SBD, AZ, NV
 Habitat: JTWld, PJWld
 Life Form: Annual herb
 Blooming: April-May
 Notes: See *Contributions from the U.S. National Herbarium* 37(5):365-366 (1969) for taxonomic treatment.

Camissonia boothii ssp. *inyoensis*

Considered but rejected: Too common

Camissonia graciliflora

Considered but rejected: Too common

Camissonia guadalupensis (Wats.) Ravenssp. *clementina* (Raven) Raven

"San Clemente Island evening-primrose" Onagraceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: SCM
 Quads: SCMC, SCMN
 Habitat: CoDns
 Life Form: Annual herb
 Blooming: April-June
 Notes: Known from fewer than ten occurrences. See *Contributions from the U.S. National Herbarium* 37(5):275 (1969) for taxonomic treatment.

Camissonia hardhamiae Raven

"Hardham's evening-primrose" Onagraceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: MNT, SLO
 Quads: 245A, 245B, 246A, 293B
 Habitat: Chprl, CmWld / decomposed carbonate
 Life Form: Annual herb
 Blooming: May
 Notes: Known from approximately ten occurrences. Threatened by proposed road construction in SLO Co. See *Contributions from the U.S. National Herbarium* 37(5):301-302 (1969) for original description.

Camissonia heterochroma

Considered but rejected: Too common

Camissonia integrifolia Raven

"Kern River evening-primrose" Onagraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: KRN
 Habitat: Chprl
 Life Form: Annual herb
 Blooming: May
 Notes: See *Contributions from the U.S. National Herbarium* 37(5):344-345 (1969) for original description.

Camissonia kernensis (Munz) Raven ssp. *kernensis*

"Kern County evening-primrose" Onagraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: KRN
 Habitat: JTWld (sandy, granitic)
 Life Form: Annual herb
 Blooming: May
 Notes: See *Contributions from the U.S. National Herbarium* 37(5):309-310 (1969) for taxonomic treatment.

Camissonia lewisii Raven

"Lewis's evening-primrose" Onagraceae
 CNPS List: 3 R-E-D Code: ??-2 State/Fed. Status: CEQA?
 Distribution: LAX, ORA*, SDG, BA
 Quads: 10B, 10C, 11A, 11D, 22C, 34D, 36A, 51A, 70B*, 73A, 90A, 90B, 111A, 111C, 111D, 113D
 Habitat: CBScr, CmWld, CoDns, CoScr, VFGrs / sandy or clay
 Life Form: Annual herb
 Blooming: March-June
 Notes: Move to List 4? Location, rarity, and endangerment information needed. Dried material difficult to identify; apparently other taxa are often misidentified as *C. lewisii*. See *Contributions from the U.S. National Herbarium* 37:161-396 (1969) for original description.

Camissonia minor (A. Nels.) Raven

"Nelson's evening-primrose" Onagraceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: LAS, MOD, NV, ++
 Habitat: GBScr (sandy)
 Life Form: Annual herb
 Blooming: May-June
 Notes: See *Bulletin of the Torrey Botanical Club* 26:130 (1899) for original description, and *Contributions from the U.S. National Herbarium* 37(5):371-373 (1969) for taxonomic treatment.

Camissonia sierrae Raven ssp. *alticola* Raven

"Mono Hot Springs evening-primrose" Onagraceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: FRE, MPA
 Quads: 395B, 414B, 415B, 415C, 416D, 436B
 Habitat: UCFrs (gravel and sand pans)
 Life Form: Annual herb
 Blooming: June-August
 Notes: Known from fewer than ten occurrences. MPA Co. record (436B) needs verification. See *Contributions from the U.S. National Herbarium* 37(5):329 (1969) for original description.

Camissonia tanacetifolia (T. & G.) Ravenssp. *quadriperforata* Raven

"Sierra Valley evening-primrose" Onagraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: LAS, PLU, SIE
 Habitat: LCFrs (clay, sandy)
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Difficult to identify. See *Contributions from the U.S. National Herbarium* 37(5):248-249 (1969) for taxonomic treatment.

Campanula californica (Kell.) Heller

"swamp harebell" Campanulaceae
 CNPS List: 1B R-E-D Code: 1-2-3 State/Fed. Status: /C2
 Distribution: MEN, MRN, SCR*, SON
 Quads: 408D*, 485B, 485C, 485D, 502A*, 503A*, 503D*, 520A, 520B, 520D, 537B, 537C, 537D, 552A, 553A, 568B, 569A, 569D, 585D
 Habitat: BgFns, CCFrs, CoPrr, Medws, MshSw (freshwater), NCFrs / mesic
 Life Form: Perennial herb (rhizomatous)
 Blooming: June-September
 Notes: Many occurrences have few plants. Threatened by grazing, development, and marsh habitat loss. See *Proceedings of the California Academy of Sciences* 12:158 (1861) for original description.
 Status Report: 1977

Campanula exigua Rattan

"chaparral harebell" Campanulaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: ALA, CCA, SBT, SCL, STA
 Habitat: Chprl (rocky, usually serpentinite)
 Life Form: Annual herb
 Blooming: May-June
 Notes: See *Botanical Gazette* 11:339 (1886) for original description, and *Madroño* 27(4):149-163 (1980) for taxonomic treatment.

Campanula griffinii

Considered but rejected: Too common

Campanula scabrella Engelm.

"rough harebell" Campanulaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: MOD?, SHA, SIS, TRI, ID, OR, WA+
 Habitat: AlpBR (serpentinite or volcanic)
 Life Form: Perennial herb (rhizomatous)
 Blooming: August-September
 Notes: Does plant occur in MOD Co.? On review list in OR. See *Madroño* 27(4):179-180 (1980) for distributional information.

Campanula sharsmithiae Morin

"Sharsmith's harebell" Campanulaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C2
 Distribution: SCL, STA
 Quads: 425B, 426A
 Habitat: Chprl (serpentinite)
 Life Form: Annual herb
 Blooming: May-June
 Notes: Known from only three occurrences. See *Madroño* 27(4):149-163 (1980) for original description.

Campanula shetleri Heckard

"Castle Crags harebell" Campanulaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C3c
 Distribution: SHA, SIS
 Quads: 682A, 682B
 Habitat: LCFrs (rocky)
 Life Form: Perennial herb (rhizomatous)
 Blooming: June-September
 Notes: Known from fewer than ten occurrences. See *Madroño* 20(4):231-235 (1969) for original description.

Campanula wilkinsiana Greene

"Wilkin's harebell" Campanulaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: SIS, TEH, TRI
 Quads: 625C, 667A, 667B, 668A, 684C, 698A, 698B, 698C
 Habitat: Medws, SCFrS, UCFrs
 Life Form: Perennial herb (rhizomatous)
 Blooming: July-September
 Notes: Known from fewer than twenty occurrences. Threatened by grazing and recreation.

Canbya candida Parry

"pygmy poppy" Papaveraceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CEQA
 Distribution: KRN, LAX, SBD
 Quads: 131B, 133A, 133C, 133D, 134B, 161A, 161B, 183B, 184A, 185C, 208B, 211C, 259A, 259C, 260A, 260D
 Habitat: JTWld, MDScr
 Life Form: Annual herb
 Blooming: March-June
 Notes: See *Proceedings of the American Academy of Arts and Sciences* 12:51 (1876) for original description.

Canotia holacantha

Considered but rejected: Not in CA

Cardamine gambellii

See *Rorippa gambellii*

Cardamine gemmata

See *Cardamine nuttallii* var. *gemma*

Cardamine nuttallii Greene var. *gemma* (Greene) Roll.

"yellow-tubered toothwort" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-1-2 State/Fed. Status: /C2
 Distribution: DNT, OR
 Quads: 739B, 739C, 740A
 Habitat: LCFrs, NCFrs / serpentinite
 Life Form: Perennial herb (rhizomatous)
 Blooming: April-May
 Notes: Known from fewer than ten occurrences. Possibly threatened by mining. Candidate for state listing in OR. USFWS uses the name *C. gemmata*.

Cardamine pachystigma (Wats.) Roll.var. *dissectifolia* (Detl.) Roll.

"dissected-leaf toothwort" Brassicaceae
 CNPS List: 3 R-E-D Code: ?-?-3 State/Fed. Status: CEQA?
 Distribution: BUT, MEN, PLA, SON
 Quads: 534D, 540D, 569D, 581C, 592A, 592B, 597B, 600B
 Habitat: Chprl? (serpentinite)
 Life Form: Perennial herb (rhizomatous)
 Blooming: March-April
 Notes: Move to List 1B? Location, rarity, and endangerment information needed.

Carex albida Bailey

"white sedge" Cyperaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/C1
 Distribution: SON
 Quads: 502A, 502B*
 Habitat: BgFns, MshSw (freshwater)
 Life Form: Perennial herb (rhizomatous)
 Blooming: May-July
 Notes: Known from only one confirmed extant occurrence at Pitkin Marsh; three historical occurrences extirpated by wetland drainage and spraying of chemical effluents. Also threatened by competition with other plants. See *Memoirs of the Torrey Botanical Club* 1:9 (1889) for original description, and *Leaflets of Western Botany* 8(7):178-180 (1957) for taxonomic discussion.
 Status Report: 1993

Carex californica Bailey

"California sedge" Cyperaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: MEN, SON, ID, OR, WA+
 Quads: 502A, 503A, 537B, 569A, 569D
 Habitat: BgFns, CCFrs, CoPrr, Medws, MshSw (margins)
 Life Form: Perennial herb (rhizomatous)
 Blooming: May-August
 Notes: Sensitive in ID. See *Memoirs of the Torrey Botanical Club* 1:9 (1889) for original description.

Carex comosa Boott

"bristly sedge" Cyperaceae
 CNPS List: 2 R-E-D Code: 3-3-1 State/Fed. Status: CEQA
 Distribution: LAK, SBD(?), SCR*, SFO*, SHA, SJQ, SON, ID, OR, WA, ++
 Quads: 407C*, 408D?*, 462B, 503D, 518C, 550A, 678C
 Habitat: MshSw (lake margins)
 Life Form: Perennial herb (rhizomatous)
 Blooming: May-September
 Notes: Location, rarity, and endangerment information needed; need quads for SBD and SFO counties. Fairly widely distributed, but apparently rarely collected. Threatened by marsh drainage. Endangered in ID, on review list in OR, and state-listed as Sensitive in WA.

Carex congdonii Bailey

"Congdon's sedge" Cyperaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: FRE, INY, MAD, MNO, MPA, TUL, TUO
 Habitat: AlpBR, SCFrS (rocky)
 Life Form: Perennial herb (rhizomatous)
 Blooming: July-August

Carex davyi Mkze.

"Davy's sedge" Cyperaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: ALP, AMA, CAL, ELD, NEV, PLA, TUO
 Habitat: SCFrS, UCFrS
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Similar to *C. petasata*.

Carex eleocharis Bailey

"spikerush sedge" Cyperaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: INY, MNO, NV, ++
 Quads: 431C, 432A, 450D
 Habitat: GBSr, SCFrS
 Life Form: Perennial herb (rhizomatous)
 Blooming: July-August
 Notes: On review list in OR.

Carex geeyeri Boott

"Geyer's sedge" Cyperaceae
 CNPS List: 4 R-E-D Code: 1-2-1 State/Fed. Status: CEQA?
 Distribution: BUT, HUM, PLU, SIE, SIS, OR, ++
 Habitat: GBSr, LCFrS (volcanic)
 Life Form: Perennial herb (rhizomatous)
 Blooming: May-June
 Notes: Threatened by logging.

Carex gigas (Holm) Mkze.

"Siskiyou sedge" Cyperaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: DNT, PLU, SIS, TRI, OR
 Habitat: LCFrS, Medws, UCFrS / mesic, sometimes serpentinite seeps
 Life Form: Perennial herb (rhizomatous)
 Blooming: May-July
 Notes: Endangered in OR.

Carex halliana Bailey

"Hall's sedge" Cyperaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: SIS, OR, WA+
 Quads: 703B, 713D, 720C
 Habitat: Medws, PJWld / often pumice
 Life Form: Perennial herb (rhizomatous)
 Blooming: July-August

Carex hystericina Muhl.

"bottlebrush sedge" Cyperaceae
 CNPS List: 2 R-E-D Code: 3-3-1 State/Fed. Status: CEQA
 Distribution: TRI, AZ, OR, WA, ++
 Quads: 649A, 667D
 Habitat: MshSw (streambanks)
 Life Form: Perennial herb (rhizomatous)
 Blooming: June
 Notes: Known in CA only from Rush Creek. Endangered in OR, and state-listed as Sensitive in WA.

Carex incurviformis Mkze. var. *danaensis* (Stacey) F.J. Herm.

"Dana's sedge" Cyperaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: INY, MNO, TUL, TUO, +
 Habitat: AlpBR
 Life Form: Perennial herb (rhizomatous)
 Blooming: July-August
 Notes: See *Leaflets of Western Botany* 2:166 (1939) for original description and 7(12):288 (1955) for revised nomenclature, and *Madroño* 37(1):64 (1990) for information on MNO Co. collection.

Carex incurviformis var. *incurviformis*

Considered but rejected: Not in CA

Carex jepsonii

Considered but rejected: A synonym of *C. whitneyi*; a common taxon

Carex lasiocarpa Ehrh.

"slender sedge" Cyperaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: LAS, PLU, ID, OR, WA, ++
 Quads: 572B, 623B, 625A, 625B
 Habitat: BgFns, MshSw (freshwater, lake margins)
 Life Form: Perennial herb (rhizomatous)
 Blooming: June-July
 Notes: Known in CA from only four occurrences.

Carex leptalea Wahl.

"flaccid sedge" Cyperaceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: DNT, HUM, MRN*, TRI, ID, OR, ++
 Quads: 485C*, 654B, 689A, 689C, 722B
 Habitat: BgFns, Medws, MshSw
 Life Form: Perennial herb (rhizomatous)
 Blooming: May-July
 Notes: Need quads for TRI Co. Apparently extirpated in MRN Co. by wetland conversion. Sensitive in ID.

Carex limosa L.

"shore sedge" Cyperaceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
 Distribution: ELD, PLU, NV, ++
 Quads: 522C, 590D, 625A, 625B
 Habitat: BgFns, LCFrS, UCFrS
 Life Form: Perennial herb (rhizomatous)
 Blooming: June-August
 Notes: Possibly more widespread in the Sierra Nevada.

Carex livida (Wahl.) Willd.

"livid sedge" Cyperaceae
 CNPS List: 1A Last Seen: 1866 State/Fed. Status: CEQA
 Distribution: MEN*, ID, OR, WA, ++
 Quads: 569D*
 Habitat: BgFns, MshSw
 Life Form: Perennial herb (rhizomatous)
 Blooming: June
 Notes: Extirpated from CA; sensitive in ID, and endangered in OR.

Carex norvegica Retz.

"Scandinavian sedge" Cyperaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: MNO, ID, NM, OR, UT, WA, ++
 Quads: 432A, 450D
 Habitat: AlpBR, Medws (mesic)
 Life Form: Perennial herb (rhizomatous)
 Blooming: August
 Notes: Endangered in OR, and state-listed as Sensitive in WA. See *Madroño* 37(1):64 (1990) for first CA reports (1986) of this circumboreal species.

Carex obispoensis Stacey

"San Luis Obispo sedge" Cyperaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C3c
 Distribution: SLO
 Quads: 245C, 246B, 246C, 247D, 271A, 271B, 272A, 295C
 Habitat: CCFrs, Chprl, CoPrr, CoScr, VFGrs / often serpentinite seeps
 Life Form: Perennial herb (rhizomatous)
 Blooming: April-June
 Notes: Threatened by grazing.

Carex parryana Dewey var. *hallii* (Olney) Kukenth.

"Hall's sedge" Cyperaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: MNO, NV, ++
 Quads: 431D
 Habitat: Medws, SCFrs
 Life Form: Perennial herb (rhizomatous)
 Blooming: July
 Notes: Known in CA from only one collection near Station Pk. in the White Mtns. See *Madroño* 35(2):164 (1988) for first two CA reports (second erroneous; actually *C. norvegica*) and 37(1):65 (1990) for explanation of error.

Carex paucifructus

Considered but rejected: A synonym of *C. mariposana*; a common taxon

Carex petasata Dewey

"Liddon's sedge" Cyperaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: ALP, LAS, MNO, MOD, OR, ++
 Quads: 432A, 642B, 690C
 Habitat: LCFrs, Medws
 Life Form: Perennial herb
 Blooming: June-July
 Notes: Need quads for ALP Co.

Carex praticola Rydb.

"meadow sedge" Cyperaceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
 Distribution: DNT, HUM, MAD, MNO, TUO, OR, ++
 Quads: 454A, 472C, 670B, 671A, 672C, 706D, 740C
 Habitat: Medws
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Need quads for MAD Co.

Carex scoparia Schk.

"pointed broom sedge" Cyperaceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: PLU, SHA, OR, ++
 Quads: 629A
 Habitat: GBScr (mesic)
 Life Form: Perennial herb
 Blooming: May
 Notes: Need quads for PLU Co.

Carex sheldonii Mkze.

"Sheldon's sedge" Cyperaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: MOD, PLA, PLU, ID, OR, UT+
 Quads: 587B, 588A, 604D, 605C
 Habitat: LCFrs (mesic), RpScr
 Life Form: Perennial herb (rhizomatous)
 Blooming: August
 Notes: Need quads for MOD and PLA counties. On review list in ID, and watch list in OR.

Carex tiogana D.W. Taylor & J. Mastrogioseppe

"Tioga Pass sedge" Cyperaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: CEQA
 Distribution: MNO
 Quads: 453C, 471D
 Habitat: Medws (mesic, lake margins)
 Life Form: Perennial herb
 Blooming: July-August
 Notes: Known from only three small occurrences. See *Novon* (1994, in press) for original description.

Carex tompkinsii J.T. Howell

"Tompkins's sedge" Cyperaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CR/C3c
 Distribution: FRE, MPA
 Quads: 374A, 374B, 374C, 374D, 375A, 375C, 375D, 437B, 438A
 Habitat: Chprl, CmWld, LCFrs, UCFrs / sometimes granitic
 Life Form: Perennial herb (rhizomatous)
 Blooming: May-July
 Notes: Threatened by development and trail maintenance and use. See *Leaflets of Western Botany* 9(12):185-187 (1961) for original description.
 Status Report: 1990

Carex vulpinoidea Michx.

"fox sedge" Cyperaceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
 Distribution: BUT, SHA, SIS, TRI, AZ, OR, ++
 Quads: 560A, 577B, 594D, 629A
 Habitat: MshSw, RpWld
 Life Form: Perennial herb
 Blooming: June
 Notes: Need quads for SIS and TRI counties.

Carex whitneyi

Considered but rejected: Too common

Carlwrightia arizonica Gray

"Arizona carlwrightia" Acanthaceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: SDG, AZ, BA, ++
 Quads: 32B, 47C
 Habitat: SDSCr (sandy, granitic alluvium)
 Life Form: Shrub (deciduous)
 Blooming: March-May
 Notes: Known in CA from only one extended population at Anza Borrego SP and on adjacent private land. Possibly threatened by recreational activities. See *Madroño* 35(3):279 (1988) for distribution in CA.

Carnegiea gigantea (Engelm.) Britt. & Rose

"saguaro" Cactaceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: IMP, RIV, SBD, AZ, SO
 Quads: 11E, 26A, 26B, 41D, 75, 94B, 120C, 121C, 121D
 Habitat: SDSCr (rocky)
 Life Form: Shrub (stem succulent)
 Blooming: May-June
 Notes: Need precise locality information for quad 75. State flower of AZ, where state-listed as Highly Safeguarded.

Carpenteria californica Torr.

"tree-anemone" Hydrangeaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CT/C1
 Distribution: FRE
 Quads: 377A, 396C, 397C, 397D, 398A
 Habitat: Chprl, CmWld / granitic
 Life Form: Shrub (evergreen)
 Blooming: May-July
 Notes: Known from fewer than ten occurrences. There are historical reports of introduced plants in MAD Co. Threatened by proposed road construction, vehicles, logging, and development. Special management is necessary since reproduction is fire dependent. See *Fremontia* 10(4):21-22 (1983) for discussion of propagation.
 Status Report: 1989

Cassia covesii

See *Senna covesii*

Castela emoryi (Gray) Moran & Felger

"crucifixion thorn" Simaroubaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: IMP, RIV, SBD, AZ, SO
 Quads: 6A, 6B, 26B, 30D, 41B, 62A, 62B, 77D, 100A, 122A, 122B, 147C, 148B, 151C, 152D, 154A, 154B?, 174A, 181C, 204C
 Habitat: MDSCr, SDSCr
 Life Form: Shrub (deciduous)
 Blooming: June-July
 Notes: Protected in part at Crucifixion Thorn Natural Area (BLM) along Highway 98.

Castilleja affinis H. & A.ssp. *neglecta* (Zeile) Chuang & Heckard

"Tiburon Indian paintbrush" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CT/PE
 Distribution: MRN, NAP, SCL
 Quads: 406B, 466B, 482B, 484C
 Habitat: VFGrs / serpentinite
 Life Form: Perennial herb (hemiparasitic)
 Blooming: April-June
 Notes: Known from six occurrences. Protected in part at Ring Mtn. Preserve (TNC), MRN Co. Threatened by development, gravel mining, and grazing. State-listed as *C. neglecta*; USFWS also uses this name.
 Status Report: 1989

Castilleja ambigua H. & A.ssp. *humboldtiensis* (Keck) Chuang & Heckard

"Humboldt Bay owl's-clover" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: HUM, MRN
 Quads: 485D, 655A, 672B, 672C, 672D, 689A
 Habitat: MshSw (coastal salt)
 Life Form: Annual herb (hemiparasitic)
 Blooming: May-August
 Notes: Threatened by coastal development. See *Proceedings of the American Academy of Arts and Sciences* IV 16:536 (1927) for original description, and *Systematic Botany* 16(4):644-666 (1991) for revised nomenclature.
 Status Report: 1977

Castilleja arachnoidea ssp. *arachnoidea*

Considered but rejected: Too common; a synonym of *C. arachnoidea*

Castilleja arachnoidea ssp. *schizotricha*

See *Castilleja schizotricha*

Castilleja arachnoidea ssp. *shastensis*

Considered but rejected: A synonym of *C. arachnoidea*, a common taxon

Castilleja brevilobata

See *Castilleja hispida* ssp. *brevilobata*

Castilleja campestris (Benth.) Chuang & Heckard*ssp. succulenta* (Hoov.) Chuang & Heckard

"succulent owl's-clover" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CE/PT
 Distribution: FRE, MAD, MER, MPA, STA
 Quads: 377B, 378B, 378D, 379A, 379D*, 398C, 398D, 399C,
 420C, 421A, 421B, 421D, 422B, 441A
 Habitat: VnPls
 Life Form: Annual herb (hemiparasitic)
 Blooming: April-May
 Notes: Threatened by urbanization, agriculture, grazing, flood control, and trampling. State-listed as *Orthocarpus campestris* var. *succulentus*. See *Leaflets of Western Botany* 1(19):228-229 (1936) for original description, and *Systematic Botany* 16(4):644-666 (1991) for revised nomenclature.
 Status Report: 1986

Castilleja cinerea Gray

"ash-gray Indian paintbrush" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: SBD
 Quads: 104B, 105A, 105B, 106A, 126D, 131C, 131D
 Habitat: MDScr, Medws, PbPln, PJWld, UCFrs (clay openings)
 Life Form: Perennial herb (hemiparasitic)
 Blooming: June-July
 Notes: Threatened by grazing, development, non-native plants, and vehicles. See *Proceedings of the American Academy of Arts and Sciences* 19:93 (1883) for original description.
 Status Report: 1980

Castilleja culbertsonii

Considered but rejected: A synonym of *C. lemmonii*; a common taxon

Castilleja disticha

Considered but rejected: Too common; a synonym of *C. applegatei* ssp. *disticha*

Castilleja elata

See *Castilleja miniata* ssp. *elata*

Castilleja ewanii

See *Castilleja montigena*

Castilleja franciscana

Considered but rejected: Too common; a synonym of *C. subinclusa* ssp. *franciscana*

Castilleja gleasonii Elmer

"Mt. Gleason Indian paintbrush" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CR/C2
 Distribution: LAX
 Quads: 136B, 136C, 136D
 Habitat: LCFrs (granitic)
 Life Form: Perennial herb (hemiparasitic)
 Blooming: May-June
 Notes: Known from fewer than ten occurrences. Threatened by proximity to campgrounds, fuelwood cutting, and vehicles. See *C. pruinosa* in *The Jepson Manual*. Angeles NF has adopted species management guidelines. See *Botanical Gazette* 39:51 (1905) for original description.
 Status Report: 1990

Castilleja grisea Dunkle

"San Clemente Island Indian paintbrush" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 1-2-3 State/Fed. Status: CE/FE
 Distribution: SCM
 Quads: SCMC, SCMN, SCMS
 Habitat: CBScr, CoScr / rocky
 Life Form: Perennial herb (hemiparasitic)
 Blooming: February-August
 Notes: Feral herbivores removed from SCM Isl., and vegetation recovering. See *Bulletin of the Southern California Academy of Sciences* 42:31 (1943) for original description.
 Status Report: 1987

Castilleja hispida Benth.*ssp. brevilobata* (Piper) Chuang & Heckard

"short-lobed Indian paintbrush" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-2-1 State/Fed. Status: /C3c
 Distribution: DNT, SIS, OR
 Habitat: LCFrs (serpentinite, edges and openings)
 Life Form: Perennial herb (hemiparasitic)
 Blooming: April-July
 Notes: On review list in OR. See *Proceedings of the Biological Society of Washington* 33:164 (1920) for original description, and *Memoirs of the New York Botanical Garden* 21:33-35 (1971) for revised nomenclature.
 Status Report: 1979

Castilleja hololeuca

See *Castilleja lanata* ssp. *hololeuca*

Castilleja lanata Gray*ssp. hololeuca* (Greene) Chuang & Heckard

"white-felted Indian paintbrush" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C3c
 Distribution: ANA, SCZ, SMI, SRO
 Quads: ANAC, SCZA, SCZB, SCZC, SCZD, SMIE, SMIW, SRON
 Habitat: Chprl, CoScr
 Life Form: Perennial herb (hemiparasitic)
 Blooming: March-August
 Notes: Threatened by feral herbivores on SCZ and SRO islands; also by cattle grazing on SRO Isl.

Castilleja lasiorhyncha (Gray) Chuang & Heckard

"San Bernardino Mtns. owl's-clover" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 1-2-3 State/Fed. Status: /C2
 Distribution: RIV?, SBD, SDG
 Quads: 20A*, 33D, 66B?, 83C?, 105A, 105B, 105C, 106A, 106B,
 107A, 131C, 131D, 132C, 133D
 Habitat: Chprl, Medws, PbPln, UCFrs / mesic
 Life Form: Annual herb (hemiparasitic)
 Blooming: June-August
 Notes: RIV Co. occurrences need confirmation. Threatened by vehicles and recreation. See *Proceedings of the American Academy of Arts and Sciences* 12:82 (1876) for original description, and *Systematic Botany* 16(4):644-666 (1991) for revised nomenclature.
 Status Report: 1980

Castilleja lasenensis

Considered but rejected: A synonym of *C. lemmonii*; a common taxon

Castilleja latifolia H. & A.

"Monterey Indian paintbrush" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: MNT, SCR
 Habitat: CoDns, CoScr
 Life Form: Perennial herb (hemiparasitic)
 Blooming: February-September

Castilleja latifolia ssp. *latifolia*

See *Castilleja latifolia*

Castilleja latifolia ssp. *mendocinensis*

See *Castilleja mendocinensis*

Castilleja leschkeana

Considered but rejected: Not in CA; name misapplied to *C. chrymactis*, native to Alaska, extinct waif in CA

Castilleja longispica

Considered but rejected: Too common

Castilleja martinii var. *clokeyi*

Considered but rejected: A synonym of *C. applegatei* ssp. *martinii*; a common taxon

Castilleja mendocinensis (Eastw.) Penn.

"Mendocino coast Indian paintbrush" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: HUM, MEN
 Quads: 537C, 537D, 552B, 552C, 553A, 569A, 569D, 585A,
 585D, 601D, 689C
 Habitat: CBScr, CCFrs, CoPrr, CoScr
 Life Form: Perennial herb (hemiparasitic)
 Blooming: April-August
 Notes: Threatened by coastal development, recreation, and non-native plants. Related to *C. affinis* ssp. *litoralis*.

Castilleja miniata Hook. ssp. *elata* (Piper) Munz

"Siskiyou Indian paintbrush" Scrophulariaceae
 CNPS List: 2 R-E-D Code: 1-2-1 State/Fed. Status: /C3c
 Distribution: DNT, SIS?, OR
 Quads: 698C?, 738A, 739A, 739C
 Habitat: BgFns, LCFrs (seeps) / often serpentinite
 Life Form: Perennial herb (hemiparasitic)
 Blooming: May-August
 Notes: SIS Co. record may be erroneous; some specimens confused with *C. miniata* ssp. *miniata*.

Castilleja mollis Penn.

"soft-leaved Indian paintbrush" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C1
 Distribution: SMI?, SRO
 Quads: SMIW?, SRON
 Habitat: CBScr, CoDns
 Life Form: Perennial herb (hemiparasitic)
 Blooming: April-August
 Notes: Known from Carrington Pt. Peninsula and one occurrence west of Jaw Gulch (both SRO Isl.), and one unconfirmed location at Point Bennett (SMI Isl.). Mainland plants previously included in *C. mollis* are *C. affinis* ssp. *affinis*. Possibly threatened by cattle grazing and feral herbivores. See *Madroño* 38(2):141-142 (1991) for taxonomic reassessment.

Castilleja montigena Heckard

"Heckard's Indian paintbrush" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: SBD
 Habitat: LCFrs, PJWld, UCFrs
 Life Form: Perennial herb (hemiparasitic)
 Blooming: May-August
 Notes: Presumed to be a stabilized species of hybrid origin, with *C. applegatei* ssp. *martinii* and *C. angustifolia* as parents; see the former in *The Jepson Manual*. See *Systematic Botany* 5(1):71-85 (1980) for discussion of origin and taxonomy.

Castilleja neglecta

See *Castilleja affinis* ssp. *neglecta*

Castilleja payneae

Considered but rejected: A synonym of *C. arachnoidea*; a common taxon

Castilleja peirsonii

Considered but rejected: Too common

Castilleja pilosa ssp. *jusselii*

Considered but rejected: Too common; a synonym of *C. pilosa*

Castilleja plagiotoma Gray

"Mojave Indian paintbrush" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: KRN, LAX, SBD, SLO
 Habitat: GBScr (alluvial), PJWld
 Life Form: Perennial herb (hemiparasitic)
 Blooming: April-June

Castilleja praeterita

Considered but rejected: Too common

Castilleja psittacina

Considered but rejected: A synonym of *C. pilosa*, a common taxon

Castilleja schizotricha Greenm.

"split-hair Indian paintbrush" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: SIS, OR
 Habitat: UCFrs (decomposed granitic or marble)
 Life Form: Perennial herb (hemiparasitic)
 Blooming: July-August
 Notes: Endangered in OR.

Castilleja uliginosa Eastw.

"Pitkin Marsh Indian paintbrush" Scrophulariaceae
 CNPS List: 1A Last Seen: 1987 State/Fed. Status: CE/C2
 Distribution: SON*
 Quads: 502A*
 Habitat: MshSw (freshwater)
 Life Form: Perennial herb (hemiparasitic)
 Blooming: June-July
 Notes: Last known remaining plant died in 1987; field surveys needed. See *C. miniata* ssp. *miniata* in *The Jepson Manual*. See *Leaflets of Western Botany* 3:166-117 (1942) for original description.
 Status Report: 1987

Caulanthus amplexicaulis Wats.var. *barbarae* (J.T. Howell) Munz

"Santa Barbara jewelflower" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C1
 Distribution: SBA
 Quads: 168B, 193C, 194D
 Habitat: CCFrs, CmWld / serpentinite
 Life Form: Annual herb
 Blooming: May-July
 Notes: Known from fewer than five occurrences in the San Rafael Mtns. See *Leaflets of Western Botany* 9:223 (1952) for original description.

Caulanthus californicus (Wats.) Pays.

"California jewelflower" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/FE
 Distribution: FRE, KNG*, KRN, SBA, SLO, TUL*
 Quads: 191B*, 191C*, 192A, 192B*, 192D, 214A*, 216B*, 217C, 217D, 218A*, 219D*, 239B*, 239A*, 239D*, 240A*, 240B*, 242B*, 244C, 262D*, 264D*, 265A, 265C*, 266A*, 266B*, 267A*, 287B*, 287C*, 287D*, 288D*, 291B*, 291C*, 291D*, 310C*, 311A*, 314A*, 314C*, 315A*, 315C*, 315D*
 Habitat: ChScr, PJWld, VFGrs
 Life Form: Annual herb
 Blooming: February-May
 Notes: Known from approximately twenty extant occurrences; over 35 historical occurrences extirpated. Threatened by agriculture, urbanization, energy development, and grazing. See *Fremontia* 16(1):18-19 (1988) for species account.
 Status Report: 1993

Caulanthus glaucus

Considered but rejected: Too common

Caulanthus heterophyllus var. *pseudosimulans*

Considered but rejected: Not yet published

Caulanthus simulans Pays.

"Payson's jewelflower" Brassicaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: /C2
 Distribution: RIV, SDG
 Habitat: Chprl, CoScr / sandy, granitic
 Life Form: Annual herb
 Blooming: March-June
 Notes: Confused with *C. heterophyllus* var. *pseudosimulans* (unpublished), which is more coastal and, unlike *C. simulans*, appears after fires. Some populations threatened by proposed reservoir construction, but many populations occur on public lands (Anza Borrego SP, BLM, and USFS). Also threatened by urbanization, grazing, and road construction.

Caulanthus stenocarpus

Considered but rejected: A synonym of *C. heterophyllus* var. *heterophyllus*, a common taxon

Caulostramina jaegeri (Roll.) Roll.

"Jaeger's caulostramina" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: INY
 Quads: 327B, 349C, 350D, 392D
 Habitat: PJWld, SCFrs / carbonate
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Known from fewer than five occurrences in the Inyo Mtns. See *Contributions from the Dudley Herbarium* 3:174 (1941) for original description, and *Contributions from the Gray Herbarium* 204:155-157 (1973) for revised nomenclature.

Ceanothus arboreus

Considered but rejected: Too common

Ceanothus confusus J.T. Howell

"Rincon Ridge ceanothus" Rhamnaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C2
 Distribution: LAK, MEN, NAP, SON
 Quads: 500B, 501A, 501B, 502A*, 517A, 517B, 517C, 517D?*, 518B, 533C, 535A, 535D, 549A
 Habitat: CCFrs, Chprl, CmWld / volcanic or serpentinite
 Life Form: Shrub (evergreen)
 Blooming: February-April
 Notes: Threatened by development. Closely related to *C. prostratus*. See *Leaflets of Western Botany* 2:160-162 (1939) for original description.
 Status Report: 1979

Ceanothus cuneatus var. *decumbens*

Considered but rejected: Not published

Ceanothus cuneatus (Hook.) Nutt. var. *rigidus* (Nutt.) Hoov.

"Monterey ceanothus" Rhamnaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: /C2
 Distribution: MNT, SLO, SCR*
 Habitat: CCFrs, CoScr
 Life Form: Shrub (evergreen)
 Blooming: February-March
 Notes: Threatened by development. Intergrades with var. *fascicularis* in SLO Co.

Ceanothus cyaneus Eastw.

"Lakeside ceanothus" Rhamnaceae
 CNPS List: 1B R-E-D Code: 3-2-2 State/Fed. Status: /C2
 Distribution: RIV?, SDG, BA
 Quads: 10A, 10C, 20A, 20D, 21A, 21B, 21C, 21D, 22B, 49B?, 50A?
 Habitat: CCFrs, Chprl
 Life Form: Shrub (evergreen)
 Blooming: April-June
 Notes: Need verification of RIV Co. specimen. Threatened by development.

Ceanothus divergens Parry

"Calistoga ceanothus" Rhamnaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: LAK, NAP, SON
 Quads: 500B, 501A, 501B, 516C, 517B, 517C, 517D, 533C
 Habitat: Chprl (serpentine or volcanic)
 Life Form: Shrub (evergreen)
 Blooming: February-March
 Notes: Threatened by development in The Geysers geothermal area.
 Closely related to *C. purpureus*.
 Status Report: 1979

Ceanothus ferrisae McMinn

"Coyote ceanothus" Rhamnaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /PE
 Distribution: SCL
 Quads: 406A, 406B
 Habitat: Chprl, CoScr, VFGrs / serpentine
 Life Form: Shrub (evergreen)
 Blooming: January-March
 Notes: Known from fewer than five occurrences in the Mt. Hamilton Range. Threatened by expansion of Anderson Reservoir spillway, development, and alteration of fire regimes. See *Madroño* 2:89-90 (1933) for original description.
 Status Report: 1977

Ceanothus foliosus Parry var. *vineatus* McMinn

"Vine Hill ceanothus" Rhamnaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C2
 Distribution: MEN*, SON
 Quads: 502A
 Habitat: Chprl
 Life Form: Shrub (evergreen)
 Blooming: March-May
 Notes: Nearly extirpated in SON Co.; now confirmed from only one native population. Known from one historical occurrence in MEN Co., but unable to relocate; need quads.

Ceanothus fresnensis Abrams

"Fresno ceanothus" Rhamnaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: CAL, FRE, MAD, MPA, TUL, TUO
 Habitat: CmWld, LCFrs
 Life Form: Shrub (evergreen)
 Blooming: May-June

Ceanothus gloriosus J. T. Howell var. *gloriosus*

"Point Reyes ceanothus" Rhamnaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: MEN, MRN, SON
 Habitat: CBScr, CCFrs, CoDns, CoScr / sandy
 Life Form: Shrub (evergreen)
 Blooming: March-May

Ceanothus gloriosus J. T. Howell var. *porrectus* J. T. Howell

"Mt. Vision ceanothus" Rhamnaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: MRN
 Quads: 485B, 485C, 485D
 Habitat: CCFrs, CoPrr, CoScr, VFGrs
 Life Form: Shrub (evergreen)
 Blooming: March-May
 Notes: Known from fewer than fifteen occurrences in the Mt. Vision area near Pt. Reyes. Some plants destroyed by quarrying; occurs in areas grazed by cattle.

Ceanothus hearstiorum Hoov. & Roof

"Hearst's ceanothus" Rhamnaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CR/C2
 Distribution: SLO
 Quads: 271B, 272A
 Habitat: Chprl (maritime), CoPrr, CoScr
 Life Form: Shrub (evergreen)
 Blooming: March-April
 Notes: Known from fewer than ten occurrences. Possibly threatened by grazing. See *Four Seasons* 2:1-5 (1966) for original description.
 Status Report: 1988

Ceanothus xhumboldtiensis

Considered but rejected: A hybrid

Ceanothus impressus var. *impressus*

Considered but rejected: Too common

Ceanothus impressus var. *nipomensis*

Considered but rejected: A synonym of *C. impressus*; a common taxon

Ceanothus insularis

See *Ceanothus megacarpus* var. *insularis*

Ceanothus jepsonii var. *jepsonii*

Considered but rejected: Too common

Ceanothus maritimus Hoov.

"maritime ceanothus" Rhamnaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CR/C2
 Distribution: SLO
 Quads: 271B, 272A
 Habitat: Chprl (maritime), VFGrs
 Life Form: Shrub (evergreen)
 Blooming: January-March
 Notes: Known from fewer than ten occurrences. Possibly threatened by grazing. See *Leaflets of Western Botany* 7(4):111-112 (1953) for original description.
 Status Report: 1988

Ceanothus masonii McMinn

"Mason's ceanothus" Rhamnaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CR/C2
 Distribution: MRN
 Quads: 467B, 485A
 Habitat: Chprl (serpentinite)
 Life Form: Shrub (evergreen)
 Blooming: March-April
 Notes: Known from approximately five occurrences. May be a variety of *C. gloriosus*. See *Madroño* 6:171-173 (1942) for original description.
 Status Report: 1988

Ceanothus megacarpus Nutt. var. *insularis* (Eastw.) Munz

"island ceanothus" Rhamnaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: SCZ, SRO
 Habitat: Chprl (sandy)
 Life Form: Shrub (evergreen)
 Blooming: January-March

Ceanothus ophiochilus Boyd, Ross & Arnseth

"Vail Lake ceanothus" Rhamnaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/C2
 Distribution: RIV
 Quads: 49B, 50A
 Habitat: Chprl (gabbroic or pyroxenite-rich outcrops)
 Life Form: Shrub (evergreen)
 Blooming: February-March
 Notes: Known from only three occurrences near Vail Lake; first discovered in 1989. Threatened by proposed development and long-term hybridization with *C. crassifolius*. See *Phytologia* 70(1):28-41 (1991) for original description.

Ceanothus papillosus var. *roweanus*

Considered but rejected: Too common

Ceanothus pinetorum

Considered but rejected: Too common

Ceanothus prostratus var. *laxus*

Considered but rejected: A synonym of *C. prostratus*; a common taxon

Ceanothus purpureus Jeps.

"holly-leaf ceanothus" Rhamnaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: NAP, SOL
 Habitat: Chprl (volcanic)
 Life Form: Shrub (evergreen)
 Blooming: February-April
 Notes: See *Fremontia* 15(4):25-26 (1988) for species account.

Ceanothus rigidus

See *Ceanothus cuneatus* var. *rigidus*

Ceanothus roderickii Knight

"Pine Hill ceanothus" Rhamnaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CR/C1
 Distribution: ELD
 Quads: 510B, 511A, 527D
 Habitat: Chprl, CmWld / often serpentinite or gabbroic
 Life Form: Shrub (evergreen)
 Blooming: May-June
 Notes: Known from approximately ten occurrences. Threatened by residential development in the Sierra Nevada foothills. See *Four Seasons* 2(4):23-24 (1968) for original description.
 Status Report: 1993

Ceanothus sonomensis J.T. Howell

"Sonoma ceanothus" Rhamnaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: NAP, SON
 Quads: 500B, 500C, 501A
 Habitat: Chprl (sandy, serpentinite or volcanic)
 Life Form: Shrub (evergreen)
 Blooming: February-April
 Notes: Known from approximately ten occurrences; only one occurrence known from NAP Co. Seriously threatened by development. Closely related to *C. cuneatus*.
 Status Report: 1991

Ceanothus verrucosus Nutt.

"white coast ceanothus" Rhamnaceae
 CNPS List: 2 R-E-D Code: 1-2-1 State/Fed. Status: /C2
 Distribution: SDG, BA
 Quads: 22B, 22C, 22D, 35C, 35D, 36A, 36D
 Habitat: Chprl
 Life Form: Shrub (evergreen)
 Blooming: January-April
 Notes: Threatened by development.

Celtis reticulata

Considered but rejected: Too common

Centaurium exaltatum

Considered but rejected: Too common

Centaurium namophilum var. *namophilum*

Considered but rejected: Not in CA; misidentification of *C. exaltatum*; a common taxon

Centaurium namophilum var. *nevadensis*

Considered but rejected: A synonym of *C. exaltatum*; a common taxon

Centrostegia insignis
See *Aristocapsa insignis*

Centrostegia leptoceras
See *Dodecaneura leptoceras*

Centrostegia vortriedei
See *Systemotheca vortriedei*

Cerastium beeringianum var. *capillare*
Considered but rejected: Too common

Cercocarpus betuloides ssp. *blancheae*
See *Cercocarpus betuloides* var. *blancheae*

Cercocarpus betuloides T. & G.
var. *blancheae* (C. Schneider) Little
"island mountain-mahogany" Rosaceae
CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
Distribution: LAX, SCT, SCZ, SRO, VEN
Habitat: Chprl
Life Form: Shrub (evergreen)
Blooming: March-April
Notes: Does plant occur on other Channel Islands?

Cercocarpus minutiflorus
Considered but rejected: Too common

Cercocarpus traskiae Eastw.
"Catalina Island mountain-mahogany" Rosaceae
CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/C1
Distribution: SCT
Quads: SCTs
Habitat: Chprl (rocky)
Life Form: Shrub (evergreen)
Blooming: March-May
Notes: May be the rarest tree in CA; only seven adult plants surviving in 1990. Threatened by feral herbivores. Recovery work in progress. See *Proceedings of the California Academy of Sciences* III 1:136 (1898) for original description, and *Conservation Biology* 3(1):52-58 (1989) for discussion of hybridization.
Status Report: 1987

Cereus giganteus
See *Carnegiea gigantea*

Chaenactis carphoclinia Gray var. *peirsonii* (Jeps.) Munz
"Peirson's pincushion" Asteraceae
CNPS List: 1B R-E-D Code: 2-1-3 State/Fed. Status: CEQA
Distribution: IMP, RIV?, SDG
Quads: 31D, 32A, 46D
Habitat: SDScr
Life Form: Annual herb
Blooming: March-April
Notes: Endemic to the eastern Santa Rosa Mtns, where known from few collections. Does plant occur in RIV Co.? See *Madroño* 1(17):259 (1929) for original description, and *Manual of Southern California Botany*, p. 567 (1935) by P. Munz for revised nomenclature.

Chaenactis douglasii (Hook.) H. & A. var. *alpina* Gray
"alpine dusty maidens" Asteraceae
CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
Distribution: ALP, ELD, INY, SIS, TUO, NV, OR, ++
Quads: 302A, 506B?, 507A?, 522C, 523B, 698B, 698C
Habitat: AlpBR (granitic)
Life Form: Perennial herb
Blooming: July-September
Notes: Intergrades downslope with var. *douglasii*. See *Synoptical Flora of North America* 1(2):341 (1884) for original description, and *Proceedings of the California Academy of Sciences* II 5:699 (1895) for additional information.

Chaenactis parishii Gray
"Parish's chaenactis" Asteraceae
CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: /C3c
Distribution: RIV, SDG, BA
Habitat: Chprl
Life Form: Perennial herb
Blooming: May-July
Notes: See *Proceedings of the American Academy of Arts and Sciences* 20:299 (1885) for original description.
Status Report: 1979

Chaenactis suffrutescens Gray
"Shasta chaenactis" Asteraceae
CNPS List: 1B R-E-D Code: 2-1-3 State/Fed. Status: CEQA
Distribution: SIS, TRI
Quads: 668B, 682A, 682B, 683B, 683C, 684C, 685B, 686D, 698B, 698C, 699B, 699C, 699D, 700A, 701B, 716A, 717D?, 718C, 718D, 733A
Habitat: LCFrs, UCFrs / sandy, serpentinite
Life Form: Perennial herb
Blooming: May-September
Notes: Rare on the Shasta-Trinity NF.

Chamaebatia australis (Bdg.) Abrams
"southern mountain misery" Rosaceae
CNPS List: 4 R-E-D Code: 1-2-1 State/Fed. Status: CEQA?
Distribution: LAX, SDG, BA
Habitat: Chprl
Life Form: Shrub (evergreen)
Blooming: November-May
Notes: Threatened by agriculture. See *Madroño* 27(4):111 (1980) for range extension information.

Chamaecyparis lawsoniana
Considered but rejected: A synonym of *Cupressus lawsoniana*; a common taxon

Chamaecyparis nootkatensis
See *Cupressus nootkatensis*

Chamaesyce arizonica (Engelm.) Arthur

"Arizona spurge" Euphorbiaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: IMP?, RIV, SDG, AZ, BA+
 Quads: 47C, 83D
 Habitat: SDSCr (sandy)
 Life Form: Perennial herb
 Blooming: March-April
 Notes: Undocumented in IMP Co.; need quads. See *Madroño* 32(3):187-189 (1985) for revision of *Chamaesyce* nomenclature.

Chamaesyce hooveri (Wheeler) Koutnik

"Hoover's spurge" Euphorbiaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /PT
 Distribution: BUT, GLE, STA, TEH, TUL
 Quads: 333B, 334A*, 441A, 441C, 441D, 562B, 576B, 593B, 593C, 594A
 Habitat: VnPls
 Life Form: Annual herb
 Blooming: July
 Notes: Known from approximately twenty occurrences. Threatened by grazing, agriculture, and non-native plants. See *Proceedings of the Biological Society of Washington* 53:9 (1940) for original description, and *Madroño* 32(3):187-189 (1985) for revised nomenclature.

Chamaesyce ocellata (Dur. & Hilg.) Millsp.ssp. *rattanii* (Wats.) Koutnik

"Stony Creek spurge" Euphorbiaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: COL, GLE, TEH
 Habitat: VFGrs (sandy or rocky)
 Life Form: Annual herb
 Blooming: May-October
 Notes: See *Proceedings of the American Academy of Arts and Sciences* 20:372 (1885) for original description, and *Madroño* 32(3):187-189 (1985) for revised nomenclature.

Chamaesyce ocellata var. *rattanii*

See *Chamaesyce ocellata* ssp. *rattanii*

Chamaesyce parishii

Considered but rejected: Too common

Chamaesyce pediculifera

Considered but rejected: Too common

Chamaesyce platysperma (Engelm.) Shinnery

"flat-seeded spurge" Euphorbiaceae
 CNPS List: 1B R-E-D Code: 3-2-2 State/Fed. Status: /C2
 Distribution: IMP, SBD?, SDG, RIV, AZ, SO
 Quads: 30D, 32C, 82C, 130B?
 Habitat: SDSCr (sandy), DeDns
 Life Form: Annual herb
 Blooming: February-September
 Notes: Known in CA from only four herbarium collections (need confirmation) and a 1987 collection from IMP Co. See *Desert Plants* 2(2):104-105 (1980) for species account.

Cheilanthes clevelandii

Considered but rejected: Too common

Cheilanthes clokeyi

Considered but rejected: Not published

Cheilanthes cochisensis

See *Astrolopsis cochisensis*

Cheilanthes fibrillosa

Considered but rejected: A sterile hybrid

Cheilanthes limitanea var. *limitanea*

See *Argyroschisma limitanea* var. *limitanea*

Cheilanthes newberryi

Considered but rejected: Too common

Cheilanthes viscida

Considered but rejected: Too common

Cheilanthes wootonii Maxon

"Wooton's lace fern" Pteridaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: INY?, SBD, AZ, BA, SO+
 Quads: 200A, 225D
 Habitat: JTWld, PJWld / rocky
 Life Form: Perennial herb (rhizomatous)
 Fertile: May-October
 Notes: Reported from the Panamint Mtns. in *A Flora of Southern California* (1974) by P. Munz; does plant occur in INY Co.? See *Madroño* 25:56 (1978) for distributional information, and *Phytologia* 41(6):431-437 (1979) for nomenclature.

Chenopodium gigantospermum

See *Chenopodium simplex*

Chenopodium nevadense

Considered but rejected: Too common

Chenopodium simplex (Torr.) Raf.

"large-seeded goosefoot" Chenopodiaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: INY, MOD, PLU, ++
 Habitat: LCFrs (openings, disturbed areas), PJWld (carbonate)
 Life Form: Annual herb
 Blooming: June-October

Chlorogalum grandiflorum Hoov.

"Red Hills soaproot" Liliaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: ELD, PLA, TUO
 Quads: 458B, 458C, 459A, 459D, 510B, 511A, 525B, 527D
 Habitat: Chprl, CmWld / serpentinite or gabbroic
 Life Form: Perennial herb (bulbiferous)
 Blooming: May-June
 Notes: Threatened by development, mining, and vehicles. Protected in part at Red Hills ACEC (BLM), TUO Co. See *Leaflets of Western Botany* 2(8):128 (1938) for original description.
 Status Report: 1977

Chlorogalum pomeridianum (DC.) Kunth var. *minus* Hoov.

"dwarf soaproot" Liliaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CEQA
 Distribution: COL, LAK, SLO, SON, TEH
 Quads: 246C?, 247D, 519D, 548A, 596A?, 596B
 Habitat: Chprl (serpentinite)
 Life Form: Perennial herb (bulbiferous)
 Blooming: May-August
 Notes: See *Madroño* 5(5):144 (1940) for original description.

Chlorogalum purpureum Bdg. var. *purpureum*

"purple amole" Liliaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C1
 Distribution: MNT
 Quads: 295B, 295C, 318C*
 Habitat: CmWld, VFGrs
 Life Form: Perennial herb (bulbiferous)
 Blooming: May-June
 Notes: Known from only five occurrences near Jolon on Ft. Hunter
 Liggett. Threatened by foot traffic, grazing, and vehicles.
 Status Report: 1977

Chlorogalum purpureum Bdg. var. *reductum* Hoov.

"Camatta Canyon amole" Liliaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CR/C1
 Distribution: SLO
 Quads: 245A
 Habitat: CmWld (serpentinite)
 Life Form: Perennial herb (bulbiferous)
 Blooming: April-May
 Notes: Known from only one occurrence near La Panza, on the Los
 Padres NF. Threatened by vehicles. A portion of the occurrence
 has been fenced by CNPS and USFS. See *Leaflets of Western Bot-
 any* 10:123 (1964) for original description.
 Status Report: 1988

Chorizanthe angustifolia

Considered but rejected: Too common

Chorizanthe biloba Goodm.var. *immemora* Reveal & Hardham

"San Benito spineflower" Polygonaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: FRE, MNT, SBT
 Quads: 316B, 340A?, 340B, 340D, 385C
 Habitat: Chprl, CmWld
 Life Form: Annual herb
 Blooming: May-September
 Notes: See *Phytologia* 66(2):137-139 (1989) for original description.

Chorizanthe blakleyi Hardham

"Blakley's spineflower" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: SBA, SLO
 Habitat: Chprl
 Life Form: Annual herb
 Blooming: April-June
 Notes: Closely related to *C. palmeri*. See *Leaflets of Western Botany*
 10:95 (1964) for original description, and *Phytologia* 66(2):141-
 142 (1989) for taxonomic treatment.

Chorizanthe breweri Wats.

"Brewer's spineflower" Polygonaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C3c
 Distribution: SLO
 Quads: 221A, 221B, 246B, 246C, 246D
 Habitat: CCFrs, Chprl, CmWld, CoScr / serpentinite
 Life Form: Annual herb
 Blooming: May-June
 Notes: Known from approximately twenty occurrences. Possibly
 threatened by road construction. Closely related to *C. staticoides*.
 See *Proceedings of the American Academy of Arts and Sciences*
 12:270 (1877) for original description, and *Phytologia* 66(2):163-
 164 (1989) for taxonomic treatment.

Chorizanthe californica var. *suksdorfii*

See *Mucronea californica*

Chorizanthe cuspidata Wats. var. *cuspidata*

"San Francisco Bay spineflower" Polygonaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: ALA*, MRN, SCL?, SFO, SMT, SON
 Quads: 448B, 448C, 448D, 466C, 466D*, 467A, 503D
 Habitat: CBScr, CoDns, CoPrr, CoScr / sandy
 Life Form: Annual herb
 Blooming: April-July
 Notes: Plant may occur in SCL Co.; need more information. Closely
 related to *C. pungens*. Some plants from Point Reyes (MRN Co.)
 probably intermediate to var. *villosa*. See *C. cuspidata* in *The Jepson
 Manual*. See *Proceedings of the Davenport Academy of Natural Sci-
 ences* 4:60 (1884) for original description, and *Phytologia*
 66(2):127-129 (1989) for taxonomic treatment.

Chorizanthe cuspidata Wats. var. *villosa* (Eastw.) Munz

"woolly-headed spineflower" Polygonaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CEQA
 Distribution: MRN, SON
 Quads: 485B, 485C, 502C, 503D
 Habitat: CoDns, CoPrr, CoScr / sandy
 Life Form: Annual herb
 Blooming: May-August
 Notes: Endemic to coastline from Bodega Bay to Point Reyes. See *C.
 cuspidata* in *The Jepson Manual*. See *Bulletin of the Torrey Botanical
 Club* 30:485 (1903) for original description, and *Phytologia*
 66(2):127-130 (1989) for taxonomic treatment.

Chorizanthe douglasii Benth.

"Douglas's spineflower" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: MNT, SBT, SLO
 Habitat: Chprl, CmWld, LCFrs
 Life Form: Annual herb
 Blooming: April-July
 Notes: See *Phytologia* 66(2):118-120 (1989) for taxonomic treat-
 ment.

Chorizanthe fimbriata var. *fimbriata*

Considered but rejected: Too common

Chorizanthe fimbriata var. *laciniata*

Considered but rejected: Too common

Chorizanthe howellii Goodm.

"Howell's spineflower" Polygonaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CT/FE
 Distribution: MEN
 Quads: 569A, 585D
 Habitat: CoDns, CoPrr (sandy areas near dunes)
 Life Form: Annual herb
 Blooming: May-July
 Notes: Known from only five occurrences near Ten Mile River dunes north of Fort Bragg. Threatened by recreational activities and non-native plants. Closely related to *C. pungens*. See *Annals of the Missouri Botanical Garden* 21:44 (1934) for original description, and *Phytologia* 66(2):131-132 (1989) for taxonomic treatment.
 Status Report: 1985

Chorizanthe insignis

See *Aristocapsa insignis*

Chorizanthe leptoceras

See *Dodecahema leptoceras*

Chorizanthe leptotheca Goodm.

"Peninsular spineflower" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-2-2 State/Fed. Status: CEQA?
 Distribution: RIV, SBD, SDG, BA
 Habitat: Chprl, CoScr, LCFrs / alluvial fan, granitic
 Life Form: Annual herb
 Blooming: May-August
 Notes: Much habitat already lost to development; also threatened by non-native grasses. Closely related to and difficult to distinguish from *C. staticoides*. See *Annals of the Missouri Botanical Garden* 21:61 (1934) for original description, and *Phytologia* 66(2):159-160 (1989) for taxonomic treatment.

Chorizanthe orcuttiana Parry

"Orcutt's spineflower" Polygonaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/PE
 Distribution: SDG
 Quads: 11B*, 22B, 22C*, 35C*, 36D
 Habitat: Chprl, CCFrs, CoScr
 Life Form: Annual herb
 Blooming: March-April
 Notes: Only known occurrence confirmed in 1991 by C. Reiser. Most historical habitat urbanized. Threatened by foot traffic. See *Phytologia* 66(2):183 (1989) for taxonomic treatment.
 Status Report: 1987

Chorizanthe palmeri Wats.

"Palmer's spineflower" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: MNT, SBA, SBT?, SLO
 Habitat: Chprl, CmWld, VFGrS / serpentinite
 Life Form: Annual herb
 Blooming: May-August
 Notes: Too common? Does plant occur in SBT Co.? Isolated populations show local differences. Taxonomic revision in *Phytologia* 66(4):295-441 (1989) indicates species occurs mainly in the Santa Lucia Mtns. of MNT and SLO counties. See *Proceedings of the American Academy of Arts and Sciences* 12:271 (1877) for original description, and *Phytologia* 66(2):135-137 (1989) for taxonomic treatment.

Chorizanthe parryi Wats. var. *fernandina* (Wats.) Jeps.

"San Fernando Valley spineflower" Polygonaceae
 CNPS List: 1A Last Seen: 1940 State/Fed. Status: /C2*
 Distribution: LAX*, ORA*, SDG*
 Quads: 22B*, 22C*, 70B*, 87C*, 88D*, 110A*, 112B*, 137C*, 137D*, 138A*, 138B*, 138D*, 162B*
 Habitat: CoScr (sandy)
 Life Form: Annual herb
 Blooming: April-June
 Notes: Most historical habitat is now heavily urbanized. Most likely to be rediscovered in northwestern LAX Co. See *Botany of California* 2:481 (1880) for original description, and *Phytologia* 66(2):147-149 (1989) for taxonomic treatment.
 Status Report: 1979

Chorizanthe parryi Wats. var. *parryi*

"Parry's spineflower" Polygonaceae
 CNPS List: 3 R-E-D Code: ?-2-3 State/Fed. Status: /C2
 Distribution: LAX(*), RIV, SBD
 Quads: 49B, 68A, 68B, 68C, 69A, 84A, 84B, 86C, 86D, 106C, 106D, 107A, 107B, 107D, 108B, 108C, 110A(*), 110B(*), 113D(*), 133C?
 Habitat: Chprl, CoScr / sandy openings
 Life Form: Annual herb
 Blooming: April-June
 Notes: Move to List 1B? Location and rarity information needed. Known from about twenty occurrences in RIV Co. Habitat dwindling rapidly due to urbanization; may be extirpated from LAX Co. Previously confused with *C. procumbens*; often misidentified as this plant. See *Proceedings of the American Academy of Arts and Sciences* 12:271 (1877) for original description, and *Phytologia* 66(2):147-149 (1989) for taxonomic treatment.

Chorizanthe polygonoides T. & G. var. *longispina* (Goodm.) Munz

"long-spined spineflower" Polygonaceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: /C2
 Distribution: RIV, SDG, BA
 Quads: 11B, 20A, 21C?, 22B, 33D?, 50B, 51B, 66B, 68C, 68D, 69C, 69D, 86C, 86D
 Habitat: Chprl, CoScr, Medws, VFGrS / often clay
 Life Form: Annual herb
 Blooming: April-July
 Notes: Much habitat already lost to development; also threatened by non-native grasses. See *Leaflets of Western Botany* 7(10):236 (1955) for original description, and *Phytologia* 66(2):176-179 (1989) for taxonomic treatment.

Chorizanthe procumbens Nutt.

"prostrate spineflower" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-2-2 State/Fed. Status: CEQA?
 Distribution: LAX, ORA, RIV, SBD, SDG, VEN, BA
 Habitat: Chprl, CoScr, PJWld, VFGrS / gabbroic clay, granitic
 Life Form: Annual herb
 Blooming: April-June
 Notes: Too common? Much habitat already lost to development; also threatened by non-native grasses. Includes *C. procumbens* var. *albiflora*. Subsection is taxonomically difficult; see *Phytologia* 66(2):151-154 (1989) for discussion.

Chorizanthe procumbens* var. *albifloraSee *Chorizanthe procumbens****Chorizanthe pungens* Benth.****var. *hartwegiana* Reveal & Hardham**

"Ben Lomond spineflower" Polygonaceae
 CNPS List: 1B R-E-D Code: 2-3-3 State/Fed. Status: /PE
 Distribution: SCR
 Quads: 387B, 407C, 408A?, 408B, 408D
 Habitat: LCFrs (maritime ponderosa pine sandhills)
 Life Form: Annual herb
 Blooming: April-July
 Notes: Endemic to sandhill parkland communities in the Santa Cruz Mtns. Threatened by sand mining and residential development. See *C. pungens* in *The Jepson Manual*. See *Annals of the Missouri Botanical Garden* 21:37 (1934) for original description, and *Phytologia* 66(2):123-126 (1989) for taxonomic treatment.

Chorizanthe pungens* Benth. var. *pungens

"Monterey spineflower" Polygonaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /PE
 Distribution: MNT, SCR
 Quads: 342A, 366A, 366C, 366D, 386B, 386C, 387A, 387D
 Habitat: CoDns, CoScr
 Life Form: Annual herb
 Blooming: April-June
 Notes: See *C. pungens* in *The Jepson Manual*. See *Phytologia* 66(2):123-125 (1989) for taxonomic treatment.

***Chorizanthe rectispina* Goodm.**

"straight-awned spineflower" Polygonaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: MNT, SBA, SLO
 Quads: 196D, 245A, 245B, 246A, 246B, 294B, 295A, 295B
 Habitat: Chprl, CmWld, CoScr
 Life Form: Annual herb
 Blooming: June-July
 Notes: Known from approximately twenty occurrences. See *Annals of the Missouri Botanical Garden* 21:72 (1934) for original description, and *Phytologia* 66(2):143 (1989) for taxonomic treatment.

Chorizanthe robustaSee *Chorizanthe robusta* var. *robusta****Chorizanthe robusta* Parry****var. *hartwegii* (Benth.) Reveal & Morgan**

"Scott's Valley spineflower" Polygonaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /PE
 Distribution: SCR
 Quads: 407C, 408D
 Habitat: Medws (xeric, sandy), VFGrs (mudstone and Purisima outcrops)
 Life Form: Annual herb
 Blooming: April-July
 Notes: Known from only one extended population in Scotts Valley. Threatened by development. See *C. robusta* in *The Jepson Manual*. See *Phytologia* 67(5):357-360 (1989) for revised nomenclature.

Chorizanthe robusta* Parry var. *robusta

"robust spineflower" Polygonaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /PE
 Distribution: ALA*, MNT, SCL*, SCR, SMT*
 Quads: 318D*, 342A*, 366D*, 386B(*?), 387A, 387B, 387D, 407B*, 407C*, 408D(*?), 427C*, 448B*, 465C*
 Habitat: CmWld (openings), CoDns, CoScr
 Life Form: Annual herb
 Blooming: May-September
 Notes: Most populations extirpated and now known from only four extended occurrences. Threatened by development, recreation, mining, and dune stabilization. See *C. robusta* in *The Jepson Manual*. See *Phytologia* 66(2):130-131 (1989) for taxonomic treatment.

***Chorizanthe spinosa* Wats.**

"Mojave spineflower" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: /C3c
 Distribution: KRN, LAX, SBD
 Habitat: ChScr, MDScr
 Life Form: Annual herb
 Blooming: April-July
 Notes: Threatened by vehicles and energy development. See *Flora of California* 2:481 (1880) by S. Watson for original description, and *Phytologia* 66(2):109-110 (1989) for taxonomic treatment.
 Status Report: 1977

Chorizanthe staticoides* ssp. *chrysacanthaConsidered but rejected: A synonym of *C. staticoides*; a common taxon***Chorizanthe staticoides* var. *compacta***Considered but rejected: A synonym of *C. staticoides*; a common taxon***Chorizanthe stellulata***

Considered but rejected: Too common

***Chorizanthe valida* Wats.**

"Sonoma spineflower" Polygonaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/FE
 Distribution: MRN, SON*
 Quads: 467D*, 485C, 502A*, 519C*
 Habitat: CoPrr (sandy)
 Life Form: Annual herb
 Blooming: June-August
 Notes: Thought extinct for 77 years; only known extant occurrence was rediscovered in 1980 at Point Reyes NS. Closely related to *C. pungens*. See *Proceedings of the American Academy of Arts and Sciences* 12:271 (1877) for original description, *Phytologia* 66(2):132-134 (1989) for taxonomic treatment, *Fremontia* 18(1):17-18 (1990) for species account, and *Madroño* 39(4):271-280 (1992) for ecological study.
 Status Report: 1990

Chorizanthe vortriedeiSee *Systemotheca vortriedei*

Chorizanthe wheeleri Wats.

"Wheeler's spineflower" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: SCZ, SRO
 Habitat: Chprl
 Life Form: Annual herb
 Blooming: April-July
 Notes: Mainland occurrences are *C. staticoides*, a closely-related widespread taxon. See *Proceedings of the American Academy of Arts and Sciences* 12:272 (1877) for original description, and *Phytologia* 66(2):164-166 (1989) for taxonomic treatment.

Chorizanthe xanti Wats. var. *leucotheca* Goodm.

"white-bracted spineflower" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: RIV, SBD
 Habitat: MDScr, PJWld
 Life Form: Annual herb
 Blooming: April-June
 Notes: See *Annals of the Missouri Botanical Garden* 21:60 (1934) for original description, and *Phytologia* 66(2):160-163 (1989) for taxonomic treatment.

Chrysothamnus axillaris

Considered but rejected: Too common; a synonym of *C. viscidiflorus* ssp. *axillaris*

Chrysothamnus gramineus Hall

"Panamint rock-goldenrod" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: INY, SBD?, NV
 Habitat: PJWld, SCFrS / carbonate, rocky
 Life Form: Perennial herb
 Blooming: June-July
 Notes: Does plant occur in SBD Co.?

Chrysothamnus parryi ssp. *bolanderi*

Considered but rejected: A hybrid between *C. nauseosus* ssp. *albicaulis* and *Ericameria discoidea*

Cicuta bolanderi

Considered but rejected: A synonym of *C. maculata* var. *bolanderi*; a common taxon

Cicuta maculata var. *bolanderi*

Considered but rejected: Too common

Cirsium andrewsii (Gray) Jeps.

"Franciscan thistle" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: MRN, SFO, SMT, SON
 Habitat: BUFrS, CBSCr / sometimes serpentinite
 Life Form: Perennial herb
 Blooming: June-July

Cirsium campylon

See *Cirsium fontinale* var. *campylon*

Cirsium ciliolatum (Henders.) J.T. Howell

"Ashland thistle" Asteraceae
 CNPS List: 2 R-E-D Code: 3-3-1 State/Fed. Status: CE/C3b
 Distribution: SIS, OR
 Quads: 733C, 733D
 Habitat: CmWld, VFGrs
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Known in CA from fewer than ten occurrences. Threatened by agriculture and road maintenance. See *Bulletin of the Torrey Botanical Club* 27:348 (1900) for original description.
 Status Report: 1987

Cirsium crassicaule (Greene) Jeps.

"slough thistle" Asteraceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: KNG, KRN, SJQ
 Quads: 241D, 264C, 265A, 265B, 265D, 289C, 444A, 462D
 Habitat: ChScr, MshSw (sloughs), RpScr
 Life Form: Annual/Perennial herb
 Blooming: May-August
 Notes: Threatened by agriculture. Population sizes fluctuate widely from year to year.
 Status Report: 1979

Cirsium fontinale Greenevar. *campylon* (H.K. Sharsm.) Keil & C. Turner

"Mt. Hamilton thistle" Asteraceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: ALA, SCL, STA
 Quads: 406A*, 406B, 407A, 407B, 425B, 426A, 426C, 426D, 427D, 445D
 Habitat: Chprl, CmWld, VFGrs / serpentinite seeps
 Life Form: Perennial herb
 Blooming: April-October
 Notes: Threatened by urbanization and cattle trampling and grazing. See *Phytologia* 73(4):312-317 (1992) for revised nomenclature.
 Status Report: 1979

Cirsium fontinale (Greene) Jeps. var. *fontinale*

"fountain thistle" Asteraceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/PE
 Distribution: SMT
 Quads: 429A, 448D
 Habitat: Chprl (openings), VFGrs / serpentinite seeps
 Life Form: Perennial herb
 Blooming: June-October
 Notes: Known from only four occurrences in the vicinity of Crystal Springs Reservoir. Seriously threatened by urbanization, dumping, road maintenance, and non-native plants. See *Bulletin of the California Academy of Sciences* 2:151-152 (1886) for original description.
 Status Report: 1988

Cirsium fontinale (Greene) Jeps. var. *obispoense* J.T. Howell

"Chorro Creek bog thistle" Asteraceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CE/PE
 Distribution: SLO
 Quads: 221B, 246C, 271A
 Habitat: Chprl, CmWld / serpentinite seeps
 Life Form: Perennial herb
 Blooming: February-July
 Notes: Known from fewer than ten occurrences. Threatened by grazing, development, and proposed water diversions. See *Leaflets of Western Botany* 2:71 (1938) for original description.
 Status Report: 1977

Cirsium hydrophilum (Greene) Jeps. var. *hydrophilum*

"Suisun thistle" Asteraceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C1
 Distribution: SOL
 Quads: 482A
 Habitat: MshSw (salt)
 Life Form: Perennial herb
 Blooming: July-September
 Notes: Only known occurrence rediscovered in 1989 by N. Havlik on Grizzly Isl. in the Suisun Marsh. Possibly threatened by altered hydrology and competition from native and non-native plants. Protected in part at Grizzly Island WA (DFG) and Peytonia Slough ER (DFG). See *Proceedings of the Academy of Natural Sciences of Philadelphia* 44:358 (1892) for original description.
 Status Report: 1977

Cirsium hydrophilum (Greene) Jeps. var. *vaseyi* (Gray) J.T. Howell

"Mt. Tamalpais thistle" Asteraceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: MRN
 Quads: 467A, 467B
 Habitat: BUFRs, Chprl / serpentinite seeps
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Known from fewer than ten occurrences on Mt. Tamalpais. Threatened by road construction and non-native plants. See *Synoptical Flora of North America* 1(2):403-404 (1884) for original description.

Cirsium loncholepis Petrak

"La Graciosa thistle" Asteraceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CT/C1
 Distribution: SBA, SLO
 Quads: 171A*, 195C*, 195D, 196A, 196B, 221B*, 221D
 Habitat: CoDns (mesic), MshSw (brackish)
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Known from approximately twenty occurrences. Threatened by coastal development, vehicles, and grazing.
 Status Report: 1989

Cirsium nidulum

Considered but rejected: Too common

Cirsium occidentale (Nutt.) Jeps. var. *compactum* Hoov.

"compact cobwebby thistle" Asteraceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: MNT?, SFO*, SLO
 Quads: 271B, 271C, 271D, 272A, 344C, 448B*
 Habitat: Chprl, CoDns, CoPrr, CoScr
 Life Form: Perennial herb
 Blooming: April-June
 Notes: Known from fewer than twenty occurrences. Threatened by grazing, and potentially by road construction and development. Some inland plants weakly separated from var. *occidentale*. Compact, low-growing plants from MNT Co. (344C) are probably not var. *compactum*.

Cirsium rhotophilum Blake

"surf thistle" Asteraceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CT/C1
 Distribution: SBA, SLO
 Quads: 145B, 171A, 171C, 196B, 196D, 221D, 247D
 Habitat: CBScr, CoDns
 Life Form: Perennial herb
 Blooming: April-June
 Notes: Threatened by vehicles, foot traffic, and non-native plants. See *Botanical Gazette* 39:45 (1905) for original description.
 Status Report: 1990

Cirsium walkerianum

Considered but rejected: A synonym of *C. quercetorum*; a common taxon

Clarkia amoena (Lehm.) Nels. & Macbr. ssp. *whitneyi* (Gray) Lewis & Lewis

"Whitney's farewell-to-spring" Onagraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: HUM, MEN
 Habitat: CBScr, CoScr
 Life Form: Annual herb
 Blooming: June-August

Clarkia australis E. Small

"Small's southern clarkia" Onagraceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C3c
 Distribution: MAD, MPA, TUO
 Quads: 418B, 438B, 439A, 455C, 456A, 456C, 456D, 457D, 474C
 Habitat: CmWld, LCFrs
 Life Form: Annual herb
 Blooming: May-August
 Notes: Threatened by logging and reforestation with herbicides. See *Canadian Journal of Botany* 49:1211-1217 (1971) for taxonomic treatment.

Clarkia biloba (Durand) Nels. & Macbr.ssp. *australis* Lewis & Lewis

"Mariposa clarkia" Onagraceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C3c
 Distribution: MPA, TUO?
 Quads: 419B, 438A, 438B, 438C, 439B, 439C, 439D
 Habitat: Chprl, CmWld
 Life Form: Annual herb
 Blooming: May-July
 Notes: Known from fewer than twenty occurrences. Does plant occur in TUO Co.? Threatened by road maintenance and biocide spraying.

Clarkia borealis E. Small ssp. *arida* E. Small

"Shasta clarkia" Onagraceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C2
 Distribution: SHA
 Quads: 646D
 Habitat: CmWld
 Life Form: Annual herb
 Blooming: June
 Notes: Known from only one occurrence near Redding. Field surveys needed. See *Canadian Journal of Botany* 49:1211-1217 (1971) for original description.
 Status Report: 1977

Clarkia borealis E. Small ssp. *borealis*

"northern clarkia" Onagraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: SHA, TRI
 Habitat: Chprl, CmWld, LCFrs
 Life Form: Annual herb
 Blooming: June-September
 Notes: See *Canadian Journal of Botany* 49:1211-1217 (1971) for taxonomic revision.

Clarkia bottae

See *Clarkia lewisii*, a name previously misapplied to this taxon

Clarkia breweri (Gray) Greene

"Brewer's clarkia" Onagraceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: ALA, FRE, MER, MNT, SBT, SCL, STA
 Habitat: Chprl, CmWld, CoScr / often serpentinite
 Life Form: Annual herb
 Blooming: April-May
 Notes: Threatened by cattle grazing, and potentially by reservoir construction.

Clarkia calientensis

See *Clarkia tembloriensis* ssp. *calientensis*

Clarkia concinna Fisch. & Mey. (Greene)ssp. *automixa* Bowman

"Santa Clara red ribbons" Onagraceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: ALA, SCL
 Quads: 406A, 407B, 408A, 426B, 426C, 427A, 427D, 428B, 428C, 428D, 445D, 446C
 Habitat: CmWld
 Life Form: Annual herb
 Blooming: April-July
 Notes: See *Madroño* 34(1):41-47 (1987) for original description.

Clarkia concinna Fisch. & Mey. (Greene)ssp. *raichei* G. Allen, V. Ford & L. Gottlieb

"Raiche's red ribbons" Onagraceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: MRN
 Quads: 485B
 Habitat: CBScr
 Life Form: Annual herb
 Blooming: April-May
 Notes: Known from only one occurrence near Tomales. See *Madroño* 37(4):305-310 (1990) for original description.

Clarkia delicata (Abrams) Nels. & Macbr.

"delicate clarkia" Onagraceae
 CNPS List: 2 R-E-D Code: 1-2-1 State/Fed. Status: CEQA
 Distribution: SDG, BA
 Quads: 21D, 34C, 34D
 Habitat: Chprl, CmWld
 Life Form: Annual herb
 Blooming: May-June
 Notes: Threatened by development and road improvement.

Clarkia exilis Lewis & Vasek

"slender clarkia" Onagraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: KRN, TUL
 Habitat: CmWld
 Life Form: Annual herb
 Blooming: April-May
 Notes: See *Evolution* 18:26-42 (1964) for occurrence information.

Clarkia franciscana Lewis & Raven

"Presidio clarkia" Onagraceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/PE
 Distribution: ALA, SFO
 Quads: 465C, 466C
 Habitat: CoScr, VFGrs (serpentinite)
 Life Form: Annual herb
 Blooming: May-July
 Notes: Known from fewer than five occurrences. Threatened by Army activities, vehicles, urbanization and non-native plants. See *Brittonia* 10:7-13 (1958) for original description, and *Madroño* 39(1):1-7 (1992) for information on ALA Co. occurrence.
 Status Report: 1988

Clarkia gracilis (Piper) Nels. & Macbr.ssp. *albicaulis* (Jeps.) Lewis & Lewis

"white-stemmed clarkia" Onagraceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CEQA
 Distribution: BUT
 Quads: 575B, 575D, 576A, 591C, 592B, 592C, 592D, 593A,
 593D
 Habitat: Chprl, CmWld / sometimes serpentinite
 Life Form: Annual herb
 Blooming: May-July
 Notes: Known from fewer than twenty occurrences. Threatened in
 foothills by urbanization. See *University of California Publications*
in Botany 2:239 (1907) for original description and 20:241-392
 (1955) for taxonomic treatment.

Clarkia imbricata Lewis & Lewis

"Vine Hill clarkia" Onagraceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/C1
 Distribution: SON
 Quads: 502A
 Habitat: Chprl, Medws, VFGrs
 Life Form: Annual herb
 Blooming: June-July
 Notes: Known from only two occurrences, one of which is trans-
 planted and doing poorly; a third, natural occurrence has been ex-
 tirpated. Threatened by development and road maintenance. See
Madroño 12:33-39 (1953) for original description.
 Status Report: 1988

Clarkia jolonensis Parnell

"Jolon clarkia" Onagraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: MNT
 Habitat: CmWld
 Life Form: Annual herb
 Blooming: June
 Notes: See *Madroño* 20(6):322 (1970) for original description.

Clarkia lewisii Raven & Parnell

"Lewis's clarkia" Onagraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: MNT, SBT
 Habitat: Chprl, CmWld, CoScr
 Life Form: Annual herb
 Blooming: May-July
 Notes: See *Annals of the Missouri Botanical Garden* 64:642 (1977) for
 revised taxonomy.

Clarkia lingulata Lewis & Lewis

"Merced clarkia" Onagraceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/C1
 Distribution: MPA
 Quads: 438B
 Habitat: CCFrs, Chprl, CmWld
 Life Form: Annual herb
 Blooming: May-June
 Notes: Known from only two occurrences along the Merced River.
 Largest occurrence damaged by herbicide spraying in 1984; also
 threatened by road widening. See *Madroño* 12:33-39 (1953) for
 original description.
 Status Report: 1985

Clarkia mildrediae (Heller) Lewis & Lewis

"Mildred's clarkia" Onagraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: BUT, PLU, YUB
 Habitat: LCFrs
 Life Form: Annual herb
 Blooming: June-July

Clarkia mosquinii E. Small ssp. *mosquinii*

"Mosquin's clarkia" Onagraceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C2
 Distribution: BUT
 Quads: 575B
 Habitat: CmWld
 Life Form: Annual herb
 Blooming: May-July
 Notes: Rediscovered in 1991 by L. Janeway. Identification difficult.
 See *Canadian Journal of Botany* 49:1211-1217 (1971) for original
 description.
 Status Report: 1977

Clarkia mosquinii E. Small ssp. *xerophila* E. Small

"Enterprise clarkia" Onagraceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C2
 Distribution: BUT
 Quads: 575A, 575B, 575D
 Habitat: CmWld, LCFrs
 Life Form: Annual herb
 Blooming: May-July
 Notes: Rediscovered from herbarium collections made by R. Schlis-
 ing in 1981 and L. Ahart in 1983, but these occurrences need
 field study to confirm their current existence. Type locality covered
 by Oroville Reservoir in 1968. See *Canadian Journal of Botany*
 49:1211-1217 (1971) for original description.

Clarkia rostrata W.S. Davis

"beaked clarkia" Onagraceae
 CNPS List: 1B R-E-D Code: 2-1-3 State/Fed. Status: /C2
 Distribution: MER, MPA, STA
 Quads: 419C, 420C, 421A, 439C, 440C, 441A, 442A, 459C
 Habitat: CmWld, VFGrs
 Life Form: Annual herb
 Blooming: April-May
 Notes: See *Brittonia* 22:270-284 (1970) for original description.

Clarkia rubicunda ssp. *blasdalei*

Considered but rejected: A synonym of *C. rubicunda*; a common taxon

Clarkia rubicunda ssp. *rubicunda*

Considered but rejected: Too common and taxonomic problem

Clarkia speciosa Lewis & Lewis
ssp. *immaculata* Lewis & Lewis

"Pismo clarkia" Onagraceae
CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CR/PE
Distribution: SLO
Quads: 221A, 221D
Habitat: Chprl (margins, openings), CmWld, VFGrs
Life Form: Annual herb
Blooming: May-June
Notes: Known from only four extant occurrences. Threatened by development and road maintenance, and possibly by grazing. USFWS uses the name *C. speciosa* var. *immaculata*. See *University of California Publications in Botany* 20:291 (1955) for original description.
Status Report: 1987

Clarkia springvillensis Vasek

"Springville clarkia" Onagraceae
CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CE/C1
Distribution: TUL
Quads: 308A, 308B, 309A, 332A
Habitat: Chprl, CmWld, VFGrs
Life Form: Annual herb
Blooming: May-July
Notes: Known from fewer than ten occurrences. Threatened by grazing, vehicles, road maintenance, logging, and residential development. Sequoia NF has adopted species management guidelines. See *Madroño* 17:220 (1964) for original description.
Status Report: 1993

Clarkia tembloriensis Vasek
ssp. *calientensis* (Vasek) Holsinger

"Vasek's clarkia" Onagraceae
CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C1
Distribution: KRN
Quads: 238C, 239D
Habitat: VFGrs
Life Form: Annual herb
Blooming: April
Notes: Known from only three occurrences near Caliente Creek. Threatened by grazing and non-native plants. Perhaps best treated as *C. calientensis*. See *Systematic Botany* 2:252-255 (1977) for original description and 10(2):155-165 (1985) for taxonomic treatment.

Clarkia tembloriensis ssp. *tembloriensis*

Considered but rejected: Too common

Clarkia virgata Greene

"Sierra clarkia" Onagraceae
CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
Distribution: AMA, CAL, ELD, MPA, TUO
Habitat: CmWld, LCFrs
Life Form: Annual herb
Blooming: May-July
Notes: May form sterile hybrids with *C. australis*.

Clarkia xantiana Gray
ssp. *parviflora* (Eastw.) Lewis & Raven

"Kern Canyon clarkia" Onagraceae
CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CEQA
Distribution: KRN
Quads: 284B, 284C
Habitat: CmWld
Life Form: Annual herb
Blooming: May-June
Notes: Known only from the Kern River drainage. Threatened by road construction. See *Bulletin of the Torrey Botanical Club* 30:492 (1903) for original description, and *Madroño* 39(3):163-169 (1992) for revised nomenclature.

Claytonia bellidifolia

See *Claytonia megarhiza*

Claytonia lanceolata Pursh var. *peirsonii* Munz & Jtn.

"Peirson's spring beauty" Portulacaceae
CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C1
Distribution: SBD
Quads: 108A, 134D
Habitat: SCFrS, UCFrs (scree)
Life Form: Perennial herb
Blooming: May-June
Notes: Threatened by trampling and proposed ski area expansion. A synonym of *C. lanceolata* in *The Jepson Manual*. Angeles NF has adopted species management guidelines. See *Bulletin of the Torrey Botanical Club* 49:352 (1922) for original description.
Status Report: 1980

Claytonia megarhiza (Gray) Wats.

"fell-fields claytonia" Portulacaceae
CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: /C3c
Distribution: ALP, MNO, MOD, MPA, NEV, TUO, OR+
Quads: 435B, 454C, 454D, 472D, 506D, 523B, 555A, 690C
Habitat: AlpBR, SCFrS (rocky)
Life Form: Perennial herb
Blooming: July-August

Claytonia megarhiza var. *bellidifolia*

See *Claytonia megarhiza*

Claytonia palustris Swanson & Kelley

"marsh claytonia" Portulacaceae
CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
Distribution: BUT, FRE, PLU, SIS, TEH, TUL
Habitat: Medws (mesic), MshSw (montane)
Life Form: Perennial herb
Blooming: June-August
Notes: See *Madroño* 34(2):155-161 (1987) for original description.

Claytonia saxosa

Considered but rejected: Too common

Claytonia spatbulata var. *rosulata*

Considered but rejected: Too common; a synonym of *C. exigua* ssp. *exigua*

Claytonia umbellata Wats.

"Great Basin claytonia" Portulacaceae
 CNPS List: 1B R-E-D Code: 3-1-2 State/Fed. Status: CEQA
 Distribution: ALP, LAS, MNO, MOD, SIS, NV, OR
 Quads: 488A, 505B, 603A, 699C
 Habitat: SCFRs (talus)
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Known from fewer than twenty occurrences throughout its range. Need quads for MOD Co. On watch list in OR. See *Botany of the King Exploration*, p. 43 (1871) for original description.

Cneoridium dumosum

Considered but rejected: Too common

Cochlearia groenlandica

See *Cochlearia officinalis* var. *arctica*

Cochlearia officinalis L. var. *arctica* (DC.) Gelert

"Arctic spoonwort" Brassicaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: DNT, OR+
 Quads: 740C
 Habitat: CBScr (on basaltic sea stack)
 Life Form: Annual herb
 Blooming: May-July
 Notes: Known in CA only from a sea stack off Crescent City. Endangered in OR. See *Madroño* 28(3):86 (1981) for CA record.

Collinsia antonina

Considered but rejected: A synonym of *C. parryi*; a common taxon

Collinsia bartsiiifolia var. *bartsiiifolia*

Considered but rejected: Too common

Collinsia concolor

Considered but rejected: Too common

Collinsia corymbosa Herder

"round-headed chinese houses" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CEQA
 Distribution: HUM, MEN, MRN?, SFO*, SON
 Quads: 466C*, 569A, 585D
 Habitat: CoDns
 Life Form: Annual herb
 Blooming: April-June
 Notes: Scattered distribution. Does plant occur in MRN Co.? Need quads for HUM Co. and for "Russian colony" (SON Co.). May intergrade with *C. bartsiiifolia* var. *bartsiiifolia*.

Collinsia franciscana

See *Collinsia multicolor*

Collinsia greenei

Considered but rejected: Too common

Collinsia linearis

Considered but rejected: Too common

Collinsia multicolor Lindl. & Paxton

"San Francisco collinsia" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: MNT, SCR, SFO, SMT
 Habitat: CCFrs, CoScr
 Life Form: Annual herb
 Blooming: March-May
 Notes: Known in SCR Co. from only a few populations.

Collinsia parryi

Considered but rejected: Too common

Collinsia sparsiflora

Considered but rejected: Too common

Collomia debilis var. *larsenii*

See *Collomia larsenii*

Collomia diversifolia Greene

"serpentine collomia" Polemoniaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: CCA, COL, GLE, LAK, MEN, NAP, YOL, SHA, STA
 Habitat: Chprl, CmWld / serpentinite
 Life Form: Annual herb
 Blooming: May-June

Collomia larsenii (Gray) Payson

"talus collomia" Polemoniaceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: /C3c
 Distribution: SHA, SIS, OR, WA
 Quads: 626A, 644A, 644D, 713C
 Habitat: AlpBR, CCFrs, UCFrs / volcanic talus
 Life Form: Perennial herb (rhizomatous)
 Blooming: July-October
 Notes: Known in CA from fewer than five occurrences. Threatened by foot traffic. On watch list in OR.

Collomia rawsoniana Greene

"flaming trumpet" Polemoniaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C1
 Distribution: MAD, MPA
 Quads: 397A, 397B, 417C, 417D, 418A, 418C, 418D
 Habitat: LCFrs, RpFrs
 Life Form: Perennial herb (rhizomatous)
 Blooming: July-August
 Notes: Need quads for MPA Co. Potentially threatened by hydroelectric development and logging. Interagency agreement has been established between USFWS and USFS, and Sierra NF has adopted species management guidelines. See *American Midland Naturalist* 31:216-231 (1944) for original description.

Collomia tracyi Mason

"Tracy's collomia" Polemoniaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: DNT, HUM, LAS, SIS, TEH, TRI
 Habitat: LCFrs
 Life Form: Annual herb
 Blooming: June-July
 Notes: Similar to *C. tinctoria*, but does not intergrade.

Colubrina californica Jtn.

"Las Animas colubrina" Rhamnaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: /C3c
 Distribution: IMP, RIV, SDG, AZ, BA, SO
 Habitat: MDScr
 Life Form: Shrub (evergreen)
 Blooming: April-May
 Notes: See *Proceedings of the California Academy of Sciences* IV 12:1085 (1924) for original description, and *Brittonia* 23:36 (1971) for distributional information.

Comarostaphylis diversifolia (Parry) Greene ssp. *diversifolia*

"summer holly" Ericaceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: /C2
 Distribution: ORA, RIV, SDG, BA
 Quads: 10B, 10C, 10D, 22B, 22C, 22D, 35B, 35C, 35D, 36D, 47C?, 51B, 69C, 70C
 Habitat: Chprl
 Life Form: Shrub (evergreen)
 Blooming: April-June
 Notes: Threatened by development and gravel mining.

Condalia globosa Jtn. var. *pubescens* Jtn.

"spiny abrojo" Rhamnaceae
 CNPS List: 4 R-E-D Code: 1-2-1 State/Fed. Status: CEQA?
 Distribution: IMP, RIV, AZ, BA, SO+
 Habitat: SDScr
 Life Form: Shrub (deciduous)
 Blooming: March-May
 Notes: See *Proceedings of the California Academy of Sciences* IV 12:1087 (1924) for original description, and *Brittonia* 14:332-368 (1972) for taxonomic treatment.

Contioselinum chinense

Considered but rejected: Too common; a synonym of *C. pacificum*

Convolvulus simulans Perry

"small-flowered morning-glory" Convolvulaceae
 CNPS List: 4 R-E-D Code: 1-2-2 State/Fed. Status: CEQA?
 Distribution: CCA, KRN, LAX, RIV, SBA, SBT, SCM, SCT, SCZ, SDG, SJQ, SLO, STA, BA
 Habitat: CoScr, VFGrs / clay, serpentinite seeps
 Life Form: Annual herb
 Blooming: March-June
 Notes: Rare in southern CA. See *Rhodora* 33:76 (1931) for original description.

Corallorhiza trifida Chatel.

"northern coralroot" Orchidaceae
 CNPS List: 2 R-E-D Code: 3-3-1 State/Fed. Status: CEQA
 Distribution: PLU, NV, OR, ++
 Quads: 590B
 Habitat: LCFrs, Medws (edges) / mesic
 Life Form: Perennial herb (rhizomatous, saprophytic)
 Blooming: June-July
 Notes: Known in CA from only one occurrence near Buck's Lake. See *The Wasmann Journal of Biology* 36:199-200 (1978) for information on CA occurrence, and *Fremontia* 19(1):22-23 (1991) for account of recent discovery (1990).

Cordylanthus bernardinus

See *Cordylanthus eremicus* ssp. *eremicus*

Cordylanthus brunneus ssp. *capillaris*

See *Cordylanthus tenuis* ssp. *capillaris*

Cordylanthus capitatus Benth.

"Yakima bird's-beak" Scrophulariaceae
 CNPS List: 2 R-E-D Code: 1-2-1 State/Fed. Status: CEQA
 Distribution: LAS, MOD, ID, NV, OR, WA
 Quads: 622C, 707C, 724A, 724C
 Habitat: LCFrs, PJWld
 Life Form: Annual herb (hemiparasitic)
 Blooming: July-September
 Notes: See *Systematic Botany Monographs* 10:69-73 (1986) for taxonomic treatment.
 Status Report: 1980

Cordylanthus eremicus (Cov. & Mort.) Munz ssp. *eremicus*

"desert bird's-beak" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: INY, SBD
 Habitat: JTWld, MDScr / rocky
 Life Form: Annual herb (hemiparasitic)
 Blooming: August-October
 Notes: Includes *C. bernardinus*. See *Systematic Botany Monographs* 10:89-92 (1986) for revised taxonomic treatment.
 Status Report: 1977

Cordylanthus eremicus (Cov. & Mort.) Munz ssp. *kernensis* Chuang & Heckard

"Kern Plateau bird's-beak" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: INY, KRN, TUL
 Habitat: UCFrs
 Life Form: Annual herb (hemiparasitic)
 Blooming: July-September
 Notes: Endemic to the Kern Plateau region. See *Systematic Botany Monographs* 10:89-92 (1986) for original description.

Cordylanthus ferrisianus

Considered but rejected: A synonym of *C. rigidus* ssp. *rigidus*; a common taxon

Cordylanthus helleri

Considered but rejected: Too common; a synonym of *C. kingii* ssp. *helleri*

Cordylanthus littoralis ssp. *littoralis*See *Cordylanthus rigidus* ssp. *littoralis**Cordylanthus maritimus* Benth. ssp. *maritimus*

"salt marsh bird's-beak" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: CE/FE
 Distribution: LAX, ORA, SBA, SDG, SLO, VEN, BA
 Quads: 11A, 11B*, 11D, 71B, 72A, 89C, 89D*, 112D*, 114B,
 114D, 142A, 247D
 Habitat: CoDns, MshSw (coastal salt)
 Life Form: Annual herb (hemiparasitic)
 Blooming: May-October
 Notes: Threatened by vehicles, road construction, foot traffic, and
 loss of salt marsh habitat. See *Madroño* 31(3):185-190 (1984) for
 information on parasitism.
 Status Report: 1988

Cordylanthus maritimus Benth.
ssp. *palustris* (Behr) Chuang & Heckard

"Point Reyes bird's-beak" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: /C2
 Distribution: ALA*, HUM, MRN, SCL*, SMT*, SON, OR
 Quads: 427B*, 428A*, 447B*, 447C*, 448D*, 466B*, 466D*,
 467A, 467B, 484D, 485B, 485C, 485D, 502C, 503D, 654B,
 655A, 672B, 672C, 672D
 Habitat: MshSw (coastal salt)
 Life Form: Annual herb (hemiparasitic)
 Blooming: June-October
 Notes: Habitat much reduced due to development; also threatened
 by foot traffic, non-native plants, altered hydrology, and cattle
 grazing and trampling. Candidate for state listing in OR. See
Brittonia 25:135-158 (1973) for original description.
 Status Report: 1990

Cordylanthus mollis Gray
ssp. *hispidus* (Penn.) Chuang & Heckard

"hispid bird's-beak" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 2-3-3 State/Fed. Status: /C2
 Distribution: ALA, KRN, MER, PLA, SOL
 Quads: 215D, 382B, 402C, 403A, 403B, 403C, 403D, 423C,
 445B, 481B, 528D
 Habitat: Medws (alkaline), Plyas
 Life Form: Annual herb (hemiparasitic)
 Blooming: June-September
 Notes: Extirpated from much of the lower San Joaquin Valley?
 Threatened by agricultural conversion, development, and grazing.
 See *Brittonia* 25:135-158 (1973) for revised nomenclature.

Cordylanthus mollis Gray ssp. *mollis*

"soft bird's-beak" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CR/C1
 Distribution: CCA, MRN*, NAP, SOL, SON*
 Quads: 481B, 481C, 482A, 482C, 482D, 483A, 483D, 484A*
 Habitat: MshSw (coastal salt)
 Life Form: Annual herb (hemiparasitic)
 Blooming: July-September
 Notes: Known from fewer than ten occurrences; some populations
 declining. Threatened by erosion and marsh drainage. See *Proceed-
 ings of the American Academy of Arts and Sciences* 7:327-402 (1867)
 for original description, and *Madroño* 25:107 (1978) for rediscov-
 ery in NAP Co.
 Status Report: 1988

Cordylanthus nevini

Considered but rejected: Too common

Cordylanthus nidularius J.T. Howell

"Mt. Diablo bird's-beak" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CR/C1
 Distribution: CCA
 Quads: 464B
 Habitat: Chprl (serpentine)
 Life Form: Annual herb (hemiparasitic)
 Blooming: July-August
 Notes: Our most narrowly restricted bird's-beak; known from only
 one occurrence on Mt. Diablo. Possibly threatened by recreational
 activities. See *Leaflets of Western Botany* 3(9):207 (1943) for origi-
 nal description, and *Systematic Botany Monographs* 10:48-50
 (1986) for taxonomic treatment.
 Status Report: 1988

Cordylanthus orcuttianus Gray

"Orcutt's bird's-beak" Scrophulariaceae
 CNPS List: 2 R-E-D Code: 3-3-1 State/Fed. Status: /C2
 Distribution: SDG, BA
 Quads: 10B, 10C, 11D
 Habitat: CoScr
 Life Form: Annual herb (hemiparasitic)
 Blooming: March-July
 Notes: Seriously threatened by urbanization.

*Cordylanthus pallescens*See *Cordylanthus tenuis* ssp. *pallescens*

Cordylanthus palmatus (Ferris) Macbr.

"palmate-bracted bird's-beak" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/FE
 Distribution: ALA, COL, FRE, MAD*, SJQ*, YOL
 Quads: 359A*, 360A, 381A*, 445B, 446A, 462A*, 513B, 545C*,
 546D, 562D
 Habitat: ChScr, VFGrs (alkaline)
 Life Form: Annual herb (hemiparasitic)
 Blooming: May-October
 Notes: Known from approximately six extant occurrences. Threatened by agriculture, urbanization, vehicles, and altered hydrology. See *Bulletin of the Torrey Botanical Club* 45:399-423 (1918) for original description, *Fremontia* 17(1):20-23 (1989) for information on Springtown Alkali Sink occurrence (ALA Co.), and *Environmental Management* 17:115-127 (1993) for population biology.
 Status Report: 1986

Cordylanthus parviflorus (Ferris) Wiggins

"purple bird's-beak" Scrophulariaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: SBD, AZ, ID, NV, UT
 Quads: 224C, 225D
 Habitat: JTWld, MDScr, PJWld
 Life Form: Annual herb (hemiparasitic)
 Blooming: August-October
 Notes: See *Systematic Botany Monographs* 10:75-77 (1986) for taxonomic treatment.

Cordylanthus pringlei

Considered but rejected: Too common

Cordylanthus rigidus (Benth.) Jeps.ssp. *littoralis* (Ferris) Chuang & Heckard

"seaside bird's-beak" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 2-3-3 State/Fed. Status: CE/C1
 Distribution: MNT, SBA
 Quads: 170B, 170D, 195C, 196D, 365B, 365C, 366A*, 366C*,
 366D, 387D
 Habitat: CCFrs, Chprl, CmWld, CoDns, CoScr / sandy
 Life Form: Annual herb (hemiparasitic)
 Blooming: May-September
 Notes: Known from fewer than twenty occurrences. Threatened by coastal development. See *Bulletin of the Torrey Botanical Club* 45:399-423 (1918) for original description, and *Systematic Botany Monographs* 10:35-48 (1986) for taxonomic treatment.
 Status Report: 1987

Cordylanthus tecopensis Munz & Roos

"Tecopa bird's-beak" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 3-2-2 State/Fed. Status: /C2
 Distribution: INY, SBD, NV
 Quads: 252B, 275B, 275C, 276A, 322D*
 Habitat: MDScr, Medws / mesic alkaline
 Life Form: Annual herb (hemiparasitic)
 Blooming: July-October
 Notes: Known in CA from approximately five occurrences. Threatened in NV. See *Aliso* 3(2):111-129 (1955) for original description.
 Status Report: 1988

Cordylanthus tenuis Gray ssp. *barbatus* Chuang & Heckard

"Fresno County bird's-beak" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C2
 Distribution: FRE
 Habitat: LCFrs
 Life Form: Annual herb (hemiparasitic)
 Blooming: July-August
 Notes: See *Systematic Botany Monographs* 10:50-62 (1986) for original description.

Cordylanthus tenuis Gray ssp. *brunneus* (Jeps.) Munz

"serpentine bird's-beak" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: LAK, NAP, SON
 Habitat: CCFrs, Chprl, CmWld / serpentine
 Life Form: Annual herb (hemiparasitic)
 Blooming: July-August
 Notes: See *Systematic Botany Monographs* 10:50-62 (1986) for taxonomic treatment.

Cordylanthus tenuis Grayssp. *capillaris* (Penn.) Chuang & Heckard

"Pennell's bird's-beak" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CR/PE
 Distribution: SON
 Quads: 502B
 Habitat: CCFrs, Chprl / serpentine
 Life Form: Annual herb (hemiparasitic)
 Blooming: June-July
 Notes: Known from fewer than five occurrences near Occidental. Threatened by dumping, vehicles, and road maintenance, and potentially by development. See *Systematic Botany Monographs* 10:50-62 (1986) for taxonomic treatment.
 Status Report: 1988

Cordylanthus tenuis Grayssp. *pallescens* (Penn.) Chuang & Heckard

"pallid bird's-beak" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: SIS
 Quads: 682A, 682B, 699B, 699C, 699D, 700A
 Habitat: LCFrs (gravelly, volcanic alluvium)
 Life Form: Annual herb (hemiparasitic)
 Blooming: July-August
 Notes: Known from only one extended occurrence near Black Butte. Threatened by development and road maintenance. Intergrades with ssp. *viscidus*; how distinct is it? Further research needed. See *Systematic Botany Monographs* 10:50-62 (1986) for taxonomic treatment.
 Status Report: 1977

Coreopsis gigantea

Considered but rejected: Too common

Coreopsis hamiltonii (Elmer) H.K. Sharsm.

"Mt. Hamilton coreopsis" Asteraceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: SCL, STA
 Quads: 425C, 426C, 426D, 444D
 Habitat: CmWld (rocky)
 Life Form: Annual herb
 Blooming: March-May
 Notes: Known from fewer than ten occurrences in the Mt. Hamilton Range. See *Botanical Gazette* 41:323-324 (1906) for original description, and *Madroño* 4:214-215 (1938) for revised nomenclature.
 Status Report: 1979

Coreopsis maritima (Nutt.) Hook. f.

"sea dahlia" Asteraceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
 Distribution: SDG, BA
 Quads: 11B, 22B, 35C, 36D, 51C
 Habitat: CBScr, CoScr
 Life Form: Perennial herb
 Blooming: March-May

Corethrogyne filaginifolia (H. & A.) Nutt. var. *incana* (Nutt.) Canby

"San Diego sand aster" Asteraceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: CEQA
 Distribution: SDG, BA
 Quads: 11B, 11D, 22B
 Habitat: CoScr
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Known in CA from only three occurrences. Threatened by development. A synonym of *Lessingia filaginifolia* var. *filaginifolia* in *The Jepson Manual*; taxonomic study needed.

Corethrogyne filaginifolia (H. & A.) Nutt. var. *linifolia* Hall

"Del Mar Mesa sand aster" Asteraceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /PT
 Distribution: SDG
 Quads: 22B, 22C, 35C, 36D
 Habitat: Chprl, CoScr
 Life Form: Perennial herb
 Blooming: July-September
 Notes: Threatened by development. A synonym of *Lessingia filaginifolia* var. *filaginifolia* in *The Jepson Manual*; requires additional taxonomic work.

Corethrogyne leucophylla Jeps.

"branching beach aster" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: MNT, SCR, SLO
 Habitat: CCFrs, CoDns
 Life Form: Perennial herb
 Blooming: July-October
 Notes: Needs taxonomic study; a synonym of *Lessingia filaginifolia* var. *filaginifolia* in *The Jepson Manual*.

Corydalis caseana Gray ssp. *caseana*

"Sierra corydalis" Papaveraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: BUT, LAS, PLA, PLU, SHA, SIE, TEH, TUL
 Habitat: Medws, UCFrs / mesic
 Life Form: Perennial herb
 Blooming: June-September
 Notes: See *Proceedings of the American Academy of Arts and Sciences* 10:69 (1874) for original description.

Coryphantha vivipara var. *alversonii*

See *Escobaria vivipara* var. *alversonii*

Coryphantha vivipara var. *rosea*

See *Escobaria vivipara* var. *rosea*

Crepis nana ssp. *ramosa*

Considered but rejected: Too common

Crepis runcinata T. & G. ssp. *hallii* Bab. & Steb.

"Hall's meadow hawkbeard" Asteraceae
 CNPS List: 2 R-E-D Code: 3-3-1 State/Fed. Status: CEQA
 Distribution: INY, MNO, NV
 Quads: 276A, 324C, 325D, 411C, 413B, 413C, 432C, 434A, 450C, 451D, 469C, 487C
 Habitat: MDScr, PJWld / mesic, alkaline
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Threatened by grazing and groundwater drawdown. More common in NV. See *Carnegie Institution of Washington Publication* 504:104 (1938) for original description.

Crossosoma bigelovii

Considered but rejected: Too common

Crossosoma californicum Nutt.

"Catalina crossosoma" Crossosomataceae
 CNPS List: 4 R-E-D Code: 1-2-2 State/Fed. Status: /C3c
 Distribution: LAX, SCM, SCT, GU
 Habitat: CoScr (rocky)
 Life Form: Shrub (deciduous)
 Blooming: February-May
 Notes: Mainland occurrences threatened by development.

Croton wigginsii Wheeler

"Wiggins's croton" Euphorbiaceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CR/C3c
 Distribution: IMP, AZ, BA, SO
 Quads: 2A, 2B, 13B, 13C, 13D, 14A, 14B, 14D, 15D, 27C, 27D, 28A, 28D
 Habitat: DeDns, SDSscr
 Life Form: Shrub
 Blooming: March-May
 Notes: Known in CA from one large extended population. See *Contributions from the Gray Herbarium* 124:37 (1939) for original description.
 Status Report: 1987

Cryptantha clevelandii Greene
var. *dissita* (Jtn.) Jeps. & Hoov.

"serpentine cryptantha" Boraginaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CEQA
 Distribution: LAK, NAP
 Quads: 499B, 534B, 534D, 549C
 Habitat: Chprl (serpentinite)
 Life Form: Annual herb
 Blooming: April-June
 Notes: See *C. clevelandii* in *The Jepson Manual*. See *Flora of California* 3(2):348 (1943) by W.L. Jepson for original description.

Cryptantha clokeyi Jtn.

"Clokey's cryptantha" Boraginaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CEQA
 Distribution: SBD
 Quads: 182A
 Habitat: MDScr
 Life Form: Annual herb
 Blooming: April
 Notes: Known only from near Barstow. See *Journal of the Arnold Arboretum* 20:387 (1939) for original description.

Cryptantha costata Bdg.

"ribbed cryptantha" Boraginaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: IMP, INY, RIV, SBD, SDG, AZ, BA
 Habitat: MDScr, SDScr / sandy
 Life Form: Annual herb
 Blooming: February-May

Cryptantha crinita Greene

"silky cryptantha" Boraginaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: SHA, TEH
 Quads: 610B, 611A, 611C, 628B, 628C, 629A, 629D, 645D,
 646C, 647A, 647D
 Habitat: CmWld, LCFrs, RpFrs, RpWld, VFGrs / gravelly
 streambeds
 Life Form: Annual herb
 Blooming: April-May
 Notes: Threatened by vehicles and gravel mining. See *Erythea* 3:66
 (1895) for original description.
 Status Report: 1979

Cryptantha cymophila Jtn.

"subalpine cryptantha" Boraginaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: ALP, TUO
 Habitat: SCFrs (volcanic talus)
 Life Form: Perennial herb
 Blooming: July-August

Cryptantha excavata Bdg.

"deep-scarred cryptantha" Boraginaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: COL, LAK, YOL
 Habitat: CmWld (sandy or gravelly)
 Life Form: Annual herb
 Blooming: April-May

Cryptantha ganderi Jtn.

"Gander's cryptantha" Boraginaceae
 CNPS List: 1B R-E-D Code: 3-3-2 State/Fed. Status: /C2
 Distribution: SDG, BA, SO
 Quads: 31B, 47C, 47D
 Habitat: DeDns, SDScr (sandy)
 Life Form: Annual herb
 Blooming: February-May
 Notes: Known in CA from fewer than five occurrences. Seriously
 threatened by development and vehicles. How rare is this plant in
 Mexico?

Cryptantha hispidula

Considered but rejected: Too common

Cryptantha hoffmannii

Considered but rejected: A synonym of *C. virginensis*; a common
 taxon

Cryptantha holoptera (Gray) Macbr.

"winged cryptantha" Boraginaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: IMP, INY, RIV, SBD, SDG, AZ, NV
 Habitat: MDScr, SDScr
 Life Form: Annual herb
 Blooming: March-April

Cryptantha hooveri Jtn.

"Hoover's cryptantha" Boraginaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: ALA, CCA, MAD, MER, SJQ, STA
 Habitat: VFGrs (sandy)
 Life Form: Annual herb
 Blooming: April-May

Cryptantha incana

Considered but rejected: Too common

Cryptantha mariposae Jtn.

"Mariposa cryptantha" Boraginaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: CAL, MPA, TUO
 Habitat: Chprl (serpentinite)
 Life Form: Annual herb
 Blooming: April-May

Cryptantha nubigena

Considered but rejected: Too common

Cryptantha rattanii Greene

"Rattan's cryptantha" Boraginaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: FRE, MER, MNT, SBT
 Habitat: CmWld, VFGrs
 Life Form: Annual herb
 Blooming: April-July
 Notes: See *C. decipiens* in *The Jepson Manual*.

Cryptantha roosiorum Munz

"bristlecone cryptantha" Boraginaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CR/C2
 Distribution: INY
 Quads: 372A
 Habitat: SCFrS (carbonate)
 Life Form: Perennial herb
 Blooming: June-July
 Notes: Known from only two occurrences in the Inyo Mtns. Threatened by vehicles. See *Aliso* 3:124-125 (1955) for original description.
 Status Report: 1987

Cryptantha scoparia A. Nels.

"gray cryptantha" Boraginaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: INY, NV, OR, WA+
 Habitat: GBScr, PJWld
 Life Form: Annual herb
 Blooming: June-July
 Notes: See *C. nevadensis* in *The Jepson Manual*.

Cryptantha subretusa

Considered but rejected: A synonym of *C. soboliferæ*, a common taxon

Cryptantha traskiae Jtn.

"Trask's cryptantha" Boraginaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C1
 Distribution: SCM, SNI
 Quads: SCMC, SCMN, SNIC
 Habitat: CBSCr (rocky)
 Life Form: Annual herb
 Blooming: April-June
 Notes: Possibly threatened by non-native plants and Navy activities.

Cryptantha tumulosa (Pays.) Pays.

"New York Mtns. cryptantha" Boraginaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: /C3c
 Distribution: INY, SBD, NV
 Habitat: MDScr, PJWld / often carbonate
 Life Form: Perennial herb
 Blooming: April-June
 Notes: On watch list in NV.

Cupressus abramsiana C.B. Wolf

"Santa Cruz cypress" Cupressaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CE/FE
 Distribution: SCR, SMT
 Quads: 408B, 408C, 408D, 409A
 Habitat: CCFrs (sandstone or granitic)
 Life Form: Tree (evergreen)
 Blooming: N/A
 Notes: Known from fewer than ten occurrences. Threatened by development, agriculture, and alteration of fire regimes, and possibly by introgression from planted *C. macrocarpa*. Largest known specimen was cut down in 1983. See *Aliso* 1:215-222 (1948) for original description, and *Madroño* 2(4):189-194 (1952) for distributional information.
 Status Report: 1985

Cupressus arizonica Greene
ssp. *nevadensis* (Abrams) E. Murray

"Piute cypress" Cupressaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C3c
 Distribution: KRN, TUL
 Quads: 237D, 260B, 260C, 260D, 261A, 261D, 284C
 Habitat: CCFrs, Chprl, CmWld, PJWld
 Life Form: Tree (evergreen)
 Blooming: N/A
 Notes: Threatened by grazing and mining. BA and RNA established by USFS and BLM for this plant. See *Torreya* 19:92 (1919) for original description.

Cupressus bakeri Jeps.

"Baker's cypress" Cupressaceae
 CNPS List: 4 R-E-D Code: 1-2-2 State/Fed. Status: CEQA?
 Distribution: MOD, PLU, SHA, SIS, OR
 Habitat: Chprl, LCFrs / serpentinite or volcanic
 Life Form: Tree (evergreen)
 Blooming: N/A
 Notes: Threatened by fire suppression. Endangered in OR. Includes *C. bakeri* ssp. *matthewsii*. See *Fremontia* 16(3):17-18 (1988) for species account, and *Madroño* 39(1):79 (1992) for distributional information.

Cupressus bakeri ssp. *bakeri*
See *Cupressus bakeri**Cupressus bakeri* ssp. *matthewsii*
See *Cupressus bakeri*

Cupressus forbesii Jeps.

"Tecate cypress" Cupressaceae
 CNPS List: 1B R-E-D Code: 3-2-2 State/Fed. Status: /C2
 Distribution: ORA, SDG, BA
 Quads: 9C, 10A, 10B, 10C, 10D, 20D, 70B, 87C, 87D
 Habitat: CCFrs, Chprl
 Life Form: Tree (evergreen)
 Blooming: N/A
 Notes: Now known from fewer than five occurrences. Threatened by too frequent wildfires, and development in ORA Co. RIV Co. trees planted. Protected in part at Otay Mtn. ACEC (BLM), SDG Co. See *Aliso* 9:189-196 (1978) for information, and *Fremontia* 13(3):3-10 (1985) for species account.
 Status Report: 1990

Cupressus goveniana

See *Cupressus goveniana* ssp. *goviana*

Cupressus goveniana Gord. ssp. *goviana*

"Gowen cypress" Cupressaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: MNT
 Quads: 366C
 Habitat: CCFrs
 Life Form: Tree (evergreen)
 Blooming: N/A
 Notes: Known from only two occurrences in the Monterey area. Threatened by development.

Cupressus goveniana Gord. ssp. *pigmaea* (Lemmon) Bartel

"pygmy cypress" Cupressaceae
 CNPS List: 1B R-E-D Code: 1-2-3 State/Fed. Status: /C2
 Distribution: MEN, SON
 Quads: 520D, 537B, 537D, 552B, 568C, 568D, 569A, 569D
 Habitat: CCFrs (podzol-like soil)
 Life Form: Tree (evergreen)
 Blooming: N/A
 Notes: Threatened by development and vehicles. See *Phytologia* 70(4):229-230 (1990) for revised nomenclature.

Cupressus guadalupensis ssp. *forbesii*

See *Cupressus forbesii*

Cupressus lawsoniana

Considered but rejected: Too common

Cupressus macrocarpa Gord.

"Monterey cypress" Cupressaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: MNT
 Quads: 366C
 Habitat: CCFrs
 Life Form: Tree (evergreen)
 Blooming: N/A
 Notes: Known from only two native occurrences in the Monterey area; widely planted and naturalized elsewhere.

Cupressus nevadensis

See *Cupressus arizonica* ssp. *nevadensis*

Cupressus nootkatensis D. Don

"Alaska cedar" Cupressaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: DNT, SIS, OR, ++
 Habitat: UCFrs
 Life Form: Tree (evergreen)
 Blooming: N/A

Cupressus pygmaea

See *Cupressus goveniana* ssp. *pigmaea*

Cupressus stephensonii C.B. Wolf

"Cuyamaca cypress" Cupressaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C1
 Distribution: SDG
 Quads: 20A, 20B
 Habitat: CCFrs, Chprl, RpFrs / gabbroic rock
 Life Form: Tree (evergreen)
 Blooming: N/A
 Notes: Known from only two occurrences near Cuyamaca Pk. Threatened by frequent wildfire; the 1950 Conejo fire extirpated plant over part of its range. A synonym of *C. arizonica* ssp. *arizonica* in *The Jepson Manual*, but genetic evidence does not support this interpretation.

Cuscuta howelliana

Considered but rejected: Too common

Cuscuta jepsonii

Considered but rejected: Too common; a synonym of *C. indecora* var. *indecora*

Cusickiella quadricostata (Roll.) Roll.

"Bodie Hills cusickiella" Brassicaceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: /C2
 Distribution: MNO, NV
 Quads: 470A, 470B, 470D, 486C, 487C, 487D, 504C, 504D
 Habitat: GBScr, PJWld / clay or rocky
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Not as common as previously thought. Threatened by mining, grazing, and vehicles. On watch list in NV. See *Contributions from the Dudley Herbarium* 3:366 (1946) for original description.
 Status Report: 1979

Cymopterus cinerarius

Considered but rejected: Too common

Cymopterus deserticola Bdg.

"desert cymopterus" Apiaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C1
 Distribution: KRN, LAX, SBD
 Quads: 132B*, 157C*, 183A, 183B, 184A, 184B, 184C, 185A*,
 185C, 185D, 208D, 210D*, 233C
 Habitat: JTWld, MDScr / sandy
 Life Form: Perennial herb
 Blooming: March-May
 Notes: Known from fewer than twenty occurrences, apparently all
 located on Edwards AFB. Threatened by sheep grazing, vehicles,
 and urbanization. See *University of California Publications in Bot-*
any 6:168 (1915) for original description.
 Status Report: 1978

Cymopterus gilmanii Mort.

"Gilman's cymopterus" Apiaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: INY, SBD, NV
 Quads: 248B, 248C, 249A, 249D, 274D, 323B, 326A, 345C,
 368B, 368D, 369B, 369C, 390B, 390C, 390D, 391D, 411D
 Habitat: MDScr (often carbonate)
 Life Form: Perennial herb
 Blooming: April-May
 Notes: Occurrences are usually very small.

Cymopterus ripleyi Barneby

"Ripley's cymopterus" Apiaceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: INY, NV
 Quads: 305B, 323B, 327A, 327B, 328C, 349C, 349D
 Habitat: JTWld, MDScr / sandy, carbonate
 Life Form: Perennial herb
 Blooming: April-June
 Notes: Known in CA from fewer than ten occurrences. Threatened
 by cattle grazing on BLM land at Lee Flat. See *Leaflets of Western*
Botany 3:81-83 (1941) for original description.

Cynanchum utahense (Engelm.) Woodson

"Utah vine milkweed" Asclepiadaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: IMP?, RIV, SBD, SDG, AZ, NV+
 Habitat: MDScr, SDScr / sandy, gravelly
 Life Form: Perennial herb
 Blooming: April-June
 Notes: Does plant occur in IMP Co.?

Cypripedium californicum Gray

"California lady's-slipper" Orchidaceae
 CNPS List: 4 R-E-D Code: 1-2-2 State/Fed. Status: /C3c
 Distribution: BUT, DNT, HUM, MRN*, PLU, SHA, SIS, SON,
 TRI, OR
 Habitat: BgFns, LCFrs / serpentinite seeps and streambanks
 Life Form: Perennial herb (rhizomatous)
 Blooming: April-July
 Notes: Threatened by horticultural collecting and logging. Many
 protected populations on USFS land not reproducing. On watch
 list in OR. See *Fremontia* 17(2):17-19 (1989) for species account.

Cypripedium fasciculatum Wats.

"clustered lady's-slipper" Orchidaceae
 CNPS List: 4 R-E-D Code: 1-2-2 State/Fed. Status: /C2
 Distribution: BUT, DNT, HUM, NEV, PLU, SCL, SCR*, SHA,
 SIE, SIS, SMT, TEH, TRI, YUB, ID, OR, UT, WA+
 Habitat: LCFrs, NCFrs / usually serpentinite seeps and streambanks
 Life Form: Perennial herb (rhizomatous)
 Blooming: March-July
 Notes: Many occurrences but most contain few plants. Threatened
 by logging and horticultural collecting. Monitoring needed for
 protected populations on USFS lands to assess reproduction,
 which may be inadequate. Threatened in ID, a candidate for state
 listing in OR, and state-listed as Threatened in WA. See *Proceed-*
ings of the American Academy of Arts and Sciences 17:380 (1882) for
 original description, *Lindleyana* 2(1):553-57 (1987) for dis-
 tributional information, and *Fremontia* 17(2):17-19 (1989) for
 species account.

Cypripedium montanum Lindl.

"mountain lady's-slipper" Orchidaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: /C3c
 Distribution: DNT, HUM, MAD, MEN, MOD, MPA, PLU, SIE,
 SIS, SMT, SON, TEH, TRI, TUO, OR, WA, ++
 Habitat: BUFRs, LCFrs
 Life Form: Perennial herb (rhizomatous)
 Blooming: March-July
 Notes: Many protected populations on USFS land not reproducing.
 Possibly threatened by logging. On watch list in OR. See
Fremontia 17(2):17-19 (1989) for species account.

Dalea arborescens

See *Psorothamnus arborescens* var. *arborescens*

Dalea californica

Considered but rejected: A synonym of *Psorothamnus aborescens* var.
simplicifolius, a common taxon

Dalea ornata (Hook.) Eat. & Wright

"ornate dalea" Fabaceae
 CNPS List: 2 R-E-D Code: 3-3-1 State/Fed. Status: CEQA
 Distribution: LAS, ID, NV, OR, WA
 Quads: 621B
 Habitat: PJWld (clay)
 Life Form: Perennial herb
 Blooming: June
 Notes: Known in CA from only one occurrence on tablelands west
 of Shaffer Mtn. See *Madroño* 32(2):123 (1985) for CA record.

Darlingtonia californica Torr.

"California pitcherplant" Sarraceniaceae
 CNPS List: 4 R-E-D Code: 1-2-1 State/Fed. Status: /C3c
 Distribution: DNT, NEV, PLU, SHA, SIE, SIS, TRI, YUB, OR
 Habitat: BgFns, Medws / mesic, generally serpentinite seeps
 Life Form: Perennial herb (carnivorous)
 Blooming: April-June
 Notes: Threatened by horticultural collecting and mining. On watch
 list in OR. See *Fremontia* 14(2):18 (1986) for habitat information.

Dedeckera eurekensis Reveal & J.T. Howell

"July gold" Polygonaceae
 CNPS List: 1B R-E-D Code: 2-1-3 State/Fed. Status: CR/C2
 Distribution: INY, MNO
 Quads: 350A, 350B, 370A, 370B, 390C, 390D, 413A, 413C,
 413D
 Habitat: MDScr (carbonate)
 Life Form: Shrub (deciduous)
 Blooming: June-August
 Notes: Known from approximately twenty occurrences. Reproductive capabilities extremely limited, and no juvenile plants or seedlings currently known. See *Brittonia* 28:245-251 (1976) for original description, *Madroño* 28:86-87 (1981) and 32(2):122-123 (1985) for range extension information, and *Phytologia* 66(3):238-241 (1989) for taxonomic treatment.
 Status Report: 1987

Delphinium bakeri Ewan

"Baker's larkspur" Ranunculaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CR/C1
 Distribution: MRN, SON*
 Quads: 484B, 485A, 485B, 502B*
 Habitat: CoScr
 Life Form: Perennial herb
 Blooming: March-May
 Notes: Known from fewer than five occurrences. Threatened by agriculture and grazing, and potentially by road maintenance. See *Bulletin of the Torrey Botanical Club* 69:144 (1942) for original description.
 Status Report: 1988

Delphinium californicum T. & G. ssp. *interius* (Eastw.) Ewan

"Hospital Canyon larkspur" Ranunculaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: ALA, CCA, SCL, SJQ, SLO
 Quads: 243D, 426A, 426D, 444C, 444D, 445D, 464B
 Habitat: CmWld (mesic)
 Life Form: Perennial herb
 Blooming: April-June
 Notes: See *Leaflets of Western Botany* 2:137 (1938) for original description.

Delphinium gypsophilum Ewan ssp. *gypsophilum*

"gypsum-loving larkspur" Ranunculaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: FRE, KNG, KRN, MAD, MER, MNT, SJQ, SLO,
 STA
 Habitat: ChScr, CmWld, VFGrs
 Life Form: Perennial herb
 Blooming: April-May

Delphinium gypsophilum Ewan
 ssp. *parviflorum* Lewis & Epl.

"small-flowered gypsum-loving larkspur" Ranunculaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: MNT, SLO
 Habitat: CmWld
 Life Form: Perennial herb
 Blooming: March-June
 Notes: See *Brittonia* 8:5 (1954) for original description.

Delphinium hansenii (Greene) Greene
 ssp. *ewanianum* Warnock

"Ewan's larkspur" Ranunculaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: CAL, KRN, MAD
 Habitat: CmWld, VFGrs / rocky
 Life Form: Perennial herb
 Blooming: March-May
 Notes: To be expected in other foothill areas of the Sierra Nevada; need information. Populations are very local; many in developing areas. See *Phytologia* 68(1):1-6 (1990) for original description.

Delphinium hesperium Grayssp. *cuyamaca* (Abrams) Lewis & Epl.

"Cuyamaca larkspur" Ranunculaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CR/C2
 Distribution: RIV, SDG
 Quads: 19B, 20A, 33C, 49C, 49D, 66B, 67D
 Habitat: LCFrs, Medws / mesic
 Life Form: Perennial herb
 Blooming: June-July
 Notes: Threatened by development. See *Bulletin of the Torrey Botanical Club* 32:538 (1905) for original description.
 Status Report: 1980

Delphinium hutchinsoniae Ewan

"Hutchinson's larkspur" Ranunculaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: MNT
 Quads: 320B, 320D, 320E, 344B, 344C, 365B, 365C, 366C
 Habitat: BUFRs, Chprl, CoPrr, CoScr
 Life Form: Perennial herb
 Blooming: March-June
 Notes: Known from fewer than ten occurrences.

Delphinium inopinum (Jeps.) Lewis & Epl.

"unexpected larkspur" Ranunculaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C3c
 Distribution: FRE, INY, KRN, TUL, VEN
 Quads: 165A, 165B, 165C, 165D, 166D, 189C, 190D, 237A,
 237B, 260C, 260D, 283D, 285D, 308B, 308D, 330B, 331D,
 352C, 374A, 375A, 375D
 Habitat: UCFrs (rocky)
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Protected in part at Slate Mtn. BA (USFS), TUL Co.

Delphinium kinkiense

See *Delphinium variegatum* ssp. *kinkiense*

Delphinium luteum Heller

"yellow larkspur" Ranunculaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CR/C1
 Distribution: SON
 Quads: 502A*, 502C*, 503D
 Habitat: Chprl, CoPrr, CoScr
 Life Form: Perennial herb
 Blooming: March-May
 Notes: Known from only two occurrences near Bodega Bay. Plants from MRN Co. apparently hybrids with *D. decorum* ssp. *decorum*; also hybridizes with *D. nudicaule*. Threatened by development and grazing. See *Bulletin of the Southern California Academy of Sciences* 2:68-69 (1903) for original description.
 Status Report: 1988

Delphinium parishii ssp. *purpureum*

See *Delphinium parryi* ssp. *purpureum*

Delphinium parishii Grayssp. *subglobosum* (Wiggins) Lewis & Epl.

"intermediate larkspur" Ranunculaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: IMP, SDG, BA
 Habitat: Chprl, PJWld, SDSscr
 Life Form: Perennial herb
 Blooming: March-May

Delphinium parryi Grayssp. *blochmaniae* (Greene) Lewis & Epl.

"dune larkspur" Ranunculaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: SBA, SLO, VEN
 Quads: 113A, 114A, 196D, 221D, 246A, 271A
 Habitat: Chprl (maritime), CoDns
 Life Form: Perennial herb
 Blooming: April-May
 Notes: Field work needed. Threatened by development.

Delphinium parryi Grayssp. *purpureum* (Lewis & Epl.) Warnock

"Mt. Pinos larkspur" Ranunculaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: KRN, VEN
 Habitat: Chprl, MDScr, PJWld
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Possibly threatened by development. See *Brittonia* 8:15 (1954) for original description, and *Phytologia* 68(1):1-3 (1990) for revised nomenclature.

Delphinium pratense

Considered but rejected: A synonym of *D. gracilentum*; a common taxon

Delphinium purpusii Bdg.

"Kern County larkspur" Ranunculaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: KRN, TUL
 Habitat: Chprl, CmWld, PJWld / rocky, often carbonate
 Life Form: Perennial herb
 Blooming: April-May
 Notes: Precise location and endangerment information needed. Historical occurrences need field surveys.

Delphinium recurvatum Greene

"recurved larkspur" Ranunculaceae
 CNPS List: 1B R-E-D Code: 1-2-3 State/Fed. Status: /C2
 Distribution: ALA, CCA, COL, FRE, KNG, KRN, MER, SLO, SOL, TUL
 Quads: 218A, 240C, 240D, 241C, 241D, 264A, 264D, 265A, 265B, 265D, 267A, 287B, 288A, 288D, 290C, 291B, 291D, 312B, 315C, 338D, 359B, 359D, 383B, 463C, 463D, 498B, 547D
 Habitat: ChScr, CmWld, VFGrs / alkaline
 Life Form: Perennial herb
 Blooming: March-May
 Notes: Many historical occurrences need field surveys. Much habitat converted to agriculture; also threatened by grazing.

Delphinium stachydeum (Gray) Tides.

"spiked larkspur" Ranunculaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: MOD, ID, OR, UT, WA+
 Habitat: GBScr, UCFrs (edges)
 Life Form: Perennial herb
 Blooming: July-August
 Notes: Known in CA only from the Warner Mtns.

Delphinium trolliifolium

Considered but rejected: Too common

Delphinium uliginosum Curran

"swamp larkspur" Ranunculaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: COL, LAK, NAP, SIS
 Habitat: Chprl, VFGrs / serpentinite seeps
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Highly localized. Hybridizes with *D. hesperium* ssp. *pallescens*. See *Bulletin of the California Academy of Sciences* 1:151 (1885) for original description.

Delphinium umbraculorum Lewis & Epl.

"umbrella larkspur" Ranunculaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: MNT, SLO
 Habitat: CmWld (mesic)
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Hybridizes with *D. parryi* ssp. *parryi*. See *Brittonia* 8:19 (1954) for original description.

Delphinium variegatum T. & G.
ssp. *kinkiense* (Munz) Warnock

"San Clemente Island larkspur" Ranunculaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/FE
 Distribution: SCM
 Quads: SCMC, SCMN, SCMS
 Habitat: VFGrs (coastal)
 Life Form: Perennial herb
 Blooming: March-April
 Notes: Feral herbivores removed from SCM Isl., and vegetation recovering. Dubiously distinct from *D. variegatum* in *Phytologia* 68(1):1-3 (1990); may be difficult to distinguish from ssp. *thornei*. State-listed as *D. kinkiense*; USFWS uses the name *D. kinkiense* ssp. *kinkiense*. See *Aliso* 7:69 (1969) for original description.
 Status Report: 1987

Delphinium variegatum T. & G. ssp. *thornei* Munz

"Thorne's royal larkspur" Ranunculaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C1
 Distribution: SCM
 Quads: SCMC, SCMS
 Habitat: CmWld, VFGrs (coastal)
 Life Form: Perennial herb
 Blooming: March-May
 Notes: Known from fewer than ten occurrences. Feral herbivores removed from SCM Isl., and vegetation recovering. May be difficult to distinguish from ssp. *kinkiense*.

Dendromecon harfordii Kell. var. *harfordii*

"Channel Island tree poppy" Papaveraceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: /C2
 Distribution: SCZ, SRO
 Habitat: Chprl
 Life Form: Shrub (evergreen)
 Blooming: April-June
 Notes: Threatened by feral herbivores. See *D. harfordii* in *The Jepson Manual*. USFWS uses the name *D. rigida* ssp. *harfordii*.

Dendromecon harfordii Kell. var. *rhamnoides* (Greene) Munz

"island tree poppy" Papaveraceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C2
 Distribution: SCM*, SCT
 Quads: SCMN*, SCMS*, SCTE, SCTN, SCTW
 Habitat: Chprl, CmWld, CoScr
 Life Form: Shrub (evergreen)
 Blooming: April-June
 Notes: Known from approximately five occurrences. Last seen on SCM Isl. in 1966. Threatened by feral herbivores. Most of the year a few plants are in flower. See *D. harfordii* in *The Jepson Manual*. USFWS uses the name *D. rigida* ssp. *rhamnoides*.

Dendromecon rigida ssp. *harfordii*

See *Dendromecon harfordii* var. *harfordii*

Dendromecon rigida ssp. *rhamnoides*

See *Dendromecon harfordii* var. *rhamnoides*

Dentaria gemmata

See *Cardamine nuttallii* var. *gemmata*

Dentaria pachystigma var. *dissectifolia*

See *Cardamine pachystigma* var. *dissectifolia*

Deschampsia atropurpurea (Wahl.) Scheele

"mountain hair grass" Poaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: SIS, TRI, OR, ++
 Habitat: Medws, SCFRs, UCFrs
 Life Form: Perennial herb
 Blooming: July-August

Dicentra chrysantha

Considered but rejected: Too common

Dicentra formosa (Haw.) Walp. ssp. *oregana* (Eastw.) Munz

"Oregon bleeding heart" Papaveraceae
 CNPS List: 4 R-E-D Code: 1-2-2 State/Fed. Status: /C3c
 Distribution: DNT, HUM, SIS, OR
 Habitat: LCFrs (serpentine)
 Life Form: Perennial herb
 Blooming: April-May
 Notes: Commercially exploited in OR; on watch list. See *D. formosa* in *The Jepson Manual*. See *Proceedings of the California Academy of Sciences* IV 20:144 (1931) for original description, and *Brittonia* 13:1-57 (1961) for taxonomic treatment.
 Status Report: 1977

Dicentra nevadensis Eastw.

"Tulare County bleeding heart" Papaveraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: FRE, TUL
 Habitat: SCFRs (gravelly openings)
 Life Form: Perennial herb (rhizomatous)
 Blooming: June-August
 Notes: Can be confused with *D. formosa*. See *Proceedings of the California Academy of Sciences* IV 20:143 (1931) for original description, and *Brittonia* 13:1-57 (1961) for taxonomic treatment.

Dicentra ochroleuca

Considered but rejected: Too common

Dicentra pauciflora

Considered but rejected: Too common

Dichanthelium lanuginosum (Ell.) Gould
var. *thermale* (Boland.) Spellenberg

"Geysers's dichanthelium" Poaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/C2
 Distribution: SON
 Quads: 533C, 534D
 Habitat: CCFrs, RpFrs / hydrothermally-altered soil
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Endemic to The Geysers geothermal area. Threatened by energy development. A synonym of *Panicum acuminatum* var. *acuminatum* in *The Jepson Manual*. See *Madroño* 23(3):151 (1975) for taxonomic treatment.
 Status Report: 1988

Dichelostemma lacuna-vernalis

Considered but rejected: A synonym of *D. capitatum* ssp. *capitatum*, a common taxon

Dichelostemma venustum

Considered but rejected: A sporadic hybrid

Dichondra donnelliana

Considered but rejected: Too common

Dichondra occidentalis House

"western dichondra" Convolvulaceae
 CNPS List: 4 R-E-D Code: 1-2-1 State/Fed. Status: /C3c
 Distribution: LAX?, MRN?, ORA, SBA, SCT, SCZ, SDG, SMI, SRO, VEN, BA
 Habitat: Chprl, CmWld, CoScr, VFGrs
 Life Form: Perennial herb (rhizomatous)
 Blooming: March-May
 Notes: Records for MRN Co. are questionable; report from LAX Co. needs confirmation. See *Muhlenbergia* 1:130-131 (1906) for original description.
 Status Report: 1977

Dimeresia howellii Gray

"doublet" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: LAS, MOD, SIS, ID, NV, OR
 Habitat: PJWld (volcanic)
 Life Form: Annual herb
 Blooming: May-July
 Notes: Threatened in ID. Protected in part at Ash Valley RNA (BLM), LAS Co. See *Fremontia* 16(1):15-17 (1988) for brief species account and BLM management plans.

Diplacus aridus

See *Mimulus aridus*

Diplacus clevelandii

See *Mimulus clevelandii*

Diplacus grandiflorus

Considered but rejected: A synonym of *Mimulus bifidus* ssp. *bifidus*, a common taxon

Diplacus parviflorus

See *Mimulus flemingii*

Dirca occidentalis Gray

"western leatherwood" Thymelaeaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CEQA
 Distribution: ALA, CCA, MRN, SCL, SMT, SON
 Quads: 428A, 428B, 428C, 429A, 429D, 448C, 465B, 465C, 465D, 466A, 467B, 482C, 484C, 485D, 503D
 Habitat: BUFrs, CCFrs, Chprl, CmWld, NCFrs, RpFrs, RpWld / mesic
 Life Form: Shrub (deciduous)
 Blooming: January-April

Dissanthelium californicum (Nutt.) Benth.

"California dissanthelium" Poaceae
 CNPS List: 1A Last Seen: 1912 State/Fed. Status: /C2*
 Distribution: SCM*, SCT*, GU*
 Quads: SCMC*, SCTN*
 Habitat: CoScr
 Life Form: Annual herb
 Blooming: unknown
 Notes: Feral goats may have caused extinction; population now removed from SCM Isl. and controlled on SCT Isl.
 Status Report: 1977

Ditaxis adenophora

See *Ditaxis clariana*

Ditaxis californica (Bdg.) Pax & K. Hoffm.

"California ditaxis" Euphorbiaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: RIV, SDG
 Quads: 47D, 61A, 61B, 62A, 62B, 63A, 63C, 65A, 78C
 Habitat: SDScr
 Life Form: Perennial herb
 Blooming: March-December
 Notes: Known from fewer than twenty occurrences, most with few plants. Threatened by vehicles.
 Status Report: 1980

Ditaxis clariana (Jeps.) Webster

"glandular ditaxis" Euphorbiaceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: IMP, RIV, SBD, AZ, SO
 Quads: 25C, 26D, 64B, 65A, 65B, 94B
 Habitat: MDScr, SDScr / sandy
 Life Form: Perennial herb
 Blooming: December-March

Dithyrea maritima Davids.

"beach spectaclepod" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-3-2 State/Fed. Status: CT/C1
 Distribution: LAX, SBA, SCT*, SLO, SMI*, SNI, BA
 Quads: 90B*, 90C, 112D, 171A, 196A, 196B, 196D, 221B, 221D, 247D, SMIE*, SMIW*, SNIC
 Habitat: CoDns, CoScr (sandy)
 Life Form: Perennial herb (rhizomatous)
 Blooming: April-May
 Notes: Known in CA from fewer than twenty occurrences; extirpated from half of its historical range. Need historical quads for SCT Isl. Last seen on SMI Isl. in 1932. Threatened by trampling, vehicles, and non-native plants. See *Erythea* 2:179 (1894) for original description.
 Status Report: 1990

Dodecahema leptoceras (Gray) Rev. & Hardham

"slender-horned spineflower" Polygonaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/FE
 Distribution: LAX, RIV, SBD
 Quads: 49B, 50A, 67A, 67B*, 69A*, 69B, 70B, 84C*, 104C,
 106C, 106D*, 107A*, 107B, 107D*, 110A*, 133C*, 137A,
 137B*, 137C*, 137D, 138A
 Habitat: Chprl, CoScr (alluvial fan)
 Life Form: Annual herb
 Blooming: April-June
 Notes: Many historical occurrences lost to urbanization; currently
 threatened by development, flood control, vehicles, and proposed
 reservoir. State-listed as *Centrostepha leptoceras*. See *Proceedings of
 the American Academy of Arts and Sciences* 12:269 (1877) for origi-
 nal description, *Great Basin Naturalist Memoirs* 2:169-190 (1978)
 for taxonomic treatment, and *Phytologia* 66(2):83-88 (1989) for
 revised nomenclature.
 Status Report: 1987

Downingia concolor Greene var. *brevior* McVaugh

"Cuyamaca Lake downingia" Campanulaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/C1
 Distribution: SDG
 Quads: 20A, 33D
 Habitat: Medws (mesic), VnPls
 Life Form: Annual herb
 Blooming: May-July
 Notes: Known from seven occurrences in the Cuyamaca Lake area.
 Threatened by development, altered hydrology, grazing, and recre-
 ation. See *Memoirs of the Torrey Botanical Club* 19(4):1-57 (1941)
 for original description.
 Status Report: 1987

Downingia humilis

See *Downingia pusilla*

Downingia pusilla (D. Don) Torr.

"dwarf downingia" Campanulaceae
 CNPS List: 2 R-E-D Code: 1-2-1 State/Fed. Status: /C3c
 Distribution: MER, MPA, NAP, PLA, SAC, SOL, SON, STA,
 TEH, SA
 Quads: 420C, 440B, 440C, 441A, 459C, 481B, 483A, 483B,
 496A, 496B, 496D, 497C, 498C, 498D, 499B, 499C, 500A,
 500D, 501A, 501D, 502A, 512B, 518D, 528A, 528B, 528C,
 528D, 594B, 595A, 610B, 610C, 611D
 Habitat: VFGrs (mesic), VnPls
 Life Form: Annual herb
 Blooming: March-May
 Notes: Threatened by urbanization, agriculture, grazing, and vehi-
 cles.

Draba asterophora Pays. var. *asterophora*

"Tahoe draba" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-1-2 State/Fed. Status: /C3c
 Distribution: ALP, ELD, MNO, TUO, NV
 Quads: 453B, 522C, 522D, 523D
 Habitat: AlpBR, SCFrS
 Life Form: Perennial herb
 Blooming: July-August
 Notes: Known in CA from fewer than ten occurrences. On watch
 list in NV. See *American Journal of Botany* 4:263 (1917) for origi-
 nal description.
 Status Report: 1979

Draba asterophora Pays. var. *macrocarpa* C.L. Hitchc.

"Cup Lake draba" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: ELD
 Quads: 523D
 Habitat: SCFrS (rocky)
 Life Form: Perennial herb
 Blooming: July
 Notes: Known from only two occurrences near Cup Lake below
 Ralston Pk. See *Proceedings of the Biological Society of Washington*
 11:64 (1941) for original description.
 Status Report: 1979

Draba aureola Wats.

"golden draba" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-1-2 State/Fed. Status: CEQA
 Distribution: SHA, SIS, TRI, OR, WA
 Quads: 625B, 626A, 699C, 700D
 Habitat: AlpBR, SCFrS / serpentinite or volcanic
 Life Form: Perennial herb
 Blooming: July-August
 Notes: Known in CA from eight occurrences near Mt. Eddy and Mt.
 Lassen. On watch list in OR, and state-listed as Sensitive in WA.

Draba californica (Jeps.) Roll. & Price

"California draba" Brassicaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: INY, MNO
 Habitat: AlpBR, Medws
 Life Form: Perennial herb
 Blooming: July-August
 Notes: Can be locally common. Threatened by grazing and road
 construction. See *Manual of the Flowering Plants of California*, p.
 443 (1925) by W.L. Jepson for original description, and *Aliso*
 12(1):17-27 (1988) for revised nomenclature.

Draba cana Rydb.

"hoary draba" Brassicaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: MNO, WA, ++
 Quads: 434C, 488A
 Habitat: AlpBR, Medws, SCFrS / carbonate
 Life Form: Perennial herb
 Blooming: July
 Notes: Known in CA from only two occurrences near Lake Gene-
 vieve and Wheeler Pk. State-listed as Sensitive in WA.

Draba carnosula O.E. Schulz

"Mt. Eddy draba" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: DNT, SIS, TRI
 Quads: 668B, 684C, 698B, 699C, 699D, 700D, 738C, 738D
 Habitat: SCFRs, UCFrs / serpentinite
 Life Form: Perennial herb
 Blooming: July-August
 Notes: Known from fewer than twenty occurrences.
 Status Report: 1980

Draba crassifolia var. *nevadensis*

Considered but rejected: Not in CA; name misapplied to *D. albertina*; a common taxon

Draba cruciata Pays.

"Mineral King draba" Brassicaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: MNO, TUL
 Habitat: SCFRs (gravelly)
 Life Form: Perennial herb
 Blooming: July-August
 Notes: See *American Journal of Botany* 4:265 (1917) for original description.
 Status Report: 1980

Draba cruciata var. *cruciata*

See *Draba cruciata*

Draba cruciata var. *integrifolia*

See *Draba sharsmithii*

Draba douglasii var. *crockeri*

Considered but rejected: A synonym of *Cusickiella douglasii*; a common taxon

Draba douglasii var. *douglasii*

Considered but rejected: A synonym of *Cusickiella douglasii*; a common taxon

Draba howellii Wats.

"Howell's draba" Brassicaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: HUM, SHA, SIS, TRI, OR
 Habitat: SCFRs (rocky)
 Life Form: Perennial herb
 Blooming: June-July
 Notes: Endangered in OR.

Draba howellii var. *carnosula*

See *Draba carnosula*

Draba howellii var. *howellii*

See *Draba howellii*

Draba incrassata (Roll.) Roll.

"Sweetwater Mtns. draba" Brassicaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: /C3c
 Distribution: MNO
 Habitat: AlpBR (rhyolite talus)
 Life Form: Perennial herb (stoloniferous)
 Blooming: July-August

Draba lemmonii var. *incrassata*

See *Draba incrassata*

Draba monoensis Roll. & Price

"White Mtns. draba" Brassicaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CEQA
 Distribution: MNO
 Quads: 431C, 450D
 Habitat: AlpBR, Medws
 Life Form: Perennial herb
 Blooming: August
 Notes: Narrowly endemic to the White Mtns. of MNO Co. Possibly threatened by grazing. See *Aliso* 12(1):17-27 (1988) for original description.

Draba nivalis var. *elongata*

Considered but rejected: Too common, but needs reevaluation; a synonym of *D. lonchocarpa* var. *lonchocarpa*

Draba pterosperma Pays.

"winged-seed draba" Brassicaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: SIS
 Habitat: UCFrs (rocky, often carbonate)
 Life Form: Perennial herb
 Blooming: June-July
 Notes: Known only from the Marble and Salmon Mtns.

Draba quadricostata

See *Cusickiella quadricostata*

Draba sharsmithii Roll. & Price

"Mt. Whitney draba" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C3c
 Distribution: FRE, INY, TUL
 Quads: 308A, 352A, 352D, 373D, 416D
 Habitat: AlpBR
 Life Form: Perennial herb
 Blooming: July-August
 Notes: Known from fewer than ten occurrences. Need quads for FRE Co. See *Madroño* 5:151 (1940) for original description.
 Status Report: 1980

Draba sierrae C.W. Sharsm.

"Sierra draba" Brassicaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: FRE, INY
 Habitat: AlpBR (granitic or carbonate)
 Life Form: Perennial herb
 Blooming: June-July

Draba stenoloba var. *ramosa*

Considered but rejected: A synonym of *D. albertina*; a common taxon

Draba subumbellata Roll. & Price

"mound draba" Brassicaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: INY, MNO
 Habitat: AlpBR, AlpDS? / carbonate
 Life Form: Perennial herb
 Blooming: July
 Notes: See *Aliso* 12(1):17-27 (1988) for original description.

Drosera anglica Huds.

"English sundew" Droseraceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: LAS, NEV, PLU, SIE, SIS, ID, OR, WA, ++
 Quads: 554B, 555A, 606B, 607C, 624D, 625A, 662B, 673B, 674A, 719D
 Habitat: BgFns, Medws
 Life Form: Perennial herb (carnivorous)
 Blooming: July-August
 Status Report: 1980

Drosera rotundifolia

Considered but rejected: Too common

Dryopteris filix-mas (L.) Schott

"male fern" Dryopteridaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: INY, MNO, SBD*, AZ, OR, ++
 Quads: 131C*, 412A, 431C, 431D
 Habitat: PJWld (granitic)
 Life Form: Perennial herb (rhizomatous)
 Fertile: July-September
 Notes: Known in CA from only five occurrences in the White Mtns. Endangered in OR.

Dudleya abramsii Rose ssp. *affinis* K. Nakai

"San Bernardino Mtns. dudleya" Crassulaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: SBD
 Quads: 105A, 131D, 132C, 132D
 Habitat: PbPln, PJWld, UCFrs / granitic, quartzite, or carbonate
 Life Form: Perennial herb
 Blooming: April-June
 Notes: Endemic to the San Bernardino Mtns. Threatened by development and limestone mining. See *Madroño* 34(4):334-353 (1987) for original description.

Dudleya abramsii Rose ssp. *bettinae* (Hoov.) Bartel

"San Luis Obispo serpentine dudleya" Crassulaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: SLO
 Quads: 246C, 247A, 247B, 247D
 Habitat: Chprl, CoScr, VFGrs / serpentinite
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Known from fewer than ten occurrences. See *Leaflets of Western Botany* 10(11):186 (1965) for original description, and *Phytologia* 70(4):229-230 for revised nomenclature.
 Status Report: 1977

Dudleya abramsii Rose ssp. *murina* (Eastw.) Moran

"San Luis Obispo dudleya" Crassulaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: SLO
 Habitat: Chprl, CmWld / serpentinite
 Life Form: Perennial herb
 Blooming: May-June

Dudleya abramsii Rose ssp. *parva* (Rose & Davids.) J. Bartel

"Conejo dudleya" Crassulaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /PT
 Distribution: VEN
 Quads: 113A, 113B
 Habitat: CoScr, VFGrs / rocky, clay
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Known from approximately ten occurrences. Threatened by horticultural collecting, recreation, vehicles, and urbanization. See *Bulletin of the Southern California Academy of Sciences* 22:5 (1923) for original description, *Madroño* 30(3):191 (1983) for distributional information, and *Phytologia* 70(4):229-230 (1991) for revised nomenclature.

Dudleya alainae Reiser

"Banner dudleya" Crassulaceae
 CNPS List: 3 R-E-D Code: 3-2-3 State/Fed. Status: CEQA?
 Distribution: SDG
 Quads: 33D
 Habitat: LCFrs (rocky)
 Life Form: Perennial herb
 Blooming: July
 Notes: Move to List 1B? A synonym of *D. saxosa* ssp. *aloides* in *The Jepson Manual*. See *Cactus and Succulent Journal* 56:147-148 (1984) for original description. Taxonomic questions remain unanswered by treatment in *Cactus and Succulent Journal* 58:111-115 (1986); critical evaluation needed.

Dudleya attenuata (Wats.) Moran ssp. *orcuttii* (Rose) Moran

"Orcutt's dudleya" Crassulaceae
 CNPS List: 2 R-E-D Code: 3-3-1 State/Fed. Status: /C2
 Distribution: SDG, BA
 Quads: 11D
 Habitat: CBScr, Chprl, CoScr
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Known in CA only from Border Field SP. Possibly threatened by trampling. See *Bulletin of the New York Botanical Garden* 3:36 (1903) for original description.

Dudleya bettiniae

See *Dudleya abramsii* ssp. *bettinae*

Dudleya blochmaniae (Eastw.) Moran ssp. *blochmaniae*

"Blochman's dudleya" Crassulaceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: /C2
 Distribution: LAX, ORA, SBA, SDG, SLO, VEN, BA
 Quads: 36B, 51C, 52A, 52B, 112C, 113B, 113D, 114A, 196B, 221B, 246C, 247B, 247D
 Habitat: CBScr, CoScr, VFGrs / rocky, often clay or serpentinite
 Life Form: Perennial herb
 Blooming: April-June
 Notes: Known from fewer than twenty occurrences in CA, and fewer than five in BA. Threatened by development.

Dudleya blochmaniae (Eastw.) Moran ssp. *brevifolia* Moran

"short-leaved dudleya" Crassulaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/PE
 Distribution: SDG
 Quads: 22B, 22C
 Habitat: Chprl, CoScr / Torrey sandstone
 Life Form: Perennial herb
 Blooming: April
 Notes: Known from fewer than five occurrences in the Del Mar and La Jolla areas. Seriously threatened by urbanization and vehicles. Probably a distinct species. State-listed as *D. brevifolia*. See *Baileya* 19:146 (1975) for revised nomenclature, and *Fremontia* 13(1):21 (1985) for species account.
 Status Report: 1987

Dudleya blochmaniae (Eastw.) Moran ssp. *insularis* Moran

"Santa Rosa Island dudleya" Crassulaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C1
 Distribution: SRO
 Quads: SROE
 Habitat: CBScr
 Life Form: Perennial herb
 Blooming: March-April
 Notes: Known from only one occurrence near Old Ranch Pt. Threatened by cattle trampling and grazing by feral herbivores.

Dudleya brevifolia

See *Dudleya blochmaniae* ssp. *brevifolia*

Dudleya calcicola Bartel & Shevock

"limestone dudleya" Crassulaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: INY, KRN, TUL
 Habitat: Chprl, PJWld / carbonate
 Life Form: Perennial herb
 Blooming: April-August
 Notes: See *Madroño* 30(4):210-216 (1983) for original description and 34(4):334-353 (1987) for alternate treatment.

Dudleya candelabrum Rose

"candleholder dudleya" Crassulaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: SCZ, SMI, SRO
 Quads: SCZA, SCZB, SCZC, SMIE, SROE, SROW
 Habitat: CoScr (rocky)
 Life Form: Perennial herb
 Blooming: April-July
 Notes: Threatened by feral herbivores. See *Bulletin of the New York Botanical Garden* 3(9):1-45 (1903) for original description.
 Status Report: 1979

Dudleya cymosa ssp. *agourensis*

See *Dudleya cymosa* ssp. *ovatifolia*

Dudleya cymosa (Lem.) Britt. & Rose ssp. *costafolia* Bartel & Shevock

"Pierpoint Springs dudleya" Crassulaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C1
 Distribution: TUL
 Quads: 308B, 331A
 Habitat: Chprl, CmWld / carbonate
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Endemic to the Middle Fork of the Tule River. Threatened by potential limestone mining and horticultural collecting. See *Aliso* 12(4):701-704 (1990) for original description.

Dudleya cymosa (Lem.) Britt. & Rose ssp. *crebrifolia* K. Nakai & Verity

"San Gabriel River dudleya" Crassulaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: LAX
 Quads: 109B
 Habitat: Chprl (granitic)
 Life Form: Perennial herb
 Blooming: April-July
 Notes: Known only from the type locality along the San Gabriel River. See *Madroño* 34(4):334-353 (1987) for original description.

Dudleya cymosa (Lem.) Britt. & Rose ssp. *marcescens* Moran

"marcescent dudleya" Crassulaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CR/PT
 Distribution: LAX, VEN
 Quads: 112C, 113B, 113C, 113D
 Habitat: Chprl (volcanic)
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Known from only eight occurrences. Threatened by development and foot traffic. See *Madroño* 14:106-108 (1957) for original description.
 Status Report: 1986

Dudleya cymosa (Lem.) Britt. & Rose ssp. *ovatifolia* (Britt.) Moran

"Santa Monica Mtns. dudleya" Crassulaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /PT
 Distribution: LAX, ORA, VEN
 Quads: 70A, 112B, 112C, 112D, 113A, 113C, 113D
 Habitat: Chprl, CoScr / volcanic
 Life Form: Perennial herb
 Blooming: March-June
 Notes: Known from fewer than ten occurrences; some threatened by development and recreation. Includes *D. cymosa* ssp. *agourensis*.

Dudleya densiflora (Rose) Moran

"San Gabriel Mtns. dudleya" Crassulaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C1
 Distribution: LAX
 Quads: 109A, 109B
 Habitat: Chprl, CoScr, LCFrs / granitic, cliffs and canyon walls
 Life Form: Perennial herb
 Blooming: March-July
 Notes: Known from approximately five extant occurrences. Threatened by mining and development.
 Status Report: 1979

Dudleya greenei Rose

"Greene's dudleya" Crassulaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: SCT, SCZ, SMI, SRO
 Habitat: CBScr, Chprl, CmWld, CoScr / volcanic cliffs
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Threatened by cattle trampling and feral herbivores on SRO Isl.

Dudleya hassei

Considered but rejected: Too common

Dudleya multicaulis (Rose) Moran

"many-stemmed dudleya" Crassulaceae
 CNPS List: 1B R-E-D Code: 1-2-3 State/Fed. Status: /C2
 Distribution: LAX, ORA, RIV, SBD, SDG
 Quads: 51B, 52A, 52D, 69A, 69B, 69C, 70B, 70C, 70D, 71A, 71B*, 71D, 86C, 87B, 87C, 87D, 88B, 88D, 107A, 108B, 109A, 109D, 111D, 112B, 112D
 Habitat: Chprl, CoScr, VFGrS / often clay
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Threatened by development, road construction, grazing, and recreation. See *Bulletin of the New York Botanical Garden* 3:38 (1903) for original description.
 Status Report: 1977

Dudleya nesiotica (Moran) Moran

"Santa Cruz Island dudleya" Crassulaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CR/C2
 Distribution: SCZ
 Quads: SCZA
 Habitat: CBScr
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Known from only two occurrences. Possibly threatened by feral herbivores. See *Desert Plant Life* 22:99 (1951) for original description.
 Status Report: 1979

Dudleya parva

See *Dudleya abramsii* ssp. *parva*

Dudleya saxosa (M.E. Jones) Britt. & Rose ssp. *saxosa*

"Panamint dudleya" Crassulaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: /C2
 Distribution: INY, RIV, SBD
 Habitat: MDScr, PJWld / granitic or carbonate
 Life Form: Perennial herb
 Blooming: April-September

Dudleya setchellii (Jeps.) Britt. & Rose

"Santa Clara Valley dudleya" Crassulaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /PE
 Distribution: SCL
 Quads: 406A, 406B, 406C, 406D, 407A, 407B, 427D
 Habitat: VFGrS (serpentine)
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Known from fewer than fifteen occurrences in the Santa Clara Valley. Threatened by urbanization, vehicles, and grazing.

Dudleya stolonifera Moran

"Laguna Beach dudleya" Crassulaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CT/CI
 Distribution: ORA
 Quads: 70C, 71B, 71D
 Habitat: Chprl, CmWld, CoScr, VFGrs / rocky
 Life Form: Perennial herb (stoloniferous)
 Blooming: May-July
 Notes: Known from fewer than ten occurrences. Threatened by development, and possibly by horticultural collecting. See *Bulletin of the Southern California Academy of Sciences* 48:105-114 (1950) for original description.
 Status Report: 1987

Dudleya traskiae (Rose) Moran

"Santa Barbara Island dudleya" Crassulaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/FE
 Distribution: SBR
 Quads: SBRA
 Habitat: CBSCr, CoScr
 Life Form: Perennial herb
 Blooming: April-May
 Notes: Known from eleven occurrences. Reduced by feral herbivores, but these have now been removed. See *Bulletin of the New York Botanical Garden* 3:34 (1903) for original description, and *Fremontia* 5(4):37-38 (1978) for discussion of rediscovery and 14(4):3-6 (1987) for information on recovery work.
 Status Report: 1987

Dudleya variegata (Wats.) Moran

"variegated dudleya" Crassulaceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: /C2
 Distribution: SDG, BA
 Quads: 10A, 10B, 10C, 10D, 11A, 11D, 21B, 21C, 21D, 22A, 22B, 22C, 22D, 35D, 36A
 Habitat: Chprl, CmWld, CoScr, VFGrs, VnPls
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Threatened by development and grazing.

Dudleya verityi K. Nakai

"Verity's dudleya" Crassulaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /PT
 Distribution: VEN
 Quads: 113B, 114A
 Habitat: Chprl, CmWld, CoScr / volcanic
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Known from only three occurrences near Conejo Mtn. Threatened by rock mining, flood control activities, and development. See *Cactus and Succulent Journal* 55:196-200 (1983) for original description.

Dudleya virens (Rose) Moran

"bright green dudleya" Crassulaceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: /C2
 Distribution: LAX, SCM, SCT, SNI, GU
 Quads: 73A, 90C, SCMC, SCMS, SCTE, SCTN, SNIC
 Habitat: CBSCr, Chprl, CoScr
 Life Form: Perennial herb
 Blooming: April-June
 Notes: Threatened by development on mainland. See *Bulletin of the New York Botanical Garden* 3:34 (1903) for original description, and *Desert Plant Life* 14:191 (1943) for revised nomenclature.

Dudleya viscida (Wats.) Moran

"sticky dudleya" Crassulaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C1
 Distribution: ORA, RIV, SDG
 Quads: 22C, 35C, 36A, 36B, 50B, 51A, 51B, 51C, 69C, 70D
 Habitat: CBSCr, Chprl, CoScr / rocky
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Known from fewer than twenty occurrences. Threatened by development and road construction. See *Proceedings of the American Academy of Arts and Sciences* 17:372 (1882) for original description.
 Status Report: 1979

Eatonella congdonii

See *Lembertia congdonii*

Echinocactus polycephalus var. *polycephalus*

Considered but rejected: Too common

Echinocereus engelmannii (Parry) Ruemplervar. *howei* L. Benson

"Howe's hedgehog cactus" Cactaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C2
 Distribution: SBD
 Quads: 173A, 174A
 Habitat: MDScr
 Life Form: Shrub (stem succulent)
 Blooming: April-May
 Notes: Probably threatened by horticultural collecting. Not in *The Jepson Manual*. See *Cactus and Succulent Journal* 46:80 (1974) for original description.
 Status Report: 1977

Echinocereus engelmannii var. *munzii*

Considered but rejected: A synonym of *E. engelmannii*; a common taxon

Eleocharis decumbens

Considered but rejected: Too common; a synonym of *E. montevidensis*

Eleocharis parvula (R. & S.) Link

"small spikerush" Cyperaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: CCA, HUM, NAP, ORA, SLO, SON, ++
 Habitat: MshSw (coastal salt)
 Life Form: Perennial herb
 Blooming: June-September
 Notes: On review list in OR. See *Wasmann Journal of Biology* 33(1-2):98 (1975) for discussion of CA distribution.

Eleocharis quadrangulata (Michx.) R. & S.

"four-angled spikerush" Cyperaceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: BUT, MER, TEH, ++
 Quads: 403B, 559C, 628D
 Habitat: MshSw (freshwater)
 Life Form: Perennial herb
 Blooming: July-September

Elodea brandegeae

Considered but rejected: A synonym of *E. canadensis*; a common taxon

Elymus californicus (Bol.) Gould

"California bottle-brush grass" Poaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: MNT, MRN, SCR, SMT, SON
 Habitat: NCFrs
 Life Form: Perennial herb
 Blooming: June-August

Elymus scribneri M.E. Jones

"Scribner's wheat grass" Poaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: MNO, NV, ++
 Quads: 432A, 434D
 Habitat: AlpBR
 Life Form: Perennial herb
 Blooming: July-August
 Notes: Known in CA only from the White Mtns.

Empetrum hermaphroditum

See *Empetrum nigrum* ssp. *hermaphroditum*

Empetrum nigrum (L.) ssp. *hermaphroditum* (Lange) Bocher

"black crowberry" Empetraceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: DNT, HUM, OR, ++
 Quads: 689C, 723B, 740C
 Habitat: CBScr, CoPrr
 Life Form: Shrub (evergreen)
 Blooming: April-June
 Notes: Threatened by trampling and cattle grazing. See *E. nigrum* in *The Jepson Manual*. See *Four Seasons* 4(4):19-20 (1974) for species account, and *Madroño* 23:299 (1975) for discussion of HUM Co. discovery.

Enceliopsis covillei (Nels.) Blake

"Panamint daisy" Asteraceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: INY
 Quads: 302A, 302B, 302C, 325B, 325C
 Habitat: MDScr (subalkaline)
 Life Form: Perennial herb
 Blooming: March-June
 Notes: Threatened by horticultural collecting and mining. See *Proceedings of the California Academy of Sciences* II 5:702 (1895) for original description.
 Status Report: 1979

Enceliopsis nudicaulis (Gray) A. Nels.

"naked-stemmed daisy" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: INY, SBD, AZ, ID, NV, UT+
 Habitat: GBScr, MDScr / volcanic or carbonate
 Life Form: Perennial herb
 Blooming: May

Enceliopsis nudicaulis var. *nudicaulis*

See *Enceliopsis nudicaulis*

Enneapogon desvauxii Beauv.

"nine-awned pappus grass" Poaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: SBD, ++
 Quads: 176A, 200A, 226A, 249D
 Habitat: PJWld (rocky, carbonate)
 Life Form: Perennial herb
 Blooming: August-September

Ephedra funerea

Considered but rejected: Too common

Epilobium canum ssp. *septentrionale*

See *Epilobium septentrionale*

Epilobium howellii Hoch

"subalpine fireweed" Onagraceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: CEQA
 Distribution: FRE, MNO, SIE
 Quads: 395D, 396A, 396B, 571C
 Habitat: Medws, SCFrs / mesic
 Life Form: Perennial herb (stoloniferous)
 Blooming: July-August
 Notes: Rarity and endangerment information needed. Need quads for MNO Co. See *Phytologia* 73(6):460-462 (1992) for original description.

Epilobium latifolium

Considered but rejected: Too common

Epilobium luteum Pursh

"yellow willowherb" Onagraceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: PLU, SIS, OR, ++
 Quads: 589D, 738A
 Habitat: LCFrs (along streams and seeps)
 Life Form: Perennial herb (stoloniferous)
 Blooming: July-September
 Notes: On review list in OR. See *Systematic Botany* 18(2):218-228 (1993) for information on hybridization.

Epilobium nivium Bdg.

"Snow Mtn. willowherb" Onagraceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C3c
 Distribution: COL, GLE, LAK, MEN, TRI
 Quads: 564B, 564C, 565A, 565D, 581C, 598A, 598B
 Habitat: Chprl, UCFrs / rocky
 Life Form: Perennial herb
 Blooming: July-October
 Notes: Threatened by recreation and foot traffic. See *Zoe* 3:242-243 (1892) for original description.
 Status Report: 1977

Epilobium oreganum Greene

"Oregon fireweed" Onagraceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: /C2
 Distribution: DNT, ELD, HUM, MEN, SHA, SIS, TEH, TRI, OR
 Quads: 523D, 598A, 632D, 633D, 634D, 652A, 652B, 653B, 667A, 667B, 669C, 670B, 670C, 682A, 686B, 699C, 699D*, 703C, 720D, 721C, 721D, 739A
 Habitat: BgFns, LCFrs (mesic)
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Unable to confirm many historical occurrences on Shasta-Trinity NF. Is it more common elsewhere? Threatened by logging. Known from fewer than 1000 plants at about twenty localities in OR, where a candidate for state listing. See *Pitonia* 1:255 (1888) for original description.

Epilobium rigidum Hausskn.

"Siskiyou Mtns. willowherb" Onagraceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: DNT, SIS, OR
 Habitat: LCFrs (serpentinite)
 Life Form: Perennial herb
 Blooming: July-August
 Notes: On review list in OR.

Epilobium septentrionale (Keck) Raven

"Humboldt County fuchsia" Onagraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: HUM, MEN, TRI
 Habitat: BUFRs, NCFrs / sandy or rocky
 Life Form: Perennial herb
 Blooming: August-September
 Notes: See *Carnegie Institution of Washington Publication* 520:219 (1940) for original description, and *Annals of the Missouri Botanical Garden* 63:335 (1976) for revised treatment.

Epilobium siskiyouense (Munz) Hoch & Raven

"Siskiyou fireweed" Onagraceae
 CNPS List: 1B R-E-D Code: 3-1-2 State/Fed. Status: /C3c
 Distribution: SIS, TRI, OR
 Quads: 667A, 667B, 682B, 684A, 684C, 699C, 700C, 700D, 736A, 736B, 738D
 Habitat: SCFRs, UCFrs / rocky, serpentinite
 Life Form: Perennial herb
 Blooming: July-September
 Notes: Known in CA from fewer than twenty occurrences. Candidate for state listing in OR. See *North American Flora* II 5:205 (1965) for original description, and *Madroño* 27(3):146 (1980) for revised nomenclature.

Equisetum palustre L.

"marsh horsetail" Equisetaceae
 CNPS List: 3 R-E-D Code: 3-?-1 State/Fed. Status: CEQA?
 Distribution: LAK, SFO, SMT, OR, ++
 Quads: 466C
 Habitat: MshSw
 Life Form: Perennial herb (rhizomatous)
 Fertile: unknown
 Notes: Move to List 2? Location, rarity, and endangerment information needed; need quads. Scarcity poorly understood.

Eremalche kernensis C.B. Wolf

"Kern mallow" Malvaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /FE
 Distribution: KRN
 Quads: 216C, 217A, 241A, 241C, 242A, 242B, 242C, 242D, 265B*
 Habitat: ChScr, VFGrs
 Life Form: Annual herb
 Blooming: March-May
 Notes: White-flowered plants of KRN Co. (*E. kernensis* sensu stricto) known from fewer than twenty occurrences. Seriously threatened by agriculture, grazing, and oil development. See *E. parryi* ssp. *kernensis* in *The Jepson Manual*. See *Phytologia* 72(1):48-54 (1992) for alternate taxonomic treatment which includes lavender-flowered plants and broadens range to west.
 Status Report: 1990

Eriastrum brandegeae Mason

"Brandegee's eriastrum" Polemoniaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: COL, GLE, LAK, SCL, TEH, TRI
 Quads: 426D, 533B*, 534A, 534D, 564A, 564C, 564D, 565A, 596A, 596D, 612D, 650C
 Habitat: Chprl, CmWld / volcanic
 Life Form: Annual herb
 Blooming: May-August
 Notes: Threatened by grazing and vehicles. Includes *E. tracyi*, which is state-listed Rare. See *Madroño* 8:88-89 (1945) for original description.
 Status Report: 1979

Eriastrum densifolium (Benth.) Masonssp. *sanctorum* (Mikn.) Mason

"Santa Ana River woollystar" Polemoniaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/FE
 Distribution: ORA*, SBD
 Quads: 87C*, 106C, 106D, 107A, 107B*, 107D
 Habitat: Chprl, CoScr (alluvial fan)
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Known from one extended but fragmented population. Threatened by development, sand and gravel mining, grazing, flood control projects, and non-native plants. See *Crossosoma* 10(5):1-8 (1984) and *Fremontia* 13(3):19-20 (1985) for species accounts, and *Fremontia* 17(3):20-21 (1989) for discussion of ecology.
 Status Report: 1987

Eriastrum hooveri (Jeps.) Mason

"Hoover's eriastrum" Polemoniaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: /FT
 Distribution: FRE, KING, KRN, SBA, SBT, SLO, TUL
 Habitat: ChScr, VFGr
 Life Form: Annual herb
 Blooming: April-July
 Notes: Threatened by agriculture, grazing, urbanization, and energy development.
 Status Report: 1988

Eriastrum luteum (Benth.) Mason

"yellow-flowered eriastrum" Polemoniaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: MNT, SLO
 Habitat: BUFRs, Chprl, CmWld
 Life Form: Annual herb
 Blooming: May-June

Eriastrum pluriflorum ssp. *sherman-hoytae*

Considered but rejected: A synonym of *E. pluriflorum*; a common taxon

Eriastrum tracyi

See *Eriastrum brandegeae*

Eriastrum virgatum (Benth.) Mason

"virgate eriastrum" Polemoniaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: MNT, SBT
 Habitat: Chprl (sandy), CoDns
 Life Form: Annual herb
 Blooming: May-July

Ericameria cuneata (Gray) McClatchievar. *macrocephala* Urbatsch

"Laguna Mtns. goldenbush" Asteraceae
 CNPS List: 1B R-E-D Code: 2-1-3 State/Fed. Status: CEQA
 Distribution: SDG
 Quads: 19B, 19C, 19D
 Habitat: Chprl (granitic)
 Life Form: Shrub
 Blooming: September-December
 Notes: Endemic to the Laguna Mtns. See *Madroño* 23(6):338-345 (1976) for original description.

Ericameria fasciculata (Eastw.) Macbr.

"Eastwood's goldenbush" Asteraceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C2
 Distribution: MNT
 Quads: 365C, 366A, 366C, 366D, 386C
 Habitat: CCFrs, Chprl (maritime), CoDns, CoScr
 Life Form: Shrub (evergreen)
 Blooming: July-October
 Notes: Known from fewer than twenty occurrences. Threatened by development. See *Bulletin of the Torrey Botanical Club* 32:215 (1905) for original description.
 Status Report: 1977

Ericameria gilmanii (Blake) Nesom

"Gilman's goldenbush" Asteraceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: CEQA
 Distribution: INY, KRN
 Quads: 258B, 283D, 392D
 Habitat: SCFRs, UCFrs / carbonate or granitic
 Life Form: Shrub
 Blooming: August-September
 Notes: See *Madroño* 37:63 (1990) for first KRN Co. record, and *Phytologia* 68(2):144-155 (1990) for revised nomenclature.

Ericameria ophitidis (J.T. Howell) Nesom

"serpentine goldenbush" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: SHA, TEH, TRI
 Habitat: LCFrs (serpentine)
 Life Form: Shrub
 Blooming: June-August
 Notes: See *Leaflets of Western Botany* 6:85 (1950) for original description, and *Phytologia* 68(2):144-155 (1990) for revised nomenclature.
 Status Report: 1979

Ericameria palmeri

See *Ericameria palmeri* ssp. *palmeri*

Ericameria palmeri (Gray) Hall ssp. *palmeri*

"Palmer's goldenbush" Asteraceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: /C2
 Distribution: SDG, BA
 Quads: 9B, 10B, 11B*, 21C, 22D
 Habitat: CoScr
 Life Form: Shrub (evergreen)
 Blooming: September-November
 Notes: Known in CA from only three occurrences. Threatened by development. USFWS uses the name *Haplopappus palmeri* ssp. *palmeri*.

Erigeron acris var. *debilis*

See *Trimorpha acris* var. *debilis*

Erigeron aequifolius Hall

"Hall's daisy" Asteraceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C3c
 Distribution: FRE, KRN, TUL
 Quads: 258B, 307B, 307C, 330C, 374C, 374D, 375C, 375D
 Habitat: BUFRs, LCFrs, PJWld, UCFrs / rocky
 Life Form: Perennial herb (rhizomatous)
 Blooming: July-August
 Notes: Known from fewer than twenty occurrences. Relatively unthreatened due to inaccessibility. See *University of California Publications in Botany* 6:174 (1915) for original description, and *Phytologia* 72(3):157-208 (1992) for taxonomic treatment.

Erigeron angustatus Greene

"narrow-leaved daisy" Asteraceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CEQA
 Distribution: LAK, NAP, SON
 Quads: 500A, 500B, 502B, 516C, 517A, 517B, 519D, 533C, 548B
 Habitat: Chprl (serpentine)
 Life Form: Perennial herb
 Blooming: May-September
 Notes: See *Bulletin of the Southern California Academy of Sciences* 1:88 (1885) for original description, and *Phytologia* 72(3):157-208 (1992) for taxonomic treatment.

Erigeron biolettii Greene

"streamside daisy" Asteraceae
 CNPS List: 3 R-E-D Code: ?-?-3 State/Fed. Status: CEQA?
 Distribution: HUM, MEN, MRN, NAP, SOL, SON
 Quads: 482B, 500C, 501A, 502B, 503A, 516C, 517C, 517D, 551C, 617D
 Habitat: BUFRs, CmWld, NCFrs / rocky, mesic
 Life Form: Perennial herb
 Blooming: June-September
 Notes: Move to List 1B? Location, rarity, and endangerment information needed, especially quads for MRN Co. Most collections are very old. Intergrades with *E. inornatus*. See *Manual of the Botany of the Region of San Francisco Bay*, p. 181 (1894) by E. Greene for original description, and *Phytologia* 72(2):157-208 (1992) for taxonomic treatment.

Erigeron blochmaniae Greene

"Blochman's leafy daisy" Asteraceae
 CNPS List: 1B R-E-D Code: 1-2-3 State/Fed. Status: /C3c
 Distribution: SBA, SLO
 Quads: 145B, 171A, 171C, 195B, 196B, 196D, 221B, 221D, 247D
 Habitat: CoDns
 Life Form: Perennial herb (rhizomatous)
 Blooming: July-August
 Notes: Field work needed. Threatened by coastal development. See *Pittonia* 3:27-28 (1896) for original description, and *Phytologia* 72(3):157-208 (1992) for taxonomic treatment.
 Status Report: 1977

Erigeron bloomeri Gray var. *nudatus* (Gray) Cronq.

"Waldo daisy" Asteraceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: /C3c
 Distribution: DNT, SIS, OR
 Quads: 701A, 737B, 738A, 738B, 738C, 739A
 Habitat: LCFrs, UCFrs / serpentine
 Life Form: Perennial herb
 Blooming: June-July
 Status Report: 1980

Erigeron breweri Gray var. *bisanctus* Nesom

"pious daisy" Asteraceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CEQA
 Distribution: LAX, SBD
 Quads: 108A, 108B, 108C, 109A
 Habitat: Chprl, LCFrs
 Life Form: Perennial herb
 Blooming: May-September
 Notes: See *Phytologia* 72(3):157-208 (1992) for original description.

Erigeron breweri Gray var. *jacinteus* (Hall) Cronq.

"San Jacinto Mtns. daisy" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: LAX, RIV, SBD
 Habitat: SCFRs, UCFrs / rocky
 Life Form: Perennial herb (rhizomatous)
 Blooming: June-September
 Notes: See *University of California Publications in Botany* 1:127 (1902) for original description, and *Phytologia* 72(3):157-208 (1992) for taxonomic treatment.

Erigeron calvus Cov.

"bald daisy" Asteraceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C3b
 Distribution: INY
 Quads: 350D
 Habitat: GBSr
 Life Form: Perennial herb
 Blooming: May
 Notes: Known only from near Keeler; field surveys needed. Closely related to *E. divergens*, and also confused with *E. aphanactis* var. *aphanactis*; detailed study needed. See *Proceedings of the Biological Society of Washington* 7:69 (1892) for original description, and *Brittonia* 6:121-302 (1947) for taxonomic treatment.

Erigeron cervinus Greene

"Siskiyou daisy" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: DNT, SIS, TRI, OR
 Habitat: LCFrs, Medws
 Life Form: Perennial herb (rhizomatous)
 Blooming: June-August
 Notes: Includes *E. delicatus*. Endangered in OR.

Erigeron decumbens Nutt. var. *robustior* (Cronq.) Cronq.

"robust daisy" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: HUM, TRI
 Habitat: Medws (sometimes serpentinite)
 Life Form: Perennial herb
 Blooming: June-July
 Notes: See *Madroño* 35(2):81-82 (1988) for taxonomic treatment.

Erigeron delicatus

See *Erigeron cervinus*

Erigeron elegantulus Greene

"volcanic daisy" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: LAS, MOD, SHA, SIS, OR
 Habitat: AlpBR, GBScr, PJWld, SCFrs / volcanic
 Life Form: Perennial herb
 Blooming: March-August
 Notes: Protected in part at Ash Valley RNA (BLM), LAS Co. See *Fremontia* 16(1):15-17 (1988) for brief species account and BLM management plans.

Erigeron flexuosus

Considered but rejected: Too common; a synonym of *E. lassenianus* var. *lassenianus*

Erigeron foliosus var. *blochmaniae*

See *Erigeron blochmaniae*

Erigeron inornatus Gray var. *calidipetris* Nesom

"hot rock daisy" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: BUT, MOD, PLU, SHA, SIS
 Habitat: LCFrs (sandy, volcanic)
 Life Form: Perennial herb
 Blooming: June-September
 Notes: See *Phytologia* 72(3):157-208 (1992) for original description.

Erigeron inornatus Gray var. *keilii* Nesom

"Keil's daisy" Asteraceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CEQA
 Distribution: FRE, TUL
 Quads: 308B, 354B, 374D, 375A, 375C, 375D
 Habitat: LCFrs, Medws
 Life Form: Perennial herb
 Blooming: June-September
 Notes: Potentially threatened by logging. See *Phytologia* 72(3):157-208 (1992) for original description.

Erigeron inornatus var. *reductus*

Considered but rejected: A synonym of *E. reductus* var. *reductus*, a common taxon

Erigeron lobatus

Considered but rejected: Not in CA; misidentification of *E. divergens*, a common taxon

Erigeron mariposanus Congd.

"Mariposa daisy" Asteraceae
 CNPS List: 1A Last Seen: 1900 State/Fed. Status: CEQA
 Distribution: MPA*
 Quads: 419B*
 Habitat: CmWld
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Probably extinct. Suspected to occur in specialized habitat. See *Erythraea* 7:185 (1900) for original description, and *Phytologia* 72(3):157-208 (1992) for taxonomic treatment.

Erigeron miser Gray

"starved daisy" Asteraceae
 CNPS List: 1B R-E-D Code: 2-1-3 State/Fed. Status: CEQA
 Distribution: NEV, PLA
 Quads: 555C, 555D
 Habitat: UCFrs (rocky)
 Life Form: Perennial herb
 Blooming: July-October
 Notes: See *Proceedings of the American Academy of Arts and Sciences* 13:272 (1878) for original description, and *Phytologia* 72(3):157-208 (1992) for taxonomic treatment.

Erigeron multiceps Greene

"Kern River daisy" Asteraceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: TUL
 Quads: 306B, 306C, 307A, 307B, 330C
 Habitat: JTWld, Medws, UCFrs (openings)
 Life Form: Perennial herb
 Blooming: June-September
 Notes: Known from fewer than twenty occurrences on the Kern Plateau. Possibly threatened by grazing and vehicles. Similar to *E. divergens*. See *Pittonia* 2:167 (1891) for original description, and *Phytologia* 73(3):186-202 (1992) for taxonomic information.
 Status Report: 1979

Erigeron parishii Gray

"Parish's daisy" Asteraceae
 CNPS List: 1B R-E-D Code: 2-3-3 State/Fed. Status: /PE
 Distribution: RIV, SBD
 Quads: 103B, 103C, 104B, 130C, 131C, 131D, 132D
 Habitat: MDScr, PJWld / often carbonate
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Threatened by carbonate mining, vehicles, and residential development. See *Synoptical Flora of North America* 1(2):221 (1884) for original description, and *Fremontia* 16(1):20-21 (1988) for discussion of mining threats.
 Status Report: 1988

Erigeron petrophilus var. *petrophilus*

Considered but rejected: Too common

Erigeron petrophilus Greene var. *sierrensis* Nesom

"northern Sierra daisy" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: BUT, ELD, NEV, PLU, SIE, YUB
 Habitat: CmWld, LCFrs, UCFrs / sometimes serpentinite
 Life Form: Perennial herb (rhizomatous)
 Blooming: June-September
 Notes: See *Phytologia* 72(3):157-208 (1992) for original description.

Erigeron petrophilus Greene var. *viscidulus* (Gray) Nesom

"Klamath daisy" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: HUM, SHA, SIS, TRI, OR
 Habitat: Chprl, LCFrs, Medws, UCFrs / sometimes serpentinite
 Life Form: Perennial herb (rhizomatous)
 Blooming: July-September
 Notes: Intergrades with *E. reductus*. *E. petrophilus* endangered in OR.
 See *Synoptical Flora of North America* 1(2):215 (1884) for original description, and *Phytologia* 72(3):157-208 (1992) for taxonomic treatment.

Erigeron sanctarum Wats.

"Saint's daisy" Asteraceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: SBA, SCZ, SLO, SRO
 Habitat: Chprl, CmWld, CoScr
 Life Form: Perennial herb (rhizomatous)
 Blooming: March-June
 Notes: Threatened by development.

Erigeron serpentinus Nesom

"serpentine daisy" Asteraceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: CEQA
 Distribution: SON
 Quads: 519C
 Habitat: Chprl (serpentinite)
 Life Form: Perennial herb
 Blooming: May-August
 Notes: Endemic to The Cedars. Similar to *E. angustatus*. See *Phytologia* 72(3):157-208 (1992) for original description.

Erigeron supplex Gray

"supple daisy" Asteraceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: MEN, MRN*, SON
 Quads: 485C*, 520B, 520D, 537A, 537B, 537C, 537D, 569D
 Habitat: CBScr, CoPrr
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Threatened by coastal development. See *Proceedings of the American Academy of Arts and Sciences* 24:83 (1889) for original description, and *Madroño* 33(4): 308-309 (1986) for distributional information.

Erigeron uncialis ssp. *uncialis*

See *Erigeron uncialis* var. *uncialis*

Erigeron uncialis S.F. Blake var. *uncialis*

"limestone daisy" Asteraceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: INY, SBD, NV
 Quads: 131D, 249D, 369B, 372A
 Habitat: GBScr, SCFrS / carbonate
 Life Form: Perennial herb
 Blooming: June-July

Eriochloa aristata

Considered but rejected: Not native; introduced from AZ

Eriodictyon altissimum Wells

"Indian Knob mountainbalm" Hydrophyllaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/PE
 Distribution: SLO
 Quads: 221B, 247D
 Habitat: Chprl (maritime), CmWld
 Life Form: Shrub (evergreen)
 Blooming: March-June
 Notes: Known from six occurrences in the Irish Hills. Threatened by urbanization, energy development, and vehicles. Taxonomic relationship to *E. angustifolium* needs clarification. See *Madroño* 16:184-186 (1962) for original description.
 Status Report: 1987

Eriodictyon angustifolium Nutt.

"narrow-leaved yerba santa" Hydrophyllaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: SBD, AZ, BA, NV+
 Habitat: PJWld
 Life Form: Shrub (evergreen)
 Blooming: June-July

Eriodictyon capitatum Eastw.

"Lompoc yerba santa" Hydrophyllaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CR/C1
 Distribution: SBA
 Quads: 145A, 145B, 170B, 171A, 195C
 Habitat: CCFrs, Chprl / sandy
 Life Form: Shrub (evergreen)
 Blooming: May-August
 Notes: Known from fewer than ten occurrences. Reproduction under study. See *Leaflets of Western Botany* 1:40-41 (1933) for original description.
 Status Report: 1987

Eriodictyon tomentosum

Considered but rejected: Too common

Eriodictyon traskiae ssp. *traskiae*

Considered but rejected: A synonym of *E. traskiae*; a common taxon

Eriogonum alpinum Engelm.

"Trinity buckwheat" Polygonaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: CE/C2
 Distribution: SIS, TRI
 Quads: 683A, 699C, 700D
 Habitat: AlpBR, SCFRs, UCFrs / serpentinite
 Life Form: Perennial herb (rhizomatous)
 Blooming: June-September
 Notes: Known from fewer than ten occurrences in the Mt. Eddy and Cory Pk. areas. See *Botanical Gazette* 7:6 (1882) for original description, and *Phytologia* 66(4):356-357 (1989) for taxonomic treatment.
 Status Report: 1987

Eriogonum ampullaceum

Considered but rejected: Too common

Eriogonum apricum J.T. Howell var. *apricum*

"Ione buckwheat" Polygonaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/C1
 Distribution: AMA
 Quads: 494C, 495A
 Habitat: Chprl (Ione soil)
 Life Form: Perennial herb
 Blooming: July-October
 Notes: Known from fewer than ten occurrences near Ione. Threatened by vehicles and clay mining. Protected in part at Apricum Hill ER (DFG). See *Leaflets of Western Botany* 7(10):237-238 (1955) for original description, and *Phytologia* 66(4):320-321 (1989) for taxonomic treatment.
 Status Report: 1993

Eriogonum apricum J.T. Howell var. *prostratum* Myatt

"Irish Hill buckwheat" Polygonaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/C1
 Distribution: AMA
 Quads: 494B, 495A
 Habitat: Chprl (Ione soil)
 Life Form: Perennial herb
 Blooming: June-July
 Notes: Known from only two occurrences near Irish Hill and Carbondale Mesa on the Ione Formation. Threatened by vehicles, clay mining, and erosion. See *Madroño* 20:320 (1970) for original description, and *Phytologia* 66(4):320-321 (1989) for taxonomic treatment.
 Status Report: 1993

Eriogonum arborescens

Considered but rejected: Too common

Eriogonum argillosum J.T. Howell

"clay-loving buckwheat" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: MNT, SBT, SCL
 Habitat: CmWld (serpentinite or clay)
 Life Form: Annual herb
 Blooming: March-June
 Notes: See *Phytologia* 66(4):376 (1989) for taxonomic treatment.

Eriogonum beatleyae Reveal

"Beatley's buckwheat" Polygonaceae
 CNPS List: 2 R-E-D Code: 3-3-1 State/Fed. Status: /C3c
 Distribution: MNO, NV
 Quads: 470B
 Habitat: GBScr (volcanic)
 Life Form: Perennial herb
 Blooming: May-August
 Notes: Known in CA from only one occurrence in the Bodie Hills. Threatened by sheep grazing, and potentially by mining. Similar to *E. ochrocephalum* and *E. rosense*; study needed. See *Aliso* 7(4):415-419 (1972) for original description, and *Phytologia* 66(4):322-323 (1989) for taxonomic treatment.

Eriogonum bifurcatum Reveal

"forked buckwheat" Polygonaceae
 CNPS List: 1B R-E-D Code: 3-2-2 State/Fed. Status: /C2
 Distribution: INY, SBD, NV
 Quads: 273D, 274A, 298A
 Habitat: ChScr (sandy)
 Life Form: Annual herb
 Blooming: April-June
 Notes: Known in CA from six occurrences. Threatened in NV. See *Aliso* 7(3):357-360 (1971) for original description, and *Phytologia* 66(4):363 (1989) for taxonomic treatment.

Eriogonum breedlovei (J.T. Howell) Reveal var. *breedlovei*

"Breedlove's buckwheat" Polygonaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C1
 Distribution: KRN
 Quads: 237A, 237B, 260C, 260D
 Habitat: PJWld, UCFrs / often carbonate
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Known from approximately ten occurrences. See *Mentzelia* 1:19-21 (1975) for original description, and *Phytologia* 66(4):323 (1989) for taxonomic treatment.
 Status Report: 1977

Eriogonum breedlovei (J.T. Howell) Reveal var. *shevockii* J.T. Howell

"The Needles buckwheat" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: KRN, TUL
 Habitat: PJWld, UCFrs / granitic
 Life Form: Perennial herb
 Blooming: July-September
 Notes: More common than previously thought, and relatively unthreatened. See *Mentzelia* 1:19-21 (1975) for original description, and *Phytologia* 66(4):323 (1989) for taxonomic treatment.
 Status Report: 1979

Eriogonum butterworthianum J.T. Howell

"Butterworth's buckwheat" Polygonaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: CR/C2
 Distribution: MNT
 Quads: 319B, 319C
 Habitat: Chprl (sandstone)
 Life Form: Perennial herb
 Blooming: June-July
 Notes: Known from only four occurrences near Arroyo Seco in the Santa Lucia Mtns. See *Leaflets of Western Botany* 9(9-10):153-154 (1961) for original description, and *Phytologia* 66(4):328 (1989) for taxonomic treatment.
 Status Report: 1988

Eriogonum caninum

See *Eriogonum luteolum* var. *caninum*

Eriogonum cithariforme

Considered but rejected: Too common

Eriogonum collinum

Considered but rejected: Not in CA

Eriogonum congdonii (S. Stokes) Reveal

"Congdon's buckwheat" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: SHA, SIS, TRI
 Habitat: LCFrs (serpentinite)
 Life Form: Shrub (deciduous)
 Blooming: June-August
 Notes: See *Aliso* 7(2):220 (1970) for original description, and *Phytologia* 66(4):349 (1989) for taxonomic treatment.

Eriogonum contiguum (Reveal) Reveal

"Reveal's buckwheat" Polygonaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: /C3c
 Distribution: INY, SBD, NV
 Quads: 298A, 298C, 324D, 346D, 367C
 Habitat: MDScr
 Life Form: Annual herb
 Blooming: February-June
 Notes: Need quads for SBD Co. See *Phytologia* 23:175 (1972) for original description and 66(4):359 (1989) for taxonomic treatment.

Eriogonum crocatum A. Davids.

"Conejo buckwheat" Polygonaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CR/C2
 Distribution: VEN
 Quads: 113A, 113B, 113C, 114A
 Habitat: Chprl, CoScr, VFGrs / Conejo volcanic outcrops
 Life Form: Perennial herb
 Blooming: April-July
 Notes: Known from fewer than twenty occurrences. Threatened by potential development. See *Bulletin of the Southern California Academy of Sciences* 23:17 (1924) for original description, and *Phytologia* 66(4):338-339 (1989) for taxonomic treatment.
 Status Report: 1986

Eriogonum dasyanthemum

Considered but rejected: Too common

Eriogonum deserticola

Considered but rejected: Too common

Eriogonum diclinum Reveal

"Jaynes Canyon buckwheat" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: /C3c
 Distribution: SIS, TRI, OR
 Habitat: UCFrs (often serpentinite)
 Life Form: Perennial herb
 Blooming: June-September
 Notes: Endangered in OR. See *Aliso* 7(2):218 (1970) for original description, and *Phytologia* 66(4):354 (1989) for taxonomic treatment.
 Status Report: 1979

Eriogonum eastwoodianum J.T. Howell

"Eastwood's buckwheat" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: FRE, MNT
 Habitat: CmWld (sandy or clay)
 Life Form: Annual herb
 Blooming: June-July
 Notes: Marginally distinct from *E. temblorense* and *E. vestitum*. See *Phytologia* 66(4):374-375 (1989) for taxonomic treatment.

Eriogonum elegans

Considered but rejected: Too common

Eriogonum eremicola J.T. Howell & Reveal

"Wildrose Canyon buckwheat" Polygonaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: INY
 Quads: 302A, 350B, 350D
 Habitat: PJWld, UCFrs / sandy or gravelly
 Life Form: Annual herb
 Blooming: June-September
 Notes: Known from only five occurrences. See *Phytologia* 66(4):365 (1989) for taxonomic treatment.

Eriogonum ericifolium T. & G.var. *thornei* Reveal & Hendrickson

"Thorne's buckwheat" Polygonaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CE/C1
 Distribution: SBD
 Quads: 225D
 Habitat: PJWld
 Life Form: Perennial herb
 Blooming: July-August
 Notes: Known from only two occurrences in the New York Mtns. See *Madroño* 23(4):205-209 (1975) for original description, and *Phytologia* 66(4):313 (1989) for taxonomic treatment.
 Status Report: 1986

Eriogonum esmeraldense var. *esmeraldense*

Considered but rejected: Too common

Eriogonum foliosum Wats.

"leafy buckwheat" Polygonaceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: CEQA
 Distribution: RIV, SBD, SDG, BA
 Quads: 20D, 48C, 66B, 105A, 105B, 131C, 131D
 Habitat: Chprl, LCFrs, PJWld / sandy
 Life Form: Annual herb
 Blooming: July-October
 Notes: Known in SDG Co. from only two collections. Easily confused with *E. davidsonii*, so possibly overlooked. See *Phytologia* 66(4):382 (1989) for taxonomic treatment.

Eriogonum giganteum Wats. var. *compactum* Dunkle

"Santa Barbara Island buckwheat" Polygonaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: CR/C2
 Distribution: SBR
 Quads: SBRA
 Habitat: CBScr (rocky)
 Life Form: Shrub (deciduous)
 Blooming: May-August
 Notes: Known from fewer than fifteen occurrences, but population numbers are increasing. See *Bulletin of the Southern California Academy of Sciences* 41:130 (1943) for original description, and *Phytologia* 66(4):318-319 (1989) for taxonomic treatment.
 Status Report: 1986

Eriogonum giganteum Wats. var. *formosum* K. Bdg.

"San Clemente Island buckwheat" Polygonaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: SCM
 Quads: SCMC, SCMN, SCMS
 Habitat: CBScr (rocky)
 Life Form: Shrub (deciduous)
 Blooming: March-October
 Notes: Possibly threatened by Navy activities. Feral herbivores removed from SCM Isl., and vegetation recovering. See *Phytologia* 66(4):318-319 (1989) for taxonomic treatment.

Eriogonum giganteum var. *giganteum*

Considered but rejected: Too common

Eriogonum gilmanii S. Stokes

"Gilman's buckwheat" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: INY
 Habitat: MDScr (gravelly)
 Life Form: Perennial herb
 Blooming: May-August
 Notes: See *Leaflets of Western Botany* 3(1):16 (1941) for original description, and *Phytologia* 66(4):335 (1989) for taxonomic treatment.
 Status Report: 1977

Eriogonum gossypinum Curran

"cottony buckwheat" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: /C3c
 Distribution: FRE, KNG, KRN, SLO
 Habitat: ChScr, VFGrs / clay
 Life Form: Annual herb
 Blooming: April-September
 Notes: See *Phytologia* 66(4):372 (1989) for taxonomic treatment.

Eriogonum gracilipes

Considered but rejected: Too common

Eriogonum grande var. *dunklei*

See *Eriogonum grande* var. *rubescens*

Eriogonum grande Greene var. *grande*

"island buckwheat" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: ANA, SCM, SCT, SCZ
 Habitat: CBScr
 Life Form: Perennial herb
 Blooming: June-October
 Notes: See *Phytologia* 66(4):333-334 (1989) for taxonomic treatment.

Eriogonum grande Greene var. *rubescens* (Greene) Munz

"red-flowered buckwheat" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: /C2
 Distribution: ANA?, SCZ, SMI, SRO
 Habitat: CBScr, CoScr
 Life Form: Perennial herb
 Blooming: June-October
 Notes: Does plant occur on ANA Isl.? Threatened by feral herbivores, and by cattle grazing on SRO Isl. Includes *E. grande* var. *dunklei*. See *Phytologia* 66(4):333-334 (1989) for taxonomic treatment.

Eriogonum grande Greene var. *timorum* Reveal

"San Nicolas Island buckwheat" Polygonaceae
 CNPS List: 1B R-E-D Code: 2-3-3 State/Fed. Status: CE/C2
 Distribution: SNI
 Quads: SNIC
 Habitat: CBScr
 Life Form: Perennial herb
 Blooming: June-October
 Notes: Possibly threatened by Navy activities, erosion, and non-native plants. See *Aliso* 7(2):229 (1970) for original description, and *Phytologia* 66(4):333-334 (1989) for taxonomic treatment.
 Status Report: 1987

Eriogonum heermannii Dur. & Hilg. var. *floccosum* Munz

"Clark Mtn. buckwheat" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: SBD
 Habitat: PJWld (carbonate)
 Life Form: Shrub (deciduous)
 Blooming: August-October
 Notes: See *Phytologia* 66(4):314-316 (1989) for taxonomic treatment.

Eriogonum heermanni Dur. & Hilg.
var. *occidentale* S. Stokes

"western Heermann's buckwheat" Polygonaceae
CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
Distribution: FRE, MNT, SBT
Habitat: CmWld (clay or shale)
Life Form: Shrub (deciduous)
Blooming: July-October
Notes: See *Leaflets of Western Botany* 1(4):30 (1932) for original description, and *Phytologia* 66(4):314-316 (1989) for taxonomic treatment.

Eriogonum hirtellum J. T. Howell & Bacig.

"Klamath Mtn. buckwheat" Polygonaceae
CNPS List: 1B R-E-D Code: 2-1-3 State/Fed. Status: /C3c
Distribution: DNT, SIS
Quads: 719A, 736D, 737B, 737C, 738A, 738D
Habitat: LCFrs, UCFrs / serpentinite
Life Form: Perennial herb (rhizomatous)
Blooming: July-September
Notes: Known from fewer than twenty occurrences. Possibly threatened by logging and grazing. Klamath NF has adopted species management guidelines. See *Leaflets of Western Botany* 9:174-176 (1961) for original description, and *Phytologia* 66(4):355 (1989) for taxonomic treatment.
Status Report: 1977

Eriogonum hoffmannii S. Stokes var. *hoffmannii*

"Hoffmann's buckwheat" Polygonaceae
CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
Distribution: INY
Habitat: MDScr (washes, roadsides)
Life Form: Annual herb
Blooming: June-September
Notes: See *Phytologia* 66(4):365 (1989) for taxonomic treatment.

Eriogonum hoffmannii S. Stokes var. *robustius* S. Stokes

"robust Hoffmann's buckwheat" Polygonaceae
CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
Distribution: INY
Habitat: MDScr, PJWld / washes, roadsides
Life Form: Annual herb
Blooming: August-November
Notes: See *Phytologia* 66(4):365 (1989) for taxonomic treatment.

Eriogonum hookeri

Considered but rejected: Too common

Eriogonum intrafractum Cov. & Mort.

"jointed buckwheat" Polygonaceae
CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C2
Distribution: INY
Habitat: MDScr (carbonate)
Life Form: Perennial herb
Blooming: May-October
Notes: See *Journal of the Washington Academy of Sciences* 26:305 (1936) for original description, and *Phytologia* 66(4):359 (1989) for taxonomic treatment.
Status Report: 1977

Eriogonum kearneyi var. *kearneyi*

Considered but rejected: A synonym of *E. nummularis*, a common taxon

Eriogonum kelloggii Gray

"Kellogg's buckwheat" Polygonaceae
CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/CI
Distribution: MEN
Quads: 600B, 600C
Habitat: LCFrs (serpentinite)
Life Form: Perennial herb
Blooming: May-August
Notes: Known from only five occurrences in the Red Mtn. area near Leggett. Threatened by mining. Protected in part at Red Mtn. ACEC (BLM). See *Proceedings of the American Academy of Arts and Sciences* 8:293 (1870) for original description, and *Phytologia* 66(4):351 (1989) for taxonomic treatment.
Status Report: 1987

Eriogonum kennedyi Wats. var. *alpigenum* M. & J.

"southern alpine buckwheat" Polygonaceae
CNPS List: 1B R-E-D Code: 2-1-3 State/Fed. Status: CEQA
Distribution: LAX, SBD, VEN
Quads: 105C, 105D, 134D, 135D, 190C
Habitat: AlpBR, SCFrs / granitic, gravelly
Life Form: Perennial herb
Blooming: July-September
Notes: Rarity information needed. See *Bulletin of the Torrey Botanical Club* 51:296 (1924) for original description, and *Phytologia* 66(4):326-327 (1989) for taxonomic treatment.

Eriogonum kennedyi Wats. var. *austromontanum* M. & J.

"southern mountain buckwheat" Polygonaceae
CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
Distribution: SBD
Quads: 105A, 105B, 126D, 130C, 131C, 131D, 132D
Habitat: LCFrs (gravelly), PbPln
Life Form: Perennial herb
Blooming: July-August
Notes: Threatened by development, grazing, vehicles, and non-native plants. See *Bulletin of the Torrey Botanical Club* 51:295 (1924) for original description, and *Phytologia* 66(4):326-327 (1989) for taxonomic treatment.
Status Report: 1979

Eriogonum kennedyi Wats. var. *pinicola* Reveal

"Kern buckwheat" Polygonaceae
CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C2
Distribution: KRN
Quads: 211B, 212A, 212D
Habitat: Chprl, PJWld
Life Form: Perennial herb
Blooming: May-June
Notes: Known from only three occurrences in the vicinity of Sweet Ridge. Field work needed. Threatened by wind energy development. See *Phytologia* 66(4):326-328 (1989) for taxonomic treatment.
Status Report: 1977

Eriogonum latens

Considered but rejected: Too common

Eriogonum libertini Reveal

"Dubakella Mtn. buckwheat" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: /C3c
 Distribution: SHA, TEH, TRI
 Habitat: Chprl (serpentinite)
 Life Form: Perennial herb
 Blooming: June-August
 Notes: See *Madroño* 28(3):163-166 (1981) for original description, and *Phytologia* 66(4):349 (1989) for taxonomic treatment.

Eriogonum luteolum Greene var. *caninum* (Greene) Reveal

"Tiburon buckwheat" Polygonaceae
 CNPS List: 3 R-E-D Code: ?-2-3 State/Fed. Status: /C3c
 Distribution: ALA, CCA?, COL, LAK, MRN, NAP, SCL, SMT, SON*
 Quads: 407A, 448C, 465B?, 465C, 465D?, 466B, 466C, 467A, 467B, 467D, 484B, 484C, 499B, 499C, 502B*, 516A, 517A, 517B(*?), 549D
 Habitat: Chprl, CoPrr, VFGrs / serpentinite
 Life Form: Annual herb
 Blooming: June-September
 Notes: Move to List 1B? Location information needed, especially quads for COL Co. Does plant occur in CCA Co.? Easily confused with var. *luteolum*. Threatened by development and non-native plants. Protected in part at Ring Mtn. Preserve (TNC), MRN Co. See *Flora Franciscana*, pp. 150-151 (1891) by E. Greene for original description, and *Phytologia* 66(4):378-379 (1989) for alternative treatment which restricts var. *caninum* to ALA and MRN counties.
 Status Report: 1977

Eriogonum microthecum Nutt. var. *corymbosoides* Reveal

"San Bernardino buckwheat" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: SBD
 Habitat: PJWld (granitic)
 Life Form: Shrub (deciduous)
 Blooming: July-September
 Notes: See *Phytologia* 66(4):312-313 (1989) for taxonomic treatment.

Eriogonum microthecum Nutt. var. *johnstonii* Reveal

"Johnston's buckwheat" Polygonaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: LAX, SBD
 Quads: 108A, 134B, 134C
 Habitat: SCFrS, UCFrS / rocky
 Life Form: Shrub (deciduous)
 Blooming: July-September
 Notes: Known from fewer than ten occurrences, most of which are in designated wilderness areas. Possibly threatened by foot traffic in a portion of its range. See *Phytologia* 66(4):313 (1989) for taxonomic treatment.
 Status Report: 1979

Eriogonum microthecum Nutt. var. *lapidicola* Reveal

"Inyo Mtns. buckwheat" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: INY, NV
 Habitat: PJWld (carbonate)
 Life Form: Shrub (deciduous)
 Blooming: July-September
 Notes: See *Phytologia* 66(4):313 (1989) for taxonomic treatment.

Eriogonum microthecum Nutt. var. *panamintense* S. Stokes

"Panamint Mtns. buckwheat" Polygonaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: INY
 Quads: 302A, 348C, 350B, 350D
 Habitat: PJWld (rocky)
 Life Form: Shrub (deciduous)
 Blooming: July-October
 Notes: Known from fewer than ten occurrences. See *Phytologia* 66(4):313 (1989) for taxonomic treatment.

Eriogonum nervulosum (S. Stokes) Reveal

"Snow Mtn. buckwheat" Polygonaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: COL, GLE?, LAK, NAP, SON, YOL
 Quads: 517B, 519C, 532C, 532D, 533C, 534D, 548A, 548C, 564D, 565A
 Habitat: Chprl (serpentinite)
 Life Form: Perennial herb (rhizomatous)
 Blooming: June-September
 Notes: Known from approximately twenty occurrences. Undocumented in GLE Co.; need quads. See *Phytologia* 40:467 (1978) for revised nomenclature and 66(4):350 (1989) for taxonomic treatment.
 Status Report: 1979

Eriogonum nortonii Greene

"Pinnacles buckwheat" Polygonaceae
 CNPS List: 1B R-E-D Code: 2-1-3 State/Fed. Status: /C3c
 Distribution: MNT, SBT
 Quads: 341A, 341B, 343A, 343D, 363C, 364B, 364D, 385C, 386D
 Habitat: Chprl, VFGrs / sandy, often on recent burns
 Life Form: Annual herb
 Blooming: May-June
 Notes: Known from approximately twenty occurrences. See *Phytologia* 66(4):376 (1989) for taxonomic treatment.

Eriogonum nudum Benth.var. *decurrens* (S. Stokes) Bowerman

"Ben Lomond buckwheat" Polygonaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CEQA
 Distribution: CCA, SCR
 Quads: 408D
 Habitat: Chprl, CmWld, LCFrS (maritime ponderosa pine sandhills)
 Life Form: Perennial herb
 Blooming: June-October
 Notes: Need quads for Mt. Diablo area (CCA Co.). Threatened by development and sand mining. See *Phytologia* 66(4):329-333 (1989) for taxonomic treatment.

Eriogonum nudum Benth. var. *indictum* (Jeps.) Reveal

"protruding buckwheat" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: FRE, KRN, MER, MNT, SBT, SLO
 Habitat: Chprl, ChScr, CmWld / clay, serpentinite
 Life Form: Perennial herb
 Blooming: May-October
 Notes: Not always distinct from var. *auriculatum* in FRE and SBT counties. See *Flora of California* 1(4):421 (1914) by W.L. Jepson for original description, and *Phytologia* 66(4):329-332 (1989) for taxonomic treatment.

Eriogonum nudum Benth. var. *murinum* Reveal

"mouse buckwheat" Polygonaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: FRE, TUL
 Quads: 332A, 332B, 332D, 354C, 354D, 376D
 Habitat: Chprl, CmWld, VFGrs / sandy
 Life Form: Perennial herb
 Blooming: June-November
 Notes: Known from fewer than twenty occurrences; some degraded by road improvements along General's Highway. Sequoia-Kings Canyon NP has adopted species management guidelines. See *Aliso* 7(2):228 (1976) for original description, and *Phytologia* 66(4):329-332 (1989) for taxonomic treatment.
 Status Report: 1977

Eriogonum nudum Benth. var. *paralinum* Reveal

"Del Norte buckwheat" Polygonaceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
 Distribution: DNT, OR
 Quads: 723B, 723D
 Habitat: CBScr, CoPr
 Life Form: Perennial herb
 Blooming: June-September
 Notes: This variety is the coastal expression of *E. nudum*. See *Phytologia* 66(3):258 (1989) for original description and 66(4):329-331 (1989) for taxonomic treatment.

Eriogonum nudum Benth. var. *regivirum* Reveal & J. Stebbins

"Kings River buckwheat" Polygonaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CEQA
 Distribution: FRE
 Quads: 355A, 376A, 376D, 377D
 Habitat: CmWld (carbonate)
 Life Form: Perennial herb
 Blooming: August-November
 Notes: Known only from the Kings River Cyn. See *Phytologia* 66(3):246-248 (1989) for original description and 66(4):329-332 (1989) for taxonomic treatment.

Eriogonum nutans T. & G.

"nodding buckwheat" Polygonaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: LAS, MNO, NV, OR, UT
 Quads: 470A, 620A
 Habitat: GBScr (sandy or gravelly)
 Life Form: Annual herb
 Blooming: May-October
 Notes: Grayish plants dubiously called var. *glabrum* appear in the high Sierra as roadside waifs from NV. On review list in OR. See *Madroño* 27(3):142 (1980) for first CA occurrence, and *Phytologia* 66(4):366 (1989) for taxonomic treatment.

Eriogonum nutans var. *glabrum*

Considered but rejected: Not native and taxonomic problem; occurs in CA only as a roadside waif from NV, and is dubiously distinct from *E. nutans*

Eriogonum nutans var. *nutans*

See *Eriogonum nutans*

Eriogonum ochrocephalum Wats. var. *alexandrae* Reveal

"Alexander's buckwheat" Polygonaceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: MNO, NV
 Quads: 470A
 Habitat: GBScr, PJWld / shale, gravelly
 Life Form: Perennial herb
 Blooming: May-July
 Notes: See *Phytologia* 66(4):321 (1989) for taxonomic treatment.

Eriogonum ovalifolium Nutt.var. *eximium* (Tides.) J. T. Howell

"brown-margined buckwheat" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: ALP, ELD, NV
 Habitat: AlpBR, SCFRs / granitic sand
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Intergrades with var. *nivale*. See Proceedings of the Biological Society of Washington 36:181 (1923) for original description, *Mentzelia* 1:19 (1976) for revised nomenclature, and *Phytologia* 66(4):335-336 (1989) for taxonomic treatment.

Eriogonum ovalifolium Nutt. var. *vineum* (Small) Jeps.

"Cushenbury buckwheat" Polygonaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /PE
 Distribution: SBD
 Quads: 104B, 105A, 130C, 131C, 131D, 132D
 Habitat: MDScr, PJWld / carbonate
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Threatened by carbonate mining and vehicles. See *Bulletin of the Torrey Botanical Club* 25:40-53 (1898) for original description, *Fremontia* 16(1):20-21 (1988) for discussion of mining threats, and *Phytologia* 66(4):335-337 (1989) for taxonomic treatment.
 Status Report: 1979

Eriogonum panamintense var. *mensiscola*

Considered but rejected: A synonym of *E. panamintense*, a common taxon

Eriogonum parvifolium var. *lucidum*

Considered but rejected: A synonym of *E. parvifolium*; a common taxon

Eriogonum parvifolium var. *paynei*

Considered but rejected: A synonym of *E. parvifolium*; a common taxon

Eriogonum pendulum Wats.

"Waldo buckwheat" Polygonaceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: /C3c
 Distribution: DNT, OR
 Quads: 739B, 739C, 740A
 Habitat: LCFrs, UCFrs / serpentinite
 Life Form: Perennial herb
 Blooming: August-September
 Notes: Known in CA from fewer than ten occurrences. Threatened by mining. On watch list in OR. See *Phytologia* 66(4):314 (1989) for taxonomic treatment.

Eriogonum polypodium Small

"Tulare County buckwheat" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: FRE, TUL
 Habitat: SCFrs (granitic sand)
 Life Form: Perennial herb
 Blooming: July-August
 Notes: See *Phytologia* 66(4):354-355 (1989) for taxonomic treatment.

Eriogonum prattenianum Durand
var. *avium* Reveal & Shevock

"Kettle Dome buckwheat" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: FRE, MAD
 Habitat: UCFrs (granitic)
 Life Form: Perennial herb
 Blooming: June-August
 Notes: See *Phytologia* 66(3):249-250 (1989) for original description and 66(4):350 (1989) for taxonomic treatment.

Eriogonum prociduum Reveal

"prostrate buckwheat" Polygonaceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: /C2
 Distribution: LAS, MOD, NV, OR
 Quads: 658C, 659A, 675C, 690B, 690C, 691A, 692A, 692B, 707C, 708C, 725D
 Habitat: GBSr, PJWld, UCFrs / volcanic
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Occasionally threatened by cattle trampling. On watch list in NV, and a candidate for state listing in OR. Protected in part at Ash Valley RNA (BLM), LAS Co. See *Aliso* 7(4):415-419 (1972) for original description, *Fremontia* 16(1):15-17 (1988) for brief species account and BLM management plans, and *Phytologia* 66(4):321 (1989) for taxonomic treatment.
 Status Report: 1979

Eriogonum puberulum Wats.

"downy buckwheat" Polygonaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: INY, NV+
 Quads: 369B
 Habitat: PJWld (sandy or gravelly, carbonate)
 Life Form: Annual herb
 Blooming: May-September
 Notes: Known in CA from only one occurrence in the Cottonwood Mtns. See *Phytologia* 66(4):383 (1989) for taxonomic treatment.

Eriogonum rixfordii

Considered but rejected: Too common

Eriogonum rosense

Considered but rejected: Too common

Eriogonum rupinum

Considered but rejected: A synonym of *E. panamintense*, a common taxon

Eriogonum shockleyi Wats. var. *shockleyi*

"Shockley's buckwheat" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: INY, AZ, ID, NV+
 Habitat: PJWld (gravelly, carbonate)
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Sensitive in ID. See *Phytologia* 66(4):323-324 (1989) for taxonomic treatment.

Eriogonum siskiyouense Small

"Siskiyou buckwheat" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: SIS, TRI
 Habitat: LCFrs (often serpentinite)
 Life Form: Perennial herb
 Blooming: August-September
 Notes: See *Bulletin of the Torrey Botanical Club* 25:44 (1898) for original description, and *Phytologia* 66(4):348 (1989) for taxonomic treatment.
 Status Report: 1979

Eriogonum strictum Benth. var. *greenii* (Gray) Reveal

"Greene's buckwheat" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: COL, MEN, SIS, TEH, TRI
 Habitat: LCFrs (serpentinite)
 Life Form: Perennial herb
 Blooming: July-September
 Notes: See *Proceedings of the American Academy of Arts and Sciences* 12:83 (1870) for original description, and *Phytologia* 40:467 (1978) for revised nomenclature and 66(4):337-338 (1989) for taxonomic treatment.

Eriogonum temblorense J.T. Howell & Twisselmann

"Temblor buckwheat" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C2
 Distribution: KRN, MNT, SLO
 Habitat: VFGrs (clay or sandstone)
 Life Form: Annual herb
 Blooming: May-September
 Notes: Marginally distinct from *E. eastwoodianum* and *E. vestitum*.
 See *Phytologia* 66(4):375 (1989) for taxonomic treatment.

Eriogonum ternatum Howell

"ternate buckwheat" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: DNT, SIS, SON, TEH, OR
 Habitat: LCFrs (serpentinite)
 Life Form: Perennial herb
 Blooming: June-August
 Notes: On watch list in OR. See *Phytologia* 66(4):348-349 (1989)
 for taxonomic treatment.

Eriogonum tripodum Greene

"tripod buckwheat" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: AMA, COL, ELD, LAK, MPA, NAP, PLA, TEH,
 TUO
 Habitat: Chprl, CmWld / often serpentinite
 Life Form: Shrub (deciduous)
 Blooming: May-July
 Notes: Some occurrences threatened by mining. See *Pittonia* 1:39
 (1887) for original description, and *Phytologia* 66(4):350-351
 (1989) for taxonomic treatment.

Eriogonum truncatum T. & G.

"Mt. Diablo buckwheat" Polygonaceae
 CNPS List: 1A Last Seen: 1940 State/Fed. Status: /C3a
 Distribution: ALA*, CCA*, SOL*
 Quads: 445A*, 445B*, 464A*, 464B*, 464C*, 481D*, 482A*
 Habitat: Chprl, CoScr, VFGrs / sandy
 Life Form: Annual herb
 Blooming: April-September
 Notes: Recent attempts to rediscover this plant have been unsuccessful.
 See *Proceedings of the American Academy of Arts and Sciences*
 8:173 (1870) for original description, and *Phytologia* 66(4):375-
 376 (1989) for taxonomic treatment.
 Status Report: 1988

Eriogonum twisselmannii (J.T. Howell) Reveal

"Twisselmann's buckwheat" Polygonaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CR/C2
 Distribution: TUL
 Quads: 308A, 308D
 Habitat: UCFrs (granitic)
 Life Form: Perennial herb
 Blooming: July-September
 Notes: Endemic to Sequoia NF; protected in part at Slate Mtn. BA,
 which contains the largest of approximately ten known occurrences.
 See *Leaflets of Western Botany* 10(1):13 (1963) for original descrip-
 tion, and *Phytologia* 66(4):352 (1989) for taxonomic treatment.
 Status Report: 1979

Eriogonum umbellatum var. *aureum*

See *Eriogonum umbellatum* var. *glaberrimum*

Eriogonum umbellatum Torr.
var. *glaberrimum* (Gand.) Reveal

"green buckwheat" Polygonaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: MOD, OR
 Quads: 724B
 Habitat: LCFrs, UCFrs / sandy or gravelly
 Life Form: Perennial herb
 Blooming: June-September
 Notes: Known in CA only from the Warner Mtns., where it is either
 rare or undercollected. Status in OR unknown. See *Taxon* 17:531-
 532 (1968) for revised nomenclature, and *Phytologia* 66(4):341-
 347 (1989) for taxonomic treatment.

Eriogonum umbellatum var. *hausknechtii*

Considered but rejected: Not in CA

Eriogonum umbellatum Torr. var. *humistratum* Reveal

"Mt. Eddy buckwheat" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: SIS, TRI
 Habitat: AlpBR, Chprl, Medws, SCFrs, UCFrs / rocky, usually
 serpentinite
 Life Form: Perennial herb
 Blooming: May-September
 Notes: Intergrades with var. *polyanthum*. See *Phytologia* 66(3):260
 (1989) for original description and 66(4):341-345 (1989) for tax-
 onomic treatment.

Eriogonum umbellatum Torr. var. *juniporinum* Reveal

"juniper buckwheat" Polygonaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: SBD, NV
 Quads: 176A, 200B, 225D, 249C, 250B
 Habitat: MDScr, PJWld
 Life Form: Perennial herb
 Blooming: July-October
 Notes: Similar to var. *subaridum*. See *Great Basin Naturalist* 45:279
 (1985) for original description, and *Phytologia* 66(4):341-347
 (1989) for taxonomic treatment.

Eriogonum umbellatum Torr. var. *minus* Jtn.

"alpine sulfur-flowered buckwheat" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: /C3c
 Distribution: LAX, SBD
 Habitat: SCFrs, UCFrs / gravelly
 Life Form: Perennial herb
 Blooming: July-September
 Notes: See *Bulletin of the California Academy of Sciences* 17:64 (1918)
 for original description, and *Phytologia* 66(4):341-344 (1989) for
 taxonomic treatment.
 Status Report: 1979

Eriogonum umbellatum Torr.var. *torreyanum* (Gray) M.E. Jones

"Donner Pass buckwheat" Polygonaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: NEV, PLA, SIE
 Quads: 538B, 539A, 555A, 555B, 555D
 Habitat: Medws, UCFrs / volcanic
 Life Form: Perennial herb
 Blooming: July-September
 Notes: Known from fewer than ten occurrences. Similar to var. *glaberrimum*. Draft interim management guide prepared by USFS in 1993. See *Fremontia* 1(3):20 (1973) for discussion of rediscovery at type locality, and *Phytologia* 66(4):341-347 (1989) for taxonomic treatment.
 Status Report: 1977

Eriogonum vestitum J.T. Howell

"Idria buckwheat" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: FRE, MER, SBT
 Habitat: VFGrs (semi-siliceous diatomaceous shale)
 Life Form: Annual herb
 Blooming: May-June
 Notes: Marginally distinct from *E. eastwoodianum* or *E. temblorense*. See *Phytologia* 66(4):375 (1989) for taxonomic treatment.

Eriogonum wrightii Benth. var. *olanchense* (J.T. Howell) Reveal

"Olancha Peak buckwheat" Polygonaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C3c
 Distribution: TUL
 Quads: 329D
 Habitat: AlpBR, SCFRs (gravelly or rocky)
 Life Form: Perennial herb
 Blooming: July-September
 Notes: Known from only two occurrences on the uppermost slopes of Olancha Pk. See *Leaflets of Western Botany* 6:151 (1951) for original description, and *Phytologia* 66(4):324-326 (1989) for taxonomic treatment.
 Status Report: 1979

Erioneuron pilosum (Buckl.) Nash

"hairy erioneuron" Poaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: INY, SBD, NV, ++
 Quads: 226A, 249D, 369C
 Habitat: PJWld (rocky, sometimes carbonate)
 Life Form: Perennial herb
 Blooming: May-June
 Notes: See *American Journal of Botany* 48:565-573 (1961) for taxonomic treatment.

Eriophyllum congdonii Bdg.

"Congdon's woolly sunflower" Asteraceae
 CNPS List: 1B R-E-D Code: 2-1-3 State/Fed. Status: CR/C3c
 Distribution: MPA
 Quads: 437C, 438A, 438B, 438D
 Habitat: Chprl, CmWld, LCFrs
 Life Form: Annual herb
 Blooming: May-June
 Notes: See *Botanical Gazette* 27:449-450 (1899) for original description.
 Status Report: 1990

Eriophyllum jepsonii Greene

"Jepson's woolly sunflower" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: ALA, CCA, KRN, SBT, SCL, STA, VEN
 Habitat: Chprl, CmWld, CoScr / sometimes serpentinite
 Life Form: Perennial herb
 Blooming: April-June

Eriophyllum lanatum (Pursh) Forbes var. *hallii* Const.

"Fort Tejon woolly sunflower" Asteraceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C1
 Distribution: KRN, SBA
 Quads: 189C, 192C
 Habitat: Chprl, CmWld
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Seriously threatened by grazing. See *University of California Publications in Botany* 18:94-96 (1937) for revised nomenclature.
 Status Report: 1977

Eriophyllum lanatum (Pursh) Forbes var. *obovatum* (Greene) Hall

"southern Sierra woolly sunflower" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: FRE, KRN, SBD, TUL
 Habitat: LCFrs, UCFrs
 Life Form: Perennial herb
 Blooming: June-July
 Notes: Similar to var. *lanceolatum*.

Eriophyllum latilobum Rydb.

"San Mateo woolly sunflower" Asteraceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/PE
 Distribution: SMT
 Quads: 429D*, 448D
 Habitat: CmWld (serpentinite, often on roadcuts)
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Known from only one extant occurrence, which was rediscovered in 1981 by K. Culligan and M. Showers. Threatened by development, erosion, and road maintenance.

Eriophyllum mohavense (Jtn.) Jeps.

"Barstow woolly sunflower" Asteraceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: SBD
 Quads: 181B, 182A, 183A, 183B, 184A, 206C, 208B, 208C,
 208D, 209A, 209D, 233C
 Habitat: ChScr, MDScr, Plyas
 Life Form: Annual herb
 Blooming: April-May
 Notes: Threatened by energy development, road improvements, ve-
 hicles, and grazing. Protected in part at an ACEC (BLM).
 Status Report: 1977

Eriophyllum nevinii Gray

"Nevin's woolly sunflower" Asteraceae
 CNPS List: 1B R-E-D Code: 2-1-3 State/Fed. Status: /C2
 Distribution: SBR, SCM, SCT
 Quads: SBRA, SCMC, SCMN, SCMS, SCTE
 Habitat: CBScr, CoScr
 Life Form: Shrub (evergreen)
 Blooming: April-August
 Notes: Feral herbivores removed from SCM Isl., and vegetation re-
 covering. Populations appear to be recovering on SBR Isl.

Eriophyllum nubigenum Greene

"Yosemite woolly sunflower" Asteraceae
 CNPS List: 1B R-E-D Code: 2-1-3 State/Fed. Status: /C2
 Distribution: MAD, MPA, TUO
 Quads: 437A, 437D, 454C, 456C
 Habitat: Chprl, LCFrs, UCFrs / gravelly
 Life Form: Annual herb
 Blooming: May-August
 Notes: Known from fewer than twenty occurrences, but several large
 occurrences have been found since 1980. See *Madroño* 29(2):123
 (1982) for information on rediscovery.
 Status Report: 1977

Eriophyllum nubigenum var. *congdonii*

See *Eriophyllum congdonii*

Erodium macrophyllum

Considered but rejected: Too common

Eryngium aristulatum Jeps. var. *hooveri* Sheikh

"Hoover's button-celery" Apiaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C1
 Distribution: SBT, SCL, SLO
 Habitat: VnPls
 Life Form: Annual/Perennial herb
 Blooming: July
 Notes: See *Madroño* 30(2):93-101 (1983) for original description.

Eryngium aristulatum Jeps.var. *parishii* (Coul. & Rose) Math. & Const.

"San Diego button-celery" Apiaceae
 CNPS List: 1B R-E-D Code: 2-3-2 State/Fed. Status: CE/FE
 Distribution: RIV, SDG, BA
 Quads: 7A, 10C, 11A, 11D, 22A, 22B, 22C, 22D, 35B, 36A, 36B,
 36D, 51C, 68C, 69D
 Habitat: CoScr, VFGrs, VnPls / mesic
 Life Form: Annual/Perennial herb
 Blooming: April-June
 Notes: Threatened by agriculture, urbanization, road maintenance,
 vehicles, and foot traffic. See *Contributions from the U.S. National
 Herbarium* 7:57 (1900) for original description, and *American Mid-
 land Naturalist* 25(2):361-387 (1941) for revised nomenclature.
 Status Report: 1987

Eryngium constancei Sheikh

"Loch Lomond button-celery" Apiaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/FE
 Distribution: LAK
 Quads: 533C
 Habitat: VnPls
 Life Form: Annual/Perennial herb
 Blooming: April-June
 Notes: Only known occurrence protected at Loch Lomond ER
 (DFG), but entire watershed not protected. Previously damaged
 by dredging of vernal lake. See *Madroño* 30(2):93-101 (1983) for
 original description.
 Status Report: 1985

Eryngium mathiasiae

Considered but rejected: Too common

Eryngium pinnatisectum Jeps.

"Tuolumne button-celery" Apiaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: /C2
 Distribution: AMA, CAL, SAC, TUO
 Habitat: CmWld, LCFrs, VnPls / mesic
 Life Form: Annual/Perennial herb
 Blooming: June

Eryngium racemosum Jeps.

"delta button-celery" Apiaceae
 CNPS List: 1B R-E-D Code: 2-3-3 State/Fed. Status: CE/C2
 Distribution: CAL, MER, SJQ*, STA*
 Quads: 402A, 402B, 402D, 403A, 423A, 423C, 423D, 424A*,
 441D, 443B*, 443C*, 444A*, 461A*, 462D*, 477D
 Habitat: RpScr (vernally mesic clay depressions)
 Life Form: Annual/Perennial herb
 Blooming: June-August
 Notes: Threatened by agriculture and flood control activities. See
Flora of California 2(1):659 (1936) by W.L. Jepson for original de-
 scription.
 Status Report: 1986

Eryngium spinosepalum Math.

"spiny-sealed button-celery" Apiaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: FRE, MAD, STA, TUL
 Quads: 309A*, 332B, 333A, 333B, 333D, 355B, 356A, 356D,
 377B, 378D*, 398C, 399D, 424D
 Habitat: VFGs, VnPls
 Life Form: Annual/Perennial herb
 Blooming: April-May
 Notes: Known from approximately twenty occurrences. Threatened
 by development, grazing, and agriculture. Apparently intergrades
 with *E. castrense*, and possibly *E. vaseyi*.

Erysimum ammophilum Heller

"coast wallflower" Brassicaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: MNT, SCR, SMT, SRO
 Quads: 366A, 366D, 387A, 387D, 409D
 Habitat: CoDns
 Life Form: Perennial herb
 Blooming: February-June
 Notes: Need quads for SRO Isl. Occurrences from SDG Co. pre-
 viously included in this species are *E. capitatum* ssp. *capitatum*.
 Threatened by coastal development.

Erysimum capitatum (Douglas) Greene
ssp. *angustatum* (Greene) R. Price

"Contra Costa wallflower" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/FE
 Distribution: CCA
 Quads: 481D
 Habitat: InDns
 Life Form: Perennial herb
 Blooming: March-July
 Notes: Known from only two occurrences at the Antioch Dunes. Se-
 riously threatened by mining, agricultural conversion, non-native
 plants, and industrial development. Recovery work in progress.
 State and federally listed as *E. capitatum* var. *angustatum*. See
Pittonia 3:132 (1896) for original description, and *Biological Con-*
servation 65:257-278 (1993) for population biology.
 Status Report: 1988

Erysimum capitatum var. *angustatum*
See *Erysimum capitatum* ssp. *angustatum**Erysimum capitatum* (Douglas) Greene
ssp. *lompocense* (Roszbach) R. Price

"San Luis Obispo wallflower" Brassicaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: SBA, SLO
 Habitat: Chprl, CoScr / sandy
 Life Form: Perennial herb
 Blooming: February-May
 Notes: Intergrades locally with ssp. *capitatum* and *E. insulare* ssp.
suffrutescens.

Erysimum franciscanum G. Rossb.

"San Francisco wallflower" Brassicaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: /C2
 Distribution: MRN, SCL, SCR, SFO, SMT, SON
 Habitat: CoDns, CoScr, VFGs (often serpentinite or granitic)
 Life Form: Perennial herb
 Blooming: March-June
 Notes: Rare and declining in SCR Co. Includes *E. franciscanum* var.
crassifolium. Inland plants approach *E. capitatum*. See *Aliso*
 4(1):118-121 (1958) for original description.
 Status Report: 1977

Erysimum franciscanum var. *crassifolium*
See *Erysimum franciscanum**Erysimum franciscanum* var. *franciscanum*
See *Erysimum franciscanum**Erysimum insulare*See *Erysimum insulare* ssp. *insulare**Erysimum insulare* Greene ssp. *insulare*

"island wallflower" Brassicaceae
 CNPS List: 1B R-E-D Code: 2-1-3 State/Fed. Status: /C2
 Distribution: ANA, SCZ*, SMI, SRO
 Quads: ANAC, SMIE, SMIW, SRON
 Habitat: CBScr
 Life Form: Perennial herb
 Blooming: March-May
 Notes: Last seen on SCZ Isl. in 1880's on offshore rocks; need quad.

Erysimum insulare Greene
ssp. *suffrutescens* (Abrams) R. Price

"suffrutescent wallflower" Brassicaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: LAX, SBA, SLO, VEN
 Habitat: CBScr, CoDns, CoScr
 Life Form: Perennial herb
 Blooming: January-June
 Notes: Threatened by coastal development and vehicles. Includes *E.*
suffrutescens var. *grandifolium*. Hybridizes locally with *E.*
capitatum.

*Erysimum menziesii*See *Erysimum menziesii* ssp. *eurekaense*, *menziesii*, and *yadonii**Erysimum menziesii* (Hook.) Wettst. ssp. *eurekaense* R. Price

"Humboldt Bay wallflower" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/FE
 Distribution: HUM
 Quads: 655A, 672B, 672C
 Habitat: CoDns
 Life Form: Perennial herb
 Blooming: March-June
 Notes: Known only from the Humboldt Bay area. Threatened by de-
 velopment, vehicles, and non-native plants. Formerly included in
 state-listed Endangered *E. menziesii*. Protected in part at Manila
 Dunes ACEC (BLM).

Erysimum menziesii (Hook.) Wettst. ssp. *menziesii*

"Menzies's wallflower" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/FE
 Distribution: MEN, MNT
 Quads: 366C, 569A, 585D
 Habitat: CoDns
 Life Form: Perennial herb
 Blooming: March-June
 Notes: Nearly extirpated on the Monterey Peninsula. Seriously threatened by development, vehicles, and non-native plants.
 Status Report: 1987

Erysimum menziesii (Hook.) Wettst. ssp. *yadonii* R. Price

"Yadon's wallflower" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CE/FE
 Distribution: MNT
 Quads: 366A
 Habitat: CoDns
 Life Form: Perennial herb
 Blooming: March-May
 Notes: Known only from the Monterey Bay near Marina. Threatened by development and sand mining. Formerly included in state-listed Endangered *E. menziesii*.

Erysimum suffrutescens var. *grandifolium*

See *Erysimum insulare* ssp. *suffrutescens*

Erysimum suffrutescens var. *lompopense*

See *Erysimum capitatum* ssp. *lompopense*

Erysimum suffrutescens var. *suffrutescens*

See *Erysimum insulare* ssp. *suffrutescens*

Erysimum teretifolium Eastw.

"Santa Cruz wallflower" Brassicaceae
 CNPS List: 1B R-E-D Code: 2-3-3 State/Fed. Status: CE/PE
 Distribution: SCR
 Quads: 407C, 408C, 408D
 Habitat: Chprl, LCFrs / inland marine sands
 Life Form: Perennial herb
 Blooming: March-July
 Notes: Seriously threatened by residential development and sand mining. See *Leaflets of Western Botany* 2(5):73 (1938) for original description.
 Status Report: 1986

Erythronium citrinum

See *Erythronium citrinum* var. *citrinum*

Erythronium citrinum Wats. var. *citrinum*

"lemon-colored fawn lily" Liliaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: DNT, HUM, SIS, TRI, OR
 Habitat: Chprl, LCFrs / usually serpentinite
 Life Form: Perennial herb (bulbiferous)
 Blooming: March-April
 Notes: See *E. citrinum* in *The Jepson Manual*.

Erythronium citrinum Wats. var. *roderickii* Shevock & Allen

"Scott Mtns. fawn lily" Liliaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: CEQA
 Distribution: TRI
 Quads: 683B
 Habitat: LCFrs (serpentinite)
 Life Form: Perennial herb (bulbiferous)
 Blooming: May
 Notes: Endemic to the Scott Mtns. Not in *The Jepson Manual*. See *Phytologia* 71(2):101-103 (1991) for original description.

Erythronium cliftonii

Considered but rejected: Not published

Erythronium grandiflorum ssp. *pusaterii*

See *Erythronium pusaterii*

Erythronium helenae Appleg.

"St. Helena fawn lily" Liliaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: LAK, NAP, SON
 Habitat: Chprl, CmWld, LCFrs, VFGrs / volcanic or serpentinite
 Life Form: Perennial herb (bulbiferous)
 Blooming: March-May
 Notes: Approximately fifteen NAP Co. occurrences are all near Mt. St. Helena; rare in SON Co. Threatened by horticultural collecting, road construction, and geothermal development. See *Contributions from the Dudley Herbarium* 1:188 (1933) for original description.

Erythronium hendersonii Wats.

"Henderson's fawn lily" Liliaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: DNT, SIS, OR
 Quads: 718C, 734A, 736C, 736D, 740D
 Habitat: LCFrs
 Life Form: Perennial herb (bulbiferous)
 Blooming: April-July
 Notes: Forms hybrid swarms with *E. citrinum* in OR.

Erythronium howellii Wats.

"Howell's fawn lily" Liliaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: /C3c
 Distribution: DNT, OR
 Habitat: LCFrs
 Life Form: Perennial herb (bulbiferous)
 Blooming: April-May
 Notes: Endangered in OR. See *E. citrinum* in *The Jepson Manual*.

Erythronium klamathense Appleg.

"Klamath fawn lily" Liliaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: SHA, SIS, OR
 Habitat: Medws, UCFrs
 Life Form: Perennial herb (bulbiferous)
 Blooming: April-July

Erythronium pluriflorum Shevock, Bartel & G. Allen

"Shuteye Peak fawn lily" Liliaceae
 CNPS List: 1B R-E-D Code: 2-1-3 State/Fed. Status: CEQA
 Distribution: MAD
 Quads: 417B, 417C, 417D
 Habitat: Medws, SCFrS, UCFrS / granitic
 Life Form: Perennial herb (bulbiferous)
 Blooming: May-July
 Notes: Occurrences highly localized; endemic to Chiquito Ridge in the San Joaquin River watershed. See *Madroño* 37(4):261-273 (1990) for original description.

Erythronium pusaterii (Munz & J.T. Howell) Shevock, Bartel & G. Allen

"Hocket Lakes fawn lily" Liliaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C3c
 Distribution: TUL
 Quads: 308A, 308D, 331C
 Habitat: SCFrS (granitic or metamorphic)
 Life Form: Perennial herb (bulbiferous)
 Blooming: May-July
 Notes: Known from fewer than five occurrences. Most occurrences are relatively inaccessible. Protected in part at Slate Mtn. BA (USFS). See *Leaflets of Western Botany* 10(7):104-105 (1964) for original description, and *Madroño* 37(4):261-273 (1990) for revised nomenclature.
 Status Report: 1977

Erythronium tuolumnense Appleg.

"Tuolumne fawn lily" Liliaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: TUO
 Quads: 457B, 458A, 474C, 475C, 475D
 Habitat: BUFrS, Chprl, LCFrS
 Life Form: Perennial herb (bulbiferous)
 Blooming: March-May
 Notes: Threatened by logging, vehicles, horticultural collecting, and reforestation with herbicides.
 Status Report: 1980

Eschscholzia covillei

Considered but rejected: Too common; a synonym of *E. minutiflora* ssp. *covillei*

Eschscholzia hypocoides Benth.

"San Benito poppy" Papaveraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: FRE, IMP, MEN, MNT, SBT, SLO
 Habitat: Chprl, CmWld, VFGrS / serpentinite clay
 Life Form: Annual herb
 Blooming: March-June

Eschscholzia lemmonii Greene ssp. *kernensis* (Munz) C. Clark

"Tejon poppy" Papaveraceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CEQA
 Distribution: KRN
 Quads: 189B, 214D, 216C, 238C, 242D
 Habitat: VFGrS
 Life Form: Annual herb
 Blooming: March-April
 Notes: Probably threatened by grazing and non-native plants. See *Aliso* 4:90 (1958) for original description, and *Madroño* 33(3):224 (1986) for revised nomenclature.

Eschscholzia lemmonii ssp. *lemmonii*

Considered but rejected: Too common

Eschscholzia lobbii

Considered but rejected: Too common

Eschscholzia minutiflora ssp. *minutiflora*

Considered but rejected: Too common

Eschscholzia minutiflora Wats. ssp. *twisselmannii* C. Clark & Faull

"Red Rock poppy" Papaveraceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: KRN
 Quads: 234B, 235A, 235C, 236D
 Habitat: MDScr (volcanic tuff)
 Life Form: Annual herb
 Blooming: March-May
 Notes: Known only from the Rand and El Paso Mtns. of the western Mojave Desert. Threatened by vehicles. See *E. minutiflora* in *The Jepson Manual*. See *Madroño* 38(2):73-79 (1991) for original description.

Eschscholzia procera Greene

"Kernville poppy" Papaveraceae
 CNPS List: 3 R-E-D Code: ?-?-3 State/Fed. Status: /C2
 Distribution: KRN
 Quads: 212B, 260B
 Habitat: CmWld (sandy floodplain)
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Move to List 1B? Taxonomic problem. Threatened by urbanization. See *E. californica* in *The Jepson Manual*.

Eschscholzia ramosa Greene

"island poppy" Papaveraceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: /C3c
 Distribution: SBR, SCM, SCT, SCZ, SMI, SNI, SRO, GU
 Habitat: CBSCr, Chprl
 Life Form: Annual herb
 Blooming: March-April
 Notes: See *Bulletin of the California Academy of Sciences* 1:182 (1885) for original description.

Eschscholzia rhombipetala Greene

"diamond-petaled California poppy" Papaveraceae
 CNPS List: 1A Last Seen: 1950 State/Fed. Status: /C2
 Distribution: ALA*, CCA*, COL*, SLO*, STA*
 Quads: 243B*, 244C*, 424B*, 443C*, 445A*, 463C*, 464A*,
 481D*, 563D*
 Habitat: VFGrs (clay)
 Life Form: Annual herb
 Blooming: March-April
 Notes: Historical occurrence for SJQ Co. from literature lacks documentation; occurrence from La Panza, SLO Co. (244C) probably misidentified *E. lemmonii* ssp. *lemmonii*. Field surveys needed. Threatened by agriculture and grazing.

Escobaria vivipara (Nutt.) F. Buxb.var. *alversonii* (Coult.) D. Hunt

"foxtail cactus" Cactaceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: /C2
 Distribution: IMP, RIV, SBD, AZ
 Quads: 12D, 58A, 61A, 61B, 61D, 62A, 63A, 75A, 75B, 75C,
 75D, 76B, 77A, 77B, 78B, 78C, 79D, 95C, 96D, 101C, 102D,
 127B, 153B, 178B
 Habitat: MDScr, SDSscr
 Life Form: Shrub (stem succulent)
 Blooming: May-June
 Notes: Threatened by horticultural collecting. USFWS uses the name *Coryphantha vivipara* var. *alversonii*.

Escobaria vivipara (Nutt.) F. Buxb.var. *rosea* (Clokey) D. Hunt

"viviparous foxtail cactus" Cactaceae
 CNPS List: 1B R-E-D Code: 3-2-2 State/Fed. Status: /C3c
 Distribution: SBD, AZ, NV
 Quads: 200A, 200B, 225D, 226A, 249D
 Habitat: MDScr, PJWld / carbonate
 Life Form: Shrub (stem succulent)
 Blooming: May-June
 Notes: Known in CA from fewer than twenty occurrences. Threatened by horticultural collecting. See *Madroño* 7:75 (1943) for original description.

Eucnide rupestris (Baill.) Thomps. & Ernst

"rock nettle" Loasaceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: IMP, SDG, AZ, BA
 Quads: 17C, 18C
 Habitat: SDSscr
 Life Form: Annual herb
 Blooming: December-April

Eupatorium shastense

See *Ageratina shastensis*

Euphorbia arizonica

See *Chamaesyce arizonica*

Euphorbia exstipulata Engelm. var. *exstipulata*

"Clark Mtn. spurge" Euphorbiaceae
 CNPS List: 2 R-E-D Code: 3-3-1 State/Fed. Status: CEQA
 Distribution: SBD, AZ, ++
 Quads: 249D
 Habitat: MDScr (rocky)
 Life Form: Annual herb
 Blooming: September
 Notes: Known in CA only from Clark Mtn. Threatened by mining.

Euphorbia hooveri

See *Chamaesyce hooveri*

Euphorbia misera Benth.

"cliff spurge" Euphorbiaceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
 Distribution: ORA, RIV, SCM, SCT, SDG, BA, GU
 Quads: 11B, 11D, 22B, 52B, 71D, 83B, SCMC, SCMS, SCTN
 Habitat: CBSscr, CoScr / rocky
 Life Form: Shrub
 Blooming: January-August
 Notes: Threatened by development. Only RIV Co. population reduced to a few plants by habitat disturbance and frost damage.

Euphorbia ocellata var. *rattanii*

See *Chamaesyce ocellata* ssp. *rattanii*

Euphorbia parishii

Considered but rejected: A synonym of *Chamaesyce parishii*; a common taxon

Euphorbia pediculifera

Considered but rejected: A synonym of *Chamaesyce pediculifera*; a common taxon

Euphorbia platyspermum

See *Chamaesyce platysperma*

Fendlerella utahensis (Wats.) Heller

"yerba desierto" Hydrangeaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: INY, SBD, AZ, NV+
 Habitat: MDScr, PJWld / carbonate
 Life Form: Shrub (deciduous)
 Blooming: June-August

Ferocactus acanthodes var. *acanthodes*

Considered but rejected: Too common; a synonym of *F. cylindraceus* var. *cylindraceus*

Ferocactus viridescens (T. & G.) Britt. & Rose

"San Diego barrel cactus" Cactaceae
 CNPS List: 2 R-E-D Code: 1-3-1 State/Fed. Status: /C2
 Distribution: SDG, BA
 Quads: 10B, 10C, 11A, 11B, 11D, 21B, 21C, 22A, 22B, 22C,
 22D, 35C, 35D
 Habitat: Chprl, CoScr, VFGrs, VnPls
 Life Form: Shrub (stem succulent)
 Blooming: May-June
 Notes: Seriously threatened by urbanization, vehicles, and horticultural collecting.
 Status Report: 1977

Festuca arizonica

Considered but rejected: Not documented in CA

Fimbristylis spadicea

See *Fimbristylis thermalis*

Fimbristylis thermalis Wats.

"hot-springs fimbristylis" Cyperaceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: /C3b
 Distribution: INY, KRN*, MNO, SBD, NV, AZ
 Quads: 107A, 324A, 346B, 413B, 413D, 432C
 Habitat: Medws (alkaline, near hot springs)
 Life Form: Perennial herb (rhizomatous)
 Blooming: July-September
 Notes: Need historical quads for KRN Co. See *Intermountain Flora* 6:88 (1977) for revised nomenclature.

Forsellesia pungens var. *glabra*

See *Glossopetalon pungens*

Forsellesia stipulifera

Considered but rejected: A synonym of *Glossopetalon spinescens*; a common taxon

Frankenia palmeri Wats.

"Palmer's frankenia" Frankeniaceae
 CNPS List: 2 R-E-D Code: 3-3-1 State/Fed. Status: CEQA
 Distribution: SDG, BA, SO
 Quads: 11A, 11B, 11D, 22C
 Habitat: CoDns, MshSw (coastal salt), Plyas
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Seriously threatened by development.

Frasera neglecta

See *Swertia neglecta*

Frasera puberulenta

Considered but rejected: Too common; a synonym of *Swertia puberulenta*

Frasera tubulosa

Considered but rejected: Too common; a synonym of *Swertia tubulosa*

Frasera umpquaensis

See *Swertia fastigiata*

Fraxinus trifoliata

Considered but rejected: Taxonomic problem

Fremontodendron californicum ssp. *nepensis*

Considered but rejected: A synonym of *F. californicum*; a common taxon

Fremontodendron californicum ssp. *obispoense*

Considered but rejected: A synonym of *F. californicum*; a common taxon

Fremontodendron decumbens R. Lloyd

"Pine Hill flannelbush" Sterculiaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CR/C1
 Distribution: ELD, NEV
 Quads: 510B, 511A, 542A
 Habitat: Chprl, CmWld / gabbroic or serpentinite
 Life Form: Shrub (evergreen)
 Blooming: April-June
 Notes: Known from fewer than ten occurrences in the Pine Hill area (ELD Co.), and one near Grass Valley (NEV Co.) where plant occurs on serpentinite. See *F. californicum* ssp. *decumbens* in *The Jepson Manual*. See *Brittonia* 17:382 (1965) for original description, *Fremontia* 13(1):3-6 (1985) for species account, and *Systematic Botany* 16(1):3-20 (1991) for revised nomenclature and taxonomic treatment.
 Status Report: 1993

Fremontodendron mexicanum A. Davids.

"Mexican flannelbush" Sterculiaceae
 CNPS List: 1B R-E-D Code: 3-2-2 State/Fed. Status: CR/C2
 Distribution: IMP, ORA, SDG, BA
 Quads: 7A, 10A, 10B*, 10C, 10D, 11B*, 19B
 Habitat: CCFrs, Chprl, CmWld / gabbroic or serpentinite
 Life Form: Shrub (evergreen)
 Blooming: March-June
 Notes: Known from fewer than twenty occurrences. Need quads for ORA Co. See *Bulletin of the Southern California Academy of Sciences* 16:50 (1917) for original description, and *Systematic Botany* 16(1):3-20 (1991) for taxonomic treatment.
 Status Report: 1987

Fritillaria affinis var. *tristulis*

Not yet published; see *F. lanceolata* var. *tristulis*

Fritillaria agrestis Greene

"stinkbells" Liliaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: /C3c
 Distribution: ALA, CCA, FRE, KRN, MEN, MNT, MPA, PLA, SAC, SBA, SBT, SLO, SMT, STA, TUO
 Habitat: Chprl, CmWld, VFGrs / clay, sometimes serpentinite
 Life Form: Perennial herb (bulbiferous)
 Blooming: March-April
 Notes: Threatened by grazing and development.

Fritillaria biflora var. *biflora*

Considered but rejected: Too common

Fritillaria biflora Lindl. var. *ineziana* Jeps.

"Hillsborough chocolate lily" Liliaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CEQA
 Distribution: SMT
 Quads: 448C
 Habitat: CmWld, VFGrS / serpentinite
 Life Form: Perennial herb (bulbiferous)
 Blooming: March-April
 Notes: Endemic to the Hillsborough area. See *Flora of California* 1(6):306-307 (1922) by W.L. Jepson for original description.

Fritillaria brandegei Eastw.

"Greenhorn fritillary" Liliaceae
 CNPS List: 1B R-E-D Code: 1-2-3 State/Fed. Status: /C3c
 Distribution: KRN, TUL
 Quads: 212C, 261A, 261B, 261C, 261D, 285A, 285B, 285C, 285D, 307B, 308A, 308B, 308C, 308D
 Habitat: LCFrs (granitic)
 Life Form: Perennial herb (bulbiferous)
 Blooming: April-June
 Notes: Threatened by logging and grazing by cattle and deer. See *Bulletin of the Torrey Botanical Club* 30:484 (1903) for original description.

Fritillaria eastwoodiae MacFarlane

"Butte County fritillary" Liliaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: BUT, SHA, TEH, YUB
 Quads: 558D, 559A, 574C, 575A, 575B, 575D, 576A, 576B, 577A, 591B, 591C, 591D, 592A, 592B, 592C, 592D, 626B, 627A, 627B, 645A, 645B, 645C, 645D
 Habitat: Chprl, CmWld, LCFrs (openings) / sometimes serpentinite
 Life Form: Perennial herb (bulbiferous)
 Blooming: March-May
 Notes: Taxonomic questions resolved; not a hybrid between *F. micrantha* and *F. recurva*. Threatened on private lands by logging and development. See *Leaflets of Western Botany* 1:55 (1933) for original description as *F. phaeanthera*, and *Madroño* 25(2):93-100 (1978) for revised nomenclature.
 Status Report: 1977

Fritillaria falcata (Jeps.) D. E. Beetle

"talus fritillary" Liliaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C2
 Distribution: ALA, MNT, SBT, SCL, STA
 Quads: 339B, 339C, 343C, 425B, 426A, 445D
 Habitat: Chprl, CmWld, LCFrs / often on talus, serpentinite
 Life Form: Perennial herb (bulbiferous)
 Blooming: March-May
 Notes: Threatened by vehicles. See *Flora of California* 1(6):309 (1922) by W.L. Jepson for original description, and *Madroño* 7:133-159 (1944) for revised nomenclature.
 Status Report: 1979

Fritillaria glauca

Considered but rejected: Too common

Fritillaria grayana

See *Fritillaria roderickii*

Fritillaria lanceolata Pursh. var. *tristulis* Grant

"Marin checker lily" Liliaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CEQA
 Distribution: MRN
 Quads: 467A, 467B, 484C, 485C, 485D
 Habitat: CBScr, CoPrr, CoScr
 Life Form: Perennial herb (bulbiferous)
 Blooming: February-April
 Notes: Known from fewer than ten extant occurrences. Some occurrences threatened by grazing, and all by small size. Plants seem not to set seed, but to reproduce by offsets. See *F. affinis* var. *tristulis* in *The Jepson Manual*. See *Flora of California* 1:(6)308 (1922) by W.L. Jepson for original description.

Fritillaria liliacea Lindl.

"fragrant fritillary" Liliaceae
 CNPS List: 1B R-E-D Code: 1-2-3 State/Fed. Status: /C2
 Distribution: ALA, CCA, MNT, MRN, SBT, SCL, SFO, SMT, SOL, SON
 Quads: 366C*, 386B, 406B, 407B, 427D, 429A, 429C, 447A, 448C, 448D, 464B, 465C, 466A*, 484A, 484C, 484D, 485A, 485B, 485C, 485D, 498D, 501A, 501B, 501C*, 502B
 Habitat: CoPrr, CoScr, VFGrS / often serpentinite
 Life Form: Perennial herb (bulbiferous)
 Blooming: February-April
 Notes: Threatened by grazing and loss of habitat to agriculture and urban development. Quite variable.
 Status Report: 1979

Fritillaria ojaiensis A. Davids.

"Ojai fritillary" Liliaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: SBA, SLO?, VEN
 Quads: 140A, 140B, 141A, 166D, 167C, 168C, 168D
 Habitat: BUFRs (mesic), Chprl, LCFrs / rocky
 Life Form: Perennial herb (bulbiferous)
 Blooming: March-May
 Notes: Known from approximately five occurrences. Does plant occur in SLO Co.? Closely related to *F. affinis*.

Fritillaria phaeanthera

See *Fritillaria eastwoodiae*

Fritillaria pluriflora Benth.

"adobe-lily" Liliaceae
 CNPS List: 1B R-E-D Code: 1-2-3 State/Fed. Status: /C2
 Distribution: BUT, COL, GLE, LAK, NAP, PLU, SOL, TEH, YOL
 Quads: 497C, 498A*, 498C*, 515D, 531B, 532A, 532B, 532C, 532D, 547B, 547C, 547D, 563B, 563C, 563D, 564D, 576A, 576C*, 577A*, 579A, 580A, 580D*, 591A, 593B, 593C*, 593D, 594A, 595D, 596C, 596D, 610B, 612D
 Habitat: Chprl, CmWld, VFGrS / often adobe
 Life Form: Perennial herb (bulbiferous)
 Blooming: February-April
 Notes: Threatened by grazing, vehicles, and horticultural collecting.
 Status Report: 1990

Fritillaria purdyi Eastw.

"Purdy's fritillary"

Liliaceae

CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?

Distribution: COL, GLE, HUM, LAK, MEN, NAP, TEH, TRI,
YOL

Habitat: Chprl, VFGrs / serpentinite

Life Form: Perennial herb (bulbiferous)

Blooming: March-June

Fritillaria roderickii Knight

"Roderick's fritillary"

Liliaceae

CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CE/C3b

Distribution: MEN

Quads: 537B*, 537C, 537D, 551C, 569A

Habitat: CBScr, CoPrr, VFGrs

Life Form: Perennial herb (bulbiferous)

Blooming: March-May

Notes: Known from fewer than ten occurrences. SON Co. plants are introduced. Threatened by road maintenance, residential development, and erosion. Taxonomic validity has been questioned; further study needed. A synonym of *F. biflora* var. *biflora* in *The Jepson Manual*. USFWS uses the name *F. grayana*. See *Four Seasons* 2(2):14-16 (1967) for original description.

Status Report: 1988

Fritillaria striata Eastw.

"striped adobe-lily"

Liliaceae

CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CT/C1

Distribution: KRN, TUL

Quads: 213C, 239A, 261C, 262B, 262D, 309B*, 309C, 310A*,
310D

Habitat: CmWld, VFGrs / adobe

Life Form: Perennial herb (bulbiferous)

Blooming: February-April

Notes: Known from fewer than twenty occurrences. Threatened by agriculture, urbanization, and grazing. See *Proceedings of the California Academy of Sciences* IV 20:136 (1931) for original description.

Status Report: 1985

Fritillaria viridea Kell.

"San Benito fritillary"

Liliaceae

CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: /C2

Distribution: MNT, SBT, SLO

Habitat: Chprl (serpentinite)

Life Form: Perennial herb (bulbiferous)

Blooming: March-May

Notes: Much more common than previously thought in SBT Co.; plants from MNT Co. may be another taxon. Threatened by vehicles and expansion of mining.



Galium andrewsii Grayssp. *gatense* (Dempster) Dempster & Steb.

"serpentine bedstraw" Rubiaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: ALA?, CCA, FRE, MNT, SBT, SCL, SLO
 Habitat: Chprl, CmWld, LCFrs / serpentinite
 Life Form: Perennial herb
 Blooming: April-July
 Notes: Does plant occur in ALA Co? Threatened by vehicles in the Clear Creek area near San Benito Mtn. See *Brittonia* 10:186 (1958) for original description, and *Flora of California* 4(2):35-36 (1979) by W.L. Jepson for taxonomic treatment.

Galium angustifolium Nutt. ssp. *borregoense* Dempster

"Borrego bedstraw" Rubiaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CR/C2
 Distribution: SDG
 Quads: 32B, 32D, 47C
 Habitat: SDScr (rocky)
 Life Form: Perennial herb
 Blooming: March
 Notes: Known from fewer than ten occurrences. See *Madroño* 21(2):88 (1971) for original description, and *Flora of California* 4(2):23-24 (1979) by W.L. Jepson for taxonomic treatment.
 Status Report: 1986

Galium angustifolium Nutt.ssp. *gabrielense* (Munz & Jtn.) Dempster & Steb.

"San Antonio Canyon bedstraw" Rubiaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: LAX, SBD
 Habitat: Chprl, LCFrs / granitic, sandy or rocky
 Life Form: Perennial herb
 Blooming: April-August
 Notes: See *Bulletin of the Torrey Botanical Club* 51:299 (1924) for original description, *Madroño* 21(2):90 (1971) for revised nomenclature, and *Flora of California* 4(2):23-25 (1979) by W.L. Jepson for taxonomic treatment.

Galium angustifolium Nutt.ssp. *gracillimum* Dempster & Steb.

"slender bedstraw" Rubiaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: RIV, SBD
 Habitat: JTWld, SDScr / rocky
 Life Form: Perennial herb
 Blooming: April-June
 Notes: See *Madroño* 21(2):90 (1971) for original description, and *Flora of California* 4(2):23-26 (1979) by W.L. Jepson for taxonomic treatment.

Galium angustifolium Nutt.ssp. *jacinticum* Dempster & Steb.

"San Jacinto Mtns. bedstraw" Rubiaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: CEQA?
 Distribution: RIV
 Quads: 84D
 Habitat: LCFrs
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Known only from the Lake Fulmor and Black Mtn. area of the San Jacinto Mtns. See *Madroño* 21(2):92 (1971) for original description, and *Flora of California* 4(2):23-26 (1979) by W.L. Jepson for taxonomic treatment.

Galium angustifolium Nutt.ssp. *onycense* (Dempster) Dempster & Steb.

"Onyx Peak bedstraw" Rubiaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: KRN
 Habitat: CmWld (granitic, rocky)
 Life Form: Perennial herb
 Blooming: April-July
 Notes: Known only from the Onyx Pk. area. See *Madroño* 21(2):94 (1971) for original description, and *Flora of California* 4(2):26 (1979) by W.L. Jepson for taxonomic treatment.

Galium buxifolium Greene

"box bedstraw" Rubiaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CR/C1
 Distribution: SCZ, SMI, SRO
 Quads: SCZB, SCZC, SMIE, SROE
 Habitat: CBScr, CCFrs, CoScr / rocky
 Life Form: Shrub (deciduous)
 Blooming: March-July
 Notes: Known from approximately twenty occurrences. Threatened by feral herbivores. See *Bulletin of the California Academy of Sciences* 2:150 (1886) for original description, and *Flora of California* 4(2):20-21 (1979) by W.L. Jepson for taxonomic treatment.
 Status Report: 1979

Galium californicum H. & A. ssp. *luciiense* Dempster & Steb.

"Cone Peak bedstraw" Rubiaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: MNT
 Quads: 296B, 296D, 319C, 320B, 320D, 343C
 Habitat: BUFrs, CmWld, LCFrs
 Life Form: Perennial herb
 Blooming: March-July
 Notes: Known from fewer than ten occurrences. See *Madroño* 18(4):107 (1965) for original description, and *Flora of California* 4(2):39-40 (1979) by W.L. Jepson for taxonomic treatment.
 Status Report: 1977

Galium californicum H. & A.ssp. *miguelense* (Greene) Dempster & Steb.

"San Miguel Island bedstraw" Rubiaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: /C3c
 Distribution: SMI, SRO
 Habitat: CmWld
 Life Form: Perennial herb
 Blooming: March-July
 Notes: Threatened by feral herbivores and cattle grazing on SRO Isl. See *Pittonia* 1:34 (1887) for original description, and *University of California Publications in Botany* 46:32 (1968) and *Flora of California* 4(2):39-42 (1979) by W.L. Jepson for taxonomic treatments.

Galium californicum H. & A. ssp. *primum* Dempster & Steb.

"California bedstraw" Rubiaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: RIV, SBD
 Quads: 67A, 107D
 Habitat: Chprl, LCFrs / granitic, sandy
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Known from only three occurrences. See *University of California Publications in Botany* 46:30 (1968) for original description, and *Flora of California* 4(2):39-41 (1979) by W.L. Jepson for taxonomic treatment.
 Status Report: 1977

Galium californicum H. & A. ssp. *sierrae* Dempster & Steb.

"El Dorado bedstraw" Rubiaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CR/C2
 Distribution: ELD
 Quads: 510B, 511A, 527D
 Habitat: Chprl, CmWld, LCFrs / gabbroic
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Known from fewer than ten occurrences. Threatened by development, vehicles, and recreational activities. See *University of California Publications in Botany* 46:30 (1968) for original description, and *Flora of California* 4(2):39-40 (1979) by W.L. Jepson for taxonomic treatment.
 Status Report: 1990

Galium catalinense Gray ssp. *acrispum* Dempster & Steb.

"San Clemente Island bedstraw" Rubiaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CE/C2
 Distribution: SCM
 Quads: SCMC, SCMN, SCMS
 Habitat: VFGr
 Life Form: Shrub (deciduous)
 Blooming: March-May
 Notes: Possibly threatened by Navy activities. Feral herbivores removed from SCM Isl., and vegetation recovering. See *University of California Publications in Botany* 64:11 (1973) for original description, and *Flora of California* 4(2):20 (1979) by W.L. Jepson for taxonomic treatment.
 Status Report: 1978

Galium catalinense Gray ssp. *catalinense*

"Santa Catalina Island bedstraw" Rubiaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: SCT
 Habitat: Chprl, CoScr
 Life Form: Shrub (deciduous)
 Blooming: February-July
 Notes: Threatened by feral herbivores. See *University of California Publications in Botany* 64:11 (1973) and *Flora of California* 4(2):20 (1979) by W.L. Jepson for taxonomic treatments.

Galium clementis Eastw.

"Santa Lucia bedstraw" Rubiaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: MNT
 Habitat: LCFrs, UCFrs / granitic or serpentinite, sandy
 Life Form: Perennial herb
 Blooming: May-July
 Notes: See *Leaflets of Western Botany* 1:56 (1933) for original description, and *Flora of California* 4(2):38 (1979) by W.L. Jepson for taxonomic treatment.

Galium cliftonsmithii (Dempster) Dempster & Steb.

"Santa Barbara bedstraw" Rubiaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: LAX, MNT, SBA, SLO, VEN
 Habitat: CmWld
 Life Form: Perennial herb
 Blooming: May-July
 Notes: See *Brittonia* 10:183 (1958) for original description, and *Flora of California* 4(2):44 (1979) by W.L. Jepson for taxonomic treatment.

Galium glabrescens (Ehrend.) Dempster & Ehrend.ssp. *modocense* Dempster & Ehrend.

"Modoc bedstraw" Rubiaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C3c
 Distribution: MOD
 Quads: 673B, 690B, 690C, 707C, 724A
 Habitat: GBSr (gravelly or rocky)
 Life Form: Perennial herb
 Blooming: July
 Notes: See *Brittonia* 17:333 (1965) for original description, and *Flora of California* 4(2):34-35 (1979) by W.L. Jepson for taxonomic treatment.
 Status Report: 1977

Galium grande McClat.

"San Gabriel bedstraw" Rubiaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: LAX
 Quads: 109B, 110A, 163D
 Habitat: BUFRs, Chprl, CmWld, LCFrs
 Life Form: Shrub (deciduous)
 Blooming: January-July
 Notes: Known from fewer than ten occurrences. See *Erythea* 2:124 (1894) for original description, and *Flora of California* 4(2):47 (1979) by W.L. Jepson for taxonomic treatment.
 Status Report: 1977

Galium hardhamiae Dempster

"Hardham's bedstraw" Rubiaceae
 CNPS List: 1B R-E-D Code: 2-1-3 State/Fed. Status: /C3c
 Distribution: MNT, SLO
 Quads: 270C, 271A, 271B, 295C, 296B, 296D
 Habitat: CCFrs (serpentinite)
 Life Form: Perennial herb
 Blooming: April-October
 Notes: Known from fewer than twenty occurrences. See *Madroño* 16(5):166 (1962) for original description, and *Flora of California* 4(2):35 (1979) by W.L. Jepson for taxonomic treatment.
 Status Report: 1977

Galium hilendiae Dempster & Ehrend.ssp. *carneum* (Hilend. & Howell) Dempster & Ehrend.

"Panamint Mtns. bedstraw" Rubiaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: INY
 Habitat: MDScr, PJWld / gravelly or rocky
 Life Form: Perennial herb
 Blooming: May-August
 Notes: See *Leaflets of Western Botany* 1:136 (1934) for original description, *Brittonia* 17:311 (1963) for revised nomenclature, and *Flora of California* 4(2):29 (1979) by W.L. Jepson for taxonomic treatment.

Galium hilendiae Dempster & Ehrend.ssp. *kingstonense* (Dempster) Dempster & Ehrend.

"Kingston Mtns. bedstraw" Rubiaceae
 CNPS List: 1B R-E-D Code: 3-1-2 State/Fed. Status: /C2
 Distribution: SBD, NV
 Quads: 250B, 274C
 Habitat: PJWld (rocky)
 Life Form: Perennial herb
 Blooming: June
 Notes: Known in CA from fewer than five occurrences in the Kingston Mtns. Threatened in NV. See *Brittonia* 10:190 (1958) for original description, and *Flora of California* 4(2):29 (1979) by W.L. Jepson for taxonomic treatment.
 Status Report: 1977

Galium hypotrichium Gray ssp. *tomentellum* Ehrend.

"Telescope Peak bedstraw" Rubiaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C3c
 Distribution: INY
 Quads: 302A
 Habitat: SCFrS (talus)
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Known from only one extant occurrence on Telescope Pk. in the Panamint Mtns. See *Contributions from the Dudley Herbarium* 5:12 (1956) for original description, and *Flora of California* 4(2):31-32 (1979) by W.L. Jepson for taxonomic treatment.

Galium jepsonii Hilend. & Howell

"Jepson's bedstraw" Rubiaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: LAX, SBD
 Habitat: UCFrs (granitic, sandy or gravelly)
 Life Form: Perennial herb (rhizomatous)
 Blooming: July-August
 Notes: See *Leaflets of Western Botany* 1:135 (1934) for original description, and *Flora of California* 4(2):22 (1979) by W.L. Jepson for taxonomic treatment.

Galium johnstonii Dempster & Steb.

"Johnston's bedstraw" Rubiaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: LAX, SBD, SDG
 Habitat: LCFrs
 Life Form: Perennial herb
 Blooming: June-July
 Notes: See *Madroño* 21(2):84 (1971) for original description, and *Flora of California* 4(2):22-23 (1979) by W.L. Jepson for taxonomic treatments.

Galium munzii Hilend. & Howell

"Munz's bedstraw" Rubiaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: SBD, AZ, NV+
 Habitat: GBScr, PJWld, UCFrs
 Life Form: Perennial herb
 Blooming: May-July
 Notes: See *Leaflets of Western Botany* 1:135 (1934) for original description, and *Flora of California* 4(2):30-31 (1979) by W.L. Jepson for taxonomic treatment.

Galium munzii ssp. *munzii*

See *Galium munzii*

Galium nuttallii Gray ssp. *insulare* Ferris

"Nuttall's island bedstraw" Rubiaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: SCT, SCZ, SRO
 Habitat: Chprl, CmWld, LCFrs
 Life Form: Perennial herb
 Blooming: March-June
 Notes: See *Contributions from the Dudley Herbarium* 4:338 (1955) for original description, and *Flora of California* 4(2):43-44 (1979) by W.L. Jepson for taxonomic treatment.

Galium oreganum Britt.

"Oregon bedstraw" Rubiaceae
 CNPS List: 3 R-E-D Code: 3-?-1 State/Fed. Status: CEQA?
 Distribution: DNT?, SIS?, OR, WA+
 Quads: 738A?
 Habitat: LCFrs, NCFrs
 Life Form: Perennial herb (rhizomatous)
 Blooming: May-September
 Notes: Move to List 2? Location, rarity, and endangerment information needed. Apparently known in CA from only a single 1951 collection from SIS Co., near the DNT Co. line. Common in OR. See *Bulletin of the Torrey Botanical Club* 21:31 (1894) for original description, and *Flora of California* 4(2):16-17 (1979) by W.L. Jepson for taxonomic treatment.

Galium serpenticum Dempster
ssp. *scotticum* Dempster & Ehrend.

"Scott Mtn. bedstraw" Rubiaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C3c
 Distribution: SIS, TRI
 Quads: 683B, 684A, 684B, 700A, 700B, 700C, 701B, 701D, 717B
 Habitat: LCFrs (serpentine)
 Life Form: Perennial herb
 Blooming: June-July
 Notes: Threatened by logging. See *Brittonia* 17:326 (1965) for original description, and *Flora of California* 4(2):33-34 (1979) by W.L. Jepson for taxonomic treatment.
 Status Report: 1977

Galium serpenticum Dempster
ssp. *warnerense* Dempster & Ehrend.

"Warner Mtns. bedstraw" Rubiaceae
 CNPS List: 1B R-E-D Code: 3-2-2 State/Fed. Status: /C3c
 Distribution: MOD, OR
 Quads: 724B, 725A
 Habitat: Medws, SCFrs
 Life Form: Perennial herb (rhizomatous)
 Blooming: June
 Notes: Known in CA from only three occurrences in the vicinity of Mt. Bidwell in the Warner Mtns. On review list in OR. See *Brittonia* 17:325 (1965) for original description, and *Flora of California* 4(2):33-34 (1979) by W.L. Jepson for taxonomic treatment.

Galium wrightii Gray

"Wright's bedstraw" Rubiaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: SBD, AZ, BA, NM, SO, TX+
 Quads: 249D
 Habitat: PJWld (carbonate)
 Life Form: Perennial herb
 Blooming: June-October
 Notes: Known in CA from only three occurrences near Clark Mtn. See *Flora of California* 4(2):21 (1979) by W.L. Jepson for taxonomic treatment.

Galvezia speciosa (Nutt.) Gray

"island snapdragon" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: /C2
 Distribution: SBR*, SCM, SCT, GU
 Quads: SBRA*, SCMC, SCMS, SCTE
 Habitat: CoScr
 Life Form: Shrub
 Blooming: February-May
 Notes: Feral herbivores removed from SCM Isl., and vegetation recovering. See *Madroño* 21(5):380 (1972) for distributional information.

Gaura coccinea

Considered but rejected: Too common

Gentiana affinis var. *affinis*

Considered but rejected: Not in CA; name apparently misapplied to *G. affinis* var. *ovata*, a common taxon

Gentiana affinis Griseb. var. *parvidentata* Kusnez.

"small-toothed prairie gentian" Gentianaceae
 CNPS List: 3 R-E-D Code: ?-?-1 State/Fed. Status: CEQA?
 Distribution: MOD, ID, OR+
 Quads: unknown
 Habitat: GBScr, LCFrs
 Life Form: Perennial herb
 Blooming: July-September
 Notes: Move to List 2? Location, rarity, and endangerment information needed. Searches of major herbaria in 1992 failed to identify confirmed CA localities. See *G. affinis* var. *ovata* in *The Jepson Manual*.

Gentiana aquatica

See *Gentiana fremontii*

Gentiana bisetacea

See *Gentiana setigera*

Gentiana fremontii Torr.

"moss gentian" Gentianaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: SBD, OR, ++
 Quads: 105A
 Habitat: Medws (mesic), UCFrs
 Life Form: Annual herb
 Blooming: June-August
 Notes: Not *G. aquatica*, previously misapplied to *G. fremontii*.
 Status Report: 1980

Gentiana newberryi

Considered but rejected: Too common

Gentiana plurisetosa C. Mason

"Klamath gentian" Gentianaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: /C2
 Distribution: DNT, HUM, SIS, TRI, OR
 Habitat: LCFrs, Medws, UCFrs / mesic
 Life Form: Perennial herb
 Blooming: July-September
 Notes: Equals *G. setigera* of the *Inventory* fourth edition (except the Red Mtn. occurrence in MEN Co., which is now *G. setigera* — formerly called *G. bisetata*!). Candidate for state listing in OR. See *Madroño* 37(4):289-292 (1990) for original description, and 36(1):49-50 (1989) for revised nomenclature of *G. setigera*.

Gentiana prostrata Haenke

"pygmy gentian" Gentianaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: INY, MNO, NV, OR, ++
 Habitat: AlpBR, Medws (mesic)
 Life Form: Perennial herb
 Blooming: July-August
 Notes: Endangered in OR.

Gentiana setigera Gray

"Mendocino gentian" Gentianaceae
 CNPS List: 1B R-E-D Code: 3-3-2 State/Fed. Status: /C2
 Distribution: DNT, MEN, OR
 Quads: 600B, 739B, 739C
 Habitat: LCFrs, Medws / mesic
 Life Form: Perennial herb
 Blooming: August-September
 Notes: Threatened by mining activities and wetland alteration. Called *G. bisetata* in the *Inventory* fourth edition, but this name is a later synonym of *G. setigera*; see *G. plurisetosa* for plant called *G. setigera* in the fourth edition. Candidate for state listing in OR. See *Madroño* 36(1):49-50 (1989) for revised nomenclature.

Gentiana tenella

Considered but rejected: A synonym of *Gentianella tenella* ssp. *tenella*; a common taxon

Geraea viscida (Gray) Blake

"sticky geraea" Asteraceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: SDG, BA
 Quads: 7B, 8A, 8B, 8C, 19D
 Habitat: Chprl (often in disturbed areas)
 Life Form: Perennial herb
 Blooming: May-June

Geum aleppicum Jacq.

"Aleppo avens" Rosaceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: LAS, MOD, SIS, OR, ++
 Quads: 622B, 639B, 640A, 677B, 698B, 698C, 699D
 Habitat: GBScr, LCFrs, Medws
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Circumboreal distribution; plants in CA may be Pleistocene relicts.

Gilia aliquanta ssp. *aliquanta*

Considered but rejected: Too common

Gilia aliquanta ssp. *breviloba*

Considered but rejected: Too common

Gilia australis

Considered but rejected: Too common

Gilia campanulata

Considered but rejected: Too common

Gilia caruifolia Abrams

"caraway-leaved gilia" Polemoniaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: RIV, SDG, BA
 Habitat: Chprl, LCFrs / sandy
 Life Form: Annual herb
 Blooming: May-August

Gilia inyoensis

Considered but rejected: Too common

Gilia latiflora (Gray) Gray ssp. *cuyamensis* A. & V. Grant

"Cuyama gilia" Polemoniaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: KRN, LAX, SBA, VEN
 Habitat: PJWld
 Life Form: Annual herb
 Blooming: April-May

Gilia maculata Parish

"Little San Bernardino Mtns. gilia" Polemoniaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C1
 Distribution: RIV, SBD
 Quads: 65C, 82B, 83A, 83B, 102B, 103A, 103D
 Habitat: DeDns, JTWld, MDScr, SDSScr / sandy
 Life Form: Annual herb
 Blooming: April-May
 Notes: Known from fewer than ten occurrences near Joshua Tree NM. Threatened by development, vehicles, and dumping.

Gilia nevinii Gray

"Nevin's gilia" Polemoniaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: ANA, SBR, SCM, SCT, SCZ, SNI*, SRO, GU
 Habitat: CBSScr, VFGrs
 Life Form: Annual herb
 Blooming: March-May
 Notes: Last seen on SNI Isl. in 1901.

Gilia ripleyi Barneby

"Ripley's gilia" Polemoniaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: /C3c
 Distribution: INY, NV
 Quads: 302D, 325B, 349C, 368D, 372C, 390B, 411D
 Habitat: MDScr (carbonate)
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Easily confused with *G. latifolia*. See *Leaflets of Western Botany* 3:129 (1942) for original description.

Gilia tenuiflora Benth. ssp. *arenaria* (Benth.) A. & V. Grant

"sand gilia" Polemoniaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CT/FE
 Distribution: MNT
 Quads: 366A, 366C, 366D, 387D
 Habitat: CoDns, CoScr
 Life Form: Annual herb
 Blooming: April-May
 Notes: Seriously threatened by coastal development, foot traffic, and non-native plants. Intergrades with ssp. *tenuiflora* near the Salinas River mouth.
 Status Report: 1985

Gilia tenuiflora Benth. ssp. *hoffmannii* (Eastw.) A. & V. Grant

"Hoffmann's slender-flowered gilia" Polemoniaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C1
 Distribution: SRO
 Quads: SROE, SRON
 Habitat: CoDns, CoScr
 Life Form: Annual herb
 Blooming: April
 Notes: Known from only two occurrences at East Pt. and near Car-rington Pt.

Gilmania luteola (Cov.) Cov.

"golden carpet" Polygonaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C3c
 Distribution: INY
 Quads: 324A, 324D, 346C
 Habitat: ChScr (alkaline barrens)
 Life Form: Annual herb
 Blooming: March-April
 Notes: Known from approximately five occurrences in Death Valley NM. See *Contributions from the U.S. National Herbarium* 4:190 (1893) for original description, *Fremontia* 11(4):25-26 (1984) for species account, and *Phytologia* 66(3):243-244 (1989) for taxonomic treatment.

Githopsis diffusa Gray ssp. *filicaulis* (Ewan) Morin

"Mission Canyon bluecup" Campanulaceae
 CNPS List: 1B R-E-D Code: 3-3-2 State/Fed. Status: /C2
 Distribution: RIV, SDG, BA
 Quads: 20B*, 21D*, 21A, 22D, 67C
 Habitat: Chprl (mesic, disturbed areas)
 Life Form: Annual herb
 Blooming: May
 Notes: Known in CA from fewer than five occurrences. Reduced by development, which remains a threat. See *Rhodora* 41:312 (1939) for original description, and *Systematic Botany* 8(4):436-468 (1983) for taxonomic treatment.
 Status Report: 1977

Githopsis filicaulis

See *Githopsis diffusa* ssp. *filicaulis*

Githopsis latifolia

Considered but rejected: Not native and not naturalized in CA; a synonym of *Legousia speculum-veneris*

Githopsis pulchella

Considered but rejected: Too common

Glossopetalon pungens Bdg.

"pungent glossopetalon" Crossosomataceae
 CNPS List: 1B R-E-D Code: 3-2-2 State/Fed. Status: /C2
 Distribution: SBD, NV
 Quads: 249D
 Habitat: Chprl, PJWld / carbonate
 Life Form: Shrub (deciduous)
 Blooming: May-June
 Notes: Known in CA from only one occurrence in Forsellesia Cyn. in the Clark Mtns. On watch list in NV. See *Aliso* 9:171-178 (1978) for discussion of transfer to Crossosomataceae. USFWS uses the name *G. pungens* var. *glabra*. See *American Midland Naturalist* 27(2):503-504 (1942) for original description.
 Status Report: 1977

Glyceria grandis Wats.

"American manna grass" Poaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: HUM, MEN, MNO, PLA, ++
 Quads: 470B, 487C, 505D, 537B, 538B
 Habitat: BgFns, Medws, MshSw (streambanks and lake margins)
 Life Form: Perennial herb (rhizomatous)
 Blooming: June-August

Glyceria grandis var. *grandis*

See *Glyceria grandis*

Goodmania luteola (Parry) Reveal & Ertter

"golden goodmania" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-2-2 State/Fed. Status: CEQA?
 Distribution: FRE, INY, KRN, LAX, MAD, MNO, TUL, NV
 Habitat: MDScr, Medws, Plyas, VFGrs / alkaline or clay
 Life Form: Annual herb
 Blooming: April-August
 Notes: May be threatened by groundwater lowering and trampling by cattle. See *Bulletin of the Torrey Botanical Club* 10:23 (1883) for original description, *Brittonia* 28:427-429 (1976) for revised nomenclature, and *Phytologia* 66(4):389 (1989) for taxonomic treatment.

Gratiola heterosepala Mason & Bacig.

"Boggs Lake hedge-hyssop" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 1-2-2 State/Fed. Status: CE/C3c
 Distribution: FRE, LAK, LAS, MAD, MOD, PLA, SAC, SHA, SJQ, SOL, TEH, OR
 Quads: 398A, 398D, 495B, 495D, 496A, 498D, 511C, 512B*, 527C, 528A, 528D, 533D, 534A, 594B, 628A, 628B, 628D, 643B, 661A, 661C, 678B, 678D, 690C
 Habitat: MshSw (lake margins), VnPls
 Life Form: Annual herb
 Blooming: April-June
 Notes: Threatened by agriculture, development, grazing, and vehicles. Candidate for state listing in OR. Lassen NF has adopted species management guidelines. See *Madroño* 12:150-152 (1954) for original description.
 Status Report: 1987

Grindelia camporum var. *parviflora*

Considered but rejected: A synonym of *G. camporum* var. *camporum*; a common taxon

Grindelia fraxino-pratensis Reveal & Beatley

"Ash Meadows gumplant" Asteraceae
 CNPS List: 1B R-E-D Code: 3-2-2 State/Fed. Status: /FT
 Distribution: INY, NV
 Quads: 322C, 322D
 Habitat: Medws (mesic clay)
 Life Form: Perennial herb
 Blooming: June-October
 Notes: Known in CA from only two extant occurrences in Carson Slough in the Amargosa Desert. Threatened by water diversion, habitat alteration, and non-native plants. State-listed as Critically Endangered in NV. See *Bulletin of the Torrey Botanical Club* 98:332 (1971) for original description.

Grindelia hallii

See *Grindelia hirsutula* var. *hallii*

Grindelia hirsutula H. & A. var. *hallii* (Steyerm.) M.A. Lane

"San Diego gumplant" Asteraceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C3c
 Distribution: SDG
 Quads: 9B?, 10D?, 19B, 19C, 20A, 22B, 33B, 33C, 33D
 Habitat: Chprl, LCFrs, Medws, VFGrs
 Life Form: Perennial herb
 Blooming: July-October
 Notes: Threatened by grazing and road maintenance. See *Annals of the Missouri Botanical Garden* 21:229 (1934) for original description, and *Novon* 2(3):215-217 (1992) for revised nomenclature.

Grindelia hirsutula H. & A. var. *maritima* (Greene) M.A. Lane

"San Francisco gumplant" Asteraceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: MNT, MRN, SCR, SFO, SLO, SMT
 Quads: 271D, 272A, 344B, 366C, 366D, 387B, 387D, 387E, 408C, 409B, 409D, 429C, 448B, 448C, 466C, 467A, 467B, 467D, 467E, 485B, 485C, 485D
 Habitat: CBScr, CoScr, VFGrs / sandy, serpentinite
 Life Form: Perennial herb
 Blooming: August-September
 Notes: Most collections are old; need current information on distribution and rarity. Threatened by coastal development and non-native plants. See *Pittonia* 2:289 (1892) for original description, and *Novon* 2(3):215-217 (1992) for revised nomenclature.

Grindelia humilis

See *Grindelia stricta* var. *angustifolia*

Grindelia latifolia ssp. *latifolia*

Considered but rejected: A hybrid and synonym of *G. stricta* var. *platyphylla* and *G. camporum* var. *camporum*; common taxa

Grindelia maritima

See *Grindelia hirsutula* var. *maritima*

Grindelia paludosa

Considered but rejected: A hybrid

Grindelia stricta DC. var. *angustifolia* (Gray) M.A. Lane

"marsh gumplant" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: ALA, CCA, MNT, MRN, NAP, SCL, SFO, SMT, SOL, SON
 Habitat: MshSw (coastal salt)
 Life Form: Perennial herb
 Blooming: August-October
 Notes: Rare in MNT Co. Hybridizes with *G. camporum* var. *camporum*. See *Novon* 2(3):215-217 (1992) for revised nomenclature.

Grindelia stricta ssp. *blakei*

Considered but rejected: A synonym of *G. stricta* var. *stricta*; a common taxon

Gutierrezia californica

Considered but rejected: Too common

Habenaria elegans* var. *maritima

Considered but rejected: A synonym of *Piperia elegans*, a common taxon

***Hackelia amethystina* J.T. Howell**

"amethyst stickseed" Boraginaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: GLE, LAK, MEN, PLU, TEH, TRI
 Habitat: LCFrs (openings, disturbed areas), Medws
 Life Form: Perennial herb
 Blooming: June-July
 Notes: See *Leaflets of Western Botany* 3:125 (1942) for original description, and *Memoirs of the New York Botanical Garden* 26(1):213-214 (1976) for taxonomic treatment.

Hackelia bella

Considered but rejected: Too common

***Hackelia brevicula* (Jeps.) Gentry**

"Poison Canyon stickseed" Boraginaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: 1C2
 Distribution: INY, MNO
 Quads: 412A, 412B, 431C, 431D
 Habitat: SCFrs
 Life Form: Perennial herb
 Blooming: July
 Notes: Known from six occurrences in the White Mtns. See *Southwestern Naturalist* 19(2):139-146 (1974) for revised nomenclature, and *Memoirs of the New York Botanical Garden* 26(1):205-206 (1976) for taxonomic treatment.

***Hackelia cusickii* (Piper) Brand**

"Cusick's stickseed" Boraginaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: LAS, MOD, SIS, NV, OR
 Habitat: AlpBR, PJWld (rocky loam), SCFrs
 Life Form: Perennial herb
 Blooming: April-July
 Notes: See *Memoirs of the New York Botanical Garden* 26(1):203-204 (1976) for taxonomic treatment.

Hackelia longituba

Considered but rejected: A synonym of *H. velutina*; a common taxon

Hackelia mundula

Considered but rejected: Too common

***Hackelia sharsmithii* Jtn.**

"Sharsmith's stickseed" Boraginaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: 1C3c
 Distribution: FRE, INY, TUL, NV
 Quads: 329A, 329B, 329D, 330A, 352A, 352D, 373B, 373C, 373D
 Habitat: AlpBR, SCFrs / granitic
 Life Form: Perennial herb
 Blooming: July-September
 Notes: See *Journal of the Arnold Arboretum* 20:398 (1939) for original description, and *Memoirs of the New York Botanical Garden* 26(1):149-150 (1976) for taxonomic treatment.

Hackelia velutina

Considered but rejected: Too common

***Halimolobos virgata* (Nutt.) Schulz**

"virgate halimolobos" Brassicaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: 1C3c
 Distribution: INY, MNO, NV, ++
 Quads: 412A, 412B, 412C
 Habitat: Medws, PJWld
 Life Form: Perennial herb
 Blooming: June-July
 Notes: See *Contributions from the Gray Herbarium* 3(8):241-288 (1943) for taxonomic treatment and discussion of the genus.

Halodule wrightii

Considered but rejected: Not native

Haplopappus brickellioides

Considered but rejected: A synonym of *Hazardia brickellioides*; a common taxon

Haplopappus canus

See *Hazardia cana*

Haplopappus detonsus

See *Hazardia detonsa*

Haplopappus eastwoodiae

See *Ericameria fasciculata*

Haplopappus eximius

See *Tonestus eximius*

Haplopappus gilmanii

See *Ericameria gilmanii*

Haplopappus junceus

See *Machaeranthera juncea*

Haplopappus lucidus

See *Pyrrocoma lucida*

Haplopappus lyallii

See *Tonestus lyallii*

Haplopappus ophitidis

See *Ericameria ophitidis*

Haplopappus parishii

Considered but rejected: A synonym of *Ericameria parishii* var. *parishii*; a common taxon

Haplopappus peirsonii

Considered but rejected: Too common; a synonym of *Tonestus peirsonii*

Haplopappus propinquus

Considered but rejected: A synonym of *Ericameria brachylepis*; a common taxon

Haplopappus racemosus* ssp. *congestus

See *Pyrrocoma racemosa* var. *congesta*

Haplopappus uniflorus ssp. *gossypinus*See *Pyrocoma uniflora* var. *gossypina**Harponella palmeri* Gray

"Palmer's grapplinghook"

Boraginaceae

CNPS List: 2 R-E-D Code: 1-2-1 State/Fed. Status: /C2

Distribution: LAX*, ORA, RIV, SCT, SDG, AZ, BA, SO

Quads: 9B, 10C, 20C, 22B, 22C, 22D, 35B, 35C, 36A, 36D, 50A, 51B, 51C, 52A, 52B, 67C, 68B, 68C, 68D, 69A, 69B, 70D, 86C, 86D, 110B*, 138A*

Habitat: Chprl, CoScr, VFGrs / clay

Life Form: Annual herb

Blooming: March-April

Notes: Need quads for SCT Isl. Very inconspicuous and easily overlooked. Threatened by development.

Harponella palmeri var. *palmeri*See *Harponella palmeri**Hastingsia bracteosa*

Considered but rejected: Not in CA

Hazardia brickellioides

Considered but rejected: Too common

Hazardia cana (Gray) Greene

"San Clemente Island hazardia"

Asteraceae

CNPS List: 1B R-E-D Code: 3-2-2 State/Fed. Status: /C2

Distribution: SCM, GU

Quads: SCMC, SCMS

Habitat: CBScr, CoScr, RpFr

Life Form: Shrub (evergreen)

Blooming: June-September

Notes: Known in CA from fewer than twenty occurrences. Feral herbivores removed from SCM Isl., and vegetation recovering. See *Proceedings of the American Academy of Arts and Sciences* 11:75 (1876) for original description, *Aliso* 5(3):343 (1963) for species account, and *Madroño* 26(3):105-127 (1979) for taxonomic treatment.

Status Report: 1979

Hazardia detonsa (Greene) Greene

"island hazardia"

Asteraceae

CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?

Distribution: ANA, SCZ, SRO

Habitat: CoScr (rocky)

Life Form: Shrub (evergreen)

Blooming: July-November

Notes: See *Madroño* 26(3):105-127 (1979) for revised nomenclature.*Hazardia orcuttii* (Gray) Greene

"Orcutt's hazardia"

Asteraceae

CNPS List: 1B R-E-D Code: 3-3-2 State/Fed. Status: /C2

Distribution: SDG, BA

Quads: 35C, 36D

Habitat: Chprl, CoScr

Life Form: Shrub (evergreen)

Blooming: August-October

Notes: Known in CA from only one occurrence in Lux Cyn. Threatened by urbanization. See *Madroño* 26(3):105-127 (1979) for revised nomenclature and 28(1):38 (1981) for first CA record.*Hecastocleis shockleyi*

Considered but rejected: Too common

*Heleocharis parvula*See *Eleocharis parvula**Helianthella castanea* Greene

"Diablo helianthella"

Asteraceae

CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2

Distribution: ALA, CCA, MRN*, SFO*, SMT

Quads: 446B, 447A, 448B, 463C, 464A, 464B, 464C, 464D, 465A, 465B, 465C*, 465D, 467A*, 482C

Habitat: BUFRs, Chprl, CmWld, CoScr, RpWld, VFGrs

Life Form: Perennial herb

Blooming: April-June

Notes: Threatened by urbanization, grazing, and fire suppression.

Heliantemum greenei Rob.

"island rush-rose"

Cistaceae

CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2

Distribution: SCT, SCZ, SMI*, SRO

Quads: SCTN, SCZB, SCZC, SMIW*

Habitat: Chprl (rocky)

Life Form: Shrub (evergreen)

Blooming: March-May

Notes: Known from fewer than twenty occurrences. Need quads for SRO Isl. Last collected on SMI Isl. in 1939. Threatened by feral herbivores on SCZ and SRO islands; recovering on SCT Isl.

Heliantemum suffrutescens Schreb.

"Bisbee Peak rush-rose"

Cistaceae

CNPS List: 3 R-E-D Code: 2-2-3 State/Fed. Status: /C3c

Distribution: AMA, CAL, ELD, SAC, TUO

Quads: 458B, 476B, 493C, 494B, 494C, 495A, 510B, 527D

Habitat: Chprl (often serpentinite, gabbroic, or lone soil)

Life Form: Shrub (evergreen)

Blooming: April-May

Notes: Move to List 1B? Threatened by mining in the lone area, development, and vehicles. Herbarium material indicates taxon is conspecific with *H. scoparium*, but field studies reveal differences; definitive taxonomic study needed. A synonym of *H. scoparium* in *The Jepson Manual*.

Helianthus exilis Gray

"serpentine sunflower" Asteraceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: /C3c
 Distribution: COL, GLE, LAK, NAP, SHA, SIS, SON, TEH, TRI
 Habitat: Chprl, CmWld / serpentinite seeps
 Life Form: Annual herb
 Blooming: July-November
 Notes: Difficult to distinguish from *H. bolanderi*; see that plant in *The Jepson Manual*.
 Status Report: 1977

Helianthus niveus (Benth.) Bdg. ssp. *tephrodes* (Gray) Heiser

"Algodones Dunes sunflower" Asteraceae
 CNPS List: 1B R-E-D Code: 3-2-2 State/Fed. Status: CE/C2
 Distribution: IMP, AZ, SO
 Quads: 2A, 2B, 13B, 13C, 14A, 14B, 14D, 27C, 28D
 Habitat: DeDns
 Life Form: Perennial herb
 Blooming: September-May
 Notes: Threatened by vehicles. See *Report on the U.S. and Mexican Boundary Survey*, p. 90 (1859) by W. Emory for original description, and *Memoirs of the Torrey Botanical Club* 22(3):39-43 (1969) for revised nomenclature.
 Status Report: 1987

Helianthus nuttallii T. & G. ssp. *parishii* (Gray) Heiser

"Los Angeles sunflower" Asteraceae
 CNPS List: 1A Last Seen: 1937 State/Fed. Status: /C2*
 Distribution: LAX*, ORA*, SBD*
 Quads: 71B*, 105B*, 105C*, 107D*, 110B*, 110C*, 111D*, 163C*
 Habitat: MshSw (coastal salt and freshwater)
 Life Form: Perennial herb (rhizomatous)
 Blooming: August-October
 Notes: See *Proceedings of the American Academy of Arts and Sciences* 14:7 (1883) for original description, and *Memoirs of the Torrey Botanical Club* 22(3):147-152 (1969) for taxonomic treatment.
 Status Report: 1977

Hemitomes congestum

Considered but rejected: Too common

Hemizonia arida Keck

"Red Rock tarplant" Asteraceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CR/C1
 Distribution: KRN
 Quads: 235B, 235C
 Habitat: MDScr (clay)
 Life Form: Annual herb
 Blooming: April-November
 Notes: Known from fewer than ten occurrences near Red Rock Cyn. in the Mojave Desert. Threatened by vehicles. See *Aliso* 4(1):101-104 (1958) for original description.
 Status Report: 1986

Hemizonia australis

See *Hemizonia parryi* ssp. *australis*

Hemizonia calyculata

See *Hemizonia congesta* ssp. *calyculata*

Hemizonia clementina Bdg.

"island tarplant" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: ANA, SBR, SCM, SCT, SNI
 Habitat: CBScr, VFGrs
 Life Form: Shrub (deciduous)
 Blooming: April-July

Hemizonia congesta

See *Hemizonia congesta* ssp. *leucocephala*

Hemizonia congesta DC. ssp. *calyculata* Babc. & Hall

"Mendocino tarplant" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: LAK, MEN
 Habitat: CmWld, VFGrs
 Life Form: Annual herb
 Blooming: July-October

Hemizonia congesta DC. ssp. *leucocephala* (Tanowitz) Keil

"Hayfield tarplant" Asteraceae
 CNPS List: 3 R-E-D Code: ??-3 State/Fed. Status: CEQA?
 Distribution: MEN, MRN, SON
 Quads: 484D, 485B, 502A, 502B, 502C, 502D, 518D, 519A, 568B
 Habitat: CoScr, VFGrs
 Life Form: Annual herb
 Blooming: April-October
 Notes: Move to List 1B? Precise location, rarity, and endangerment information needed. Intergrades with ssp. *congesta*; dried plants may be indistinguishable. Many herbarium collections are misidentified. Threatened by agriculture and urban development. See *Bulletin of the Torrey Botanical Club* 110:15 (1983) for original description, and *Phytologia* 73(3):259-260 (1992) for revised nomenclature.

Hemizonia congesta DC. ssp. *tracyi* Babc. & Hall

"Tracy's tarplant" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: HUM, MEN, TRI
 Habitat: CoPrr, NCFrs
 Life Form: Annual herb
 Blooming: May-October

Hemizonia conjugens Keck

"Otay tarplant" Asteraceae
 CNPS List: 1B R-E-D Code: 3-3-2 State/Fed. Status: CE/C2
 Distribution: SDG, BA
 Quads: 10B, 10C, 11A, 11B, 11D
 Habitat: CoScr, VFGrs / clay
 Life Form: Annual herb
 Blooming: May-June
 Notes: Threatened by residential development and illegal dumping. See *Aliso* 4(1):109 (1958) for original description, and *Madroño* 25:159 (1978) for information on distribution and taxonomy.
 Status Report: 1987

Hemizonia floribunda Gray

"Tecate tarplant" Asteraceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: /C2
 Distribution: SDG, BA
 Quads: 7B, 7C, 8A, 8D, 9B*, 9C, 9D, 19C, 19D
 Habitat: Chprl, CoScr
 Life Form: Annual herb
 Blooming: August-October
 Notes: Threatened by development. See *Proceedings of the American Academy of Arts and Sciences* 11:79 (1876) for original description.
 Status Report: 1977

Hemizonia halliana Keck

"Hall's tarplant" Asteraceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CEQA
 Distribution: MNT, SBT, SLO
 Quads: 244A, 268A, 268B, 292D, 315C, 316D, 339B, 340C, 362D
 Habitat: ChScr, CmWld, VFGrs / clay
 Life Form: Annual herb
 Blooming: April-May
 Notes: Field searches in 1990 and 1992 failed to locate the plant in SBT Co., and status in MNT Co. is uncertain. Severely threatened by non-native plants in SLO Co. Appears only in unusually wet years.

Hemizonia increscens (Keck) Tanowitz ssp. *villosa* Tanowitz

"Gaviota tarplant" Asteraceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/C1
 Distribution: SBA
 Quads: 144B
 Habitat: CBSCr, CoScr, VFGrs
 Life Form: Annual herb
 Blooming: June-September
 Notes: Known from only four extant occurrences at Gaviota. Seriously threatened by development. See *Systematic Botany* 7(3):314-339 (1982) for original description.
 Status Report: 1988

Hemizonia laevis

See *Hemizonia pungens* ssp. *laevis*

Hemizonia minthornii Jeps.

"Santa Susana tarplant" Asteraceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CR/C2
 Distribution: LAX, VEN
 Quads: 112B, 112C, 113A, 113C, 113D, 138C, 138D
 Habitat: Chprl, CoScr / rocky
 Life Form: Shrub (deciduous)
 Blooming: July-November
 Notes: Threatened by development. See *Manual of the Flowering Plants of California*, p. 1092 (1925) by W.L. Jepson for original description.
 Status Report: 1987

Hemizonia mohavensis Keck

"Mojave tarplant" Asteraceae
 CNPS List: 1A Last Seen: 1933 State/Fed. Status: CE/C2*
 Distribution: RIV*, SBD*
 Quads: 84A*, 132C*
 Habitat: RpScr
 Life Form: Annual herb
 Blooming: July-September
 Notes: Recent attempts to rediscover plant at the type locality in SBD Co. have been unsuccessful. RIV Co. record may be erroneous. See *Madroño* 3:9-10 (1935) for original description.
 Status Report: 1988

Hemizonia multicaulis ssp. *multicaulis*

Considered but rejected: A synonym of *H. congesta* ssp. *congesta*, a common taxon

Hemizonia multicaulis ssp. *vernalis*

Considered but rejected: A synonym of *H. congesta* ssp. *congesta*, a common taxon

Hemizonia pallida

Considered but rejected: Too common

Hemizonia parryi Greene ssp. *australis* Keck

"southern tarplant" Asteraceae
 CNPS List: 1B R-E-D Code: 3-3-2 State/Fed. Status: /C2
 Distribution: LAX, ORA, SBA, SCT?, SDG, BA
 Quads: 34C, 34D, 35D, 70D, 71A, 71B, 72A, 88C*, 89C*, 89D, 90A*, 90B*, 90D, 111B*, 111C*, 111D*, 143A, 143B, SCTE?
 Habitat: MshSw (estuary margins), VFGrs (vernally mesic), VnPls
 Life Form: Annual herb
 Blooming: June-November
 Notes: Does plant occur on SCT Isl.? Many ORA Co. occurrences recently extirpated. Many historical occurrences also extirpated; need information. Population fragmentation a serious problem, and plant continues to be threatened by urbanization, vehicles, and foot traffic.

Hemizonia parryi Greene ssp. *congdonii* (Rob. & Greenm.) Keck

"Congdon's tarplant" Asteraceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C1
 Distribution: ALA*, CCA*, MNT, SCL(*), SCR*, SLO, SOL*
 Quads: 246C, 342A?, 365A, 365B, 386B, 387A*, 427B*, 427D(*), 446A*, 446B*, 446C*, 447A*, 447B*, 465A*, 482C*
 Habitat: VFGrs (alkaline)
 Life Form: Annual herb
 Blooming: June-November
 Notes: Nearly extirpated from S.F. Bay Area; need information on historical and present distribution. Severely threatened by development. See *Botanical Gazette* 22:169 (1896) for original description, and *Madroño* 3(1):15 (1935) for revised nomenclature.

Hemizonia pentactis

Considered but rejected: Too common

Hemizonia pungens (H. & A.) T. & G. ssp. *laevis* Keck

"smooth tarplant" Asteraceae
 CNPS List: 1B R-E-D Code: 2-3-3 State/Fed. Status: /C2
 Distribution: RIV, SBD, SDG*
 Quads: 21C*, 32A*, 32B*, 36A*, 36B*, 47D*, 50B*, 68A, 68C,
 68D, 69A, 69D, 84C, 85A, 85C, 85D, 86A, 86B, 86D, 87A,
 87B, 87C, 87D, 106B*, 106C, 107A*, 107D*, 108C*
 Habitat: ChScr, Medws, Plyas, RpWld, VFGrS / alkaline
 Life Form: Annual herb
 Blooming: April-September
 Notes: Many historical occurrences may be extirpated; need information. Frequently confused with other *Hemizonia* species such as *H. parryi* ssp. *australis* in ORA and LAX counties, and *H. pungens* ssp. *pungens* in KRN Co. Threatened by agriculture, urbanization, and flood control projects.

Hemizonia tracyi

See *Hemizonia congesta* ssp. *tracyi*

Herissantia crispa (L.) Brizicky

"curly herissantia" Malvaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: SDG, AZ, BA, TX, SO, ++
 Quads: 7A, 32C
 Habitat: SDSCr
 Life Form: Annual/Perennial herb
 Blooming: August-September
 Notes: Known in CA from only two occurrences at Mountain Springs Grade and Vallecito Wash.

Hesperevax acaulis var. *acaulis*

Considered but rejected: Too common

Hesperevax acaulis var. *ambusticola*

Considered but rejected: Too common

Hesperevax sparsiflora (Gray) Greene
var. *brevifolia* (Gray) Morefield

"short-leaved evax" Asteraceae
 CNPS List: 4 R-E-D Code: 1-2-1 State/Fed. Status: CEQA?
 Distribution: HUM, MEN, MRN, SCR, SFO, SON, OR
 Habitat: CBSCr, CoDns
 Life Form: Annual herb
 Blooming: April-June
 Notes: On review list in OR. See *Synoptical Flora of North America* 1(2):229 (1884) for original description, and *Systematic Botany* 17:293-310 (1992) for revised nomenclature.

Hesperolinon adenophyllum (Gray) Small

"glandular western flax" Linaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: HUM*, LAK, MEN
 Quads: 533B, 533C, 534A, 534B, 534D, 548B?, 549A, 549B,
 549C, 549D, 550A, 565A, 565B, 565C, 565D, 566A, 566C,
 566D, 567A, 567B, 582D, 583C, 654C*
 Habitat: Chprl, VFGrS / serpentinite
 Life Form: Annual herb
 Blooming: May-August
 Notes: Threatened in LAK Co. by geothermal development. See *Proceedings of the American Academy of Arts and Sciences* 8:624-625 (1873) for original description, and *University of California Publications in Botany* 32:235-314 (1961) for taxonomic treatment.
 Status Report: 1978

Hesperolinon bicarpellatum (H.K. Sharsm.) H.K. Sharsm.

"two-carpellate western flax" Linaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: LAK, NAP, SON
 Quads: 499D, 500A, 516A, 516B, 516C, 516D, 517A, 517B,
 533B, 533C, 533D, 549A
 Habitat: Chprl (serpentinite)
 Life Form: Annual herb
 Blooming: May-July
 Notes: Previously confused with *H. serpentinum*, which also occurs on serpentinite soils in the same general area. Threatened by development and grazing. See *University of California Publications in Botany* 32:235-314 (1961) for taxonomic treatment.

Hesperolinon breweri (Gray) Small

"Brewer's western flax" Linaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: CCA, NAP, SOL
 Quads: 464A, 464B, 464C, 464D, 499A, 499B, 499C, 515D
 Habitat: Chprl, CmWld, VFGrS / mostly serpentinite
 Life Form: Annual herb
 Blooming: May-July
 Notes: Need information on status of occurrences. Threatened by development, and several occurrences threatened by construction of Los Vaqueros Reservoir. See *University of California Publications in Botany* 32:235-314 (1961) for taxonomic treatment.

Hesperolinon congestum (Gray) Small

"Marin western flax" Linaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CT/PT
 Distribution: MRN, SFO, SMT
 Quads: 429A, 448D, 466B, 466C, 467B, 484C*, 484D
 Habitat: Chprl, VFGrS / serpentinite
 Life Form: Annual herb
 Blooming: May-July
 Notes: Known from fewer than twenty occurrences. Protected in part at Ring Mtn. Preserve (TNC), MRN Co. Threatened by development and foot traffic. See *Proceedings of the American Academy of Arts and Sciences* 6:521 (1865) for original description, and *University of California Publications in Botany* 32:235-314 (1961) for taxonomic treatment.
 Status Report: 1977

Hesperolinon didymocarpum H.K. Sharsm.

"Lake County western flax" Linaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CE/CI
 Distribution: LAK
 Quads: 533B, 533C, 533D
 Habitat: Chprl, CmWld, VFGrs / serpentinite
 Life Form: Annual herb
 Blooming: May-July
 Notes: Known from fewer than ten occurrences in the Big Cyn. area near Middletown. Threatened by grazing. See *University of California Publications in Botany* 32:235-314 (1961) for original description.
 Status Report: 1987

Hesperolinon drymarioides (Curran) Small

"drymaria-like western flax" Linaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: COL, GLE, LAK, NAP, YOL
 Quads: 532C, 532D, 548A, 564A, 564B, 564D, 565B, 565C, 565D
 Habitat: CCFrs, Chprl, CmWld, VFGrs / serpentinite
 Life Form: Annual herb
 Blooming: May-August
 Notes: Known from approximately twenty occurrences. Threatened by mining and vehicles. See *Bulletin of the California Academy of Sciences* 1:152 (1885) for original description, and *University of California Publications in Botany* 32:235-314 (1961) for taxonomic treatment.
 Status Report: 1979

Hesperolinon serpentinum N. McCarten

"Napa western flax" Linaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CEQA
 Distribution: LAK, NAP
 Quads: 516B
 Habitat: Chprl (serpentinite)
 Life Form: Annual herb
 Blooming: May-July
 Notes: Known from approximately six occurrences; one protected at ACEC (BLM), rest on private land and unprotected. Threatened by brush clearing and grading. See *Madroño* (1994, in review) for original description.

Hesperolinon tehamense H.K. Sharsm.

"Tehama County western flax" Linaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: GLE, TEH
 Quads: 580C, 580D, 596B, 596C
 Habitat: Chprl, CmWld / serpentinite
 Life Form: Annual herb
 Blooming: May-July
 Notes: Known from fewer than ten occurrences, mostly on Mendocino NF and BLM lands where locally abundant. See *University of California Publications in Botany* 32:298 (1961) for original description.

Hesperomecon linearis

Considered but rejected: Too common; a synonym of *Meconella linearis*

Heterotheca villosa (Pursh.) Shinn. var. *shevockii* Semple

"Shevock's hairy golden-aster" Asteraceae
 CNPS List: 1B R-E-D Code: 2-1-3 State/Fed. Status: CEQA
 Distribution: KRN
 Quads: 261C, 261D
 Habitat: Chprl, CmWld / sandy
 Life Form: Perennial herb
 Blooming: August-November
 Notes: Endemic to lower Kern River Cyn. in the Greenhorn Mtns. See *Phytologia* 73(6):453 (1992) for original description.

Heuchera abramsii Rydb.

"Abrams's alumroot" Saxifragaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: LAX, SBD
 Habitat: UCFrs (rocky)
 Life Form: Perennial herb (rhizomatous)
 Blooming: July-August

Heuchera alpestris

See *Heuchera parishii*

Heuchera brevistaminea Wiggins

"Mt. Laguna alumroot" Saxifragaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C3c
 Distribution: SDG
 Quads: 19B, 19C, 20A
 Habitat: BUFRs, Chprl, CmWld, RpFRs / rocky
 Life Form: Perennial herb (rhizomatous)
 Blooming: May-July
 Notes: Known from fewer than ten occurrences. Relatively unthreatened since it occurs on steep, rocky sites. See *Contributions from the Dudley Herbarium* 1:100 (1929) for original description.
 Status Report: 1979

Heuchera chlorantha Piper

"green-flowered alumroot" Saxifragaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: DNT, OR, ++
 Quads: 740C
 Habitat: Medws
 Life Form: Perennial herb (rhizomatous)
 Blooming: June-July
 Notes: Known in CA only from Crescent City area. Not in *The Jepson Manual*. See *Contributions from the U.S. National Herbarium* 16:205-206 (1913) for original description.

Heuchera duranii Bacig.

"Durán's alumroot" Saxifragaceae
 CNPS List: 1B R-E-D Code: 2-1-2 State/Fed. Status: /C3c
 Distribution: INY, MNO, NV
 Quads: 412A, 412B, 431C, 450D, 470A, 487C, 488A
 Habitat: AlpBR, SCFRs (rocky) / carbonate
 Life Form: Perennial herb (rhizomatous)
 Blooming: July-August
 Notes: May be inseparable from *H. parvifolia*, common in NV. Needs study.

Heuchera elegans Abrams

"urn-flowered alumroot" Saxifragaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: LAX, SBD
 Habitat: LCFrs, UCFrs / rocky
 Life Form: Perennial herb (rhizomatous)
 Blooming: May-June

Heuchera hirsutissima Rosend., Butt. & Lak.

"shaggy-haired alumroot" Saxifragaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: CEQA
 Distribution: RIV
 Quads: 65C, 65D, 83C, 83D
 Habitat: SCFRs, UCFrs / rocky
 Life Form: Perennial herb (rhizomatous)
 Blooming: May-July
 Notes: Very restricted, but habitat relatively unthreatened.

Heuchera leptomeria var. *peninsularis*

See *Heuchera rubescens* var. *versicolor*

Heuchera maxima Greene

"island alumroot" Saxifragaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: ANA, SCZ, SRO
 Quads: ANAC, SCZA, SCZB, SCZC, SRON
 Habitat: CBScr
 Life Form: Perennial herb (rhizomatous)
 Blooming: February-April
 Notes: Known from fewer than twenty occurrences. Potentially threatened by seabird rookery on ANA Isl., and feral herbivores on SCZ and SRO islands.

Heuchera merriamii

Considered but rejected: Too common

Heuchera parishii Rydb.

"Parish's alumroot" Saxifragaceae
 CNPS List: 1B R-E-D Code: 2-1-3 State/Fed. Status: CEQA
 Distribution: RIV, SBD
 Quads: 83C, 105A, 105B, 105D, 106A
 Habitat: AlpBR, LCFrs, SCFRs, UCFrs / rocky
 Life Form: Perennial herb (rhizomatous)
 Blooming: June-August
 Notes: Includes *H. alpestris*.

Heuchera rubescens Torr.var. *versicolor* (Greene) M.G. Stewart

"San Diego County alumroot" Saxifragaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: SDG, BA, TX+
 Quads: 20A, 48D
 Habitat: Chprl, LCFrs / rocky
 Life Form: Perennial herb (rhizomatous)
 Blooming: May-June

Hibiscus californicus

See *Hibiscus lasiocarpus*

Hibiscus lasiocarpus Cav.

"rose-mallow" Malvaceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
 Distribution: BUT, CCA, COL, GLE, SAC, SJQ, SOL, SUT, YOL, ++
 Quads: 462A, 462B, 463A, 463D, 479B, 479C, 480A, 480B, 480C, 480D, 496C, 497D, 513D, 529B, 529C, 544C, 545A, 545B, 545D, 561A, 561B, 561C, 561D, 576B, 576C, 577B, 577C, 577D
 Habitat: MshSw (freshwater)
 Life Form: Perennial herb (rhizomatous, emergent)
 Blooming: August-September
 Notes: Most occurrences are very small. Seriously threatened by development, agriculture, recreation, and channelization of the Sacramento River and its tributaries. Widespread but also threatened in eastern NA. CA plants apparently unique in rhizomatous-stoloniferous propagation.
 Status Report: 1977

Hierochloa odorata (L.) Wahl.

"vanilla-grass" Poaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: SIS, OR, WA, ++
 Quads: 732C
 Habitat: Medws (mesic)
 Life Form: Perennial herb (rhizomatous)
 Blooming: April-July
 Notes: Known in CA from only a single confirmed occurrence on Ball Mtn. Unconfirmed specimens at the California Academy of Sciences have been recorded from Yosemite NP, San Pedro Valley (SMT Co.), and Fern Cyn. (MEN Co.); need verification.

Hollisteria lanata

Considered but rejected: Too common

Holocarpha macradenia (DC.) Greene

"Santa Cruz tarplant" Asteraceae
 CNPS List: 1B R-E-D Code: 2-3-3 State/Fed. Status: CE/C1
 Distribution: ALA*, CCA, MNT, MRN*, SCR
 Quads: 386B, 386C, 387A, 387B, 407C, 408D, 447A*, 465B, 466A, 466D*, 467A*
 Habitat: CoPrr, VFGrs / often clay
 Life Form: Annual herb
 Blooming: June-October
 Notes: All CCA Co. occurrences are introduced; last remaining natural population in the S.F. Bay Area extirpated in 1993. Seriously threatened by urbanization, agriculture, non-native plants, and lack of appropriate ecological disturbance. See *Fremontia* 5(4):15-16 (1978) for species account.
 Status Report: 1987

Holocarpha virgata (Gray) Keck ssp. *elongata* Keck

"graceful tarplant" Asteraceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: /C2
 Distribution: ORA, RIV, SDG
 Habitat: Chprl?, CmWld, CoScr, VFGrs
 Life Form: Annual herb
 Blooming: August-November
 Notes: Known in RIV Co. only from Santa Rosa Plateau. See *Aliso* 4:111 (1958) for original description.

Hordeum intercedens Nevski

"vernal barley" Poaceae
 CNPS List: 3 R-E-D Code: ?-2-2 State/Fed. Status: CEQA?
 Distribution: ANA, FRE?, KNG, LAX, MNO, RIV, SBA, SBR,
 SBT, SCM, SCT, SCZ, SDG, SMT, SNI, SRO, VEN, BA
 Quads: 9D, 85C, 113B, 142B, 336C, 385D, ANAC, SBRA,
 SCZA, SNIC
 Habitat: VFGrs (saline flats and depressions), VnPls
 Life Form: Annual herb
 Blooming: March-June
 Notes: Move to List 1B? Location and rarity information needed, especially quads for LAX, MNO, and SMT counties, and SCM, SCT, and SRO islands. Does plant occur in FRE Co.? Most mainland occurrences have been extirpated by development; others are threatened. Previously confused with *H. pusillum*. See *Nordic Journal of Botany* 2:307-321 (1982) for taxonomic treatment.

Horkelia bolanderi Gray

"Bolander's horkelia" Rosaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: COL*, LAK, MEN?
 Quads: 533B, 533C, 534A, 534B
 Habitat: LCFrs, Medws (edges, vernal mesic), VFGrs (edge habitats)
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Known from only three extant occurrences. Does plant occur in MEN Co.? Need historical quads for COL Co. Threatened by vehicles, and possibly by development. See *Systematic Botany* 18(1):137-144 (1993) for taxonomic treatment.

Horkelia bolanderi var. *bolanderi*

See *Horkelia bolanderi*

Horkelia congesta Hook. ssp. *nemorosa* Keck

"Josephine horkelia" Rosaceae
 CNPS List: 2 R-E-D Code: 3-3-1 State/Fed. Status: CEQA
 Distribution: DNT, OR
 Quads: 739A
 Habitat: NCFrs (clay, serpentinite seeps)
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Known in CA from only one occurrence at Shelly Creek.

Horkelia cuneata Lindl. ssp. *sericea* (Gray) Keck

"Kellogg's horkelia" Rosaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C2
 Distribution: ALA*, MRN*, MNT, SBA, SCR, SFO*, SLO, SMT
 Quads: 170B*, 171A, 196A*, 196B*, 196D*, 220C, 221D, 366A,
 366C*, 366D, 386C*, 387B*, 408C, 408D, 409D, 448B,
 465C*, 466C*, 466D*, 467D*, 485C*
 Habitat: CCFrs, CoScr
 Life Form: Perennial herb
 Blooming: April-September
 Notes: Historical occurrences need field surveys. Threatened by coastal development. Occurrence on Mt. San Bruno probably last remaining location in S.F. Bay. Remaining plants less distinct from ssp. *cuneata* than those formerly occurring near San Francisco.

Horkelia hendersoni Howell

"Henderson's horkelia" Rosaceae
 CNPS List: 1B R-E-D Code: 3-3-2 State/Fed. Status: /C2
 Distribution: SIS, OR
 Quads: 735B
 Habitat: UCFrs (granitic)
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Known in CA from only one occurrence. Candidate for state listing in OR.

Horkelia hispidula Rydb.

"White Mtns. horkelia" Rosaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: CEQA
 Distribution: INY, MNO
 Quads: 412B, 431B, 431C, 431D
 Habitat: AlpDS, GBScr, SCFrs
 Life Form: Perennial herb
 Blooming: June-August
 Notes: See *North American Flora* 22:278 (1908) for original description.

Horkelia marinensis (Elmer) Crum

"Point Reyes horkelia" Rosaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: MEN, MRN, SCR, SMT
 Quads: 387E, 408C?, 408D, 448C, 485C, 568B, 569A, 585A,
 585D
 Habitat: CoDns, CoPrr, CoScr
 Life Form: Perennial herb
 Blooming: May-September
 Notes: Known from fewer than twenty occurrences. Historical occurrences need field surveys. See *Systematic Botany* 18(1):137-144 (1993) for distributional information.

Horkelia parryi Greene

"Parry's horkelia" Rosaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: AMA, CAL, ELD, MPA
 Quads: 439B, 476A, 494C, 495A, 509B, 509D, 510A
 Habitat: Chprl, CmWld / especially lone formation
 Life Form: Perennial herb
 Blooming: April-June
 Notes: Potentially threatened by clay mining.

Horkelia sericata Wats.

"Howell's horkelia" Rosaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: DNT, HUM?, OR
 Habitat: Chprl, LCFrs / serpentinite or clay
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Does plant occur in HUM Co.?

Horkelia tenuiloba (Torr.) Gray

"thin-lobed horkelia" Rosaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CEQA
 Distribution: MEN, MRN, SON
 Quads: 467A, 467B, 502A, 502B, 518B, 518C, 520D, 536C,
 537B, 537C, 537D
 Habitat: Chprl (mesic openings)
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Historical occurrences need field surveys. See *Report of the Pacific Railroad Expedition* 4(5):84 (1857) for original description, and *Systematic Botany* 18(1):137-144 (1993) for taxonomic treatment.

Horkelia truncata Rydb.

"Ramona horkelia" Rosaceae
 CNPS List: 1B R-E-D Code: 3-1-2 State/Fed. Status: /C3c
 Distribution: SDG, BA
 Quads: 20B, 20C, 21A, 34A, 34B, 34D, 35B, 49D, 51A, 51B
 Habitat: Chprl, CmWld / clay
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Known in CA from fewer than twenty occurrences. Possibly threatened by chaparral management.

Horkelia tularensis (J.T. Howell) Munz

"Kern Plateau horkelia" Rosaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: TUL
 Quads: 306B, 306C, 307D
 Habitat: UCFrs (rocky)
 Life Form: Perennial herb
 Blooming: July-August
 Notes: Known from approximately ten occurrences. Potentially threatened by mining and recreation. Protected in part in a BA (USFS) which includes the type locality. See *Leaflets of Western Botany* 10(13):254-255 (1966) for original description.
 Status Report: 1979

Horkelia wilderae Parish

"Barton Flats horkelia" Rosaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C2
 Distribution: SBD
 Quads: 105A, 105B
 Habitat: LCFrs, UCFrs
 Life Form: Perennial herb
 Blooming: May-September
 Notes: Known from fewer than ten occurrences in the Barton Flats area. Threatened by logging and recreational activities. See *Botanical Gazette* 38:460 (1904) for original description.
 Status Report: 1979

Horkelia yadonii Ertter

"Santa Lucia horkelia" Rosaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: MNT, SBA, SLO
 Habitat: Chprl, CmWld, Medws / granitic, sandy
 Life Form: Perennial herb (rhizomatous)
 Blooming: June-July
 Notes: Possibly threatened by vehicles and recreational activities. Confused with *H. cuneata* ssp. *sericea*, *H. rydbergii*, and *H. tenuiloba*. See *Systematic Botany* 18(1):139 (1993) for original description.

Howellia aquatilis Gray

"water howellia" Campanulaceae
 CNPS List: 1A Last Seen: 1928 State/Fed. Status: /PT
 Distribution: MEN*, ID, OR*, WA+
 Quads: 597B*
 Habitat: MshSw (freshwater)
 Life Form: Annual herb (aquatic)
 Blooming: May-August
 Notes: Known in CA from only a single collection near Howard Lake in 1927; rediscovery attempt in 1979 was unsuccessful. Possibly extirpated by cattle grazing and trampling. Endangered in ID, and state-listed as Endangered in WA. Inadvertently omitted from *The Jepson Manual*. See *Proceedings of the American Academy of Arts and Sciences* 15:43 (1879) for original description, *Wasmann Journal of Biology* 33:90-91 (1975) for the CA record, and *Conservation Biology* 2(3):275-282 (1988) for ecological information.
 Status Report: 1980

Hulsea brevifolia Gray

"short-leaved hulsea" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: FRE, MAD, MPA, TUL, TUO
 Habitat: UCFrs (granitic or volcanic)
 Life Form: Perennial herb
 Blooming: June-August

Hulsea californica T. & G.

"San Diego sunflower" Asteraceae
 CNPS List: 1B R-E-D Code: 2-1-3 State/Fed. Status: /C3c
 Distribution: SDG
 Quads: 8C, 19C, 19B, 20A, 20D, 33D, 48D, 49D
 Habitat: LCFrs, UCFrs / openings
 Life Form: Perennial herb
 Blooming: April-June

Hulsea inyoensis

See *Hulsea vestita* ssp. *inyoensis*

Hulsea mexicana Rydb.

"Mexican hulsea" Asteraceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: SDG, BA
 Quads: 7C
 Habitat: Chprl (often on burned or disturbed areas)
 Life Form: Annual/Perennial herb
 Blooming: April-June
 Notes: Known in U.S. from only a single collection near Jacumba on Table Mtn.; is it more widespread? Common in BA. Easily confused with *H. californica*. See *North American Flora* 34:41 (1914) for original description.

Hulsea vestita Gray ssp. *callicarpha* (Hall) Wilken

"beautiful hulsea" Asteraceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: RIV, SDG
 Habitat: Chprl, LCFrs / rocky or gravelly
 Life Form: Perennial herb
 Blooming: May-October
 Notes: Intergrades with *H. californica*. See *University of California Publications in Botany* 1:129 (1902) for original description.

Hulsea vestita Gray ssp. *gabrielensis* Wilken

"San Gabriel Mtns. sunflower" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: LAX, SBD, VEN
 Habitat: LCFrs, UCFrs / rocky
 Life Form: Perennial herb
 Blooming: May-July
 Notes: See *Madroño* 24(1):48-55 (1977) for original description.

Hulsea vestita Gray ssp. *inyoensis* (Keck) Wilken

"Inyo hulsea" Asteraceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: /C3c
 Distribution: INY, MNO, NV
 Quads: 348C, 369C, 372A, 433C
 Habitat: GBScr, PJWld / rocky
 Life Form: Perennial herb
 Blooming: April-June
 Notes: Type locality degraded by grading and talus removal in 1989. On watch list in NV.

Hulsea vestita Gray ssp. *parryi* (Gray) Wilken

"Parry's sunflower" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: KRN, RIV?, SBD, VEN
 Habitat: LCFrs, UCFrs / rocky
 Life Form: Perennial herb
 Blooming: April-August
 Notes: Does plant occur in RIV Co.? See *Proceedings of the American Academy of Arts and Sciences* 12:59 (1876) for original description.

Hystrix californica

See *Elymus californicus*

Iliamna bakeri (Jeps.) Wiggins

"Baker's globe mallow" Malvaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: LAS, MOD, SHA, SIS?, OR
 Habitat: Chprl, PJWld / volcanic
 Life Form: Perennial herb
 Blooming: July-August
 Notes: Does plant occur in SIS Co.? See *Manual of the Flowering Plants of California*, p. 635 (1925) by W.L. Jepson for original description.

Iliamna latibracteata Wiggins

"California globe mallow" Malvaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: DNT, HUM, OR
 Habitat: NCFrs (mesic)
 Life Form: Perennial herb
 Blooming: June-July
 Notes: Endangered in OR.

Ipomopsis effusa (Gray) Moran

"Baja California ipomopsis" Polemoniaceae
 CNPS List: 2 R-E-D Code: 3-3-1 State/Fed. Status: CEQA
 Distribution: IMP, BA
 Quads: 6A
 Habitat: Chprl, SDSCr (alluvial fan)
 Life Form: Annual herb
 Blooming: April-June
 Notes: Known in CA only from Pinto Wash, along the Mexican border. See *Madroño* 24(3):141-159 (1977) for taxonomic treatment, and *Aliso* 11(4):589-598 (1987) for first CA record.

Ipomopsis polycladon

Considered but rejected: Too common

Ipomopsis tenuifolia (Gray) V. Grant

"slender-leaved ipomopsis" Polemoniaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: IMP, SDG, BA
 Quads: 7A, 7B
 Habitat: Chprl, PJWld, SDSCr / gravelly or rocky
 Life Form: Perennial herb
 Blooming: March-May

Iris bracteata Wats.

"Siskiyou iris" Iridaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: DNT, OR
 Habitat: LCFrs (serpentine)
 Life Form: Perennial herb (rhizomatous)
 Blooming: May-June

Iris chrysophylla

Considered but rejected: Too common

Iris hartwegii Baker ssp. *columbiana* Lenz

"Tuolumne iris" Iridaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: TUO
 Habitat: CmWld, LCFrs
 Life Form: Perennial herb (rhizomatous)
 Blooming: May-June
 Notes: Possibly threatened by logging.

Iris innominata Henders.

"Del Norte County iris" Iridaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: DNT, OR
 Habitat: LCFrs (serpentine)
 Life Form: Perennial herb (rhizomatous)
 Blooming: May-June

Iris munzii Foster

"Munz's iris" Iridaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: TUL
 Habitat: CmWld
 Life Form: Perennial herb (rhizomatous)
 Blooming: March-April

Iris tenax Dougl. ssp. *klamathensis* Lenz

"Orleans iris" Iridaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: HUM, SIS
 Habitat: LCFrs (often in disturbed areas)
 Life Form: Perennial herb (rhizomatous)
 Blooming: April-May
 Notes: See *Aliso* 4(1):64-66 (1958) for original description.
 Status Report: 1977

Isocoma arguta Greene

"Carquinez golden bush" Asteraceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C2
 Distribution: CCA, SOL
 Quads: 481A, 481B, 498D
 Habitat: VFGrs (alkaline)
 Life Form: Shrub
 Blooming: August-December
 Notes: Undocumented in CCA Co.; need quads. Probably threatened by development and agriculture. See *Manual of the Botany of the Region of San Francisco Bay*, p. 175 (1894) by E. Greene for original description, and *Phytologia* 70(2):69-114 (1991) for taxonomic treatment.

Isocoma menziesii (H. & A.) Nesomvar. *decumbens* (Greene) Nesom

"decumbent golden bush" Asteraceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: CEQA
 Distribution: ORA, SCM, SCT, SDG, BA
 Quads: 10A, 10B, 10D, 11A, 11D, 36D, 71D
 Habitat: CoScr (sandy, often in disturbed areas)
 Life Form: Shrub
 Blooming: April-November
 Notes: Need quads for SCM and SCT islands. Equals *Haplopappus venetus* ssp. *furfuraceus*, a synonym of *I. menziesii* var. *menziesii* in *The Jepson Manual*. See *Leaflets of Botanical Observation and Criticism* 1:172 (1906) for original description, and *Phytologia* 70(2):69-114 (1991) for taxonomic treatment.

Isocoma menziesii (H. & A.) Nesom var. *diabolica* Nesom

"Satan's golden bush" Asteraceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: SBT, SCL
 Habitat: CmWld
 Life Form: Shrub
 Blooming: August-October
 Notes: Not in *The Jepson Manual*. See *Phytologia* 70(2):69-114 (1991) for original description.

Isoetes bolanderi var. *pygmaea*

Considered but rejected: Too common

Isoetes howellii

Considered but rejected: Too common

Isoetes nuttallii

Considered but rejected: Too common

Isoetes orcuttii

Considered but rejected: Too common

Iva hayesiana Gray

"San Diego marsh-elder" Asteraceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: /C2
 Distribution: SDG, BA
 Quads: 10A, 10B, 10C, 11D, 22B, 35C
 Habitat: Plyas
 Life Form: Perennial herb
 Blooming: April-September
 Notes: Threatened by waterway channelization and coastal development.

Iva nevadensis

Considered but rejected: Too common

Ivesia aperta

See *Ivesia aperta* var. *aperta*

Ivesia aperta (J.T. Howell) Munz var. *aperta*

"Sierra Valley ivesia" Rosaceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: /C2
 Distribution: LAS, PLU, SIE, NV
 Quads: 570B, 570D, 571A, 571B, 571D, 586B, 587C, 587D,
 602C, 603D
 Habitat: GBScr, LCFrs, Medws (xeric), PJWld / usually volcanic
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Threatened by residential development, agriculture, grazing,
 and vehicles. Interim management guide prepared by USFS in
 1992. See *Leaflets of Western Botany* 9:233-242 (1962) for original
 description, and *Brittonia* 40(4):398-399 (1988) for revised no-
 menclature.
 Status Report: 1990

Ivesia aperta (J.T. Howell) Munz var. *canina* Ertter

"Dog Valley ivesia" Rosaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C1
 Distribution: SIE
 Quads: 570D
 Habitat: LCFrs (openings), Medws (xeric) / volcanic
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Endemic to Dog Valley. Threatened by reservoir and recre-
 ation development, and possibly by vehicle use and grazing. In-
 terim management guide prepared by USFS in 1992. See *Brittonia*
 40(4):398-399 (1988) for original description.

Ivesia argyrocoma (Rydb.) Rydb.

"silver-haired ivesia" Rosaceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: /C2
 Distribution: SBD, BA
 Quads: 104B, 105A, 105B, 126D, 131C, 131D, 132C, 132D
 Habitat: Medws (alkaline), PbPln, UCFrs
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Threatened by development, grazing, and vehicles. Popula-
 tions in BA possibly taxonomically distinct.

Ivesia arizonica (J.T. Howell) Ertter var. *arizonica*

"yellow ivesia" Rosaceae
 CNPS List: 3 R-E-D Code: ?-?-1 State/Fed. Status: CEQA?
 Distribution: INY, AZ, NV, UT
 Quads: 368D
 Habitat: PJWld, SCFrs, UCFrs / carbonate
 Life Form: Perennial herb
 Blooming: May-August
 Notes: Move to List 2? Precise location, rarity, and endangerment in-
 formation needed. Known in CA only from the Inyo, Grapevine,
 and Funeral Mtns.

Ivesia baileyi

See *Ivesia baileyi* var. *baileyi*

Ivesia baileyi Wats. var. *baileyi*

"Bailey's ivesia" Rosaceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: LAS, PLU, ID, NV, OR
 Quads: 586B, 586C, 587A, 620B, 620C
 Habitat: LCFrs (volcanic)
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Known in CA from fewer than ten occurrences. See *Madroño*
 32(2):123 (1985) for discussion of CA occurrences.

Ivesia baileyi Wats.var. *beneolens* (Nelson & J.F. Macbr.) Ertter

"Owyhee ivesia" Rosaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: MOD, ID, NV, OR
 Quads: 708D
 Habitat: PJWld, UCFrs / volcanic
 Life Form: Perennial herb
 Blooming: June
 Notes: Known in CA from only three occurrences in the Warner
 Mtns. See *Botanical Gazette* 55:374 (1913) for original description,
 and *Systematic Botany* 14:231-244 (1989) for revised nomenclature.

Ivesia callida (Hall) Rydb.

"Tahquitz ivesia" Rosaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: CR/C2
 Distribution: RIV
 Quads: 83C
 Habitat: UCFrs (granitic)
 Life Form: Perennial herb
 Blooming: July-September
 Notes: Rediscovered in 1980 by K. Berg, M. Hamilton, and T.
 Krantz; known from only two occurrences in the San Jacinto Wil-
 derness Area. See *University of California Publications in Botany*
 1:86 (1902) for original description, and *Fremontia* 11(1):13-15
 (1983) for discussion of rediscovery.
 Status Report: 1987

Ivesia campestris (M.E. Jones) Rydb.

"field ivesia" Rosaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: FRE, INY, TUL
 Habitat: Medws (edges), SCFrs, UCFrs
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Possibly threatened by grazing. See *Proceedings of the California*
Academy of Sciences II 5:679 (1895) for original description, and
North American Flora 22:285 (1908) for revised nomenclature.

Ivesia corymbosa

See *Ivesia paniculata*

Ivesia jaegeri Munz & Jtn.

"Jaeger's ivesia" Rosaceae
 CNPS List: 1B R-E-D Code: 3-1-2 State/Fed. Status: /C2
 Distribution: SBD, NV
 Quads: 249D
 Habitat: PJWld, UCFrs / carbonate
 Life Form: Perennial herb
 Blooming: June-July
 Notes: Known in CA from only two occurrences near Clark Mtn.
 On watch list in NV.

Ivesia kingii

See *Ivesia kingii* var. *kingii*

Ivesia kingii Wats. var. *kingii*

"alkali ivesia" Rosaceae
 CNPS List: 1B R-E-D Code: 3-1-2 State/Fed. Status: CEQA
 Distribution: INY, MNO, NV, UT
 Quads: 413B, 432C, 434A, 451A, 451B, 451D
 Habitat: GBSCr, Medws, Plyas / mesic alkaline clay
 Life Form: Perennial herb
 Blooming: June-July
 Notes: Known in CA from fewer than ten occurrences. Possibly
 threatened by grazing.

Ivesia longibracteata Ertter

"Castle Crags ivesia" Rosaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: SHA
 Quads: 682A
 Habitat: LCFrs (granitic crevices)
 Life Form: Perennial herb
 Blooming: June
 Notes: Known only from Castle Crags. See *Systematic Botany* 14:233
 (1989) for original description.

Ivesia muirii

Considered but rejected: Too common

Ivesia paniculata T.W. Nelson & J.P. Nelson

"Ash Creek ivesia" Rosaceae
 CNPS List: 1B R-E-D Code: 2-1-3 State/Fed. Status: /C2
 Distribution: LAS
 Quads: 659A, 675A, 675C, 676D
 Habitat: GBSCr, PJWld, UCFrs / volcanic
 Life Form: Perennial herb
 Blooming: June-July
 Notes: Known from fewer than twenty occurrences in the Ash Valley
 region. Protected at Ash Valley RNA (BLM). See *Brittonia*
 33(2):165-167 (1981) for original description, and *Fremontia*
 16(1):15-17 (1988) for brief species account and BLM manage-
 ment plans.

Ivesia patellifera (J.T. Howell) Ertter

"Kingston Mtns. ivesia" Rosaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: SBD
 Quads: 250B, 274C, 274D
 Habitat: PJWld (granitic)
 Life Form: Perennial herb
 Blooming: June-October
 Notes: See *Leaflets of Western Botany* 4:173 (1945) for original de-
 scription, and *Systematic Botany* 14(2):231-244 (1989) for revised
 nomenclature.

Ivesia pickeringii Gray

"Pickering's ivesia" Rosaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: SIS, TRI
 Quads: 683B, 683D, 699B, 700C, 701D
 Habitat: LCFrs, Medws / mesic, clay, generally serpentinite seeps
 Life Form: Perennial herb
 Blooming: July-August
 Notes: Known from fewer than twenty occurrences. Threatened by
 grazing, logging, mining, and road maintenance. Klamath NF has
 adopted species management guidelines. See *Proceedings of the*
American Academy of Arts and Sciences 6:531 (1865) for original
 description.
 Status Report: 1979

Ivesia purpurascens ssp. *purpurascens*

Considered but rejected: Too common; a synonym of *Horkeliella*
purpurascens

Ivesia pygmaea

Considered but rejected: Too common

Ivesia sericoleuca (Rydb.) Rydb.

"Plumas ivesia" Rosaceae
 CNPS List: 1B R-E-D Code: 1-2-3 State/Fed. Status: /C2
 Distribution: LAS, NEV, PLA, PLU, SIE
 Quads: 554A, 554B, 554C, 554D, 555A, 570C, 570D, 571B,
 571C, 571D, 572D, 586B, 587B, 587C, 587D, 602C, 603C,
 603D, 622D
 Habitat: GBSCr, LCFrs, Medws, VnPls / vernal mesic, usually
 volcanic
 Life Form: Perennial herb
 Blooming: May-September
 Notes: Threatened by development, grazing, and vehicles. Interim
 management guide prepared by the USFS in 1992.

Ivesia unguiculata Gray

"Yosemite ivesia" Rosaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CEQA
 Distribution: FRE, MAD, MPA
 Quads: 376A, 395B, 395C, 395D, 396B, 396C, 396D, 397D,
 415B*, 416C, 416D, 417A, 418D, 436D, 437A, 437B
 Habitat: Medws, SCFrS
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Historical occurrences need field surveys. Threatened by grazing.

Ivesia webberi Gray

"Webber's ivesia" Rosaceae
 CNPS List: 1B R-E-D Code: 3-3-2 State/Fed. Status: /C2
 Distribution: PLU, SIE, NV
 Quads: 570A, 570B, 570D, 586C, 589B, 605C
 Habitat: GBScr (volcanic ash), LCFrs
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Known from approximately ten occurrences over its range; in CA from only Sierra Valley and Dog Valley. Threatened by vehicles, and potentially by development and grazing. On watch list in NV. See *Proceedings of the American Academy of Arts and Sciences* 10:71 (1874) for original description.
 Status Report: 1990

Jamesia americana T. & G. var. *rosea* C. Schneider

"rosy-petalled cliffbush" Philadelphaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: FRE, INY, MNO, TUL, NV
 Habitat: AlpBR, PJWld, SCFrs / granitic or carbonate
 Life Form: Shrub (deciduous)
 Blooming: May-September
 Notes: Scattered but never abundant. See *Brittonia* 41(4):335-350 (1989) for taxonomic treatment.

Jepsonia heterandra Eastw.

"foothill jepsonia" Saxifragaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: AMA, CAL, ELD, MPA, STA, TUO
 Habitat: CmWld, LCFrs / rocky, metamorphic
 Life Form: Perennial herb
 Blooming: August-December
 Notes: See *Bulletin of the Torrey Botanical Club* 32:201 (1905) for original description, and *Brittonia* 21:286-298 (1969) for taxonomic treatment.

Jepsonia malvaefolia

See *Jepsonia malvifolia*

Jepsonia malvifolia (Greene) Small

"island jepsonia" Saxifragaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: /C2
 Distribution: SCM, SCT, SCZ, SNI, SRO, GU
 Habitat: CoScr
 Life Form: Perennial herb
 Blooming: November-December

Jepsonia parryi

Considered but rejected: Too common

Juglans californica Wats. var. *californica*

"Southern California black walnut" Juglandaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: LAX, ORA, RIV, SBA, SBD, SDG, VEN
 Habitat: Chprl, CmWld, CoScr / alluvial
 Life Form: Tree (deciduous)
 Blooming: March-May
 Notes: Walnut forest is a much fragmented, declining natural community, rare in ORA, RIV, SBD, and SDG counties. Threatened by urbanization, grazing, and possibly by lack of natural reproduction. See *Proceedings of the American Academy of Arts and Sciences* 10:349 (1875) for original description, and *Southern California Botanists' Special Publication No. 3*, pp. 42-54 (1990) for additional information.

Juglans californica Wats. var. *hindsii* Jeps.

"Northern California black walnut" Juglandaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C2
 Distribution: CCA, NAP, SAC*, SOL*, YOL*
 Quads: 465D, 480A*, 480B*, 499B
 Habitat: RpFrs, RpWld
 Life Form: Tree (deciduous)
 Blooming: April-May
 Notes: Only two of three native stands are still extant. Widely naturalized in cismontane CA. Threatened by urbanization and conversion to agriculture. Formerly cultivated as rootstock for *J. regia*, with which it hybridizes readily. See *Flora of California* 1(2):365 (1909) by W.L. Jepson for original description, and *Madroño* 17(1):1-32 (1963) for discussion of origin.
 Status Report: 1978

Juglans hindsii

See *Juglans californica* var. *hindsii*

Juncus abjectus

See *Juncus hemiendytus* var. *abjectus*

Juncus acutus L. ssp. *leopoldii* (Parl.) Snog.

"southwestern spiny rush" Juncaceae
 CNPS List: 4 R-E-D Code: 1-2-1 State/Fed. Status: CEQA?
 Distribution: IMP?, LAX, ORA, SBA, SDG, SLO, VEN, AZ?, BA, ++
 Habitat: CoDns (mesic), Medws (alkaline seeps), MshSw (coastal salt)
 Life Form: Perennial herb (rhizomatous)
 Blooming: May-June
 Notes: Threatened by urbanization and flood control.

Juncus acutus var. *sphaerocarpus*

See *Juncus acutus* ssp. *leopoldii*

Juncus bufonius var. *congonii*

Considered but rejected: A synonym of *J. bufonius* var. *congestus*, a common taxon

Juncus chlorocephalus

Considered but rejected: Too common

Juncus cooperi

Considered but rejected: Too common

Juncus cyperoides

Considered but rejected: Not native

Juncus diffusissimus

Considered but rejected: Not native

Juncus dudleyi Wieg.

"Dudley's rush" Juncaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: HUM, SIS, TRI, AZ, OR, ++
 Quads: 649B, 703B, 704D, 736C
 Habitat: LCFrs (mesic)
 Life Form: Perennial herb
 Blooming: July-August

Juncus duranii Ewan

"Duran's rush" Juncaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: LAX, RIV, SBD
 Habitat: LCFrs, Medws, UCFrs / mesic
 Life Form: Perennial herb (rhizomatous)
 Blooming: July-August

Juncus falcatus var. *falcatus*

Considered but rejected: Too common

Juncus hemiendytus F.J. Herm. var. *abjectus* (F.J. Herm.) Ertter

"Center Basin rush" Juncaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: ALP, LAS, MNO, NEV, PLU, SIE, TUL, TUO, ID, NV, OR
 Habitat: SCFrs
 Life Form: Annual herb
 Blooming: June-July
 Notes: On review list in OR. See *Memoirs of the New York Botanical Garden* 39:72-78 (1986) for revised treatment.

Juncus leiospermus

See *Juncus leiospermus* var. *leiospermus*

Juncus leiospermus F.J. Herm. var. *abartii* Ertter

"Ahart's dwarf rush" Juncaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C1
 Distribution: BUT, CAL, PLA, SAC
 Quads: 477C, 511C, 528A, 560A, 560D
 Habitat: VnPls
 Life Form: Annual herb
 Blooming: March-May
 Notes: Known from only five occurrences. See *Memoirs of the New York Botanical Garden* 39:46-51 (1986) for original description.

Juncus leiospermus F.J. Herm. var. *leiospermus*

"Red Bluff dwarf rush" Juncaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C3c
 Distribution: BUT, SHA, TEH
 Quads: 560D, 576A, 576D, 592B, 593A, 593D, 595A, 610B*, 611B, 611D, 612A, 628B, 628C, 629B, 629C, 646C, 647D, 662B
 Habitat: Chprl, CmWld, VFGrs, VnPls / vernal mesic
 Life Form: Annual herb
 Blooming: March-May
 Notes: See *Leaflets of Western Botany* 5:113 (1948) for original description, and *Memoirs of the New York Botanical Garden* 39:46-51 (1986) for revised treatment.

Juncus marginatus Rostkov var. *marginatus*

"red-anthered rush" Juncaceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: NEV, AZ, ++
 Quads: 541B
 Habitat: MshSw
 Life Form: Perennial herb (rhizomatous)
 Blooming: July
 Notes: Distribution poorly documented; to be expected elsewhere in CA.

Juncus mertensianus var. *duranii*

See *Juncus duranii*

Juncus nodosus L.

"knotted rush" Juncaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: INY, TUL?, ++
 Habitat: Medws (mesic), MshSw (lake margins)
 Life Form: Perennial herb (rhizomatous)
 Blooming: July-September
 Notes: Does plant occur in TUL Co.?

Juncus regelii Buch.

"Regel's rush" Juncaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: SIS, TRI, OR, WA+
 Quads: 667C, 738C
 Habitat: Medws, UCFrs / mesic
 Life Form: Perennial herb (rhizomatous)
 Blooming: August

Juncus supiniformis Engelm.

"hair-leaved rush" Juncaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: DNT, HUM, MEN, OR+
 Habitat: MshSw (freshwater, near coast)
 Life Form: Perennial herb (rhizomatous)
 Blooming: April-June

Juncus tenuis var. *dudleyi*

See *Juncus dudleyi*

Juniperus communis var. *jackii*

Considered but rejected: A synonym of *J. communis*, a common taxon

Juniperus communis var. *montana*

Considered but rejected: A synonym of *J. communis*; a common taxon

Kallstroemia californica

Considered but rejected: Too common

Kobresia bellardii (All.) Degl.

"seep kobresia" Cyperaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: MNO, ID, OR, ++
 Quads: 434C, 434D, 471D
 Habitat: AlpBR (mesic), Medws (carbonate), SCFr
 Life Form: Perennial herb (rhizomatous)
 Blooming: August
 Notes: Known in CA only from Convict Basin. On review list in ID, and endangered in OR. See *Madroño* 17(4):93-109 (1964) and 40(1):66-67 (1993) for first and second CA reports respectively.

Kobresia myosuroides

See *Kobresia bellardii*

Koerberlinia spinosa

See *Koerberlinia spinosa* ssp. *tenuispina*

Koerberlinia spinosa Zucc.ssp. *tenuispina* (Kearn. & Peebles) E. Murray

"crown-of-thorns" Koerberliniaceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: IMP, AZ, SO+
 Quads: 12B, 27A, 27B, 42C, 43D
 Habitat: RpWld, SDSr
 Life Form: Shrub (deciduous)
 Blooming: May-July
 Notes: Known in CA from fewer than ten occurrences. Threatened by mining.

Lagophylla minor

Considered but rejected: Too common

Larrea tridentata var. *arenaria*

Considered but rejected: A synonym of *L. tridentata*; a common taxon

Lasthenia burkei (Greene) Greene

"Burke's goldfields" Asteraceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/FE
 Distribution: LAK, MEN, SON
 Quads: 502A, 518A, 518D, 533A, 533B, 550B
 Habitat: Medws (mesic), VnPls
 Life Form: Annual herb
 Blooming: April-June
 Notes: Threatened by agriculture, urbanization, and grazing. See *Bulletin of the California Academy of Sciences* 2(6):151 (1887) for original description, and *American Journal of Botany* 56(9):1042-1047 (1969) for information on origin and relationships.
 Status Report: 1988

Lasthenia conjugens Greene

"Contra Costa goldfields" Asteraceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /CI
 Distribution: ALA*, CCA*, MEN*, NAP, SBA*, SCL*, SOL
 Quads: 142A*, 143A*, 427D*, 447D*, 463C*, 465A*, 481B, 481D*, 482A, 483A, 498C, 499B*, 499C*, 500D*, 517D*, 537B*
 Habitat: VFGrs (mesic), VnPls
 Life Form: Annual herb
 Blooming: March-June
 Notes: Known from only four occurrences after comprehensive 1993 surveys. Many historical occurrences extirpated by development; also threatened by overgrazing.
 Status Report: 1979

Lasthenia coronaria

Considered but rejected: Too common

Lasthenia glabrata Lindl. ssp. *coulteri* (Gray) Ornduff

"Coulter's goldfields" Asteraceae
 CNPS List: 1B R-E-D Code: 2-3-2 State/Fed. Status: /C2
 Distribution: KRN*, LAX*, ORA*, RIV, SBA, SBD*, SDG, SLO, SRO, TUL*, VEN, BA
 Quads: 11A, 11D, 22B, 22C, 36B, 36D, 50B, 68C, 68D, 69A, 71B*, 71D*, 72A*, 84C?, 85A, 85C, 85D, 86B, 88C*, 89A*, 89D*, 90A*, 90B*, 90D*, 102A*, 110A*, 110B*, 114B, 114D, 141D, 142A, 142B, 143A, 171A, 212A*, 212B*, 212C*, 217D, 218A, 247D, SROE, SRON
 Habitat: MshSw (coastal salt), Plyas, VnPls
 Life Form: Annual herb
 Blooming: February-June
 Notes: Known to have declined significantly by 1966, and now seriously threatened by urbanization and agricultural development. Does plant occur in TUL Co.? See *Synoptical Flora of North America* 1(2):324 (1884) for original description, and *University of California Publications in Botany* 40:1-92 (1966) for taxonomic treatment.

Lasthenia leptalea (Gray) Ornduff

"Salinas Valley goldfields" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: INY, KRN, MNT, SLO
 Habitat: CmWld, VFGrs
 Life Form: Annual herb
 Blooming: April
 Notes: See *Proceedings of the American Academy of Arts and Sciences* 6:546 (1865) for original description, and *University of California Publications in Botany* 40:63-66 (1969) for revised nomenclature.

Lasthenia maritima

Considered but rejected: Too common

Lasthenia minor ssp. *maritima*

Considered but rejected: A synonym of *L. maritima*; a common taxon



Lasthenia glabrata
ssp. *coulteri*

***Lathyrus biflorus* T.W. Nelson & J.P. Nelson**

“two-flowered pea” Fabaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C1
 Distribution: HUM
 Quads: 634A
 Habitat: LCFrs (serpentine)
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Known from only one occurrence in The Lassic area. See *Brittonia* 35(2):180-183 (1983) for original description.

***Lathyrus delnorticus* C.L. Hitchc.**

“Del Norte pea” Fabaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: DNT, SIS, OR
 Habitat: LCFrs, NCFrs / often serpentine
 Life Form: Perennial herb
 Blooming: June-July
 Notes: On watch list in OR.

***Lathyrus glandulosus* Broich**

“sticky pea” Fabaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: HUM, MEN
 Habitat: CmWld
 Life Form: Perennial herb (rhizomatous)
 Blooming: April-June
 Notes: See *Madroño* 33(2):136-143 (1986) for original description.

Lathyrus hitchcockianus

Considered but rejected: Not in CA

Lathyrus jepsonii* ssp. *jepsonii

See *Lathyrus jepsonii* var. *jepsonii*

Lathyrus jepsonii* Greene var. *jepsonii

“Delta tule pea” Fabaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: ALA, CCA, FRE, MRN, NAP, SAC, SBT, SCL, SJQ, SOL
 Quads: 341A, 397A, 427A, 428A, 428B, 446C, 462A, 462B, 463A, 465A*, 465B*, 479B, 479C, 480B, 480D, 481B, 481C, 481D, 482A, 482C, 482D, 483A, 496C, 497C, 497D, 498C, 498D
 Habitat: MshSw (freshwater and brackish)
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Threatened by agriculture and water diversions. See *Pittonia* 2:158 (1890) for original description.
 Status Report: 1977

***Lathyrus palustris* L.**

“marsh pea” Fabaceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
 Distribution: DNT, HUM, OR, WA, ++
 Quads: 618D, 672C, 689A, 689C, 723B, 740B, 740C
 Habitat: BgFns, LCFrs, MshSw, NCFrs / mesic
 Life Form: Perennial herb
 Blooming: May-August
 Notes: See *University of Washington Publications in Botany* 15:13 (1952) for taxonomic treatment.

***Lathyrus splendens* Kell.**

“pride-of-California” Fabaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: SDG, BA
 Habitat: Chprl
 Life Form: Perennial herb
 Blooming: April-June

***Lathyrus sulphureus* Gray var. *argillaceus* Jeps.**

“dubious pea” Fabaceae
 CNPS List: 3 R-E-D Code: 3-?-3 State/Fed. Status: CEQA?
 Distribution: NEV?, PLA, SHA, TEH
 Quads: 527A, 630D, 647C
 Habitat: CmWld, LCFrs, UCFrs
 Life Form: Perennial herb
 Blooming: April
 Notes: Move to List 1B? Location, rarity, and endangerment information needed; does plant occur in NEV Co.? Fewer than ten specimens exist in CA herbaria. Taxonomy poorly understood; see *L. sulphureus* in *The Jepson Manual*. See *Flora of California* 2(1):393 (1936) by W.L. Jepson for original description.

Lathyrus vestitus* var. *alefeldii

Considered but rejected: Too common

Lathyrus vestitus var. *ochropetalus*

Considered but rejected: Too common

Lavatera assurgentiflora Kell. ssp. *assurgentiflora*

"island mallow" Malvaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C1
 Distribution: ANA, SMI, SNI*, SRO
 Quads: ANAC, SMIE, SMIW, SNIC*, SRON
 Habitat: CBScr
 Life Form: Shrub (evergreen)
 Blooming: May-September

Notes: Known from fewer than ten native occurrences. Rare at all occurrences, and seriously threatened by grazing; reduced to one plant on ANA Isl. Reintroduced into native habitat on SMI Isl. (SMIE); cultivated plants grow on SNI Isl. but native occurrence extirpated. May not be native to SRO Isl.; plants on mainland and Todos Santos Isl. (BA) most likely planted. See *L. assurgentiflora* in *The Jepson Manual*. See *Proceedings of a Multidisciplinary Symposium: The California Islands*, pp. 157-158 (1980) for species account.

Status Report: 1979

Lavatera assurgentiflora Kell. ssp. *glabra* Philbrick

"southern island mallow" Malvaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C1
 Distribution: SCM, SCT
 Quads: SCMC, SCMN, SCMS, SCTN, SCTW
 Habitat: CBScr
 Life Form: Shrub (evergreen)
 Blooming: May-September

Notes: Known from approximately ten native occurrences. Feral herbivores removed from SCM Isl.; possibly still a threat on SCT Isl. See *L. assurgentiflora* in *The Jepson Manual*. See *Proceedings of a Multidisciplinary Symposium: The California Islands*, pp. 157-158 (1980) for original description.

Layia carnososa (Nutt.) T. & G.

"beach layia" Asteraceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/FE
 Distribution: HUM, MNT, MRN, SBA*, SFO*
 Quads: 171A*, 171B*, 171C*, 366C, 466C*, 485B, 485C, 637D, 654B, 655A, 672A*, 672B, 672C, 689D*
 Habitat: CoDns
 Life Form: Annual herb

Blooming: May-July
 Notes: Threatened by coastal development, vehicles, and non-native plants. Protected in part at Manila Dunes ACEC and Mattole Beach ACEC (both BLM), HUM Co.

Status Report: 1990

Layia chrysanthemoides ssp. *maritima*

Considered but rejected: A synonym of *L. chrysanthemoides*, a common taxon

Layia discoidea (Keck) Keck

"rayless layia" Asteraceae
 CNPS List: 1B R-E-D Code: 2-3-3 State/Fed. Status: /C2
 Distribution: FRE, SBT
 Quads: 339B, 339C, 339D, 340D
 Habitat: Chprl, CmWld, LCFrs / serpentinite, talus and alluvial terraces
 Life Form: Annual herb
 Blooming: May
 Notes: Threatened by vehicles in the New Idria area. Similar to *L. glandulosa*. See *Aliso* 4:101-104 (1958) for original description.
 Status Report: 1977

Layia heterotricha (DC.) H. & A.

"pale-yellow layia" Asteraceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C2
 Distribution: FRE*, KNG*, KRN*, MNT*, SBA, SBT(*), SLO*, VEN(*?)
 Quads: 165A(*), 165B(*), 166A(*), 166B*, 166D*, 190C*, 190D(*), 191C, 192C, 211C*, 212A*, 212B*, 212D*, 217D*, 243A*, 243B*, 244C*, 244D*, 267B*, 291B*, 294B*, 294C*, 315A*, 315C*, 318A(*), 318B*, 340C*, 362D(*?)
 Habitat: CmWld, PJWld, VFGrs / alkaline or clay
 Life Form: Annual herb
 Blooming: March-June
 Notes: Recent searches of historical occurrences were largely unsuccessful. Threatened by agricultural conversion and previous construction of San Antonio Reservoir, and possibly by overgrazing.

Layia jonesii Gray

"Jones's layia" Asteraceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: MNT, SLO
 Quads: 221B, 246C, 246D, 247A, 247B, 247D, 294B, 366C
 Habitat: Chprl, VFGrs / clay or serpentinite
 Life Form: Annual herb
 Blooming: March-May

Layia leucopappa Keck

"Comanche Point layia" Asteraceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C1
 Distribution: KRN
 Quads: 213C, 214A, 214D, 215D, 239D
 Habitat: ChScr, VFGrs
 Life Form: Annual herb
 Blooming: May-April
 Notes: Reduced by agriculture; also threatened by development and grazing.

Layia munzii Keck

"Munz's tidy-tips" Asteraceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CEQA
 Distribution: FRE, KRN, SLO
 Quads: 192A, 218A, 243C, 244A, 265C, 265D, 268A, 337A, 359C, 360B, 360C, 381C, 383D
 Habitat: ChScr, VFGrs (alkaline clay)
 Life Form: Annual herb
 Blooming: March-April
 Notes: Historical occurrences need field surveys. Similar to *L. jonesii* and *L. leucopappa*.

Layia septentrionalis Keck

"Colusa layia" Asteraceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CEQA
 Distribution: COL, LAK, MEN, NAP, SON, SUT, TEH, YOL
 Quads: 501A, 516A, 516B, 516C, 516D, 517A, 531B, 532A,
 532D, 533A, 533B, 534A, 534B, 534D, 535A, 535D, 545A,
 546D, 547C, 548A, 548C, 548D, 549C, 549D, 550D, 596B
 Habitat: Chprl, CmWld, VFGrs / sandy, serpentinite
 Life Form: Annual herb
 Blooming: April-May
 Notes: Threatened by development. See *Aliso* 4(1):106 (1958) for original description.

Layia ziegleri

Considered but rejected: A synonym of *L. platyglossa*, a common taxon

Legenere limosa (Greene) McVaugh

"legenere" Campanulaceae
 CNPS List: 1B R-E-D Code: 2-3-3 State/Fed. Status: /C2
 Distribution: LAK, NAP, PLA, SAC, SMT, SOL, SON*, STA*,
 TEH
 Quads: 428C, 460C*, 481B, 483A, 495A, 496A, 496B, 496D,
 498C*, 498D, 499D*, 501D*, 511C, 512B, 528D, 533C,
 534A, 628D
 Habitat: VnPls
 Life Form: Annual herb
 Blooming: May-June
 Notes: Many historical occurrences extirpated. Threatened by grazing and development. See *Pittonia* 2:81 (1890) for original description, *North American Flora* 32(1):13-14 (1943) for revised nomenclature, and *Wasmann Journal of Biology* 33(1-2):91 (1975) for distributional information.
 Status Report: 1977

Lembertia congdonii (Gray) Greene

"San Joaquin woollythreads" Asteraceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /FE
 Distribution: FRE, KNG*, KRN, SBA, SBT, SLO, TUL*
 Quads: 192A*, 192B*, 192D, 217B, 217C, 217D, 218A, 218C,
 218D, 239A*, 239B*, 239D, 240A*, 240B*, 240C, 241B,
 242B*, 243A, 265B*, 265C, 265D*, 266D*, 287B*, 290B,
 290C, 291A*, 291B*, 313C*, 314A*, 314B*, 314C, 314D,
 315A*, 315C, 315D, 338A*, 338B*, 338D*, 360B*, 360C*,
 361B, 361C, 361D
 Habitat: ChScr, VFGrs
 Life Form: Annual herb
 Blooming: March-May
 Notes: About half of historical occurrences extirpated; now known from approximately 30 occurrences. Seriously threatened by agricultural conversion, energy development, and urbanization. See *Proceedings of the American Academy of Arts and Sciences* 19:20 (1883) for original description.

Lepechinia cardiophylla Epl.

"heart-leaved pitcher sage" Lamiaceae
 CNPS List: 1B R-E-D Code: 3-2-2 State/Fed. Status: /C2
 Distribution: ORA, RIV, SDG, BA
 Quads: 21B, 69B, 70A, 87C, 87D
 Habitat: CCFrs, Chprl, CmWld
 Life Form: Shrub
 Blooming: April-July
 Notes: Known in CA from fewer than ten occurrences. Threatened by development.

Lepechinia fragrans (Greene) Epl.

"fragrant pitcher sage" Lamiaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: LAX, SCT, SCZ, SRO, VEN?
 Habitat: Chprl
 Life Form: Shrub
 Blooming: March-May
 Notes: Known in the Santa Monica Mtns. from near Triunfo Pass, and may cross into VEN Co. Threatened in the Santa Monica Mtns. by urbanization; threatened in the San Gabriel Mtns. by fire management and habitat alteration.

Lepechinia ganderi Epl.

"Gander's pitcher sage" Lamiaceae
 CNPS List: 1B R-E-D Code: 3-1-2 State/Fed. Status: /C2
 Distribution: SDG, BA
 Quads: 10A, 10B, 10C, 10D
 Habitat: CCFrs, Chprl, CoScr, VFGrs
 Life Form: Shrub
 Blooming: June-July
 Notes: Known in CA from fewer than ten occurrences.

Lepidium flavum Torr. var. *felipense* C.L. Hitchc.

"Borrogo Valley pepper-grass" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: SDG
 Quads: 20A?, 32B, 32C, 33A, 47C
 Habitat: PJWld, SDSscr / sandy
 Life Form: Annual herb
 Blooming: March-May
 Notes: Known from fewer than ten occurrences. Threatened by vehicles. See *Madroño* 3:299 (1936) for original description.

Lepidium jaredii

See *Lepidium jaredii* ssp. *jaredii*

Lepidium jaredii Bdg. ssp. *album* Hoov.

"Panoche pepper-grass" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: FRE, SBT, SLO
 Quads: 267B, 336A*, 338B*, 339A, 339B, 340A, 362A*, 362D*
 Habitat: VFGrs (alluvial fans, washes)
 Life Form: Annual herb
 Blooming: February-June
 Notes: Recent surveys (1991) discovered a number of extant occurrences. Threatened by gravel mining and cattle grazing. Not in *The Jepson Manual*. See *Leaflets of Western Botany* 10:345 (1966) for original description.

Lepidium jaredii Bdg. ssp. *jaredii*

"Jared's pepper-grass" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: KRN, SLO
 Quads: 217C, 218A, 267A, 269A*
 Habitat: VFGrS (alkaline, adobe)
 Life Form: Annual herb
 Blooming: March-May
 Notes: Known only from Soda Lake on the Carrizo Plain (SLO Co.)
 and Devil's Den (KRN Co.).

Lepidium latipes Hook. var. *beckardii* Roll.

"Heckard's pepper-grass" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CEQA
 Distribution: YOL
 Quads: 513B, 513C
 Habitat: VFGrS (alkaline flats)
 Life Form: Annual herb
 Blooming: April-May

Lepidium latipes var. *latipes*

Considered but rejected: Too common

Lepidium virginicum L. var. *robinsonii* (Thell.) Hitchc.

"Robinson's pepper-grass" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-2-2 State/Fed. Status: CEQA
 Distribution: LAX, ORA, RIV, SBA*, SBD, SCZ, SDG, BA
 Quads: 8C, 11B, 34D, 71B, 87D, 88C, 108C, 109A, 110A, 160D,
 SCZB, SCZC
 Habitat: Chprl, CoScr
 Life Form: Annual herb
 Blooming: January-July
 Notes: Need historical quads for SBA Co. Threatened by erosion and
 feral herbivores on SCZ Isl. See *Madroño* 3(7):265-320 (1936) for
 taxonomic treatment.

Lepidospartum squamatum var. *palmeri*

Considered but rejected: A synonym of *L. squamatum*; a common
 taxon

Leptodactylon californicum H. & A. ssp. *tomentosum* Gordon

"fuzzy prickly phlox" Polemoniaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: SBA, SLO
 Habitat: CoDns
 Life Form: Shrub (deciduous)
 Blooming: March-August
 Notes: See *L. californicum* in *The Jepson Manual*. See *Madroño*
 37(1):28-42 (1990) for original description and discussion.

Leptodactylon jaegeri (Munz) Wherry

"San Jacinto prickly phlox" Polemoniaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C3c
 Distribution: RIV
 Quads: 83C
 Habitat: SCFrS, UCFrS / granitic
 Life Form: Perennial herb
 Blooming: July-August
 Notes: Known from fewer than twenty occurrences in the San Jacinto
 Mtns.

Lesquerella bernardina

See *Lesquerella kingii* ssp. *bernardina*

Lesquerella kingii (Wats.) Wats. ssp. *bernardina* (Munz) Munz

"San Bernardino Mtns. bladderpod" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /PE
 Distribution: SBD
 Quads: 105A, 131C, 131D
 Habitat: LCFrS, PJWld / often carbonate
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Known from only five occurrences in the Big Bear Valley
 area. Threatened by development and carbonate mining. See
Fremontia 16(1):20-21 (1988) for discussion of mining threats.

Lessingia arachnoidea Greene

"Crystal Springs lessingia" Asteraceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: SMT, SON?
 Quads: 429A, 448C, 448D, 502B?, 518C?
 Habitat: CmWld, CoScr, VFGrS / serpentinite, often roadsides
 Life Form: Annual herb
 Blooming: July-October
 Notes: Known only from Crystal Springs Reservoir (SMT Co.); occur-
 rences from SON Co. need taxonomic verification. See *Leaflets of Botanical
 Observation and Criticism* 2:29 (1910) for original description.

Lessingia germanorum Cham.

"San Francisco lessingia" Asteraceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/C1
 Distribution: SFO, SMT
 Quads: 448B, 466C
 Habitat: CoScr (remnant dunes)
 Life Form: Annual herb
 Blooming: August-November
 Notes: Known from only four occurrences at the Presidio of San
 Francisco, and one on San Bruno Mtn. (SMT Co.). Threatened
 by urbanization, base-closure activities, trampling, and non-native
 plants.
 Status Report: 1990

Lessingia germanorum var. *germanorum*

See *Lessingia germanorum*

Lessingia germanorum var. *tenuis*

See *Lessingia tenuis*

Lessingia glandulifera Gray var. *tomentosa* (Greene) Ferris

"Warner Springs lessingia" Asteraceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: /C2
 Distribution: SDG, BA
 Quads: 33A, 33B, 48C
 Habitat: Chprl (sandy)
 Life Form: Annual herb
 Blooming: October
 Notes: Known in CA from fewer than five occurrences.

Lessingia hololeuca Greene

"woolly-headed lessingia" Asteraceae
 CNPS List: 3 R-E-D Code: ?-?-3 State/Fed. Status: CEQA?
 Distribution: ALA, MNT, MRN, NAP, SCL, SMT, SOL, SON,
 YOL
 Quads: 317D, 364B, 365A, 406D, 407B, 408B?, 427A, 428B,
 428C?, 448C, 466B?, 467A, 481B, 483A, 484A, 484C, 484D,
 485A, 501A, 502B, 503A, 503B, 514A, 517A, 517D
 Habitat: CoScr, LCFrs, VFGrs / clay, serpentinite
 Life Form: Annual herb
 Blooming: June-October
 Notes: Move to List 4? Need location, rarity, and endangerment in-
 formation. Probably more widespread in the southern Sacramento
 Valley, southern North Coast Ranges, and northern S.F. Bay. Pos-
 sibly threatened by grazing. See *Flora Franciscana*, p. 377 (1897)
 by E. Greene for original description, and *University of California*
Publications in Botany 16:40 (1929) for taxonomic treatment.

Lessingia micradenia var. *arachnoidea*

See *Lessingia arachnoidea*

Lessingia micradenia Greene var. *glabrata* (Keck) Ferris

"smooth lessingia" Asteraceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: SCL
 Quads: 406B, 406C, 406D, 407A?, 407B, 407D
 Habitat: Chprl (serpentinite, often roadsides)
 Life Form: Annual herb
 Blooming: August-November
 Notes: See *Aliso* 4:105 (1958) for original description, and *Contributions*
from the Dudley Herbarium 5:101 (1958) for revised nomenclature.

Lessingia micradenia Greene var. *micradenia*

"Tamalpais lessingia" Asteraceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: MRN
 Quads: 467A, 467B
 Habitat: Chprl, VFGrs / usually serpentinite, often roadsides
 Life Form: Annual herb
 Blooming: June-September
 Notes: Known only from Mt. Tamalpais. See *Leaflets of Botanical*
Observation and Criticism 2:28 (1910) for original description,
 and *University of California Publications in Botany* 16:39-40
 (1929) for taxonomic treatment.

Lessingia occidentalis (Hall) M.A. Lane

"western lessingia" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: FRE, MNT, SBT
 Habitat: Chprl, CmWld, CoScr, VFGrs / serpentinite
 Life Form: Annual herb
 Blooming: May-November
 Notes: See *Novon* 2(3):213-214 (1992) for revised nomenclature.

Lessingia tenuis (Gray) Cov.

"spring lessingia" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: SBA, SLO, VEN
 Habitat: LCFrs
 Life Form: Annual herb
 Blooming: May-June

Lewisia brachycalyx Gray

"short-sepaled lewisia" Portulacaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: SBD, SDG, BA, ++
 Habitat: LCFrs, Medws / mesic
 Life Form: Perennial herb
 Blooming: May-June

Lewisia cantelovii J.T. Howell

"Cantelow's lewisia" Portulacaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C3c
 Distribution: BUT, NEV, PLU, SHA, SIE
 Quads: 557A, 557B, 557C, 558C, 558D, 573D, 574D, 575A,
 589C, 590D, 591A, 591C, 591D, 606C, 607D, 665B
 Habitat: BUFRs, Chprl, CmWld, LCFrs / mesic, granitic,
 sometimes serpentinite seeps
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Threatened by horticultural collecting and road maintenance.
 Does not include *L. serrata*. See *Leaflets of Western Botany* 3(6):139
 (1942) for original description.

Lewisia cantelowii

See *Lewisia cantelovii*

Lewisia congdonii (Rydb.) J.T. Howell

"Congdon's lewisia" Portulacaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: CR/C3c
 Distribution: FRE, MPA
 Quads: 375C, 437C, 438A
 Habitat: Chprl, CmWld, LCFrs, UCFrs / granitic, mesic
 Life Form: Perennial herb
 Blooming: April-June
 Notes: Known from fewer than ten occurrences. Most occurrences
 are relatively inaccessible. See *North American Flora* 21:328 (1932)
 for original description.
 Status Report: 1985

Lewisia cotyledon var. *cotyledon*

Considered but rejected: Too common

Lewisia cotyledon var. *fimbriata*

Considered but rejected: Not published and taxonomic problem

Lewisia cotyledon (Wats.) Rob. var. *heckneri* (Mort.) Munz

"Heckner's lewisia" Portulacaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: HUM, SIS, TRI
 Quads: 650A, 650B, 659B, 667C, 668A, 668B, 668D, 669C,
 683C, 684C, 685D, 703C, 737B
 Habitat: LCFrs, NCFrs / rocky
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Range overlaps with other varieties; identification difficult.

Lewisia cotyledon (Wats.) Rob. var. *howellii* (Wats.) Jeps.

"Howell's lewisia" Portulacaceae
 CNPS List: 3 R-E-D Code: 2-2-2 State/Fed. Status: /C2
 Distribution: DNT, HUM, SHA, SIS, TRI, OR
 Quads: 666B, 669B, 669C, 681C, 681D, 683D, 702C, 703B, 703C,
 717B, 719A, 719B, 720A, 720B, 720C, 721A, 721C, 721D, 734C,
 735A, 736A, 736C, 737A, 736D, 737C, 737D, 738D
 Habitat: Chprl, CmWld / rocky
 Life Form: Perennial herb
 Blooming: April-June
 Notes: Move to List 4? Taxonomic problems. Identification difficult.
 On watch list in OR. See *Proceedings of the American Academy of
 Arts and Sciences* 23:262 (1888) for original description.

Lewisia disepala Rydb.

"Yosemite lewisia" Portulacaceae
 CNPS List: 1B R-E-D Code: 2-1-3 State/Fed. Status: /C3c
 Distribution: KRN, MAD, MPA, TUL
 Quads: 259A, 283C, 284D, 307B, 308D, 416B, 417D, 437A,
 437B, 454C, 455D
 Habitat: LCFrs, PJWld, UCFrs / granitic sand
 Life Form: Perennial herb
 Blooming: April-June
 Notes: See *North American Flora* 21:328 (1932) for original descrip-
 tion, and *Madroño* 37:63 (1990) for first KRN Co. record.

Lewisia leana

Considered but rejected: Too common

Lewisia longipetala (Piper) Clay

"long-petaled lewisia" Portulacaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: ELD, FRE, NEV, PLA
 Quads: 394B, 523B, 523C, 523D, 539A, 555A, 555D
 Habitat: AlpBR, SCFrs (mesic, rocky)
 Life Form: Perennial herb
 Blooming: July-August
 Notes: Known from fewer than twenty occurrences. Possibly threat-
 ened by horticultural collecting. Interim management guidelines
 prepared by the USFS in 1992. See *Contributions from the U.S.
 National Herbarium* 16:207 (1918) for original description.
 Status Report: 1979

Lewisia oppositifolia (Wats.) Rob.

"opposite-leaved lewisia" Portulacaceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: /C3c
 Distribution: DNT, OR
 Quads: 739A, 739B, 739C, 739D, 740A, 740D
 Habitat: LCFrs (mesic)
 Life Form: Perennial herb
 Blooming: April-May
 Notes: Threatened by logging and mining. CA plants possibly hy-
 brids with *C. nevadensis*. On watch list in OR. See *Proceedings of
 the American Academy of Arts and Sciences* 20:355 (1885) for origi-
 nal description.

Lewisia pygmaea ssp. *longipetala*

See *Lewisia longipetala*

Lewisia serrata Heckard & Steb.

"saw-toothed lewisia" Portulacaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C2
 Distribution: ELD, PLA
 Quads: 524C, 525A, 525D, 540C, 540D
 Habitat: BUFrs, LCFrs, RpFr
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Known from approximately ten occurrences. Threatened by
 horticultural collecting and small hydroelectric power projects. See
L. cantelovii in *The Jepson Manual*. See *Brittonia* 26:305 (1974)
 for original description.
 Status Report: 1979

Lewisia sierrae

Considered but rejected: Too common; a synonym of *L. pygmaea*

Lewisia stebbinsii Gankin & Hildreth

"Stebbins's lewisia" Portulacaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: MEN, TRI
 Quads: 581B, 581C, 613C
 Habitat: LCFrs, UCFrs / gravelly, sometimes serpentinite
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Known from approximately ten occurrences. Threatened by
 timber and range management activities, road maintenance, and
 vehicles. See *Four Seasons* 2(4):12-14 (1968) for original descrip-
 tion.
 Status Report: 1979

Lilaeopsis masonii Math. & Const.

"Mason's lilaeopsis" Apiaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CR/C2
 Distribution: ALA, CCA, MRN, NAP, SAC, SJQ, SOL
 Quads: 462B, 463A, 463D, 479B, 480A, 480B, 480C, 480D,
 481B, 481C, 481D, 482A, 482D, 483A, 483D, 496C, 497C,
 498D, 500D
 Habitat: MshSw (brackish or freshwater), RpScr
 Life Form: Perennial herb
 Blooming: April-October
 Notes: Threatened by development, flood control projects, recreation, erosion, levee maintenance, and agriculture. See *Madroño* 24:81 (1977) for original description.
 Status Report: 1988

Lilium bolanderi Wats.

"Bolander's lily" Liliaceae
 CNPS List: 4 R-E-D Code: 1-2-1 State/Fed. Status: /C3c
 Distribution: DNT, HUM, SIS, OR
 Habitat: Chprl, LCFrs / serpentinite
 Life Form: Perennial herb (bulbiferous)
 Blooming: June-July
 Notes: Hybridizes with *L. pardalinum* ssp., *L. rubescens*, and *L. washingtonianum* ssp. *purpurascens*. See *Proceedings of the American Academy of Arts and Sciences* 20:377 (1885) for original description.

Lilium fairchildii

See *Lilium humboldtii* ssp. *ocellatum*

Lilium humboldtii Roetzl & Leichtl. ssp. *humboldtii*

"Humboldt lily" Liliaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: AMA, BUT, CAL, ELD, FRE, MAD, MPA, NEV,
 PLA, TUO, YUB
 Habitat: Chprl, LCFrs / openings
 Life Form: Perennial herb (bulbiferous)
 Blooming: June-July
 Notes: Threatened by urbanization.

Lilium humboldtii Roetzl & Leichtl. ssp. *ocellatum* (Kell.) Thorne

"ocellated Humboldt lily" Liliaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: /C2
 Distribution: LAX, ORA, RIV, SBA, SBD, SCZ, SDG, SLO, SRO,
 VEN
 Habitat: Chprl, CmWld, LCFrs / openings
 Life Form: Perennial herb (bulbiferous)
 Blooming: April-July
 Notes: Localized below 5500 feet elevation. Threatened by development and horticultural collecting on the mainland, and by feral herbivores on SCZ and SRO islands. Includes *L. humboldtii* var. *bloomerianum* and *L. fairchildii*. See *Proceedings of the California Academy of Sciences* I 5:88 (1873) for original description.

Lilium kelloggii Purdy

"Kellogg's lily" Liliaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: DNT, HUM, OR
 Habitat: LCFrs, NCFrs / openings, roadsides
 Life Form: Perennial herb (bulbiferous)
 Blooming: June-July
 Notes: Endangered in OR. See *Garden* 59:330 (1901) for original description.

Lilium maritimum Kell.

"coast lily" Liliaceae
 CNPS List: 1B R-E-D Code: 2-3-3 State/Fed. Status: /C1
 Distribution: MEN, MRN*, SFO?*, SMT*, SON
 Quads: 448D*, 485C*, 520B, 520D, 537A, 537B, 537C, 537D,
 552B, 553A, 568C, 568D, 569A, 569D, 585A, 585D
 Habitat: BUFRs, CCFrs, CoPrr, CoScr, NCFrs
 Life Form: Perennial herb (bulbiferous)
 Blooming: May-July
 Notes: Did this plant occur in SFO Co.? Populations along Highway 1 are routinely disturbed by road maintenance; also threatened by urbanization and horticultural collecting. Hybridizes with *L. pardalinum* ssp. *pardalinum*. See *Proceedings of the American Academy of Arts and Sciences* 6:140 (1875) for original description.

Lilium occidentale Purdy

"western lily" Liliaceae
 CNPS List: 1B R-E-D Code: 3-3-2 State/Fed. Status: CE/PE
 Distribution: DNT, HUM, OR
 Quads: 654B, 655A, 672C, 672D, 723B, 740C
 Habitat: BgFns, CBSr, CoPrr, CoScr, MshSw (freshwater), NCFrs (openings)
 Life Form: Perennial herb (bulbiferous)
 Blooming: June-July
 Notes: Most CA occurrences under DFG management or voluntarily protected by landowners. Threatened by development, grazing, and horticultural collecting. State-listed as Endangered in OR. See *Erythea* 5:103-105 (1897) for original description.
 Status Report: 1987

Lilium pardalinum Kell.ssp. *pitkinense* (Beane & Vollmer) M. Skinner

"Pitkin Marsh lily" Liliaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/C1
 Distribution: SON
 Quads: 502A, 502D
 Habitat: CmWld (mesic), MshSw (freshwater)
 Life Form: Perennial herb (bulbiferous)
 Blooming: June-July
 Notes: Known from only two occurrences near Sebastopol. Most of marsh habitat has been destroyed; also threatened by horticultural collecting, grazing, and competition from other plants. State-listed as *L. pitkinense*.
 Status Report: 1993



Lilium pardalinum
ssp. *vollmeri*

Lilium pardalinum Kell. ssp. *vollmeri* (Eastw.) M. Skinner

"Vollmer's lily"

Liliaceae

CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: /C3c

Distribution: DNT, HUM, SIS, OR

Habitat: BgFns, Medws (mesic)

Life Form: Perennial herb (bulbiferous)

Blooming: July-August

Notes: Forms hybrid swarms with ssp. *wigginsii* in western SIS Co. See *Leaflets of Western Botany* 5:120-122 (1948) for original description.

Status Report: 1980

Lilium pardalinum Kell.

ssp. *wigginsii* (Beane & Vollmer) M. Skinner

"Wiggins's lily"

Liliaceae

CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: /C3c

Distribution: DNT, SIS, OR

Habitat: BgFns, LCFrs, Medws / mesic

Life Form: Perennial herb (bulbiferous)

Blooming: June-August

Notes: Forms hybrid swarms with ssp. *vollmeri* in western SIS Co.

On watch list in OR. See *Contributions from the Dudley Herbarium* 4(8):355 (1955) for original description.

Status Report: 1979

Lilium parryi Wats.

"lemon lily"

Liliaceae

CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: /C2

Distribution: LAX, RIV, SBD, SDG, AZ

Quads: 20A*, 49C*, 49D, 65C, 66B, 83C, 84B, 84D, 105A, 105B, 105D, 106A, 107B, 108B, 109A, 131C, 131D, 134C, 134D, 135C, 135D

Habitat: LCFrs, Medws, RpFrs, UCFrs / mesic

Life Form: Perennial herb (bulbiferous)

Blooming: July-August

Notes: Most occurrences in LAX Co. are very small. Nearly extirpated from SDG Co., where known from only a few plants at Palomar Mtn. SP. Threatened by horticultural collecting, water diversion, and grazing. Includes *L. parryi* var. *kessleri*. Angeles NF has adopted species management guidelines.

Lilium parryi var. *kessleri*

See *Lilium parryi*

Lilium parryi var. *parryi*

See *Lilium parryi*

Lilium pitkinense

See *Lilium pardalinum* ssp. *pitkinense*

Lilium rubescens Wats.

"redwood lily" Liliaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: DNT, HUM, LAK, MEN, NAP, SCR*, SHA, SIS,
 SON, TRI
 Habitat: Chprl, LCFrs, UCFrs / sometimes serpentine
 Life Form: Perennial herb (bulbiferous)
 Blooming: June-July
 Notes: Increasingly rare in southern portion of range. Threatened by
 urbanization, horticultural collection, and grazing. See *Proceedings*
of the American Academy of Arts and Sciences 14:256 (1879) for
 original description.

Lilium vollmeri

See *Lilium pardalinum* ssp. *vollmeri*

Lilium washingtonianum var. *minus*

Considered but rejected: A synonym of *L. washingtonianum* ssp.
washingtonianum; a common taxon

Lilium washingtonianum Kell.ssp. *purpurascens* (Stearn) M. Skinner

"purple-flowered Washington lily" Liliaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: DNT, HUM, SIS, TRI, OR
 Habitat: Chprl, LCFrs, UCFrs / serpentine
 Life Form: Perennial herb (bulbiferous)
 Blooming: June-August
 Notes: Possibly threatened by logging and related activities, but often
 abundant in clear cuts.

Lilium washingtonianum var. *purpurascens*

See *Lilium washingtonianum* ssp. *purpurascens*

Lilium wigginsii

See *Lilium pardalinum* ssp. *wigginsii*

Limnanthes bakeri Howell

"Baker's meadowfoam" Limnanthaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CR/C2
 Distribution: MEN
 Quads: 550B, 567A, 583B, 598C, 599A
 Habitat: Medws, MshSw (freshwater), VFGrs (vernally mesic),
 VnPls
 Life Form: Annual herb
 Blooming: April-May
 Notes: Known from fewer than twenty occurrences. Threatened by
 development, grazing, and road construction. See *Leaflets of West-*
ern Botany 3(9):206 (1943) for original description.
 Status Report: 1988

Limnanthes douglasii R. Br.ssp. *sulphurea* (C. T. Mason) C. T. Mason

"Point Reyes meadowfoam" Limnanthaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CE/C2
 Distribution: MRN, SMT
 Quads: 409A, 485C
 Habitat: CoPrr, Medws (mesic), MshSw (freshwater), VnPls
 Life Form: Annual herb
 Blooming: March-May
 Notes: Known from approximately ten occurrences. Threatened by
 grazing, trampling, and non-native plants. See *University of Cali-*
ifornia Publications in Botany 25:477 (1952) for original descrip-
 tion.
 Status Report: 1988

Limnanthes douglasii var. *sulphurea*

See *Limnanthes douglasii* ssp. *sulphurea*

Limnanthes floccosa Howell ssp. *bellingermana* (Peck) Arroyo

"Bellingerman's meadowfoam" Limnanthaceae
 CNPS List: 1B R-E-D Code: 3-2-2 State/Fed. Status: /C2
 Distribution: SHA, OR
 Quads: 646A, 679C, 679D
 Habitat: CmWld, Medws / mesic
 Life Form: Annual herb
 Blooming: April-June
 Notes: Known in CA from fewer than five occurrences near Ingot
 and Canyon Creek. Candidate for state listing in OR. See *L.*
floccosa ssp. *floccosa* in *The Jepson Manual*. See *Proceedings of the Bi-*
ological Society of Washington 50:93-94 (1937) for original descrip-
 tion.
 Status Report: 1979

Limnanthes floccosa Howell ssp. *californica* Arroyo

"Butte County meadowfoam" Limnanthaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/FE
 Distribution: BUT
 Quads: 576C, 577A, 593C, 593D
 Habitat: VFGrs (mesic), VnPls
 Life Form: Annual herb
 Blooming: March-May
 Notes: Known from fewer than twenty occurrences. Threatened by
 urbanization, road construction, grazing, non-native plants, and
 agriculture. See *Brittonia* 25:187 (1973) for original description.
 Status Report: 1987

Limnanthes floccosa Howell ssp. *floccosa*

"woolly meadowfoam" Limnanthaceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
 Distribution: BUT, LAK, SHA, SIS, TEH, TRI, OR
 Quads: 534A, 593C, 593D, 595D, 610A, 628C, 628D, 629B,
 631C, 646B, 646C, 650C, 679C, 679D, 680C
 Habitat: CmWld, VFGrs / vernally mesic
 Life Form: Annual herb
 Blooming: March-June
 Notes: Threatened by grazing. See *Brittonia* 25:177-193 (1973) for
 revised nomenclature.

Limnanthes floccosa var. *floccosa*

See *Limnanthes floccosa* ssp. *floccosa*

Limnanthes gracilis Howell ssp. *parishii* (Jeps.) Beauch.

"Parish's meadowfoam" Limnanthaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CE/C2
 Distribution: RIV, SDG
 Quads: 19B, 19C, 20A, 33C, 33D, 49D, 69D
 Habitat: Medws (vernally mesic), VnPls
 Life Form: Annual herb
 Blooming: April-June
 Notes: Threatened by grazing and recreational development. See *Flora of California* 2(1):411 (1936) by W.L. Jepsen for original description, and *University of California Publications in Botany* 25:490 (1952) for revised nomenclature.
 Status Report: 1987

Limnanthes gracilis var. *parishii*

See *Limnanthes gracilis* ssp. *parishii*

Limnanthes vinculans Ornduff

"Sebastopol meadowfoam" Limnanthaceae
 CNPS List: 1B R-E-D Code: 2-3-3 State/Fed. Status: CE/FE
 Distribution: NAP, SON
 Quads: 500A, 501B, 502A, 502B*, 502D
 Habitat: Medws (mesic), VnPls
 Life Form: Annual herb
 Blooming: April-May
 Notes: Only NAP Co. occurrence (500A) may be introduced; protected in part at Napa River ER (DFG). Threatened by urbanization, agriculture, and grazing. See *Brittonia* 21:11-14 (1969) for original description.
 Status Report: 1987

Limosella subulata Ives

"delta mudwort" Scrophulariaceae
 CNPS List: 2 R-E-D Code: 2-3-1 State/Fed. Status: CEQA
 Distribution: CCA, MRN?, SAC, SJQ, SOL., OR, ++
 Quads: 463A, 480B, 480C, 480D, 481C, 481D, 485C?, 498D
 Habitat: MshSw
 Life Form: Perennial herb (stoloniferous)
 Blooming: May-August
 Notes: Known in CA from several occurrences in the Delta; occurrence at Point Reyes NS (485C) needs verification. Also found on the Atlantic Coast, where threatened by habitat destruction. Native to CA, although *The Jepson Manual* states otherwise.

Linanthus acicularis Greene

"bristly linanthus" Polemoniaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: ALA, CCA?, FRE, HUM, LAK, MEN, MRN, NAP, SMT, SON
 Habitat: Chprl, CmWld, CoPrr
 Life Form: Annual herb
 Blooming: April-July
 Notes: Historical occurrences need verification. Does plant occur in CCA Co.? See *Pittonia* 2:259 (1892) for original description.

Linanthus ambiguus (Rattan) Greene

"serpentine linanthus" Polemoniaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: ALA, CCA, MER, SBT, SCL, SCR, SJQ, SMT, STA
 Habitat: CmWld, CoScr, VFGrs / usually serpentinite
 Life Form: Annual herb
 Blooming: March-June
 Notes: To be expected in other adjacent counties. See *Botanical Gazette* 11:339 (1886) for original description.

Linanthus arenicola (M.E. Jones) Jeps. & Bailey

"sand linanthus" Polemoniaceae
 CNPS List: 2 R-E-D Code: 1-2-1 State/Fed. Status: /C3c
 Distribution: INY, SBD, NV
 Quads: 129C, 172D, 177D, 181C, 181D, 182A, 182D, 201C, 203B, 204D, 256B, 325B, 347C, 389C
 Habitat: DeDns, JTWld, MDScr / sandy
 Life Form: Annual herb
 Blooming: March-April
 Notes: Threatened by mining.

Linanthus bellus (Gray) Greene

"desert beauty" Polemoniaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: /C3c
 Distribution: SDG, BA
 Quads: 7B, 8A, 8D
 Habitat: Chprl (sandy)
 Life Form: Annual herb
 Blooming: April-May

Linanthus concinnus Mlkn.

"San Gabriel linanthus" Polemoniaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: LAX, SBD
 Quads: 108B, 134B, 134C, 135A, 136D
 Habitat: LCFrs, UCFrs / rocky
 Life Form: Annual herb
 Blooming: May-July
 Notes: Infrequently collected in recent years; looked for but not seen in 1991. Field work needed. Threatened by recreational activities. See *University of California Publications in Botany* 2:53 (1904) for original description.

Linanthus floribundus (Gray) Mlkn. ssp. *hallii* (Jeps.) Mason

"Santa Rosa Mtns. linanthus" Polemoniaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: CEQA
 Distribution: RIV, SDG
 Quads: 46C, 47A, 47B, 48A, 65C
 Habitat: SDSCr
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Known only from the Santa Rosa Mtns.

Linanthus grandiflorus (Benth.) Greene

"large-flower linanthus" Polemoniaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: ALA, KRN, MAD, MER, MNT, MRN, SBA*, SCL,
 SCR, SFO, SLO, SMT, SON
 Habitat: CBScr, CCFrs, CmWld, CoDns, CoPrr, CoScr, VFGrs
 Life Form: Annual herb
 Blooming: April-July
 Notes: Many historical occurrences extirpated by development; need
 information. Other taxa often misidentified as *L. grandiflorus*. See
Pittonia 2:260 (1892) for original description.

Linanthus harknessii ssp. *condensatus*

Considered but rejected: A synonym of *L. harknessii*; a common
 taxon

Linanthus killipii Mason

"Baldwin Lake linanthus" Polemoniaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: SBD
 Quads: 104B, 105A, 126D, 130C, 131D
 Habitat: Medws (alkaline), PbPln, PJWld, UCFrs
 Life Form: Annual herb
 Blooming: May-July
 Notes: Threatened by urbanization and vehicles. See *Madroño*
 9:251-252 (1948) for original description.
 Status Report: 1979

Linanthus maculatus

See *Gilia maculata*

Linanthus nudatus

Considered but rejected: Too common

Linanthus nuttallii (Gray) Mlkn.ssp. *howellii* Nels. & Patterson

"Mt. Tedoc linanthus" Polemoniaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: TEH
 Quads: 613B, 631C
 Habitat: LCFrs (serpentinite)
 Life Form: Perennial herb
 Blooming: May-August
 Notes: Known from only four occurrences in the Mt. Tedoc region
 of the Klamath Mtns. See *Madroño* 32(2):102-105 (1985) for
 original description.

Linanthus oblanceolatus (Brand) Jeps.

"Sierra Nevada linanthus" Polemoniaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: FRE, INY, TUL
 Habitat: SCFrs
 Life Form: Annual herb
 Blooming: July-August

Linanthus orcuttii (Parry & Gray) Jeps.

"Orcutt's linanthus" Polemoniaceae
 CNPS List: 1B R-E-D Code: 3-1-2 State/Fed. Status: /C2
 Distribution: LAX*, RIV, SDG, BA
 Quads: 19B, 20A, 20D, 48D, 49B, 49C, 49D, 110A*
 Habitat: Chprl, LCFrs / openings
 Life Form: Annual herb
 Blooming: May-June
 Notes: See *Madroño* 24(3):150-151 (1977) for taxonomic treatment.

Linanthus orcuttii ssp. *pacificus*

See *Linanthus orcuttii*

Linanthus pygmaeus (Brand) J.T. Howell ssp. *pygmaeus*

"pygmy linanthus" Polemoniaceae
 CNPS List: 1B R-E-D Code: 3-2-2 State/Fed. Status: CEQA
 Distribution: SCM, GU
 Quads: SCMC, SCMN
 Habitat: CoScr, VFGrs
 Life Form: Annual herb
 Blooming: April
 Notes: Feral herbivores removed from SCM Isl., and vegetation re-
 covering. See *Pflanzenreich* 4(250):134 (1907) for original descrip-
 tion.

Linanthus rattanii (Gray) Greene

"Rattan's linanthus" Polemoniaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: COL, GLE, LAK, MEN, TEH
 Habitat: CmWld, LCFrs
 Life Form: Annual herb
 Blooming: May-July

Linanthus serrulatus Greene

"Madera linanthus" Polemoniaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CEQA
 Distribution: FRE, KRN, MAD, MPA, TUL
 Quads: 261A, 309C, 332B, 354C, 376C, 380A, 396B, 398C,
 399A, 419B, 420A
 Habitat: CmWld, LCFrs
 Life Form: Annual herb
 Blooming: April-May

Listera caurina

Considered but rejected: Too common

Listera cordata (L.) R. Br.

"heart-leaved twayblade" Orchidaceae
 CNPS List: 4 R-E-D Code: 1-2-1 State/Fed. Status: CEQA?
 Distribution: DNT, HUM, SIS, NV, OR, WA, ++
 Habitat: BgFns, LCFrs, NCFrs
 Life Form: Perennial herb
 Blooming: March-July
 Notes: Easily overlooked. Threatened by grazing and logging. In-
 cludes *L. cordata* var. *nephrophylla*. See *Fremontia* 17(3):26-27
 (1989) for species account.

Listera cordata var. *nephrophylla*

See *Listera cordata*

Lithophragma maximum Bacig.

"San Clemente Island woodland star" Saxifragaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/C1
 Distribution: SCM
 Quads: SCMC, SCMS
 Habitat: CBScr, CoScr
 Life Form: Perennial herb
 Blooming: April
 Notes: Known from approximately five occurrences. Threatened by erosion. Feral herbivores removed from SCM Isl., and vegetation recovering. See *Aliso* 5:349-350 (1963) for original description.
 Status Report: 1979

Lithophragma rupicola

Considered but rejected: A synonym of *L. tenellum*; a common taxon

Lithophragma tenellum

Considered but rejected: Too common

Lobelia cardinalis ssp. *cardinalis*

Considered but rejected: Not in CA; name misapplied to *L. cardinalis* var. *pseudosplendens*; a common taxon

Loeflingia pusilla

Considered but rejected: A synonym of *L. squarrosa* var. *squarrosa*; a common taxon

Loeflingia squarrosa ssp. *artemisiarum*

See *Loeflingia squarrosa* var. *artemisiarum*

Loeflingia squarrosa Nutt.var. *artemisiarum* (Barneby & Twisselm.) R. Dorn

"sagebrush loeflingia" Caryophyllaceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: /C3c
 Distribution: INY, KRN, LAX, RIV, OR, WY+
 Quads: 185C, 185D, 186C, 392C, 393A
 Habitat: DeDns, GBScr, SDScr / sandy
 Life Form: Annual herb
 Blooming: April-May
 Notes: Need quads for RIV Co. See *Madroño* 20(8):406 (1970) for original description.

Lomatium ciliolatum

See *Lomatium ciliolatum* var. *hooveri*

Lomatium ciliolatum Jeps. var. *hooveri* Math. & Const.

"Hoover's lomatium" Apiaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: COL, LAK, NAP, YOL
 Habitat: Chprl, CmWld / serpentinite
 Life Form: Perennial herb
 Blooming: May-July

Lomatium congdonii Coult. & Rose

"Congdon's lomatium" Apiaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: MPA*, TUO
 Quads: 419B*, 458B, 458C, 459A, 459D
 Habitat: Chprl, CmWld / serpentinite
 Life Form: Perennial herb
 Blooming: April-June
 Notes: Known from fewer than twenty occurrences. Threatened by vehicles and mining. Protected at Red Hills ACEC (BLM), TUO Co. See *Contributions from the U.S. National Herbarium* 7:232 (1900) for original description.
 Status Report: 1978

Lomatium engelmannii Math.

"Engelmann's lomatium" Apiaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: MEN, SIS, TRI, OR
 Habitat: LCFrs, UCFrs / serpentinite
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Endangered in OR.

Lomatium foeniculaceum (Nutt.) Coult. & Rose
ssp. *inyoense* (Math. & Const.) Theobald

"Inyo lomatium" Apiaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: /C3c
 Distribution: INY, ID, NV
 Habitat: SCFrs (carbonate)
 Life Form: Perennial herb
 Blooming: June-July
 Notes: Common along crest of the Inyo Mtns. May be a form induced by high-altitude conditions.

Lomatium hendersonii (Coult. & Rose) Coult. & Rose

"Henderson's lomatium" Apiaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: LAS, MOD, ID, NV, OR
 Quads: 622C, 707C
 Habitat: GBScr, PJWld / rocky, clay
 Life Form: Perennial herb
 Blooming: March-June
 Notes: Easily confused with *L. canbyi*. Inadvertently omitted from *The Jepson Manual*. See *Botanical Gazette* 13:210 (1888) for original description, and *Systematic Botany Monographs* 4:1-55 (1984) for taxonomic treatment.

Lomatium howellii (Wats.) Jeps.

"Howell's lomatium" Apiaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: /C3c
 Distribution: DNT, SIS, OR
 Habitat: Chprl, LCFrs / serpentinite
 Life Form: Perennial herb
 Blooming: April-June
 Notes: See *Proceedings of the American Academy of Arts and Sciences* 20:369 (1885) for original description.
 Status Report: 1978

Lomatium insulare (Eastw.) Munz

"San Nicolas Island lomatium" Apiaceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: /C2
 Distribution: SCM*, SNI, GU
 Quads: SNIC
 Habitat: CBScr (sandy)
 Life Form: Perennial herb
 Blooming: February-April
 Notes: Presumed extinct on SCM Isl.; last seen there in 1918 (need quad). Threatened by military development and road construction, and possibly by non-native plants.

Lomatium martindalei (Coulter & Rose) Coulter & Rose

"Coast Range lomatium" Apiaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: DNT, SIS, OR, WA+
 Quads: 704A, 722D, 739A, 739C, 739D
 Habitat: CBScr, LCFrs, Medws
 Life Form: Perennial herb
 Blooming: May-June

Lomatium parvifolium (H. & A.) Jeps.

"small-leaved lomatium" Apiaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: MNT, SCR, SLO
 Habitat: CCFrs, Chprl / serpentinite
 Life Form: Perennial herb
 Blooming: February-June
 Notes: Rare in SCR Co.

Lomatium parvifolium var. *parvifolium*

See *Lomatium parvifolium*

Lomatium peckianum Math. & Const.

"Peck's lomatium" Apiaceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: /C3c
 Distribution: SIS, OR
 Quads: 699A, 699B, 717A, 717B, 733B, 733D, 734A, 734B, 734C, 734D, 735A, 735D
 Habitat: CmWld, LCFrs, PJWld / volcanic
 Life Form: Perennial herb
 Blooming: April-June
 Notes: Threatened by development. See *Bulletin of the Torrey Botanical Club* 69:155 (1942) for original description.
 Status Report: 1978

Lomatium ravenii Math. & Const.

"Raven's lomatium" Apiaceae
 CNPS List: 4 R-E-D Code: 1-2-1 State/Fed. Status: /C3c
 Distribution: LAS, ID, NV, OR, UT
 Habitat: GBScr (adobe, alkaline)
 Life Form: Perennial herb
 Blooming: April-June
 Notes: Occasionally threatened by grazing. Endangered in OR. See *Bulletin of the Torrey Botanical Club* 86(6):379 (1959) for original description.
 Status Report: 1977

Lomatium repostum (Jeps.) Math.

"Napa lomatium" Apiaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: LAK, NAP, SOL, SON
 Habitat: Chprl, CmWld / serpentinite
 Life Form: Perennial herb
 Blooming: April-May

Lomatium rigidum (M.E. Jones) Jeps.

"stiff lomatium" Apiaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: INY
 Habitat: GBScr, PJWld / rocky, near streams
 Life Form: Perennial herb
 Blooming: April-May
 Notes: Common and widespread along east side of the Sierra in INY Co.

Lomatium shevockii Hartman & Const.

"Owens Peak lomatium" Apiaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C1
 Distribution: KRN
 Quads: 258B
 Habitat: LCFrs, UCFrs / rocky
 Life Form: Perennial herb
 Blooming: April-May
 Notes: Known from only two occurrences in the Owens Pk. and Mt. Jenkins area. See *Madroño* 35(2):121-125 (1988) for original description.

Lomatium stebbinsii Schlessman & Const.

"Stebbins's lomatium" Apiaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: AMA, CAL, TUO
 Quads: 474A, 474C, 492A, 492B
 Habitat: Chprl, LCFrs / gravelly, volcanic clay
 Life Form: Perennial herb
 Blooming: March-April
 Notes: Known from fewer than twenty occurrences. Threatened by vehicles. See *Madroño* 26(1):41 (1979) for original description.

Lomatium torreyi

Considered but rejected: Too common

Lomatium tracyi Math. & Const.

"Tracy's lomatium" Apiaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: HUM, SHA, SIS, TEH, TRI, OR
 Habitat: LCFrs, UCFrs / serpentinite
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Endangered in OR.

Lonicera cauriana

Considered but rejected: Too common

Lophochlaena californica var. *davyi*

See *Pleuropogon davyi*

Lophochlaena refracta var. *hooverianus*See *Pleuropogon hooverianus**Lophochlaena refracta* var. *refracta*See *Pleuropogon refractus**Lotus argophyllus* ssp. *adsurgens*See *Lotus argophyllus* var. *adsurgens**Lotus argophyllus* (Gray) Greene var. *adsurgens* (Dunkle) Isley

"San Clemente Island bird's-foot trefoil" Fabaceae

CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/C1

Distribution: SCM

Quads: SCMC, SCMS

Habitat: CBScr, CoScr / rocky

Life Form: Perennial herb

Blooming: April-June

Notes: Known from fewer than ten occurrences. Threatened by Navy activities. Feral herbivores removed from SCM Isl., and vegetation recovering. State-listed as *L. argophyllus* ssp. *adsurgens*. See *Bulletin of the Southern California Academy of Sciences* 39:175 (1940) for original description.

Status Report: 1987

Lotus argophyllus var. *argenteus*

Considered but rejected: Too common

Lotus argophyllus ssp. *niveus*See *Lotus argophyllus* var. *niveus**Lotus argophyllus* (Gray) Greene var. *niveus* (Greene) Ottley

"Santa Cruz Island bird's-foot trefoil" Fabaceae

CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CE/C2

Distribution: SCZ

Quads: SCZA, SCZB, SCZC, SCZD

Habitat: Chprl, CoScr / rocky

Life Form: Perennial herb

Blooming: April-July

Notes: Threatened by feral herbivores. State-listed as *L. argophyllus* ssp. *niveus*.

Status Report: 1979

Lotus argyraeus (Greene) Greenevar. *multicaulis* (Ottley) Isely

"scrub lotus" Fabaceae

CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: CEQA

Distribution: SBD

Quads: 200A, 224C, 225D

Habitat: PJWld (granitic)

Life Form: Perennial herb

Blooming: April-June

Notes: Known only from the New York Mtns. See *University of California Publications in Botany* 10:211 (1923) for original description, and *Memoirs of the New York Botanical Garden* 25:128-206 (1981) for taxonomic treatment.

Lotus argyraeus (Greene) Greene var. *notitius* Isely

"Providence Mtns. lotus" Fabaceae

CNPS List: 1B R-E-D Code: 2-1-3 State/Fed. Status: CEQA

Distribution: SBD

Quads: 176A

Habitat: PJWld

Life Form: Perennial herb

Blooming: May-August

Notes: Known only from the Providence Mtns. See *Brittonia* 30(4):466-472 (1978) for original description, and *Memoirs of the New York Botanical Garden* 25:128-206 (1981) for taxonomic treatment.

Lotus crassifolius (Benth.) Greene var. *otayensis* Moran

"Otay Mtn. lotus" Fabaceae

CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C2

Distribution: SDG

Quads: 10D

Habitat: Chprl (often in disturbed areas)

Life Form: Perennial herb

Blooming: May-August

Notes: Known only from Otay Mtn. Threatened by road maintenance. See *Brittonia* 30(4):466-467 (1978) for original description.

*Lotus cupreus*See *Lotus oblongifolius* var. *cupreus**Lotus dendroideus* (Greene) Greene var. *dendroideus*

"island broom" Fabaceae

CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?

Distribution: ANA, SCT, SCZ, SRO

Habitat: CBScr, CCFrs, CoScr, CmWld

Life Form: Shrub

Blooming: February-August

Notes: Threatened by feral herbivores. See *Brittonia* 30:467 (1978) for revised nomenclature.

Lotus dendroideus (Greene) Greenevar. *traskiae* (Noddin) Isely

"San Clemente Island lotus" Fabaceae

CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/FE

Distribution: SCM

Quads: SCMC, SCMN, SCMS

Habitat: CBScr, CoScr, VFGrs

Life Form: Shrub

Blooming: February-August

Notes: Known from fewer than twenty occurrences. Threatened by Navy activities. Feral herbivores removed from SCM Isl., and vegetation recovering. Occasionally hybridizes with *L. argophyllus* var. *argenteus*. USFWS uses the name *L. dendroideus* ssp. *traskiae*. See *Brittonia* 30:466-472 (1978) for revised nomenclature.

Status Report: 1979

Lotus dendroideus (Greene) Greene
var. *veatchii* (Greene) Isely

"San Miguel Island deerweed" Fabaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: SMI, BA
 Habitat: CBScr, CoScr
 Life Form: Shrub
 Blooming: March-June
 Notes: See *Bulletin of the California Academy of Sciences* 1:83 (1886) for original description, and *Brittonia* 30:467 (1978) for revised nomenclature.

Lotus haydonii (Orcutt) Greene

"pygmy lotus" Fabaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: IMP, SDG, BA
 Habitat: PJWld, SDScr / rocky
 Life Form: Perennial herb
 Blooming: January-June
 Notes: See *West American Scientist* 6:63 (1889) for original description, and *Memoirs of the New York Botanical Garden* 25:128-206 (1981) for taxonomic treatment.

Lotus neo-incanus

Considered but rejected: Too common; a synonym of *L. incanus*

Lotus nuttallianus Greene

"Nuttall's lotus" Fabaceae
 CNPS List: 1B R-E-D Code: 3-3-2 State/Fed. Status: /C2
 Distribution: SDG, BA
 Quads: 11B, 11D, 22B, 22C, 36B, 36D
 Habitat: CoDns, CoScr
 Life Form: Annual herb
 Blooming: March-June
 Notes: Declining precipitously; now known in CA from fewer than ten occurrences. Threatened by development, non-native plants, and land management activities, particularly by U.S. Navy at Silver Strand and Imperial Beach.

Lotus oblongifolius (Benth.) Greene var. *cupreus* (Greene) Ottley

"copper-flowered bird's-foot trefoil" Fabaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: TUL
 Habitat: Medws (edges), UCFrs / mesic
 Life Form: Perennial herb
 Blooming: July-August

Lotus rubriflorus H.K. Sharsm.

"red-flowered lotus" Fabaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C2
 Distribution: COL, STA, TEH
 Quads: 425A, 425B, 564D, 628D
 Habitat: CmWld, VFGrs
 Life Form: Annual herb
 Blooming: April-June
 Notes: Known from only four disjunct occurrences. Threatened by development, and probably by grazing and non-native plants. Field work needed. See *Madroño* 2:56 (1941) for original description.
 Status Report: 1988

Lotus scoparius var. *dendroideus*

See *Lotus dendroideus* var. *dendroideus*

Lotus scoparius ssp. *traskiae*

See *Lotus dendroideus* var. *traskiae*

Lotus yollabolliensis Munz

"Yolla Bolly Mtns. bird's-foot trefoil" Fabaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: HUM, TRI
 Habitat: UCFrs
 Life Form: Perennial herb
 Blooming: June-August

Ludwigia repens var. *stipitata*

Considered but rejected: Too common; a synonym of *L. repens*

Lupinus abramsii

See *Lupinus albifrons* var. *abramsii*

Lupinus adsurgens var. *undulatus*

Considered but rejected: Too common

Lupinus albifrons Benth. var. *abramsii* (C.P. Smith) Hoov.

"Abrams's lupine" Fabaceae
 CNPS List: 3 R-E-D Code: 3-2-3 State/Fed. Status: CEQA?
 Distribution: MNT
 Quads: 320B
 Habitat: LCFrs
 Life Form: Perennial herb
 Blooming: April-June
 Notes: Move to List 1B? Possibly more widespread, but only specimens from 320B match the type; plants from SLO Co. are probably var. *albifrons*.

Lupinus antoninus Eastw.

"Anthony Peak lupine" Fabaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: LAK, MEN, TEH, TRI
 Quads: 549A, 581C, 597C, 613C
 Habitat: LCFrs, UCFrs
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Known from only four occurrences. See *Leaflets of Western Botany* 3(9):202 (1943) for original description.

Lupinus cervinus Kell.

"Santa Lucia lupine" Fabaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: MNT, SLO
 Habitat: LCFrs
 Life Form: Perennial herb
 Blooming: May-June

Lupinus citrinus

See *Lupinus citrinus* var. *citrinus*

Lupinus citrinus Kell. var. *citrinus*

"orange lupine" Fabaceae
 CNPS List: 1B R-E-D Code: 1-2-3 State/Fed. Status: /C2
 Distribution: FRE, MAD
 Quads: 377A, 397A, 397B, 397C, 397D, 398B, 418D
 Habitat: Chprl, CmWld, LCFrs / granitic
 Life Form: Annual herb
 Blooming: April-July
 Notes: Threatened by development, road widening, vehicles, grazing, and logging. See *Proceedings of the California Academy of Sciences* I 7:93 (1877) for original description, and *Madroño* 28(3):184 for first MAD Co. record.
 Status Report: 1979

Lupinus citrinus Kell. var. *deflexus* (Congd.) Jeps.

"Mariposa lupine" Fabaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CT/C1
 Distribution: MPA
 Quads: 419B
 Habitat: Chprl, CmWld / granitic
 Life Form: Annual herb
 Blooming: April-May
 Notes: Known from only four occurrences near Mariposa Creek. Threatened by development and grazing. State-listed as *L. deflexus*. See *Muhlenbergia* 1:38 (1904) for original description.
 Status Report: 1990

Lupinus constancei T.W. Nelson & J.P. Nelson

"The Lassics lupine" Fabaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: HUM, TRI
 Quads: 634D
 Habitat: LCFrs (serpentine)
 Life Form: Perennial herb
 Blooming: July
 Notes: Known from approximately five occurrences. See *Brittonia* 35(2):180-183 (1983) for original description.

Lupinus covillei

Considered but rejected: Too common

Lupinus croceus Eastw. var. *pilosellus* (Eastw.) Munz

"saffron-flowered lupine" Fabaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: SHA, SIS, TRI
 Habitat: LCFrs
 Life Form: Perennial herb
 Blooming: May-August
 Notes: See *L. croceus* in *The Jepson Manual*.

Lupinus culbertsonii ssp. *culbertsonii*

See *Lupinus lepidus* var. *culbertsonii*

Lupinus culbertsonii ssp. *hypolasius*

Considered but rejected: A synonym of *L. lepidus* var. *ramosus*; a common taxon

Lupinus dalesiae Eastw.

"Quincy lupine" Fabaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C3c
 Distribution: BUT, PLU, SIE, YUB
 Quads: 559A, 573A, 573B, 574A, 574B, 588B, 588C, 589A, 589B, 589C, 589D, 590A, 590B, 590D, 605C, 606A, 606B, 606C, 606D
 Habitat: LCFrs, UCFrs / often in disturbed areas
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Possibly threatened by logging and roadside maintenance. See *Leaflets of Western Botany* 2:266 (1940) for original description.

Lupinus dedeckeriae

See *Lupinus padre-crowleyi*

Lupinus deflexus

See *Lupinus citrinus* var. *deflexus*

Lupinus densiflorus var. *glareosus*

Considered but rejected: A synonym of *L. microcarpus* var. *horizontalis*; a common taxon

Lupinus duranii Eastw.

"Mono Lake lupine" Fabaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: MNO
 Quads: 434B, 435A, 452A, 452B, 452C, 453A, 453D, 470C
 Habitat: GBScr, SCFrs, UCFrs / pumice flats
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Threatened by vehicles.
 Status Report: 1980

Lupinus elatus Jtn.

"silky lupine" Fabaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: LAX, VEN
 Habitat: LCFrs, UCFrs
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Similar to *L. adsurgens* and *L. andersonii*; needs taxonomic study.

Lupinus excubitus M.E. Jones var. *johnstonii* C.P. Smith

"interior bush lupine" Fabaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: KRN, LAX
 Habitat: LCFrs (decomposed granitic)
 Life Form: Shrub
 Blooming: May-July

Lupinus excubitus M.E. Jones var. *medius* (Jeps.) Munz

"Mountain Springs bush lupine" Fabaceae
 CNPS List: 1B R-E-D Code: 2-1-3 State/Fed. Status: /C2
 Distribution: IMP, SDG
 Quads: 7A, 7B, 7C, 18C, 19A, 19B, 19D
 Habitat: PJWld, SDScr
 Life Form: Shrub
 Blooming: March-April
 Notes: Possibly threatened by vehicles.

Lupinus eximius Davy

"San Mateo tree lupine" Fabaceae
 CNPS List: 3 R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: SMT, SON?
 Quads: 448C, 448D, 503D?
 Habitat: Chprl, CoScr
 Life Form: Shrub (evergreen)
 Blooming: April-July
 Notes: Move to List 1B? SON Co. plants need taxonomic confirmation. Identification is very difficult; study needed. See *L. arboreus* in *The Jepson Manual*. USFWS uses the name *L. arboreus* var. *eximius*. See *Erythraea* 3:116 (1895) for original description.

Lupinus gracilentus Greene

"slender lupine" Fabaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: INY, MPA
 Habitat: SCFrS
 Life Form: Perennial herb
 Blooming: July-August

Lupinus guadalupensis Greene

"Guadalupe Island lupine" Fabaceae
 CNPS List: 1B R-E-D Code: 3-2-2 State/Fed. Status: /C2
 Distribution: SCM, GU
 Quads: SCMC, SCMN, SCMS
 Habitat: CoScr (sandy or gravelly)
 Life Form: Annual herb
 Blooming: February-April
 Notes: Threatened by Navy activities. Feral herbivores removed from SCM Isl., and vegetation recovering. See *Bulletin of the California Academy of Sciences* 1:184 (1885) for original description, and *Aliso* 5:327 (1963) for distributional information.
 Status Report: 1979

Lupinus holmgrenianus C.P. Smith

"Holmgren's lupine" Fabaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: /C3b
 Distribution: INY, NV
 Quads: 410C
 Habitat: PJWld (volcanic)
 Life Form: Perennial herb
 Blooming: May-June

Lupinus horizontalis

Considered but rejected: Too common; a synonym of *L. microcarpus* var. *horizontalis*

Lupinus humboldtii

See *Lupinus constancei*

Lupinus hypolasius

Considered but rejected: A synonym of *L. lepidus* var. *ramosus*; a common taxon

Lupinus inyoensis

Considered but rejected: A synonym of *L. argenteus* var. *heteranthus*; a common taxon

Lupinus lapidicola Heller

"Mt. Eddy lupine" Fabaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: DNT, HUM, SIS, TRI
 Habitat: LCFrS, SCFrS, UCFrS / granitic or serpentinite
 Life Form: Perennial herb
 Blooming: July
 Notes: See *Bulletin of the Torrey Botanical Club* 51:306 (1924) for original description.

Lupinus latifolius var. *dudleyi*

Considered but rejected: Taxonomic problem, but needs reevaluation

Lupinus lepidus Douglas var. *culbertsonii* (Greene) C.P. Smith

"Hockett Meadows lupine" Fabaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: FRE, MNO, TUL
 Quads: 331B, 331C, 331D, 352C, 434D
 Habitat: Medws, UCFrS (mesic)
 Life Form: Perennial herb
 Blooming: July-August
 Notes: Known from fewer than ten occurrences. Need quads for FRE Co. See *Madroño* 22(4):169-177 (1973) for taxonomic treatment.

Lupinus lobbii

Considered but rejected: Too common; a synonym of *L. lepidus* var. *lobbii*

Lupinus ludovicianus Greene

"San Luis Obispo County lupine" Fabaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: SLO
 Quads: 195B, 220A, 220B, 221A*, 221B, 245C, 245D, 246D, 294C
 Habitat: Chprl, CmWld / carbonate
 Life Form: Perennial herb
 Blooming: April-July
 Notes: Known from fewer than twenty occurrences. Threatened by grazing and trampling. Official flower of SLO Co. See *Bulletin of the California Academy of Sciences* 1:184 (1885) for original description.
 Status Report: 1977

Lupinus magnificus M.E. Jones var. *glarecola* M.E. Jones

"Coso Mtns. lupine" Fabaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: INY
 Habitat: GBScr (granitic)
 Life Form: Perennial herb
 Blooming: April-June
 Notes: Appears after fires. See *L. magnificus* in *The Jepson Manual*.

Lupinus magnificus M.E. Jones
var. *hesperius* (Heller) C.P. Smith

"McGee Meadows lupine" Fabaceae
CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
Distribution: INY
Habitat: GBScr, UCFrs / sandy
Life Form: Perennial herb
Blooming: April-June
Notes: See *L. magnificus* in *The Jepson Manual*. See *Muhlenbergia* 2:212 (1906) for original description.

Lupinus magnificus M.E. Jones var. *magnificus*

"Panamint Mtns. lupine" Fabaceae
CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
Distribution: INY
Quads: 302A, 302C, 302D, 348C
Habitat: GBScr, MDScr, UCFrs
Life Form: Perennial herb
Blooming: April-June
Notes: Known from approximately ten, mostly historical, occurrences. Field surveys needed. See *Contributions to Western Botany* 8:26 (1898) for original description.

Lupinus milo-bakeri C.P. Smith

"Milo Baker's lupine" Fabaceae
CNPS List: 1B R-E-D Code: 2-3-3 State/Fed. Status: CT/C2
Distribution: COL, MEN
Quads: 547B, 547C, 583C, 598C
Habitat: CmWld (often along roadsides), VFGrs
Life Form: Annual herb
Blooming: June-September
Notes: Known from fewer than twenty occurrences. Threatened by urbanization, road widening, and herbicide application; many populations seriously affected by CalTrans spraying in 1984. Needs taxonomic study; see *L. luteolus* in *The Jepson Manual*. See *Four Seasons* 1(3):8-9 (1965) for differentiation from *L. luteolus*.
Status Report: 1985

Lupinus montigenus

Considered but rejected: A synonym of *L. argenteus* var. *montigenus*, a common taxon

Lupinus nipomensis Eastw.

"Nipomo Mesa lupine" Fabaceae
CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/C1
Distribution: SLO
Quads: 221D
Habitat: CoDns
Life Form: Annual herb
Blooming: March-May
Notes: Known from only five occurrences on Nipomo Mesa, each with a small number of plants. Threatened by coastal development. See *Leaflets of Western Botany* 2(10):186-188 (1939) for original description.
Status Report: 1988

Lupinus padre-crowleyi C.P. Smith

"Father Crowley's lupine" Fabaceae
CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CR/C2
Distribution: INY, MNO, TUL
Quads: 306B, 329A, 352A, 393B, 393D, 414B
Habitat: GBScr, RpFrs, RpScr, UCFrs / decomposed granitic
Life Form: Perennial herb
Blooming: July-August
Notes: Known from fewer than twenty occurrences. This name pre-dates *L. dedeckeriae* (both described independently from the same type locality).
Status Report: 1987

Lupinus peirsonii Mason

"Peirson's lupine" Fabaceae
CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
Distribution: LAX
Habitat: JTWld, PJWld, UCFrs / gravelly
Life Form: Perennial herb
Blooming: April-May

Lupinus pratensis var. *eristachyus*

Considered but rejected: Too common

Lupinus sericatus Kell.

"Cobb Mtn. lupine" Fabaceae
CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C3c
Distribution: COL, LAK, NAP, SON
Quads: 500B, 516B, 516C, 517A, 517B, 517D, 533A, 533C, 534A, 534D, 535C, 547C
Habitat: Chprl, CmWld, LCFrs
Life Form: Perennial herb
Blooming: March-June
Notes: Threatened by geothermal development, logging, and road widening; will colonize disturbed sites. See *Fremontia* 13(3):21-22 (1985) for account of reestablishment project in The Geysers geothermal area.

Lupinus sericeus

Considered but rejected: Taxonomic problem

Lupinus spectabilis Hoov.

"shaggyhair lupine" Fabaceae
CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
Distribution: MPA, TUO
Quads: 439B, 439C, 439D, 457C, 458B, 458D
Habitat: Chprl, CmWld / serpentinite
Life Form: Annual herb
Blooming: April-May
Notes: Threatened by mining, grazing, and road construction. See *Leaflets of Western Botany* 2(8):131 (1938) for original description.
Status Report: 1980

Lupinus sublanatus

Considered but rejected: A synonym of *L. argenteus* var. *argenteus*, a common taxon

Lupinus tidestromii Greene

"Tidestrom's lupine" Fabaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/FE
 Distribution: MNT, MRN, SON
 Quads: 366A, 366C, 485C, 503B, 503D
 Habitat: CoDns
 Life Form: Perennial herb (rhizomatous)
 Blooming: May-June
 Notes: Seriously threatened by coastal development, trampling, and non-native plants. Includes *L. tidestromii* var. *layneae*. Only MNT Co. plants are state-listed Endangered as var. *tidestromii*. See *Erythea* 3:17 (1895) for original description.
 Status Report: 1985

Lupinus tidestromii var. *layneae*

See *Lupinus tidestromii*

Lupinus tidestromii var. *tidestromii*

See *Lupinus tidestromii*

Lupinus tracyi Eastw.

"Tracy's lupine" Fabaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: /C3c
 Distribution: DNT, HUM, SIS, TRI, OR
 Habitat: UCFrs
 Life Form: Perennial herb
 Blooming: July
 Notes: Endangered in OR. See *Leaflets of Western Botany* 2(15):268 (1940) for original description.
 Status Report: 1977

Lycium brevipes Benth var. *hassei* (Greene) Hitchc.

"Santa Catalina Island desert-thorn" Solanaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C3a
 Distribution: LAX, SCM*, SCT*
 Quads: 73A, SCMN*, SCTE*
 Habitat: CBScr, CoScr
 Life Form: Shrub (deciduous)
 Blooming: June
 Notes: Rediscovered on the Palos Verdes Peninsula (LAX Co.) by A. Sanders in 1976. Only a few plants are known; the occurrence was diminished by grading in the 1930's. Only two wild specimens were known from the Channel Islands; one died in 1908, the other in 1936. See *Pittonia* 1:222 (1888) for original description, and *Annals of the Missouri Botanical Garden* 19:256-257 (1932) for taxonomic treatment.
 Status Report: 1979

Lycium hassei

See *Lycium brevipes* var. *hassei*

Lycium parishii Gray

"Parish's desert-thorn" Solanaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: IMP, RIV, SBD*, SDG, AZ, SO
 Quads: 18C, 80D, 107A*
 Habitat: CoScr, SDScr
 Life Form: Shrub
 Blooming: March-April

Lycium verrucosum Eastw.

"San Nicolas Island desert-thorn" Solanaceae
 CNPS List: 1A Last Seen: 1901 State/Fed. Status: /C3a
 Distribution: SNI*
 Quads: SNIC*
 Habitat: CoScr
 Life Form: Shrub
 Blooming: April
 Notes: Known only from the type collection. Perhaps a form of *L. brevipes*. See *Proceedings of the California Academy of Sciences* III 1:111 (1898) for original description, and *Annals of the Missouri Botanical Garden* 19:257-258 (1932) for taxonomic treatment.
 Status Report: 1979

Lycopodiella inundata (L.) Holub

"bog club-moss" Lycopodiaceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: HUM, NEV, ID, OR, WA, ++
 Quads: 557C, 689A, 689C, 689D
 Habitat: BgFns (coastal), MshSw (lake margins), LCFrs (mesic)
 Life Form: Perennial herb (rhizomatous)
 Fertile: September
 Notes: Endangered in ID and OR, and state-listed as Sensitive in WA. See *Fremontia* 12(2):11-14 (1984) for information on NEV Co. occurrence.

Lycopodium clavatum L.

"running-pine" Lycopodiaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: HUM, ++
 Quads: 652A, 672A, 672D, 689A, 689C, 689D
 Habitat: MshSw, NCFrs (mesic)
 Life Form: Perennial herb (rhizomatous)
 Fertile: July-August

Lycopodium inundatum

See *Lycopodiella inundata*

Lycopus uniflorus Michx.

"northern bugleweed" Lamiaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: DNT?, HUM, NEV, PLU, TUO, ++
 Habitat: BgFns
 Life Form: Perennial herb
 Blooming: July-September
 Notes: Does plant occur in DNT Co.? See *Wasmann Journal of Biology* 33(1-2):93 (1975) for distributional information.

Lycurus phleoides

See *Lycurus phleoides* var. *phleoides*

Lycurus phleoides HBK. var. *phleoides*

"wolftail" Poaceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: SBD, AZ, ++
 Quads: 200A
 Habitat: JTWld, PJWld
 Life Form: Perennial herb
 Blooming: August-September
 Notes: Threatened by grazing.

Lyonothamnus floribundus Gray
ssp. *asplenifolius* (Greene) Raven

"Santa Cruz Island ironwood" Rosaceae
CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
Distribution: SCM, SCZ, SRO
Quads: SCMS, SCZA, SCZB, SCZC, SCZD, SRON
Habitat: BUFRs, Chprl, CmWld
Life Form: Tree (evergreen)
Blooming: June-July
Notes: Threatened by grazing on SCZ and SRO islands. Feral herbivores removed from SCM Isl., and vegetation recovering.

Lyonothamnus floribundus Gray ssp. *floribundus*

"Santa Catalina Island ironwood" Rosaceae
CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
Distribution: SCT
Quads: SCTN, SCTW
Habitat: BUFRs, Chprl, CmWld
Life Form: Tree (evergreen)
Blooming: May-June
Notes: Feral animal populations increasingly under control; stump-sprouting and seedlings recently noted.

Lyrocarpa coulteri Hook. & Harv. var. *palmeri* (Wats.) Roll.

"Coulter's lyrepod" Brassicaceae
CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
Distribution: IMP, SDG, BA
Habitat: SDScr
Life Form: Perennial herb
Blooming: December-April

Lythrum californicum

Considered but rejected: Too common

Machaeranthera ammophila

Considered but rejected: A synonym of *M. arida*, a common taxon

Machaeranthera asteroides (Torr.) Greene
var. *lagunensis* (Keck) Turner

"Laguna Mtns. aster" Asteraceae
CNPS List: 2 R-E-D Code: 3-3-1 State/Fed. Status: CR/C2
Distribution: SDG, BA
Quads: 19C
Habitat: CmWld, LCFrs
Life Form: Perennial herb
Blooming: July-August
Notes: Known in CA from approximately five occurrences in the Wooded Hill area of Mt. Laguna. Threatened by grazing and recreational activities. State-listed as *M. lagunensis*. See *Brittonia* 9:238 (1957) for original description, and *Phytologia* 62(3):231-233 (1987) for revised nomenclature.
Status Report: 1987

Machaeranthera canescens ssp. *ziegleri*

See *Machaeranthera canescens* var. *ziegleri*

Machaeranthera canescens (Pursh) Gray
var. *ziegleri* (Munz) Turner

"Ziegler's aster" Asteraceae
CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C3c
Distribution: RIV
Quads: 65C
Habitat: LCFrs, UCFrs
Life Form: Perennial herb
Blooming: July-October
Notes: Known only from the Santa Rosa Mtns. Threatened by grazing. See *Aliso* 7:65-66 (1969) for original description, and *Phytologia* 62(3):257 (1987) for revised nomenclature.

Machaeranthera cognata

See *Xylorhiza cognata*

Machaeranthera juncea (Greene) Shinn.

"rush-like bristleweed" Asteraceae
CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
Distribution: SDG, AZ, BA, SO
Habitat: Chprl, CoScr
Life Form: Perennial herb
Blooming: June-October
Notes: See *Bulletin of the California Academy of Sciences* 1:190 (1885) for original description, and *Phytologia* 68(6):439-465 (1990) for revised nomenclature.

Machaeranthera lagunensis

See *Machaeranthera asteroides* var. *lagunensis*

Machaeranthera leucanthemifolia

Considered but rejected: Too common; a synonym of *M. canescens* var. *leucanthemifolia*

Madia anomala

Considered but rejected: Too common

Madia doris-nilesiae T.W. Nelson & J.P. Nelson

"Niles's madia" Asteraceae
CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CEQA
Distribution: TRI
Quads: 633A, 651B, 651C, 651D
Habitat: LCFrs (serpentinite)
Life Form: Annual herb
Blooming: June-July
Notes: Threatened by logging, recreation, and road maintenance. See *Brittonia* 37(4):394-396 (1985) for original description.

Madia hallii Keck

"Hall's madia" Asteraceae
CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
Distribution: COL, LAK, NAP, YOL
Quads: 516B, 517A, 532C, 532D, 533A, 533D, 547B, 547C
Habitat: Chprl (serpentinite)
Life Form: Annual herb
Blooming: April-May
Notes: Threatened by mining in NAP Co.

Madia nutans (Greene) Keck

"nodding madia" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: NAP, SON
 Habitat: Chprl, CmWld
 Life Form: Annual herb
 Blooming: April-May

Madia radiata Kell.

"showy madia" Asteraceae
 CNPS List: 1B R-E-D Code: 2-3-3 State/Fed. Status: CEQA
 Distribution: CCA*, FRE, KNG, KRN, MNT, SBT, SJQ, SLO
 Quads: 267B, 268A, 291B, 291C, 315D, 316D, 339A, 339B,
 340A, 361C, 362D, 444D, 464A*, 481D*
 Habitat: CmWld, VFGrs
 Life Form: Annual herb
 Blooming: March-May
 Notes: Apparently occurs as very scattered populations at only a few locations on private land. Threatened by grazing and non-native plants.

Madia stebbinsii T.W. Nelson & J.P. Nelson

"Stebbins's madia" Asteraceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C3c
 Distribution: SHA, TEH, TRI
 Quads: 596A, 596B, 632C, 632D
 Habitat: Chprl, LCFrs / serpentinite
 Life Form: Annual herb
 Blooming: May-June
 Notes: Possibly threatened by road maintenance. See *Brittonia* 32(3):323-325 (1980) for original description.

Madia subspicata

Considered but rejected: Too common

Madia yosemitana Gray

"Yosemite madia" Asteraceae
 CNPS List: 3 R-E-D Code: ?-2-3 State/Fed. Status: CEQA?
 Distribution: AMA, FRE, MAD?, MPA, TUL, TUO
 Quads: 353C, 397C, 397D, 419B, 436B, 437A, 455A, 455B,
 455D, 456A, 490D, 492A
 Habitat: LCFrs, Medws
 Life Form: Annual herb
 Blooming: April-July
 Notes: Move to List 4? Easily overlooked; location and rarity information needed. Does plant occur in MAD Co.? See *Proceedings of the American Academy of Arts and Sciences* 17:219 (1881-2) for original description.

Mahonia higginsiae

See *Berberis fremontii*

Mahonia nervosa var. *mendocinensis*

Considered but rejected: A synonym of *Berberis nervosa*, a common taxon

Mahonia nevini

See *Berberis nevini*

Mahonia pinnata ssp. *insularis*

See *Berberis pinnata* ssp. *insularis*

Mahonia sonnei

Considered but rejected: A synonym of *Berberis aquifolium* var. *repens*, a common taxon

Malacothamnus abottii (Eastw.) Kearn.

"Abbott's bush mallow" Malvaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C1
 Distribution: MNT
 Quads: 294A, 295D
 Habitat: RpScr
 Life Form: Shrub (deciduous)
 Blooming: June-October
 Notes: Rediscovered in 1990 by D. Mitchell near Sargent Creek; now known from about five extended populations. Threatened by housing development, grazing, energy development, and road construction. See *Leaflets of Western Botany* 1:213-222 (1936) for original description.
 Status Report: 1977

Malacothamnus aboriginum (Rob.) Greene

"Indian Valley bush mallow" Malvaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CEQA
 Distribution: FRE, MNT, SBT
 Quads: 293A, 294A, 295D, 315B, 315C, 316B, 339C, 340B,
 340D, 341A, 341B, 341D, 362C, 363A, 363B, 363C, 364A?,
 364C, 385C, 385D
 Habitat: Chprl, CmWld / rocky
 Life Form: Shrub (deciduous)
 Blooming: April-October
 Notes: Appears in abundance after fires. See *Synoptical Flora of North America* 1(1):311 (1897) for original description.

Malacothamnus arcuatus (Greene) Greene

"arcuate bush mallow" Malvaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: SCL, SCR, SMT
 Habitat: Chprl
 Life Form: Shrub (evergreen)
 Blooming: April-July
 Notes: Rare in SCR Co. A synonym of *M. fasciculatus* in *The Jepson Manual*.

Malacothamnus clementinus (Munz & Jtn.) Kearn.

"San Clemente Island bush mallow" Malvaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/FE
 Distribution: SCM
 Quads: SCMC, SCMS
 Habitat: VFGrs
 Life Form: Shrub (deciduous)
 Blooming: March-August
 Notes: Known from six occurrences. Threatened by Navy activities. Feral herbivores removed from SCM Isl., and vegetation recovering. See *Bulletin of the Torrey Botanical Club* 51:296 (1924) for original description, and *Leaflets of Western Botany* 6(6):127-128 (1951) for revised nomenclature.
 Status Report: 1987

Malacothamnus davidsonii (Rob.) Greene

"Davidson's bush mallow" Malvaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: LAX, MNT, SLO
 Quads: 111A, 111B, 137C, 137D, 294C
 Habitat: Chprl, CoScr, RpWld
 Life Form: Shrub (deciduous)
 Blooming: June-September
 Notes: Need quads for MNT Co. Threatened by urbanization in LAX Co. Intergrades with *M. fasciculatus*.

Malacothamnus fasciculatus (T. & G.) Greene
var. *nesioticus* (Rob.) Kearn.

"Santa Cruz Island bush mallow" Malvaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/C1
 Distribution: SCZ
 Quads: SCZA, SCZB
 Habitat: Chprl
 Life Form: Shrub (deciduous)
 Blooming: June-July
 Notes: Known from only two occurrences near Christi Ranch and in Central Valley. Threatened by feral pigs, erosion, and non-native plants. A synonym of *M. fasciculatus* in *The Jepson Manual*.
 Status Report: 1988

Malacothamnus gracilis (Eastw.) Kearn.

"slender bush mallow" Malvaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: SLO
 Habitat: Chprl
 Life Form: Shrub (deciduous)
 Blooming: June-October
 Notes: A synonym of *M. jonesii* in *The Jepson Manual*.

Malacothamnus hallii (Eastw.) Kearn.

"Hall's bush mallow" Malvaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CEQA
 Distribution: ALA?, CCA, MER, SCL
 Quads: 384A, 404C, 405D, 406B, 406C, 407A, 407B, 427D, 464A, 464B, 464C
 Habitat: Chprl
 Life Form: Shrub (evergreen)
 Blooming: May-September
 Notes: Does plant occur in ALA Co.? A synonym of *M. fasciculatus* in *The Jepson Manual*.

Malacothamnus helleri (Eastw.) Kearn.

"Heller's bush mallow" Malvaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: COL, GLE, LAK, NAP, TEH, YOL
 Habitat: Chprl (sandstone)
 Life Form: Shrub (deciduous)
 Blooming: June-August
 Notes: A synonym of *M. fremontii* in *The Jepson Manual*.

Malacothamnus jonesii (Munz) Kearn.

"Jones's bush mallow" Malvaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: MNT, SLO
 Habitat: Chprl, CmWld
 Life Form: Shrub (deciduous)
 Blooming: May-July

Malacothamnus mendocinensis (Eastw.) Kearn.

"Mendocino bush mallow" Malvaceae
 CNPS List: 1A Last Seen: 1938 State/Fed. Status: /C2*
 Distribution: MEN*
 Quads: 550C*, 551D*
 Habitat: CmWld
 Life Form: Shrub (deciduous)
 Blooming: May-June
 Notes: Known from only two historical collections. A synonym of *M. fasciculatus* in *The Jepson Manual*. See *Leaflets of Western Botany* 2:188 (1939) for original description and 6(6):133-134 (1951) for revised nomenclature.
 Status Report: 1977

Malacothamnus niveus (Eastw.) Kearn.

"San Luis Obispo County bush mallow" Malvaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: MNT, SBA, SLO
 Habitat: Chprl
 Life Form: Shrub (deciduous)
 Blooming: May-July
 Notes: A synonym of *M. jonesii* in *The Jepson Manual*.

Malacothamnus palmeri (Wats.) Greene
var. *involutus* (Rob.) Kearn.

"Carmel Valley bush mallow" Malvaceae
 CNPS List: 1B R-E-D Code: 1-2-3 State/Fed. Status: /C2
 Distribution: MNT, SLO
 Quads: 270C, 295A, 295B, 295D, 318C, 318D, 343B, 365C, 365D, 366D
 Habitat: Chprl, CmWld
 Life Form: Shrub (deciduous)
 Blooming: May-August
 Notes: Threatened by development in MNT Co. A synonym of *M. palmeri* in *The Jepson Manual*. See *Synoptical Flora of North America* 1(1):310 (1897) for original description, and *Leaflets of Western Botany* 6(6):121 (1951) for revised nomenclature.
 Status Report: 1977

Malacothamnus palmeri (Wats.) Greene var. *lucianus* Kearn.

"Arroyo Seco bush mallow" Malvaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: MNT
 Quads: 319B, 344D
 Habitat: Chprl, Medws
 Life Form: Shrub (deciduous)
 Blooming: May-August
 Notes: Known from only three occurrences: two near Big Sur, and one in Arroyo Seco in the Santa Lucia Mtns. A synonym of *M. palmeri* in *The Jepson Manual*. See *Leaflets of Western Botany* 7(12):289-290 (1955) for original description.
 Status Report: 1979

Malacothamnus palmeri (Wats.) Greene var. *palmeri*

"Santa Lucia bush mallow" Malvaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: MNT?, SLO
 Habitat: Chprl
 Life Form: Shrub (deciduous)
 Blooming: May-July
 Notes: MNT Co. plants need confirmation. A synonym of *M. palmeri* in *The Jepson Manual*.

Malacothamnus parishii (Eastw.) Kearn.

"Parish's bush mallow" Malvaceae
 CNPS List: 1A Last Seen: 1895 State/Fed. Status: /C2
 Distribution: SBD*
 Quads: 106C*
 Habitat: Chprl, CoScr
 Life Form: Shrub (deciduous)
 Blooming: June-July
 Notes: Historical occurrence in San Bernardino Valley was extirpated by urbanization. RIV Co. record from the Santa Rosa Mtns. probably erroneous, based on a misidentification of *Sphaeralcea*. A synonym of *M. fasciculatus* in *The Jepson Manual*.

Malacothrix foliosa Gray

"leafy malacothrix" Asteraceae
 CNPS List: 4 R-E-D Code: 1-2-2 State/Fed. Status: CEQA?
 Distribution: ANA, SBR, SCM, SNI, BA
 Habitat: CoScr
 Life Form: Annual herb
 Blooming: March-July
 Notes: See *Madroño* 21:386-388 (1992) for SBR Isl. distribution.

Malacothrix incana (Nutt.) T. & G.

"dunedelion" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: SBA, SCZ*, SLO, SMI, SNI, SRO, VEN
 Habitat: CoDns
 Life Form: Perennial herb
 Blooming: April-August
 Notes: Last collected on SCZ Isl in the 1880's.

Malacothrix indecora Greene

"Santa Cruz Island cliff-aster" Asteraceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C1
 Distribution: SCZ, SMI*
 Quads: SCZA, SCZB*, SMIE*
 Habitat: CBScr, Chprl, CoDns
 Life Form: Annual herb
 Blooming: April-September
 Notes: Known from only one occurrence with less than 50 individuals at Black Point. Threatened by feral herbivores and possibly by erosion. See *Bulletin of the California Academy of Sciences* 2:152 (1886) for original description.

Malacothrix saxatilis (Nutt.) T. & G.
var. *arachnoidea* (McGregor) E. Williams

"Carmel Valley cliff-aster" Asteraceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: MNT, SBA
 Quads: 167C, 342C, 343A, 343B, 366D
 Habitat: Chprl
 Life Form: Perennial herb (rhizomatous)
 Blooming: June-December
 Notes: Known from approximately ten occurrences.

Malacothrix squalida Greene

"island malacothrix" Asteraceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C2
 Distribution: ANA, SCZ
 Quads: ANAC, SCZC
 Habitat: Chprl, CmWld
 Life Form: Annual herb
 Blooming: April-July
 Notes: Last seen on SCZ Isl. in 1968 and on ANA Isl. in 1986. Threatened by feral herbivores on SCZ Isl., and by seabird-caused erosion on ANA Isl. Field surveys needed. See *Bulletin of the California Academy of Sciences* 2:152 (1886) for original description.

Malaxis brachypoda

See *Malaxis monophyllos* ssp. *brachypoda*

Malaxis monophyllos (L.) Swartz
ssp. *brachypoda* (Gray) A. Löve & D. Löve

"adder's-mouth" Orchidaceae
 CNPS List: 2 R-E-D Code: 3-3-1 State/Fed. Status: CEQA
 Distribution: RIV*, SBD, ++
 Quads: 83C*, 105A
 Habitat: BgFns, Medws, UCFrs / mesic
 Life Form: Perennial herb (bulbiferous)
 Blooming: June-August
 Notes: Rediscovered in 1989 by R. Coleman at South Fork Meadows in the San Bernardino Mtns. Historically known from Tahquitz Valley in the San Jacinto Mtns. Threatened by grazing and trampling. USFWS uses the name *M. brachypoda*. See *Native Orchids of the United States and Canada* (1975) by Luer for nomenclature, and *Fremontia* 18(1):19-21 (1990) for account of re-discovery.

Malperia tenuis Wats.

"brown turbans" Asteraceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: IMP, SDG, BA
 Quads: 5B, 18C, 31D
 Habitat: SDScr (sandy)
 Life Form: Annual herb
 Blooming: March-April

Malvastrum kernense

See *Eremalche kernensis*

Marina orcuttii (Wats.) Barneby var. *orcuttii*

"California marina" Fabaceae
 CNPS List: 1B R-E-D Code: 3-1-2 State/Fed. Status: /C2
 Distribution: RIV, BA
 Quads: 65C
 Habitat: Chprl, PJWld, SDScr
 Life Form: Perennial herb
 Blooming: May-October
 Notes: Known in CA from only two occurrences at Deep Cyn. in the Santa Rosa Mtns. See *Memoirs of the New York Botanical Garden* 27:85 (1977) for revised nomenclature.

Marsilea oligospora Goodd.

"Nelson's pepperwort" Marsileaceae
 CNPS List: 3 R-E-D Code: ??-1 State/Fed. Status: CEQA?
 Distribution: BUT, ELD, LAS, MOD, NEV, PLU, SHA, SIE, TRI, TUL, NV, OR, ++
 Quads: 523A, 554B, 587B, 587C, 607C, 644D, 726A, 727B
 Habitat: MshSw, VnPls / muddy
 Life Form: Annual/Perennial herb (rhizomatous)
 Fertile: July-August
 Notes: Move to List 4? Location, rarity, and endangerment information needed, especially quads for LAS, SIE, TRI, and TUL counties. See *Botanical Gazette* 33:66 (1902) for original description, and *Systematic Botany Monographs* 11:1-87 (1986) for taxonomic treatment.

Matelea parvifolia (Torr.) Woodson

"spearleaf" Asclepiadaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: RIV, SBD, SDG, AZ, BA, NV, TX+
 Quads: 32B, 61A, 61C, 63A, 65B, 65C, 102C, 201C
 Habitat: MDScr, SDScr / rocky
 Life Form: Perennial herb
 Blooming: March-May
 Status Report: 1979

Maurandya antirrhiniflora Willd. ssp. *antirrhiniflora*

"violet twining snapdragon" Scrophulariaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: SBD, AZ, SO, TX, ++
 Quads: 175B, 176A, 201C
 Habitat: JTWld, MDScr / carbonate
 Life Form: Perennial herb
 Blooming: April-May
 Notes: Known in CA from fewer than ten occurrences in the Providence Mtns. See *Systematic Botany Monographs* 5:48-49 (1985) for original description.

Maurandya petrophila Cov. & Mort.

"rock lady" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CR/C2
 Distribution: INY
 Quads: 368A, 368C, 368D
 Habitat: MDScr (carbonate)
 Life Form: Perennial herb
 Blooming: April-June
 Notes: USFWS uses the name *Holmgrenanthe petrophila*. See *Journal of the Washington Academy of Sciences* 25:291 (1935) for original description, and *Systematic Botany Monographs* 5:54-56 (1985) for taxonomic treatment.
 Status Report: 1987

Meconella californica

Considered but rejected: Too common

Meconella denticulata

Considered but rejected: Too common

Meconella oregana

Considered but rejected: Thought not to be in CA, but needs reconsideration; now apparently known from SCL Co.

Melica inflata

Considered but rejected: Too common; a synonym of *M. bulbosa* var. *inflata*

Melica spectabilis Scribn.

"purple onion grass" Poaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: DNT, HUM, MEN, OR, ++
 Habitat: LCFrs, Medws, UCFrs / mesic
 Life Form: Perennial herb (rhizomatous)
 Blooming: May-July

Mentzelia hirsutissima Wats.

"hairy stickleaf" Loasaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: /C3c
 Distribution: IMP, SDG, BA
 Quads: 5B, 7A, 18C, 19B
 Habitat: SDScr
 Life Form: Annual herb
 Blooming: April-May

Mentzelia hirsutissima var. *stenophylla*

See *Mentzelia hirsutissima*

Mentzelia leucophylla

Considered but rejected: Not in CA; misidentification of *M. orepbila*

Mentzelia reflexa

Considered but rejected: Too common

Menyanthes trifoliata

Considered but rejected: Too common

***Mertensia bella* Piper**

"Oregon lungwort" Boraginaceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: SIS, ID, OR+
 Quads: 681A, 736B
 Habitat: Medws, UCFrs / mesic
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Sensitive in ID. See *Proceedings of the Biological Society of Washington* 31:76 (1918) for original description.

***Micropus amphibolus* Gray**

"Mt. Diablo cottonweed" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: ALA, CCA, LAK, MNT, MRN, NAP, SCR, SON
 Habitat: BUFRs, CmWld, VFGrs
 Life Form: Annual herb
 Blooming: April-May

***Microseris borealis* (Bong.) Sch.-Bip.**

"northern microseris" Asteraceae
 CNPS List: 2 R-E-D Code: 3-3-1 State/Fed. Status: CEQA
 Distribution: HUM, MEN*, OR, WA, ++
 Quads: 569D*, 671A
 Habitat: BgFns, LCFrs, Medws / mesic
 Life Form: Perennial herb
 Blooming: June-September
 Notes: Known in CA from only two occurrences. State-listed as Sensitive in WA.

Microseris decipiens

See *Stebbinsoseris decipiens*

Microseris douglasii* (DC.) Sch.-Bip.*var. *platycarpa* (Gray) Chambers**

"small-flowered microseris" Asteraceae
 CNPS List: 4 R-E-D Code: 1-2-2 State/Fed. Status: CEQA?
 Distribution: LAX, ORA, RIV, SCM, SCT, SDG, BA
 Habitat: CmWld, CoScr, VFGrs / clay
 Life Form: Annual herb
 Blooming: March-May
 Notes: Common in coastal grassy areas in SDG Co., but this habitat is declining. See *Contributions from the Dudley Herbarium* 4(7):296-298 (1955) for taxonomic treatment.

Microseris laciniata* ssp. *siskiyouensis

Considered but rejected: Too common

***Mimulus acutidens* Greene**

"Kings River monkeyflower" Scrophulariaceae
 CNPS List: 3 R-E-D Code: ?-?-3 State/Fed. Status: CEQA?
 Distribution: FRE, MAD, TUL
 Quads: 418A
 Habitat: CmWld, LCFrs
 Life Form: Annual herb
 Blooming: April-July
 Notes: Move to List 4? Location, rarity, and endangerment information needed, especially quads for FRE and TUL counties. Many misidentifications of Sequoia-Kings Canyon NP plants. A synonym of *M. inconspicuus* in *The Jepson Manual*.

Mimulus arenarius

Considered but rejected: Too common; perhaps a synonym of *M. floribundus*

***Mimulus aridus* (Abrams) Grant**

"low bush monkeyflower" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: /C3c
 Distribution: IMP, SDG, BA
 Habitat: Chprl
 Life Form: Shrub (evergreen)
 Blooming: April-July
 Notes: See *M. aurantiacus* in *The Jepson Manual*.

Mimulus barbatus

Considered but rejected: Too common; perhaps a synonym of *M. montioides*

Mimulus bifidus* ssp. *bifidus

Considered but rejected: Too common

Mimulus biolettii

See *Mimulus filicaulis*

***Mimulus brachiatus* Penn.**

"serpentine monkeyflower" Scrophulariaceae
 CNPS List: 3 R-E-D Code: ?-?-3 State/Fed. Status: CEQA?
 Distribution: COL, LAK
 Quads: 564D
 Habitat: Chprl (serpentine)
 Life Form: Annual herb
 Blooming: May-July
 Notes: Move to List 4? Location, rarity, and endangerment information needed. A synonym of *M. layneae* in *The Jepson Manual*.

***Mimulus brandegei* Penn.**

"Santa Cruz Island monkeyflower" Scrophulariaceae
 CNPS List: 1A Last Seen: 1932 State/Fed. Status: /C2*
 Distribution: SCZ*
 Quads: SCZA*
 Habitat: VFGrs (rocky)
 Life Form: Annual herb
 Blooming: May
 Notes: Recent searches have not rediscovered only known historical occurrence, which may have been extirpated by grazing. May be conspecific with *M. latifolius*, which is rare on arroyo beds and cliffs on GU Isl. A synonym of *M. latifolius* in *The Jepson Manual*.
 Status Report: 1979

***Mimulus clevelandii* Bdg.**

"Cleveland's bush monkeyflower" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-2-2 State/Fed. Status: CEQA?
 Distribution: ORA, RIV, SDG, BA
 Habitat: Chprl, LCFrs / often in disturbed areas
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Threatened by recreational activities.

Mimulus diffusus Grant

"Palomar monkeyflower" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: ORA, RIV, SDG, BA
 Habitat: Chprl, LCFrs
 Life Form: Annual herb
 Blooming: April-June
 Notes: A synonym of *M. palmeri* in *The Jepson Manual*; probably indistinct from it. See *Annals of the Missouri Botanical Garden* 11:254 (1925) for original description.

Mimulus dudleyi

Considered but rejected: Too common; perhaps a synonym of *M. floribundus*

Mimulus exiguus Gray

"San Bernardino Mtns. monkeyflower" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: /C2
 Distribution: SBD, BA
 Quads: 105A, 105B, 131C, 131D
 Habitat: Medws, PbPln, UCFrs / mesic
 Life Form: Annual herb
 Blooming: June-July
 Notes: Threatened by development and vehicles.

Mimulus filicaulis Wats.

"slender-stemmed monkeyflower" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: MPA, TUO
 Quads: 419B, 438A, 438B, 438C, 438D, 439A, 456A, 456C, 456D, 457C, 457D
 Habitat: CmWld, LCFrs, Medws, UCFrs / vernal mesic
 Life Form: Annual herb
 Blooming: April-August
 Notes: Threatened by logging and reforestation with herbicides, and possibly by grazing. Includes *M. biolettii*. See *Proceedings of the American Academy of Arts and Sciences* 26:125 (1891) for original description, and *Changing Seasons* 1(3):3-5 (1981) for taxonomic discussion.

Mimulus flemingii Munz

"island bush monkeyflower" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: ANA, SCM, SCZ, SRO
 Habitat: CBScr
 Life Form: Shrub (evergreen)
 Blooming: March-July
 Notes: See *M. aurantiacus* in *The Jepson Manual*.

Mimulus glabratus Kunth. ssp. *utahensis* Penn.

"Utah monkeyflower" Scrophulariaceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: MNO, INY, NV+
 Quads: 326A, 453A, 453B
 Habitat: Medws, PJWld
 Life Form: Perennial herb (rhizomatous)
 Blooming: April
 Notes: Known in CA from fewer than ten occurrences. Threatened by the dewatering of Mono Lake. See *M. guttatus* in *The Jepson Manual*.

Mimulus glaucescens Greene

"shield-bracted monkeyflower" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: BUT, COL, LAK, TEH
 Habitat: CmWld, VFGrs / serpentinite seeps
 Life Form: Annual herb
 Blooming: March-May

Mimulus gracilipes Rob.

"slender-stalked monkeyflower" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: FRE, MPA
 Habitat: Chprl (often in burns and disturbed areas)
 Life Form: Annual herb
 Blooming: April-June
 Notes: See *Madroño* 28(1):41 (1981) for range extension information.

Mimulus grayi Grant

"Gray's monkeyflower" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: FRE, MAD, MPA, TUL
 Habitat: LCFrs, UCFrs / mesic
 Life Form: Annual herb
 Blooming: May-July
 Notes: A synonym of *M. inconspicuus* in *The Jepson Manual*.

Mimulus guttatus ssp. *arenicola*

Considered but rejected: Too common; perhaps a synonym of *M. guttatus*

Mimulus inconspicuus Gray

"small-flowered monkeyflower" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: AMA, BUT, CAL, MPA, TUO
 Habitat: Chprl, CmWld, LCFrs / mesic
 Life Form: Annual herb
 Blooming: May-June
 Notes: Does not include *M. acutidens* or *M. grayi*.

Mimulus laciniatus Gray

"cut-leaved monkeyflower" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: AMA, BUT, FRE, MAD, MPA, PLU, TUL, TUO
 Habitat: LCFrs, UCFrs / mesic, granitic
 Life Form: Annual herb
 Blooming: May-July
 Notes: See *Proceedings of the American Academy of Arts and Sciences* 11:98 (1876) for original description.

Mimulus microphyllus Benth.

"small-leaved monkeyflower" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: KRN
 Habitat: Medws (mesic)
 Life Form: Annual herb
 Blooming: May-August
 Notes: See *M. guttatus* in *The Jepson Manual*.

Mimulus mohavensis Lemmon

“Mojave monkeyflower” Scrophulariaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C1
 Distribution: SBD
 Quads: 130B, 132A, 155B, 158A, 181A, 181C, 181D, 182A*,
 182D
 Habitat: JTWld, MDScr / gravelly
 Life Form: Annual herb
 Blooming: April-June
 Notes: Most historical occurrences in the Barstow area have been ex-
 tirpated or impacted. Threatened by development, mining, non-
 native plants, and vehicles. See *Botanical Gazette* 9:142 (1884) for
 original description.
 Status Report: 1988

Mimulus norrisii Heckard & Shevock

“Kaweah monkeyflower” Scrophulariaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C3c
 Distribution: TUL
 Quads: 332A, 332B, 332D, 353C, 354D
 Habitat: Chprl, CmWld / carbonate
 Life Form: Annual herb
 Blooming: March-May
 Notes: Known from fewer than ten occurrences in the Kaweah River
 drainage. See *Madroño* 32(3):179-185 (1985) for original description.

Mimulus nudatus Greene

“bare monkeyflower” Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: LAK, MEN, NAP
 Habitat: Chprl (serpentinite seeps)
 Life Form: Annual herb
 Blooming: May-June

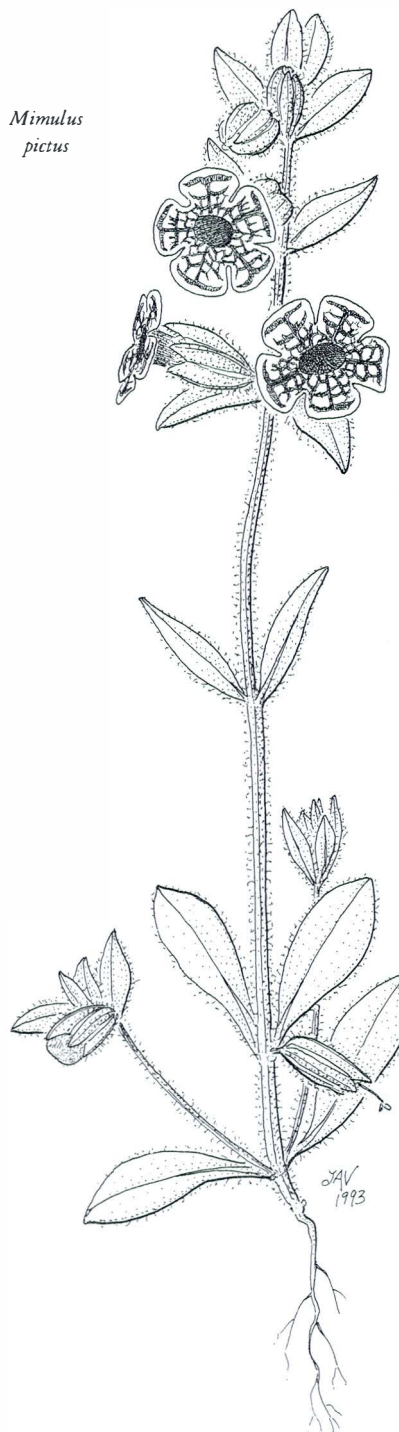
Mimulus parviflorus
 See *Mimulus flemingii*

Mimulus pictus (Curran) Gray

“calico monkeyflower” Scrophulariaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C3c
 Distribution: KRN, TUL
 Quads: 212B, 213A, 213C, 238B, 238C, 238D, 239B, 259B,
 260A, 261C, 261D, 262A, 262D, 286C, 286D, 309C, 310A
 Habitat: BUFRs, CmWld / granitic
 Life Form: Annual herb
 Blooming: April-May
 Notes: Threatened by grazing. See *Bulletin of the California Academy
 of Sciences* 1:106 (1885) for original description.

Mimulus pulchellus (Greene) Grant

“pansy monkeyflower” Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: CAL, MPA, TUO
 Habitat: LCFrs, Medws / vernal mesic
 Life Form: Annual herb
 Blooming: May-July



Mimulus purpureus Grant

“purple monkeyflower” Scrophulariaceae
 CNPS List: 2 R-E-D Code: 2-3-1 State/Fed. Status: /C2
 Distribution: SBD, BA
 Quads: 105A, 105B, 131C, 131D
 Habitat: Medws, PbPln, UCFrs
 Life Form: Annual herb
 Blooming: May-June
 Notes: Known in CA from fewer than twenty occurrences. Threat-
 ened by development and vehicles. See *Annals of the Missouri Bo-
 tanical Garden* 11:255 (1925) for original description.
 Status Report: 1980

Mimulus purpureus var. *purpureus*See *Mimulus purpureus**Mimulus pygmaeus* Grant

"Egg Lake monkeyflower" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 2-1-2 State/Fed. Status: /C2
 Distribution: LAS, MOD, PLU, OR
 Quads: 606B, 641A, 641B, 641C, 642A, 642B, 643A, 661D,
 678B, 679C, 695C, 695D, 708D, 711D
 Habitat: GBScr (clay), LCFrs, Medws / vernal mesic
 Life Form: Annual herb
 Blooming: May-June
 Notes: Rediscovered in 1980. Candidate for state listing in OR.
 Lassen NF has adopted species management guidelines. See *Annals*
of the Missouri Botanical Garden 11:312 (1925) for original de-
 scription.
 Status Report: 1977

Mimulus rattanii Gray ssp. *decurtatus* (Grant) Penn.

"Santa Cruz County monkeyflower" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: SCR
 Habitat: Chprl, LCFrs / margins
 Life Form: Annual herb
 Blooming: May-July
 Notes: Field work needed. Threatened by sand mining. A synonym
 of *M. rattanii* in *The Jepson Manual*.

Mimulus rupicola Cov. & Grant

"rock midget" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: INY
 Habitat: MDScr (carbonate)
 Life Form: Annual herb
 Blooming: March-May

Mimulus shevockii Heckard & Bacig.

"Kelso Creek monkeyflower" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C1
 Distribution: KRN
 Quads: 259C, 260B, 260D
 Habitat: JTWld, PJWld / sandy, granitic
 Life Form: Annual herb
 Blooming: April-May
 Notes: Known from seven occurrences; some are affected by residen-
 tial development. See *Madroño* 33(4):271-277 (1986) for original
 description.

Mimulus subsecundus Gray

"one-sided monkeyflower" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: FRE, MNT, SBT, SLO
 Habitat: LCFrs
 Life Form: Annual herb
 Blooming: May-July
 Notes: A synonym of *M. fremontii* in *The Jepson Manual*.

Mimulus traskiae Grant

"Santa Catalina Island monkeyflower" Scrophulariaceae
 CNPS List: 1A Last Seen: 1904 State/Fed. Status: /C2*
 Distribution: SCT*
 Quads: SCTE*
 Habitat: CoScr?
 Life Form: Annual herb
 Blooming: March-May
 Notes: Known only from the type collection near Avalon. Possibly
 extirpated by grazing. See *Field Museum of Natural History* 5:226-
 227 (1923) for original description.
 Status Report: 1979

Mimulus whipplei Grant

"Whipple's monkeyflower" Scrophulariaceae
 CNPS List: 1A Last Seen: 1854 State/Fed. Status: /C2*
 Distribution: CAL*
 Quads: 475B*
 Habitat: LCFrs
 Life Form: Annual herb
 Blooming: May
 Notes: Known only from the type collection. Many recent searches
 have not rediscovered this plant. See *M. guttatus* in *The Jepson*
Manual. See *Annals of the Missouri Botanical Garden* 11:184-185
 (1924) for original description.
 Status Report: 1977

Mimulus whitneyi

Considered but rejected: Too common

Minuartia decumbens T.W. Nelson & J.P. Nelson

"The Lassics sandwort" Caryophyllaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: HUM, SHA, TEH, TRI
 Quads: 632D, 634D
 Habitat: LCFrs, UCFrs / serpentinite
 Life Form: Perennial herb
 Blooming: July
 Notes: Known from only two occurrences. See *Brittonia* 33(2):162-
 164 (1981) for original description.

Minuartia howellii (Wats.) Mattf.

"Howell's sandwort" Caryophyllaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: /C3c
 Distribution: DNT, OR
 Habitat: Chprl, LCFrs / serpentinite
 Life Form: Perennial herb
 Blooming: May-July
 Status Report: 1979

Minuartia obtusiloba (Rydb.) House

"alpine sandwort" Caryophyllaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: FRE, INY, MNO, TUO, OR, ++
 Habitat: AlpBR, AlpDS, SCFrs / granitic, metamorphic
 Life Form: Perennial herb
 Blooming: July-August

Minuartia rosei (Maguire & Barneby) McNeill

"Peanut sandwort" Caryophyllaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: /C2
 Distribution: SHA, TEH, TRI
 Habitat: LCFrs (serpentine)
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Possibly threatened by logging. See *Rhodora* 82:499 (1980) for taxonomic treatment.
 Status Report: 1979

Minuartia stolonifera T.W. Nelson & J.P. Nelson

"Scott Mtn. sandwort" Caryophyllaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: CEQA
 Distribution: SIS
 Quads: 700C
 Habitat: LCFrs (serpentine)
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Known only from the Scott Mtn. Pass area. See *Brittonia* 43(1):17-19 (1991) for original description.

Mirabilis tenuiloba Wats.

"slender-lobed four o'clock" Nyctaginaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: IMP, RIV, SDG, BA
 Habitat: SDScr
 Life Form: Perennial herb
 Blooming: March-May

Monardella antonina

See *Monardella antonina* ssp. *antonina*

Monardella antonina Hardham ssp. *antonina*

"San Antonio Hills monardella" Lamiaceae
 CNPS List: 3 R-E-D Code: ?-?-3 State/Fed. Status: /C3c
 Distribution: ALA?, CCA?, MNT, SBT?, SCL?
 Quads: 295A, 319A, 344B, 362D?, 385C?, 464D?
 Habitat: Chprl, CmWld
 Life Form: Perennial herb (rhizomatous)
 Blooming: June-August
 Notes: Move to List 4? Easily confused with *M. villosa* ssp. *villosa*, which may be the taxon occurring in ALA, CCA, SBT, and SCL counties; needs clarification.

Monardella antonina Hardham ssp. *benitensis* (Hardham) Jokerst

"San Benito monardella" Lamiaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: MNT, SBT, SLO
 Habitat: Chprl (serpentine)
 Life Form: Perennial herb (rhizomatous)
 Blooming: June
 Notes: See *Leaflets of Western Botany* 8(3):55 (1956) for original description, and *Phytologia* 72(1):9-16 (1992) for revised nomenclature.

Monardella beneolens Shevock, Ertter & Jokerst

"sweet-smelling monardella" Lamiaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: CEQA
 Distribution: INY, KRN, TUL
 Quads: 258B, 329A, 329B, 329D
 Habitat: AlpBR, SCFrs, UCFrs / granitic
 Life Form: Perennial herb (rhizomatous)
 Blooming: July-September
 Notes: Known from only three occurrences on public lands on the eastern Sierran crest. Highly restricted and endemic, but remoteness of occurrences limits disturbance. Hybridizes with *M. linoides* ssp. *linoides* and *M. odoratissima* ssp. *pallida*. See *Madroño* 36(4):271-279 (1989) for original description.

Monardella benitensis

See *Monardella antonina* ssp. *benitensis*

Monardella candicans Benth.

"Sierra monardella" Lamiaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: AMA, CAL, ELD, FRE, KRN, MAD, MPA, NEV, PLA, SJQ, STA, TUL, TUO?
 Habitat: Chprl, CmWld, LCFrs / sandy or gravelly
 Life Form: Annual herb
 Blooming: April-July
 Notes: Does plant occur in TUO Co.? See *Annals of the Missouri Botanical Garden* 12:1-106 (1925) for taxonomic treatment.

Monardella cinerea Abrams

"gray monardella" Lamiaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: LAX, SBD
 Habitat: LCFrs, UCFrs
 Life Form: Perennial herb (rhizomatous)
 Blooming: July-August

Monardella crispa Elmer

"crisp monardella" Lamiaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: SBA, SLO
 Quads: 171A, 171C, 196A, 196B, 196D, 221D
 Habitat: CoDns, CoScr
 Life Form: Perennial herb (rhizomatous)
 Blooming: April-August
 Notes: Threatened by vehicles. Hybridizes with *M. frutescens*.

Monardella diaboli

Considered but rejected: Not published

Monardella douglasii Benth. ssp. *venosa* (Torr.) Jokerst

"veiny monardella" Lamiaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C2
 Distribution: BUT, SUT*, TUO*
 Quads: 459A*, 544D*, 576A*, 576B, 577A*, 593D*
 Habitat: VFGrs (heavy clay)
 Life Form: Annual herb
 Blooming: May
 Notes: Rediscovered in 1992 by B. Castro. Threatened by development of wastewater treatment plant.

Monardella douglasii var. *venosa*See *Monardella douglasii* ssp. *venosa**Monardella follettii* (Jeps.) Jokerst

"Follett's monardella" Lamiaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: CEQA
 Distribution: NEV, PLU
 Quads: 542A, 590A, 606C, 606D
 Habitat: LCFrs (rocky, serpentinite)
 Life Form: Shrub
 Blooming: June
 Notes: Known from approximately three occurrences. See *Flora of California* 3(2):437 (1943) by W.L. Jepson for original description, and *Phytologia* 72(1):9-16 (1992) for revised nomenclature.

Monardella frutescens (Hoov.) Jokerst

"San Luis Obispo monardella" Lamiaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: 1C2
 Distribution: SBA, SLO
 Quads: 171A, 171C, 171D, 196A, 196B, 196D, 221D, 247D
 Habitat: CoDns
 Life Form: Perennial herb (rhizomatous)
 Blooming: May-July
 Notes: Threatened by coastal development and vehicles. Hybridizes with *M. crispera*. See *Leaflets of Western Botany* 5:179-182 (1949) for original description, and *Phytologia* 72(1):9-16 (1992) for revised nomenclature.
 Status Report: 1977

Monardella hypoleuca Gray ssp. *lanata* (Abrams) Munz

"felt-leaved monardella" Lamiaceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: 1C3c
 Distribution: ORA, SDG, BA
 Quads: 9B, 9C, 10A, 10D, 20A, 20B, 20C, 21A, 21D, 34A, 34C, 35C, 49D, 51A, 69B, 69C, 70A
 Habitat: Chprl, CmWld
 Life Form: Perennial herb (rhizomatous)
 Blooming: June-July
 Notes: Historical occurrences need field surveys.
 Status Report: 1979

Monardella leucocephala Gray

"Merced monardella" Lamiaceae
 CNPS List: 1A Last Seen: 1941 State/Fed. Status: 1C2*
 Distribution: MER*, STA*
 Quads: 422D*, 423A*, 440B*, 441A*
 Habitat: VFGrs (sandy)
 Life Form: Annual herb
 Blooming: July-August
 Notes: May have been extirpated by agriculture. High potential for rediscovery; field work needed. See *Proceedings of the American Academy of Arts and Sciences* 7:385 (1867) for original description, and *Annals of the Missouri Botanical Garden* 12:90-91 (1925) for taxonomic treatment.
 Status Report: 1988

Monardella linoides Gray ssp. *oblonga* (Greene) Abrams

"flax-like monardella" Lamiaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: 1C2
 Distribution: KRN, TUL, VEN
 Quads: 189C, 190C, 190D, 239B, 262D, 285A
 Habitat: LCFrs, UCFrs
 Life Form: Perennial herb (rhizomatous)
 Blooming: June-August
 Notes: Known from fewer than twenty occurrences. Possibly indistinct from ssp. *linoides*.

Monardella linoides Gray ssp. *viminea* (Greene) Abrams

"willow monardella" Lamiaceae
 CNPS List: 1B R-E-D Code: 2-3-2 State/Fed. Status: CE/C2
 Distribution: SDG, BA
 Quads: 10B, 10C, 21B, 22A, 22B, 22C, 22D
 Habitat: CCFrs, Chprl, RpFrs, RpScr, RpWld
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Threatened by road improvements, vehicles, non-native plants, and urbanization. See *Pittonia* 5:85 (1902) for original description.
 Status Report: 1987

Monardella macrantha Gray ssp. *hallii* Abrams

"Hall's monardella" Lamiaceae
 CNPS List: 1B R-E-D Code: 2-1-3 State/Fed. Status: 1C3c
 Distribution: ORA, RIV, SBD, SDG
 Quads: 20A, 20D, 33D, 48C, 49A, 49B, 49C, 49D, 70A, 83C, 86A, 105C, 106B, 106D
 Habitat: BUFrs, Chprl, CmWld, LCFrs, VFGrs
 Life Form: Perennial herb (rhizomatous)
 Blooming: June-August
 Notes: Intermediates to ssp. *macrantha* are common. See *Muhlenbergia* 8:26-44 (1912) for original description.
 Status Report: 1979

Monardella nana Gray ssp. *leptosiphon* (Torr.) Abrams

"San Felipe monardella" Lamiaceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: 1C2
 Distribution: SDG, BA
 Quads: 48D, 49A, 49D
 Habitat: Chprl, LCFrs
 Life Form: Perennial herb (rhizomatous)
 Blooming: June-July
 Notes: Known in CA from fewer than twenty occurrences. Threatened by woodcutting, habitat conversion, and grazing. See *Report of the U.S. and Mexican Boundary Survey*, p. 129 (1859) by W. Emory for original description, and *Muhlenbergia* 8:31 (1912) for revised nomenclature.

Monardella palmeri Gray

"Palmer's monardella" Lamiaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: 1C3c
 Distribution: MNT, SLO
 Habitat: Chprl, CmWld / serpentinite
 Life Form: Perennial herb (rhizomatous)
 Blooming: June-August

Monardella pringlei Gray

"Pringle's monardella" Lamiaceae
 CNPS List: 1A Last Seen: 1921 State/Fed. Status: /C2*
 Distribution: RIV*, SBD*
 Quads: 107C*, 107D*
 Habitat: CoScr
 Life Form: Annual herb
 Blooming: May-June
 Notes: Historically known only from the vicinity of Colton. Habitat lost to urbanization. See *Proceedings of the American Academy of Arts and Sciences* 19:96 (1883) for original description, and *Annals of the Missouri Botanical Garden* 12:86-87 (1925) for taxonomic treatment.
 Status Report: 1977

Monardella purpurea

Considered but rejected: Too common

Monardella robisonii Epl.

"Robison's monardella" Lamiaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: RIV, SBD
 Quads: 81A, 100B, 102C, 103B, 103D, 104D
 Habitat: PJWld
 Life Form: Perennial herb (rhizomatous)
 Blooming: April-July
 Notes: Known from fewer than twenty occurrences. May occur in BA; need confirmation. Closely related to and possibly a variety of *M. linoides*.
 Status Report: 1979

Monardella scelerata

Considered but rejected: Not published

Monardella stebbinsii Hardham & Bartel

"Stebbins's monardella" Lamiaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C3c
 Distribution: PLU
 Quads: 606C
 Habitat: BUFRs, Chprl, LCFrs / serpentinite
 Life Form: Perennial herb (rhizomatous)
 Blooming: July-September
 Notes: Known from only four occurrences along the North Fork of the Feather River. Possibly threatened by mining. See *Aliso* 12(4):693-699 (1990) for original description.
 Status Report: 1979

Monardella undulata Benth.

"curly-leaved monardella" Lamiaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: MNT, MRN, SBA, SCR, SFO, SLO, SMT, SON
 Habitat: Chprl, CoDns, CoScr, LCFrs (ponderosa pine sandhills)
 Life Form: Annual herb
 Blooming: May-July
 Notes: Threatened by coastal development, sand mining, and non-native plants.

Monardella undulata var. *frutescens*

See *Monardella frutescens*

Monardella undulata var. *undulata*

See *Monardella undulata*

Monardella villosa Benth. ssp. *globosa* (Greene) Jokerst

"robust monardella" Lamiaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CEQA
 Distribution: ALA, CCA, HUM, LAK, MRN, NAP, SMT, SON
 Quads: 428C, 465B, 465C, 482C, 482D, 502C, 518D, 635C
 Habitat: Chprl (openings), CmWld
 Life Form: Perennial herb (rhizomatous)
 Blooming: June-July
 Notes: Need quads for LAK, MRN, and NAP counties. See *Pittonia* 5:82 (1902) for original description, and *Phytologia* 72(1):9-16 (1992) for revised nomenclature.

Monardella viridis Jeps. ssp. *saxicola* (Jtn.) Ewan

"rock monardella" Lamiaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: /C3c
 Distribution: LAX, SBD
 Habitat: Chprl, LCFrs
 Life Form: Perennial herb (rhizomatous)
 Blooming: June-September
 Notes: Threatened by development.

Monardella viridis Jeps. ssp. *viridis*

"green monardella" Lamiaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: LAK, NAP, SOL, SON
 Habitat: BUFRs, Chprl, CmWld
 Life Form: Perennial herb (rhizomatous)
 Blooming: July-September
 Notes: Hybridizes with *M. villosa* ssp. *villosa*.

Monotropa hypopithys

Considered but rejected: Too common

Monotropa uniflora L.

"Indian-pipe" Ericaceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
 Distribution: DNT, HUM, OR, WA, ++
 Quads: 672C, 740C, 740D
 Habitat: BUFRs, NCFrs
 Life Form: Perennial herb (saprophytic)
 Blooming: June-July

Montia funstonii

Considered but rejected: A synonym of *M. fontana*; a common taxon

Montia howellii Wats.

"Howell's montia" Portulacaceae
 CNPS List: 1A Last Seen: 1933 State/Fed. Status: /C2
 Distribution: DNT?*, HUM*, TRI*, OR, WA+
 Quads: 617A*, 617D*, 635A*, 670A*, 672C*
 Habitat: Medws, NCFrs, VnPls / vernal mesic
 Life Form: Annual herb
 Blooming: March-May
 Notes: Known in CA from seven collections. Did plant occur in DNT Co.? To be looked for in wet, disturbed sites. Known from about 30 sites in OR, WA, and British Columbia. Candidate for state listing in OR. Sometimes mistaken for *M. fontana* or *M. dichotoma*. See *Proceedings of the American Academy of Arts and Sciences* 18:191 (1883) for original description.

Montia saxosa

Considered but rejected: A synonym of *Claytonia saxosa*, a common taxon

Mucronea californica Benth.

"California spineflower" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: KRN, LAX, MNT, ORA, RIV, SBA, SBD, SDG, SLO, VEN
 Habitat: Chprl, CmWld, CoDns, CoScr, VFGrs / sandy
 Life Form: Annual herb
 Blooming: March-August
 Notes: Rare in southern California. Many herbarium records old. Threatened by aggregate mining, vehicles, flood control modification, and water percolation projects. Includes *Chorizanthe californica* var. *suskdorffii*. See *Phytologia* 66(3):203-205 (1989) for revised nomenclature.

Muhlenbergia appressa C. Goodd.

"appressed muhly" Poaceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
 Distribution: SBD, SCM, AZ, BA
 Quads: 176A, SCMC, SCMS
 Habitat: CoScr, MDScr, VFGrs / rocky
 Life Form: Annual herb
 Blooming: April-May
 Notes: Has this taxon been poorly collected in CA? See *Journal of the Washington Academy of Sciences* 31:504 (1914) for original description, and *Madroño* 35(4):353 (1988) for discussion of SCM Isl. records.

Muhlenbergia arsenei Hitchc.

"tough muhly" Poaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: SBD, AZ, BA, NM, NV, UT
 Quads: 200B, 225D, 249D
 Habitat: PJWld (rocky, carbonate)
 Life Form: Perennial herb (rhizomatous)
 Blooming: August-October
 Notes: Known in CA only from the Clark and New York Mtns.

Muhlenbergia californica Vasey

"California muhly" Poaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CEQA
 Distribution: LAX, RIV, SBD
 Quads: 83B, 83C, 108D, 110A, 135A, 135D, 136D
 Habitat: Chprl, CoScr, LCFrs, Medws / mesic, seeps and streambanks
 Life Form: Perennial herb (rhizomatous)
 Blooming: July-September
 Notes: See *Botanical Gazette* 7:92 (1882) for original description.

Muhlenbergia fragilis Swall.

"delicate muhly" Poaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: SBD, AZ, BA, NM, SO, TX+
 Quads: 225D, 249D
 Habitat: PJWld (carbonate, gravelly)
 Life Form: Annual herb
 Blooming: October
 Notes: Known in CA only from the Clark and New York Mtns. See *Contributions from the U.S. National Herbarium* 29:206 (1947) for original description, and *Madroño* 35(4):353 (1988) for first CA record.

Muhlenbergia pauciflora Buckl.

"few-flowered muhly" Poaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: SBD, AZ, ++
 Quads: 200A, 225D
 Habitat: PJWld (rocky)
 Life Form: Perennial herb (rhizomatous)
 Blooming: September
 Notes: Known in CA only from the New York Mtns. See *Madroño* 35(4):353-359 (1988) for first CA records.

Muilla clevelandii (Wats.) Hoov.

"San Diego goldenstar" Liliaceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: /C2
 Distribution: SDG, BA
 Quads: 10A, 10B, 10C, 10D, 21B, 21C, 21D, 22A, 22B, 22C, 22D, 33D, 35C
 Habitat: Chprl, CoScr, VFGrs, VnPls
 Life Form: Perennial herb (bulbiferous)
 Blooming: May
 Notes: Threatened by urbanization, road construction, vehicles, and illegal dumping.

Muilla coronata Greene

"crowned muilla" Liliaceae
 CNPS List: 4 R-E-D Code: 1-2-2 State/Fed. Status: /C3c
 Distribution: INY, KRN, LAX, SBD, TUL, NV
 Habitat: JTWld, MDScr, PJWld
 Life Form: Perennial herb (bulbiferous)
 Blooming: March-April
 Notes: See *Pittonia* 1:165 (1888) for original description, and *Aliso* 10(4):621-627 (1984) for taxonomic treatment.
 Status Report: 1978

Muilla transmontana

Considered but rejected: Too common

Munroa squarrosa (Nutt.) Torr.

"false buffalo-grass" Poaceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: SBD, AZ, NV, ++
 Quads: 200A, 249D
 Habitat: PJWld (gravelly or rocky)
 Life Form: Annual herb
 Blooming: October
 Notes: Known in CA only from the Clark and New York Mtns. May appear only after heavy summer rains.

Munzothamnus blairii

See *Stephanomeria blairii*

Myosotis laxa

Considered but rejected: Too common

Myosurus minimus L. ssp. *apus* (Greene) G.R. Campbell

"little mouseltail" Ranunculaceae
 CNPS List: 3 R-E-D Code: 2-3-2 State/Fed. Status: /C2
 Distribution: ALA, BUT, CCA, COL, KRN, RIV, SBD, SDG, SOL, STA, BA, OR
 Quads: 10A, 10B, 10C, 11D, 22B, 22D, 34C, 68A, 68B, 68C, 69A, 69D, 86A, 86D, 131B, 423B, 424A, 445B, 463D?, 498D, 561D, 562C
 Habitat: VnPls (alkaline)
 Life Form: Annual herb
 Blooming: March-June
 Notes: Move to List 1B? Need quads for KRN Co. Reduced by vernal pool habitat loss; threatened by vehicles, grazing, and agriculture. Endangered in OR. Taxonomic problems; distinguishing between this taxon and *M. sessilis* (= *M. minimus* ssp. *apus* var. *sessiliflorus* in *A California Flora* (1959) by P. Munz) is difficult; are both rare? May be a stabilized hybrid between *M. minimus* and *M. sessilis*, at least in the Central Valley; see *Evolution* 13:151-174 (1959) for details. See *M. minimus* in *The Jepson Manual*. See *Bulletin of the California Academy of Sciences* 1:277 (1885) for original description.

Myrica hartwegii

Considered but rejected: Too common

Myriophyllum quitense

Considered but rejected: Not native

Nama dichotomum (Ruiz, Lopez & Pav.) Choisy
var. *dichotomum*

"forked purple mat" Hydrophyllaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: SBD, AZ, NM, TX+
 Quads: 225D
 Habitat: PJWld (granitic or carbonate)
 Life Form: Annual herb
 Blooming: September-October
 Notes: Known in CA only from the New York Mtns.

Nama stenocarpum Gray

"mud nama" Hydrophyllaceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: IMP, LAX*, ORA, SCM, SDG, AZ, BA+
 Quads: 1A, 1B, 10B, 11A, 36A, 71D, 72A, 111C*, SCMN
 Habitat: MshSw (lake margins, riverbanks)
 Life Form: Annual/Perennial herb
 Blooming: January-July
 Notes: See *Proceedings of the American Academy of Arts and Sciences* 10:331 (1875) for original description, and *American Journal of Botany* 20:415-430, 518-534 (1933) for taxonomic treatment.

Nasturtium gambellii

See *Rorippa gambellii*

Navarretia eriocephala Mason

"hoary navarretia" Polemoniaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: AMA, CAL, ELD, PLA, SAC
 Habitat: CmWld, VFGrs
 Life Form: Annual herb
 Blooming: May-June
 Notes: Intergrades somewhat with *N. heterandra*. See *Madroño* 8:196-197 (1946) for original description.

Navarretia fossalis Moran

"spreading navarretia" Polemoniaceae
 CNPS List: 1B R-E-D Code: 2-3-2 State/Fed. Status: /C1
 Distribution: RIV, SDG, BA
 Quads: 10B, 10C, 11A, 11D, 22B, 22C, 34C, 35B, 35C, 36D, 51C, 68A, 85C, 85D
 Habitat: ChScr, MshSw (assorted shallow freshwater), VnPls
 Life Form: Annual herb
 Blooming: April-June
 Notes: Threatened by agriculture, road construction, grazing, and urbanization. See *Madroño* 24(3):155-159 (1977) for original description.

Navarretia heterandra Mason

"Tehama navarretia" Polemoniaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: BUT, COL, LAK, SHA, TEH, TRI, YUB, OR*
 Habitat: VFGrs (mesic), VnPls
 Life Form: Annual herb
 Blooming: May-June
 Notes: To be expected elsewhere; need information. See *Madroño* 8:197 (1946) for original description.

Navarretia heterodoxa ssp. *rosulata*

See *Navarretia rosulata*

Navarretia Jaredii Eastw.

"Paso Robles navarretia" Polemoniaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: MNT, SLO
 Habitat: Chprl?, CmWld, VFGrs / clay, serpentinite
 Life Form: Annual herb
 Blooming: April-June

Navarretia jepsonii Jeps.

"Jepson's navarretia" Polemoniaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: COL, GLE, LAK, NAP, TEH, YOL
 Habitat: Chprl, CmWld, VFGrs / serpentine
 Life Form: Annual herb
 Blooming: May-June

Navarretia leucocephala Benth. ssp. *bakeri* (Mason) Day

"Baker's navarretia" Polemoniaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CEQA
 Distribution: COL, LAK, MEN, MRN, NAP, SOL, SON, TEH
 Quads: 484A, 498D, 501A, 501B, 502A, 517C, 517D, 518D,
 533A, 533B, 533D, 566C, 567A, 583C, 594C
 Habitat: CmWld, LCFrs, Medws (mesic), VFGrs, VnPls
 Life Form: Annual herb
 Blooming: May-July
 Notes: May be more widespread; need information. Need quads for
 COL Co. *N. leucocephala* on review list in OR. See *Madroño*
 8(6):198 (1946) for original description, and *Novon* 3(4):331-340
 (1993) for revised nomenclature.

Navarretia leucocephala Benth. ssp. *pauciflora* (Mason) Day

"few-flowered navarretia" Polemoniaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CT/C1
 Distribution: LAK, NAP
 Quads: 499B, 500A, 533A, 533B, 533C, 534A
 Habitat: VnPls (volcanic ash flow)
 Life Form: Annual herb
 Blooming: June
 Notes: Threatened by erosion, grazing, vehicles, and recreation.
 Intergrades rarely with ssp. *plieantha*. State-listed as *N. pauciflora*.
 See *Madroño* 8:200 (1946) for original description, and *Novon*
 3(4):331-340 (1993) for revised nomenclature.
 Status Report: 1990

Navarretia leucocephala Benth. ssp. *plieantha* (Mason) Day

"many-flowered navarretia" Polemoniaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CE/C1
 Distribution: LAK, SON
 Quads: 501A, 517C, 518D, 533B, 533C, 533D, 534A
 Habitat: VnPls (volcanic ash flow)
 Life Form: Annual herb
 Blooming: May-June
 Notes: Known from fewer than ten occurrences. Threatened by graz-
 ing, development, and vehicles. Protected in part at Loch Lomond
 ER (DFG). State-listed as *N. plieantha*; USFWS also uses this
 name. See *Madroño* 8:199 (1946) for original description, and
Novon 3(4):331-340 (1993) for revised nomenclature.
 Status Report: 1987

Navarretia mitracarpa ssp. *jaredii*

See *Navarretia jaredii*

Navarretia myersii P.S. Allen & Day

"pincushion navarretia" Polemoniaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CEQA
 Distribution: AMA, LAK, MER, SAC
 Quads: 421A, 494B, 511B, 533D
 Habitat: VnPls
 Life Form: Annual herb
 Blooming: May
 Notes: Known from six occurrences. Threatened by development.
 See *Novon* 3(4):337-340 (1993) for original description.

Navarretia nigelliformis Greenessp. *radians* (J.T. Howell) Day

"shining navarretia" Polemoniaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CEQA
 Distribution: FRE, MER, MNT, SBT, SLO
 Quads: 268A, 269B, 269C, 269D, 292B, 292D, 315C, 364D,
 384A, 384D
 Habitat: CmWld, VFGrs, VnPls
 Life Form: Annual herb
 Blooming: May-June
 Notes: Similar to *N. heterandra*. See *Leaflets of Western Botany*
 2(8):136 (1938) for original description, and *Novon* 3(4):339
 (1993) for revised nomenclature.

Navarretia pauciflora

See *Navarretia leucocephala* ssp. *pauciflora*

Navarretia peninsularis Greene

"Baja navarretia" Polemoniaceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: CEQA
 Distribution: KRN, SBA, SBD, SDG, BA
 Quads: 20A, 105A, 131C, 131D, 167B, 238A
 Habitat: LCFrs (mesic)
 Life Form: Annual herb
 Blooming: June-August
 Notes: To be looked for in RIV Co. How common is plant in BA?
 Threatened in SBD Co. by gold-panning and vehicles. Similar to
N. breweri. See *Pittonia* 1:136 (1887) for original description.

Navarretia plieantha

See *Navarretia leucocephala* ssp. *plieantha*

Navarretia prolifera Greene ssp. *lutea* (Brand) Mason

"yellow bur navarretia" Polemoniaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: ELD, PLA
 Habitat: Chprl, CmWld
 Life Form: Annual herb
 Blooming: May-July
 Notes: Eldorado NF has adopted species management guidelines.
 Status Report: 1979

Navarretia prolifera ssp. *prolifera*

Considered but rejected: Too common

Navarretia rosulata Brand

"Marin County navarretia" Polemoniaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CEQA
 Distribution: MRN, NAP
 Quads: 467A, 467B, 516D
 Habitat: CCFrs, Chprl / serpentinite
 Life Form: Annual herb
 Blooming: June-July

Navarretia setiloba Cov.

"Piute Mtns. navarretia" Polemoniaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C1
 Distribution: KRN, TUL
 Quads: 189A*, 238D, 239D*, 260C, 261B, 261D, 262D, 285C
 Habitat: CmWld, PJWld, VFGrs / clay or gravelly loam
 Life Form: Annual herb
 Blooming: April-June
 Notes: Known from fewer than twenty occurrences. Many historical occurrences have been searched without success. Threatened by residential development at Bodfish, KRN Co. See *Contributions from the U.S. National Herbarium* 4:153 (1893) for original description.
 Status Report: 1977

Navarretia subuligera Greene

"awl-leaved navarretia" Polemoniaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: AMA, BUT, DNT, LAK, MEN, MOD, NAP?, SHA, TEH, OR
 Habitat: CmWld, LCFrs / rocky, mesic
 Life Form: Annual herb
 Blooming: May-August
 Notes: Does plant occur in NAP Co.?

Nemacaulis denudata Nutt. var. *denudata*

"coast woolly-heads" Polygonaceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
 Distribution: LAX, ORA, SCT, SDG, BA
 Quads: 11A, 11B, 11D, 22B, 22C, 36A, 36B, 36D, 71B, 72A, 73A, 89C*, 90D*
 Habitat: CoDns
 Life Form: Annual herb
 Blooming: April-September
 Notes: Need quads for SCT Isl. Much reduced by development in coastal dunes. Intergrades with var. *gracilis* at some localities. See *Madroño* 27(2):101-109 (1980) and *Phytologia* 66(4):390-91 (1989) for taxonomic treatments.

Nemacaulis denudata Nutt. var. *gracilis* Goodm. & Benson

"slender woolly-heads" Polygonaceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
 Distribution: RIV, SDG, AZ, BA, SO
 Quads: 11B, 11D, 65A, 83D
 Habitat: CoDns, DeDns, SDSscr
 Life Form: Annual herb
 Blooming: March-May
 Notes: Threatened by urbanization near Palm Springs (RIV Co.) and along coast. Intergrades with var. *denudata* at some coastal localities. See *Aliso* 4:89 (1958) for original description, and *Madroño* 27(2):101-109 (1980) and *Phytologia* 66(4):390-91 (1989) for taxonomic treatments.

Nemacladus gracilis Eastw.

"slender nemacladus" Campanulaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: FRE, KNG, KRN, LAX, MER
 Habitat: CmWld, VFGrs
 Life Form: Annual herb
 Blooming: March-May

Nemacladus montanus

Considered but rejected: Too common

Nemacladus twisselmannii J.T. Howell

"Twisselmann's nemacladus" Campanulaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CR/C2
 Distribution: KRN, TUL
 Quads: 283B, 284C, 284D
 Habitat: UCFrs (sandy, granitic)
 Life Form: Annual herb
 Blooming: July
 Notes: Known from only two occurrences. See *Leaflets of Western Botany* 10(3-4):45-46 (1963) for original description.
 Status Report: 1979

Nemophila parviflora Benth. var. *quercifolia* (Eastw.) Chandl.

"oak-leaved nemophila" Hydrophyllaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: FRE, KRN, MAD, TUL, OR
 Habitat: CmWld, LCFrs
 Life Form: Annual herb
 Blooming: May-June

Neostapfia colusana (Davy) Davy

"Colusa grass" Poaceae
 CNPS List: 1B R-E-D Code: 1-3-3 State/Fed. Status: CE/PT
 Distribution: COL*, MER, SOL, STA, YOL
 Quads: 401B*, 402A, 402B, 420C, 421A, 421C, 421D, 422C, 422D, 441A, 441B, 441C, 441D, 442A*, 459C, 460A, 481D, 497B, 498D, 562A*
 Habitat: VnPls
 Life Form: Annual herb
 Blooming: May-July
 Notes: Threatened by agriculture, overgrazing, flood control, and non-native plants. See *Erythea* 6:110-113 (1898) for original description, and *Fremontia* 4(3):22-23 (1976) for species account and habitat information.
 Status Report: 1986

Neviusia cliftonii Shevock, Ertter & D.W. Taylor

"Shasta snow-wreath" Rosaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CEQA
 Distribution: SHA
 Quads: 664A, 664B, 664D
 Habitat: LCFrs (carbonate)
 Life Form: Shrub (deciduous)
 Blooming: May
 Notes: Known from fewer than ten occurrences near Lake Shasta. Potentially threatened by mining. See *Novon* 2(4):285-289 (1992) for original description, and *Fremontia* 22(3):3-13 (1993) for species account and information about discovery.

Nicolletia occidentalis

Considered but rejected: Too common

Nitrophila mohavensis Munz & Roos

"Amargosa nitrophila" Chenopodiaceae
 CNPS List: 1B R-E-D Code: 3-3-2 State/Fed. Status: CE/FE
 Distribution: INY, NV
 Quads: 275C, 322C, 322D
 Habitat: PLYas (mesic, clay)
 Life Form: Perennial herb
 Blooming: May-October
 Notes: Known in CA from fewer than five occurrences near Carson Slough in the Amargosa Desert. Severely threatened by water diversion and habitat alteration. State-listed as Critically Endangered in NV. See *Aliso* 3:112-114 (1955) for original description.
 Status Report: 1987

Nolina interrata Gentry

"Dehesa nolina" Liliaceae
 CNPS List: 1B R-E-D Code: 3-3-2 State/Fed. Status: CE/C1
 Distribution: SDG, BA
 Quads: 10A, 21D
 Habitat: Chprl (gabbroic or serpentinite)
 Life Form: Perennial herb
 Blooming: June-July
 Notes: Known in CA from approximately ten occurrences. Threatened by residential development and horticultural collecting. See *Madroño* 8:179-184 (1946) for original description and 22:214 (1973) for second CA location.
 Status Report: 1987

Notholaena californica

Considered but rejected: Too common

Notholaena cochisensis

See *Astrolepis cochisensis*

Notholaena limitanea var. *limitanea*

See *Argyrochosma limitanea* var. *limitanea*

Oenothera avita ssp. *eurekaensis*

See *Oenothera californica* ssp. *eurekaensis*

Oenothera caespitosa Nutt. ssp. *crinita* (Rydb.) Munz

"caespitose evening-primrose" Onagraceae
 CNPS List: 4 R-E-D Code: 1-2-1 State/Fed. Status: CEQA?
 Distribution: INY, SBD, NV+
 Habitat: PJWld, SCFRs, SDScr
 Life Form: Perennial herb (rhizomatous)
 Blooming: June-September
 Notes: Threatened by cattle grazing.

Oenothera californica (Wats.) Wats.ssp. *eurekaensis* (Munz & Roos) W. Klein

"Eureka Dunes evening-primrose" Onagraceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CR/FE
 Distribution: INY
 Quads: 390C, 391A, 391D
 Habitat: DeDns
 Life Form: Perennial herb (rhizomatous)
 Blooming: April-July
 Notes: Known from fewer than five occurrences in the Eureka Dunes. Recovery plan has been completed by BLM; still threatened by vehicle trespass and non-native plants. State-listed as *O. avita* ssp. *eurekaensis*. See *Aliso* 3(2):118 (1955) for original description, and *Biological Conservation* 46:217-242 (1988) for population biology.
 Status Report: 1977

Oenothera deltoidea Torr. & Frem.ssp. *howellii* (Munz) W. Klein

"Antioch Dunes evening-primrose" Onagraceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/FE
 Distribution: CCA, SAC
 Quads: 480C, 481C, 481D
 Habitat: InDns
 Life Form: Perennial herb
 Blooming: March-September
 Notes: Known from seven occurrences. Seriously threatened by mining, agriculture, and industrial development. Recovery work in progress. See *Aliso* 2:81 (1949) for original description, *Four Seasons* 3(1):2-4 (1969) for threat information, and *Biological Conservation* 65:257-278 (1993) for population biology.
 Status Report: 1988

Oenothera heterochroma

Considered but rejected: A synonym of *Camissonia heterochroma*; a common taxon

Oenothera hookeri ssp. *wolfii*

See *Oenothera wolfii*

Oenothera wolfii (Munz) Raven, Dietrich & Stubbe

"Wolf's evening-primrose" Onagraceae
 CNPS List: 1B R-E-D Code: 3-3-2 State/Fed. Status: /C1
 Distribution: DNT, HUM, TRI, OR
 Quads: 637B, 683C, 689D, 704D, 706D, 723B, 723D, 740B, 740C
 Habitat: CBScr, CoDns, CoPrr, LCFrs / sandy, usually mesic
 Life Form: Perennial herb
 Blooming: June-October
 Notes: Known from approximately twenty occurrences. Threatened by road maintenance, foot traffic, and hybridization with non-native *Oenothera* spp. Candidate for state listing in OR. See *Aliso* 2:16 (1949) for original description, and *Systematic Botany* 4:242-252 (1979) for revised nomenclature.

Oenothera xylocarpa

Considered but rejected: Too common

Ophioglossum californicum Prantl

"California adder's-tongue" Ophioglossaceae
 CNPS List: 4 R-E-D Code: 1-2-2 State/Fed. Status: /C3c
 Distribution: AMA, BUT, MER, MNT*, MPA, ORA, SBD*,
 SDG, STA, TUO, BA
 Habitat: Chprl, VFGrs, VnPls (margins)
 Life Form: Perennial herb (rhizomatous)
 Fertile: December-May
 Status Report: 1979

Ophioglossum lusitanicum ssp. *californicum*

See *Ophioglossum californicum*

Ophioglossum pusillum Raf.

"northern adder's-tongue" Ophioglossaceae
 CNPS List: 1A Last Seen: 1894 State/Fed. Status: CEQA
 Distribution: ELD*, SIS*, AZ, OR, WA, ++
 Quads: 699D*
 Habitat: MshSw (margins), VFGrs (mesic)
 Life Form: Perennial herb (rhizomatous)
 Fertile: July
 Notes: Need historical quads from ELD Co. Endangered in OR, and
 state-listed as Threatened in WA.
 Status Report: 1980

Ophioglossum vulgatum

See *Ophioglossum pusillum*

Opuntia basilaris Engelm. & Bigel.
var. *brachyclada* (Griffiths) Munz

"short-joint beavertail" Cactaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: LAX, SBD
 Quads: 133B, 133C, 133D, 134A, 134B, 134D, 135A, 135B,
 136A, 138A, 161C, 161D, 175B, 176A
 Habitat: Chprl, JTWld, MDScr, PJWld
 Life Form: Shrub (stem succulent)
 Blooming: April-June
 Notes: Threatened by urbanization, mining, horticultural collecting,
 grazing, and vehicles. Angeles NF has adopted species manage-
 ment guidelines.

Opuntia basilar Engelm. & Bigel.
var. *treleasei* (Coul.) Toumey

"Bakersfield cactus" Cactaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/FE
 Distribution: KRN
 Quads: 214A, 214C, 214D, 215D, 238C, 238D*, 239A, 239B,
 239C*, 239D, 240A*, 263D
 Habitat: ChScr, VFGrs (sandy)
 Life Form: Shrub (stem succulent)
 Blooming: May
 Notes: Threatened by energy development, agricultural conversion,
 grazing, vehicles, and especially urbanization in the Bakersfield area.
 Known by 1991 to be extirpated at eleven of thirty-five occurrences.
 USFWS uses the name *O. treleasei*. See *Contributions from the U.S.*
National Herbarium 3:434-435 (1896) for original description,
Wasmann Journal of Biology 25:289-290 (1967) for species account,
 and *Madroño* 39(1):79 (1992) for information on a new population.
 Status Report: 1990

Opuntia bigelovii var. *hoffmannii*

Considered but rejected: A hybrid (*O. xfosbergii*)

Opuntia curvospina Griffiths

"curved-spine beavertail" Cactaceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
 Distribution: SBD, AZ, NV
 Quads: 201A?, 224C, 225A, 225D
 Habitat: Chprl, MDScr, PJWld
 Life Form: Shrub (stem succulent)
 Blooming: April-June
 Notes: Stabilized hybrid between *O. phaeacantha* and *O. chlorotica*;
 see the latter in *The Jepson Manual*. See *Bulletin of the Torrey Bot-*
anical Club 43:88-89 (1916) for original description, and *System-*
atic Botany 5(4):408-418 (1980) for discussion of hybrid origin.

Opuntia fragilis (Nutt.) Haw.

"brittle prickly-pear" Cactaceae
 CNPS List: 2 R-E-D Code: 3-3-1 State/Fed. Status: CEQA
 Distribution: SIS(*), AZ, OR, NV, ++
 Quads: 716B(*?)
 Habitat: PJWld (volcanic)
 Life Form: Shrub (stem succulent)
 Blooming: April-July
 Notes: Known in CA only from Shasta Valley, where not collected
 since 1941; still extant? Field surveys needed. Probably reduced by
 grazing.

Opuntia munzii C.B. Wolf

"Munz's cholla" Cactaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: IMP, RIV
 Quads: 27D, 42B, 42C, 43A, 43D
 Habitat: SDScr (sandy or gravelly)
 Life Form: Shrub (stem succulent)
 Blooming: May
 Notes: Known from fewer than ten occurrences in the Chocolate
 Mtns. Of hybrid origin, but stabilized; perhaps only reproducing
 vegetatively. Relatively unthreatened as many occurrences are inac-
 cessible; some populations threatened by military activities.

Opuntia parryi Engelm. var. *serpentina* (Engelm.) L. Benson

"snake cholla" Cactaceae
 CNPS List: 1B R-E-D Code: 3-3-2 State/Fed. Status: /C2
 Distribution: SDG, BA
 Quads: 10C, 11A, 11B, 11D
 Habitat: Chprl, CoScr
 Life Form: Shrub (stem succulent)
 Blooming: April-May
 Notes: Threatened by development. A synonym of *O. parryi* in *The*
Jepson Manual.

Opuntia phaeacantha var. *major*

Considered but rejected: Too common and taxonomic problem

Opuntia phaeacantha var. *mojavensis*

Considered but rejected: A synonym of *O. phaeacantha*; a common
 taxon



Orcuttia californica

Opuntia pulchella Engelm.

"beautiful cholla" Cactaceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
 Distribution: INY, MNO, AZ?, NV, UT+
 Quads: 411B, 411C, 412D, 431A
 Habitat: DeDns, GBScr?, MDScr
 Life Form: Shrub (stem succulent)
 Blooming: May-June
 Notes: Threatened by grazing impacts. See *Madroño* 32(2):123 (1985) for first CA records.

Opuntia treleasei

See *Opuntia basilaris* var. *treleasei*

Opuntia wigginsii L. Benson

"Wiggins's cholla" Cactaceae
 CNPS List: 3 R-E-D Code: 3-1-2 State/Fed. Status: /C3b
 Distribution: IMP, RIV, SDG, AZ
 Quads: 18A, 18B, 30C, 32C, 40B
 Habitat: SDScr
 Life Form: Shrub (stem succulent)
 Blooming: March
 Notes: Apparently a sporadic hybrid between *O. ramosissima* and *O. echinocarpa*; needs further study. See *O. ramosissima* in *The Jepson Manual*.

Opuntia wolffi (Benson) Baker

"Wolf's cholla" Cactaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: IMP, SDG, BA?
 Habitat: SDScr
 Life Form: Shrub (stem succulent)
 Blooming: April-May
 Notes: Plant is locally common within range. May occur in BA; need confirmation. See *Cactus and Succulent Journal* 41:33 (1969) for original description, and *Madroño* 39(2):98-113 (1992) for revised nomenclature.

Orcuttia californica Vasey

"California Orcutt grass" Poaceae
 CNPS List: 1B R-E-D Code: 3-3-2 State/Fed. Status: CE/FE
 Distribution: LAX*, RIV, SDG, VEN, BA
 Quads: 9B, 10C, 11D, 22C, 22D, 68A, 68B, 68C*, 68D, 69D, 89A*, 89B*, 89D*, 90A*, 139D
 Habitat: VnPls
 Life Form: Annual herb
 Blooming: April-June
 Notes: Known from fewer than twenty occurrences. Seriously threatened by agriculture, development, non-native plants, grazing, and vehicles. See *Bulletin of the Torrey Botanical Club* 13:219 (1886) for original description, and *American Journal of Botany* 69:1082-1095 (1982) for taxonomic treatment.
 Status Report: 1987

Orcuttia californica var. *californica*

See *Orcuttia californica*

Orcuttia californica var. *inaequalis*

See *Orcuttia inaequalis*

Orcuttia californica var. *viscida*

See *Orcuttia viscida*

Orcuttia greenii

See *Tuctoria greenii*

Orcuttia inaequalis Hoov.

"San Joaquin Valley Orcutt grass" Poaceae
 CNPS List: 1B R-E-D Code: 2-3-3 State/Fed. Status: CE/PE
 Distribution: FRE, MAD, MER, STA*, TUL*
 Quads: 333B*, 356B*, 378B*, 379A, 379D*, 398D, 400B, 400D*, 420C, 421A, 421B, 421D, 422B*, 441B*, 441C*, 442A*, 442D*
 Habitat: VnPls
 Life Form: Annual herb
 Blooming: May-September
 Notes: Seriously threatened by agriculture, development, overgrazing, and non-native plants. See *Madroño* 3:227-230 (1936) for original description, and *American Journal of Botany* 69:1082-1095 (1982) for taxonomic treatment.
 Status Report: 1986

Orcuttia mucronata

See *Tuctoria mucronata*

Orcuttia pilosa Hoov.

"hairy Orcutt grass" Poaceae
 CNPS List: 1B R-E-D Code: 2-3-3 State/Fed. Status: CE/PE
 Distribution: BUT, GLE, MAD, MER, STA, TEH
 Quads: 379A, 379B, 379C, 380A, 399C, 400D*, 421B*, 421C, 441A*, 441B*, 441C, 441D, 562B, 576B, 593B, 594A
 Habitat: VnPls
 Life Form: Annual herb
 Blooming: May-August
 Notes: Seriously threatened by agriculture, urbanization, overgrazing, non-native plants, and trampling. See *Bulletin of the Torrey Botanical Club* 68:149-156 (1941) for original description, and *American Journal of Botany* 69:1082-1095 (1982) for taxonomic treatment.
 Status Report: 1987

Orcuttia tenuis Hitchc.

"slender Orcutt grass" Poaceae
 CNPS List: 1B R-E-D Code: 2-3-3 State/Fed. Status: CE/PT
 Distribution: LAK, PLU, SAC, SHA, SIS, TEH
 Quads: 496A, 533D, 534A, 593B, 594A, 606B, 628A, 628B,
 628C, 628D, 629A, 646C, 647D, 662B, 678A, 678B, 679D
 Habitat: VnPls
 Life Form: Annual herb
 Blooming: May-July
 Notes: Seriously threatened by agriculture, overgrazing, non-native plants, and residential development. Species management guidelines adopted by Lassen NF (USFS) and BLM. See *American Journal of Botany* 21:131 (1934) for original description and 69:1082-1095 (1982) for taxonomic treatment.
 Status Report: 1987

Orcuttia viscida (Hoov.) J. Reeder

"Sacramento Orcutt grass" Poaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/PE
 Distribution: SAC
 Quads: 495D, 511B, 511C
 Habitat: VnPls
 Life Form: Annual herb
 Blooming: May-June
 Notes: Known from seven occurrences. Seriously threatened by agriculture, urbanization, grazing, vehicles, and non-native plants. See *Bulletin of the Torrey Botanical Club* 68(3):155 (1941) for original description, and *American Journal of Botany* 69:1082-1095 (1982) for taxonomic treatment.
 Status Report: 1977

Oreonana clementis

Considered but rejected: Too common

Oreonana purpurascens Shevock & Const.

"purple mountain-parsley" Apiaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C3c
 Distribution: TUL
 Quads: 308A, 308D, 331B, 331C, 331D, 354A
 Habitat: BUFRs, SCFRs, UCFrs
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Threatened by road construction, logging, and trampling. See *Madroño* 26(3):128-134 (1979) for original description, and *Fremontia* 9(3):22-25 (1981) for species account.

Oreonana vestita (Wats.) Jeps.

"woolly mountain-parsley" Apiaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: LAX, SBD
 Habitat: SCFRs, UCFrs / scree
 Life Form: Perennial herb
 Blooming: June-July
 Notes: See *Fremontia* 9(3):22-25 (1981) for species account.

Ornithostaphylos oppositifolia (Parry) Small

"Baja California birdbrush" Ericaceae
 CNPS List: 2 R-E-D Code: 3-3-1 State/Fed. Status: CEQA
 Distribution: SDG, BA
 Quads: 11D
 Habitat: Chprl
 Life Form: Shrub (evergreen)
 Blooming: January-April
 Notes: Known in CA from only one occurrence west of San Ysidro near the Mexican border. Seriously threatened by aggregate mining operation.

Orobanche parishii (Jeps.) Heckard ssp. *brachyloba* Heckard

"short-lobed broom-rape" Orobanchaceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: /C1
 Distribution: SCT, SCZ, SDG, SLO, SMI, SNI, SRO, BA
 Quads: 11B*, 36D, 221D, SCTS, SCZA, SMIE, SMIW, SNIC, SROW
 Habitat: CBScr, CoDns, CoScr / sandy
 Life Form: Perennial herb (parasitic)
 Blooming: May-August
 Notes: To be expected elsewhere; need information. Parasitic on shrubs such as *Isocoma menziesii*. See *Madroño* 22:68 (1973) for original description.

Orobanche valida

See *Orobanche valida* ssp. *valida*

Orobanche valida Jeps. ssp. *howellii* Heckard & Collins

"Howell's broomrape" Orobanchaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: GLE, LAK, MEN, NAP, SON, TEH
 Habitat: Chprl (serpentinite or volcanic)
 Life Form: Perennial herb (parasitic)
 Blooming: June-September
 Notes: Generally parasitic on *Garrya* spp. See *Madroño* 29(2):95-100 (1982) for original description.

Orobanche valida Jeps. ssp. *valida*

"Rock Creek broomrape" Orobanchaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: LAX
 Quads: 108B, 135A
 Habitat: Chprl, PJWld / granitic
 Life Form: Perennial herb (parasitic)
 Blooming: May-July
 Notes: Known from only two occurrences in the San Gabriel Mtns. Parasitic on various chaparral shrubs. See *Madroño* 1:255-256 (1929) for original description, *Fremontia* 11(1):16-18 (1983) for discussion of rediscovery (1979), and *Madroño* 29(2):95-100 (1982) for taxonomic treatment.
 Status Report: 1977

Orochaenactis thysanocarpha

Considered but rejected: Too common

Orthocarpus campestris var. *succulentus*

See *Castilleja campestris* ssp. *succulentus*

Orthocarpus castillejooides var. *humboldtensis*

See *Castilleja ambigua* ssp. *humboldtensis*

Orthocarpus cuspidatus

See *Orthocarpus cuspidatus* ssp. *cuspidatus*

Orthocarpus cuspidatus Greene ssp. *cuspidatus*

"Siskiyou Mtns. orthocarpus" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: HUM, SIS, OR
 Habitat: LCFrs, UCFrs
 Life Form: Annual herb
 Blooming: June-August
 Notes: On watch list in OR. Intergrades with ssp. *copelandii*. See *Systematic Botany* 17(4):560-582 (1992) for taxonomic treatment.

Orthocarpus floribundus

See *Triphysaria floribunda*

Orthocarpus lasiorhynchus

See *Castilleja lasiorhyncha*

Orthocarpus pachystachyus Gray

"Shasta orthocarpus" Scrophulariaceae
 CNPS List: 1A Last Seen: 1913 State/Fed. Status: /C3a
 Distribution: SIS*
 Quads: 698B*, 717B*, 717D*
 Habitat: GBSscr, VFGrs
 Life Form: Annual herb
 Blooming: May
 Notes: Location information vague, but area of historical distribution is farmed and grazed.
 Status Report: 1978

Orthocarpus purpurascens var. *pallidus*

Considered but rejected: Too common; a synonym of *Castilleja exserta* ssp. *exserta*

Orthocarpus succulentus

See *Castilleja campestris* ssp. *succulenta*

Oryctes nevadensis Wats.

"Nevada oryctes" Solanaceae
 CNPS List: 1B R-E-D Code: 3-3-2 State/Fed. Status: /C2
 Distribution: INY, NV
 Quads: 351A, 351D, 372B, 372D, 393A, 413A, 413B, 413C, 413D
 Habitat: ChScr, MDSscr / sandy
 Life Form: Annual herb
 Blooming: April-June
 Notes: Known in CA from fewer than ten occurrences in Owens Valley. Seriously threatened by grazing, trampling, and vehicles. On watch list in NV. See *Botany of the King Expedition*, p. 274 (1871) for original description.

Oryzopsis kingii

Considered but rejected: Too common; a synonym of *Ptilagrostis kingii*

Oryzopsis micrantha

See *Piptatherum micranthum*

Oxystylis lutea

Considered but rejected: Too common

Oxytheca caryophylloides Parry

"chickweed oxytheca" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: LAX, RIV, SBD, TUL, VEN
 Habitat: LCFrs (sandy)
 Life Form: Annual herb
 Blooming: July-September
 Notes: See *Phytologia* 66(4):387-388 (1989) for taxonomic treatment.

Oxytheca emarginata Hall

"white-margined oxytheca" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: RIV
 Habitat: LCFrs, PJWld
 Life Form: Annual herb
 Blooming: April-August
 Notes: See *Phytologia* 66(4):388 (1989) for taxonomic treatment.

Oxytheca parishii Parry var. *abramsii* (McGregor) Munz

"Abrams's oxytheca" Polygonaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CEQA
 Distribution: SBA, VEN
 Quads: 164C, 165D, 166A, 167B, 168A, 168B, 190C
 Habitat: Chprl (sandy or shale)
 Life Form: Annual herb
 Blooming: June-August
 Notes: See *Bulletin of the Torrey Botanical Club* 36:605 (1909) for original description, and *Brittonia* 32(1):70-102 (1980) and *Phytologia* 66(4):386-87 (1989) for taxonomic treatments.

Oxytheca parishii Parry var. *cienegensis* Ertter

"Cienega Seca oxytheca" Polygonaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: SBD
 Quads: 105A
 Habitat: UCFrs (sandy, granitic)
 Life Form: Annual herb
 Blooming: June-September
 Notes: Field work needed. See *Brittonia* 32:70-102 (1980) for original description, and *Phytologia* 66(4):386-87 (1989) for taxonomic treatment.

Oxytheca parishii Parry var. *goodmaniana* Ertter

"Cushenbury oxytheca" Polygonaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /PE
 Distribution: SBD
 Quads: 131C, 131D
 Habitat: PJWld (carbonate)
 Life Form: Annual herb
 Blooming: May-September
 Notes: Threatened by carbonate mining. See *Brittonia* 32:70-102 (1980) for original description, and *Phytologia* 66(4):386-87 (1989) for taxonomic treatment.

Oxytheca watsonii T. & G.

"Watson's oxytheca" Polygonaceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: INY, NV
 Quads: 327A, 327B, 327C, 348C
 Habitat: JTWld, MDScr / sandy
 Life Form: Annual herb
 Blooming: May-July
 Notes: Known in CA from fewer than five occurrences. See *Madroño* 29(4):273-274 (1982) for first CA occurrences, and *Phytologia* 66(4):385-86 (1989) for taxonomic treatment.

Oxytropis deflexa (Pallas) DC. var. *sericea* T. & G.

"blue pendent-pod oxytrope" Fabaceae
 CNPS List: 2 R-E-D Code: 3-3-1 State/Fed. Status: CEQA
 Distribution: MNO, NV, OR, WA, ++
 Quads: 431C
 Habitat: Medws, UCFrs
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Known in CA from only five extant occurrences in the White Mtns. Threatened by cattle grazing.

Palafoxia arida Turner & Morrisvar. *gigantea* (M.E. Jones) Turner & Morris

"giant Spanish-needle" Asteraceae
 CNPS List: 1B R-E-D Code: 2-1-2 State/Fed. Status: /C2
 Distribution: IMP, AZ
 Quads: 1B, 2A, 2B, 3A, 13B, 13C, 13D, 14A, 14B, 14D, 15A, 27C, 27D, 28D
 Habitat: DeDns
 Life Form: Annual/Perennial herb
 Blooming: February-May
 Notes: See *Contributions to Western Botany* 18:79 (1933) for original description, and *Rhodora* 78:604-605 (1976) for taxonomic treatment.
 Status Report: 1977

Palafoxia linearis var. *gigantea*

See *Palafoxia arida* var. *gigantea*

Panicum shastense

Considered but rejected: A hybrid

Panicum thermale

See *Dichanthelium lanuginosum* var. *thermale*

Papaver californicum

Considered but rejected: Too common

Paronychia ahartii Ertter

"Ahart's paronychia" Caryophyllaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: BUT, SHA, TEH
 Quads: 560D, 593B, 593D, 594C, 610A, 611D, 627A, 628B, 628C, 628D, 646C, 646D
 Habitat: CmWld, VFGrs, VnPls
 Life Form: Annual herb
 Blooming: April-June
 Notes: Known only from the northern Sacramento Valley. Threatened by habitat loss, and possibly by grazing and trampling. See *Madroño* 32(2):87-90 (1985) for original description.

Paronychia franciscana

Considered but rejected: Not native

Parvisedum leiocarpum (H.K. Sharsm.) Clausen

"Lake County stonecrop" Crassulaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/C1
 Distribution: LAK
 Quads: 533B, 533C, 533D
 Habitat: CmWld, VFGrs, VnPls / vernal mesic depressions in rock outcrops
 Life Form: Annual herb
 Blooming: April-May
 Notes: Known from approximately five occurrences. Extremely vulnerable to trampling; also threatened by grazing and development. See *Madroño* 5:192-194 (1940) for original description, and *Cactus and Succulent Journal* 18:58 (1946) for revised nomenclature.
 Status Report: 1990

Parvisedum pentandrum

Considered but rejected: Too common

Pectocarya palmeri

See *Harpagonella palmeri*

Pedicularis bracteosa Benth. var. *flavida* (Pennell) Cronq.

"yellowish lousewort" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: SIS, TRI, OR
 Habitat: UCFrs (mesic)
 Life Form: Perennial herb
 Blooming: July-August
 Notes: See *Bulletin of the Torrey Botanical Club* 61:445 (1934) for original description.

Pedicularis centranthera Gray

"dwarf lousewort" Scrophulariaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: LAS, AZ, NV, OR, ++
 Quads: 639D
 Habitat: GBSscr (alluvial)
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Known in CA from only two occurrences. Possibly threatened by agricultural development. On review list in OR. See *Report on the U.S. and Mexican Boundary Survey*, p. 120 (1859) by W. Emory for original description.

Pedicularis contorta Benth.

"curved-beak lousewort" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: SIS, TRI, OR, WA
 Habitat: BgFns, Medws, LCFrs, UCFrs / mesic
 Life Form: Perennial herb
 Blooming: July-August

Pedicularis crenulata Benth.

"scalloped-leaved lousewort" Scrophulariaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: MNO, NV, WY+
 Quads: 434D
 Habitat: Medws (mesic)
 Life Form: Perennial herb
 Blooming: June-July
 Notes: Known in CA from only one occurrence near Convict Creek.
 See *Madroño* 28(3):86 (1981) for this record.

Pedicularis dudleyi Elmer

"Dudley's lousewort" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CR/C2
 Distribution: MNT, SCR*, SLO, SMT
 Quads: 271B, 272A, 320B, 344D, 387B*, 428C, 429A
 Habitat: Chprl (maritime), NCFrs, VFGrs
 Life Form: Perennial herb
 Blooming: April-June
 Notes: Known from fewer than fifteen occurrences. Threatened by trampling, and potentially by development. Plants from Arroyo de la Cruz (SLO Co.) are different and warrant further study. See *Botanical Gazette* 41:316-317 (1906) for original description.
 Status Report: 1988

Pedicularis flavida

See *Pedicularis bracteosa* var. *flavida*

Pedicularis howellii Gray

"Howell's lousewort" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: /C3c
 Distribution: SIS, OR
 Habitat: UCFrs (often serpentinite)
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Endangered in OR. See *Proceedings of the American Academy of Arts and Sciences* 20:307 (1885) for original description.
 Status Report: 1979

Pellaea truncata Goodd.

"cliff brake" Pteridaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: SBD, AZ, BA, NV, SO, ++
 Quads: 225D
 Habitat: PJWld (volcanic or granitic)
 Life Form: Perennial herb (rhizomatous)
 Fertile: April-June
 Notes: Need quad for occurrence in the Providence Mtns. See *Madroño* 25(1):56 (1978) for species account.

Penstemon albomarginatus M.E. Jones

"white-margined beardtongue" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 3-2-2 State/Fed. Status: /C2
 Distribution: SBD, AZ, NV
 Quads: 150C, 153B, 154A, 179D
 Habitat: DeDns (stabilized), MDScr
 Life Form: Perennial herb
 Blooming: March-May
 Notes: Known in CA from approximately four occurrences; two have not been seen in many years. One confirmed extant occurrence was damaged by military activities in 1989. Threatened in NV.

Penstemon barnebyi N. Holmgren

"Barneby's beardtongue" Scrophulariaceae
 CNPS List: 2 R-E-D Code: 3-3-1 State/Fed. Status: CEQA
 Distribution: MNO, NV
 Quads: 431A, 431B
 Habitat: GBScr, PJWld / carbonate, gravelly
 Life Form: Perennial herb
 Blooming: May
 Notes: Known in CA from only one occurrence along Busher Creek in the White Mtns. Possibly threatened by grazing. See *Brittonia* 31:226 (1979) for original description, and *Madroño* 35(2):164-165 (1988) for the CA record.

Penstemon calcareus Bdg.

"limestone beardtongue" Scrophulariaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: /C3c
 Distribution: INY, SBD, NV
 Quads: 175B, 176A, 201C, 348A, 368A, 368D, 369B, 390C, 390D
 Habitat: JTWld, MDScr, PJWld / carbonate
 Life Form: Perennial herb
 Blooming: April-May

Penstemon californicus (Munz & Jtn.) Keck

"California beardtongue" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 3-2-2 State/Fed. Status: /C3c
 Distribution: RIV, BA
 Quads: 49A, 65C, 66A, 66B, 66C, 66D, 67A
 Habitat: Chprl, LCFrs, PJWld / sandy
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Known in CA from fewer than twenty occurrences. Threatened by grazing. See *Bulletin of the Southern California Academy of Sciences* 23:31 (1924) for original description.
 Status Report: 1979

Penstemon cinereus Piper

"gray beardtongue" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: MOD, SIS, NV, OR
 Habitat: GBScr, PJWld / volcanic, gravelly
 Life Form: Perennial herb
 Blooming: May-August
 Notes: Intergrades with *P. humilis* var. *humilis*; see that taxon in *The Jepson Manual*.

Penstemon cinicola Keck

"ash beardtongue" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-2-1 State/Fed. Status: /C3c
 Distribution: LAS, MOD, SIS, OR
 Habitat: LCFrs, Medws / volcanic, sandy
 Life Form: Perennial herb
 Blooming: June-August
 Notes: See *Carnegie Institute of Washington Publication* 520:294 (1940) for original description.

Penstemon clevelandii ssp. *connatus*

See *Penstemon clevelandii* var. *connatus*

Penstemon clevelandii Grayvar. *connatus* (Munz & Jtn.) N. Holmgren

"San Jacinto beardtongue" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: IMP, RIV, SDG, BA
 Habitat: Chprl
 Life Form: Perennial herb
 Blooming: March-May

Penstemon confusus ssp. *confusus*

Considered but rejected: A synonym of *P. confusus*; not in CA

Penstemon confusus ssp. *patens*

Considered but rejected: A synonym of *P. patens*; a common taxon

Penstemon filiformis (Keck) Keck

"thread-leaved beardtongue" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 2-1-3 State/Fed. Status: /C2
 Distribution: SHA, TRI
 Quads: 665B, 666A, 666B, 667A, 667B, 667C, 667D, 682B, 682C, 682D, 683B, 683C, 683D
 Habitat: CmWld, LCFrs / rocky
 Life Form: Perennial herb
 Blooming: June-July
 Notes: Possibly threatened by logging and recreation. Confused with *P. laetus* var. *sagittatus*. See *University of California Publications in Botany* 16:394 (1932) for original description.

Penstemon floridus ssp. *floridus*

Considered but rejected: Too common

Penstemon fruticiformis ssp. *amargosae*

See *Penstemon fruticiformis* var. *amargosae*

Penstemon fruticiformis Cov.var. *amargosae* (Keck) N. Holmgren

"Death Valley beardtongue" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: /C2
 Distribution: INY, SBD, NV
 Habitat: MDSr
 Life Form: Perennial herb
 Blooming: April-June
 Notes: Threatened in NV. See *American Midland Naturalist* 18:801 (1937) for original description.

Penstemon heterodoxus Grayvar. *shastensis* (Keck) N. Holmgren

"Shasta beardtongue" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: MOD, SHA, SIS
 Habitat: LCFrs, Medws, UCFrs
 Life Form: Perennial herb
 Blooming: June-August
 Notes: See *American Midland Naturalist* 33:165 (1945) for original description.

Penstemon monoensis

Considered but rejected: Too common

Penstemon neotericus

Considered but rejected: Too common

Penstemon newberryi ssp. *sonomensis*

See *Penstemon newberryi* var. *sonomensis*

Penstemon newberryi Gray var. *sonomensis* (Greene) Jeps.

"Sonoma beardtongue" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: CEQA
 Distribution: LAK, NAP, SON
 Quads: 500A, 500B, 501A, 516B, 517A, 517B, 533C
 Habitat: Chprl (rocky)
 Life Form: Perennial herb
 Blooming: May-July

Penstemon papillatus J.T. Howell

"Inyo beardtongue" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: INY, KRN, MNO
 Habitat: PJWld, SCFrs / rocky, granitic
 Life Form: Perennial herb
 Blooming: June-July

Penstemon personatus Keck

"closed-throated beardtongue" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: BUT, PLU
 Quads: 589A, 590A, 590B, 590C, 590D, 591B, 591C, 591D, 592A, 605C, 606D
 Habitat: LCFrs, UCFrs / metovolcanic
 Life Form: Perennial herb
 Blooming: July-September
 Notes: Threatened by logging activities. Plumas NF has adopted species management guidelines. See *Madroño* 3:248-250 (1935) for original description.
 Status Report: 1977

Penstemon purpusii Bdg.

"Snow Mtn. beardtongue" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: COL, GLE, HUM, LAK, MEN, SHA, TEH, TRI
 Habitat: LCFrs, UCFrs / rocky, often serpentinite
 Life Form: Perennial herb
 Blooming: June-August

Penstemon rattanii ssp. *kleei*See *Penstemon rattanii* var. *kleei**Penstemon rattanii* Gray var. *kleei* (Greene) Gray

"Santa Cruz Mtns. beardtongue" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CEQA
 Distribution: SCL, SCR
 Quads: 387B, 406C, 407D, 408B, 408C, 408D
 Habitat: Chprl, LCFrs, NCFrs
 Life Form: Perennial herb
 Blooming: May-June

Penstemon scapoides

Considered but rejected: Too common

*Penstemon shastensis*See *Penstemon heterodoxus* var. *shastensis**Penstemon stephensii* Bdg.

"Stephens's beardtongue" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: INY, SBD
 Quads: 176A, 176C, 200C, 250A, 250B, 274C, 274D, 275A,
 298D
 Habitat: MDScr, PJWld / carbonate
 Life Form: Perennial herb
 Blooming: April-June
 Notes: Threatened by limestone mining.

Penstemon thurberi Torr.

"Thurber's beardtongue" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-2-1 State/Fed. Status: CEQA?
 Distribution: IMP, RIV, SBD, SDG, AZ, BA, NV
 Habitat: Chprl, JTWld, PJWld, SDScr / sandy or gravelly
 Life Form: Perennial herb
 Blooming: May-July

Penstemon tracyi Keck

"Tracy's beardtongue" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C3c
 Distribution: TRI
 Quads: 667B, 667C, 668A, 668B, 684C, 685D
 Habitat: UCFrs (rocky)
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Known from fewer than ten occurrences. See *American Mid-land Naturalist* 23:603-605 (1940) for original description.
 Status Report: 1979

Penstemon venustus

Considered but rejected: Not native

Pentachaeta bellidiflora Greene

"white-rayed pentachaeta" Asteraceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/PE
 Distribution: MRN*, SCR*, SMT
 Quads: 387B*, 408A*, 408B*, 408C*, 408D*, 429A, 448B*,
 448C*, 448D*, 466B*, 467A*, 467D*
 Habitat: VFGrs (often serpentinite)
 Life Form: Annual herb
 Blooming: March-May
 Notes: Known from only one extended occurrence bisected by Highway 280; historical occurrences lost to development. See *Bulletin of the California Academy of Sciences* 1:86 (1885) for original description, and *University of California Publications in Botany* 65:1-41 (1973) for taxonomic treatment.

Pentachaeta exilis (Gray) Gray ssp. *aeolica* Van Horn & Ornduff

"slender pentachaeta" Asteraceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C1
 Distribution: MNT, SBT
 Quads: 319C, 339C, 340D
 Habitat: CmWld, VFGrs
 Life Form: Annual herb
 Blooming: April-May
 Notes: Known from approximately five occurrences near The Indians (MNT Co.) and Hernandez (SBT Co.). See *University of California Publications in Botany* 65:1-41 (1973) for taxonomic treatment.

Pentachaeta lyonii Gray

"Lyon's pentachaeta" Asteraceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/PE
 Distribution: LAX, SCT*, VEN
 Quads: 73A*, 90D*, 112C, 113A, 113B, 113D, SCTN*
 Habitat: Chprl (openings), VFGrs
 Life Form: Annual herb
 Blooming: March-August
 Notes: Known from fewer than twenty extant occurrences. Threatened by development and recreational activities. See *Synoptical Flora of North America* 1(2):446 (1884) for original description, and *University of California Publications in Botany* 65:1-41 (1973) for taxonomic treatment.
 Status Report: 1989

Perideridia bacigalupii Chuang & Const.

"Bacigalupi's yampah" Apiaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: /C3c
 Distribution: AMA, BUT, CAL, MAD*, MPA, NEV, TUO
 Habitat: Chprl, LCFrs / serpentinite
 Life Form: Perennial herb
 Blooming: June-August
 Notes: See *University of California Publications in Botany* 55:36-38 (1969) for original description.
 Status Report: 1978

Perideridia gairdneri (H. & A.) Math. ssp. *gairdneri*

"Gairdner's yampah" Apiaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: /C2
 Distribution: DNT, HUM, KRN, LAS, LAX*, MEN, MNT,
 MOD, MRN, NAP, ORA*, SBT, SCL, SCR, SDG*, SIS, SLO,
 SMT(*?), SOL, SON, TRI
 Habitat: BUFRs, Chprl, VFGrs, VnPls / mesic
 Life Form: Perennial herb
 Blooming: June-October
 Notes: Endangered in the southern portion of its range; status of occurrences uncertain. Can be relatively common locally, especially in northern counties. Is plant extant in SMT Co.? Threatened by agriculture and urban development. See *University of California Publications in Botany* 55:1-74 (1969) for taxonomic treatment.

Perideridia leptocarpa Chuang & Const.

"narrow-seeded yampah" Apiaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: /C3c
 Distribution: SIS, OR
 Habitat: LCFrs (serpentinite)
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Taxonomic questions; possibly belongs in *P. oregana*. See *University of California Publications in Botany* 55:51-54 (1969) for original description.
 Status Report: 1978

Perideridia parishii (Coult. & Rose) Nels. & Macbr. ssp. *parishii*

"Parish's yampah" Apiaceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
 Distribution: SBD, AZ, NM, NV
 Quads: 105A, 105B, 106A, 106B, 131C, 132C
 Habitat: LCFrs, Medws, UCFrs
 Life Form: Perennial herb
 Blooming: June-July
 Notes: See *Botanical Gazette* 12:157 (1887) for original description, and *University of California Publications in Botany* 55:1-74 (1969) for taxonomic treatment.
 Status Report: 1980

Perideridia pringlei (Coult. & Rose) Nels. & Macbr.

"adobe yampah" Apiaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: KRN, LAX, MNT, NEV, SBA, SLO, TUL, VEN
 Habitat: Chprl, CmWld, CoScr / serpentinite
 Life Form: Perennial herb
 Blooming: April-July

Perityle inyoensis (Ferris) Powell

"Inyo rock daisy" Asteraceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: INY
 Quads: 327C, 350D
 Habitat: PJWld (rocky)
 Life Form: Perennial herb
 Blooming: July-August
 Notes: Known from fewer than ten occurrences. Threatened by proposed mining at Cerro Gordo Mine.

Perityle megaloccephala var. *intricata*

Considered but rejected: A synonym of *P. megaloccephala* var. *oligophylla*, a common taxon

Perityle megaloccephala var. *oligophylla*

Considered but rejected: Too common

Perityle villosa (Blake) Shinnery

"Hanaupah rock daisy" Asteraceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: INY
 Quads: 302A(*?), 368B, 369B
 Habitat: PJWld (rocky)
 Life Form: Perennial herb
 Blooming: June
 Notes: Known from fewer than five extant occurrences. Has been searched for but not rediscovered in Hanaupah Cyn. Collected in 1980 on Mt. Palmer in the Grapevine Mtns.

Petalonyx gilmanii

See *Petalonyx thurberi* ssp. *gilmanii*

Petalonyx thurberi Gray ssp. *gilmanii* (Munz) Davis & Thompson

"Death Valley sandpaper-plant" Loasaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: INY
 Quads: 303A, 323C, 326B, 326C, 327D, 348A, 348D, 389C
 Habitat: DeDns, MDScr
 Life Form: Shrub (evergreen)
 Blooming: May-September
 Notes: Known from fewer than twenty occurrences. Distinctiveness from ssp. *thurberi* needs study.

Peteria thompsoniae Wats.

"spine-noded milk vetch" Fabaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: /C3c
 Distribution: INY, AZ, ID, NV, UT+
 Quads: 274C
 Habitat: MDScr (bajadas)
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Known in CA from only one occurrence in California Valley. Endangered in ID. See *Madroño* 34(4):381 (1987) for the CA record.

Petradoria discoidea

See *Chrysothamnus gramineus*

Petunia parviflora

Considered but rejected: Too common

Phacelia amabilis Const.

"Saline Valley phacelia"
 CNPS List: 3 R-E-D Code: 3-1-3 State/Fed. Status: /C2*
 Distribution: INY
 Quads: 347A, 350A*
 Habitat: RpScr, SCFrS
 Life Form: Annual herb
 Blooming: April-May
 Notes: Move to List 1B? Rediscovered in the mid-1980's by M. DeDecker above Mud Cyn., growing within a population of *P. crenulata*; probably a variant of the latter. Repeated searches of the type locality have been unsuccessful.

Phacelia anelsonii Macbr.

"Aven Nelson's phacelia"
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: /C3c
 Distribution: INY, SBD, NV+
 Quads: 224C, 226A, 327A
 Habitat: JTWld, PJWld / carbonate
 Life Form: Annual herb
 Blooming: April-May
 Notes: See *Contributions from the Gray Herbarium* 49:26 (1917) for original description.

Phacelia argentea Nels. & Macbr.

"sand dune phacelia"
 CNPS List: 1B R-E-D Code: 3-3-2 State/Fed. Status: /C2
 Distribution: DNT, OR
 Quads: 740B, 740C
 Habitat: CoDns
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Known in CA from only four occurrences near Lake Earl and the Smith River Dunes. Threatened by coastal development, vehicles, and non-native plants. Candidate for state listing in OR. See *Botanical Gazette* 61:34 (1916) for original description.

Phacelia calthifolia

Considered but rejected: Too common

Phacelia ciliata Benth. var. *opaca* J.T. Howell

"Merced phacelia"
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: MER
 Quads: 400B, 401A, 420C, 421C, 421D
 Habitat: VFGrs (clay)
 Life Form: Annual herb
 Blooming: February-May
 Notes: Known from fewer than ten extant occurrences. See *P. ciliata* in *The Jepson Manual*. See *Leaflets of Western Botany* 1:221 (1936) for original description.
 Status Report: 1979

Phacelia cinerea Eastw.

"ashy phacelia"
 CNPS List: 1A Last Seen: 1901 State/Fed. Status: /C2*
 Distribution: SNI*
 Quads: SNIC*
 Habitat: Medws (mesic)
 Life Form: Perennial herb
 Blooming: March-April
 Notes: Known only from the type collection. Rediscovery attempt in 1977 and others since 1983 have been unsuccessful. Not in *The Jepson Manual*. See *Contributions from the Gray Herbarium* 49:26 (1917) for original description.
 Status Report: 1979

Phacelia cookei Const. & Heckard

"Cooke's phacelia"
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C2
 Distribution: SIS
 Quads: 698B, 715C
 Habitat: GBScr, LCFrs / sandy
 Life Form: Annual herb
 Blooming: June-July
 Notes: Known from approximately five occurrences. Threatened by non-native plants, and possibly by fire suppression. See *Brittonia* 22(1):25-30 (1970) for original description.
 Status Report: 1977

Phacelia dalesiana J.T. Howell

"Scott Mtn. phacelia"
 CNPS List: 1B R-E-D Code: 1-2-3 State/Fed. Status: /C2
 Distribution: SHA, SIS, TRI
 Quads: 681A, 682B, 682C, 683A, 683B, 683D, 684A, 684D, 699C, 700C, 700D
 Habitat: LCFrs, Medws, SCFrS, UCFrs / serpentinite
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Threatened by logging and grazing. See *Leaflets of Western Botany* 2:51 (1937) for original description.

Phacelia divaricata var. *insularis*

See *Phacelia insularis* var. *insularis*

Phacelia exilis (Gray) G.J. Lee

"Transverse Range phacelia"
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: KRN, LAX, SBD, TUL, VEN
 Habitat: LCFrs, Medws, UCFrs / sandy or gravelly
 Life Form: Annual herb
 Blooming: May-August
 Notes: Known from fewer than ten occurrences, but can be locally common. Difficult to separate from *P. mohavensis*. See *Synoptical Flora of North America* 2(1):165 (1878) for original description, and *Systematic Botany* 13(1):16-20 (1988) for revised nomenclature.

Phacelia floribunda Greene

"many-flowered phacelia" Hydrophyllaceae
 CNPS List: 1B R-E-D Code: 3-2-2 State/Fed. Status: /C2
 Distribution: SBR, SCM, GU
 Quads: SBRA, SCMC, SCMN, SCMS
 Habitat: CoScr
 Life Form: Annual herb
 Blooming: March-May
 Notes: Known from fewer than twenty occurrences over its range. Feral herbivores removed from SBR and SCM islands, and vegetation recovering.

Phacelia greenii J.T. Howell

"Scott Valley phacelia" Hydrophyllaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: SIS
 Quads: 700C, 700D, 701A, 701C, 701D, 717B, 717C, 718C, 718D
 Habitat: CCFrs, LCFrs, SCFrs, UCFrs / serpentinite
 Life Form: Annual herb
 Blooming: May-June
 Notes: Possibly threatened by mining.
 Status Report: 1989

Phacelia grisea

Considered but rejected: Too common

Phacelia insularis Munz var. *continentis* J.T. Howell

"North Coast phacelia" Hydrophyllaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: MEN, MRN
 Quads: 485C, 485D, 569A, 585D
 Habitat: CBScr, CoDns
 Life Form: Annual herb
 Blooming: March-May
 Notes: Known from approximately seven occurrences. Threatened by foot traffic, non-native plants, and grazing. See *American Midland Naturalist* 33:474 (1945) for original description.

Phacelia insularis Munz var. *insularis*

"northern Channel Islands phacelia" Hydrophyllaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C1
 Distribution: SMI, SRO
 Quads: SMIW, SROE, SRON
 Habitat: CoDns, VFGrs
 Life Form: Annual herb
 Blooming: March-April
 Notes: Known from fewer than five occurrences. Threatened by feral herbivores on SRO Isl. See *Bulletin of the Southern California Academy of Sciences* 31:113 (1932) for original description, and *American Midland Naturalist* 33:472-474 (1945) for taxonomic treatment.
 Status Report: 1979

Phacelia imundata J.T. Howell

"playa phacelia" Hydrophyllaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: LAS, MOD, NV, OR
 Quads: 640B, 640C, 712A, 728C
 Habitat: GBScr, LCFrs, Plyas / alkaline
 Life Form: Annual herb
 Blooming: May-July
 Notes: On review list in OR. See *Leaflets of Western Botany* 4:15 (1944) for original description, and *Madroño* 28(3):121-132 (1981) for taxonomic treatment.

Phacelia inyoensis (Macbr.) J.T. Howell

"Inyo phacelia" Hydrophyllaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: INY, MNO
 Habitat: Medws (alkaline)
 Life Form: Annual herb
 Blooming: May-August
 Notes: See *Leaflets of Western Botany* 4:16 (1944) for original description, and *Madroño* 28(3):121-132 (1981) for taxonomic treatment.

Phacelia ixodes

Considered but rejected: Not in CA

Phacelia leonis J.T. Howell

"Siskiyou phacelia" Hydrophyllaceae
 CNPS List: 1B R-E-D Code: 2-1-2 State/Fed. Status: CEQA
 Distribution: SIS, TRI, OR*
 Quads: 667A, 683B, 684C, 684D, 686D, 738A, 738D
 Habitat: UCFrs (sometimes serpentinite)
 Life Form: Annual herb
 Blooming: June-July
 Notes: On review list in OR.

Phacelia longipes

Considered but rejected: Too common

Phacelia lyonii

Considered but rejected: Too common

Phacelia marcescens

Considered but rejected: Too common

Phacelia mohavensis Gray

"Mojave phacelia" Hydrophyllaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: LAX, SBD
 Habitat: CmWld, LCFrs, Medws (xeric), PJWld / sandy or gravelly, often dry streambeds
 Life Form: Annual herb
 Blooming: April-August
 Notes: Difficult to separate from *P. exilis*. See *Synoptical Flora of North America* 2(1):164 (1878) for original description, and *Systematic Botany* 13(1):16-20 (1988) for additional information.

Phacelia monoensis Halse

"Mono County phacelia" Hydrophyllaceae
 CNPS List: 1B R-E-D Code: 3-3-2 State/Fed. Status: /C2
 Distribution: MNO, NV
 Quads: 469B, 470B, 486C, 487C, 487D, 488A
 Habitat: GBScr, PJWld / clay, often roadsides
 Life Form: Annual herb
 Blooming: June-July
 Notes: Known in CA from fewer than twenty occurrences. Threatened by vehicles and grazing. Threatened in NV. See *Madroño* 28(3):124-125 (1981) for original description, and *Intermountain Flora* 4:177 (1984) for alternate taxonomic treatment.

Phacelia mustelina Cov.

"Death Valley round-leaved phacelia" Hydrophyllaceae
 CNPS List: 1B R-E-D Code: 2-1-2 State/Fed. Status: /C3c
 Distribution: INY, SBD, NV
 Quads: 232B, 302A, 325B, 325D, 368A, 368B, 368D, 369B, 389D
 Habitat: MDSCr, PJWld / carbonate or volcanic
 Life Form: Annual herb
 Blooming: May-July
 Notes: On watch list in NV. See *Journal of the Washington Academy of Sciences* 27(5):196 (1937) for original description.

Phacelia nashiana Jeps.

"Charlotte's phacelia" Hydrophyllaceae
 CNPS List: 1B R-E-D Code: 1-2-3 State/Fed. Status: /C2
 Distribution: INY, KRN, TUL
 Quads: 211A, 235A, 235B, 235C, 236D, 258B, 258C, 259A, 259C, 259D, 282A, 282B, 282C, 283D, 306A, 306D
 Habitat: JTWld, MDSCr, PJWld / granitic
 Life Form: Annual herb
 Blooming: March-June
 Notes: Threatened by vehicles and grazing. See *Flora of California* 3(2):276-277 (1943) by W.L. Jepson for original description.
 Status Report: 1989

Phacelia novemmillensis Munz

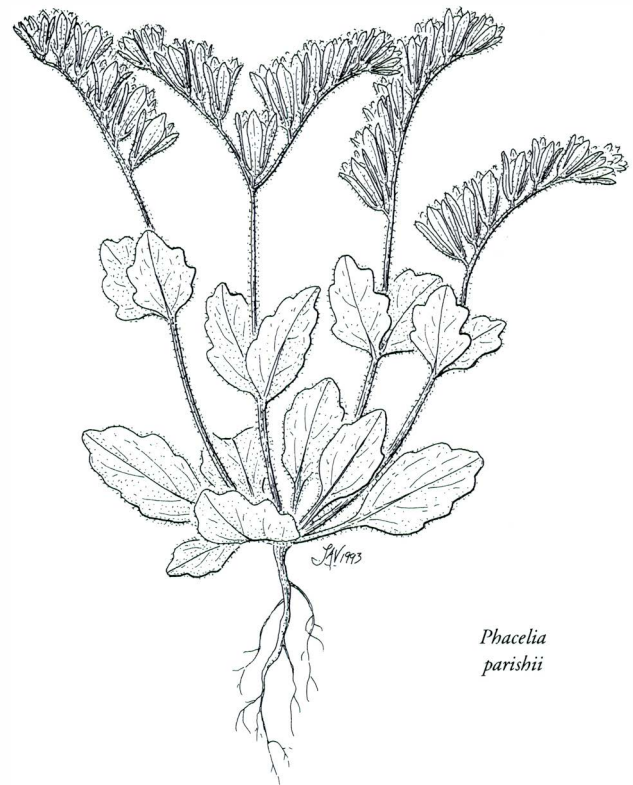
"Nine Mile Canyon phacelia" Hydrophyllaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: INY, KRN, TUL
 Quads: 258B, 282C, 283D, 306C, 307D
 Habitat: BUFRs, CmWld, PJWld, UCFrs
 Life Form: Annual herb
 Blooming: May
 Notes: Threatened by grazing and recreation. See *Aliso* 3(2):122-124 (1955) for original description.

Phacelia orogenes Brand

"mountain phacelia" Hydrophyllaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: FRE, TUL
 Habitat: Medws, PJWld, SCFRs / mesic
 Life Form: Annual herb
 Blooming: July-August

Phacelia parishii Gray

"Parish's phacelia" Hydrophyllaceae
 CNPS List: 2 R-E-D Code: 3-3-1 State/Fed. Status: /C2
 Distribution: SBD, NV
 Quads: 131B*, 181A*, 205C
 Habitat: MDSCr, Plyas
 Life Form: Annual herb
 Blooming: April-July
 Notes: Rediscovered in CA in 1989 by M. Bagley. Threatened by military activities, and potentially by expansion of Ft. Irwin. See *Proceedings of the American Academy of Arts and Sciences* 19:88 (1883) for original description, and *American Midland Naturalist* 29:16-17 (1943) for taxonomic treatment.
 Status Report: 1979



Phacelia parishii

Phacelia peirsoniana

Considered but rejected: Too common

Phacelia phacelioides (Benth.) Brand

"Mt. Diablo phacelia" Hydrophyllaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: ALA?, CCA, SBT, SCL, STA
 Quads: 339B, 425B, 425C, 426C, 426D, 444D, 464B, 464C
 Habitat: Chprl, CmWld / rocky
 Life Form: Annual herb
 Blooming: April-May
 Notes: Does plant occur in ALA Co.? Possibly threatened by foot traffic and trail construction.

Phacelia platyloba

Considered but rejected: Too common

Phacelia pringlei

Considered but rejected: Too common

***Phacelia pulchella* Gray var. *gooddingii* (Brand) J.T. Howell**

"Goodding's phacelia" Hydrophyllaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: INY, AZ, NV, UT
 Quads: 273C
 Habitat: MDScr (clay, often alkaline)
 Life Form: Annual herb
 Blooming: April-June
 Notes: See *Pflanzenreich* 4(251):120 (1913) for original description.

Phacelia sericea

See *Phacelia sericea* var. *ciliosa*

***Phacelia sericea* (Graham) Gray var. *ciliosa* Rydb.**

"blue alpine phacelia" Hydrophyllaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: MOD, SIS, AZ, NV, OR+
 Quads: 690B, 690C, 700A
 Habitat: UCFrs (rocky)
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Known in CA only from the Warner Mtns. (MOD Co.) and China Mtn. (SIS Co.).

***Phacelia stebbinsii* Const. & Heckard**

"Stebbins's phacelia" Hydrophyllaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: IC2
 Distribution: ELD, PLA
 Quads: 523C, 524A, 524B, 524C, 525A, 525B, 525D, 539B, 539C, 539D, 540C, 540D
 Habitat: CmWld, LCFrs, Medws
 Life Form: Annual herb
 Blooming: June
 Notes: See *Brittonia* 22(1):25-30 (1970) for original description.
 Status Report: 1979

***Phacelia stellaris* Brand**

"Brand's phacelia" Hydrophyllaceae
 CNPS List: 1B R-E-D Code: 3-3-2 State/Fed. Status: CEQA
 Distribution: LAX(*), SDG, BA
 Quads: 11B*, 11D, 22C*, 89B*, 90B*, 90C*, 110D(*?)
 Habitat: CoDns, CoScr
 Life Form: Annual herb
 Blooming: March-June
 Notes: Historical occurrences extirpated by development. Some plants intermediate to *P. douglasii* var. *douglasii* occur in SE Western Transverse Range foothills. See *Pflanzenreich* 4(251):123 (1913) for original description.

***Phacelia suaveolens* Greene ssp. *keckii* (Munz & Jtn.) Thorne**

"Santiago Peak phacelia" Hydrophyllaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: IC2
 Distribution: ORA, RIV
 Quads: 70A, 87D
 Habitat: CCFrs, Chprl
 Life Form: Annual herb
 Blooming: May-June
 Notes: Known from only two occurrences near Santiago Pk. and Pleasants Pk. in the Santa Ana Mtns. See *Bulletin of the Torrey Botanical Club* 51:298 (1924) for original description, and *Aliso* 9(2):189-196 (1978) for revised nomenclature.

Phacelia vallicola

Considered but rejected: Too common

Phalacroseris bolanderi

Considered but rejected: Too common

***Phaseolus filiformis* Benth.**

"slender-stem bean" Fabaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: RIV, AZ, BA+
 Quads: 64C
 Habitat: SDScr
 Life Form: Annual herb
 Blooming: April
 Notes: Known in CA from only one occurrence in the Coachella Valley.

Phaseolus wrightii

See *Phaseolus filiformis*

Phlox adsurgens

Considered but rejected: Too common

Phlox azurea

Considered but rejected: A synonym of *P. diffusa*, a common taxon

Phlox bryoides

See *Phlox muscoides*

***Phlox dispersa* C.W. Sharsm.**

"High Sierra phlox" Polemoniaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: INY, TUL
 Habitat: AlpBR (granitic)
 Life Form: Perennial herb (stoloniferous)
 Blooming: July-August
 Notes: See *Aliso* 4:128 (1958) for original description.

Phlox dolichantha Gray

"Big Bear Valley phlox" Polemoniaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: SBD
 Quads: 104B, 105A, 105B, 131C, 131D
 Habitat: PbPln, UCFrs (openings)
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Threatened by urbanization and recreation. See *Proceedings of the American Academy of Arts and Sciences* 22:310 (1887) for original description.

Phlox hirsuta E. Nels.

"Yreka phlox" Polemoniaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CE/C1
 Distribution: SIS
 Quads: 717A, 717B
 Habitat: LCFrs, UCFrs / serpentinite talus
 Life Form: Perennial herb
 Blooming: April-June
 Notes: Known from only two occurrences on Soap Creek Ridge and on Juniper Terrace near Yreka. Threatened on private land by development and vehicles.
 Status Report: 1987

Phlox muscoides Nutt.

"moss phlox" Polemoniaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: SHA, SIS, NV, OR, ++
 Quads: 626A, 730C, 731A, 731C, 731D
 Habitat: AlpBR
 Life Form: Perennial herb
 Blooming: July-August

Pholisma arenarium

Considered but rejected: Too common

Pholisma sonorae (Gray) Yatskievych

"sand food" Lennoaceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: /C2
 Distribution: IMP, AZ, BA, SO
 Quads: 2A, 2B, 13A, 14B, 15C, 26C, 27D, 30D
 Habitat: DeDns
 Life Form: Perennial herb (parasitic)
 Blooming: April-May
 Notes: Threatened by vehicles and military activities. Parasitic on *Eriogonum*, *Tiquilia*, *Ambrosia*, and *Pluchea* spp. See *Memoirs of the American Academy of Arts and Sciences* 5:327 (1854), *Desert Plants* 2(3):188-196 (1980) for species account, and *Systematic Botany* 11(4):531-548 (1986) for revised treatment.
 Status Report: 1977

Pholistoma auritum (Lindl.) Lilja
var. *arizonicum* (M.E. Jones) Const.

"Arizona pholistoma" Hydrophyllaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: SBD, AZ
 Quads: 121D
 Habitat: MDScr
 Life Form: Annual herb
 Blooming: March
 Notes: Known in CA from only one occurrence in the Whipple Mtns.

Pholistoma racemosum

Considered but rejected: Too common

Physalis crassifolia

Considered but rejected: Too common

Physalis greenei

Considered but rejected: A synonym of *P. crassifolia*; a common taxon

Physalis lobata Torr.

"lobed ground-cherry" Solanaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: SBD, AZ, NV, ++
 Quads: 100A, 100D, 149A, 199B
 Habitat: MDScr (decomposed granitic), Plyas
 Life Form: Perennial herb
 Blooming: September-January
 Notes: See *Madroño* 26(2):101 (1979) for first CA records.

Picea breweriana

Considered but rejected: Too common

Picea engelmannii Engelm.

"Engelmann spruce" Pinaceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
 Distribution: SHA, SIS, TRI, OR, WA, ++
 Quads: 667A, 679C, 680C, 701C, 702D
 Habitat: UCFrs
 Life Form: Tree (evergreen)
 Blooming: N/A
 Notes: Threatened by logging.

Pilostyles thurberi Gray

"Thurber's pilostyles" Rafflesiaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: /C3c
 Distribution: IMP, RIV, SDG, AZ, BA, NV+
 Habitat: SDSscr
 Life Form: Perennial herb (parasitic)
 Blooming: January
 Notes: Grows inside the stems of *Psoralea*, especially *P. emoryi*; flowers on the stems of its host. See *Fremontia* 5(3):20-22 (1977) for species account, and *Madroño* 26(4):189 (1979) for distributional information.

Pilularia americana

Considered but rejected: Too common

Pinguicula macroceras

See *Pinguicula vulgaris* ssp. *macroceras*

Pinguicula vulgaris L.ssp. *macroceras* (Link) Calder & R. Taylor

"horned butterwort" Pinaceae
 CNPS List: 2 R-E-D Code: 1-2-1 State/Fed. Status: CEQA
 Distribution: DNT, SIS, OR, WA, ++
 Quads: 738A, 738D, 739B, 739C, 740C, 740D
 Habitat: BgFns (serpentine)
 Life Form: Perennial herb (carnivorous)
 Blooming: April-June
 Notes: Threatened by horticultural collecting.

Pinus aristata

See *Pinus longaeva*

Pinus balfouriana

Considered but rejected: Too common

Pinus contorta Loud. ssp. *bolanderi* (Parl.) Vasey

"Bolander's beach pine" Pinaceae
 CNPS List: 1B R-E-D Code: 1-2-3 State/Fed. Status: /C2
 Distribution: MEN
 Quads: 552B, 568C, 569A, 569D
 Habitat: CCFrs (podzol-like soil)
 Life Form: Tree (evergreen)
 Blooming: N/A
 Notes: Known only from the white sand pine barrens along the Mendocino coast. Threatened by development and vehicles.

Pinus edulis Engelm.

"two-needle pinyon pine" Pinaceae
 CNPS List: 3 R-E-D Code: 3-1-1 State/Fed. Status: CEQA?
 Distribution: SBD, AZ+
 Quads: 200A, 200B, 225C
 Habitat: PJWld
 Life Form: Tree (evergreen)
 Blooming: N/A
 Notes: CA plants may be a form of *P. monophylla*, or hybrids of that plant; needs study.

Pinus lambertiana

Considered but rejected: Too common

Pinus longaeva D.K. Bailey

"bristlecone pine" Pinaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: INY, MNO, NV+
 Habitat: SCFrs (carbonate)
 Life Form: Tree (evergreen)
 Blooming: N/A
 Notes: The name *P. aristata* has been misapplied to CA material. See *Annals of the Missouri Botanical Garden* 57:210-249 (1970) for revised treatment.

Pinus quadrifolia

Considered but rejected: Too common

Pinus radiata D. Don

"Monterey pine" Pinaceae
 CNPS List: 1B R-E-D Code: 3-2-2 State/Fed. Status: /C2
 Distribution: MNT, SCR, SLO, SMT, BA, GU
 Quads: 271D, 344B, 366C, 386C, 387A, 387B, 387D, 408C, 409A, 409D
 Habitat: CCFrs
 Life Form: Tree (evergreen)
 Blooming: N/A
 Notes: Only three native stands in CA; introduced in many areas. Threatened by genetic contamination, development, and fragmentation, especially at Del Monte Forest (MNT Co.) and in SLO Co.; threatened by feral goats on GU Isl. Plants from BA (Cedros Isl.) and GU Isl. are genetically distinct. See *Fremontia* 18(2):15-21 (1990) for discussion of genetic conservation work.

Pinus remorata

Considered but rejected: A synonym of *P. muricata*; a common taxon

Pinus torreyana

See *P. torreyana* ssp. *insularis* and *torreyana*

Pinus torreyana Carr. ssp. *insularis* Haller

"Santa Rosa Isl. Torrey pine" Pinaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: SRO
 Quads: SROE, SRON
 Habitat: CCFrs
 Life Form: Tree (evergreen)
 Blooming: N/A
 Notes: Endemic to SRO Isl. See *Systematic Botany* 11(1):39-50 (1986) original description.

Pinus torreyana Carr. ssp. *torreyana*

"Torrey pine" Pinaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: SDG
 Quads: 22B, 22C
 Habitat: CCFrs, Chprl / sandstone
 Life Form: Tree (evergreen)
 Blooming: N/A
 Notes: Threatened by development. Seriously attacked by the five-spined ips bark beetle at Torrey Pines SR, but biological control apparently has contained this infestation. See *American Forests* 91(10):26-29 (1985) for species account, and *Systematic Botany* 11(1):39-50 (1986) for taxonomic treatment.

Pinus washoensis

Considered but rejected: Too common

Piperia candida Morgan & Ackerman

"white-flowered rein orchid" Orchidaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: DNT, HUM, MEN, SCR, SIS, SMT, SON, TRI, OR, WA+
 Habitat: LCFrs, NCFrs / sometimes serpentine
 Life Form: Perennial herb
 Blooming: May-August
 Notes: Difficult to identify from herbarium material. See *Lindleyana* 5(4):205-211 (1990) for original description.

Piperia elegans

Considered but rejected: Too common

Piperia elongata ssp. *michaelii*

See *Piperia michaelii*

Piperia michaelii (Greene) Rydb.

"Michael's rein orchid" Orchidaceae

CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?

Distribution: ALA, CCA, HUM, MNT, MRN, SBT, SCR, SCZ, SFO, SLO, SMT

Habitat: CBScr, CCFrs, CmWld, LCFrs

Life Form: Perennial herb

Blooming: May-August

Notes: To be expected in the Sierra Nevada foothills, Western Transverse Ranges, and northern South Coast; need information. See *Bulletin of the California Academy of Sciences* 1:282 (1885) for original description, and *Botany Journal of the Linnean Society* 75:245-270 (1977) for revised nomenclature.

Piperia yadonii Morgan & Ackerman

"Yadon's rein orchid" Orchidaceae

CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C1

Distribution: MNT

Quads: 344B, 366A, 366C, 366D, 386B?, 386C

Habitat: CBScr, CCFrs, Chprl (maritime) / sandy

Life Form: Perennial herb

Blooming: May-August

Notes: Threatened by urbanization, recreational development, and non-native plants; only about 1000 plants remain. See *Lindleyana* 5(4):205-211 (1990) for original description.

Piptatherum micranthum (Trin. & Rupr.) Barkworth

"small-flowered rice grass" Poaceae

CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA

Distribution: INY, MNO, SBD, ++

Quads: 249D, 250B, 412A, 412B, 431D

Habitat: PJWld (gravelly, carbonate)

Life Form: Perennial herb

Blooming: June-September

Notes: Threatened in ID. See *Phytologia* 74(1):1-25 (1993) for revised nomenclature.

Pityopus californicus (Eastw.) Copel. f.

"California pinefoot" Ericaceae

CNPS List: 4 R-E-D Code: 1-2-1 State/Fed. Status: /C3c

Distribution: DNT, FRE, HUM, LAK, MEN, MRN, NAP, SIS, SON, TUL, OR

Habitat: BUFrs, LCFrs, NCFrs, UCFrs

Life Form: Perennial herb (saprophytic)

Blooming: May-July

Notes: Threatened by logging.

Plagiobothrys chorisianus (Chamb.) Jtn. var. *chorisianus*

"Choris's popcorn-flower" Boraginaceae

CNPS List: 3 R-E-D Code: 2-2-3 State/Fed. Status: CEQA?

Distribution: SCR, SFO, SMT

Quads: 409A, 409D, 446C, 448B, 466C

Habitat: Chprl, CoPrr, CoScr / mesic

Life Form: Annual herb

Blooming: April-June

Notes: Move to List 1B? Taxonomic work needed; differences from var. *hickmanii* may be environmentally induced.

Plagiobothrys diffusus (Greene) Jtn.

"San Francisco popcorn-flower" Boraginaceae

CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/C2*

Distribution: SCR, SFO*

Quads: 387B, 407C, 408D, 466C*

Habitat: CoPrr, VFGrs?

Life Form: Annual herb

Blooming: April-June

Notes: Known from six occurrences. Threatened by development and non-native plants. Identification difficult; taxonomic work needed. See *P. reticulatus* var. *rossianorum* in *The Jepson Manual*. See *Pitonia* 1:14 (1887) for original description, and *Contributions from the Arnold Arboretum* 3:77 (1932) for revised nomenclature.

Status Report: 1988

Plagiobothrys distantiflorus

Considered but rejected: Too common

Plagiobothrys glaber (Gray) Jtn.

"hairless popcorn-flower" Boraginaceae

CNPS List: 1A Last Seen: 1954 State/Fed. Status: /C3a

Distribution: ALA*, MER*, MRN*, SBT*, SCL*

Quads: 384A*, 385C*, 407B*, 427C*, 427D*, 445B*, 447A*, 467A*

Habitat: Medws (alkaline), MshSw (coastal salt)

Life Form: Annual herb

Blooming: April-May

Notes: All collections since 1930's located in the Hollister area; plant should be looked for there. Is it a variety or ecotype of *P. stipitatus*? See *Proceedings of the American Academy of Arts and Sciences* 17:227 (1882) for original description.

Plagiobothrys glomeratus Gray

"Mammoth popcorn-flower" Boraginaceae

CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA

Distribution: MNO, NV

Quads: 434B?, 487B, 488A, 488C, 488D?

Habitat: GBScr, PJWld

Life Form: Annual herb

Blooming: July

Notes: Known in CA only from the Mammoth and Sweetwater Mtns. Threatened by mining. Not in *The Jepson Manual*. See *Proceedings of the American Academy of Arts and Sciences* 20:286 (1885) for original description.

Plagiobothrys glyptocarpus (Piper) Jtn. var. *modestus* Jtn.

"Cedar Crest popcorn-flower" Boraginaceae
 CNPS List: 3 R-E-D Code: 3-?-3 State/Fed. Status: /C2
 Distribution: NEV
 Quads: 542A
 Habitat: CmWld
 Life Form: Annual herb
 Blooming: April-May
 Notes: Move to List 1A? Apparently not collected since 1937; field surveys needed. May be a minor variant or hybrid. Position in the *P. glyptocarpus*/*P. distantiflorus* complex needs study.

Plagiobothrys hystriculus (Piper) Jtn.

"bearded popcorn-flower" Boraginaceae
 CNPS List: 1A Last Seen: 1892 State/Fed. Status: /C3a
 Distribution: SOL*
 Quads: 481D*
 Habitat: VFGrs (mesic), VnPls
 Life Form: Annual herb
 Blooming: April-May
 Notes: Known only from the type collection in the Montezuma Hills; all other reports have been misidentifications. Easily confused with *P. acanthocarpus*, *P. trachycarpus*, and others.

Plagiobothrys lithocaryus (Greene) Jtn.

"Mayacamas popcorn-flower" Boraginaceae
 CNPS List: 1A Last Seen: 1899 State/Fed. Status: CEQA
 Distribution: LAK*, MEN?*,
 Quads: 549C*, 566D?*,
 Habitat: Chprl?, CmWld, VFGrs / mesic
 Life Form: Annual herb
 Blooming: April-May
 Notes: Known only from the type collection by Curran (Lakeport, LAK Co.) in 1884 and an uncertain collection by Purpus (Potter Valley, MEN Co.) in 1899; should be looked for in these areas.

Plagiobothrys mollis (Gray) Jtn. var. *vestitus* (Greene) Jtn.

"Petaluma popcorn-flower" Boraginaceae
 CNPS List: 1A Last Seen: 1888 State/Fed. Status: /C2*
 Distribution: SON*
 Quads: 484*
 Habitat: MshSw? (coastal salt), VFGrs (mesic)
 Life Form: Perennial herb
 Blooming: June-July
 Notes: Known only from the type collection near Petaluma. Field work needed.

Plagiobothrys myosotoides (Lehm.) Brand

"forget-me-not popcorn-flower" Boraginaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: FRE, SCL, TUL, SA
 Habitat: Chprl
 Life Form: Annual herb
 Blooming: April-May
 Notes: Identification uncertain. Relationship to *P. torreyi* complex needs study. More SA specimens needed for comparison with CA material.

Plagiobothrys salsus (Bdg.) Jtn.

"desert popcorn-flower" Boraginaceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: INY, MOD, NV, OR
 Quads: 299B, 322C, 322D, 707B, 707C
 Habitat: Plyas (alkaline)
 Life Form: Annual herb
 Blooming: May-August
 Notes: Endangered in OR, but more widespread in NV. See *Botanical Gazette* 27:452 (1899) for original description.

Plagiobothrys scriptus

Considered but rejected: Too common

Plagiobothrys strictus (Greene) Jtn.

"Calistoga popcorn-flower" Boraginaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CT/C1
 Distribution: NAP
 Quads: 517D
 Habitat: BUFRs, Medws, VFGrs / alkaline areas near thermal springs
 Life Form: Annual herb
 Blooming: March-June
 Notes: Known from only three extant occurrences near Calistoga. Threatened by urbanization and viticulture.
 Status Report: 1990

Plagiobothrys uncinatus J.T. Howell

"hooked popcorn-flower" Boraginaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: MNT, SBT, SCL, SLO
 Quads: 270B, 295B?, 295C, 296A?, 318B, 319C, 341B, 341C, 343A, 343D, 363C, 425B
 Habitat: Chprl (sandy), CmWld, VFGrs
 Life Form: Annual herb
 Blooming: May
 Notes: Field surveys needed in Gabilan and Santa Lucia ranges to determine status.

Platystemon californicus Benth. var. *ciliatus* Dunkle

"Santa Barbara Island cream cups" Papaveraceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: SBR
 Quads: SBRA
 Habitat: CBScr
 Life Form: Annual herb
 Blooming: March-May
 Notes: Known from only one extended occurrence. See *P. californicus* in *The Jepson Manual*. See *Madroño* 21(5):366-367 (1972) for species account.

Plectritis eichleriana

Considered but rejected: A synonym of *P. macrocera*; a common taxon

Plectritis jepsonii

Considered but rejected: A synonym of *P. macrocera*; a common taxon

Plectritis macrocera ssp. *macrocera*

Considered but rejected: Too common; a synonym of *P. macrocera*

Pleuropogon californicus var. *davyi*

Not published; see *Pleuropogon davyi*

Pleuropogon davyi L. Benson

"Davy's semaphore grass" Poaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: LAK, MEN
 Habitat: CmWld, LCFrs, Medws
 Life Form: Perennial herb (rhizomatous)
 Blooming: March-May
 Notes: See *P. californicus* in *The Jepson Manual*.

Pleuropogon hooverianus (L. Benson) J.T. Howell

"North Coast semaphore grass" Poaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CR/C2
 Distribution: MEN, MRN, SON
 Quads: 467A, 484C, 501C, 502A, 502B, 567A, 568D, 584A
 Habitat: BUFrs, Medws, NCFrs, VnPls / mesic
 Life Form: Perennial herb (rhizomatous)
 Blooming: May-August
 Notes: Known from approximately twelve occurrences. See *American Journal of Botany* 28:360 (1941) for original description, *Leaflets of Western Botany* 4(10):247 (1946) for revised nomenclature, and *Taxon* 27(4):375 (1978) for alternate nomenclature.
 Status Report: 1988

Pleuropogon refractus (Gray) Benth.

"nodding semaphore grass" Poaceae
 CNPS List: 4 R-E-D Code: 1-2-1 State/Fed. Status: CEQA?
 Distribution: DNT, HUM, MEN, MRN, OR, WA+
 Habitat: LCFrs, Medws, NCFrs, RpFr / mesic
 Life Form: Perennial herb (rhizomatous)
 Blooming: May-August

Poa abbreviata R. Br. ssp. *marshii* Soreng

"Marsh's blue grass" Poaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: MNO, ID, NV
 Quads: 431B
 Habitat: AlpBR
 Life Form: Perennial herb
 Blooming: June
 Notes: Known in CA from only one occurrence along Perry Aiken Creek in the White Mtns. Not in *The Jepson Manual*. On review list in ID. See *Phytologia* 71(5):390-413 (1991) for original description.

Poa abbreviata R. Br.ssp. *pattersonii* (Vasey) A. Löve, D. Löve & Kapoor

"Patterson's blue grass" Poaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: MNO, ID, NV, ++
 Quads: 431B, 431C
 Habitat: AlpBR
 Life Form: Perennial herb
 Blooming: July
 Notes: Known in CA from fewer than five occurrences in the White Mtns. See *P. pattersonii* in *The Jepson Manual*. See *Contributions from the U.S. National Herbarium* 1:275 (1893) for original description, *Madroño* 35(2):165 (1988) for first CA record, and *Phytologia* 71(5):390-413 (1991) for taxonomic treatment.

Poa atropurpurea Scribn.

"San Bernardino blue grass" Poaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C1
 Distribution: SBD, SDG
 Quads: 19B, 19C, 49D, 104B, 105A, 105B, 131C, 131D
 Habitat: Medws (mesic)
 Life Form: Perennial herb (rhizomatous)
 Blooming: April-June
 Notes: Threatened by development, grazing, and vehicles.
 Status Report: 1979

Poa fibrata

Considered but rejected: A hybrid, sometimes stabilized, between *P. pratensis* and *P. secunda* ssp. *juncifolia*

Poa napensis Beetle

"Napa blue grass" Poaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/C1
 Distribution: NAP
 Quads: 517D
 Habitat: Medws (alkaline, near hot springs)
 Life Form: Perennial herb
 Blooming: May-August
 Notes: Known from only two occurrences in the Calistoga area. Threatened by development. See *Leaflets of Western Botany* 4:289 (1946) for original description.
 Status Report: 1987

Poa pattersonii

See *Poa abbreviata* ssp. *pattersonii*

Poa piperi Hitchc.

"Piper's blue grass" Poaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: /C3c
 Distribution: DNT, SIS, OR
 Habitat: Chprl, LCFrs / serpentinite
 Life Form: Perennial herb (rhizomatous)
 Blooming: April-May
 Notes: Endangered in OR. See *Illustrated Flora of the Pacific States* 1:201 (1923) by L. Abrams for original description.

Poa rhizomata Hitchc.

"timber blue grass" Poaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: /C3c
 Distribution: DNT, SIS, TRI, OR
 Habitat: LCFrs (serpentinite)
 Life Form: Perennial herb (rhizomatous)
 Blooming: April-May
 Notes: On review list in OR.

Poa sierrae

Considered but rejected: Too common

Poa tenerrima

Considered but rejected: Too common

Podistera nevadensis (Gray) Wats.

"Sierra podistera" Apiaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: ALP, ELD, MNO, PLA, SBD*, TUO
 Habitat: AlpBR
 Life Form: Perennial herb
 Blooming: July-September

Pogogyne abramsii J.T. Howell

"San Diego mesa mint" Lamiaceae
 CNPS List: 1B R-E-D Code: 2-3-3 State/Fed. Status: CE/FE
 Distribution: SDG
 Quads: 22A, 22B, 22C, 22D
 Habitat: VnPls
 Life Form: Annual herb
 Blooming: April-June
 Notes: Seriously threatened by vehicles, dumping, road maintenance, and urbanization of San Diego mesas. See *Proceedings of the California Academy of Sciences* IV 20:119-120 (1931) for original description.
 Status Report: 1988

Pogogyne clareana J.T. Howell

"Santa Lucia mint" Lamiaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CE/C2
 Distribution: MNT
 Quads: 295B, 296A, 296D
 Habitat: RpWld
 Life Form: Annual herb
 Blooming: May-June
 Notes: Known from approximately five occurrences near Ft. Hunter Liggett. Possibly threatened by road maintenance and military activities. See *Four Seasons* 4(3):22 (1973) for original description.
 Status Report: 1988

Pogogyne douglasii ssp. *minor*

Considered but rejected: A synonym of *P. douglasii* ssp. *douglasii*; a common taxon

Pogogyne douglasii Benth.ssp. *parviflora* (Benth.) J.T. Howell

"Douglas's pogogyne" Lamiaceae
 CNPS List: 3 R-E-D Code: 1-2-3 State/Fed. Status: /C3c
 Distribution: BUT?, LAK, MEN, NAP, SAC?, SON
 Quads: 500B, 501A, 501B, 502A, 516B, 516C, 516D, 517A, 517B, 517C, 517D, 518D, 532D, 533B, 534A, 549B, 550B, 567A, 582B, 583C
 Habitat: Chprl (serpentinite), MshSw (vernal freshwater), VFGrs, VnPls
 Life Form: Annual herb
 Blooming: May-June
 Notes: Move to List 4? Does plant occur in BUT and SAC counties? Many new occurrences found recently, but threatened by urbanization and agriculture; some populations have been extirpated. Taxonomic questions; is ssp. distinct? See *P. douglasii* in *The Jepson Manual*. See *Proceedings of the California Academy of Sciences* IV 20:117 (1931) for revised nomenclature.

Pogogyne douglasii ssp. *ramosa*

Considered but rejected: A synonym of *P. douglasii* ssp. *douglasii*; a common taxon

Pogogyne floribunda Jokerst

"profuse-flowered pogogyne" Lamiaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CEQA
 Distribution: LAS, MOD, SHA
 Quads: 660C, 662B, 709B, 710D, 711A, 711B, 711D, 726C, 726D, 728C, 728D
 Habitat: VnPls
 Life Form: Annual herb
 Blooming: June-August
 Notes: Similar to *P. zizyphoroides*. See *Aliso* 13(2):347-353 (1992) for original description.

Pogogyne nudiuscula Gray

"Otay Mesa mint" Lamiaceae
 CNPS List: 1B R-E-D Code: 3-3-2 State/Fed. Status: CE/FE
 Distribution: SDG, BA
 Quads: 10C, 11B*, 11D, 22B*, 22C*
 Habitat: VnPls
 Life Form: Annual herb
 Blooming: May-June
 Notes: Known in CA from six occurrences on Otay Mesa. Seriously threatened by urbanization, grazing, vehicles, and trash dumping. See *Botany of California* 1:597 (1876) for original description.
 Status Report: 1993

Pogogyne serpylloides ssp. *intermedia*

Considered but rejected: Too common; a synonym of *P. serpylloides*

Polemonium chartaceum Mason

"Mason's sky pilot" Polemoniaceae
 CNPS List: 1B R-E-D Code: 3-1-2 State/Fed. Status: /C3c
 Distribution: MNO, SIS, TRI, NV
 Quads: 431B, 432A, 450D, 488A, 699C, 700C
 Habitat: AlpBR, SCFrS / serpentinite, granitic, or volcanic
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Disjunct occurrences in SIS and TRI counties may be taxonomically distinct from transmontane plants; currently under study. Rare in NV. Probably related to both *P. eximium* and *P. elegans*. See *Fremontia* 22(2):24-26 (1993) for information about ongoing biosystematic study.

Poliomintha incana (Torr.) Gray

"frosted mint" Lamiaceae
 CNPS List: 1A Last Seen: 1938 State/Fed. Status: CEQA
 Distribution: SBD*, AZ, NM, TX, UT+
 Quads: 131D*
 Habitat: LCFrs (mesic)
 Life Form: Shrub
 Blooming: June-July
 Notes: Known in CA from only a single historical collection at Cushenbury Springs. See *Botany of the U.S. and Mexican Boundary Survey*, 2(1):130 (1858) by W. Emory for original description, and *Proceedings of the American Academy of Arts and Sciences* 7:247-296 (1870) for taxonomic treatment.

Polyctenium fremontii var. *fremontii*

Considered but rejected: Too common

Polygala cornuta ssp. *fishiae*

See *Polygala cornuta* var. *fishiae*

Polygala cornuta Kell. var. *fishiae* (Parry) Jeps.

"Fish's milkwort" Polygalaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: LAX, ORA, RIV, SBA, SDG, VEN, BA
 Habitat: Chprl, CmWld, RpWld
 Life Form: Shrub (deciduous)
 Blooming: May-August
 Notes: Includes *P. cornuta* var. *pollardii*.

Polygala cornuta var. *pollardii*

See *Polygala cornuta* var. *fishiae*

Polygala heterorhyncha (Barneby) T. Wendt

"notch-beaked milkwort" Polygalaceae
 CNPS List: 1B R-E-D Code: 2-1-2 State/Fed. Status: CEQA
 Distribution: INY, NV
 Quads: 346A, 346B, 367C
 Habitat: MDScr (alkaline)
 Life Form: Perennial herb
 Blooming: April-May
 Notes: Known in CA only from the Funeral Mtns. On watch list in NV. See *Leaflets of Western Botany* 3:194 (1943) for original description, and *Journal of the Arnold Arboretum* 60:504-514 (1979) for revised nomenclature.

Polygala subspinosa Wats.

"spiny milkwort" Polygalaceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
 Distribution: LAS, AZ, NM, NV, UT+
 Quads: 620A, 620B, 621A, 638C, 638D, 639A
 Habitat: GBScr
 Life Form: Perennial herb
 Blooming: June-July
 Notes: See *American Naturalist* 7:299 (1873) for original description.

Polygala subspinosa var. *subspinosa*

See *Polygala subspinosa*

Polygonum bidwelliae Wats.

"Bidwell's knotweed" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: BUT, SHA, TEH
 Habitat: Chprl, CmWld, VFGrs / volcanic
 Life Form: Annual herb
 Blooming: April-June

Polygonum esotericum

See *Polygonum polygaloides* ssp. *esotericum*

Polygonum fusiforme

Considered but rejected: A synonym of *P. persicaria*; a common, non-native taxon

Polygonum marinense Mertens & Raven

"Marin knotweed" Polygonaceae
 CNPS List: 3 R-E-D Code: 3-3-3 State/Fed. Status: /C2
 Distribution: MRN, NAP, SON
 Quads: 467A, 483A, 484A, 485C*, 485D, 503D
 Habitat: MshSw (coastal salt)
 Life Form: Annual herb
 Blooming: June-August
 Notes: Move to List 1B? Known from fewer than ten occurrences. Taxonomic questions warrant immediate study. Threatened by coastal development.

Polygonum montereyense

Considered but rejected: A synonym of *P. arenastrum*; a common, non-native taxon

Polygonum patulum

Considered but rejected: Not native

Polygonum polygaloides Meisn. ssp. *esotericum* (Wheeler) Hickman

"Modoc County knotweed" Polygonaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CEQA
 Distribution: MOD, SIE
 Quads: 571B, 708A, 726C
 Habitat: GBScr (mesic), VnPls
 Life Form: Annual herb
 Blooming: July-August
 Notes: Known from fewer than five occurrences. Possibly threatened by trampling. Intermediates to ssp. *conferti florum* occur more broadly on Modoc Plateau, to OR. See *Madroño* 31(4):249-252 (1984) for revised nomenclature.

Polypodium hesperium

Considered but rejected: Too common

Polystichum dudleyi

Considered but rejected: Too common

Polystichum kruckebergii W.H. Wagner

"Kruckeberg's sword fern" Dryopteridaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: /C3c
 Distribution: ALP, BUT, PLU, SBD, SHA, SIE, SIS, TUO, ID, OR, ++
 Habitat: SCFRs, UCFrs / rocky
 Life Form: Perennial herb (rhizomatous)
 Fertile: June-August
 Notes: Sensitive in ID, and on watch list in OR. See *American Fern Journal* 56:4 (1966) for original description, and *Pteridologia* 1:1-64 (1979) for taxonomic treatment.

Polystichum lonchitis (L.) Roth

"holly fern" Dryopteridaceae
 CNPS List: 3 R-E-D Code: ?-?-1 State/Fed. Status: CEQA?
 Distribution: ALP, ELD, PLU?, SIS, TRI?, AZ, ID, NV, OR, WA+
 Quads: 506B, 523A, 735B, 737A
 Habitat: SCFRs, UCFrs / granitic
 Life Form: Perennial herb (rhizomatous)
 Fertile: June-September
 Notes: Move to List 2? Location, rarity, and endangerment information needed. Does plant occur in PLU and TRI counties?

Populus angustifolia James

"narrow-leaved cottonwood" Salicaceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: INY, SBD, AZ, ID, NV, OR, ++
 Quads: 105A, 106C, 106D, 346B, 351C, 373A, 412A
 Habitat: RpFRs
 Life Form: Tree (deciduous)
 Blooming: March-April
 Notes: On watch list in OR.

Portulaca halimoides L.

"desert portulaca" Portulacaceae
 CNPS List: 4 R-E-D Code: 1-2-1 State/Fed. Status: CEQA?
 Distribution: RIV, SBD, AZ, BA+
 Habitat: JTWld (sandy)
 Life Form: Annual herb
 Blooming: September
 Notes: Fairly common in the Granite, Providence, and New York Mtns. following unusually heavy summer rains in 1990, but otherwise known in CA from only three records: in Joshua Tree NM, Valley Wells, and the Little San Bernardino Mtns. See *Madroño* 36(4):281-282 (1989) for revised nomenclature.

Portulaca mundula

See *Portulaca halimoides*

Potamogeton epiphydrus Raf.spp. *nuttallii* (Cham. & Schldl.) Calder & R. Taylor

"Nuttall's pondweed" Potamogetonaceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
 Distribution: ELD, MEN, MOD, MPA, PLU, OR, WA, ++
 Quads: 437A, 437B, 523C, 567A, 598C, 599D, 603D, 692A
 Habitat: MshSw (assorted shallow freshwater)
 Life Form: Perennial herb (rhizomatous, aquatic)
 Blooming: July-August
 Notes: Hybridizes with *P. nodosus*.

Potamogeton filiformis Pers.

"slender-leaved pondweed" Potamogetonaceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: LAS, MER, MNO, SCL*, AZ, NV, OR, ++
 Quads: 403B, 428A*, 428B*, 453D
 Habitat: MshSw (assorted shallow freshwater)
 Life Form: Perennial herb (rhizomatous, aquatic)
 Blooming: May-July
 Notes: To be expected in the San Joaquin Valley, San Francisco Bay area, and the central high Sierra Nevada; need information. Need quads for LAS Co. On review list in OR.

Potamogeton foliosus Raf.var. *fibrillosus* (Fern.) R. Haynes & Reveal

"fibrous pondweed" Potamogetonaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: DNT, ID, OR*, WA+
 Quads: 723B, 740C
 Habitat: MshSw (assorted shallow freshwater)
 Life Form: Perennial herb (rhizomatous, aquatic)
 Blooming: unknown
 Notes: To be expected in Great Basin areas of CA; need information. See *Rhodora* 75:76 (1973) for original description and 76:564-649 (1974) for taxonomic treatment.

Potamogeton praelongus Wulfen

"white-stemmed pondweed" Potamogetonaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: LAS, PLU, SHA, SIE, OR, WA, ++
 Quads: 555B, 644D
 Habitat: MshSw (deep water, lakes)
 Life Form: Perennial herb (rhizomatous, aquatic)
 Blooming: July-August
 Notes: Need quads for LAS and PLU counties. Hybridizes with *P. richardsonii*.

Potamogeton robbinsii Oakes

"Robbins's pondweed" Potamogetonaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: ALP, INY, LAS, MAD, SIS, TUO, ++
 Quads: 393A, 394A, 435A, 435D, 456A, 719C
 Habitat: MshSw (deep water, lakes)
 Life Form: Perennial herb (rhizomatous, aquatic)
 Blooming: July-August
 Notes: Need quads for LAS Co.

Potamogeton zosteriformis Fern.

"eel-grass pondweed" Potamogetonaceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
 Distribution: CCA, LAK, LAS, MOD, SHA, OR, WA, ++
 Quads: 480C, 480D, 533B, 620C, 662A, 674A, 692A, 693A, 693B
 Habitat: MshSw (assorted freshwater)
 Life Form: Annual herb (aquatic)
 Blooming: June-July
 Notes: To be expected in the Central Valley; need information.

Potentilla basaltica Tiehm & Ertter

"Black Rock potentilla" Rosaceae
 CNPS List: 1B R-E-D Code: 3-1-2 State/Fed. Status: /C1
 Distribution: LAS, NV
 Quads: 675C
 Habitat: Medws (alkaline, sandy, volcanic)
 Life Form: Perennial herb
 Blooming: June
 Notes: Known in CA from only one occurrence in Ash Valley, and in NV from one occurrence. See *Brittonia* 36(3):228-231 (1984) for original description.

Potentilla concinna Richards.

"alpine cinquefoil" Rosaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: MNO, NV, ++
 Quads: 431C
 Habitat: AlpBR, Medws (rocky)
 Life Form: Perennial herb
 Blooming: June-July
 Notes: Known in CA from only one occurrence near Tres Plumas Meadow in the White Mtns. See *Madroño* 35(2):165 (1988) for this record.

Potentilla concinna var. *divisa*

See *Potentilla concinna*

Potentilla cristae Ferlatte & Strother

"crested potentilla" Rosaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: CEQA
 Distribution: SIS, TRI
 Quads: 699C, 699D, 700D, 719D, 738D
 Habitat: AlpBR, SCFRs / seasonally mesic, often serpentinite seeps, gravelly or rocky
 Life Form: Perennial herb
 Blooming: August-September
 Notes: See *Madroño* 37(3):190-194 (1990) for original description.

Potentilla glandulosa Lindl. ssp. *ewanii* Keck

"Ewan's cinquefoil" Rosaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: CEQA
 Distribution: LAX
 Quads: 135D, 160B
 Habitat: LCFrs (near seeps and springs)
 Life Form: Perennial herb
 Blooming: June-July
 Notes: Endemic to the Dawson Saddle area of the San Gabriel Mtns. See *Carnegie Institution of Washington Publication* 520:47 (1940) for original description.

Potentilla hickmanii Eastw.

"Hickman's cinquefoil" Rosaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/C1
 Distribution: MNT, SMT*, SON*
 Quads: 366C, 448C*, 502D*
 Habitat: CBScr, CCFrs, Medws (vernally mesic), MshSw (freshwater)
 Life Form: Perennial herb
 Blooming: April-August
 Notes: Known from only two extant occurrences on the Monterey Peninsula, where seriously threatened by urbanization and recreational activities. See *Bulletin of the Torrey Botanical Club* 29:77-78 (1902) for original description, and *Fremontia* 21(1):25-29 (1993) for species account.
 Status Report: 1987

Potentilla hickmanii var. *hickmanii*

See *Potentilla hickmanii*

Potentilla hickmanii var. *uliginosa*

Considered but rejected: Not published

Potentilla morefieldii Ertter

"Morefield's cinquefoil" Rosaceae
 CNPS List: 1B R-E-D Code: 2-1-3 State/Fed. Status: CEQA
 Distribution: MNO
 Quads: 431C, 432A, 450D
 Habitat: AlpBR (carbonate)
 Life Form: Perennial herb
 Blooming: July-August
 Notes: See *Brittonia* 44(4):429-435 (1992) for original description.

Potentilla multijuga Lehm.

"Ballona cinquefoil" Rosaceae
 CNPS List: 1A Last Seen: 1890 State/Fed. Status: /C2*
 Distribution: LAX*
 Quads: 90B*
 Habitat: Medws (brackish)
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Extirpated by development. Recent surveys have failed to relocate plant. See *Fremontia* 21(1):25-29 (1993) for species account.
 Status Report: 1977

Potentilla newberryi Gray

"Newberry's cinquefoil" Rosaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: MNO?, MOD, SIS, NV, OR, WA
 Quads: 712A, 715B, 728A, 728C
 Habitat: MshSw (drying margins)
 Life Form: Perennial herb
 Blooming: May-August
 Notes: Does plant occur in MNO Co.? Common near Plush, OR. See *Report of the Pacific Railroad Expedition* 6(3):72 (1857) for original description as *Ivesia gracilis*.

Potentilla patellifera

See *Ivesia patellifera*

Potentilla rimicola (Munz & Jtn.) Ertter

"cliff cinquefoil" Rosaceae
 CNPS List: 1B R-E-D Code: 2-1-2 State/Fed. Status: CEQA
 Distribution: RIV, BA
 Quads: 83C
 Habitat: SCFRs, UCFrs / granitic crevices
 Life Form: Perennial herb
 Blooming: July-September
 Notes: Known in CA only from the San Jacinto Mtns., and in BA from the Sierra San Pedro Martir, where it may be rare. See *Bulletin of the Southern California Academy of Sciences* 24:18 (1925) for original description, and *Phytologia* 71(5):420-422 (1991) for revised nomenclature.

Potentilla tularensis

See *Horkelia tularensis*

Proboscidea althaeifolia (Benth.) Dcne.

“desert unicorn-plant” Martyniaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: IMP, RIV, SDG, AZ, BA, SO
 Habitat: SDScr
 Life Form: Perennial herb
 Blooming: May-August

Prunus fasciculata (Torr.) Gray var. *punctata* Jeps.

“sand almond” Rosaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: SBA, SLO
 Habitat: Chprl (maritime), CmWld, CoDns, CoScr / sandy
 Life Form: Shrub (deciduous)
 Blooming: March-April

Prunus lyonii

Considered but rejected: Too common

Pseudobahia bahiifolia (Benth.) Rydb.

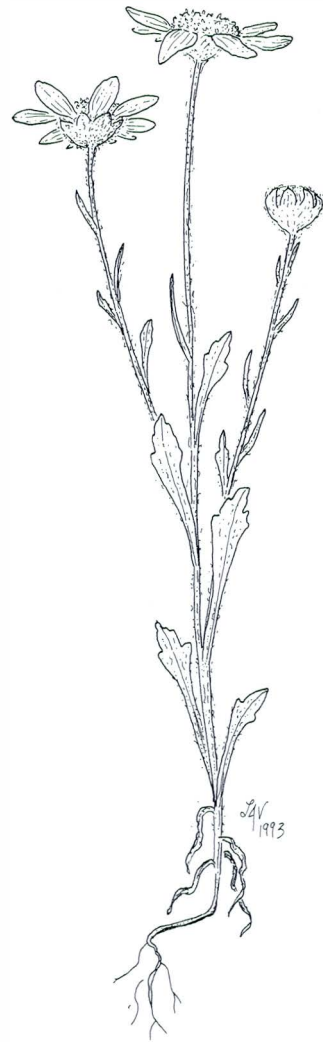
“Hartweg’s golden sunburst” Asteraceae
 CNPS List: 1B R-E-D Code: 2-3-3 State/Fed. Status: CE/PE
 Distribution: FRE, MAD, STA, SUT*, YUB*
 Quads: 378B, 398C, 440B, 440C, 441A, 459C*, 544A*
 Habitat: CmWld, VFGrs / clay
 Life Form: Annual herb
 Blooming: March-April
 Notes: Known from fewer than twenty occurrences. Seriously threatened by development, agriculture, overgrazing, and trampling.
 Status Report: 1986

Pseudobahia peirsonii Munz

“San Joaquin adobe sunburst” Asteraceae
 CNPS List: 1B R-E-D Code: 2-3-3 State/Fed. Status: CE/PE
 Distribution: FRE, KRN, TUL
 Quads: 239A, 262A*, 262B, 262D, 286B, 287A*, 287D*, 309C, 310A*, 310D, 311A*, 333C*, 333D*, 356B, 356C*, 378D
 Habitat: CmWld, VFGrs / adobe
 Life Form: Annual herb
 Blooming: March-April
 Notes: Known from fewer than twenty occurrences. Seriously threatened by agriculture, grazing, development, road construction, and flood control activities. See *Aliso* 2:84 (1949) for original description.
 Status Report: 1985

Psilocarphus brevissimus Nutt. var. *multiflorus* Cronq.

“delta woolly-marbles” Asteraceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: ALA, NAP, SCL, SJQ, SOL, STA, YOL
 Habitat: VnPls
 Life Form: Annual herb
 Blooming: May-June
 Notes: Does plant occur in CCA, SAC, or other counties? Similar to *P. elatior*. See *Research Studies of the State College of Washington* 18:80 (1950) for original description.



Pseudobahia bahiifolia

Psilocarphus elatior (Gray) Gray

“tall woolly-marbles” Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: LAS, MOD, OR, ++
 Habitat: Medws, VFGrs / vernal mesic
 Life Form: Annual herb
 Blooming: May-August
 Notes: Probably more widespread in northern CA; need information. Possibly a variant of *P. brevissimus* var. *brevissimus*. See *Proceedings of the American Academy of Arts and Sciences* 8:652 (1873) for original description.

Psilocarphus tenellus Nutt. var. *globiferus* (DC.) Morefield

“round woolly-marbles” Asteraceae
 CNPS List: 4 R-E-D Code: 1-2-1 State/Fed. Status: CEQA?
 Distribution: CAL, FRE, KRN, MER, MNT, MRN, SLO, STA, TUL, SA
 Habitat: CoDns, VnPls
 Life Form: Annual herb
 Blooming: April-May
 Notes: To be expected in other areas of the Sierra Nevada foothills, San Joaquin Valley, Central Coast, and S.F. Bay; need information. See *Madroño* 39(2):156 (1992) for revised nomenclature.

*Psoralea rigida*See *Rupertia rigida**Psorothamnus arborescens* (Gray) Barneby var. *arborescens*

"Mojave indigobush" Fabaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: /C3c
 Distribution: KRN, SBD, SO
 Habitat: RpScr
 Life Form: Shrub (deciduous)
 Blooming: April-May
 Notes: See *Memoirs of the New York Botanical Garden* 27:182 (1977) for taxonomic treatment.

Psorothamnus arborescens var. *simplicifolius*

Considered but rejected: Too common

Puccinellia californica (Beetle) Munz

"Sierra Nevada alkali-grass" Poaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: FRE, TUL
 Habitat: SCFrS (mesic)
 Life Form: Perennial herb (rhizomatous)
 Blooming: August-September
 Notes: See *Torreyochloa pallida* var. *pauciflora* in *The Jepson Manual*.

Puccinellia howellii Davis

"Howell's alkali-grass" Poaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C1
 Distribution: SHA
 Quads: 648B
 Habitat: Medws (mineralized)
 Life Form: Perennial herb
 Blooming: April-June
 Notes: Known from only one occurrence. Threatened by highway runoff pollution and disturbance from the realignment of Highway 299. See *Madroño* 37(1):55-58 (1990) for original description.

Puccinellia lemmonii

Considered but rejected: Too common

Puccinellia parishii Hitchc.

"Parish's alkali-grass" Poaceae
 CNPS List: 1B R-E-D Code: 3-3-2 State/Fed. Status: /C1
 Distribution: KRN?, SBD, AZ, NM
 Quads: 131B, 186D?
 Habitat: Medws (alkaline)
 Life Form: Annual herb
 Blooming: April-May
 Notes: Confirmed in 1992 at Rabbit Springs, SBD Co. (type locality, 131B). New occurrence also found in 1992 at Edwards AFB, KRN Co. (186D), but identity is questionable. Declining elsewhere; confirmed extant from only a few occurrences in AZ, and one in NM where state-listed as Endangered. Threatened by groundwater pumping, flood control, and grazing. See *Proceedings of the Biological Society of Washington* 41:157 (1928) for original description.

Status Report: 1979

Puccinellia pumila (Vasey) Hitchc.

"dwarf alkali-grass" Poaceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: HUM, MEN, OR, WA, ++
 Quads: 569A, 655A
 Habitat: MshSw (coastal salt)
 Life Form: Perennial herb
 Blooming: July
 Notes: Known in CA from only three occurrences. Is plant poorly known?

*Purpusia saxosa*See *Ivesia arizonica* var. *arizonica**Pyrrocoma lucida* (Keck) Kartesz & Gandhi

"sticky pyrrocoma" Asteraceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: CEQA
 Distribution: PLU, SIE, YUB
 Quads: 558A, 571D, 572A, 587C, 588A, 589B
 Habitat: LCFrS (alkaline clay)
 Life Form: Perennial herb
 Blooming: July-September
 Notes: See *Phytologia* 71(1):58-65 (1991) for revised nomenclature.

Pyrrocoma racemosa (Nutt.) T. & G.var. *congesta* (Greene) G. Brown & Keil

"Del Norte pyrrocoma" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: /C3c
 Distribution: DNT, OR
 Habitat: Chprl, LCFrS / serpentinite
 Life Form: Perennial herb
 Blooming: August-September
 Notes: See *Pittonia* 3:23 (1898) for original description, and *Phytologia* 73(1):57-58 (1992) for revised nomenclature.

Pyrrocoma uniflora (Hook.) Greenevar. *gossypina* (Greene) Kartesz & Gandhi

"Bear Valley pyrrocoma" Asteraceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: SBD
 Quads: 105A, 105B, 131C, 131D
 Habitat: Medws, PbPln
 Life Form: Perennial herb
 Blooming: July-September
 Notes: Known from fewer than twenty occurrences. Threatened by grazing, development, and vehicles. See *Pittonia* 3:23 (1898) for original description, and *Phytologia* 71(1):58-65 (1991) for revised nomenclature.

Quercus dumosa Nutt.

"Nuttall's scrub oak" Fagaceae
 CNPS List: 1B R-E-D Code: 2-3-2 State/Fed. Status: /C2
 Distribution: ORA, SBA, SDG, BA
 Quads: 10C, 11B, 22B, 35C, 36D, 52B, 70C, 70D?, 71D, 142A, 142B
 Habitat: Chprl, CoScr / sandy, clay loam
 Life Form: Shrub (evergreen)
 Blooming: February-March
 Notes: Threatened by development. Widespread scrub oak from much of cismontane CA, previously called *Q. dumosa*, is now *Q. berberidifolia*.

Quercus dumosa var. *kinselae*

Considered but rejected: Taxonomic problem

Quercus engelmannii Greene

"Engelmann oak" Fagaceae
 CNPS List: 4 R-E-D Code: 1-2-2 State/Fed. Status: CEQA?
 Distribution: LAX, ORA, RIV, SCT, SDG, BA
 Habitat: Chprl, CmWld, RpWld, VFGrs
 Life Form: Tree (deciduous)
 Blooming: April-May
 Notes: Only one tree remaining on SCT Isl. Threatened by development. Protected in part at the Santa Rosa Plateau Preserve (TNC), RIV Co. See *Fremontia* 18(3):26-35 (1990) for species account and ecological discussion.

Quercus lobata

Considered but rejected: Too common

Quercus macdonaldiana

Considered but rejected: A hybrid between *Q. berberidifolia* and *Q. lobata*

Quercus parvula Greene var. *parvula*

"Santa Cruz Island oak" Fagaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: SBA, SCZ
 Habitat: CCFrs, Chprl, CmWld
 Life Form: Tree (evergreen)
 Blooming: March-June

Quercus tomentella Engelm.

"island oak" Fagaceae
 CNPS List: 4 R-E-D Code: 1-2-2 State/Fed. Status: CEQA?
 Distribution: ANA, SCM, SCT, SCZ, SRO, GU
 Habitat: CCFrs, Chprl, CmWld
 Life Form: Tree (evergreen)
 Blooming: March-July
 Notes: Threatened by trampling, erosion, grazing, feral herbivores, and introgression. Hybridizes with *Q. chrysolepis* except on SRO and GU islands. Populations on GU Isl. have declined dramatically in recent years. See *Transactions of the Academy of Science of St. Louis* 3:393 (1877) for original description.

Raillardella muirii

See *Raillardiopsis muirii*

Raillardella pringlei Greene

"showy raillardella" Asteraceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: SIS, TRI
 Quads: 667A, 667B, 682B, 683A, 683B, 684A, 684C, 684D, 699C, 700A, 700D, 736A
 Habitat: BgFns, Medws (mesic)
 Life Form: Perennial herb (rhizomatous)
 Blooming: July-September
 Notes: Known from approximately twenty occurrences. Threatened by grazing. See *Bulletin of the Torrey Botanical Club* 9:17 (1882) for original description, and *Madroño* 25:138 (1978) for distributional information.
 Status Report: 1979

Raillardella scabrida

See *Raillardiopsis scabrida*

Raillardiopsis muirii (Gray) Rydb.

"Muir's raillardella" Asteraceae
 CNPS List: 1B R-E-D Code: 2-1-3 State/Fed. Status: /C3c
 Distribution: FRE, KRN, MNT, TUL
 Quads: 258B, 284D, 285D, 331C, 343C, 353C, 353D, 374B, 374C, 374D, 375A, 375B, 376A, 394C
 Habitat: Chprl (montane), LCFrs, UCFrs
 Life Form: Perennial herb (rhizomatous)
 Blooming: July-August
 Notes: Identity of Ventana Cones occurrence in the Santa Lucia Mtns. of MNT Co. has been confirmed. See *Botany of California* 1:618 (1876) for original description, *North American Flora* 34:320 (1927) for revised nomenclature, and *Madroño* 37(1):48 (1990) for revised description.
 Status Report: 1979

Raillardiopsis scabrida (Eastw.) Rydb.

"scabrid raillardella" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: COL, LAK, MEN, SHA, TEH, TRI
 Habitat: UCFrs (metamorphic)
 Life Form: Perennial herb
 Blooming: July-August
 Notes: See *Bulletin of the Torrey Botanical Club* 32:216 (1905) for original description, and *North American Flora* 34:319-320 (1927) for revised nomenclature.
 Status Report: 1979

Ranunculus alveolatus

Considered but rejected: A synonym of *R. bonariensis* var. *trisepalus*, a common taxon

Ranunculus bonariensis var. *trisepalus*

Considered but rejected: Too common

Ranunculus hydrocharoides Gray

"frog's-bit buttercup" Ranunculaceae
 CNPS List: 1A Last Seen: 1874 State/Fed. Status: CEQA
 Distribution: INY*, AZ, BA, NM+
 Quads: 373D*, 394A*, 413C*
 Habitat: MshSw (freshwater)
 Life Form: Perennial herb (aquatic)
 Blooming: June-July
 Notes: Last seen in CA in 1874, but date uncertain since these Kellogg specimens may be mislabeled. See *Memoirs of the American Academy of Arts and Sciences* II 5:306 (1855) for original description.

Ranunculus lobbii Gray

"Lobb's aquatic buttercup" Ranunculaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: ALA, CCA, MEN, MRN, NAP, SCL, SOL, SON
 Habitat: CmWld, NCFrs, VFGrs, VnPls / mesic
 Life Form: Annual herb (aquatic)
 Blooming: March-May
 Notes: Threatened by urbanization and agriculture.

Rhamnus pilosa

Considered but rejected: Too common

Rhus trilobata T. & G. var. *simplicifolia* (Greene) Barkley

"single-leaf skunkbrush" Anacardiaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: SDG, AZ, BA, ++
 Quads: 31C, 32D
 Habitat: Chprl, PJWld
 Life Form: Shrub (deciduous)
 Blooming: March-April
 Notes: Not in *The Jepson Manual*. See *Annals of the Missouri Botanical Garden* 24:410-411 (1937) for revised nomenclature, and *Madroño* 34(2):171 (1987) for first CA records.

Rhynchospora alba (L.) Vahl

"white beaked-rush" Cyperaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: DNT?, LAS, MEN, NEV?, PLU, SON, ID, ++
 Habitat: BgFns, MshSw (freshwater)
 Life Form: Perennial herb (rhizomatous)
 Blooming: July-August
 Notes: Does plant occur in DNT and NEV counties? Threatened in ID.

Rhynchospora californica Gale

"California beaked-rush" Cyperaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C2
 Distribution: BUT, MPA, MRN, SON
 Quads: 457D, 485C, 502A, 502D, 592C, 593D
 Habitat: LCFrs, Medws (seeps), MshSw (freshwater)
 Life Form: Perennial herb (rhizomatous)
 Blooming: May-July
 Notes: Known from fewer than ten occurrences. Threatened by marsh habitat loss. See *Rhodora* 46:272-273 (1944) for original description, and *Madroño* 33(2):150 (1986) for information on BUT Co. collection.
 Status Report: 1977

Rhynchospora capitellata

Considered but rejected: Too common

Rhynchospora globularis

See *Rhynchospora globularis* var. *globularis*

Rhynchospora globularis (Chapm.) Small var. *globularis*

"round-headed beaked-rush" Cyperaceae
 CNPS List: 2 R-E-D Code: 3-3-1 State/Fed. Status: CEQA
 Distribution: SON, ++
 Quads: 502A, 502D
 Habitat: MshSw (freshwater)
 Life Form: Perennial herb (rhizomatous)
 Blooming: July-August
 Notes: Seriously threatened by marsh habitat loss.

Rhynchospora glomerata var. *capitellata*

Considered but rejected: A synonym of *R. capitellata*, a common taxon

Rhynchospora glomerata var. *minor*

Considered but rejected: A synonym of *R. capitellata*, a common taxon

Ribes amarum McClat. var. *hoffmannii* Munz

"bitter gooseberry" Grossulariaceae
 CNPS List: 3 R-E-D Code: ??-3 State/Fed. Status: CEQA?
 Distribution: SBA
 Quads: 142B, 169D
 Habitat: Chprl
 Life Form: Shrub (deciduous)
 Blooming: March-April
 Notes: Move to List 1B? Location, rarity, and endangerment information needed. See *R. amarum* in *The Jepson Manual*.

Ribes canthariforme Wiggins

"Moreno currant" Grossulariaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: SDG
 Quads: 9A, 9B, 10A, 20D, 21A, 21D
 Habitat: Chprl
 Life Form: Shrub (deciduous)
 Blooming: February-April
 Notes: Known from approximately ten occurrences. See *Contributions from the Dudley Herbarium* 1:101 (1929) for original description.

Ribes divaricatum Dougl. var. *parishii* (Heller) Jeps.

"Parish's gooseberry" Grossulariaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C2
 Distribution: LAX, SBD*
 Quads: 89A*, 107D*, 110D
 Habitat: RpWld
 Life Form: Shrub (deciduous)
 Blooming: February-April
 Notes: Possibly extinct; last documented in 1980 from two plants at Whittier Narrows Nature Center. Known from fewer than five historical occurrences; these extirpated by urbanization. Field surveys needed. See *Rhodora* 87:259-260 (1985) for taxonomic treatment.

Ribes divaricatum var. *pubiflorum*

Considered but rejected: Too common

Ribes hudsonianum Richards. var. *petiolare* (Dougl.) Jancz.

"western black currant" Grossulariaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: MOD, SIS, ID, OR, WA+
 Quads: 691A, 732B
 Habitat: RpScr
 Life Form: Shrub (deciduous)
 Blooming: May-July
 Notes: Known in CA only from Shovel Creek (SIS Co.) and the Warner Mtns. (MOD Co.).

Ribes laxiflorum Pursh

"trailing black currant" Grossulariaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: DNT?, HUM, OR, WA, ++
 Habitat: NCFrs
 Life Form: Shrub (deciduous)
 Blooming: March-May
 Notes: Does plant occur in DNT Co.?

Ribes marshallii Greene

"Marshall's gooseberry" Grossulariaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: HUM, SIS, OR
 Habitat: CCFrs
 Life Form: Shrub (deciduous)
 Blooming: June-July
 Notes: Endangered in OR.

Ribes menziesii Pursh var. *ixoderme* Quick

"aromatic canyon gooseberry" Grossulariaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: FRE, KRN, TUL
 Habitat: Chprl
 Life Form: Shrub (deciduous)
 Blooming: April
 Notes: Field work needed. See *R. menziesii* in *The Jepson Manual*. See *Madroño* 4:287 (1938) for original description.

Ribes sericeum Eastw.

"Santa Lucia gooseberry" Grossulariaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: MNT, SLO
 Habitat: CBScr, NCFrs
 Life Form: Shrub (deciduous)
 Blooming: February-April

Ribes thacherianum (Jeps.) Munz

"Santa Cruz Island gooseberry" Grossulariaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: SCZ
 Quads: SCZB, SCZC
 Habitat: CCFrs, RpWld
 Life Form: Shrub (deciduous)
 Blooming: March-April
 Notes: Possibly threatened by feral herbivores.

Ribes tularense (Cov.) Fedde

"Sequoia gooseberry" Grossulariaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: TUL
 Quads: 331B, 331D, 332A, 354D
 Habitat: LCFrs, UCFrs
 Life Form: Shrub (deciduous)
 Blooming: May
 Notes: Known from fewer than ten occurrences. Possibly threatened by logging and road improvements. See *North American Flora* 22:218 (1908) for original description.

Ribes viburnifolium Gray

"Santa Catalina Island currant" Grossulariaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: SCT, SDG, BA
 Habitat: Chprl
 Life Form: Shrub (evergreen)
 Blooming: February-April

Ribes victoris Greene

"Victor's gooseberry" Grossulariaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: MEN, MRN, NAP, SOL, SON
 Habitat: BUFrs, Chprl
 Life Form: Shrub (deciduous)
 Blooming: March-April

Robinia neomexicana

Considered but rejected: Not native and taxonomic problem, but needs reevaluation

Romneya coulteri Harv.

"Coulter's matilija poppy" Papaveraceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: LAX, ORA, RIV, SDG
 Habitat: Chprl, CoScr / often in burned areas
 Life Form: Perennial herb (rhizomatous)
 Blooming: May-July
 Notes: Threatened by urbanization, flood control, and road widening and maintenance.

Romneya trichocalyx

Considered but rejected: Too common

Rorippa columbiae (Robinson) Howell

"Columbia yellow cress" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-2-2 State/Fed. Status: /C2
 Distribution: HUM, MOD, SIS, OR, WA+
 Quads: 696C, 697A, 704D, 714B, 728A, 728D, 730D
 Habitat: Medws, PJWld, Plyas
 Life Form: Perennial herb (rhizomatous)
 Blooming: May-September
 Notes: Candidate for state listing in OR, and state-listed as Endangered in WA. See *Sida* 4:294-296 (1972) for taxonomic treatment.

Rorippa gambellii (Wats.) Roll. & Al-Shehbaz

"Gambel's water cress" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-3-2 State/Fed. Status: CT/FE
 Distribution: LAX*, ORA*, SDG*, SLO, BA
 Quads: 33D*, 107D*, 111D*, 221D
 Habitat: MshSw (freshwater or brackish)
 Life Form: Perennial herb (rhizomatous)
 Blooming: April-June
 Notes: Nearly extinct in U.S.; known in CA from only one or two extant occurrences. VEN Co. occurrence (141D) erroneous; probably misidentified *R. nasturtium-aquaticum*. Seriously threatened by habitat loss, and *Eucalyptus* may be altering hydrology at Black Lake Cyn. See *Journal of the Arnold Arboretum* 69:65-71 (1988) for revised nomenclature.
 Status Report: 1991

Rorippa subumbellata Roll.

"Tahoe yellow cress" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-3-2 State/Fed. Status: CE/C1
 Distribution: ELD, NEV*, PLA, NV
 Quads: 522B, 523A, 538A*, 538B, 538C, 538D, 554C*
 Habitat: LCFrs, Medws / decomposed granitic beaches
 Life Form: Perennial herb (rhizomatous)
 Blooming: June-September
 Notes: Known in CA from fewer than ten extant occurrences around Lake Tahoe; over one-half of historical occurrences extirpated. Threatened by development, recreation, and trampling; recovery work underway. State-listed as Critically Endangered in NV. See *Contributions from the Dudley Herbarium* 3:177 (1941) for original description.
 Status Report: 1991

Rosa minutifolia Engelm.

"small-leaved rose" Rosaceae
 CNPS List: 2 R-E-D Code: 3-3-1 State/Fed. Status: CE/C2
 Distribution: SDG, BA
 Quads: 11D
 Habitat: Chprl
 Life Form: Shrub (deciduous)
 Blooming: January-June
 Notes: Known in CA from only one occurrence on Otay Mesa. Threatened by development and vehicles. See *Madroño* 33:150 (1986) for first CA record.
 Status Report: 1989

Rubus glaucifolius Kell. var. *ganderi* (Bailey) Munz

"Cuyamaca raspberry" Rosaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: SDG
 Quads: 20A, 33D
 Habitat: LCFrs
 Life Form: Shrub (evergreen)
 Blooming: June
 Notes: Known from only two occurrences on Harrison Pk. and Middle Pk. in the Cuyamaca Mtns. Historical occurrences need field surveys. See *R. glaucifolius* in *The Jepson Manual*.

Rubus nivalis Dougl.

"snow dwarf bramble" Rosaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: DNT, ID, OR+
 Quads: 738C
 Habitat: NCFrs
 Life Form: Vine (evergreen)
 Blooming: June-August

Rubus pedatus

Considered but rejected: Not in CA; name misapplied to *R. lasiococcus*; a common taxon

Rupertia hallii (Rydb.) Grimes

"Hall's rupertia" Fabaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CEQA
 Distribution: BUT, TEH
 Quads: 608C, 608D
 Habitat: CmWld
 Life Form: Perennial herb
 Blooming: July-August
 Notes: See *North American Flora* 24:11 (1919) for original description, and *Memoirs of the New York Botanical Garden* 61:1-114 (1990) for taxonomic treatment.

Rupertia rigida (Parish) Grimes

"Parish's rupertia" Fabaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: RIV, SBD, SDG, BA
 Habitat: Chprl, CmWld, LCFrs
 Life Form: Perennial herb
 Blooming: June-July
 Notes: See *Systematic Botany* 14:233 (1989) for revised nomenclature.

Sagittaria rigida

Considered but rejected: Not native

Sagittaria sanfordii Greene

"Sanford's arrowhead" Alismataceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: BUT, DNT, FRE, KRN, MER, MRN, ORA*, SAC, SHA, SJQ, TEH, VEN*
 Quads: 72A*, 141A*, 381D, 402C, 403D, 421C, 423D, 462D, 478B, 485C, 496A, 496B, 496D, 512C, 575B, 593B, 628A, 628D, 740C
 Habitat: MshSw (assorted shallow freshwater)
 Life Form: Perennial herb (rhizomatous, emergent)
 Blooming: May-August
 Notes: Mostly extirpated from the Central Valley. Need quads for FRE and KRN counties. Threatened by grazing, development, and channel alteration.

Salix bebbiana Sarg.

"gray willow" Salicaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: MOD, SIS, AZ, NV, OR, ++
 Quads: 730B, 730C
 Habitat: MshSw (streambanks and lake margins), RpScr
 Life Form: Tree (deciduous)
 Blooming: May
 Notes: Need quads for MOD Co. See *Garden and Forest* 8:463 (1895) for original description.

Salix brachycarpa

See *Salix brachycarpa* ssp. *brachycarpa*

Salix brachycarpa Nutt. ssp. *brachycarpa*

"short-fruited willow" Salicaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: MNO, OR, ++
 Quads: 434D, 453B, 454A
 Habitat: AlpDS, Medws, SCFrS / carbonate
 Life Form: Shrub (deciduous)
 Blooming: June-July
 Notes: On watch list in OR.

Salix delnortensis C. Schneider

"Del Norte willow" Salicaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: DNT, SIS, OR
 Habitat: RpFrS (serpentinite)
 Life Form: Shrub (deciduous)
 Blooming: April-May
 Notes: Similar to *S. breweri*; may hybridize with *S. lasiolepis*. Endangered in OR.

Salix nivalis

See *Salix reticulata* ssp. *nivalis*

Salix parksiana

Considered but rejected: A synonym of *S. sessilifolia*; a common taxon

Salix reticulata L.ssp. *nivalis* (Hook.) A. Löve, D. Löve & Kapoor

"snow willow" Salicaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: MNO, ++
 Quads: 453B, 453C, 454A
 Habitat: AlpDS
 Life Form: Shrub (deciduous)
 Blooming: July-August

Salix tracyi

Considered but rejected: A synonym of *S. lasiolepis*; a common taxon

Salvia brandegei Munz

"Brandegee's sage" Lamiaceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: /C3c
 Distribution: SRO, BA
 Quads: SROE, SRON
 Habitat: CCFrS, Chprl, CoScr
 Life Form: Shrub (evergreen)
 Blooming: April-May
 Notes: Fairly widespread on SRO Isl. Possibly threatened by feral herbivores.

Salvia clevelandii

Considered but rejected: Too common

Salvia columbariae var. *ziegleri*

Considered but rejected: A synonym of *S. columbariae*; a common taxon

Salvia dorrii var. *carnosa*

See *Salvia dorrii* var. *incana*

Salvia dorrii (Kellogg) Abrams var. *incana* (Benth.) Strachan

"fleshy sage" Lamiaceae
 CNPS List: 3 R-E-D Code: ?-?-1 State/Fed. Status: CEQA?
 Distribution: MOD, SIS, ID, OR, WA
 Quads: 690B, 730D, 734A
 Habitat: GBScr, PJWld
 Life Form: Shrub (evergreen)
 Blooming: May-July
 Notes: Move to List 2? CA plants may be intermediate to var. *dorrii*. See *Brittonia* 34(2):151-169 (1982) for taxonomic treatment and 35(2):170 (1983) for revised nomenclature.

Salvia eremostachya Jeps.

"desert sage" Lamiaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: /C3c
 Distribution: RIV, SDG, BA
 Habitat: SDSCr
 Life Form: Shrub (evergreen)
 Blooming: March-May

Salvia funerea M.E. Jones

"Death Valley sage" Lamiaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: /C3c
 Distribution: INY, NV
 Habitat: MDSCr (carbonate)
 Life Form: Shrub (evergreen)
 Blooming: March-May
 Notes: On watch list in NV.

Salvia greatae Bdg.

"Orocopia sage" Lamiaceae
 CNPS List: 1B R-E-D Code: 2-1-3 State/Fed. Status: /C2
 Distribution: IMP, RIV, SBD?
 Quads: 44B, 45A, 61A, 61B, 62C, 63C, 63D, 151D?
 Habitat: MDScr, SDSr
 Life Form: Shrub (evergreen)
 Blooming: March-April
 Notes: SBD Co. report is questionable. See *Zoe* 5:229 (1906) for original description, and *Phytologia* 71(3):167-170 (1991) for nomenclatural correction.

Salvia munzii Epl.

"Munz's sage" Lamiaceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
 Distribution: SDG, BA
 Quads: 10B, 10C, 10D
 Habitat: Chprl, CoScr
 Life Form: Shrub (evergreen)
 Blooming: February-April
 Notes: Threatened by development.

Salvia vaseyi

Considered but rejected: Too common

Sanguisorba officinalis L.

"great burnet" Rosaceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
 Distribution: DNT, HUM, MEN, OR, WA, ++
 Quads: 553A, 653A, 671A?, 671D, 722A, 739A, 739B, 739C
 Habitat: BgFns, BUFRs, Medws, MshSw, NCFrs, RpFrs / often serpentinite
 Life Form: Perennial herb (rhizomatous)
 Blooming: July-September
 Notes: CA plants may be ssp. *microcephala*.

Sanicula hoffmannii (Munz) C.R. Bell

"Hoffmann's sanicle" Apiaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: MNT, SBA, SCR, SCZ, SLO, SMT, SRO
 Habitat: BUFRs, Chprl, CoScr / often serpentinite or clay
 Life Form: Perennial herb
 Blooming: March-May

Sanicula maritima Wats.

"adobe sanicle" Apiaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CR/C2
 Distribution: ALA*, MNT, SFO*, SLO
 Quads: 246C, 247D, 272A, 296B, 344D, 466C*, 466D*
 Habitat: Chprl, CoPrr, Medws, VFGRs / clay, serpentinite
 Life Form: Perennial herb
 Blooming: April-May
 Notes: Known from fewer than ten occurrences. Threatened by urbanization. See *Botany of California* 2:451 (1880) for original description, and *University of California Publications in Botany* 25:61-62 (1951) for taxonomic treatment.
 Status Report: 1988

Sanicula peckiana Macbr.

"Peck's sanicle" Apiaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: /C3c
 Distribution: DNT, OR
 Habitat: Chprl, LCFrs / serpentinite
 Life Form: Perennial herb
 Blooming: March-June
 Notes: On watch list in OR. See *Contributions from the Gray Herbarium* 59:28 (1919) for original description, and *University of California Publications in Botany* 25:64-65 (1951) for taxonomic treatment.
 Status Report: 1979

Sanicula saxatilis Greene

"rock sanicle" Apiaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CR/C2
 Distribution: CCA, SCL
 Quads: 406A, 426C, 426D, 464B, 464C
 Habitat: BUFRs, Chprl, VFGRs / rocky
 Life Form: Perennial herb
 Blooming: April-May
 Notes: Known from fewer than fifteen occurrences. Threatened by development. See *Erythea* 1:6 (1893) for original description, and *University of California Publications in Botany* 25:71-72 (1951) for taxonomic treatment.
 Status Report: 1988

Sanicula tracyi Shan & Const.

"Tracy's sanicle" Apiaceae
 CNPS List: 1B R-E-D Code: 1-2-3 State/Fed. Status: /C2
 Distribution: BUT, DNT, HUM, TEH, TRI
 Quads: 574C, 575B, 608A, 614B, 614C, 615A, 615B, 615C, 615D, 632C, 632D, 633B, 633C, 634A, 634B, 634C, 634D, 652B, 652C, 652D, 671A, 688A, 721C
 Habitat: CmWld, LCFrs, UCFrs / openings
 Life Form: Perennial herb
 Blooming: April-July
 Notes: Threatened by grazing, logging, and development. See *University of California Publications in Botany* 25:69 (1951) for original description.
 Status Report: 1977

Sanvitalia abertii Gray

"Abert's sanvitalia" Asteraceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: SBD, AZ, SO, TX
 Quads: 224C, 249D
 Habitat: PJWld (carbonate)
 Life Form: Annual herb
 Blooming: August-September
 Notes: Known in CA only from the Clark and New York Mtns. Threatened by mining.

Satureja chandleri (Bdg.) Druce

"San Miguel savory" Lamiaceae
 CNPS List: 4 R-E-D Code: 1-2-2 State/Fed. Status: /C3c
 Distribution: ORA, RIV, SDG, BA
 Habitat: Chprl, CmWld, CoScr, RpWld, VFGrs
 Life Form: Perennial herb
 Blooming: March-May
 Notes: Threatened by residential development, agriculture, and recreational activities. See *Crossosoma* 12(1):12 (1986) for taxonomic treatment.

Saussurea americana D.C. Eat.

"American saw-wort" Asteraceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: SIS, ID, OR, WA+
 Quads: 735B, 736A
 Habitat: LCFrs, Medws / mesic
 Life Form: Perennial herb
 Blooming: July-August
 Notes: See *Botanical Gazette* 6:283 (1881) for original description.
 Status Report: 1979

Saxifraga cespitosa L.

"tufted saxifrage" Saxifragaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: MOD, SIS, AZ, NV, OR, WA, ++
 Quads: 690B, 719C
 Habitat: Medws (mesic, rocky)
 Life Form: Perennial herb
 Blooming: June-September

Saxifraga fragarioides

Considered but rejected: Too common

Saxifraga howellii Greene

"Howell's saxifrage" Saxifragaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: DNT, SIS, OR
 Habitat: CmWld (sometimes serpentinite)
 Life Form: Perennial herb (rhizomatous)
 Blooming: March-May

Saxifraga integrifolia var. *integrifolia*

Considered but rejected: A synonym of *S. integrifolia*, a common taxon

Saxifraga nuttallii Small

"Nuttall's saxifrage" Saxifragaceae
 CNPS List: 2 R-E-D Code: 3-3-1 State/Fed. Status: CEQA
 Distribution: DNT, OR, WA
 Quads: 740D
 Habitat: NCFrs (mesic, rocky)
 Life Form: Perennial herb (rhizomatous)
 Blooming: May
 Notes: Known in CA from only one occurrence along the Smith River. See *Bulletin of the Torrey Botanical Club* 23:368 (1896) for original description.

Saxifraga rufidula (Small) Macoun

"rusty saxifrage" Saxifragaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: SIS, OR, WA+
 Quads: 720B
 Habitat: UCFrs (mesic)
 Life Form: Perennial herb (rhizomatous)
 Blooming: March-July
 Notes: Known in CA from only one occurrence in the Marble Mtns. See *North American Flora* 22:140 (1905) for original description.

Scheuchzeria palustris L. var. *americana* (Fern.) Hulten

"American scheuchzeria" Scheuchzeriaceae
 CNPS List: 2 R-E-D Code: 3-3-1 State/Fed. Status: CEQA
 Distribution: PLU, SIE*, ID, OR, WA, ++
 Quads: 606B*, 625A, 625B
 Habitat: BgFns, MshSw (lake margins)
 Life Form: Perennial herb (rhizomatous, emergent)
 Blooming: July
 Notes: Rediscovered in 1988 by V. Oswald at Willow Lake. Need historical quads for SIE Co. Threatened by logging. Threatened in ID, and endangered in OR. See *Fremontia* 20(4):19-20 (1992) for information on rediscovery in CA.

Schoenolirion bracteosum

Considered but rejected: A synonym of *Hastingsia bracteosa*, not in CA

Scirpus clementis M.E. Jones

"Yosemite bulrush" Cyperaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: FRE, INY, MAD, MNO, MPA, TUL, TUO
 Habitat: AlpBR, Medws, SCFrs
 Life Form: Perennial herb
 Blooming: July-August

Scirpus heterochaetus Chase

"slender bulrush" Cyperaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: TEH, OR, WA, ++
 Quads: 625C
 Habitat: MshSw (lake margins), LCFrs
 Life Form: Perennial herb (rhizomatous)
 Blooming: August
 Notes: Known in CA only from Wilson Lake. See *Rhodora* 6:70 (1904) for original description.

Scirpus pumilus Vahl.

"dwarf bulrush" Cyperaceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: MNO, ++
 Quads: 434D
 Habitat: AlpDS? (mesic, carbonate)
 Life Form: Perennial herb (rhizomatous)
 Blooming: August
 Notes: Known in CA only from Convict Creek Basin.

Scirpus rollandii

See *Scirpus pumilus*

Sedum albomarginatum Clausen

"Feather River stonecrop" Crassulaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C3c
 Distribution: BUT, PLU
 Quads: 591C, 606B, 606C, 607C
 Habitat: Chprl, LCFrs / serpentinite
 Life Form: Perennial herb
 Blooming: June
 Notes: Known from fewer than twenty occurrences. Threatened by horticultural collecting, road construction, and new mining claims. See *Sedum of North America North of the Mexican Plateau*, pp. 424-433 (1975) by R. T. Clausen for original description.

Sedum divergens Wats.

"Cascade stonecrop" Crassulaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: SIS, OR, WA+
 Quads: 738D
 Habitat: AlpBR
 Life Form: Perennial herb
 Blooming: July-September
 Notes: Known in CA from only one collection in the Siskiyou Wilderness; is it more common? See *Proceedings of the American Academy of Arts and Sciences* 17:372 (1882) for original description.

Sedum eastwoodiae (Britt.) Berger

"Red Mtn. stonecrop" Crassulaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C1
 Distribution: MEN
 Quads: 600B
 Habitat: LCFrs (serpentinite)
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Known from only three occurrences on Red Mtn. Protected at Red Mtn. ACEC (BLM). See *Bulletin of the New York Botanical Garden* 3:31 (1903) for original description, and *Sedum of North America North of the Mexican Plateau*, pp. 398-403 (1975) by R. T. Clausen for taxonomic treatment.

Sedum laxum ssp. *eastwoodiae*

See *Sedum eastwoodiae*

Sedum laxum (Britt.) Berger ssp. *flavidum* Denton

"pale yellow stonecrop" Crassulaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: DNT, GLE, HUM, SHA, SIS, TEH, TRI
 Habitat: BUFRs, Chprl, CmWld, LCFrs / serpentinite or volcanic
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Subspecies are somewhat indistinct. See *Brittonia* 30:233-238 (1978) for original description.

Sedum laxum (Britt.) Berger ssp. *heckneri* (Peck) Clausen

"Heckner's stonecrop" Crassulaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: /C3c
 Distribution: DNT, HUM, SIS, TRI, OR
 Habitat: LCFrs, UCFrs / serpentinite or gabbroic
 Life Form: Perennial herb
 Blooming: June-July
 Notes: Subspecies are somewhat indistinct. Endangered in OR. See *Proceedings of the Biological Society of Washington* 50:121 (1937) for original description, and *Sedum of North America North of the Mexican Plateau*, pp. 391-393 (1975) by R. T. Clausen for taxonomic treatment.

Sedum niveum A. Davids.

"Davidson's stonecrop" Crassulaceae
 CNPS List: 4 R-E-D Code: 1-2-2 State/Fed. Status: /C3c
 Distribution: RIV, SBD, BA
 Habitat: UCFrs (rocky)
 Life Form: Perennial herb (rhizomatous)
 Blooming: June-July
 Notes: See *Bulletin of the Southern California Academy of Sciences* 20:53 (1921) for original description, and *Sedum of North America North of the Mexican Plateau*, pp. 178-179 (1975) by R. T. Clausen for taxonomic treatment.

Sedum oblanceolatum Clausen

"Applegate stonecrop" Crassulaceae
 CNPS List: 1B R-E-D Code: 3-3-2 State/Fed. Status: /C2
 Distribution: SIS, OR
 Quads: 735B, 736A, 736B
 Habitat: UCFrs (rocky)
 Life Form: Perennial herb
 Blooming: June-July
 Notes: Known in CA from fewer than five occurrences. Threatened by logging and horticultural collecting. Protected at Botanical Special Interest Areas (USFS) on the Siskiyou Crest. Candidate for state listing in OR. See *Madroño* 39(4):310 (1992) for distributional information.
 Status Report: 1989

Sedum obtusatum ssp. *paradisum*

See *Sedum paradisum*

Sedum paradisum (M. Denton) M. Denton

"Canyon Creek stonecrop" Crassulaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: SHA, TRI
 Quads: 648A, 667B, 668A
 Habitat: BUFRs, Chprl, LCFrs, SCFRs / granitic
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Known from only five occurrences. See *Brittonia* 30:233-238 (1978) for original description.

Sedum pinetorum

Considered but rejected: Not in CA

Sedum purdyi

Considered but rejected: Too common; a synonym of *S. spathulifolium*

Sedum radiatum ssp. *depauperatum*

Considered but rejected: A synonym of *S. radiatum*; a common taxon

Sedum spathulifolium ssp. *purdyi*

Considered but rejected: Too common; a synonym of *S. spathulifolium*

Selaginella asprella Maxon

"bluish spike-moss" Selaginellaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: KRN, LAX, ORA?, RIV, SBD, SDG, TUL, BA
 Habitat: LCFrs, UCFrs, SCFrs / granitic
 Life Form: Perennial herb (rhizomatous)
 Fertile: July

Notes: Previously rejected as too common, but probably merely unthreatened. Does plant occur in ORA Co.? See *Smithsonian Miscellaneous Collections* 72(5):6-8 (1920) for original description.

Selaginella cinerascens A.A. Eat.

"ashy spike-moss" Selaginellaceae
 CNPS List: 4 R-E-D Code: 1-2-1 State/Fed. Status: CEQA?
 Distribution: ORA, SDG, BA
 Habitat: Chprl, CoScr
 Life Form: Perennial herb (rhizomatous)
 Fertile: March
 Notes: Still fairly widespread, but threatened by development.

Selaginella densa Rydb. var. *scopulorum* (Maxon) Tryon

"Rocky Mountain spike-moss" Selaginellaceae
 CNPS List: 3 R-E-D Code: ?-?-1 State/Fed. Status: CEQA?
 Distribution: DNT, SIS, AZ, OR, ++
 Quads: unknown
 Habitat: NCFrs, SCFrs, UCFrs / decomposed granitic
 Life Form: Perennial herb (rhizomatous)
 Fertile: August
 Notes: Move to List 2? Location, rarity, and endangerment information needed. See *American Fern Journal* 11:36 (1921) for original description, and *Annals of the Missouri Botanical Garden* 42:67-69 (1955) for revised nomenclature.

Selaginella eremophila Maxon

"desert spike-moss" Selaginellaceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
 Distribution: RIV, SDG, AZ, BA, NM, TX
 Quads: 7A, 32C, 83C, 83D
 Habitat: SDSscr (gravelly or rocky)
 Life Form: Perennial herb (rhizomatous)
 Fertile: May-July
 Notes: See *Smithsonian Miscellaneous Collections* 72(5):3 (1920) for original description.

Selaginella leucobryoides Maxon

"Mojave spike-moss" Selaginellaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: INY, SBD
 Habitat: MDScr, PJWld (rocky, usually carbonate)
 Life Form: Perennial herb (rhizomatous)
 Fertile: June
 Notes: See *Smithsonian Miscellaneous Collections* 72(5):8 (1920) for original description.

Selinocarpus nevadensis (Standl.) Fowler & Turner

"desert wing-fruit" Nyctaginaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: INY, AZ, NV, UT
 Quads: 274D
 Habitat: JTWld, MDScr / shale
 Life Form: Perennial herb
 Blooming: June-September
 Notes: Known in CA from only one occurrence in the Kingston Range. See *Madroño* 30(2):129 (1983) for this record.

Senecio aphanactis Greene

"rayless ragwort" Asteraceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: CCA, FRE, LAX, MER, ORA, RIV, SBA, SCL, SCZ, SDG, SLO, SOL, SRO, VEN, BA
 Quads: 10B, 86B?, 109D, 113B, 114A, 169D, 246C, 268C, 383A, 427D, 464B, 483D, SCZA, SRON
 Habitat: CmWld, CoScr / alkaline
 Life Form: Annual herb
 Blooming: January-April
 Notes: Rare in LAX, ORA, and RIV counties. Need quads for RIV Co. Not seen on SCZ Isl. between 1934 and 1991. See *Pittonia* 1:220 (1888) for original description, and *North American Flora* II 10:50-139 (1978) for taxonomic treatment.

Senecio bernardinus Greene

"San Bernardino ragwort" Asteraceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: SBD
 Quads: 105A, 105B, 131C, 131D
 Habitat: Medws (mesic, sometimes alkaline), PbPln, UCFrs
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Known from fewer than twenty occurrences. Threatened by development, grazing, and vehicles.
 Status Report: 1980

Senecio blochmaniae

Considered but rejected: Too common

Senecio clarkianus

Considered but rejected: Too common

Senecio clevelandii

See *Senecio clevelandii* var. *clevelandii*

Senecio clevelandii Greene var. *clevelandii*

"Cleveland's ragwort" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: COL, LAK, NAP, TRI, YOL
 Habitat: Chprl (serpentinite seeps)
 Life Form: Perennial herb
 Blooming: June-July
 Notes: See *Bulletin of the Torrey Botanical Club* 10:87 (1883) for original description.

Senecio clevelandii Greene var. *heterophyllus* Hoov.

"Red Hills ragwort" Asteraceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CEQA
 Distribution: TUO
 Quads: 458C
 Habitat: CmWld (serpentinite seeps)
 Life Form: Perennial herb
 Blooming: June-July
 Notes: Known only from the Red Hills. Possibly threatened by grazing. Not in *The Jepson Manual*. Protected at Red Hills ACEC (BLM). See *Leaflets of Western Botany* 2:132 (1938) for original description.

Senecio eurycephalus Grayvar. *lewisrosei* (J.T. Howell) T.M. Barkley

"cut-leaved ragwort" Asteraceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CEQA
 Distribution: BUT, LAS?, PLU
 Quads: 575B, 591C, 592A, 592D, 606B, 606C, 607D, 623C?
 Habitat: Chprl, CmWld, LCFrs / serpentinite
 Life Form: Perennial herb
 Blooming: April-July
 Notes: Are plants from LAS Co. (623C) this taxon? Threatened by mining and road maintenance. See *Leaflets of Western Botany* 3(6):141-142 (1942) for original description.

Senecio foetidus

See *Senecio hydrophiloides*

Senecio ganderi Barkl. & Beauchamp

"Gander's ragwort" Asteraceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CR/C2
 Distribution: SDG
 Quads: 9B, 9C, 20A, 21A, 21D, 34A
 Habitat: Chprl (burned areas, gabbroic outcrops)
 Life Form: Perennial herb
 Blooming: April-May
 Notes: Known from fewer than fifteen occurrences. See *Brittonia* 26:106-108 (1974) for original description.
 Status Report: 1987

Senecio hydrophiloides Rydb.

"sweet marsh ragwort" Asteraceae
 CNPS List: 3 R-E-D Code: ?-?-1 State/Fed. Status: CEQA?
 Distribution: BUT?, LAS, MOD, PLU, SIS, NV, OR, ++
 Quads: 587B, 588B, 623C, 677A, 708A, 719C
 Habitat: LCFrs, Medws / mesic
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Move to List 4? Location, rarity, and endangerment information needed. Does plant occur in BUT Co.? Includes *S. foetidus*.

Senecio ionophyllus Greene

"Tehachapi ragwort" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: KRN, LAX, SBD
 Habitat: LCFrs, UCFrs / granitic
 Life Form: Perennial herb
 Blooming: June-July

Senecio layneae Greene

"Layne's ragwort" Asteraceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CR/C2
 Distribution: ELD, TUO
 Quads: 458C, 510A, 510B, 511A, 526A, 527D
 Habitat: Chprl, CmWld / serpentinite or gabbroic
 Life Form: Perennial herb
 Blooming: April-July
 Notes: Threatened by urbanization, grazing, road construction, and vehicles. See *Bulletin of the Torrey Botanical Club* 10:87 (1883) for original description.
 Status Report: 1990

Senecio ligulifolius

See *Senecio macounii*

Senecio lyonii

Considered but rejected: Too common

Senecio macounii Greene

"Siskiyou Mtns. ragwort" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: DNT, SIS, OR, WA, +
 Habitat: LCFrs (sometimes serpentinite, often in disturbed areas)
 Life Form: Perennial herb
 Blooming: June-July
 Notes: See *Pittonia* 3:169 (1897) for original description, and *North American Flora* II 10:93-94 (1978) for taxonomic treatment.

Senecio pattersonensis Hoov.

"Mono ragwort" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: MNO
 Habitat: AlpBR
 Life Form: Perennial herb (rhizomatous)
 Blooming: July-August

Senecio streptanthifolius

Considered but rejected: Too common

Senna covesii (Gray) H. Irwin & Barneby

"Coves's cassia" Fabaceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
 Distribution: IMP, RIV, SBD, SDG, AZ, BA
 Quads: 19A, 32B, 32C, 47A, 61B, 64C, 121D
 Habitat: SDScr (sandy)
 Life Form: Perennial herb
 Blooming: April-June
 Notes: Need quads for IMP Co. and occurrence near "Turtle Mtns." (SBD Co.). Threatened by vehicles.

Sequoiadendron giganteum

Considered but rejected: Too common

Sibara deserti

Considered but rejected: Too common

Sibara filifolia (Greene) Greene

"Santa Cruz Island rock cress" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C1
 Distribution: SCM, SCT*, SCZ*
 Quads: SCMS, SCTN*, SCZB*, SCZC*
 Habitat: CoScr
 Life Form: Annual herb
 Blooming: April
 Notes: Rediscovered in 1986 by M. Beauchamp and A. Kelly; known from only two extant occurrences. Feral herbivores removed from SCM Isl., and vegetation recovering.

Sibara rosulata

Considered but rejected: Too common

Sidalcea calycosa M.E. Jones ssp. *rhizomata* (Jeps.) Munz

"Point Reyes checkerbloom" Malvaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CEQA
 Distribution: MEN, MRN, SON
 Quads: 467A, 484B, 485B, 485C, 485D, 502C, 503A, 520B, 537B, 552B, 553A
 Habitat: MshSw (near coast)
 Life Form: Perennial herb (rhizomatous)
 Blooming: April-September
 Notes: See *Manual of the Flowering Plants of California*, p. 629 (1925) by W.L. Jepson for original description.

Sidalcea covillei Greene

"Owens Valley checkerbloom" Malvaceae
 CNPS List: 1B R-E-D Code: 2-3-3 State/Fed. Status: CE/C1
 Distribution: INY
 Quads: 305B*, 329D, 351A*, 351B, 351D, 372C, 393A, 393D, 413A, 413B, 413C, 413D, 414A
 Habitat: GBScr, Medws (alkaline)
 Life Form: Perennial herb
 Blooming: April-June
 Notes: Threatened by lowering of water table, non-native plants, and overgrazing. See *Cybele Columbiana* 1:35 (1914) for original description, and *Fremontia* 5(4):34-35 (1978), 6(3):26-27 (1978), and 8(4):16 (1981) for discussion of threats.
 Status Report: 1987

Sidalcea hickmanii Greene ssp. *anomala* C.L. Hitchc.

"Cuesta Pass checkerbloom" Malvaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CR/C2
 Distribution: SLO
 Quads: 246C
 Habitat: CCFrs (serpentinite)
 Life Form: Perennial herb
 Blooming: May
 Notes: Known from only three occurrences on Cuesta Ridge in the Los Padres NF.
 Status Report: 1988

Sidalcea hickmanii Greene ssp. *hickmanii*

"Hickman's checkerbloom" Malvaceae
 CNPS List: 1B R-E-D Code: 2-1-3 State/Fed. Status: /C3c
 Distribution: MNT
 Quads: 295B, 295C, 318C, 319A, 319B, 320A
 Habitat: Chprl
 Life Form: Perennial herb
 Blooming: June-July
 Notes: See *Fremontia* 6(2):8-14 (1978) for discussion of Marble-Cone fire and effects.

Sidalcea hickmanii Greene ssp. *parishii* (Rob.) C.L. Hitchc.

"Parish's checkerbloom" Malvaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CR/C1
 Distribution: SBA, SBD
 Quads: 105B, 105C, 106D, 167B, 168A, 193A, 193B, 193D
 Habitat: Chprl, LCFrs
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Threatened by urbanization, grazing, and road maintenance.
 Status Report: 1987

Sidalcea hickmanii Greene ssp. *viridis* C.L. Hitchc.

"Marin checkerbloom" Malvaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: MRN, NAP, SFO, SMT, SON
 Quads: 409B, 466C, 467B, 499C, 503B
 Habitat: Chprl (serpentinite)
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Possibly threatened by development.

Sidalcea keckii Wiggins

"Keck's checkerbloom" Malvaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C1
 Distribution: TUL, FRE?*
 Quads: 286D*, 309C, 310D*, 377C*
 Habitat: CmWld, VFGrs / serpentinite
 Life Form: Annual herb
 Blooming: April
 Notes: Rediscovered in 1992 by J. Stebbins and K. Kirkpatrick near Mine Hill, TUL Co. Threatened by grazing and potential development. Recent work suggests FRE Co. record is probably erroneous. See *Contributions from the Dudley Herbarium* 3:55-56 (1940) for original description.

Sidalcea malachroides (H. & A.) Gray

"maple-leaved checkerbloom" Malvaceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: CEQA
 Distribution: HUM, MEN, MNT, SCL, SCR, OR
 Quads: 344A, 344B, 344D, 366C, 387B, 427A, 537B, 537D, 552C, 585A, 585D, 601B, 618D, 635B, 635C, 636A, 637D, 654D, 671B, 671C, 672C, 672D
 Habitat: BUFRs, CoPrr, NCFrs / often in disturbed areas
 Life Form: Perennial herb
 Blooming: May-August
 Notes: How common is plant in HUM and MEN counties? Endangered in OR. See *Botany of Captain Beeche's Voyage Supplement*, p. 326 (1840) for original description, and *University of Washington Publications in Biology* 18:1-96 (1957) for taxonomic treatment.

Sidalcea malvaeflora ssp. *elegans*

Considered but rejected: A synonym of *S. malvaeflora* ssp. *asprella*; a common taxon

Sidalcea malvaeflora (DC.) Benth. ssp. *patula* C.L. Hitchc.

“Siskiyou checkerbloom” Malvaceae
 CNPS List: 1B R-E-D Code: 3-2-2 State/Fed. Status: /C2
 Distribution: DNT, HUM, OR
 Quads: 654C, 654D, 655D, 672A, 672C(*), 740B
 Habitat: CBScr?, CoPrr, NCFrs
 Life Form: Perennial herb (rhizomatous)
 Blooming: May-June
 Notes: Known in CA from fewer than ten occurrences, and three in OR, where plant is a candidate for state listing. See *University of Washington Publications in Biology* 18:1-96 (1957) for original description.

Sidalcea neomexicana Gray

“salt spring checkerbloom” Malvaceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
 Distribution: LAX*, ORA, RIV, SBA, SBD, VEN, AZ, BA, NM, NV, SO, UT+
 Quads: 85D, 89D*, 102A, 108C*, 131B, 141A, 165A, 166A, 190C
 Habitat: Chprl, CoScr, LCFrs, MDScr, Plyas / alkaline, mesic
 Life Form: Perennial herb
 Blooming: March-June
 Notes: Need quads for ORA and SBA counties. See *University of Washington Publications in Biology* 18:1-96 (1957) for taxonomic treatment.

Sidalcea oregana (T. & G.) Gray ssp. *eximia* (Greene) Hitchc.

“coast checkerbloom” Malvaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CEQA
 Distribution: HUM
 Quads: 654B, 671A, 672A, 686C
 Habitat: LCFrs, Medws, NCFrs
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Intergrades with ssp. *oregana* and *spicata*. See *University of Washington Publications in Biology* 18:1-96 (1957) for taxonomic treatment.

Sidalcea oregana (T. & G.) Gray ssp. *hydrophila* (Heller) Hitchc.

“marsh checkerbloom” Malvaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CEQA
 Distribution: GLE, LAK, MEN, NAP
 Quads: 516C, 517B, 533C, 565A, 565B, 565C, 581A, 581C, 581D, 582B, 582D, 597C
 Habitat: Medws, RpFrs / mesic
 Life Form: Perennial herb
 Blooming: July-August
 Notes: Intergrades with ssp. *valida*. See *Muhlenbergia* 1:107 (1904) for original description, and *University of Washington Publications in Biology* 18:1-96 (1957) for taxonomic treatment.

Sidalcea oregana (Nutt.) Gray ssp. *valida* (Greene) C.L. Hitchc.

“Kenwood Marsh checkerbloom” Malvaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/C1
 Distribution: SON
 Quads: 501A, 517B
 Habitat: MshSw (freshwater)
 Life Form: Perennial herb (rhizomatous)
 Blooming: June-September
 Notes: Known from only three occurrences: one in Knights Valley and two in Kenwood Marsh. Threatened by grazing and habitat alteration. See *Pitonia* 3:157-158 (1897) for original description, and *University of Washington Publications in Biology* 18:56-58 (1957) for revised nomenclature.
 Status Report: 1988

Sidalcea pedata Gray

“bird-foot checkerbloom” Malvaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/FE
 Distribution: SBD
 Quads: 105A*, 105B, 106A*, 131B, 131C, 131D
 Habitat: Medws (mesic), PbPln
 Life Form: Perennial herb
 Blooming: May-August
 Notes: Known from approximately ten occurrences. Seriously threatened by development, grazing, and vehicles. Protected in part at Baldwin Lake ER (DFG). See *Proceedings of the American Academy of Arts and Sciences* 22:288 (1887) for original description, and *Fremontia* 13(1):22-23 (1985) for species account.
 Status Report: 1987

Sidalcea ranunculacea

Considered but rejected: Too common

Sidalcea robusta Roush

“Butte County checkerbloom” Malvaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: BUT
 Quads: 576A, 576B, 577A, 592B, 592C, 593D
 Habitat: Chprl, CmWld
 Life Form: Perennial herb (rhizomatous)
 Blooming: April-June
 Notes: Known from approximately twenty occurrences. Possibly threatened by residential development and fire suppression. See *Annals of the Missouri Botanical Garden* 18:205-207 (1931) for original description.
 Status Report: 1979

Sidalcea setosa ssp. *setosa*

Considered but rejected: A synonym of *S. oregana* ssp. *spicata*; a common taxon

Sidalcea stipularis J.T. Howell & G. True

"Scadden Flat checkerbloom" Malvaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/C1
 Distribution: NEV
 Quads: 541B, 542A
 Habitat: MshSw (montane freshwater)
 Life Form: Perennial herb (rhizomatous)
 Blooming: July-August
 Notes: Known from only two occurrences in Scadden Flat near Grass Valley. One occurrence voluntarily protected by landowner. Threatened by altered hydrology and non-native plants. See *Four Seasons* 4(4):20-22 (1974) for original description.

Silene aperta

Considered but rejected: Too common

Silene campanulata Wats. ssp. *campanulata*

"Red Mtn. catchfly" Caryophyllaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/C1
 Distribution: COL, MEN
 Quads: 564D, 600B, 600C
 Habitat: Chprl, LCFrs / serpentinite
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Known from fewer than ten occurrences near Cook Springs (COL Co.) and in the Red Mtn. area near Leggett (MEN Co.). Threatened by mining. Protected in part at Red Mtn. ACEC (BLM), MEN Co. See *Proceedings of the American Academy of Arts and Sciences* 10:341-342 (1875) for original description, and *University of Washington Publications in Biology* 13:22-23 (1947) for taxonomic treatment.
 Status Report: 1988

Silene hookeri ssp. *pulverulenta*

Considered but rejected: A synonym of *S. hookeri*; a common taxon

Silene invis C.L. Hitchc. & Maguire

"short-petaled campion" Caryophyllaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: /C3c
 Distribution: ALP, AMA, ELD, LAS, NEV, PLA, PLU, SHA, SIE, TRI, TUO
 Habitat: SCFrs, UCFrs / granitic
 Life Form: Perennial herb
 Blooming: July-August
 Notes: Threatened by logging. See *University of Washington Publications in Biology* 13:31-32 (1947) for original description.
 Status Report: 1988

Silene marmorensis Kruckeberg

"Marble Mtn. campion" Caryophyllaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: HUM, SIS
 Quads: 685B, 685D, 686A, 702C, 703A, 703B, 703C, 703D
 Habitat: BUFRs, CmWld, LCFrs
 Life Form: Perennial herb
 Blooming: June
 Notes: Need quads for HUM Co. Threatened by logging. Closely related to *S. bridgesii*. See *Madroño* 15(6):172-177 (1960) for original description.
 Status Report: 1977

Silene occidentalis Wats.ssp. *longistipitata* Hitchc. & Maguire

"western campion" Caryophyllaceae
 CNPS List: 3 R-E-D Code: ?-?-3 State/Fed. Status: /C2
 Distribution: BUT, PLU, SHA, TEH
 Quads: 607A, 607C, 608D, 662B
 Habitat: Chprl, LCFrs
 Life Form: Perennial herb
 Blooming: July-August
 Notes: Move to List 1B? Location, rarity, and endangerment information needed. Relationship to ssp. *occidentalis* needs study.

Silene suksdorfii Rob.

"Cascade alpine campion" Caryophyllaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: SHA, SIS, OR, WA
 Quads: 625B, 626A, 643C, 644D, 698B, 698C
 Habitat: AlpBR (volcanic)
 Life Form: Perennial herb
 Blooming: July-September
 Notes: Known in CA only from Mt. Shasta and Mt. Lassen. On watch list in OR. See *Madroño* 34(1):29-40 (1987) for taxonomic discussion.

Silene verecunda Wats. ssp. *verecunda*

"San Francisco campion" Caryophyllaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: SCR, SFO, SMT
 Quads: 408B, 408C, 408D, 409D, 429A, 448B, 448C, 466C
 Habitat: CBScr, Chprl, CoPrr, CoScr, VFGrs
 Life Form: Perennial herb
 Blooming: March-June
 Notes: Known from fewer than twenty occurrences. Threatened by development. See *Proceedings of the American Academy of Arts and Sciences* 10:344 (1875) for original description, and *University of Washington Publications in Biology* 13:41-42 (1947) for taxonomic treatment.
 Status Report: 1979

Sisyrinchium halophilum

Considered but rejected: Too common

Smelowskia ovalis M.E. Jones var. *congesta* Roll.

"Lassen Peak smelowskia" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: SHA
 Quads: 625B, 626A, 643C
 Habitat: AlpBR
 Life Form: Perennial herb
 Blooming: July-August
 Notes: Known from six occurrences on Mt. Lassen. See *Rhodora* 40:302 (1938) for original description.
 Status Report: 1977

Smilax jamesii Wallace

"English Peak greenbriar" Solanaceae
 CNPS List: 1B R-E-D Code: 2-1-3 State/Fed. Status: CEQA
 Distribution: DNT, SHA, SIS, TRI
 Quads: 662B, 667A, 667B, 668A, 680C, 702B, 702C, 702D,
 718C, 719C, 721C
 Habitat: BUFrs?, LCFrs, MshSw (streambanks and lake margins),
 NCFrs
 Life Form: Perennial herb (rhizomatous)
 Blooming: May-July
 Notes: See *Brittonia* 31:416-421 (1979) for original description.

Solanum clokeyi Munz

"island nightshade" Solanaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: SCZ, SRO
 Habitat: CmWld
 Life Form: Perennial herb
 Blooming: March-July
 Notes: Threatened by feral herbivores. A synonym of *S. wallacei* in
The Jepson Manual.

Solanum tenuilobatum

Considered but rejected: A synonym of *S. xanti*; a common taxon

Solanum wallacei (Gray) Parish

"Wallace's nightshade" Solanaceae
 CNPS List: 4 R-E-D Code: 1-2-2 State/Fed. Status: CEQA?
 Distribution: SCT, GU
 Habitat: Chprl, CmWld
 Life Form: Perennial herb
 Blooming: March-August
 Notes: Threatened by feral herbivores. Occurrences reported from
 the mainland (SBA and SLO counties) need further study but are
 probably *S. xanti*. Plants from GU Isl. may be distinct, perhaps at
 the varietal level.

Solanum xanti var. *hoffmannii*

Considered but rejected: A synonym of *S. xanti*; a common taxon

Solanum xanti var. *obispoense*

Considered but rejected: A synonym of *S. xanti*; a common taxon

Solidago gigantea Ait.

"smooth goldenrod" Asteraceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: MOD, PLU, AZ, NV, OR, ++
 Quads: 605D, 724B, 724C
 Habitat: Medws (mesic), MshSw (streambanks and lake margins)
 Life Form: Perennial herb (rhizomatous)
 Blooming: July-September
 Notes: Known in CA from fewer than five occurrences; is it more
 common? Similar to *S. canadensis*.

Solidago guiradonis Gray

"Guirado's goldenrod" Asteraceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: CEQA?
 Distribution: FRE, SBT
 Habitat: CmWld, VFGrs / serpentinite seeps
 Life Form: Perennial herb (rhizomatous)
 Blooming: September-October
 Notes: Endemic to the San Benito Mtns. Threatened by vehicles. Fre-
 quently confused with *S. confinis*. See *Proceedings of the American
 Academy of Arts and Sciences* 6:543 (1865) for original description.

Solidago missouriensis

Considered but rejected: Not in CA; misidentification of *S.
 spectabilis*, a common taxon

Sparganium minimum

See *Sparganium natans*

Sparganium natans L.

"small bur-reed" Typhaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: ELD, PLA, PLU, SHA, TUO, ID, OR, WA, ++
 Habitat: MshSw (lake margins)
 Life Form: Perennial herb (rhizomatous, emergent)
 Blooming: August

Spartina gracilis Trin.

"alkali cord grass" Poaceae
 CNPS List: 4 R-E-D Code: 1-2-1 State/Fed. Status: CEQA?
 Distribution: INY, MNO, NV, OR, ++
 Habitat: GBScr, Medws, MshSw / alkaline
 Life Form: Perennial herb (rhizomatous)
 Blooming: June-August
 Notes: Threatened by grazing.

Sphaeralcea rusbyi ssp. *eremicola*

See *Sphaeralcea rusbyi* var. *eremicola*

Sphaeralcea rusbyi Gray var. *eremicola* (Jeps.) Kearn.

"Rusby's desert mallow" Malvaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: INY, SBD
 Quads: 248C, 249A, 249D, 325B, 348D
 Habitat: JTWld, MDScr
 Life Form: Perennial herb
 Blooming: May-June
 Notes: Known from ten occurrences in Death Valley NM (INY Co.)
 and near Clark Mtn. (SBD Co.). See *Manual of the Flowering Plants
 of California*, p. 635 (1925) by W.L. Jepson for original description.

Sphenopholis obtusata (Michx.) Scribn.

"prairie wedge grass" Poaceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: AMA, FRE, INY, MNO, RIV, SBD, TUL, ++
 Quads: 105A, 107D, 284B, 395B, 413A, 416D, 487C, 493B, 494D
 Habitat: CmWld, Medws / mesic
 Life Form: Perennial herb
 Blooming: April-July
 Notes: See *Rhodora* 8(92):137-146 (1906) for discussion of genus.
 Status Report: 1980

Sphenopholis obtusata var. *obtusata*See *Sphenopholis obtusata**Stachys bergii*Considered but rejected: A synonym of *S. ajugoides* var. *rigida*, a common taxon*Stachys chamissonis* var. *cooleyae*Considered but rejected: A synonym of *S. chamissonis*, a common taxon*Stachys pycnantha*

Considered but rejected: Too common

*Stachys stebbinsii*Considered but rejected: A synonym of *S. rigida*, a common taxon*Stebbinsoseris decipiens* (Chambers) Chambers

"Santa Cruz microseris" Asteraceae

CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2

Distribution: MNT, MRN, SCR

Quads: 366D, 408B, 408C, 409D, 467A

Habitat: BUFRs, CCFrs, Chprl, CoPrr, CoScr / open areas, sometimes serpentinite

Life Form: Annual herb

Blooming: April-May

Notes: Known from fewer than twenty occurrences. Threatened by grazing. USFWS uses the name *Microseris decipiens*. See *Contributions from the Dudley Herbarium* 4:290-291 (1955) for original description, and *American Journal of Botany* 78(8):1015-1027 (1991) for revised nomenclature.

Status Report: 1977

Stellaria longifolia Willd.

"long-leaved starwort" Caryophyllaceae

CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA

Distribution: BUT, SHA, AZ, NM, OR, WA, ++

Quads: 607C, 662B

Habitat: Medws (mesic)

Life Form: Perennial herb (rhizomatous)

Blooming: May-July

Notes: Known in CA only from Goose Valley (SHA Co.) and near Jonesville (BUT Co.).

Stellaria obtusa Engelm.

"obtuse starwort" Caryophyllaceae

CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA

Distribution: BUT, GLE, HUM, Tuo, ID, OR, WA, ++

Quads: 456A, 581A, 607C, 686C

Habitat: UCFrs (mesic)

Life Form: Perennial herb (rhizomatous)

Blooming: July

Notes: Occurrences are widely scattered.

Stenotus lanuginosus (Gray) Greene

"woolly stenotus"

Asteraceae

CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA

Distribution: LAS, MOD, ID, OR, WA+

Quads: 659A, 675A, 676D, 727A

Habitat: GBSr, PJWld / gravelly loam

Life Form: Perennial herb

Blooming: May-July

Notes: Known in CA from fewer than five occurrences. See *Botany of the Wilkes Exploratory Expedition* 17:347 (1874) for original description, and *Carnegie Institution of Washington Publication* 389:171 (1928) for additional information.*Stephanomeria blairii* Munz & Jtn.

"Blair's stephanomeria"

Asteraceae

CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2

Distribution: SCM

Quads: SCMC, SCMN, SCMS

Habitat: CBSr, CoScr / rocky

Life Form: Shrub

Blooming: July-September

Notes: Feral herbivores removed from SCM Isl., and vegetation recovering. See *Bulletin of the Torrey Botanical Club* 51:301 (1924) for original description.*Stipa arida*See *Achnatherum aridum**Stipa diegoensis*See *Achnatherum diegoense**Stipa latiglumis*Considered but rejected: Too common; a synonym of *Achnatherum latiglumis**Stipa lemmonii* var. *pubescens*See *Achnatherum lemmonii* var. *pubescens**Stipa lettermanii*Considered but rejected: Too common; a synonym of *Achnatherum lettermanii**Stipa scribneri*

Considered but rejected: Not in CA; material misidentified

*Stipa stillmanii*Considered but rejected: Too common; a synonym of *Achnatherum stillmanii*

Streptanthus albidus Greene ssp. *albidus*

"Metcalf Canyon jewel-flower" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /PE
 Distribution: SCL
 Quads: 406A*, 406B, 406D, 407A*, 407B, 426C, 427D
 Habitat: VFGrs (serpentinite)
 Life Form: Annual herb
 Blooming: April-July
 Notes: Known from fewer than ten extant occurrences. Threatened by residential development and vehicles. See *Pittonia* 1:62 (1887) for original description, and *Madroño* 14(7):217-227 (1958) for taxonomic treatment.
 Status Report: 1977

Streptanthus albidus Greenessp. *peramoenus* (Greene) Kruckeberg

"most beautiful jewel-flower" Brassicaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C1
 Distribution: ALA, CCA, SCL
 Quads: 386A, 406A, 406B, 406D, 407A, 407B, 446C, 464B, 464C?, 465B, 465C, 465D, 466A
 Habitat: Chprl, VFGrs / serpentinite
 Life Form: Annual herb
 Blooming: April-June
 Notes: Historical occurrences need field surveys. Threatened by development and grazing. Similar plants from SLO Co. are likely *S. glandulosus* ssp. *glandulosus*, but further study needed.

Streptanthus barbatus

Considered but rejected: Too common

Streptanthus batrachopus Morrison

"Tamalpais jewel-flower" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: MRN
 Quads: 467A, 467B
 Habitat: CCFrs, Chprl / serpentinite
 Life Form: Annual herb
 Blooming: May-June
 Notes: Known from fewer than ten occurrences in the Mt. Tamalpais area. Similar plants from the southern North Coast Ranges may be an undescribed new taxon. Intergrades with *S. barbiger*.

Streptanthus bernardinus (Greene) Parish

"Laguna Mtns. jewel-flower" Brassicaceae
 CNPS List: 1B R-E-D Code: 2-1-2 State/Fed. Status: /C3c
 Distribution: RIV, SBD, SDG, BA
 Quads: 10B, 20A, 33D, 65C, 66D, 83C, 84D, 102A, 106A, 106C, 108A
 Habitat: Chprl, LCFrs
 Life Form: Perennial herb
 Blooming: June-July
 Notes: How common is this plant in BA?

Streptanthus brachiatus

See *Streptanthus brachiatus* ssp. *brachiatus*

Streptanthus brachiatus F.W. Hoffm. ssp. *brachiatus*

"Socrates Mine jewel-flower" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C1
 Distribution: LAK, NAP, SON
 Quads: 517A, 517B, 533C, 534D
 Habitat: CCFrs, Chprl / serpentinite
 Life Form: Perennial herb
 Blooming: June
 Notes: See *Madroño* 36(1):36 (1989) for revised nomenclature.

Streptanthus brachiatus F.W. Hoffm. ssp. *hoffmanii* Dolan & LaPre

"Freed's jewel-flower" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C1
 Distribution: LAK, SON
 Quads: 517B, 533C
 Habitat: Chprl, CmWld / serpentinite
 Life Form: Perennial herb
 Blooming: May-July
 Notes: See *Madroño* 36(1):36 (1989) for original description.

Streptanthus callistus Morrison

"Mt. Hamilton jewel-flower" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: SCL
 Quads: 406A, 425C, 426D
 Habitat: Chprl, CmWld
 Life Form: Annual herb
 Blooming: April-May
 Notes: Known from approximately five occurrences in the Mt. Hamilton Range. See *Madroño* 4:205 (1938) for original description.
 Status Report: 1977

Streptanthus campestris Wats.

"southern jewel-flower" Brassicaceae
 CNPS List: 1B R-E-D Code: 2-1-2 State/Fed. Status: CEQA
 Distribution: RIV, SBD, SDG, BA
 Quads: 8A, 8B, 8C, 20D, 32C, 32D, 33D, 48A?, 65C, 83C, 105B
 Habitat: Chprl, LCFrs, PJWld / rocky
 Life Form: Perennial herb
 Blooming: May-July
 Notes: See *Proceedings of the American Academy of Arts and Sciences* 25:125 (1890) for original description.

Streptanthus cordatus Nutt. var. *piutensis* J.T. Howell

"Piute Mtns. jewel-flower" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: KRN
 Quads: 211B, 212A, 260C, 261D
 Habitat: BUFRs, CCFrs, PJWld / clay
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Known from approximately ten occurrences. See *Leaflets of Western Botany* 10:31 (1963) for original description.

Streptanthus drepanoides Kruckeberg & Morrison

"sickle-fruit jewel-flower" Brassicaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: BUT, MEN, SHA, TEH, TRI
 Habitat: Chprl, LCFrs / serpentinite
 Life Form: Annual herb
 Blooming: April-June
 Notes: See *Madroño* 30(4):230-244 (1983) for original description, and *Fremontia* 14(2):19 (1986) for species account.

Streptanthus farnsworthianus J.T. Howell

"Farnsworth's jewel-flower" Brassicaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: FRE, KRN, MAD, TUL
 Habitat: CmWld
 Life Form: Annual herb
 Blooming: May-June
 Notes: See *Leaflets of Western Botany* 10(11):182-183 (1965) for original description.
 Status Report: 1977

Streptanthus fenestratus (Greene) J.T. Howell

"Tehipite Valley jewel-flower" Brassicaceae
 CNPS List: 1B R-E-D Code: 2-1-3 State/Fed. Status: /C3c
 Distribution: FRE
 Quads: 374B, 374C, 374D, 375A, 375C, 375D
 Habitat: LCFrs, UCFrs
 Life Form: Annual herb
 Blooming: June-July
 Notes: See *Leaflets of Botanical Observation and Criticism* 1:86 (1904) for original description, and *Leaflets of Western Botany* 9(12):184-185 (1961) for taxonomic treatment.
 Status Report: 1979

Streptanthus glandulosus Hook. var. *hoffmanii* Kruckeberg

"secund jewel-flower" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: SON
 Quads: 503B, 519A, 519B, 519C, 519D
 Habitat: Chprl, CmWld, VFGrs (often serpentinite)
 Life Form: Annual herb
 Blooming: April-July
 Notes: Historical occurrences need field surveys. See *S. glandulosus* ssp. *secundus* in *The Jepson Manual*. See *Madroño* 14(7):223 (1958) for original description.

Streptanthus glandulosus Hook. ssp. *pulchellus* (Greene) Kruckeberg

"Mt. Tamalpais jewel-flower" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C3c
 Distribution: MRN
 Quads: 467A, 467B, 484C, 484D
 Habitat: Chprl, VFGrs / serpentinite
 Life Form: Annual herb
 Blooming: May-July
 Notes: Endemic to the Mt. Tamalpais area.

Streptanthus gracilis Eastw.

"alpine jewel-flower" Brassicaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: FRE, INY, TUL
 Habitat: SCFrs, UCFrs / granitic
 Life Form: Annual herb
 Blooming: July-August

Streptanthus hispidus Gray

"Mt. Diablo jewel-flower" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C2
 Distribution: CCA
 Quads: 464B, 464C
 Habitat: Chprl, VFGrs / rocky
 Life Form: Annual herb
 Blooming: March-June
 Notes: Known from fewer than fifteen occurrences in the Mt. Diablo area.

Streptanthus howellii Wats.

"Howell's jewel-flower" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-2-2 State/Fed. Status: /C3c
 Distribution: DNT, OR
 Quads: 739B, 739C, 740A, 740B, 740C
 Habitat: LCFrs (serpentinite)
 Life Form: Perennial herb
 Blooming: July-August
 Notes: Threatened by mining. On watch list in OR. See *Proceedings of the American Academy of Arts and Sciences* 20:353 (1885) for original description.

Streptanthus insignis Jeps. ssp. *lyonii* Kruckeberg & Morrison

"Arburua Ranch jewel-flower" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: MER
 Quads: 383C, 384A, 384D
 Habitat: CoScr (sometimes serpentinite)
 Life Form: Annual herb
 Blooming: April-May
 Notes: Known from fewer than ten occurrences, where not recently reported. Threatened by grazing, and potentially by reservoir construction. See *Madroño* 30(4):230-244 (1985) for original description.

Streptanthus morrisonii

See *Streptanthus morrisonii* ssp. *elatus*, *hirtiflorus*, *kruckebergii*, and *morrisonii*

Streptanthus morrisonii F.W. Hoffm. ssp. *elatus* F.W. Hoffm.

"Three Peaks jewel-flower" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C1
 Distribution: LAK, NAP, SON
 Quads: 516B, 517A, 517B, 519C, 519D, 532C, 532D, 533D
 Habitat: Chprl (serpentinite)
 Life Form: Perennial herb
 Blooming: June-September
 Notes: See *Streptanthus morrisonii* in *The Jepson Manual*. See *Madroño* 11(6):228 (1952) for original description and 36(1):33-40 (1989) for additional information.

Streptanthus morrisonii F.W. Hoffm.ssp. *hirtiflorus* F.W. Hoffm.

"Dorr's Cabin jewel-flower" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C1
 Distribution: SON
 Quads: 519D
 Habitat: Chprl, CCFrs / serpentinite
 Life Form: Perennial herb
 Blooming: June
 Notes: Known from only one small occurrence in The Cedars. See *Streptanthus morrisonii* in *The Jepson Manual*. See *Madroño* 11(6):228 (1952) for original description and 36(1):33-40 (1989) for additional information.
 Status Report: 1977

Streptanthus morrisonii F.W. Hoffm.ssp. *kruckebergii* Dolan & LaPre

"Kruckeberg's jewel-flower" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: LAK, NAP, SON
 Quads: 517B, 532C, 532D, 533C
 Habitat: CmWld (serpentinite)
 Life Form: Perennial herb
 Blooming: April-July
 Notes: Possibly threatened by gold mining activities. See *Streptanthus morrisonii* in *The Jepson Manual*. See *Madroño* 36(1):38 (1989) for original description.

Streptanthus morrisonii F.W. Hoffm. ssp. *morrisonii*

"Morrison's jewel-flower" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: SON
 Quads: 519C, 519D
 Habitat: Chprl (serpentinite)
 Life Form: Perennial herb
 Blooming: May-September
 Notes: See *Streptanthus morrisonii* in *The Jepson Manual*. See *Madroño* 11(6):225 (1952) for original description and 36(1):33-40 (1989) for additional information.

Streptanthus niger Greene

"Tiburon jewel-flower" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/PE
 Distribution: MRN
 Quads: 466B
 Habitat: VFGrS (serpentinite)
 Life Form: Annual herb
 Blooming: May-June
 Notes: Known from only three occurrences. Threatened by road construction, foot traffic, and development on the Tiburon Peninsula. See *Bulletin of the Torrey Botanical Club* 13:141 (1886) for original description, and *Madroño* 14(7):217-227 (1958) for taxonomic treatment.
 Status Report: 1988

Streptanthus oliganthus Roll.

"Masonic Mtn. jewel-flower" Brassicaceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: /C2
 Distribution: INY, MNO, NV
 Quads: 412C, 469B, 470C, 487A, 487B, 487C, 487D, 488A, 488B
 Habitat: PJWld (volcanic or granitic)
 Life Form: Perennial herb
 Blooming: June-July
 Notes: Known in CA from fewer than twenty occurrences. Threatened by mining, grazing, and vehicles. On watch list in NV. See *Contributions from the Dudley Herbarium* 3:372 (1946) for original description.

Streptanthus tortuosus var. *suffrutescens*

Considered but rejected: Too common

Stylocline amphibola

See *Micropus amphibolus*

Stylocline citroleum Morefield

"oil neststraw" Asteraceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C2
 Distribution: KRN, SDG*
 Quads: 216B*, 239A*, 239B*, 241C, 242C*, 242D*
 Habitat: ChScr, CoScr? / clay
 Life Form: Annual herb
 Blooming: April
 Notes: Collected only once (1988) since 1935; plant is poorly known. Now appears to be restricted to oil-producing areas in the southern San Joaquin Valley. Need historical quads for SDG Co. Threatened by energy development and urbanization. See *Madroño* 39(2):123 (1992) for original description.

Stylocline masonii Morefield

"Mason neststraw" Asteraceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C2
 Distribution: KRN, LAX, MNT, SLO
 Quads: 136B, 240B, 245D, 260A, 260B, 292D, 294C, 295D
 Habitat: ChScr, PJWld / sandy
 Life Form: Annual herb
 Blooming: March-April
 Notes: Collected only once (1990) since 1971. Threatened by development and habitat disturbance. See *Madroño* 39(2):117 (1992) for original description.

Stylocline micropoides

Considered but rejected: Too common

Stylocline sonorensis Wiggins

"mesquite neststraw" Asteraceae
 CNPS List: 2 R-E-D Code: 3-3-1 State/Fed. Status: CEQA
 Distribution: RIV(?), AZ, SO
 Quads: 62B(?)
 Habitat: SDScr (sandy)
 Life Form: Annual herb
 Blooming: April
 Notes: Known in CA from only a single collection (1930) at Hayfields Dry Lake. Possibly extirpated after 1930 by development. See *Contributions from the Dudley Herbarium* 4:26 (1950) for original description, and *Madroño* 35(3):279 (1988) for the CA record.

Stylomecon heterophylla

Considered but rejected: Too common

Suaeda californica Wats.

"California seablite" Chenopodiaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /PE
 Distribution: ALA*, SCL*, SLO
 Quads: 247B*, 247D, 428A*, 447B*
 Habitat: MshSw (coastal salt)
 Life Form: Shrub (evergreen)
 Blooming: July-October
 Notes: Formerly known from San Francisco Bay area, where extirpated by development; now extant only in Morro Bay. Remains from adobe bricks indicate plant may once have occurred along the Petaluma River, SON Co. (484A). Threatened by recreation, erosion, and alteration of marsh habitat. Often confused with *S. esteroa* and *S. taxifolia* in southern California, but does not occur there.

Suaeda esteroa Ferren & Whitmore

"estuary seablite" Chenopodiaceae
 CNPS List: 4 R-E-D Code: 1-2-1 State/Fed. Status: CEQA?
 Distribution: LAX, ORA, SBA, SDG, VEN, BA
 Habitat: MshSw (coastal salt)
 Life Form: Perennial herb
 Blooming: July-October
 Notes: See *Madroño* 30(3):181-190 (1983) for original description.

Suaeda taxifolia (Standl.) Standl.

"woolly seablite" Chenopodiaceae
 CNPS List: 4 R-E-D Code: 1-2-1 State/Fed. Status: CEQA?
 Distribution: ANA, LAX, ORA, SBA, SBR, SCM, SCT, SCZ, SDG, SLO, SNI, SRO, VEN, BA
 Habitat: CBScr, MshSw (margins of coastal salt)
 Life Form: Shrub (evergreen)
 Blooming: January-December
 Notes: See *North American Flora* 21:91 (1916) for original description.

Swallenia alexandrae (Swall.) Sderstrom & Decker

"Eureka Valley dune grass" Poaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: CR/FE
 Distribution: INY
 Quads: 390C, 391A, 391D
 Habitat: DeDns
 Life Form: Perennial herb (rhizomatous)
 Blooming: April-June
 Notes: Known from only four occurrences in the Eureka Valley. Recovery plan has been completed by BLM for the Eureka Dunes; still threatened by vehicle trespass. See *Journal of the Washington Academy of Sciences* 40(1):19-21 (1950) for original description, *Madroño* 17:88 (1963) for revised nomenclature, and *Biological Conservation* 46:217-242 (1988) for population biology.
 Status Report: 1987

Swertia fastigiata Pursh

"clustered green-gentian" Gentianaceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: TRI, ID, OR, WA
 Quads: 632B, 632C, 633D
 Habitat: Chprl, LCFrs, Medws, NCFrs
 Life Form: Perennial herb
 Blooming: June-July
 Notes: Known in CA from fewer than ten occurrences in the Pickett Pk. area of South Fork Mtn. Candidate for state listing in OR. See *Madroño* 6:12 (1941) for original description, and *American Midland Naturalist* 26:14 (1941) for revised nomenclature.
 Status Report: 1979

Swertia neglecta Hall (Jeps.)

"pine green-gentian" Gentianaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: KRN, LAX, SBD, VEN
 Habitat: LCFrs, PJWld
 Life Form: Perennial herb
 Blooming: May-July

Syntrichopappus lemmonii (Gray) Gray

"Lemmon's syntrichopappus" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: KRN, LAX, MNT, RIV, SBD
 Habitat: Chprl, JTWld / sandy or gravelly
 Life Form: Annual herb
 Blooming: April-May

Systemotheca vortriedei (Bdg.) Reveal & Hardham

"Vortriede's spineflower" Polygonaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: MNT, SLO
 Habitat: CmWld (sandy or serpentinite)
 Life Form: Annual herb
 Blooming: June-September
 Notes: See *Great Basin Naturalist Memoirs* 2:169-190 (1978) for taxonomic revision, and *Phytologia* 66(2):83-88 (1989) for revised nomenclature.

Tanacetum camphoratum

Considered but rejected: Too common

Tanacetum douglasii

Considered but rejected: A synonym of *T. camphoratum*; a common taxon

Taraxacum californicum Munz & Jtn.

"California dandelion" Asteraceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C1
 Distribution: SBD
 Quads: 104B, 105A, 105B, 105D, 131C, 131D
 Habitat: Medws (mesic)
 Life Form: Perennial herb
 Blooming: May-August
 Notes: Seriously threatened by development, grazing, vehicles, and hybridization with non-native *T. officinale*. See *Bulletin of the Torrey Botanical Club* 52:227-228 (1925) for original description.
 Status Report: 1980

Tauschia glauca (Coul. & Rose) Math. & Const.

"glaucous tauschia" Apiaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: /C3c
 Distribution: DNT, HUM, TRI, OR
 Habitat: LCFrs (gravelly, serpentinite)
 Life Form: Perennial herb
 Blooming: April-June
 Notes: See *Contributions from the U.S. National Herbarium* 3:321 (1895) for original description.
 Status Report: 1979

Tauschia howellii (Coul. & Rose) Macbr.

"Howell's tauschia" Apiaceae
 CNPS List: 1B R-E-D Code: 3-1-2 State/Fed. Status: /C2
 Distribution: SIS, OR
 Quads: 702B, 703D
 Habitat: SCFrs, UCFrs / granitic, gravelly
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Known in CA from only three occurrences in the Marble Mtns. Wilderness. Candidate for state listing in OR. See *Contributions from the Gray Herbarium* 56:32 (1918) for revised nomenclature.
 Status Report: 1979

Taxus brevifolia

Considered but rejected: Too common

Tetracoccus dioicus Parry

"Parry's tetracoccus" Euphorbiaceae
 CNPS List: 1B R-E-D Code: 3-2-2 State/Fed. Status: /C2
 Distribution: ORA, RIV, SDG, BA
 Quads: 7B, 9D, 10A, 10C, 21A, 21D, 34D, 35B, 50A, 50B, 50D, 51A, 69C, 70D
 Habitat: Chprl, CoScr
 Life Form: Shrub (deciduous)
 Blooming: April-May
 Notes: Threatened by agriculture and development.

Tetracoccus ilicifolius Cov. & Gilman

"holly-leaved tetracoccus" Euphorbiaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C3c
 Distribution: INY
 Quads: 325D, 368D, 369C
 Habitat: MDScr (carbonate)
 Life Form: Shrub (deciduous)
 Blooming: May-June
 Notes: Known from fewer than ten occurrences in Death Valley NM.

Tetradymia argyraea Munz & Roos

"striped horsebrush" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: RIV, SBD, AZ
 Habitat: PJWld (rocky)
 Life Form: Shrub (deciduous)
 Blooming: August-September

Tetradymia stenolepis

Considered but rejected: Too common

Thelypodium brachycarpum Torr.

"short-podded thelypodium" Brassicaceae
 CNPS List: 4 R-E-D Code: 1-2-2 State/Fed. Status: /C3c
 Distribution: COL, LAK, NAP, SHA, SIS, TRI, OR
 Habitat: Chprl, Medws / serpentinite, adobe, alkaline
 Life Form: Perennial herb
 Blooming: June-August
 Notes: Endangered in OR. See *Contributions from the Gray Herbarium* 204:91-96 (1973) for taxonomic treatment.

Thelypodium flexuosum

Considered but rejected: Too common

Thelypodium jaegeri

See *Caulostramina jaegeri*

Thelypodium stenopetalum Wats.

"slender-petaled thelypodium" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/FE
 Distribution: SBD
 Quads: 105A, 105B, 131C, 131D
 Habitat: Medws (mesic, alkaline)
 Life Form: Perennial herb
 Blooming: May-August
 Notes: Known from eight occurrences. Seriously threatened by grazing, vehicles, and urbanization. Protected in part at Baldwin Lake ER (DFG). See *Proceedings of the American Academy of Arts and Sciences* 22:468 (1887) for original description, *Contributions from the Gray Herbarium* 204:114-115 (1973) for taxonomic treatment, and *Fremontia* 13(1):22-23 (1985) for species account.
 Status Report: 1989

Thelypteris puberula (Baker) C. Morton
var. *sonorensis* A.R. Smith

"Sonoran maiden fern" Thelypteridaceae
CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
Distribution: LAX, RIV, SBA, AZ, BA, SO
Quads: 48B, 49A, 65D, 83D, 109B, 110A, 113D, 142A, 142B,
143A, 144A, 144B, 194A
Habitat: Medws (seeps and streams)
Life Form: Perennial herb (rhizomatous)
Fertile: January-September
Notes: See *University of California Publications in Botany* 59:91
(1971) for original description.

Thermopsis argentata

See *Thermopsis californica* var. *argentata*

Thermopsis californica Wats.

var. *argentata* (Greene) Chen & Turner

"silvery false lupine" Fabaceae
CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
Distribution: LAS, LAX, MOD, SBA, SHA, SIS, VEN
Habitat: LCFrs, PJWld
Life Form: Perennial herb (rhizomatous)
Blooming: April-July
Notes: See *T. macrophylla* var. *argentata* in *The Jepson Manual*. See
Annals of the Missouri Botanical Garden 81(3):x-x (1993, in press)
for taxonomic treatment and revised nomenclature.

Thermopsis californica Wats. var. *semota* (Jeps.) Chen & Turner

"velvety false lupine" Fabaceae
CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
Distribution: SDG
Quads: 19B, 19C, 20A, 33C, 33D, 34A
Habitat: CmWld, LCFrs, VFGrs
Life Form: Perennial herb (rhizomatous)
Blooming: March-June
Notes: Threatened by grazing, trampling, and recreation. See *T.*
macrophylla var. *semota* in *The Jepson Manual*; USFWS uses this
name. See *Annals of the Missouri Botanical Garden* 81(3):x-x
(1993, in press) for taxonomic treatment and revised nomencla-
ture.

Thermopsis gracilis Howell

"slender false lupine" Fabaceae
CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
Distribution: DNT, HUM, SHA, SIS, TRI, OR
Habitat: CmWld, LCFrs, Medws, NCFrs
Life Form: Perennial herb (rhizomatous)
Blooming: March-July
Notes: A synonym of *T. macrophylla* var. *venosa* in *The Jepson Man-
ual*. See *Erythea* 1:109 (1893) for original description, and *Annals
of the Missouri Botanical Garden* 81(3):x-x (1993, in press) for tax-
onomic treatment.

Thermopsis macrophylla H. & A.

"Santa Ynez false lupine" Fabaceae
CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: CR/C2
Distribution: SBA
Quads: 142B, 167B, 168C, 168D
Habitat: Chprl (sandy granitic disturbed areas)
Life Form: Perennial herb (rhizomatous)
Blooming: April-June
Notes: Known from fewer than fifteen occurrences. Seems to re-
spond well to properly timed fire. Equals *T. macrophylla* var.
agnina; USFWS uses this name. See *T. macrophylla* var.
macrophylla in *The Jepson Manual*. See *Annals of the Missouri Bo-
tanical Garden* 81(3):x-x (1993, in press) for taxonomic treatment.
Status Report: 1986

Thermopsis macrophylla var. *agnina*

See *Thermopsis macrophylla*

Thermopsis macrophylla var. *argentata*

See *Thermopsis californica* var. *argentata*

Thermopsis macrophylla var. *semota*

See *Thermopsis californica* var. *semota*

Thermopsis robusta Howell

"robust false lupine" Fabaceae
CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CEQA
Distribution: DNT?, HUM, SIS
Quads: 671A, 703B, 704A, 704C, 704D, 721C
Habitat: NCFrs
Life Form: Perennial herb (rhizomatous)
Blooming: May-July
Notes: To be expected in DNT Co. Most collections are 35-40 years
old. Potentially threatened by logging. Not in *The Jepson Manual*;
a synonym of *T. macrophylla* in *A California Flora* (1959) by P.
Munz. See *Erythea* 1:109 (1893) for original description, and *An-
nals of the Missouri Botanical Garden* 81(3):x-x (1993, in press) for
taxonomic treatment.

Thlaspi californicum Wats.

"Kneeland Prairie pennycress" Brassicaceae
CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C1
Distribution: HUM, MEN
Quads: 581B, 581C, 653B, 687C*
Habitat: BUFRs (one extirpated occurrence), CoPrr / serpentinite
Life Form: Perennial herb
Blooming: May-June
Notes: Known from fewer than five extant occurrences. HUM Co.
occurrence potentially threatened by road maintenance; voluntar-
ily protected by landowner. USFWS uses the name *T. montanum*
var. *californicum*. See *Proceedings of the American Academy of Arts
and Sciences* 17:365 (1882) for original description, and *Memoirs
of the New York Botanical Garden* 21(2):80-81 (1971) for revised
nomenclature.
Status Report: 1988

Thlaspi montanum var. *californicum*

See *Thlaspi californicum*

Thysanocarpus conchuliferus Greene

"Santa Cruz Island fringe-pod" Brassicaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C1
 Distribution: SCZ
 Quads: SCZA, SCZB, SCZC
 Habitat: Chprl, CmWld
 Life Form: Annual herb
 Blooming: March-April
 Notes: Known from fewer than twenty occurrences. Threatened by grazing.

Tiarella trifoliata L. var. *trifoliata*

"trifoliate laceflower" Saxifragaceae
 CNPS List: 3 R-E-D Code: ??-1 State/Fed. Status: CEQA?
 Distribution: HUM, TRI, OR, ++
 Quads: 671A
 Habitat: LCFrs?, NCFrs
 Life Form: Perennial herb (rhizomatous)
 Blooming: June
 Notes: Move to List 2? Location, rarity, and endangerment information needed, especially quads for TRI Co. See *Madroño* 18(5):152-160 (1966) for additional information.

Tiarella trifoliata var. *unifoliata*

Considered but rejected: Too common

Tonestus eximius (Hall) A. Nels. & Macbr.

"Tahoe tonestus" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: /C3c
 Distribution: ALP, ELD, INY, NV
 Habitat: SCFrS (granitic)
 Life Form: Perennial herb (rhizomatous)
 Blooming: July-August
 Notes: Occurs in relatively inaccessible areas. See *Phytologia* 68(2):144-155 (1990) for revised nomenclature.

Tonestus byallii (Gray) Nesom

"Lyll's tonestus" Asteraceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: SIS, TRI, OR, ++
 Quads: 667B, 668A, 685D
 Habitat: AlpBR
 Life Form: Perennial herb (rhizomatous)
 Blooming: July-August
 Notes: See *Madroño* 21(8):535 (1972) for first CA occurrence, and *Phytologia* 68(2):144-155 (1990) for revised nomenclature.

Townsendia parryi D.C. Eat.

"Parry's townsendia" Asteraceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: MNO, OR, ++
 Quads: 488A
 Habitat: AlpBR
 Life Form: Perennial herb
 Blooming: May-August
 Notes: Known in CA only from the Sweetwater Mtns. Endangered in OR.

Tracyina rostrata Blake

"beaked tracyina" Asteraceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C3c
 Distribution: HUM, LAK, SON
 Quads: 535C, 549C, 616A, 616B, 616D
 Habitat: CmWld, VFGrs
 Life Form: Annual herb
 Blooming: May-June
 Notes: Known from fewer than twenty occurrences.
 Status Report: 1977

Trichocoronis wrightii

See *Trichocoronis wrightii* var. *wrightii*

Trichocoronis wrightii (T. & G.) Gray var. *wrightii*

"Wright's trichocoronis" Asteraceae
 CNPS List: 2 R-E-D Code: 3-3-1 State/Fed. Status: CEQA
 Distribution: COL*, MER*, RIV, SJQ*, SUT*, TX, ++
 Quads: 84B, 85A, 85C, 85D, 403D*, 462D*, 544C*, 545B*, 545C*, 545D*, 546D*
 Habitat: Medws, MshSw, RpFrS, VnPls / alkaline
 Life Form: Annual herb
 Blooming: May-September
 Notes: Extirpated in the Central Valley. Habitat lost to agriculture and urbanization. Confusion persists, but plant is probably native to CA. Rare in TX; perhaps more common in northern Mexico. Perhaps best treated as a full species distinct from TX plants.

Trichostema austromontanum ssp. *austromontanum*

Considered but rejected: Too common

Trichostema austromontanum Lewis ssp. *compactum* Lewis

"Hidden Lake bluecurls" Lamiaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: /C1
 Distribution: RIV
 Quads: 83C
 Habitat: CCFrs, UCFrs / seasonally submerged lake margins
 Life Form: Annual herb
 Blooming: July-September
 Notes: Known only from Hidden Lake in the San Jacinto Mtns. Threatened by recreational activities. See *Brittonia* 5:285 (1945) for original description.
 Status Report: 1977

Trichostema lanatum

Considered but rejected: Too common

Trichostema micranthum Gray

"small-flowered bluecurls" Lamiaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: RIV, SBD, BA
 Habitat: LCFrs, Medws
 Life Form: Annual herb
 Blooming: July-September
 Notes: See *Synoptical Flora of North America* 2(1):348 (1878) for original description.

Trichostema ovatum Curran

"San Joaquin bluecurls"
 CNPS List: 4 R-E-D Code: 1-2-3 Lamiaceae
 State/Fed. Status: CEQA?
 Distribution: FRE, KNG, KRN, TUL
 Habitat: VFGrs
 Life Form: Annual herb
 Blooming: July-October

Trichostema rubisepalum Elmer

"Hernandez bluecurls"
 CNPS List: 4 R-E-D Code: 1-1-3 Lamiaceae
 State/Fed. Status: CEQA?
 Distribution: MPA, NAP, SBT, TUO
 Habitat: BUFRs, Chprl, CmWld / volcanic or serpentinite
 Life Form: Annual herb
 Blooming: June-August

Tridens pilosus

See *Erioneuron pilosum*

Trientalis arctica Hook.

"arctic starflower"
 CNPS List: 2 R-E-D Code: 3-2-1 Primulaceae
 State/Fed. Status: CEQA
 Distribution: DNT, ID, OR, ++
 Quads: 723B, 740C
 Habitat: BgFns, Medws / coastal
 Life Form: Perennial herb
 Blooming: June-July
 Notes: Known in CA from only three occurrences. Threatened by cattle grazing and trampling. Sensitive in ID. See *Leaflets of Western Botany* 10:333 (1966) for first CA records.

Trifolium amoenum Greene

"showy Indian clover"
 CNPS List: 1B R-E-D Code: 3-3-3 Fabaceae
 State/Fed. Status: /C2*
 Distribution: ALA*, MEN*, MRN*, NAP*, SCL*, SOL*, SON
 Quads: 406D*, 445A*, 466B*, 467B*, 483A*, 484B*, 485C*,
 485D*, 498C*, 500D*, 501A*, 501B*, 501C*, 502A*, 502B*,
 502C*, 503A, 567B*, 567D*
 Habitat: VFGrs (sometimes serpentinite)
 Life Form: Annual herb
 Blooming: April-June
 Notes: Rediscovered in 1993 by P. Conners; only one plant found.
 Habitat lost to urbanization and agriculture. See *Flora Franciscana*,
 p. 27 (1891) by E. Greene for original description.
 Status Report: 1977

Trifolium andersonii ssp. *beatleyae*

Considered but rejected: A synonym of *T. andersonii* var. *beatleyae*, a common taxon

Trifolium bolanderi Gray

"Bolander's clover"
 CNPS List: 4 R-E-D Code: 1-1-3 Fabaceae
 State/Fed. Status: /C2
 Distribution: FRE, MAD, MPA
 Habitat: LCFrs, Medws, UCFrs / mesic
 Life Form: Perennial herb
 Blooming: June-August
 Notes: See *Proceedings of the American Academy of Arts and Sciences*
 7:335 (1868) for original description.
 Status Report: 1979

Trifolium buckwestiorum Isely

"Santa Cruz clover"
 CNPS List: 1B R-E-D Code: 3-3-3 Fabaceae
 State/Fed. Status: CEQA
 Distribution: SCR
 Quads: 407D, 408C, 409D
 Habitat: BUFRs, CoPrr / margins
 Life Form: Annual herb
 Blooming: May, Oct
 Notes: Known from about six very small occurrences; only one fully protected, others threatened by grazing, land clearing, and planting of non-native forage plants. See *Madroño* 39(2):90 (1992) for original description.

Trifolium dedeckeriae

See *Trifolium macilentum* var. *dedeckeriae*

Trifolium gracilentum T. & G.
var. *palmeri* (Wats.) L.F. McDermott

"southern island clover"
 CNPS List: 4 R-E-D Code: 1-2-2 Fabaceae
 State/Fed. Status: CEQA?
 Distribution: SBR, SCM, SCT, SNI, GU
 Habitat: CBScr, VFGrs
 Life Form: Annual herb
 Blooming: March-May
 Notes: Rediscovered on SCT and SNI islands in 1978. Common on SNI Isl. in 1993.

Trifolium grayi

Considered but rejected: A synonym of *T. barbigerum* var. *andrewsii*; a common taxon

Trifolium howellii Wats.

"Howell's clover"
 CNPS List: 4 R-E-D Code: 1-1-1 Fabaceae
 State/Fed. Status: CEQA?
 Distribution: DNT, HUM, SIS, OR
 Habitat: LCFrs, Medws, UCFrs / mesic
 Life Form: Perennial herb
 Blooming: July-August

Trifolium lemmonii Wats.

"Lemmon's clover"
 CNPS List: 4 R-E-D Code: 1-1-2 Fabaceae
 State/Fed. Status: /C3c
 Distribution: NEV, PLU, SIE, NV
 Habitat: GBScr, LCFrs
 Life Form: Perennial herb
 Blooming: May-June
 Notes: See *Proceedings of the American Academy of Arts and Sciences*
 11:127 (1876) for original description, *Canadian Journal of Botany*
 50:1975-2007 (1972) for taxonomic treatment, and *Four Seasons*
 4:22-23 (1974) for discussion of rediscovery (1972).
 Status Report: 1977

Trifolium macilentum Greene var. *dedeckeræ* (Gillett) Barneby

"DeDecker's clover" Fabaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: /C3c
 Distribution: INY, KRN, MNO, TUL
 Quads: 283D, 306A, 307D, 329A, 329D, 352A, 373D, 412A,
 431C, 431D, 488A, 488B
 Habitat: LCFrs, PJWld, SCFrs, UCFrs / granitic crevices
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Known from fewer than twenty occurrences. Possibly threat-
 ened by mining and grazing. See *Madroño* 21(7):451-455 (1972)
 for original description.

Trifolium monoense

Considered but rejected: Too common; a synonym of *T. andersonii*
 var. *beatleyae*

Trifolium palmeri

See *Trifolium gracilentum* var. *palmeri*

Trifolium polyodon Greene

"Pacific Grove clover" Fabaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CR/C1
 Distribution: MNT
 Quads: 366C
 Habitat: CCFrs, CoPrr, Medws (mesic)
 Life Form: Annual herb
 Blooming: May-June
 Notes: Known from only three occurrences on the Monterey Penin-
 sula. Seriously threatened by urbanization and trampling. A syn-
 onym of *T. variegatum* (phase 4) in *The Jepson Manual*. See
Pitonia 3:215 (1897) for original description.
 Status Report: 1987

Trifolium trichocalyx Heller

"Monterey clover" Fabaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/C1
 Distribution: MNT
 Quads: 366C
 Habitat: CCFrs
 Life Form: Annual herb
 Blooming: April-June
 Notes: Known from only two occurrences on the Monterey Penin-
 sula. Seriously threatened by urbanization. Possible hybrid. See
Muhlenbergia 1:55 (1904) for original description.
 Status Report: 1987

Triglochin palustris

Considered but rejected: Too common

Triglochin striata

Considered but rejected: Too common

Trillium kurabayashii

Considered but rejected: A synonym of *T. angustipetalum*; a common
 taxon

Trillium ovatum Pursh ssp. *oettingeri* Munz & Thorne

"Salmon Mtns. wakerobin" Liliaceae
 CNPS List: 4 R-E-D Code: 1-2-3 State/Fed. Status: /C3c
 Distribution: SHA, SIS, TRI
 Habitat: LCFrs (mesic)
 Life Form: Perennial herb
 Blooming: February-May
 Notes: Klamath NF has adopted species management guidelines, but
 logging and grazing may threaten on private land in eastern part of
 range. See *Aliso* 8:15-17 (1973) for original description.

Trillium rivale

Considered but rejected: Too common

Trimorpha acris (L.) S.F. Gray var. *debilis* (Gray) Nesom

"northern daisy" Asteraceae
 CNPS List: 2 R-E-D Code: 2-1-1 State/Fed. Status: CEQA
 Distribution: PLU, SHA, SIS, OR, WA+
 Quads: 625A, 626A, 698B, 713D
 Habitat: AlpBR, Medws, SCFrs (volcanic)
 Life Form: Perennial herb
 Blooming: July-August
 Notes: See *Synoptical Flora of North America* 1(2):220 (1884) for
 original description, and *Phytologia* 67(1):61-66 (1989) for taxo-
 nomic treatment.

Triphysaria floribunda (Benth.) Chuang & Heckard

"San Francisco owl's-clover" Scrophulariaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: MRN, SFO, SMT
 Quads: 448B, 448C, 466C, 485A, 485B, 485C, 485D
 Habitat: CoPrr, VFGrs / serpentinite
 Life Form: Annual herb
 Blooming: April-May
 Notes: Threatened by grazing and trampling. See *Systematic Botany*
 16(4):644-666 (1991) for revised nomenclature.

Trileia clementina Hoov.

"San Clemente Island trileia" Liliaceae
 CNPS List: 1B R-E-D Code: 3-2-3 State/Fed. Status: /C2
 Distribution: SCM
 Quads: SCMC, SCMS
 Habitat: VFGrs (rocky)
 Life Form: Perennial herb (bulbiferous)
 Blooming: March-April
 Notes: Known from fewer than twenty occurrences. Feral herbivores
 removed from SCM Isl., and vegetation recovering.

Trileia crocea (Wood) Greene var. *crocea*

"yellow trileia" Liliaceae
 CNPS List: 4 R-E-D Code: 1-1-2 State/Fed. Status: CEQA?
 Distribution: DNT, SHA, SIS, TRI, OR
 Habitat: LCFrs (granitic or serpentinite)
 Life Form: Perennial herb (bulbiferous)
 Blooming: May-June
 Notes: On watch list in OR.

Triteleia crocea (Wood) Greene var. *modesta* (Hall) Hoov.

"Trinity Mtns. triteleia" Liliaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: SHA, SIS, TRI
 Habitat: LCFrs (serpentine)
 Life Form: Perennial herb (bulbiferous)
 Blooming: May-June

Triteleia dudleyi

Considered but rejected: Too common

Triteleia gracilis

Considered but rejected: Too common; a synonym of *T. montana*

Triteleia hendersonii Wats. var. *hendersonii*

"Henderson's triteleia" Liliaceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: SIS, OR
 Quads: 735B, 736A, 736C?
 Habitat: CmWld
 Life Form: Perennial herb (bulbiferous)
 Blooming: May-July
 Notes: Not in *The Jepson Manual*. See *Pittonia* 1:164 (1888) for original description.

Triteleia ixioioides (Wats.) Greene ssp. *cookii* (Hoov.) Lenz

"Cook's triteleia" Liliaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: SLO
 Habitat: CCFrs, CmWld / serpentine seeps
 Life Form: Perennial herb (bulbiferous)
 Blooming: May-June
 Notes: See *Aliso* 8(8):273 (1975) for revised nomenclature.

Triteleia lugens

Considered but rejected: Too common

Tropidocarpum capparideum Greene

"caper-fruited tropidocarpum" Brassicaceae
 CNPS List: 1A Last Seen: 1957 State/Fed. Status: /C2*
 Distribution: ALA*, CCA*, GLE*, MNT*, SCL*, SJQ*
 Quads: 318C*, 428B*, 428D*, 444B*, 445A*, 445B*, 463A*,
 463C*, 463D*, 464B*, 578C*
 Habitat: VFGrs (alkaline hills)
 Life Form: Annual herb
 Blooming: March-April
 Notes: Recent attempts to rediscover this plant have been unsuccessful.
 Status Report: 1988

Tuctoria greenei (Vasey) J. Reeder

"Greene's tuctoria" Poaceae
 CNPS List: 1B R-E-D Code: 2-3-3 State/Fed. Status: CR/PE
 Distribution: BUT, FRE*, MAD*, MER, SHA, SJQ*, STA*, TEH,
 TUL*
 Quads: 333A*, 378C*, 378D*, 400B, 400D*, 420C, 421D,
 441A*, 441B*, 441C*, 442A*, 460B*, 460C*, 560B, 576B,
 593B, 594A, 661C
 Habitat: VnPls
 Life Form: Annual herb
 Blooming: May-July
 Notes: Threatened by agriculture, urbanization, and overgrazing. See
Botanical Gazette 16:145-147 (1891) for original description, and
American Journal of Botany 69:1082-1095 (1982) for taxonomic
 treatment.
 Status Report: 1986

Tuctoria mucronata (Crampt.) J. Reeder

"Crampton's tuctoria" Poaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CE/FE
 Distribution: SOL, YOL
 Quads: 497B, 498D
 Habitat: VnPls
 Life Form: Annual herb
 Blooming: April-July
 Notes: Known from only three occurrences: one at Olcott Lake at Jep-
 son Prairie (TNC), one nearby on private land, and one south of
 Davis on DOD land. Possibly threatened by non-native plants. See
Madroño 15:106-108 (1959) for original description, and *American*
Journal of Botany 69:1082-1095 (1982) for revised taxonomy.
 Status Report: 1991

Vaccinium coccineum Piper

"Siskiyou Mtns. huckleberry" Ericaceae
 CNPS List: 3 R-E-D Code: 2-1-? State/Fed. Status: /C3b
 Distribution: BUT, PLU, SIE, SIS, OR
 Quads: 572C, 574A, 574B, 574C, 590A, 590C, 590D, 591D,
 701C, 719C, 721B, 721C, 736C, 737A, 737C, 738A
 Habitat: LCFrs, UCFrs / often serpentine
 Life Form: Shrub (deciduous)
 Blooming: June-August
 Notes: Move to List 4? Taxonomic work in progress. See *V.*
membranaceum in *The Jepson Manual*. See *Proceedings of the Bio-*
logical Society of Washington 31:75-78 (1918) for original descrip-
 tion.
 Status Report: 1979

Vaccinium scoparium Leib.

"littleleaf huckleberry" Ericaceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
 Distribution: SIS, OR, WA, ++
 Quads: 682B, 684C, 701C, 702B, 719C
 Habitat: SCFrs (rocky)
 Life Form: Shrub (deciduous)
 Blooming: June-August
 Notes: See *Mazama* 1:196 (1897) for original description.

Vaccinium uliginosum ssp. *occidentale*

Considered but rejected: Too common

Vaccinium uliginosum ssp. *uliginosum*

Considered but rejected: Not confirmed in CA, but plants from Big Lagoon (HUM Co.) may be this taxon

Vahlodea atropurpurea

See *Deschampsia atropurpurea*

Vancouveria chrysantha Greene

"Siskiyou inside-out-flower" Berberidaceae
 CNPS List: 4 R-E-D Code: 2-1-2 State/Fed. Status: /C3c
 Distribution: DNT, SIS, OR
 Habitat: LCFrs (serpentinite)
 Life Form: Perennial herb (rhizomatous)
 Blooming: June
 Notes: On watch list in OR.

Veratrum fimbriatum Gray

"fringed false-hellebore" Liliaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: MEN, SON
 Habitat: CoScr, Medws, NCFrs / mesic
 Life Form: Perennial herb
 Blooming: July-September

Veratrum insolitum Jeps.

"Siskiyou false-hellebore" Liliaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: DNT, HUM, SHA, SIS, TRI, OR, WA
 Habitat: Chprl, LCFrs / clay
 Life Form: Perennial herb
 Blooming: June-August
 Notes: On review list in OR, and state-listed as Sensitive in WA.

Verbena californica Mold.

"California vervain" Verbenaceae
 CNPS List: 1B R-E-D Code: 3-3-3 State/Fed. Status: CC/CI
 Distribution: TUO
 Quads: 458C
 Habitat: CmWld, VFGrs / mesic, usually serpentinite seeps or creeks
 Life Form: Perennial herb
 Blooming: June-September
 Notes: Known from nine occurrences in the Red Hills. Threatened by grazing, mining, development, recreation, and vehicles. Protected in part at Red Hills ACEC (BLM).

Verbesina dissita Gray

"crownbeard" Asteraceae
 CNPS List: 1B R-E-D Code: 3-3-2 State/Fed. Status: CT/PT
 Distribution: ORA, BA
 Quads: 70C, 71D
 Habitat: Chprl (maritime), CoScr
 Life Form: Perennial herb
 Blooming: April-July
 Notes: Known in CA from only two occurrences near southern Laguna Beach. Threatened by urbanization and fuelbreak clearing.
 Status Report: 1990

Veronica copelandii Eastw.

"Copeland's speedwell" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: /C3c
 Distribution: SIS, TRI
 Habitat: Medws, SCFrs / serpentinite
 Life Form: Perennial herb
 Blooming: August
 Notes: See *Botanical Gazette* 41:288 (1906) for original description.

Veronica cusickii Gray

"Cusick's speedwell" Scrophulariaceae
 CNPS List: 4 R-E-D Code: 1-1-1 State/Fed. Status: CEQA?
 Distribution: ALP, AMA, MAD, MPA, PLA, SIE, TUO, OR, WA+
 Habitat: AlpBR, Medws, SCFrs, UCFrs
 Life Form: Perennial herb
 Blooming: July-August

Viburnum ellipticum

Considered but rejected: Too common

Viguiera laciniata Gray

"San Diego County viguiera" Asteraceae
 CNPS List: 4 R-E-D Code: 1-2-1 State/Fed. Status: CEQA?
 Distribution: SDG, BA, SO
 Habitat: Chprl, CoScr
 Life Form: Shrub
 Blooming: February-June
 Notes: Locally common in SDG Co. Threatened by development.

Viguiera reticulata

Considered but rejected: Too common

Viola adunca var. *kirkii*

Considered but rejected: A synonym of *V. adunca*; a common taxon

Viola aurea Kell.

"golden violet" Violaceae
 CNPS List: 2 R-E-D Code: 2-2-1 State/Fed. Status: CEQA
 Distribution: KRN, MNO, SBD, SDG, NV
 Quads: 49C, 211C, 243D, 487C
 Habitat: GBScr, PJWld / sandy
 Life Form: Perennial herb
 Blooming: April-June
 Notes: Rarely collected. Need quads for SBD Co. Probably more common in NV. Threatened by grazing. See *Proceedings of the California Academy of Natural Sciences* 2:185 (1862) for original description, and *Madroño* 12(1):8-18 (1953) for taxonomic treatment.

Viola cuneata

Considered but rejected: Too common

Viola ballii

Considered but rejected: Too common

Viola lanceolata ssp. *occidentalis*

See *Viola primulifolia* ssp. *occidentalis*

Viola langsдорffii (Regel) Fisch.

"Langsdorf's violet" Violaceae
 CNPS List: 2 R-E-D Code: 3-3-1 State/Fed. Status: CEQA
 Distribution: DNT, OR*, WA*, ++
 Quads: 740C
 Habitat: BgFns (coastal)
 Life Form: Perennial herb
 Blooming: June-July
 Notes: Known in CA from only two occurrences at Lake Earl and Pt. St. George. Threatened by development. Not in *The Jepson Manual*. See *Madroño* 40(2):135 (1993) for first CA record.

Viola palustris L.

"marsh violet" Violaceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: DNT, HUM, MEN, OR, WA, ++
 Quads: 569A, 672C, 689A
 Habitat: CoScr (mesic), BgFns (coastal)
 Life Form: Perennial herb (rhizomatous)
 Blooming: March-August
 Notes: Known in CA from only a few occurrences; often overlooked and rarely collected. See *Madroño* 17(6):173-197 (1964) for taxonomic treatment.

Viola pinetorum Greene ssp. *grisea* (Jeps.) R.J. Little

"grey-leaved violet" Violaceae
 CNPS List: 1B R-E-D Code: 3-1-3 State/Fed. Status: CEQA
 Distribution: KRN, SBD, TUL
 Quads: 105A, 131D, 329C, 355D
 Habitat: SCFrS, UCFrS
 Life Form: Perennial herb
 Blooming: April
 Notes: Currently known from only a few occurrences; rarely collected. See *Flora of California* 2(1):521 (1936) by W.L. Jepson for original description, and *Phytologia* 72(2):77-78 (1992) for revised nomenclature.

Viola primulifolia L.ssp. *occidentalis* (Gray) L.E. McKinney & R.J. Little

"western bog violet" Violaceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: /C2
 Distribution: DNT, OR
 Quads: 722A, 739A, 739B, 739C
 Habitat: BgFns (serpentine), MshSw
 Life Form: Perennial herb (rhizomatous)
 Blooming: April-September
 Notes: Threatened by mining, logging, road construction, and vehicles. Candidate for state listing in OR. See *Botanical Gazette* 11:255 (1886) for original description, and *Phytologia* 72(2):79 (1992) for revised nomenclature.
 Status Report: 1980

Viola tomentosa Baker & Clausen

"woolly violet" Violaceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: CEQA
 Distribution: ELD, NEV, PLA, PLU, SIE
 Quads: 508A, 508B, 523C, 524A, 524B, 524C, 524D, 539B, 539D, 540D, 555B, 556B, 556C, 557D, 573B, 573C, 574A, 590C, 616C
 Habitat: LCFrS, SCFrS, UCFrS / gravelly
 Life Form: Perennial herb
 Blooming: May-August
 Notes: Threatened by road building, vehicles, and proposed reservoir construction in national forests. See *Leaflets of Western Botany* 5:142 (1949) for original description, and *Madroño* 17(6):173-197 (1964) for taxonomic treatment.

Washingtonia filifera

Considered but rejected: Too common

Whitneya dealbata

Considered but rejected: Too common

Wislizenia refracta Engelm. ssp. *refracta*

"jackass-clover" Capparaceae
 CNPS List: 2 R-E-D Code: 3-2-1 State/Fed. Status: CEQA
 Distribution: RIV, SBD, AZ, NM, TX
 Quads: 77C, 102A, 128C
 Habitat: DeDns, MDScr, Plyas, SDSCr
 Life Form: Annual herb
 Blooming: April-November

Woodsia plummerae Lemmon

"Plummer's woodsia" Dryopteridaceae
 CNPS List: 2 R-E-D Code: 3-1-1 State/Fed. Status: CEQA
 Distribution: SBD, ++
 Quads: 225D
 Habitat: PJWld (granitic)
 Life Form: Perennial herb (rhizomatous)
 Fertile: May-September
 Notes: See *Madroño* 22(4):378 (1974) and 26(1):56 (1978) for distributional information.

Wyethia elata Hall

"Hall's wyethia" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: FRE, MAD, MPA, TUL
 Habitat: CmWld, LCFrS
 Life Form: Perennial herb
 Blooming: May-August

Wyethia invenusta

Considered but rejected: Too common

Wyethia longicaulis Gray

"Humboldt County wyethia" Asteraceae
 CNPS List: 4 R-E-D Code: 1-1-3 State/Fed. Status: CEQA?
 Distribution: HUM, MEN, TRI
 Habitat: BUFRs, CoPrr, LCFrs
 Life Form: Perennial herb
 Blooming: May-July

Wyethia reticulata Greene

"El Dorado County mule ears" Asteraceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: ELD
 Quads: 510B, 511A, 526C, 527D
 Habitat: Chprl, CmWld, LCFrs / clay or gabbroic
 Life Form: Perennial herb
 Blooming: May-July
 Notes: Threatened by development and vehicles. See *Bulletin of the California Academy of Sciences* 1:9 (1884) for original description.
 Status Report: 1979

Xylorhiza cognata (H.M. Hall) T.J. Watson

"Mecca-aster" Asteraceae
 CNPS List: 1B R-E-D Code: 2-2-3 State/Fed. Status: /C2
 Distribution: RIV
 Quads: 62C, 63A, 63B, 63C, 64A, 64B, 64D, 81C, 82C, 82D
 Habitat: SDScr
 Life Form: Perennial herb
 Blooming: January-June
 Notes: Known only from Indio Hills and Mecca Hills. Threatened by vehicles. See *Brittonia* 29:199-216 (1977) for revised nomenclature and description.

Xylorhiza orcutii (Vasey & Rose) Greene

"Orcutt's woody-aster" Asteraceae
 CNPS List: 1B R-E-D Code: 2-2-2 State/Fed. Status: /C2
 Distribution: IMP, RIV, SDG, BA
 Quads: 18A, 18B, 18C, 31A, 31B, 31C, 31D, 32A, 33D, 46C, 46D, 62B
 Habitat: SDScr
 Life Form: Perennial herb
 Blooming: March-April
 Notes: Threatened by vehicles.

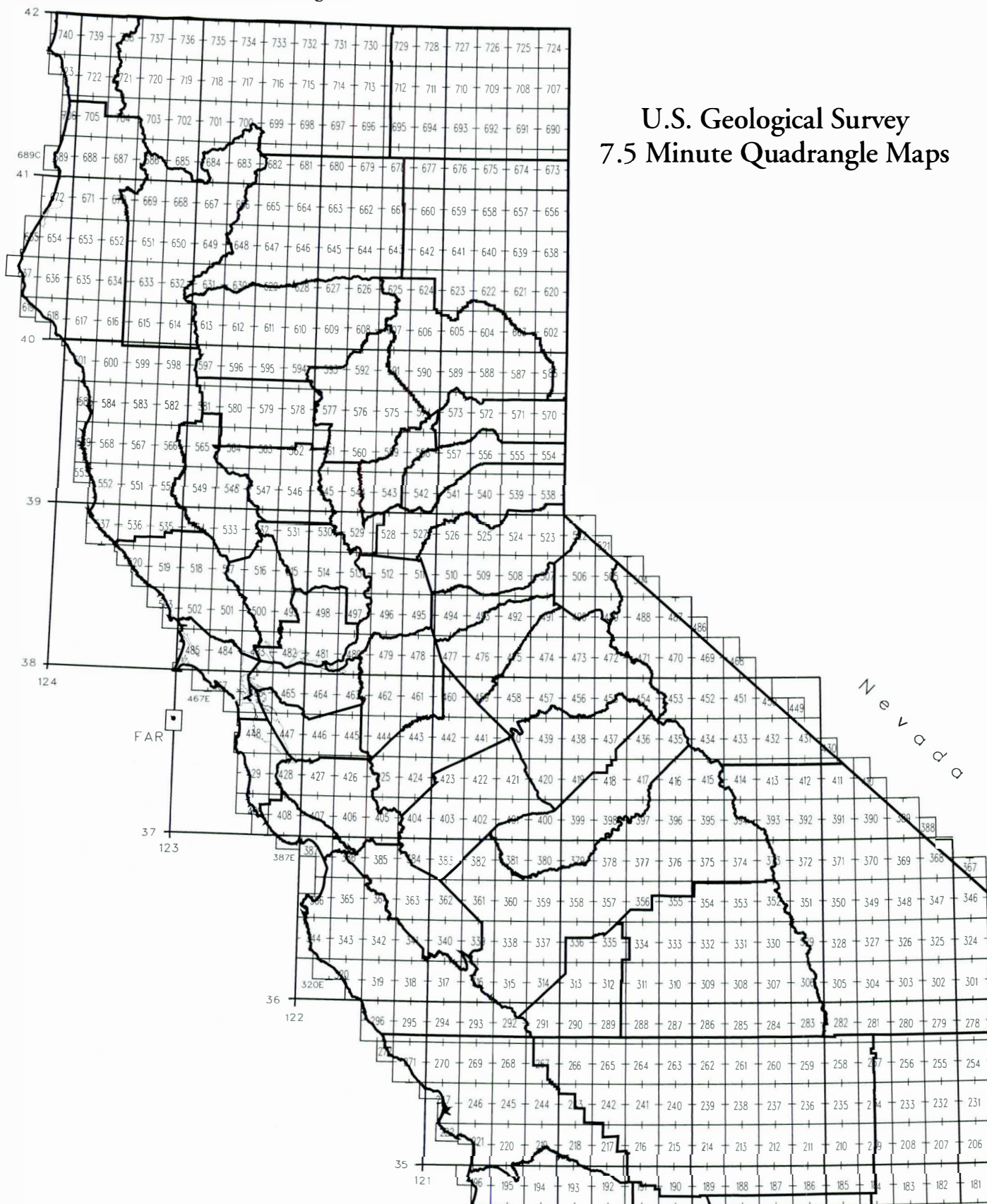
Zauschmeria septentrionalis

See *Epilobium septentrionale*

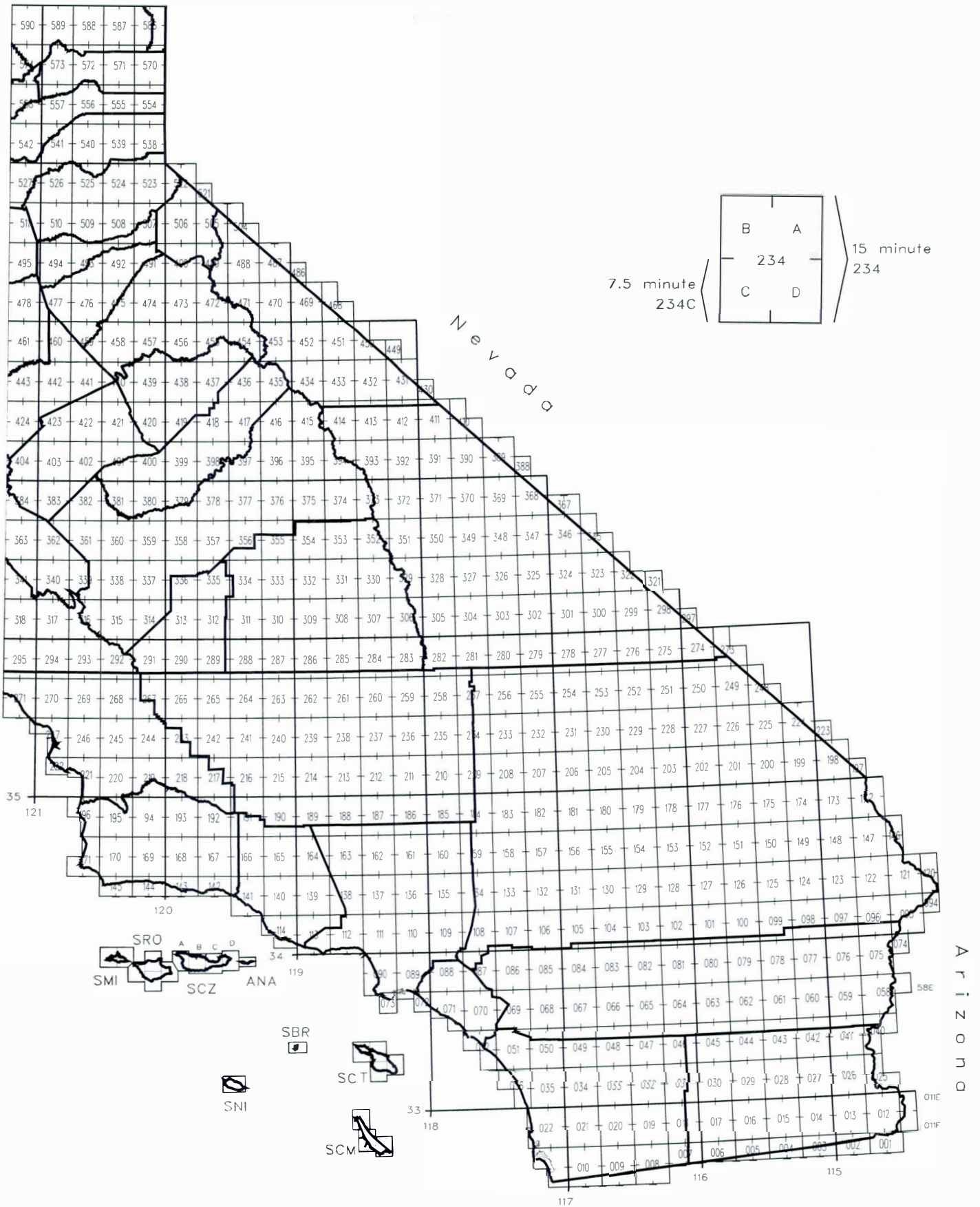
Zigadenus fremontii var. *inezianus*

Considered but rejected: Too common; a synonym of *Z. fremontii*

O r e g o n



U.S. Geological Survey
7.5 Minute Quadrangle Maps



Appendix I: List of Quadrangle Maps

This index to 7.5 minute topographic quadrangle maps generally conforms to the quad code system used by the Department of Water Resources; the quad names are those used by the U.S. Geological Survey. Two lists are included below, the first sorted by quad code, the second by quad name.

There is some confusion regarding the names of certain 7.5 minute quads: the 1993 USGS *California Index to Topographic Map Coverage* indicates a preferred name for future map updates, but current actual maps indicate a different name. In these few cases we have listed the name on our current maps and indicated the alternative *Index* name in parentheses; it is probably best to order maps by the latter name. Also, there are apparently 20 quadrangles lacking maps at the 7.5 minute scale, and we understand that the USGS has no immediate plans to produce them. For these quads we have indicated the 15 minute map name and quadrant (NE, NW, SW, SE), along with the provisional name, now obsolete, previously used for that 7.5 minute quad.

We use a unique quad code system for the California islands, and frequent users will note that we have changed these quad codes from the fourth edition; now the first three digits of each match the island code given on the inside front cover.

Quadrangle Codes						
	009C	Tecate	020C	Viejas Mountain	033C	Santa Ysabel
	009D	Potrero	020D	Descanso	033D	Julian
ANAC	010A	Dulzura	021A	El Cajon Mtn.	034A	Mesa Grande
FARA	010B	Jamul Mountains	021B	San Vicente Reservoir	034B	Rodriguez Mtn.
SBRA	010C	Otay Mesa	021C	El Cajon	034C	San Pasqual
SCMC	010D	Otay Mountain	021D	Alpine	034D	Ramona
	011A	National City	022A	Poway	035A	Valley Center
SCMN	011B	Point Loma	022B	Del Mar	035B	San Marcos
SCMS	011D	Imperial Beach	022C	La Jolla	035C	Rancho Santa Fe
SCTE	011E	Imperial Reservoir	022D	La Mesa	035D	Escondido
SCTN	011F	Laguna Dam	025B	Picacho NW	036A	San Luis Rey
SCTS	012A	Little Picacho Peak	025C	Picacho SW	036B	Oceanside
SCTW	012B	Picacho Peak	025D	Picacho	036D	Encinitas
SCZA	012C	Araz	026A	Buzzards Peak	040A	Mule Wash
SCZB	012D	Bard	026B	Mt. Barrow	040B	Palo Verde
SCZC	013A	Hedges	026C	Gables Wash	040C	Cibola
SCZD	013B	Clyde	026D	Quartz Peak	041A	Thumb Peak
SMIE	013C	Cactus	027A	Blue Mountain	041B	Wileys Well
SMIW	013D	Ogilby	027B	Mammoth Wash	041C	West Of Palo Verde Peak
SNIC	014A	Glamis	027C	Acolita	041D	Palo Verde Peak
SROE	014B	Glamis NW	027D	East Of Acolita	042A	Little Chuckwalla Mts.
SRON	014C	Glamis SW	028A	Tortuga	042B	Chuckwalla Spring
SROS	014D	Glamis SE	028B	Iris	042C	Pegleg Well
SROW	015A	Holtville NE	028C	Wiest	042D	Little Mule Mts.
	015B	Alamorio	028D	Amos	043A	Augustine Pass
001A	015C	Holtville West	029A	Niland	043B	Iris Pass
001B	015D	Holtville East	029B	Obsidian Butte	043C	Iris Wash
002A	016A	Brawley	029C	Calipatria SW	043D	Lion Head Mtn.
002B	016B	Brawley NW		(=Westmorland West)	044A	Frink NE
003A	016C	Seeley	029D	Westmorland	044B	Frink NW
003B	016D	El Centro		(=Westmorland East)	044C	Frink
004A	017A	Superstition Mtn.	030A	Kane Spring NE	044D	Wister
004B	017B	Plaster City NW	030B	Kane Spring NW	045A	Durmid
004C	017C	Painted Gorge	030C	Harpers Well	045B	Salton
005A	017D	Plaster City	030D	Kane Spring	045C	Truckhaven
005B	018A	Carrizo Mtn. NE	031A	Shell Reef	045D	Durmid SE
006A	018B	Arroyo Tapiado	031B	Borrego Mountain	046A	Oasis
006B	018C	Sweeney Pass	031C	Harper Canyon	046B	Rabbit Peak
007A	018D	Carrizo Mtn.	031D	Borrego Mountain SE	046C	Fonts Point
007B	019A	Agua Caliente Springs	032A	Borrego Sink	046D	Seventeen Palms
008A	019B	Monument Peak	032B	Tubb Canyon	047A	Clark Lake NE
008B	019C	Mount Laguna	032C	Earthquake Valley	047B	Collins Valley
008C	019D	Sombrero Peak	032D	Whale Peak	047C	Borrego Palm Canyon
008D	020A	Cuyamaca Peak	033A	Ranchita	047D	Clark Lake
009A	020B	Tule Springs	033B	Warners Ranch	048A	Bucksnot Mtn.
009B						

048B	Beauty Mountain	069D	Wildomar	088D	Orange	109A	Glendora
048C	Warner Springs	070A	Santiago Peak	089A	Whittier	109B	Azusa
048D	Hot Springs Mtn.	070B	El Toro	089B	South Gate	109C	Baldwin Park
049A	Aguanga	070C	San Juan Capistrano	089C	Long Beach	109D	San Dimas
049B	Vail Lake	070D	Canada Gobernadora	089D	Los Alamitos	110A	Mt. Wilson
049C	Boucher Hill	071A	Tustin	090A	Inglewood	110B	Pasadena
049D	Palomar Observatory	071B	Newport Beach	090B	Venice	110C	Los Angeles
050A	Pechanga	071D	Laguna Beach	090C	Redondo Beach	110D	El Monte
050B	Temecula	072A	Seal Beach	090D	Torrance	111A	Burbank
050C	Bonsall	073A	San Pedro	094B	Cross Roads	111B	Van Nuys
050D	Pala	074B	Poston	095A	Parker	111C	Beverly Hills
051A	Fallbrook	075A	Big Maria Mts. NE	095B	Parker NW	111D	Hollywood
051B	Margarita Peak	075B	Big Maria Mts. NW	095C	Parker SW	112A	Canoga Park
051C	Las Pulgas Canyon	075C	Big Maria Mts. SW	095D	Parker SE	112B	Calabasas
051D	Morro Hill	075D	Big Maria Mts. SE	096A	Vidal Junction	112C	Malibu Beach
052A	San Clemente	076A	Styx	096B	Vidal NW	112D	Topanga
052B	Dana Point	076B	Little Maria Mts.	096C	Grommet	113A	Thousand Oaks
052D	San Onofre Bluff	076C	Arlington Mine	096D	Vidal	113B	Newbury Park
058A	Blythe NE	076D	Inca	097A	Horn Spring	113C	Triunfo Pass
058B	McCoy Wash	077A	Palen Pass	097B	Sablon	113D	Point Dume
058C	Ripley	077B	West Of Palen Pass	097C	Arica Mountains	114A	Camarillo
058D	Blythe	077C	Palen Lake	097D	Rice	114B	Oxnard
058E	La Paz Mtn.	077D	Palen Mountains	098A	Danby Lake	114D	Point Mugu
059A	McCoy Peak	078A	Coxcomb Mts.	098B	Iron Mountains	120B	Standard Wash
059B	McCoy Spring	078B	Pinto Wells	098C	Granite Pass	120C	Gene Wash
059C	Hopkins Well	078C	Victory Pass	098D	East Of Granite Pass	121A	Lake Havasu City South
059D	Roosevelt Mine	078D	East Of Victory Pass	099A	Cadiz Valley NE	121B	Havasu Lake
060A	Ford Dry Lake	079A	Placer Canyon	099B	Cadiz Valley NW	121C	Whipple Mts. SW
060B	Sidewinder Well	079B	San Bernardino Wash	099C	Cadiz Valley SW	121D	Whipple Wash
060C	Aztec Mines	079C	Conejo Well	099D	Cadiz Valley SE	122A	Savahia Peak NE
060D	East Of Aztec Mines	079D	Buzzard Spring	100A	East Of Dale Lake	122B	Savahia Peak NW
061A	Corn Spring	080A	Pinto Mountain	100B	Dale Lake	122C	Savahia Peak SW
061B	Desert Center	080B	Fried Liver Wash	100C	New Dale	122D	Savahia Peak
061C	Red Cloud Canyon	080C	Washington Wash	100D	Clarks Pass	123A	Mohawk Spring
061D	Pilot Mountain	080D	Porcupine Wash	101A	East Of Valley Mtn.	123B	West Of Mohawk Spring
062A	Hayfield Spring	081A	Malapai Hill	101B	Valley Mtn.	123C	Martins Well
062B	Hayfield	081B	Keys View	101C	Twentynine Palms Mtn.	123D	Mopah Peaks
062C	Red Canyon	081C	West Berdoo Canyon	101D	Humbug Mountain	124A	Wilhelm Spring
062D	East Of Red Canyon	081D	Rockhouse Canyon	102A	Twentynine Palms	124B	Sheep Camp Spring
063A	Cottonwood Spring	082A	East Deception Canyon	102B	Sunfair	124C	Milligan
063B	Cottonwood Basin	082B	Seven Palms Valley	102C	Indian Cove	124D	East Of Milligan
063C	Mortmar	082C	Cathedral City	102D	Queen Mtn.	125A	Cadiz Lake NE
063D	Orocopia Canyon	082D	Myoma	103A	Joshua Tree North	125B	Cadiz Lake NW
064A	Thermal Canyon	083A	Desert Hot Springs	103B	Yucca Valley North	125C	Cadiz Lake
064B	Indio	083B	White Water	103C	Yucca Valley South	125D	Chubbuck
064C	Valerie	083C	San Jacinto Peak	103D	Joshua Tree South	126A	Calumet Mine
064D	Mecca	083D	Palm Springs	104A	Rimrock	126B	Bristol Lake NW
065A	La Quinta	084A	Cabazon	104B	Onyx Peak	126C	Bristol Lake SW
065B	Rancho Mirage	084B	Beaumont	104C	Catclaw Flat	126D	Calumet Mountains
065C	Toro Peak	084C	San Jacinto	104D	Morong Valley	127A	Lead Mtn. NE
065D	Martinez Mtn.	084D	Lake Fulmor	105A	Moonridge	127B	Lead Mountain
066A	Palm View Peak	085A	El Casco	105B	Big Bear Lake	127C	Lead Mountain SW
066B	Idyllwild	085B	Sunnymead	105C	Forest Falls	127D	Cleghorn Lakes
066C	Anza	085C	Perris	105D	San Gorgonio Mtn.	128A	Deadman Lake NE
066D	Butterfly Peak	085D	Lakeview	106A	Keller Peak	128B	Deadman Lake NW
067A	Blackburn Canyon	086A	Riverside East	106B	Harrison Mtn.	128C	Deadman Lake SW
067B	Hemet	086B	Riverside West	106C	Redlands	128D	Deadman Lake SE
067C	Sage	086C	Lake Mathews	106D	Yucaipa	129A	Hidalgo Mtn.
067D	Cahuilla Mtn.	086D	Steele Peak	107A	San Bernardino North	129B	Emerson Lake
068A	Winchester	087A	Corona North	107B	Devore	129C	Landers
068B	Romoland	087B	Prado Dam	107C	Fontana	129D	Goat Mountain
068C	Murrieta	087C	Black Star Canyon	107D	San Bernardino South	130A	Melville Lake
068D	Bachelor Mtn.	087D	Corona South	108A	Cucamonga Peak	130B	Old Woman Springs
069A	Lake Elsinore	088A	Yorba Linda	108B	Mt. Baldy	130C	Rattlesnake Canyon
069B	Alberhill	088B	La Habra	108C	Ontario	130D	Bighorn Canyon
069C	Sitton Peak	088C	Anaheim	108D	Guasti	131A	Cougar Buttes

131B	Lucerne Valley	150A	Danby	166C	Old Man Mountain	183C	Astley Rancho
131C	Fawnskin	150B	Castle Dome	166D	Wheeler Springs	183D	Wild Crossing
131D	Big Bear City	150C	Cadiz Summit	167A	Madulce Peak	184A	Kramer Junction
132A	Fifteenmile Valley	150D	Skeleton Pass	167B	Big Pine Mtn.	184B	Leuhman Ridge
132B	Apple Valley South	151A	Van Winkle Wash	167C	Little Pine Mtn.	184C	Jackrabbit Hill
132C	Lake Arrowhead	151B	Brown Buttes	167D	Hildreth Peak	184D	Red Buttes
132D	Butler Peak	151C	Amboy	168A	San Rafael Mtn.	185A	Rogers Lake North
133A	Hesperia	151D	Cadiz	168B	Figueroa Mtn.	185B	Edwards
133B	Baldy Mesa	152A	East Of Siberia	168C	Lake Cachuma	185C	Redman
133C	Cajon	152B	Siberia	168D	San Marcos Pass	185D	Rogers Lake South
133D	Silverwood Lake	152C	Bagdad SW	169A	Los Olivos	186A	Bissell
134A	Phelan	152D	Amboy Crater	169B	Zaca Creek	186B	Soledad Mtn.
134B	Mescal Creek	153A	Ash Hill	169C	Solvang	186C	Rosamond
134C	Mount San Antonio	153B	Ludlow	169D	Santa Ynez	186D	Rosamond Lake
134D	Telegraph Peak	153C	Morgans Well	170A	Los Alamos	187A	Willow Springs
135A	Valyermo	153D	Ludlow SE	170B	Lompoc	187B	Tylerhorse Canyon
135B	Juniper Hills	154A	Lavic Lake	170C	Lompoc Hills	187C	Fairmont Butte
135C	Waterman Mtn.	154B	Sunshine Peak	170D	Santa Rosa Hills	187D	Little Buttes
135D	Crystal Lake	154C	Galway Lake	171A	Surf	188A	Liebre Twins
136A	Pacifico Mountain	154D	Lavic SE	171C	Point Arguello	188B	Winters Ridge
136B	Acton	155A	Silver Bell Mine	171D	Tranquillon Mtn.	188C	La Liebre Ranch
136C	Condor Peak	155B	Camp Rock Mine	172B	Needles NW	188D	Neenach School
136D	Chilao Flat	155C	Fry Mountains	172C	Needles SW	189A	Pastoria Creek
137A	Agua Dulce	155D	Iron Ridge	172D	Needles	189B	Grapevine
137B	Mint Canyon	156A	Ord Mountain	173A	Bannock	189C	Frazier Mtn.
137C	San Fernando	156B	West Ord Mountain	173B	Homer	189D	Lebec
137D	Sunland	156C	White Horse Mtn.	173C	West Of Flattop Mtn.	190A	Pleito Hills
138A	Newhall	156D	Grand View Mine	173D	Flattop Mtn.	190B	Eagle Rest Peak
138B	Val Verde	157A	Stoddard Well	174A	Goffs	190C	Sawmill Mountain
138C	Santa Susana (= Simi Valley East)	157B	Turtle Valley	174B	Fenner Hills	190D	Cuddy Valley
138D	Oat Mountain	157C	Apple Valley North	174C	Fenner	191A	Santiago Creek
139A	Piru	157D	Fairview Valley	174D	Fenner Spring	191B	Ballinger Canyon
139B	Fillmore	158A	Helendale	175A	Desert Spring	191C	Cuyama Peak
139C	Moorpark	158B	Victorville NW	175B	Colton Well	191D	Apache Canyon
139D	Simi (= Simi Valley West)	158C	Adelanto	175C	West Of Blind Hills	192A	Cuyama
140A	Santa Paula Peak	158D	Victorville	175D	Blind Hills	192B	New Cuyama
140B	Ojai	159A	Shadow Mountains	176A	Fountain Peak	192C	Salisbury Potrero
140C	Saticoy	159B	Adobe Mountain	176B	Kelso Dunes	192D	Fox Mountain
140D	Santa Paula	159C	El Mirage	176C	Bighorn Basin	193A	Peak Mountain
141A	Matilija	159D	Shadow Mountains SE	176D	Van Winkle Spring	193B	Bates Canyon
141B	White Ledge Peak	160A	Hi Vista	177A	Glasgow	193C	Bald Mountain
141C	Pitas Point	160B	Alpine Butte	177B	West Of Glasgow	193D	Hurricane Deck
141D	Ventura	160C	Littlerock	177C	West Of Budweiser Wash	194A	Manzanita Mtn.
142A	Carpinteria	160D	Lovejoy Buttes	177D	Budweiser Wash	194B	Tepusquet Canyon
142B	Santa Barbara	161A	Lancaster East	178A	Broadwell Mesa	194C	Foxen Canyon
143A	Goleta	161B	Lancaster West	178B	West Of Broadwell Mesa	194D	Zaca Lake
143B	Dos Pueblos Canyon	161C	Ritter Ridge	178C	Broadwell Lake	195A	Twitchell Dam
144A	Tajiguas	161D	Palmdale	178D	East Of Broadwell Lake	195B	Santa Maria
144B	Gaviota	162A	Del Sur	179A	Hidden Valley East	195C	Orcutt
145A	Sacate	162B	Lake Hughes	179B	Hidden Valley West	195D	Sisquoc
145B	Point Conception	162C	Green Valley	179C	Hector	196A	Guadalupe
146B	Topock	162D	Sleepy Valley	179D	Sleeping Beauty	196B	Point Sal
146C	Castle Rock	163A	Burnt Peak	180A	Manix	196D	Casmalia
147A	Whale Mtn.	163B	Liebre Mtn.	180B	Harvard Hill	197C	Mt. Manchester
147B	Monumental Pass	163C	Whitaker Peak	180C	Newberry Springs	198A	Juniper Mine
147C	Snaggletooth	163D	Warm Springs Mountain	180D	Troy Lake	198B	West Of Juniper Mine
147D	Chemehuevi Peak	164A	Black Mtn.	181A	Yermo	198C	Homer Mtn.
148A	Stepladder Mts. NE	164B	Alamo Mountain	181B	Nebo	198D	East Of Homer Mtn.
148B	Stepladder Mts. NW	164C	Devils Heart Peak	181C	Daggett	199A	East Of Grotto Hills
148C	Stepladder Mountains SW	164D	Cobblestone Mtn.	181D	Minneola	199B	Grotto Hills
148D	Stepladder Mountains	165A	Lockwood Valley	182A	Barstow	199C	Hackberry Mountain
149A	Little Piute Mountains	165B	San Guillermo	182B	Hinkley	199D	Signal Hill
149B	Essex	165C	Lion Canyon	182C	Hodge	200A	Pinto Valley
149C	Old Woman Statue	165D	Topatopa Mountains	182D	Barstow SE	200B	Mid Hills
149D	Painted Rock Wash	166A	Reyes Peak	183A	Twelve Gauge Lake	200C	Columbia Mtn.
		166B	Rancho Nuevo Creek	183B	Kramer Hills	200D	Woods Mountains

201A	Cima	217B	Panorama Hills	235C	Cantil	252C	Awawatz Pass
201B	Marl Mountains	217C	Wells Ranch	235D	Saltdale SE	252D	Sheep Creek Spring
201C	Kelso	217D	Elkhorn Hills	236A	Dove Spring	253A	East Of Owl Lake
201D	Hayden	218A	Painted Rock	236B	Pinyon Mtn.	253B	Owl Lake
202A	Indian Spring	218B	Chimineas Ranch	236C	Cross Mountain	253C	Leach Lake
202B	Seventeenmile Point	218C	Taylor Canyon	236D	Cinco	253D	East Of Leach Lake
202C	Cowhole Mountain	218D	Caliente Mtn.	237A	Claraville	254A	Quail Spring
202D	Old Dad Mtn.	219A	Branch Mtn.	237B	Piute Peak	254B	Hidden Spring
203A	Soda Lake North	219B	Los Machos Hills	237C	Lorraine	254C	West Of Leach Spring
203B	West Of Soda Lake	219C	Chimney Canyon	237D	Emerald Mtn.	254D	Leach Spring
203C	Crucero Hill	219D	Miranda Pine Mtn.	238A	Breckenridge Mtn.	255A	Wingate Pass
203D	Soda Lake South	220A	Caldwell Mesa	238B	Mt. Adelaide	255B	Layton Spring
204A	Cronese Lakes	220B	Tar Spring Ridge	238C	Bena	255C	Pilot Knob Valley West
204B	Bitter Spring	220C	Nipomo	238D	Oiler Peak	255D	Pilot Knob Valley East
204C	Dunn	220D	Huasna Peak	239A	Rio Bravo Ranch	256A	Searles Lake
204D	Cave Mountain	221A	Arroyo Grande NE	239B	Oil Center	256B	Westend
205A	East Of Langford Well	221B	Pismo Beach	239C	Lamont	256C	Spangler Hills East
205B	Langford Well	221D	Oceano	239D	Edison	256D	Christmas Canyon
205C	Alvord Mtn. West	222A	Port San Luis	240A	Oildale	257A	Lone Butte
205D	Alvord Mtn. East	223C	Tenmile Well	240B	Rosedale	257B	Ridgecrest North
206A	Paradise Range	224A	Hopps Well	240C	Stevens	257C	Ridgecrest South
206B	Williams Well	224B	Crescent Peak	240D	Gosford	257D	Spangler Hills West
206C	Lane Mountain	224C	Castle Peaks	241A	Rio Bravo	258A	Inyokern
206D	Coyote Lake	224D	Hart Peak	241B	Buttonwillow	258B	Owens Peak
207A	Superior Lake	225A	Nipton	241C	East Elk Hills	258C	Freeman Junction
207B	Opal Mountain	225B	Mineral Hill	241D	Tupman	258D	Inyokern SE
207C	Water Valley	225C	Joshua	242A	Lokern	259A	Walker Pass
207D	Mud Hills	225D	Ivanpah	242B	Belridge	259B	Onyx
208A	Bird Spring	226A	Mescal Range	242C	Reward	259C	Cane Canyon
208B	Fremont Peak	226B	Valley Wells	242D	West Elk Hills	259D	Horse Canyon
208C	The Buttes	226C	Cow Cove	243A	Carneros Rocks	260A	Weldon
208D	Lockhart	226D	Cima Dome	243B	Las Yeguas Ranch	260B	Lake Isabella North
209A	Boron NE	227A	Solomons Knob	243C	Simmler	260C	Lake Isabella South
209B	Boron NW	227B	Turquoise Mtn.	243D	McKittrick Summit	260D	Woolstalf Creek
209C	Boron	227C	Halloran Springs	244A	La Panza NE	261A	Alta Sierra
209D	Saddleback Mtn.	227D	Granite Spring	244B	La Panza Ranch	261B	Glennville
210A	Galileo Hill	228A	North Of Baker	244C	La Panza	261C	Democrat Hot Springs
210B	California City North	228B	Silurian Valley	244D	California Valley	261D	Miracle Hot Springs
210C	California City South	228C	West Of Baker	245A	Camatta Ranch	262A	Woody
210D	North Edwards	228D	Baker	245B	Wilson Corner	262B	Sand Canyon
211A	Mojave NE	229A	Red Pass Lake NE	245C	Santa Margarita Lake	262C	Knob Hill
211B	Cache Peak	229B	Red Pass Lake NW	245D	Pozo Summit	262D	Pine Mountain
211C	Mojave	229C	West Of Red Pass Lake	246A	Santa Margarita	263A	Deepwell Ranch
211D	Sanborn	229D	Red Pass Lake	246B	Atascadero	263B	McFarland
212A	Tehachapi NE	230A	Drinkwater Lake	246C	San Luis Obispo	263C	Famoso
212B	Tehachapi North	230B	West Of Drinkwater Lake	246D	Lopez Mtn.	263D	North Of Oildale
212C	Tehachapi South	230C	Fort Irwin	247A	Morro Bay North	264A	Pond
212D	Monolith	230D	Tiefert Mountains	247B	Cayucos	264B	Wasco NW
213A	Keene	231A	Nelson Lake	247D	Morro Bay South	264C	Wasco SW
213B	Bear Mountain	231B	West Of Nelson Lake	248B	State Line Pass	264D	Wasco
213C	Tejon Ranch	231C	Goldstone	248C	Ivanpah Lake	265A	Lost Hills NE
213D	Cummings Mtn.	231D	East Of Goldstone	248D	Desert	265B	Lost Hills NW
214A	Arvin	232A	Eagle Crags	249A	Mesquite Lake	265C	Lost Hills
214B	Weed Patch	232B	Pilot Knob	249B	Mesquite Mountains	265D	Semitropic
214C	Mettler	232C	Slocum Mtn.	249C	Pachalka Spring	266A	Antelope Plain
214D	Tejon Hills	232D	Superior Valley	249D	Clark Mtn.	266B	Emigrant Hill
215A	Conner	233A	Black Hills	250A	East Of Kingston Peak	266C	Shale Point
215B	Millux	233B	West Of Black Hills	250B	Kingston Peak	266D	Blackwells Corner
215C	Conner SW	233C	Cuddeback Lake	250C	Kingston Spring	267A	Sawtooth Ridge
215D	Coal Oil Canyon	233D	Blackwater Well	250D	East Of Kingston Spring	267B	Orchard Peak
216A	Mouth Of Kern (=Buena Vista Lake Bed)	234A	Klinker Mtn.	251A	Valjean Hills	267C	Holland Canyon
216B	Taft	234B	El Paso Peaks	251B	Dumont Dunes	267D	Packwood Creek
216C	Maricopa	234C	Johannesburg	251C	Silurian Lake	268A	Cholame
216D	Pentland	234D	Red Mountain	251D	Silurian Hills	268B	Shandon
217A	Fellows	235A	Garlock	252A	Saddle Peak Hills	268C	Shedd Canyon
		235B	Saltdale NW	252B	Old IbeX Pass	268D	Camatta Canyon

269A	Estrella	286C	Quincy School	303D	Maturango Peak SE	320B	Partington Ridge
269B	Paso Robles	286D	White River	304A	China Gardens	320D	Lopez Point
269C	Templeton	287A	Ducor	304B	Coso Peak	320E	Pfeiffer Point
269D	Creston	287B	Sausalito School	304C	Petroglyph Canyon	321C	High Peak
270A	Adelaida	287C	Delano East	304D	Louisiana Butte	322B	Franklin Well
270B	Lime Mountain	287D	Richgrove	305A	Upper Centennial Flat	322C	Death Valley Junction
270C	Cypress Mountain	288A	Pixley	305B	Haiwee Reservoirs	322D	Bole Spring
270D	York Mountain	288B	Alpaugh	305C	Coso Junction	323A	East Of Echo Canyon
271A	Pebblestone Shut-in	288C	Allensworth	305D	Cactus Peak	323B	Echo Canyon
271B	San Simeon	288D	Delano West	306A	Haiwee Pass	323C	Ryan
271C	Pico Creek	289A	Hacienda Ranch NE	306B	Monache Mountain	323D	East Of Ryan
271D	Cambria	289B	Hacienda Ranch NW	306C	Crag Peak	324A	Furnace Creek
272A	Piedras Blancas	289C	Lone Tree Well	306D	Long Canyon	324B	West Of Furnace Creek
273B	Green Monster Mine	289D	Hacienda Ranch	307A	Casa Vieja Meadows	324C	Devils Speedway
273C	West Of Shenandoah Peak	290A	Dudley Ridge	307B	Hockett Peak	324D	Devils Golf Course
273D	Shenandoah Peak	290B	Los Viejos	307C	Durrwood Creek	325A	Tucki Wash
274A	Stump Spring, Nev.	290C	Avenal Gap	307D	Bonita Meadows	325B	Emigrant Canyon
274B	Calvada Springs	290D	West Camp	308A	Camp Nelson	325C	Emigrant Pass
274C	Horse Thief Springs	291A	Kettleman Plain	308B	Camp Wishon	325D	Wildrose Peak
274D	Blackwater Mine	291B	Garza Peak	308C	Solo Peak	326A	Panamint Butte
275A	North Of Tecopa Pass	291C	Tent Hills	308D	Sentinel Peak	326B	The Dunes
275B	Resting Spring	291D	Pyramid Hills	309A	Springville	326C	Panamint Springs
275C	Tecopa	292A	The Dark Hole	309B	Frazier Valley	326D	Nova Canyon
275D	Tecopa Pass	292B	Parkfield	309C	Success Dam	327A	Lee Wash
276A	Shoshone	292C	Cholame Hills	309D	Globe	327B	Santa Rosa Flat
276B	Salsberry Peak	292D	Cholame Valley	310A	Lindsay	327C	Talc City Hills
276C	Ibex Spring	293A	Stockdale Mountain	310B	Cairns Corner	327D	Darwin
276D	Ibex Pass	293B	Valleton	310C	Woodville	328A	Keeler
277A	Epaulet Peak	293C	San Miguel	310D	Porterville	328B	Owens Lake
277B	Shore Line Butte	293D	Ranchito Canyon	311A	Tulare	328C	Vermillion Canyon
277C	Confidence Hills West	294A	Wunpost	311B	Paige	328D	Centennial Canyon
277D	Confidence Hills East	294B	Hames Valley	311C	Taylor Weir	329A	Bartlett
278A	Anvil Spring Canyon East	294C	Tierra Redonda Mountain	311D	Tipton	329B	Cirque Peak
278B	Anvil Spring Canyon West	294D	Bradley	312A	Waukena	329C	Templeton Mtn.
278C	Wingate Wash West	295A	Williams Hill	312B	Guernsey	329D	Olancha
278D	Wingate Wash East	295B	Jolon	312C	El Rico Ranch	330A	Johnson Peak
279A	Manly Peak	295C	Burnett Peak	312D	Corcoran	330B	Chagoopa Falls
279B	Manly Fall	295D	Bryson	313A	Stratford	330C	Kern Lake
279C	Copper Queen Canyon	296A	Alder Peak	313B	Westhaven	330D	Kern Peak
279D	Sourdough Spring	296B	Cape San Martin	313C	Kettleman City	331A	Mineral King
280A	Slate Range Crossing	296C	Villa Creek	313D	Stratford SE	331B	Silver City
280B	Homewood Canyon	296D	Burro Mountain	314A	Huron	331C	Moses Mtn.
280C	Trona West	297C	Mound Spring	314B	Guijarral Hills	331D	Quinn Peak
280D	Trona East	298A	Sixmile Spring	314C	Avenal	332A	Case Mountain
281A	Mountain Springs Canyon	298B	Stewart Valley	314D	La Cima	332B	Kaweah
281B	Airport Lake	298C	Twelvemile Spring	315A	Coalinga	332C	Chickencoop Canyon
281C	White Hills	298D	Nopah Peak	315B	Alcalde Hills	332D	Dennison Peak
281D	Burro Canyon	299A	Eagle Mtn.	315C	Curry Mountain	333A	Woodlake
282A	Volcano Peak	299B	West Of Eagle Mtn.	315D	Kreyenhagen Hills	333B	Ivanhoe
282B	Little Lake	299C	Deadman Pass	316A	Sherman Peak	333C	Exeter
282C	Ninemile Canyon	299D	East Of Deadman Pass	316B	Priest Valley	333D	Rocky Hill
282D	Pearsonville	300A	Greenwater Canyon	316C	Slack Canyon	334A	Monson
283A	Sacatar Canyon	300B	Dantes View	316D	Smith Mountain	334B	Traver
283B	Rockhouse Basin	300C	Gold Valley	317A	Monarch Peak	334C	Goshen
283C	White Dome	300D	Funeral Peak	317B	Nattrass Valley	334D	Visalia
283D	Lamont Peak	301A	Badwater	317C	San Ardo	335A	Burriss Park
284A	Sirretta Peak	301B	Hanaupah Canyon	317D	Pancho Rico Valley	335B	Laton
284B	Fairview	301C	Galena Canyon	318A	San Lucas	335C	Hanford
284C	Kernville	301D	Mormon Point	318B	Thompson Canyon	335D	Remnoy
284D	Cannell Peak	302A	Telescope Peak	318C	Cosio Knob	336A	Riverdale
285A	Johnsondale	302B	Jail Canyon	318D	Espinosa Canyon	336B	Burrel
285B	California Hot Springs	302C	Ballarat	319A	Reliz Canyon	336C	Vanguard
285C	Posey	302D	Panamint	319B	Junipero Serra Peak	336D	Lemoore
285D	Tobias Peak	303A	Maturango Peak NE	319C	Cone Peak	337A	Five Points
286A	Gibbon Peak	303B	Revenue Canyon	319D	Bear Canyon	337B	Westside
286B	Fountain Springs	303C	Maturango Peak	320A	Tassajara Hot Springs	337C	Harris Ranch

337D	Calflax	354C	Shadequarter Mtn.	371D	Lower Warm Springs	389A	Gold Mountain
338A	Tres Pecos Farms	354D	Giant Forest	372A	Mazourka Peak	389B	West Of Gold Mtn.
338B	Lillis Ranch	355A	Miramonte	372B	Blackrock	389C	Ubehebe Crater
338C	Joaquin Rocks	355B	Tucker Mtn.	372C	Independence	389D	Scottys Castle
338D	Domengine Ranch	355C	Stokes Mtn.	372D	Bee Springs Canyon	390A	Sand Spring
339A	Ciervo Mtn.	355D	Auckland	373A	Aberdeen	390B	Hanging Rock Canyon
339B	Idria	356A	Orange Cove North	373B	Mt. Pinchot	390C	Last Chance Range SW
339C	San Benito Mtn.	356B	Wahtoke	373C	Mt. Clarence King	390D	Last Chance Range SE
339D	Santa Rita Peak	356C	Reedley	373D	Kearsarge Peak	391A	East Of Joshua Flats
340A	Hernandez Reservoir	356D	Orange Cove South	374A	Marion Peak	391B	Joshua Flats
340B	Rock Spring Peak	357A	Sanger	374B	Slide Bluffs	391C	Waucoba Spring
340C	Lonoak	357B	Malaga	374C	Cedar Grove	391D	East Of Waucoba Spring
340D	Hepsedam Peak	357C	Conejo	374D	The Sphinx	392A	Cowhorn Valley
341A	Topo Valley	357D	Selma	375A	Tehipite Dome	392B	Uhlmeier Spring
341B	North Chalone Peak	358A	Fresno South	375B	Rough Spur	392C	Tinemaha Reservoir
341C	Greenfield	358B	Kearney Park	375C	Hume	392D	Waucoba Mtn.
341D	Pinalito Canyon	358C	Raisin	375D	Wren Peak	393A	Big Pine
342A	Soledad	358D	Caruthers	376A	Patterson Mtn.	393B	Coyote Flat
342B	Palo Escrito Peak	359A	Kerman	376B	Sacate Ridge	393C	Split Mtn.
342C	Sycamore Flat	359B	Jamesan	376C	Luckett Mtn.	393D	Fish Springs
342D	Paraiso Springs	359C	San Joaquin	376D	Verplank Ridge	394A	Mt. Thompson
343A	Rana Creek	359D	Helm	377A	Trimmer	394B	Mt. Darwin
343B	Carmel Valley	360A	Tranquillity	377B	Humphreys Station	394C	Mt. Goddard
343C	Ventana Cones	360B	Coit Ranch	377C	Piedra	394D	North Palisade
343D	Chews Ridge	360C	Levis	377D	Pine Flat Dam	395A	Mt. Henry
344A	Mt. Carmel	360D	Cantua Creek	378A	Academy	395B	Ward Mountain
344B	Soberanes Point	361A	Chaney Ranch	378B	Friant	395C	Courtright Reservoir
344C	Point Sur	361B	Chounet Ranch	378C	Clovis	395D	Blackcap Mtn.
344D	Big Sur	361C	Tumey Hills	378D	Round Mountain	396A	Dogtooth Peak
345B	Ashton	361D	Monocline Ridge	379A	Lanes Bridge	396B	Huntington Lake
345C	Lees Camp	362A	Mercy Hot Springs	379B	Gregg	396C	Dinkey Creek
345D	Leeland	362B	Cerro Colorado	379C	Herndon	396D	Nelson Mtn.
346A	East Of Chloride City	362C	Llanada	379D	Fresno North	397A	Musick Mtn.
346B	Chloride City	362D	Panoche	380A	Madera	397B	Cascadel Point
346C	Beatty Junction	363A	Panoche Pass	380B	Bonita Ranch	397C	Auberry
346D	Nevaras Peak	363B	Cherry Peak	380C	Gravelly Ford	397D	Shaver Lake
347A	Stovepipe Wells NE	363C	Bickmore Canyon	380D	Biola	398A	North Fork
347B	Mesquite Flat	363D	San Benito	381A	Firebaugh NE	398B	O'Neals
347C	Stovepipe Wells	364A	Paicines	381B	Poso Farm	398C	Millerton Lake West
347D	Grotto Canyon	364B	Mt. Harlan	381C	Firebaugh	398D	Millerton Lake East
348A	East Of Sand Flat	364C	Gonzales	381D	Mendota Dam	399A	Knowles
348B	Sand Flat	364D	Mount Johnson	382A	Oxalis	399B	Raymond
348C	Harris Hill	365A	Natividad	382B	Dos Palos	399C	Daulton
348D	Cottonwood Canyon	365B	Salinas	382C	Hammonds Ranch	399D	Little Table Mtn.
349A	Ubehebe Peak	365C	Spreckels	382D	Broadview Farms	400A	Raynor Creek
349B	West Of Ubehebe Peak	365D	Chualar	383A	Charleston School	400B	Le Grand
349C	Nelson Range	366A	Marina	383B	Ortigalita Peak NW	400C	Berenda
349D	Jackass Canyon	366C	Monterey	383C	Ortigalita Peak	400D	Kismet
350A	Craig Canyon	366D	Seaside	383D	Laguna Seca Ranch	401A	Plainsburg
350B	New York Butte	367C	Daylight Pass	384A	Los Banos Valley	401B	El Nido
350C	Dolomite	367D	Gold Center	384B	Mariposa Peak	401C	Bliss Ranch
350D	Cerro Gordo Peak	368A	Wahguyhe Peak	384C	Quien Sabe Valley	401D	Chowchilla
351A	Union Wash	368B	Grapevine Peak	384D	Ruby Canyon	402A	Sandy Mush
351B	Manzanar	368C	Fall Canyon	385A	Three Sisters	402B	Turner Ranch
351C	Mt. Langley	368D	Thimble Peak	385B	San Felipe	402C	Delta Ranch
351D	Lone Pine	369A	East Of Tin Mountain	385C	Hollister	402D	Santa Rita Bridge
352A	Mt. Williamson	369B	Tin Mountain	385D	Tres Pinos	403A	San Luis Ranch
352B	Mt. Brewer	369C	White Top Mtn.	386A	Chittenden	403B	Ingomar
352C	Mt. Kaweah	369D	Dry Bone Canyon	386B	Watsonville East	403C	Volta
352D	Mount Whitney	370A	Dry Mountain	386C	Prunedale	403D	Los Banos
353A	Sphinx Lakes	370B	Saline Peak	386D	San Juan Bautista	404A	Howard Ranch
353B	Mt. Silliman	370C	West Of Teakettle Junction	387A	Watsonville West	404B	Crevison Peak
353C	Lodgepole	370D	Teakettle Junction	387B	Soquel	404C	Pacheco Pass
353D	Triple Divide Peak	371A	East Of Waucoba Canyon	387D	Moss Landing	404D	San Luis Dam
354A	Muir Grove	371B	Waucoba Canyon	387E	Santa Cruz	405A	Mustang Peak
354B	General Grant Grove	371C	Pat Keyes Canyon	388C	Bonnie Claire SW	405B	Mississippi Creek

405C	Gilroy Hot Springs	422C	Arena	439D	Bear Valley	457B	Tuolumne
405D	Pacheco Peak	422D	Atwater	440A	Penon Blanco Peak	457C	Groveland
406A	Mt. Sizer	423A	Turlock	440B	La Grange	457D	Jawbone Ridge
406B	Morgan Hill	423B	Hatch	440C	Snelling	458A	Standard
406C	Mt. Madonna	423C	Gustine	440D	Merced Falls	458B	Sonora
406D	Gilroy	423D	Stevinson	441A	Cooperstown	458C	Chinese Camp
407A	Santa Teresa Hills	424A	Crows Landing	441B	Paulsell	458D	Moccasin
407B	Los Gatos	424B	Patterson	441C	Montpelier	459A	New Melones Dam
407C	Laurel	424C	Orestimba Peak	441D	Turlock Lake	459B	Copperopolis
407D	Loma Prieta	424D	Newman	442A	Waterford	459C	Knights Ferry
408A	Castle Rock Ridge	425A	Copper Mtn.	442B	Riverbank	459D	Keystone
408B	Big Basin	425B	Mt. Boardman	442C	Ceres	460A	Bachelor Valley
408C	Davenport	425C	Mt. Stakes	442D	Denair	460B	Farmington
408D	Felton	425D	Wilcox Ridge	443A	Salida	460C	Escalon
409A	Franklin Point	426A	Eylar Mtn.	443B	Ripon	460D	Oakdale
409B	Pigeon Point	426B	Mt. Day	443C	Westley	461A	Peters
409D	Ano Nuevo	426C	Lick Observatory	443D	Brush Lake	461B	Stockton East
410B	Sylvania Mts.	426D	Isabel Valley	444A	Vernalis	461C	Manteca
410C	Last Chance Mtn.	427A	Calaveras Reservoir	444B	Tracy	461D	Avena
410D	Tule Canyon	427B	Milpitas	444C	Lone Tree Creek	462A	Stockton West
411A	Sylvania Canyon	427C	San Jose West	444D	Solyo	462B	Holt
411B	Chocolate Mtn.	427D	San Jose East	445A	Midway	462C	Union Island
411C	Soldier Pass	428A	Mountain View	445B	Altamont	462D	Lathrop
411D	Horse Thief Canyon	428B	Palo Alto	445C	Mendenhall Springs	463A	Woodward Island
412A	Crooked Creek	428C	Mindego Hill	445D	Cedar Mtn.	463B	Brentwood
412B	Blanco Mtn.	428D	Cupertino	446A	Livermore	463C	Byron Hot Springs
412C	Westgard Pass	429A	Woodside	446B	Dublin	463D	Clifton Court Forebay
412D	Deep Springs Lake	429B	Half Moon Bay	446C	Niles	464A	Antioch South
413A	Laws	429C	San Gregorio	446D	La Costa Valley	464B	Clayton
413B	Fish Slough	429D	La Honda	447A	Hayward	464C	Diablo
413C	Bishop	430C	Indian Garden Creek	447B	San Leandro	464D	Tassajara
413D	Poleta Canyon	431A	Dyer	447C	Redwood Point	465A	Walnut Creek
414A	Rovana	431B	Juniper Mtn.	447D	Newark	465B	Briones Valley
414B	Mt. Morgan	431C	Mt. Barcroft	448A	Hunters Point	465C	Oakland East
414C	Mount Tom	431D	Station Peak	448B	San Francisco South	465D	Las Trampas Ridge
414D	Tungsten Hills	432A	White Mtn. Peak	448C	Montara Mountain	466A	Richmond
415A	Mt. Abbot	432B	Hammil Valley	448D	San Mateo	466B	San Quentin
415B	Graveyard Peak	432C	Chidago Canyon	449C	Davis Mountain	466C	San Francisco North
415C	Florence Lake	432D	Chalfant Valley	450B	Truman Meadows	466D	Oakland West
415D	Mt. Hilgard	433A	Banner Ridge	450C	Benton	467A	San Rafael
416A	Sharktooth Peak	433B	Watterson Canyon	450D	Boundary Peak	467B	Bolinas
416B	Balloon Dome	433C	Toms Place	451A	River Spring	467D	Point Bonita
416C	Kaiser Peak	433D	Casa Diablo Mtn.	451B	Indian Meadows	467E	Double Point
416D	Mt. Givens	434A	Whitmore Hot Springs	451C	Glass Mountain	468B	Anchorite Hills
417A	Squaw Dome	434B	Old Mammoth	451D	Benton Hot Springs	468C	West Of Huntoon Spring
417B	Little Shuteye Peak	434C	Bloody Mtn.	452A	Cowtrack Mountain	468D	Huntoon Spring
417C	Shuteye Peak	434D	Convict Lake	452B	Mono Mills	469A	Cedar Hill
417D	Mammoth Pool Dam	435A	Mammoth Mtn.	452C	Crestview	469B	Kirkwood Spring
418A	White Chief Mtn.	435B	Mt. Ritter	452D	Dexter Canyon	469C	Sulphur Pond
418B	Fish Camp	435C	Cattle Mtn.	453A	Lee Vining	469D	Alameda Well
418C	Bass Lake	435D	Crystal Crag	453B	Mount Dana	470A	Bodie
418D	Ahwahnee	436A	Mt. Lyell	453C	Koip Peak	470B	Big Alkali
419A	Stumpfield Mtn.	436B	Merced Peak	453D	June Lake	470C	Lundy
419B	Mariposa	436C	Sing Peak	454A	Tioga Pass	470D	Negit Island
419C	Ben Hur	436D	Timber Knob	454B	Falls Ridge	471A	Twin Lakes
419D	Horsecamp Mountain	437A	Half Dome	454C	Tenaya Lake	471B	Buckeye Ridge
420A	Catheys Valley	437B	El Capitan	454D	Vogelsang Peak	471C	Matterhorn Peak
420B	Indian Gulch	437C	Wawona	455A	Ten Lakes	471D	Dunderberg Peak
420C	Owens Reservoir	437D	Mariposa Grove	455B	Hetch Hetchy Reservoir	472A	Tower Peak
420D	Illinois Hill	438A	El Portal	455C	Tamarack Flat	472B	Emigrant Lake
421A	Haystack Mtn.	438B	Kinsley	455D	Yosemite Falls	472C	Tiltill Mtn.
421B	Yosemite Lake	438C	Feliciana Mtn.	456A	Lake Eleanor	472D	Piute Mtn.
421C	Merced	438D	Buckingham Mtn.	456B	Cherry Lake South	473A	Cooper Peak
421D	Planada	439A	Buckhorn Peak	456C	Ascension Mtn.	473B	Pincrest
422A	Winton	439B	Coulterville	456D	Ackerson Mtn.	473C	Cherry Lake North
422B	Cressey	439C	Hornitos	457A	Duckwall Mtn.	473D	Kibbie Lake

474A	Strawberry	491B	Calaveras Dome	508B	Stump Spring, Calif. (= Old Iron Mountain)	525C	Slate Mtn.
474B	Crandall Peak	491C	Boards Crossing	508C	Caldor	525D	Pollack Pines
474C	Twain Harte	491D	Liberty Hill	508D	Peddler Hill	526A	Georgetown
474D	Hull Creek	492A	Garnet Hill	509A	Sly Park	526B	Greenwood
475A	Stanislaus	492B	Devils Nose	509B	Camino	526C	Coloma
475B	Murphys	492C	Fort Mountain	509C	Aukum	526D	Garden Valley
475C	Columbia	492D	Dorrington	509D	Omo Ranch	527A	Auburn
475D	Columbia SE	493A	West Point	510A	Pine Grove	527B	Gold Hill
476A	Calaveritas	493B	Pine Grove	510B	Shingle Springs	527C	Rocklin
476B	San Andreas	493C	Mokelumne Hill	510C	Latrobe	527D	Pilot Hill
476C	Salt Spring Valley	493D	Rail Road Flat	510D	Fiddletown	528A	Lincoln
476D	Angels Camp	494A	Amador City	511A	Clarksville	528B	Sheridan
477A	Valley Springs	494B	Irish Hill	511B	Folsom	528C	Pleasant Grove
477B	Wallace	494C	Ione	511C	Buffalo Creek	528D	Roseville
477C	Valley Springs SW	494D	Jackson	511D	Folsom SE	529A	Nicolas
477D	Jenny Lind	495A	Carbondale	512A	Citrus Heights	529B	Sutter Causeway
478A	Clements	495B	Sloughhouse	512B	Rio Linda	529C	Knights Landing
478B	Lockeford	495C	Clay	512C	Sacramento East	529D	Verona
478C	Waterloo	495D	Goose Creek	512D	Carmichael	530A	Kirkville
478D	Linden	496A	Elk Grove	512D	Taylor Monument	530B	Dunnigan
479A	Lodi North	496B	Florin	513A	Grays Bend	530C	Zamora
479B	Thornton	496C	Bruceville	513B	Davis	530D	Eldorado Bend
479C	Terminus	496D	Galt	513C	Sacramento West	531A	Wildwood School
479D	Lodi South	497A	Clarksburg	514A	Woodland	531B	Rumsey
480A	Isleton	497B	Saxon	514B	Madison	531C	Guinda
480B	Rio Vista	497C	Liberty Island	514C	Winters	531D	Bird Valley
480C	Jersey Island	497D	Courtland	514D	Merritt	532A	Glascok Mtn.
480D	Bouldin Island	498A	Dixon	515A	Esparto	532B	Wilson Valley
481A	Birds Landing	498B	Allendale	515B	Brooks	532C	Jericho Valley
481B	Denverton	498C	Elmira	515C	Lake Berryessa	532D	Knoxville
481C	Honker Bay	498D	Dozier	515D	Monticello Dam	533A	Lower Lake
481D	Antioch North	499A	Mt. Vaca	516A	Walter Springs	533B	Clearlake Highlands
482A	Fairfield South	499B	Capell Valley	516B	Aetna Springs	533C	Whispering Pines
482B	Cordelia	499C	Mt. George	516C	St. Helena	533D	Middletown
482C	Benicia	499D	Fairfield North	516D	Chiles Valley	534A	Kelseyville
482D	Vine Hill	500A	Yountville	517A	Detert Reservoir	534B	Highland Springs
483A	Cuttings Wharf	500B	Rutherford	517B	Mount St. Helena	534C	Asti
483B	Sears Point	500C	Sonoma	517C	Mark West Springs	534D	The Geysers
483C	Petaluma Point	500D	Napa	517D	Calistoga	535A	Hopland
483D	Mare Island	501A	Kenwood	518A	Jimtown	535B	Yorkville
484A	Petaluma River	501B	Santa Rosa	518B	Geyserville	535C	Big Foot Mtn.
484B	Petaluma	501C	Cotati	518C	Guerneville	535D	Cloverdale
484C	San Geronimo	501D	Glen Ellen	518D	Healdsburg	536A	Ornbaun Valley
484D	Novato	502A	Sebastopol	519A	Warm Springs Dam	536B	Zeni Ridge
485A	Point Reyes NE	502B	Camp Meeker	519B	Tombs Creek	536C	McGuire Ridge
485B	Tomales	502C	Valley Ford	519C	Fort Ross	536D	Gube Mountain
485C	Drakes Bay	502D	Two Rock	519D	Cazadero	537A	Eureka Hill
485D	Inverness	503A	Duncans Mills	520A	Annapolis	537B	Point Arena
486C	Aurora	503B	Arched Rock	520B	Stewarts Point	537C	Saunders Reef
487A	Conway Stage Station	503D	Bodega Head	520D	Plantation	537D	Gualala
487B	Sweetwater Creek	504B	Long Dry Canyon	521C	Carters Station	538A	Kings Beach
487C	Bridgeport	504C	Risue Canyon	522A	Minden	538B	Tahoe City
487D	Dome Hill	504D	Desert Creek Peak	522B	South Lake Tahoe	538C	Homewood
488A	Mt. Patterson	505A	Topaz Lake	522C	Freel Peak	538D	Meeks Bay
488B	Chris Flat	505B	Heenan Lake	522D	Woodfords	539A	Granite Chief
488C	Fales Hot Springs	505C	Wolf Creek	523A	Emerald Bay	539B	Royal Gorge
488D	Mt. Jackson	505D	Coleville	523B	Rockbound Valley	539C	Bunker Hill
489A	Lost Cannon Peak	506A	Markleeville	523C	Pyramid Peak	539D	Wentworth Springs
489B	Disaster Peak	506B	Carson Pass	523D	Echo Lake	540A	Duncan Peak
489C	Sonora Pass	506C	Pacific Valley	524A	Loon Lake	540B	Westville
489D	Pickel Meadow	506D	Ebbetts Pass	524B	Robbs Peak	540C	Michigan Bluff
490A	Dardanelles Cone	507A	Caples Lake	524C	Riverton	540D	Greek Store
490B	Spicer Meadows Res.	507B	Tragedy Spring	524D	Kyburz	541A	Dutch Flat
490C	Donnell Lake	507C	Bear River Reservoir	525A	Devil Peak	541B	Chicago Park
490D	Dardanelle	507D	Mokelumne Peak	525B	Tunnel Hill	541C	Colfax
491A	Tamarack	508A	Leek Spring Hill			541D	Foresthill

542A	Grass Valley	559B	Bangor	576B	Hamlin Canyon	593B	Richardson Springs NW
542B	Rough And Ready	559C	Loma Rica	576C	Shippee	593C	Nord
542C	Wolf	559D	Oregon House	576D	Oroville	593D	Richardson Springs
542D	Lake Combie	560A	Palermo	577A	Chico	594A	Vina
543A	Smartville	560B	Biggs	577B	Ord Ferry	594B	Corning
543B	Browns Valley	560C	Gridley	577C	Llano Seco	594C	Kirkwood
543C	Wheatland	560D	Honcut	577D	Nelson	594D	Foster Island
543D	Camp Far West	561A	West Of Biggs	578A	Hamilton City	595A	Henleyville
544A	Yuba City	561B	Butte City	578B	Orland	595B	Flournoy
544B	Sutter	561C	Sanborn Slough	578C	Willows	595C	Sehorn Creek
544C	Gilsizer Slough	561D	Pennington	578D	Glenn	595D	Black Butte Dam
544D	Olivehurst	562A	Princeton	579A	Fruto NE	596A	Paskenta
545A	Sutter Buttes	562B	Logandale	579B	Julian Rocks	596B	Riley Ridge
545B	Meridian	562C	Maxwell	579C	Fruto	596C	Hall Ridge
545C	Grimes	562D	Moulton Weir	579D	Stone Valley	596D	Newville
545D	Tisdale Weir	563A	Logan Ridge	580A	Chrome	597A	Ball Mountain
546A	Colusa	563B	Rail Canyon	580B	Alder Springs	597B	Buck Rock
546B	Williams	563C	Lodoga	580C	Felkner Hill	597C	Mendocino Pass
546C	Cortina Creek	563D	Sites	580D	Elk Creek	597D	Log Spring
546D	Arbuckle	564A	Stonyford	581A	Plaskett Meadows	598A	Leech Lake Mtn.
547A	Manor Slough	564B	St. John Mtn.	581B	Plaskett Ridge	598B	Bluenose Ridge
547B	Leesville	564C	Fouts Springs	581C	Hull Mountain	598C	Covelo East
547C	Wilbur Springs	564D	Gilmore Peak	581D	Kneecap Ridge	598D	Newhouse Ridge
547D	Salt Canyon	565A	Crockett Peak	582A	Thatcher Ridge	599A	Mina
548A	Hough Springs	565B	Lake Pillsbury	582B	Jamison Ridge	599B	Updegraff Ridge
548B	Bartlett Springs	565C	Elk Mountain	582C	Brushy Mtn.	599C	Iron Peak
548C	Clearlake Oaks	565D	Potato Hill	582D	Sanhedrin Mtn.	599D	Covelo West
548D	Benmore Canyon	566A	Van Arsdale Reservoir	583A	Dos Rios	600A	Bell Springs
549A	Bartlett Mtn.	566B	Foster Mtn.	583B	Laytonville	600B	Noble Butte
549B	Upper Lake	566C	Redwood Valley	583C	Longvale	600C	Leggett
549C	Lakeport	566D	Potter Valley	583D	Willis Ridge	600D	Tan Oak Park
549D	Lucerne	567A	Willits	584A	Cahto Peak	601A	Piercy
550A	Cow Mountain	567B	Burbeck	584B	Lincoln Ridge	601B	Bear Harbor
550B	Ukiah	567C	Greenough Ridge	584C	Dutchmans Knoll	601C	Mistake Point
550C	Elledge Peak	567D	Laughlin Range	584D	Sherwood Peak	601D	Hales Grove
550D	Purdys Gardens	568A	Northspur	585A	Westport	602A	Calneva Lake
551A	Orrs Springs	568B	Noyo Hill	585D	Inglenook	602B	Herlong
551B	Bailey Ridge	568C	Mathison Peak	586A	Constantia	602C	McKesick Peak
551C	Philo	568D	Comptche	586B	Frenchman Lake	602D	Doyle
551D	Boonville	569A	Fort Bragg	586C	Chilcoot	603A	Milford
552A	Navarro	569D	Mendocino	586D	Beckwourth Pass	603B	Stony Ridge
552B	Elk	570A	Evans Canyon	587A	Dixie Mountain	603C	Squaw Valley Peak
552C	Mallo Pass Creek	570B	Loyalton	587B	Crocker Mtn.	603D	Ferris Creek
552D	Cold Spring	570C	Sardine Peak	587C	Portola	604A	Antelope Lake
553A	Albion	570D	Dog Valley	587D	Reconnaissance Peak	604B	Kettle Rock
554A	Boca	571A	Antelope Valley	588A	Grizzly Valley	604C	Genesee Valley
554B	Hobart Mills	571B	Calpine	588B	Mt. Ingalls	604D	Babcock Peak
554C	Truckee	571C	Sattley	588C	Johnsville	605A	Moonlight Peak
554D	Martis Peak	571D	Sierraville	588D	Blairsdon	605B	Greenville
555A	Independence Lake	572A	Clio	589A	Spring Garden	605C	Crescent Mills
555B	Webber Peak	572B	Gold Lake	589B	Quincy	605D	Taylorville
555C	Soda Springs	572C	Sierra City	589C	Onion Valley	606A	Canyonadam
555D	Norden	572D	Haypress Valley	589D	Blue Nose Mtn.	606B	Almanor
556A	English Mtn.	573A	Mt. Fillmore	590A	Meadow Valley	606C	Caribou
556B	Graniteville	573B	La Porte	590B	Bucks Lake	606D	Twain
556C	Blue Canyon	573C	Goodyears Bar	590C	Haskins Valley	607A	Humbug Valley
556D	Cisco Grove	573D	Downieville	590D	Dogwood Peak	607B	Humboldt Peak
557A	Alleghany	574A	American House	591A	Storrie	607C	Jonesville
557B	Pike	574B	Cascade	591B	Kimshew Point	607D	Belden
557C	North Bloomfield	574C	Clipper Mills	591C	Pulga	608A	Onion Butte
557D	Washington	574D	Strawberry Valley	591D	Soapstone Hill	608B	Barkley Mtn.
558A	Camptonville	575A	Brush Creek	592A	Stirling City	608C	Devils Parade Ground
558B	Challenge	575B	Berry Creek	592B	Cohasset	608D	Butte Meadows
558C	French Corral	575C	Oroville Dam	592C	Paradise West	609A	Panther Spring
558D	Nevada City	575D	Forbestown	592D	Paradise East	609B	Dewitt Peak
559A	Rackerby	576A	Cherokee	593A	Campbell Mound	609C	Acorn Hollow

609D	Ishi Caves	625A	Mt. Harkness	638C	Five Springs	655A	Cannibal Island
610A	Tuscan Springs	625B	Reading Peak	638D	Cherry Mtn.	655D	Ferndale
610B	Red Bluff East	625C	Childs Meadows	639A	Snowstorm Mtn.	656A	Buckhorn Lake
610C	Gerber	625D	Stover Mtn.	639B	West Of Snowstorm Mtn.	656B	Dodge Reservoir
610D	Los Molinos	626A	Lassen Peak	639C	Petes Valley	656C	Observation Peak
611A	Red Bluff West	626B	Grays Peak	639D	Karlo	656D	Buckhorn Canyon
611B	Blossom	626C	Lyonsville	640A	Fredonyer Peak	657A	Juniper Ridge
611C	Red Bank	626D	Mineral	640B	Troxel Point	657B	McDonald Peak
611D	West Of Gerber	627A	Manton	640C	Gallatin Peak	657C	Termo
612A	Oxbow Bridge	627B	Shingletown	640D	Tunnison Mtn.	657D	Ravendale
612B	Cold Fork	627C	Inskip Hill	641A	Spalding Tract	658A	Anderson Mtn.
612C	Raglin Ridge	627D	Finley Butte	641B	Champs Flat	658B	Whitinger Mtn.
612D	Lowrey	628A	Tuscan Buttes NE	641C	Antelope Mtn.	658C	Grasshopper Valley
613A	Yolla Bolly 15' NE (was Tomhead Mtn. 7.5')	628B	Balls Ferry	641D	Pikes Point	658D	Cleghorn Flat
613B	Yolla Bolly 15' NW (was North Yolla Bolly 7.5')	628C	Bend	642A	Harvey Mtn.	659A	Said Valley
613C	Yolla Bolly 15' SW (was Solomon Peak 7.5')	628D	Dales	642B	Poison Lake	659B	Silva Flat Reservoir
613D	Yolla Bolly 15' SE (was South Yolla Bolly 7.5')	629A	Cottonwood	642C	Bogard Buttes	659C	Bullard Lake
614A	Black Rock Mtn. 15' NE (was Black Rock Mtn. 7.5')	629B	Olinda	642D	Pine Creek Valley	659D	Sheepshead
614B	Black Rock Mtn. 15' NW (was Swim Ridge 7.5')	629C	Mitchell Gulch	643A	Swains Hole	660A	Dixie Peak
614C	Black Rock Mtn. 15' SW (was Four Corners Rock 7.5')	629D	Hooker	643B	Old Station	660B	Little Valley
614D	Black Rock Mtn. 15' SE (was Wrights Ridge 7.5')	630A	Ono 15' NE (was Ono 7.5')	643C	West Prospect Peak	660C	Corders Reservoir
615A	Shannon Butte	630B	Ono 15' NW (was Tar Bully 7.5')	643D	Prospect Peak	660D	Straylor Lake
615B	Zenia	630C	Ono 15' SW (was Chickabally Mtn. 7.5')	644A	Thousand Lakes Valley	661A	Cable Mtn.
615C	Lake Mountain	630D	Ono 15' SE (was Rosewood 7.5')	644B	Jacks Backbone	661B	Hogback Ridge
615D	Long Ridge	631A	Chanchelulla Peak 15' NE (was Arbuckle Mtn. 7.5')	644C	Viola	661C	Murken Bench
616A	Alderpoint	631B	Chanchelulla Peak 15' NW (was Chanchelulla Peak 7.5')	644D	Manzanita Lake	661D	Jellico
616B	Fort Seward	631C	Chanchelulla Peak 15' SW (was Platina 7.5')	645A	Miller Mtn.	662A	Cassel
616C	Harris	631D	Chanchelulla Peak 15' SE (was Beegum 7.5')	645B	Whitmore	662B	Burney
616D	Jewett Rock	632A	Dubakella Mtn. 15' NE (was Wildwood 7.5')	645C	Inwood	662C	Burney Mtn. West
617A	Miranda	632B	Dubakella Mtn. 15' NW (was Dubakella Mtn. 7.5')	645D	Hagaman Gulch	662D	Burney Mtn. East
617B	Ettersburg	632C	Dubakella Mtn. 15' SW (was Smoky Creek 7.5')	646A	Oak Run	663A	Chalk Mtn.
617C	Briceland	632D	Dubakella Mtn. 15' SE (was Pony Buck Peak 7.5')	646B	Bella Vista	663B	Roaring Creek
617D	Garberville	633A	Naufus Creek	646C	Palo Cedro	663C	Montgomery Creek
618A	Honeydew	633B	Sportshaven	646D	Clough Gulch	663D	Hatchet Mtn. Pass
618B	Shubrick Peak	633C	Ruth Reservoir	647A	Project City	664A	Goose Gap
618D	Shelter Cove	633D	Forest Glen	647B	Shasta Dam	664B	Bollibokka Mtn.
619A	Cooskie Creek	634A	Dinsmore	647C	Redding	664C	Minnesota Mtn.
620A	Bull Flat	634B	Larabee Valley	647D	Enterprise	664D	Devils Rock
620B	Little Mud Flat	634C	Blocksburg	648A	Whiskeytown	665A	Hanland Peak
620C	Wendel	634D	Black Lassic	648B	French Gulch	665B	Lamoine
620D	Spencer Creek	635A	Bridgeville	648C	Shasta Bally	665C	Bohemotash Mtn.
621A	Shaffer Mtn.	635B	Redcrest	648D	Igo	665D	O'Brien
621B	Litchfield	635C	Weott	649A	Lewiston	666A	Damnation Peak
621C	Standish	635D	Myers Flat	649B	Weaverville	666B	Trinity Center
621D	Wendel Hot Springs	636A	Scotia	649C	Hoosimbim Mtn.	666C	Papoose Creek
622A	Johnstonville	636B	Taylor Peak	649D	Bully Choop Mtn.	666D	Schell Mtn.
622B	Susanville	636C	Buckeye Mtn.	650A	Junction City	667A	Covington Mill
622C	Diamond Mtn.	636D	Bull Creek	650B	Hayfork Bally	667B	Siligo Peak
622D	Janesville	637A	Capetown	650C	Hayfork	667C	Rush Creek Lakes
623A	Roop Mountain	637B	Cape Mendocino	650D	Hayfork Summit	667D	Trinity Dam
623B	Pegleg Mtn.	637C	Petrolia	651A	Big Bar	668A	Mt. Hilton
623C	Westwood East	638A	Al Shinn Canyon	651B	Hyampom Mtn.	668B	Thurston Peaks
623D	Fredonyer Pass	638B	Shinn Mountain	651C	Hyampom	668C	Helena
624A	Swain Mountain			651D	Halfway Ridge	668D	Dedrick
624B	Red Cinder			652A	Sims Mountain	669A	Jim Jam Ridge
624C	Chester			652B	Board Camp Mtn.	669B	Denny
624D	Westwood West			652C	Showers Mtn.	669C	Ironside Mtn.
				652D	Blake Mountain	669D	Del Loma
				653A	Mad River Buttes	670A	Salyer
				653B	Iaqua Buttes	670B	Willow Creek
				653C	Owl Creek	670C	Grouse Mtn.
				653D	Yager Junction	670D	Hennessy Peak
				654A	McWhinney Creek	671A	Lord-Ellis Summit
				654B	Fields Landing	671B	Blue Lake
				654C	Fortuna	671C	Korbel
				654D	Hydesville	671D	Maple Creek

672A	Arcata North	688C	Panther Creek	705B	Ah Pah Ridge	722B	Cant Hook Mtn.
672B	Tyce City	688D	Hupa Mountain	705C	Holter Ridge	722C	Klamath Glen
672C	Eureka	689A	Rodgers Peak	705D	Johnsons	722D	Summit Valley
672D	Arcata South	689C	Trinidad	706A	Fern Canyon	723A	Childs Hill
673A	Snake Lake	689D	Crannell	706D	Orick	723B	Sister Rocks
673B	Emerson Peak	690A	Hansen Island	707A	Boyd Hot Spring	723D	Requa
673C	Boot Lake	690B	Warren Peak	707B	Lake City	724A	Lake Annie
673D	Little Hat Mtn.	690C	Eagle Peak	707C	Cedarville	724B	Mt. Bidwell
674A	Jess Valley	690D	Eagleville	707D	Leonards Hot Springs	724C	Fort Bidwell
674B	Tule Mountain	691A	Shields Creek	708A	Davis Creek	724D	Larkspur Hills
674C	Madeline	691B	Dorris Reservoir	708B	Lauer Reservoir	725A	Willow Ranch
674D	Cold Spring Mtn.	691C	Little Juniper Reservoir	708C	Surprise	725B	West Of Willow Ranch
675A	Likely	691D	Soup Creek	708D	Payne Peak	725C	McGinty Point
675B	Knox Mountain	692A	Alturas	709A	Dead Horse Reservoir	725D	Sugar Hill
675C	Ash Valley	692B	Rattlesnake Butte	709B	Whittemore Ridge	726A	Pease Flat
675D	Holbrook Canyon	692C	Graven Ridge	709C	Big Sage Reservoir	726B	Beaver Mtn.
676A	Ambrose Valley	692D	Infernal Caverns	709D	Mahogany Ridge	726C	South Mtn.
676B	Adin	693A	Canby	710A	Boles Meadows East	726D	McGinty Reservoir
676C	Letterbox Hill	693B	Washington Mtn.	710B	Boles Meadows West	727A	Weed Valley
676D	Lane Reservoir	693C	Adin Pass	710C	Ambrose	727B	Steele Swamp
677A	Big Swamp	693D	Hermit Butte	710D	Jacks Butte	727C	Pothole Valley
677B	Lookout	694A	Happy Camp Mtn.	711A	Lone Pine Butte	727D	Hager Basin
677C	Bieber	694B	Crank Mountain	711B	Rimrock Lake	728A	Sagebrush Butte
677D	Hog Valley	694C	Donica Mtn.	711C	Spaulding Butte	728B	Carr Butte
678A	Day	694D	Halls Canyon	711D	Knobcone Butte	728C	Double Head Mtn.
678B	Timbered Crater	695A	Hollenbeck	712A	Perez	728D	Pinnacle Lake
678C	Fall River Mills	695B	Border Mtn.	712B	Caldwell Butte	729A	Newell
678D	Pittville	695C	Whitehorse	712C	West Of Kephart	729B	Tulelake
679A	East Of Pondosa	695D	Egg Lake	712D	Kephart	729C	The Panhandle
679B	Pondosa	696A	Porcupine Butte	713A	Schonchin Butte	729D	Copic
679C	Burney Falls	696B	Snag Hill	713B	Bonita Butte	730A	Hatfield
679D	Dana	696C	Hambone	713C	Little Glass Mtn.	730B	Lower Klamath Lake
680A	Dead Horse Summit	696D	Indian Spring Mtn.	713D	Medicine Lake	730C	Mount Dome
680B	Grizzly Peak	697A	Horse Peak	714A	Sharp Mtn.	730D	Captain Jacks Stronghold
680C	Big Bend	697B	Rainbow Mtn.	714B	Bray	731A	Sheepy Lake
680D	Skunk Ridge	697C	Kinyon	714C	Tennant	731B	Dorris
681A	Lake McCloud	697D	Bartle	714D	Garner Mtn.	731C	Sheep Mountain
681B	Girard Ridge	698A	Ash Creek Butte	715A	Penoyar	731D	Red Rock Lakes
681C	Yellowjacket Mtn.	698B	Mt. Shasta	715B	Grass Lake	732A	Sams Neck
681D	Shoehorse Mtn.	698C	McCloud	715C	The Whaleback	732B	Secret Spring Mtn.
682A	Dunsmuir	698D	Elk Spring	715D	West Haight Mtn.	732C	Panther Rock
682B	Seven Lakes Basin	699A	Hotlum	716A	Solomons Temple	732D	Macdoel
682C	Chicken Hawk Hill	699B	Weed	716B	Little Shasta	733A	Copco
682D	Tombstone Mtn.	699C	Mount Eddy	716C	Lake Shastina	733B	Iron Gate Reservoir
683A	Mumbo Basin	699D	City Of Mount Shasta	716D	Juniper Flat	733C	Bogus Mountain
683B	Tangle Blue Lake	700A	China Mtn.	717A	Montague	733D	Dewey Gulch
683C	Carrville	700B	Gazelle Mtn.	717B	Yreka	734A	Hornbrook
683D	Whisky Bill Peak	700C	Scott Mountain	717C	Duzel Rock	734B	Cottonwood Peak
684A	Billys Peak	700D	South China Mtn.	717D	Gazelle	734C	Badger Mtn.
684B	Deadman Peak	701A	McConaughy Gulch	718A	Indian Creek Baldy	734D	Hawkinsville
684C	Caribou Lake	701B	Etna	718B	Russell Peak	735A	Buckhorn Bally
684D	Ycatapom Peak	701C	Eaton Peak	718C	Greenview	735B	Condrey Mtn.
685A	Grasshopper Ridge	701D	Callahan	718D	Fort Jones	735C	Horse Creek
685B	Cecilville	702A	Yellow Dog Peak	719A	Scott Bar	735D	McKinley Mtn.
685C	Cecil Lake	702B	English Peak	719B	Grider Valley	736A	Dutch Creek
685D	Thompson Peak	702C	Sawyers Bar	719C	Marble Mountain	736B	Kangaroo Mtn.
686A	Youngs Peak	702D	Tanners Peak	719D	Boulder Peak	736C	Seiad Valley
686B	Salmon Mtn.	703A	Medicine Mtn.	720A	Huckleberry Mtn.	736D	Hamburg
686C	Trinity Mtn.	703B	Somes Bar	720B	Clear Creek	737A	Figurehead Mtn.
686D	Dees Peak	703C	Orleans Mtn.	720C	Ukonom Mtn.	737B	Deadman Point
687A	Hopkins Butte	703D	Forks Of Salmon	720D	Ukonom Lake	737C	Happy Camp
687B	Weitchpec	704A	Bark Shanty Gulch	721A	Bear Peak	737D	Slater Butte
687C	Hoop	704B	Lonesome Ridge	721B	Prescott Mtn.	738A	Polar Bear Mtn.
687D	Tish Tang Point	704C	Fish Lake	721C	Chimney Rock	738B	Broken Rib Mtn.
688A	French Camp Ridge	704D	Orleans	721D	Dillon Mtn.	738C	Devils Punchbowl
688B	Bald Hills	705A	Blue Creek Mtn.	722A	Ship Mountain	738D	Preston Peak

739A	Shelly Creek Ridge	266A	Antelope Plain	182A	Barstow	164A	Black Mtn.
739B	High Plateau Mtn.	571A	Antelope Valley	182D	Barstow SE	614A	Black Rock Mtn. 15' NE (was Black Rock Mtn. 7.5')
739C	Gasquet	481D	Antioch North	697D	Bartle	614B	Black Rock Mtn. 15' NW (was Swim Ridge 7.5')
739D	Hurdygurdy Butte	464A	Antioch South	329A	Bartlett	614D	Black Rock Mtn. 15' SE (was Wrights Ridge 7.5')
740A	High Divide	278A	Anvil Spring Canyon East	549A	Bartlett Mtn.	614C	Black Rock Mtn. 15' SW (was Four Corners Rock 7.5')
740B	Smith River	278B	Anvil Spring Canyon West	548B	Bartlett Springs	087C	Black Star Canyon
740C	Crescent City	066C	Anza	418C	Bass Lake	067A	Blackburn Canyon
740D	Hiouchi	191D	Apache Canyon	193B	Bates Canyon	395D	Blackcap Mtn.
Quadrangle Names							
373A	Aberdeen	157C	Apple Valley North	319D	Bear Canyon	372B	Blackrock
378A	Academy	132B	Apple Valley South	601B	Bear Harbor	274D	Blackwater Mine
456D	Ackerson Mtn.	012C	Araz	213B	Bear Mountain	233D	Blackwater Well
027C	Acolita	546D	Arbuckle	721A	Bear Peak	266D	Blackwells Corner
609C	Acorn Hollow	672A	Arcata North	507C	Bear River Reservoir	588D	Blairsden
136B	Acton	672D	Arcata South	439D	Bear Valley	652D	Blake Mountain
270A	Adelaida	503B	Arched Rock	346C	Beatty Junction	412B	Blanco Mtn.
158C	Adelanto	422C	Arena	084B	Beaumont	175D	Blind Hills
676B	Adin	097C	Arica Mountains	048B	Beauty Mountain	401C	Bliss Ranch
693C	Adin Pass	076C	Arlington Mine	726B	Beaver Mtn.	634C	Blocksburg
159B	Adobe Mtn.	221A	Arroyo Grande NE	586D	Beckwourth Pass	434C	Bloody Mtn.
516B	Aetna Springs	018B	Arroyo Tapiado	372D	Bee Springs Canyon	611B	Blossom
019A	Agua Caliente Springs	214A	Arvin	607D	Belden	556C	Blue Canyon
137A	Agua Dulce	456C	Ascension Mtn.	600A	Bell Springs	705A	Blue Creek Mtn.
049A	Aguanga	698A	Ash Creek Butte	646B	Bella Vista	671B	Blue Lake
705B	Ah Pah Ridge	153A	Ash Hill	242B	Belridge	027A	Blue Mountain
418D	Ahwahnee	675C	Ash Valley	419C	Ben Hur	589D	Blue Nose Mtn.
281B	Airport Lake	345B	Ashton	238C	Bena	598B	Bluenose Ridge
638A	Al Shinn Canyon	534C	Asti	628C	Bend	058D	Blythe
469D	Alameda Well	183C	Astley Rancho	482C	Benicia	058A	Blythe NE
164B	Alamo Mountain	246B	Atascadero	548D	Benmore Canyon	652B	Board Camp Mtn.
015B	Alamorio	422D	Atwater	450C	Benton	491C	Boards Crossing
069B	Alberhill	397C	Auberry	451D	Benton Hot Springs	554A	Boca
553A	Albion	527A	Auburn	400C	Berenda	503D	Bodega Head
315B	Alcalde Hills	355D	Auckland	575B	Berry Creek	470A	Bodie
296A	Alder Peak	043A	Augustine Pass	111C	Beverly Hills	642C	Bogard Buttes
580B	Alder Springs	509C	Aukum	363C	Bickmore Canyon	733C	Bogus Mountain
616A	Alderpoint	486C	Aurora	677C	Bieber	665C	Bohemotash Mtn.
557A	Alleghany	252C	Avawatz Pass	470B	Big Alkali	322D	Bole Spring
498B	Allendale	461D	Avena	651A	Big Bar	710A	Boles Meadows East
288C	Allensworth	314C	Avenal	408B	Big Basin	710B	Boles Meadows West
606B	Almanor	290C	Avenal Gap	131D	Big Bear City	467B	Bolinas
288B	Alpaugh	060C	Aztec Mines	105B	Big Bear Lake	664B	Bollibokka Mtn.
021D	Alpine	109B	Azusa	680C	Big Bend	004A	Bonds Corner
160B	Alpine Butte	604D	Babcock Peak	535C	Big Foot Mtn.	713B	Bonita Butte
261A	Alta Sierra	068D	Bachelor Mtn.	075A	Big Maria Mts. NE	307D	Bonita Meadows
445B	Altamont	460A	Bachelor Valley	075B	Big Maria Mts. NW	380B	Bonita Ranch
692A	Alturas	734C	Badger Mtn.	075D	Big Maria Mts. SE	388C	Bonnie Claire SW
205D	Alvord Mtn. East	301A	Badwater	075C	Big Maria Mts. SW	050C	Bonsall
205C	Alvord Mtn. West	152C	Bagdad SW	393A	Big Pine	551D	Boonville
494A	Amador City	551B	Bailey Ridge	167B	Big Pine Mtn.	673C	Boot Lake
151C	Amboy	228D	Baker	709C	Big Sage Reservoir	695B	Border Mtn.
152D	Amboy Crater	688B	Bald Hills	344D	Big Sur	209C	Boron
710C	Ambrose	193C	Bald Mountain	677A	Big Swamp	209A	Boron NE
676A	Ambrose Valley	109C	Baldwin Park	560B	Biggs	209B	Boron NW
574A	American House	133B	Baldy Mesa	176C	Bighorn Basin	031B	Borrego Mountain
028D	Amos	597A	Ball Mountain	130D	Bighorn Canyon	031D	Borrego Mountain SE
ANAC	Anacapa Island	302C	Ballarat	684A	Billys Peak	047C	Borrego Palm Canyon
088C	Anaheim	191B	Ballinger Canyon	380D	Biola	032A	Borrego Sink
468B	Anchorite Hills	416B	Balloon Dome	208A	Bird Spring	049C	Boucher Hill
658A	Anderson Mtn.	628B	Balls Ferry	531D	Bird Valley	719D	Boulder Peak
476D	Angels Camp	559B	Bangor	481A	Birds Landing	480D	Bouldin Island
520A	Annapolis	433A	Banner Ridge	413C	Bishop	450D	Boundary Peak
409D	Ano Nuevo	173A	Bannock	186A	Bissell		
604A	Antelope Lake	012D	Bard	204B	Bitter Spring		
641C	Antelope Mtn.	704A	Bark Shanty Gulch	595D	Black Butte Dam		
		608B	Barkley Mtn.	233A	Black Hills		
		009B	Barrett Lake	634D	Black Lassic		

707A	Boyd Hot Spring	013C	Cactus	507A	Caples Lake	624C	Chester
294D	Bradley	305D	Cactus Peak	730D	Captain Jacks Stronghold	343D	Chews Ridge
219A	Branch Mtn.	151D	Cadiz	495A	Carbondale	541B	Chicago Park
016A	Brawley	125C	Cadiz Lake	606C	Caribou	682C	Chicken Hawk Hill
016B	Brawley NW	125A	Cadiz Lake NE	684C	Caribou Lake	332C	Chickencoop Canyon
714B	Bray	125B	Cadiz Lake NW	343B	Carmel Valley	577A	Chico
238A	Breckenridge Mtn.	150C	Cadiz Summit	512D	Carmichael	432C	Chidago Canyon
463B	Brentwood	099A	Cadiz Valley NE	243A	Carneros Rocks	136D	Chilao Flat
617C	Briceland	099B	Cadiz Valley NW	142A	Carpinteria	586C	Chilcoot
487C	Bridgeport	099D	Cadiz Valley SE	728B	Carr Butte	723A	Childs Hill
635A	Bridgeville	099C	Cadiz Valley SW	018D	Carrizo Mtn.	625C	Childs Meadows
465B	Briones Valley	584A	Cahto Peak	018A	Carrizo Mtn. NE	516D	Chiles Valley
126B	Bristol Lake NW	067D	Cahuilla Mtn.	683C	Carrville	218B	Chimineas Ranch
126C	Bristol Lake SW	310B	Cairns Corner	506B	Carson Pass	219C	Chimney Canyon
382D	Broadview Farms	133C	Cajon	521C	Carters Station	721C	Chimney Rock
178C	Broadwell Lake	112B	Calabasas	358D	Caruthers	304A	China Gardens
178A	Broadwell Mesa	491B	Calaveras Dome	433D	Casa Diablo Mtn.	700A	China Mtn.
738B	Broken Rib Mtn.	427A	Calaveras Reservoir	307A	Casa Vieja Meadows	458C	Chinese Camp
515B	Brooks	476A	Calaveritas	574B	Cascade	386A	Chittenden
151B	Brown Buttes	508C	Caldor	397B	Cascadel Point	346B	Chloride City
543B	Browns Valley	712B	Caldwell Butte	332A	Case Mountain	411B	Chocolate Mtn.
496C	Bruceville	220A	Caldwell Mesa	196D	Casmalia	268A	Cholame
575A	Brush Creek	004B	Calexico	662A	Cassel	292C	Cholame Hills
443D	Brush Lake	337D	Calflax	150B	Castle Dome	292D	Cholame Valley
582C	Brushy Mtn.	218D	Caliente Mtn.	224C	Castle Peaks	361B	Chounet Ranch
295D	Bryson	210B	California City North	146C	Castle Rock	401D	Chowchilla
597B	Buck Rock	210C	California City South	408A	Castle Rock Ridge	488B	Chris Flat
636C	Buckeye Mtn.	285B	California Hot Springs	104C	Catclaw Flat	256D	Christmas Canyon
471B	Buckeye Ridge	244D	California Valley	082C	Cathedral City	580A	Chrome
735A	Buckhorn Bally	029C	Calipatria SW (=Westmorland West)	420A	Catheys Valley	365D	Chualar
656D	Buckhorn Canyon	517D	Calistoga	435C	Cattle Mtn.	125D	Chubbuck
656A	Buckhorn Lake	701D	Callahan	204D	Cave Mountain	042B	Chuckwalla Spring
439A	Buckhorn Peak	602A	Calneva Lake	247B	Cayucos	040C	Cibola
438D	Buckingham Mtn.	571B	Calpine	519D	Cazadero	339A	Ciervo Mtn.
590B	Bucks Lake	126A	Calumet Mine	685C	Cecil Lake	201A	Cima
048A	Bucksnot Mtn.	126D	Calumet Mountains	685B	Cecilville	226D	Cima Dome
177D	Budweiser Wash	274B	Calvada Springs	374C	Cedar Grove	236D	Cinco
511C	Buffalo Creek	114A	Camarillo	469A	Cedar Hill	329B	Cirque Peak
636D	Bull Creek	268D	Camatta Canyon	445D	Cedar Mtn.	556D	Cisco Grove
620A	Bull Flat	245A	Camatta Ranch	707C	Cedarville	512A	Citrus Heights
659C	Bullard Lake	271D	Cambria	328D	Centennial Canyon	699D	City Of Mount Shasta
649D	Bully Choop Mtn.	008B	Cameron Corners	442C	Ceres	237A	Claraville
539C	Bunker Hill	509B	Camino	362B	Cerro Colorado	047D	Clark Lake
111A	Burbank	543D	Camp Far West	350D	Cerro Gordo Peak	047A	Clark Lake NE
567B	Burbeck	502B	Camp Meeker	330B	Chagoopa Falls	249D	Clark Mtn.
295C	Burnett Peak	308A	Camp Nelson	432D	Chalfant Valley	100D	Clarks Pass
662B	Burney	155B	Camp Rock Mine	663A	Chalk Mtn.	497A	Clarksburg
679C	Burney Falls	308B	Camp Wishon	558B	Challenge	511A	Clarksville
662D	Burney Mtn. East	593A	Campbell Mound	641B	Champs Flat	495C	Clay
662C	Burney Mtn. West	008C	Campo	631A	Chanchelulla Peak 15' NE (was Arbuckle Mtn. 7.5')	464B	Clayton
163A	Burnt Peak	558A	Camptonville	631B	Chanchelulla Peak 15' NW (was Chanchelulla Peak 7.5')	720B	Clear Creek
336B	Burrel	070D	Canada Gobernadora	631D	Chanchelulla Peak 15' SE (was Beegum 7.5')	533B	Clearlake Highlands
335A	Burris Park	693A	Canby	631C	Chanchelulla Peak 15'SW (was Platina 7.5')	548C	Clearlake Oaks
281D	Burro Canyon	259C	Cane Canyon	361A	Chaney Ranch	658D	Cleghorn Flat
296D	Burro Mountain	284D	Cannell Peak	383A	Charleston School	127D	Cleghorn Lakes
132D	Butler Peak	655A	Cannibal Island	147D	Chemehuevi Peak	478A	Clements
561B	Butte City	112A	Canoga Park	576A	Cherokee	463D	Clifton Court Forebay
608D	Butte Meadows	722B	Cant Hook Mtn.	473C	Cherry Lake North	572A	Clio
066D	Butterfly Peak	235C	Cantil	456B	Cherry Lake South	574C	Clipper Mills
241B	Buttonwillow	360D	Cantua Creek	638D	Cherry Mtn.	646D	Clough Gulch
079D	Buzzard Spring	606A	Canyondam	363B	Cherry Peak	535D	Cloverdale
026A	Buzzards Peak	637B	Cape Mendocino			378C	Clovis
463C	Byron Hot Springs	296B	Cape San Martin			013B	Clyde
084A	Cabazon	499B	Capell Valley			215D	Coal Oil Canyon
661A	Cable Mtn.	637A	Capetown			315A	Coalinga
211B	Cache Peak					164D	Cobblestone Mtn.

592B	Cohasset	206D	Coyote Lake	263A	Deepwell Ranch	632A	Dubakella Mtn. 15' NE (was Wildwood 7.5')
360B	Coit Ranch	006B	Coyote Wells	686D	Dees Peak	632B	Dubakella Mtn. 15' NW (was Dubakella Mtn. 7.5')
612B	Cold Fork	306C	Crag Peak	669D	Del Loma	632D	Dubakella Mtn. 15' SE (was Pony Buck Peak 7.5')
552D	Cold Spring	350A	Craig Canyon	022B	Del Mar	632C	Dubakella Mtn. 15' SW (was Smoky Creek 7.5')
674D	Cold Spring Mtn.	474B	Crandall Peak	162A	Del Sur	446B	Dublin
505D	Coleville	694B	Crank Mountain	287C	Delano East	457A	Duckwall Mtn.
541C	Colfax	689D	Crannell	288D	Delano West	287A	Ducor
047B	Collins Valley	740C	Crescent City	402C	Delta Ranch	290A	Dudley Ridge
526C	Coloma	605C	Crescent Mills	261C	Democrat Hot Springs	010A	Dulzura
175B	Colton Well	224B	Crescent Peak	442D	Denair	251B	Dumont Dunes
475C	Columbia	422B	Cressey	332D	Dennison Peak	540A	Duncan Peak
200C	Columbia Mtn.	269D	Creston	669B	Denny	503A	Duncans Mills
475D	Columbia SE	452C	Crestview	481B	Denverton	471D	Dunderberg Peak
546A	Colusa	404B	Crevison Peak	020D	Descanso	204C	Dunner
568D	Comptche	587B	Crocker Mtn.	248D	Desert	530B	Dunnigan
136C	Condor Peak	565A	Crockett Peak	061B	Desert Center	682A	Dunsmuir
735B	Condrey Mtn.	204A	Cronese Lakes	504D	Desert Creek Peak	045A	Durmid
319C	Cone Peak	412A	Crooked Creek	083A	Desert Hot Springs	045D	Durmid SE
357C	Conejo	236C	Cross Mountain	175A	Desert Spring	307C	Durrwood Creek
079C	Conejo Well	094B	Cross Roads	517A	Detert Reservoir	736A	Dutch Creek
277D	Confidence Hills East	424A	Crows Landing	525A	Devil Peak	541A	Dutch Flat
277C	Confidence Hills West	203C	Crucero Hill	324D	Devils Golf Course	584C	Dutchmans Knoll
215A	Conner	435D	Crystal Crag	164C	Devils Heart Peak	717C	Duzel Rock
215C	Conner SW	135D	Crystal Lake	492B	Devils Nose	431A	Dyer
586A	Constantia	108A	Cucamonga Peak	608C	Devils Parade Ground	232A	Eagle Crags
434D	Convict Lake	233C	Cuddeback Lake	738C	Devils Punchbowl	299A	Eagle Mtn.
487A	Conway Stage Station	190D	Cuddy Valley	664D	Devils Rock	690C	Eagle Peak
473A	Cooper Peak	213D	Cummings Mtn.	324C	Devils Speedway	190B	Eagle Rest Peak
441A	Cooperstown	428D	Cupertino	107B	Devore	690D	Eagleville
619A	Cooskie Creek	315C	Curry Mountain	733D	Dewey Gulch	032C	Earthquake Valley
733A	Copco	483A	Cuttings Wharf	609B	Dewitt Peak	082A	East Deception Canyon
729D	Copic	192A	Cuyama	452D	Dexter Canyon	241C	East Elk Hills
425A	Copper Mtn.	191C	Cuyama Peak	464C	Diablo	027D	East Of Acolita
279C	Copper Queen Canyon	020A	Cuyamaca Peak	622C	Diamond Mtn.	060D	East Of Aztec Mines
459B	Copperopolis	270C	Cypress Mountain	721D	Dillon Mtn.	178D	East Of Broadwell Lake
312D	Corcoran	181C	Daggett	396C	Dinkey Creek	346A	East Of Chloride City
482B	Cordelia	100B	Dale Lake	634A	Dinsmore	100A	East Of Dale Lake
660C	Corders Reservoir	628D	Dales	489B	Disaster Peak	299D	East Of Deadman Pass
061A	Corn Spring	666A	Damnation Peak	587A	Dixie Mountain	323A	East Of Echo Canyon
594B	Corning	679D	Dana	660A	Dixie Peak	231D	East Of Goldstone
087A	Corona North	052B	Dana Point	498A	Dixon	098D	East Of Granite Pass
087D	Corona South	150A	Danby	656B	Dodge Reservoir	199A	East Of Grotto Hills
546C	Cortina Creek	098A	Danby Lake	570D	Dog Valley	198D	East Of Homer Mtn.
318C	Cosio Knob	300B	Dantes View	396A	Dogtooth Peak	391A	East Of Joshua Flats
305C	Coso Junction	490D	Dardanelle	590D	Dogwood Peak	250A	East Of Kingston Peak
304B	Coso Peak	490A	Dardanelles Cone	350C	Dolomite	250D	East Of Kingston Spring
501C	Cotati	327D	Darwin	487D	Dome Hill	205A	East Of Langford Well
629A	Cottonwood	399C	Daulton	338D	Domengine Ranch	253D	East Of Leach Lake
063B	Cottonwood Basin	408C	Davenport	694C	Donica Mtn.	124D	East Of Milligan
348D	Cottonwood Canyon	513C	Davis	490C	Donnell Lake	253A	East Of Owl Lake
734B	Cottonwood Peak	708A	Davis Creek	492D	Dorrington	679A	East Of Pondsosa
063A	Cottonwood Spring	449C	Davis Mountain	731B	Dorris	062D	East Of Red Canyon
131A	Cougar Buttes	678A	Day	691B	Dorris Reservoir	323D	East Of Ryan
439B	Coulterville	367C	Daylight Pass	382B	Dos Palos	348A	East Of Sand Flat
497D	Courtland	709A	Dead Horse Reservoir	143B	Dos Pueblos Canyon	152A	East Of Siberia
395C	Courtright Reservoir	680A	Dead Horse Summit	583A	Dos Rios	369A	East Of Tin Mountain
598C	Covelo East	128A	Deadman Lake NE	728C	Double Head Mtn.	101A	East Of Valley Mtn.
599D	Covelo West	128B	Deadman Lake NW	467E	Double Point	078D	East Of Victory Pass
667A	Covington Mill	128D	Deadman Lake SE	236A	Dove Spring	371A	East Of Waucoba Canyon
226C	Cow Cove	128C	Deadman Lake SW	573D	Downieville	391D	East Of Waucoba Spring
550A	Cow Mountain	299C	Deadman Pass	602D	Doyle	701C	Eaton Peak
202C	Cowhole Mountain	684B	Deadman Peak	498D	Dozier	506D	Ebbetts Pass
392A	Cowhorn Valley	737B	Deadman Point	485C	Drakes Bay		
452A	Cowtrack Mountain	322C	Death Valley Junction	230A	Drinkwater Lake		
078A	Coxcomb Mts.	668D	Dedrick	369D	Dry Bone Canyon		
393B	Coyote Flat	412D	Deep Springs Lake	370A	Dry Mountain		

323B	Echo Canyon	438C	Feliciana Mtn.	586B	Frenchman Lake	664A	Goose Gap
523D	Echo Lake	580C	Felkner Hill	379D	Fresno North	240D	Gosford
239D	Edison	217A	Fellows	358A	Fresno South	334C	Goshen
185B	Edwards	408D	Felton	378B	Friant	156D	Grand View Mine
695D	Egg Lake	174C	Fenner	080B	Fried Liver Wash	539A	Granite Chief
021C	El Cajon	174B	Fenner Hills	044C	Frink	098C	Granite Pass
021A	El Cajon Mtn.	174D	Fenner Spring	044A	Frink NE	227D	Granite Spring
437B	El Capitan	706A	Fern Canyon	044B	Frink NW	556B	Graniteville
085A	El Casco	655D	Ferndale	579C	Fruto	189B	Grapevine
016D	El Centro	603D	Ferris Creek	579A	Fruto NE	368B	Grapevine Peak
159C	El Mirage	510D	Fiddletown	155C	Fry Mountains	715B	Grass Lake
110D	El Monte	654B	Fields Landing	300D	Funeral Peak	542A	Grass Valley
401B	El Nido	132A	Fifteenmile Valley	324A	Furnace Creek	685A	Grasshopper Ridge
234B	El Paso Peaks	168B	Figueroa Mtn.	026C	Gables Wash	658C	Grasshopper Valley
438A	El Portal	737A	Figurehead Mtn.	301C	Galena Canyon	380C	Gravelly Ford
312C	El Rico Ranch	139B	Fillmore	210A	Galileo Hill	692C	Graven Ridge
070B	El Toro	627D	Finley Butte	640C	Gallatin Peak	415B	Graveyard Peak
530D	Eldorado Bend	381C	Firebaugh	496D	Galt	513B	Grays Bend
552B	Elk	381A	Firebaugh NE	154C	Galway Lake	626B	Grays Peak
580D	Elk Creek	418B	Fish Camp	617D	Garberville	002B	Grays Well
496A	Elk Grove	704C	Fish Lake	526D	Garden Valley	002A	Grays Well NE
565C	Elk Mountain	413B	Fish Slough	235A	Garlock	540D	Greek Store
698D	Elk Spring	393D	Fish Springs	714D	Garner Mtn.	273B	Green Monster Mine
217D	Elkhorn Hills	337A	Five Points	492A	Garnet Hill	162C	Green Valley
550C	Elledge Peak	638C	Five Springs	291B	Garza Peak	341C	Greenfield
498C	Elmira	173D	Flattop Mtn.	739C	Gasquet	567C	Greenough Ridge
523A	Emerald Bay	415C	Florence Lake	144B	Gaviota	718C	Greenview
237D	Emerald Mtn.	496B	Florin	717D	Gazelle	605B	Greenville
129B	Emerson Lake	595B	Flournoy	700B	Gazelle Mtn.	300A	Greenwater Canyon
673B	Emerson Peak	511B	Folsom	120C	Gene Wash	526B	Greenwood
325B	Emigrant Canyon	511D	Folsom SE	354B	General Grant Grove	379B	Greeng
266B	Emigrant Hill	107C	Fontana	604C	Genesee Valley	719B	Grider Valley
472B	Emigrant Lake	046C	Fonts Point	526A	Georgetown	560C	Gridley
325C	Emigrant Pass	575D	Forbestown	610C	Gerber	545C	Grimes
036D	Encinitas	060A	Ford Dry Lake	518B	Geyserville	680B	Grizzly Peak
556A	English Mtn.	105C	Forest Falls	354D	Giant Forest	588A	Grizzly Valley
702B	English Peak	633D	Forest Glen	286A	Gibbon Peak	096C	Grommet
647D	Enterprise	541D	Foresthill	564D	Gilmore Peak	347D	Grotto Canyon
277A	Epaulet Peak	703D	Forks Of Salmon	406D	Gilroy	199B	Grotto Hills
460C	Escalon	724C	Fort Bidwell	405C	Gilroy Hot Springs	670C	Grouse Mtn.
035D	Escondido	569A	Fort Bragg	544C	Gilsizer Slough	457C	Groveland
515A	Esparto	230C	Fort Irwin	681B	Girard Ridge	196A	Guadalupe
318D	Espinosa Canyon	718D	Fort Jones	014A	Glamis	537D	Gualala
149B	Essex	492C	Fort Mountain	014B	Glamis NW	108D	Guasti
269A	Estrella	519C	Fort Ross	014D	Glamis SE	536D	Gube Mountain
701B	Etna	616B	Fort Seward	014C	Glamis SW	518C	Guerneville
617B	Ettersburg	654C	Fortuna	532A	Glascok Mtn.	312B	Guernsey
672C	Eureka	594D	Foster Island	177A	Glasgow	314B	Guijarral Hills
537A	Eureka Hill	566B	Foster Mtn.	451C	Glass Mountain	531C	Guinda
570A	Evans Canyon	176A	Fountain Peak	501D	Glen Ellen	423C	Gustine
333C	Exeter	286B	Fountain Springs	109A	Glendora	289D	Hacienda Ranch
426A	Eylar Mtn.	564C	Fouts Springs	578D	Glenn	289A	Hacienda Ranch NE
499D	Fairfield North	192D	Fox Mountain	261B	Glennville	289B	Hacienda Ranch NW
482A	Fairfield South	194C	Foxen Canyon	309D	Globe	199C	Hackberry Mountain
187C	Fairmont Butte	409A	Franklin Point	129D	Goat Mountain	645D	Hagaman Gulch
284B	Fairview	322B	Franklin Well	174A	Goffs	727D	Hager Basin
157D	Fairview Valley	189C	Frazier Mtn.	367D	Gold Center	306A	Haiwee Pass
488C	Fales Hot Springs	309B	Frazier Valley	527B	Gold Hill	305B	Haiwee Reservoirs
368C	Fall Canyon	623D	Fredonyer Pass	572B	Gold Lake	601D	Hales Grove
678C	Fall River Mills	640A	Fredonyer Peak	389A	Gold Mountain	437A	Half Dome
051A	Fallbrook	522C	Freel Peak	300C	Gold Valley	429B	Half Moon Bay
454B	Falls Ridge	258C	Freeman Junction	231C	Goldstone	651D	Halfway Ridge
263C	Famoso	208B	Fremont Peak	143A	Goleta	596C	Hall Ridge
FARA	Farallon Islands	688A	French Camp Ridge	364C	Gonzales	227C	Halloran Springs
460B	Farmington	558C	French Corral	573C	Goodyears Bar	694D	Halls Canyon
131C	Fawnskin	648B	French Gulch	495D	Goose Creek	696C	Hambone

736D	Hamburg	740D	Hiouchi	066B	Idyllwild	705D	Johnsons
294B	Hames Valley	554B	Hobart Mills	648D	Igo	622A	Johnstonville
578A	Hamilton City	307B	Hockett Peak	420D	Illinois Hill	588C	Johnsville
576B	Hamlin Canyon	182C	Hodge	011D	Imperial Beach	295B	Jolon
432B	Hammil Valley	677D	Hog Valley	011E	Imperial Reservoir	607C	Jonesville
382C	Hammonds Ranch	661B	Hogback Ridge	007A	In-ko-pah Gorge	225C	Joshua
301B	Hanaupah Canyon	675D	Holbrook Canyon	076D	Inca	391B	Joshua Flats
335C	Hanford	267C	Holland Canyon	372C	Independence	103A	Joshua Tree North
390B	Hanging Rock Canyon	695A	Hollenbeck	555A	Independence Lake	103D	Joshua Tree South
665A	Hanland Peak	385C	Hollister	102C	Indian Cove	033D	Julian
690A	Hansen Island	111D	Hollywood	718A	Indian Creek Baldy	579B	Julian Rocks
737C	Happy Camp	462B	Holt	430C	Indian Garden Creek	650A	Junction City
694A	Happy Camp Mtn.	705C	Holter Ridge	420B	Indian Gulch	453D	June Lake
031C	Harper Canyon	015D	Holtville East	451B	Indian Meadows	716D	Juniper Flat
030C	Harpers Well	015A	Holtville NE	202A	Indian Spring	135B	Juniper Hills
616C	Harris	015C	Holtville West	696D	Indian Spring Mtn.	198A	Juniper Mine
348C	Harris Hill	173B	Homer	064B	Indio	431B	Juniper Mtn.
337C	Harris Ranch	198C	Homer Mtn.	692D	Infernal Caverns	657A	Juniper Ridge
106B	Harrison Mtn.	538C	Homewood	585D	Inglenuok	319B	Junipero Serra Peak
224D	Hart Peak	280B	Homewood Canyon	090A	Inglewood	416C	Kaiser Peak
180B	Harvard Hill	560D	Honcut	403B	Ingomar	030D	Kane Spring
642A	Harvey Mtn.	618A	Honeydew	627C	Inskip Hill	030A	Kane Spring NE
590C	Haskins Valley	481C	Honker Bay	485D	Inverness	030B	Kane Spring NW
423B	Hatch	629D	Hooker	645C	Inwood	736B	Kangaroo Mtn.
663D	Hatchet Mtn. Pass	687C	Hoopa	258A	Inyokern	639D	Karlo
730A	Hatfield	649C	Hoosimbim Mtn.	258D	Inyokern SE	332B	Kaweah
121B	Havasu Lake	687A	Hopkins Butte	494C	Ione	358B	Kearney Park
734D	Hawkinsville	059C	Hopkins Well	028B	Iris	373D	Kearsarge Peak
201D	Hayden	535A	Hopland	043B	Iris Pass	328A	Keeler
062B	Hayfield	224A	Hopps Well	043C	Iris Wash	213A	Keene
062A	Hayfield Spring	097A	Horn Spring	494B	Irish Hill	106A	Keller Peak
650C	Hayfork	734A	Hornbrook	733B	Iron Gate Reservoir	534A	Kelseyville
650B	Hayfork Bally	439C	Hornitos	098B	Iron Mountains	201C	Kelso
650D	Hayfork Summit	259D	Horse Canyon	599C	Iron Peak	176B	Kelso Dunes
572D	Haypress Valley	735C	Horse Creek	155D	Iron Ridge	501A	Kenwood
421A	Haystack Mtn.	697A	Horse Peak	669C	Ironside Mtn.	712D	Kephart
447A	Hayward	411D	Horse Thief Canyon	426D	Isabel Valley	359A	Kerman
518D	Healdsburg	274C	Horse Thief Springs	609D	Ishi Caves	330C	Kern Lake
005A	Heber	419D	Horsecamp Mountain	480A	Isleton	330D	Kern Peak
179C	Hector	048D	Hot Springs Mtn.	333B	Ivanhoe	284C	Kernville
013A	Hedges	699A	Hotlum	225D	Ivanpah	604B	Kettle Rock
505B	Heenan Lake	548A	Hough Springs	248C	Ivanpah Lake	313C	Kettleman City
668C	Helena	404A	Howard Ranch	349D	Jackass Canyon	291A	Kettleman Plain
158A	Helendale	220D	Huasna Peak	184C	Jackrabbit Hill	081B	Keys View
359D	Helm	720A	Huckleberry Mtn.	644B	Jacks Backbone	459D	Keystone
067B	Hemet	474D	Hull Creek	710D	Jacks Butte	473D	Kibbie Lake
595A	Henleyville	581C	Hull Mountain	494D	Jackson	591B	KimsheW Point
670D	Hennessy Peak	607B	Humboldt Peak	007B	Jacumba	538A	Kings Beach
340D	Hepsedam Peak	101D	Humbug Mountain	302B	Jail Canyon	250B	Kingston Peak
602B	Herlong	607A	Humbug Valley	359B	Jamesan	250C	Kingston Spring
693D	Hermit Butte	375C	Hume	582B	Jamison Ridge	438B	Kinsley
340A	Hernandez Reservoir	377B	Humphreys Station	010B	Jamul Mountains	697C	Kinyon
379C	Herndon	448A	Hunters Point	622D	Janesville	530A	Kirkville
133A	Hesperia	396B	Huntington Lake	457D	Jawbone Ridge	594C	Kirkwood
455B	Hetch Hetchy Reservoir	468D	Huntoon Spring	661D	Jellico	469B	Kirkwood Spring
160A	Hi Vista	688D	Hupa Mountain	477D	Jenny Lind	400D	Kismet
129A	Hidalgo Mtn.	739D	Hurdygurdy Butte	532C	Jericho Valley	722C	Klamath Glen
254B	Hidden Spring	314A	Huron	480C	Jersey Island	234A	Klinker Mtn.
179A	Hidden Valley East	193D	Hurricane Deck	674A	Jess Valley	581D	Kneecap Ridge
179B	Hidden Valley West	651C	Hyampom	616D	Jewett Rock	459C	Knights Ferry
740A	High Divide	651B	Hyampom Mtn.	669A	Jim Jam Ridge	529C	Knights Landing
321C	High Peak	654D	Hydesville	518A	Jimtown	262C	Knob Hill
739B	High Plateau Mtn.	653B	Iaqua Buttes	338C	Joaquin Rocks	711D	Knobcone Butte
534B	Highland Springs	276D	Ibex Pass	234C	Johannesburg	399A	Knowles
167D	Hildreth Peak	276C	Ibex Spring	330A	Johnson Peak	675B	Knox Mountain
182B	Hinkley	339B	Idria	285A	Johnsondale	532D	Knoxville

453C	Koip Peak	567D	Laughlin Range	165A	Lockwood Valley	357B	Malaga
671C	Korbel	407C	Laurel	353C	Lodgepole	081A	Malapai Hill
183B	Kramer Hills	154A	Lavic Lake	479A	Lodi North	112C	Malibu Beach
184A	Kramer Junction	154D	Lavic SE	479D	Lodi South	552C	Mallo Pass Creek
315D	Kreyenhagen Hills	413A	Laws	563C	Lodoga	435A	Mammoth Mtn.
524D	Kyburz	255B	Layton Spring	597D	Log Spring	417D	Mammoth Pool Dam
314D	La Cima	583B	Laytonville	563A	Logan Ridge	027B	Mammoth Wash
446D	La Costa Valley	400B	Le Grand	562B	Logandale	180A	Manix
440B	La Grange	253C	Leach Lake	242A	Lokern	279B	Manly Fall
088B	La Habra	254D	Leach Spring	407D	Loma Prieta	279A	Manly Peak
429D	La Honda	127B	Lead Mountain	559C	Loma Rica	547A	Manor Slough
022C	La Jolla	127C	Lead Mountain SW	170B	Lompoc	461C	Manteca
188C	La Liebre Ranch	127A	Lead Mtn. NE	170C	Lompoc Hills	627A	Manton
022D	La Mesa	189D	Lebec	257A	Lone Butte	351B	Manzanar
244C	La Panza	453A	Lee Vining	351D	Lone Pine	644D	Manzanita Lake
244A	La Panza NE	327A	Lee Wash	711A	Lone Pine Butte	194A	Manzanita Mtn.
244B	La Panza Ranch	598A	Leech Lake Mtn.	444C	Lone Tree Creek	671D	Maple Creek
058E	La Paz Mtn.	508A	Leek Spring Hill	289C	Lone Tree Well	719C	Marble Mountain
573B	La Porte	345D	Leeland	704B	Lonesome Ridge	483D	Mare Island
065A	La Quinta	345C	Lees Camp	089C	Long Beach	051B	Margarita Peak
071D	Laguna Beach	547B	Leesville	306D	Long Canyon	216C	Maricopa
011F	Laguna Dam	600C	Leggett	504B	Long Dry Canyon	366A	Marina
383D	Laguna Seca Ranch	336D	Lemoore	615D	Long Ridge	374A	Marion Peak
724A	Lake Annie	707D	Leonards Hot Springs	583C	Longvale	419B	Mariposa
132C	Lake Arrowhead	676C	Letterbox Hill	340C	Lonoak	437D	Mariposa Grove
515C	Lake Berryessa	184B	Leuhman Ridge	677B	Lookout	384B	Mariposa Peak
168C	Lake Cachuma	360C	Levis	524A	Loon Lake	517C	Mark West Springs
707B	Lake City	649A	Lewiston	246D	Lopez Mtn.	506A	Markleeville
542D	Lake Combie	491D	Liberty Hill	320D	Lopez Point	201B	Marl Mountains
456A	Lake Eleanor	497C	Liberty Island	237C	Loraine	065D	Martinez Mtn.
069A	Lake Elsinore	426C	Lick Observatory	671A	Lord-Ellis Summit	123C	Martins Well
084D	Lake Fulmor	163B	Liebre Mtn.	089D	Los Alamitos	554D	Martis Peak
121A	Lake Havasu City South	188A	Liebre Twins	170A	Los Alamos	568C	Mathison Peak
162B	Lake Hughes	675A	Likely	110C	Los Angeles	141A	Matilija
260B	Lake Isabella North	338B	Lillis Ranch	403D	Los Banos	471C	Matterhorn Peak
260C	Lake Isabella South	270B	Lime Mountain	384A	Los Banos Valley	303C	Maturango Peak
086C	Lake Mathews	528A	Lincoln	407B	Los Gatos	303A	Maturango Peak NE
681A	Lake McCloud	584B	Lincoln Ridge	219B	Los Machos Hills	303D	Maturango Peak SE
615C	Lake Mountain	478D	Linden	610D	Los Molinos	562C	Maxwell
565B	Lake Pillsbury	310A	Lindsay	169A	Los Olivos	372A	Mazourka Peak
716C	Lake Shastina	165C	Lion Canyon	290B	Los Viejos	698C	McCloud
549C	Lakeport	043D	Lion Head Mtn.	489A	Lost Cannon Peak	701A	McConaughy Gulch
085D	Lakeview	621B	Litchfield	265C	Lost Hills	059A	McCoy Peak
665B	Lamoine	187D	Little Buttes	265A	Lost Hills NE	059B	McCoy Spring
239C	Lamont	042A	Little Chuckwalla Mts.	265B	Lost Hills NW	058B	McCoy Wash
283D	Lamont Peak	713C	Little Glass Mtn.	304D	Louisiana Butte	657B	McDonald Peak
161A	Lancaster East	673D	Little Hat Mtn.	160D	Lovejoy Buttes	263B	McFarland
161B	Lancaster West	691C	Little Juniper Reservoir	730B	Lower Klamath Lake	725C	McGinty Point
129C	Landers	282B	Little Lake	533A	Lower Lake	726D	McGinty Reservoir
206C	Lane Mountain	076B	Little Maria Mts.	371D	Lower Warm Springs	536C	McGuire Ridge
676D	Lane Reservoir	620B	Little Mud Flat	612D	Lowrey	602C	McKesick Peak
379A	Lanes Bridge	042D	Little Mule Mts.	570B	Loyalton	735D	McKinley Mtn.
205B	Langford Well	012A	Little Picacho Peak	549D	Lucerne	243D	McKittrick Summit
634B	Larabee Valley	167C	Little Pine Mtn.	131B	Lucerne Valley	654A	McWhinney Creek
724D	Larkspur Hills	149A	Little Piute Mountains	376C	Luckett Mtn.	590A	Meadow Valley
051C	Las Pulgas Canyon	716B	Little Shasta	153B	Ludlow	064D	Mecca
465D	Las Trampas Ridge	417B	Little Shuteye Peak	153D	Ludlow SE	713D	Medicine Lake
243B	Las Yeguas Ranch	399D	Little Table Mtn.	470C	Lundy	703A	Medicine Mtn.
626A	Lassen Peak	660B	Little Valley	626C	Lyonsville	538D	Meeks Bay
410C	Last Chance Mtn.	160C	Littlerock	732D	Macdoel	130A	Melville Lake
390D	Last Chance Range SE	008A	Live Oak Springs	653A	Mad River Buttes	445C	Mendenhall Springs
390C	Last Chance Range SW	446A	Livermore	674C	Madeline	569D	Mendocino
462D	Lathrop	362C	Llanada	380A	Madera	597C	Mendocino Pass
335B	Laton	577C	Llano Seco	514B	Madison	381D	Mendota Dam
510C	Latrobe	478B	Lockeford	167A	Madulce Peak	421C	Merced
708B	Lauer Reservoir	208D	Lockhart	709D	Mahogany Ridge	440D	Merced Falls

436B	Merced Peak	153C	Morgans Well	354A	Muir Grove	460D	Oakdale
362A	Mercy Hot Springs	301D	Mormon Point	040A	Mule Wash	465C	Oakland East
545B	Meridian	104D	Morong Valley	683A	Mumbo Basin	466D	Oakland West
514D	Merritt	247A	Morro Bay North	661C	Murken Bench	046A	Oasis
034A	Mesa Grande	247D	Morro Bay South	475B	Murphys	138D	Oat Mountain
134B	Mescal Creek	051D	Morro Hill	068C	Murrieta	656C	Observation Peak
226A	Mescal Range	063C	Mortmar	397A	Musick Mtn.	029B	Obsidian Butte
347B	Mesquite Flat	331C	Moses Mtn.	405A	Mustang Peak	221D	Oceano
249A	Mesquite Lake	387D	Moss Landing	635D	Myers Flat	036B	Oceanside
249B	Mesquite Mountains	562D	Moulton Weir	082D	Myoma	013D	Ogilby
214C	Mettler	297C	Mound Spring	500D	Napa	239B	Oil Center
540C	Michigan Bluff	453B	Mount Dana	011A	National City	240A	Oildale
200B	Mid Hills	730C	Mount Dome	365A	Natividad	238D	Oiler Peak
533D	Middletown	699C	Mount Eddy	317B	Natgrass Valley	140B	Ojai
445A	Midway	364D	Mount Johnson	633A	Naufus Creek	329D	Olancha
003A	Midway Well	019C	Mount Laguna	552A	Navarro	202D	Old Dad Mtn.
003B	Midway Well NW	134C	Mount San Antonio	181B	Nebo	252B	Old Ibex Pass
603A	Milford	005B	Mount Signal	172D	Needles	434B	Old Mammoth
645A	Miller Mtn.	517B	Mount St. Helena	172B	Needles NW	166C	Old Man Mountain
398D	Millerton Lake East	414C	Mount Tom	172C	Needles SW	643B	Old Station
398C	Millerton Lake West	352D	Mount Whitney	188D	Neenach School	130B	Old Woman Springs
124C	Milligan	281A	Mountain Springs Canyon	470D	Negit Island	149C	Old Woman Statue
215B	Millux	428A	Mountain View	577D	Nelson	629B	Olinda
427B	Milpitas	216A	Mouth Of Kern (=Buena Vista Lake Bed)	231A	Nelson Lake	544D	Olivehurst
599A	Mina	415A	Mt. Abbot	396D	Nelson Mtn.	509D	Omo Ranch
428C	Mindego Hill	238B	Mt. Adelaide	349C	Nelson Range	608A	Onion Butte
522A	Minden	108B	Mt. Baldy	558D	Nevada City	589C	Onion Valley
626D	Mineral	431C	Mt. Barcroft	346D	Nevares Peak	630A	Ono 15' NE (was Ono 7.5')
225B	Mineral Hill	026B	Mt. Barrow	192B	New Cuyama	630B	Ono 15' NW (was Tar Bully 7.5')
331A	Mineral King	724B	Mt. Bidwell	100C	New Dale	630D	Ono 15' SE (was Rosewood 7.5')
181D	Minneola	425B	Mt. Boardman	459A	New Melones Dam	630C	Ono 15' SW (was Chickabally Mtn. 7.5')
664C	Minnesota Mtn.	352B	Mt. Brewer	350B	New York Butte	108C	Ontario
137B	Mint Canyon	344A	Mt. Carmel	447D	Newark	259B	Onyx
261D	Miracle Hot Springs	373C	Mt. Clarence King	180C	Newberry Springs	104B	Onyx Peak
355A	Miramonte	394B	Mt. Darwin	113B	Newbury Park	207B	Opal Mountain
617A	Miranda	426B	Mt. Day	729A	Newell	088D	Orange
219D	Miranda Pine Mtn.	573A	Mt. Fillmore	138A	Newhall	356A	Orange Cove North
405B	Mississippi Creek	499C	Mt. George	598D	Newhouse Ridge	356D	Orange Cove South
601C	Mistake Point	416D	Mt. Givens	424D	Newman	267B	Orchard Peak
629C	Mitchell Gulch	394C	Mt. Goddard	071B	Newport Beach	195C	Orcutt
458D	Moccasin	625A	Mt. Harkness	596D	Newville	577B	Ord Ferry
123A	Mohawk Spring	364B	Mt. Harlan	529A	Nicolaus	156A	Ord Mountain
211C	Mojave	395A	Mt. Henry	029A	Niland	559D	Oregon House
211A	Mojave NE	415D	Mt. Hilgard	446C	Niles	424C	Orestimba Peak
493C	Mokelumne Hill	668A	Mt. Hilton	282C	Ninemile Canyon	706D	Orick
507D	Mokelumne Peak	588B	Mt. Ingalls	220C	Nipomo	578B	Orland
306B	Monache Mountain	488D	Mt. Jackson	225A	Nipton	704D	Orleans
317A	Monarch Peak	352C	Mt. Kaweah	600B	Noble Butte	703C	Orleans Mtn.
452B	Mono Mills	351C	Mt. Langley	298D	Nopah Peak	536A	Ornbaun Valley
361D	Monocline Ridge	436A	Mt. Lyell	593C	Nord	063D	Orocopia Canyon
212D	Monolith	406C	Mt. Madonna	555D	Norden	576D	Oroville
334A	Monson	197C	Mt. Manchester	557C	North Bloomfield	575C	Oroville Dam
717A	Montague	414B	Mt. Morgan	341B	North Chalone Peak	551A	Orrs Springs
448C	Montara Mountain	488A	Mt. Patterson	210D	North Edwards	383C	Ortigalita Peak
366C	Monterey	373B	Mt. Pinchot	398A	North Fork	383B	Ortigalita Peak NW
663C	Montgomery Creek	435B	Mt. Ritter	228A	North Of Baker	010C	Otay Mesa
515D	Monticello Dam	698B	Mt. Shasta	263D	North Of Oildale	010D	Otay Mountain
441C	Montpelier	353B	Mt. Silliman	275A	North Of Tecopa Pass	328B	Owens Lake
019B	Monument Peak	406A	Mt. Sizer	394D	North Palisade	258B	Owens Peak
147B	Monumental Pass	425C	Mt. Stakes	568A	Northspur	420C	Owens Reservoir
605A	Moonlight Peak	394A	Mt. Thompson	326D	Nova Canyon	653C	Owl Creek
105A	Moonridge	499A	Mt. Vaca	484D	Novato	253B	Owl Lake
139C	Moorpark	352A	Mt. Williamson	568B	Noyo Hill		
123D	Mopah Peaks	110A	Mt. Wilson	665D	O'Brien		
009A	Morena Reservoir	207D	Mud Hills	398B	O'Neals		
406B	Morgan Hill			646A	Oak Run		

382A	Oxalis	561D	Pennington	113D	Point Dume	611C	Red Bank
612A	Oxbow Bridge	440A	Penon Blanco Peak	011B	Point Loma	610B	Red Bluff East
114B	Oxnard	715A	Penoyar	114D	Point Mugu	611A	Red Bluff West
249C	Pachalka Spring	216D	Pentland	485A	Point Reyes NE	184D	Red Buttes
404C	Pacheco Pass	712A	Perez	196B	Point Sal	062C	Red Canyon
405D	Pacheco Peak	085C	Perris	344C	Point Sur	624B	Red Cinder
506C	Pacific Valley	484B	Petaluma	642B	Poison Lake	061C	Red Cloud Canyon
136A	Pacifico Mountain	483C	Petaluma Point	738A	Polar Bear Mtn.	234D	Red Mountain
267D	Packwood Creek	484A	Petaluma River	413D	Poleta Canyon	229D	Red Pass Lake
364A	Paicines	461A	Peters	525D	Pollack Pines	229A	Red Pass Lake NE
311B	Paige	639C	Petes Valley	264A	Pond	229B	Red Pass Lake NW
017C	Painted Gorge	304C	Petroglyph Canyon	679B	Pondosa	731D	Red Rock Lakes
218A	Painted Rock	637D	Petrolia	696A	Porcupine Butte	635B	Redcrest
149D	Painted Rock Wash	320E	Pfeiffer Point	080D	Porcupine Wash	647C	Redding
050D	Pala	134A	Phelan	222A	Port San Luis	106C	Redlands
077C	Palen Lake	551C	Philo	310D	Porterville	185C	Redman
077D	Palen Mountains	025D	Picacho	587C	Portola	090C	Redondo Beach
077A	Palen Pass	025B	Picacho NW	285C	Posey	447C	Redwood Point
560A	Palermo	012B	Picacho Peak	381B	Poso Farm	566C	Redwood Valley
083D	Palm Springs	025C	Picacho SW	074B	Poston	356C	Reedley
066A	Palm View Peak	489D	Pickel Meadow	565D	Potato Hill	319A	Reliz Canyon
161D	Palmdale	271C	Pico Creek	727C	Pothole Valley	335D	Remnony
428B	Palo Alto	377C	Piedra	009D	Potrero	723D	Requa
646C	Palo Cedro	272A	Piedras Blancas	566D	Potter Valley	275B	Resting Spring
342B	Palo Escrito Peak	601A	Piercy	022A	Poway	303B	Revenue Canyon
040B	Palo Verde	409B	Pigeon Point	245D	Pozo Summit	242C	Reward
041D	Palo Verde Peak	557B	Pike	087B	Prado Dam	166A	Reyes Peak
049D	Palomar Observatory	641D	Pikes Point	721B	Prescott Mtn.	097D	Rice
302D	Panamint	527D	Pilot Hill	738D	Preston Peak	593D	Richardson Springs
326A	Panamint Butte	232B	Pilot Knob	316B	Priest Valley	593B	Richardson Springs NW
326C	Panamint Springs	255D	Pilot Knob Valley East	562A	Princeton	287D	Richgrove
317D	Pancho Rico Valley	255C	Pilot Knob Valley West	647A	Project City	466A	Richmond
362D	Panoche	061D	Pilot Mountain	643D	Prospect Peak	257B	Ridgecrest North
363A	Panoche Pass	341D	Pinalito Canyon	386C	Prunedale	257C	Ridgecrest South
217B	Panorama Hills	642D	Pine Creek Valley	591C	Pulga	596B	Riley Ridge
688C	Panther Creek	377D	Pine Flat Dam	550D	Purdys Gardens	104A	Rimrock
732C	Panther Rock	493B	Pine Grove	291D	Pyramid Hills	711B	Rimrock Lake
609A	Panther Spring	262D	Pine Mountain	523C	Pyramid Peak	241A	Rio Bravo
666C	Papoose Creek	473B	Pinecrest	254A	Quail Spring	239A	Rio Bravo Ranch
592D	Paradise East	728D	Pinnacle Lake	026D	Quartz Peak	512B	Rio Linda
206A	Paradise Range	080A	Pinto Mountain	102D	Queen Mtn.	480B	Rio Vista
592C	Paradise West	200A	Pinto Valley	384C	Quien Sabe Valley	058C	Ripley
342D	Paraiso Springs	078B	Pinto Wells	589B	Quincy	443B	Ripon
095A	Parker	236B	Pinyon Mtn.	286C	Quincy School	504C	Risue Canyon
095B	Parker NW	139A	Piru	331D	Quinn Peak	161C	Ritter Ridge
095D	Parker SE	221B	Pismo Beach	046B	Rabbit Peak	451A	River Spring
095C	Parker SW	141C	Pitas Point	559A	Rackerby	442B	Riverbank
292B	Parkfield	678D	Pittville	612C	Raglin Ridge	336A	Riverdale
320B	Partington Ridge	472D	Piute Mtn.	563B	Rail Canyon	086A	Riverside East
110B	Pasadena	237B	Piute Peak	493D	Rail Road Flat	086B	Riverside West
596A	Paskenta	288A	Pixley	697B	Rainbow Mtn.	524C	Riverton
269B	Paso Robles	079A	Placer Canyon	358C	Raisin	663B	Roaring Creek
189A	Pastoria Creek	510A	Placerville	034D	Ramona	524B	Robbs Peak
371C	Pat Keyes Canyon	401A	Plainsburg	343A	Rana Creek	340B	Rock Spring Peak
424B	Patterson	421D	Planada	033A	Ranchita	523B	Rockbound Valley
376A	Patterson Mtn.	520D	Plantation	293D	Ranchito Canyon	283B	Rockhouse Basin
441B	Paulsell	581A	Plaskett Meadows	065B	Rancho Mirage	081D	Rockhouse Canyon
708D	Payne Peak	581B	Plaskett Ridge	166B	Rancho Nuevo Creek	527C	Rocklin
193A	Peak Mountain	017D	Plaster City	035C	Rancho Santa Fe	333D	Rocky Hill
282D	Pearsonville	017B	Plaster City NW	692B	Rattlesnake Butte	689A	Rodgers Peak
726A	Pease Flat	528C	Pleasant Grove	130C	Rattlesnake Canyon	034B	Rodriguez Mtn.
271A	Pebblestone Shut-in	190A	Pleito Hills	657D	Ravendale	185A	Rogers Lake North
050A	Pechanga	537B	Point Arena	399B	Raymond	185D	Rogers Lake South
508D	Peddler Hill	171C	Point Arguello	400A	Raynor Creek	068B	Romoland
623B	Pegleg Mtn.	467D	Point Bonita	625B	Reading Peak	623A	Roop Mountain
042C	Pegleg Well	145B	Point Conception	587D	Reconnaissance Peak	059D	Roosevelt Mine

186C	Rosamond	386D	San Juan Bautista	537C	Saunders Reef	652C	Showers Mtn.
186D	Rosamond Lake	070C	San Juan Capistrano	287B	Sausalito School	618B	Shubrick Peak
240B	Rosedale	447B	San Leandro	122D	Savahia Peak	417C	Shuteye Peak
528D	Roseville	318A	San Lucas	122A	Savahia Peak NE	152B	Siberia
542B	Rough And Ready	404D	San Luis Dam	122B	Savahia Peak NW	060B	Sidewinder Well
375B	Rough Spur	246C	San Luis Obispo	122C	Savahia Peak SW	572C	Sierra City
378D	Round Mountain	403A	San Luis Ranch	190C	Sawmill Mountain	571D	Sierraville
414A	Rovana	036A	San Luis Rey	267A	Sawtooth Ridge	199D	Signal Hill
539B	Royal Gorge	035B	San Marcos	702C	Sawyers Bar	667B	Siligo Peak
384D	Ruby Canyon	168D	San Marcos Pass	497B	Saxon	251D	Silurian Hills
531B	Rumsey	448D	San Mateo	666D	Schell Mtn.	251C	Silurian Lake
667C	Rush Creek Lakes	293C	San Miguel	713A	Schonchin Butte	228B	Silurian Valley
718B	Russell Peak	SMIE	San Miguel Island East	636A	Scotia	659B	Silva Flat Reservoir
633C	Ruth Reservoir	SMIW	San Miguel Island West	719A	Scott Bar	155A	Silver Bell Mine
500B	Rutherford	SNIC	San Nicolas Island	700C	Scott Mountain	331B	Silver City
323C	Ryan	052D	San Onofre Bluff	389D	Scottys Castle	133D	Silverwood Lake
097B	Sablon	034C	San Pasqual	072A	Seal Beach	139D	Simi (= Simi Valley West)
283A	Sacatar Canyon	073A	San Pedro	256A	Searles Lake	243C	Simmler
145A	Sacate	466B	San Quentin	483B	Sears Point	652A	Sims Mountain
376B	Sacate Ridge	467A	San Rafael	366D	Seaside	436C	Sing Peak
512C	Sacramento East	168A	San Rafael Mtn.	502A	Sebastopol	284A	Sirretta Peak
513D	Sacramento West	271B	San Simeon	732B	Secret Spring Mtn.	195D	Sisquoc
252A	Saddle Peak Hills	021B	San Vicente Reservoir	016C	Seeley	723B	Sister Rocks
209D	Saddleback Mtn.	211D	Sanborn	595C	Sehorn Creek	563D	Sites
067C	Sage	561C	Sanborn Slough	736C	Seiad Valley	069C	Sitton Peak
728A	Sagebrush Butte	262B	Sand Canyon	357D	Selma	298A	Sixmile Spring
659A	Said Valley	348B	Sand Flat	265D	Semitropic	150D	Skeleton Pass
443A	Salida	390A	Sand Spring	308D	Sentinel Peak	680D	Skunk Ridge
365B	Salinas	402A	Sandy Mush	682B	Seven Lakes Basin	316C	Slack Canyon
370B	Saline Peak	357A	Sanger	082B	Seven Palms Valley	525C	Slate Mtn.
192C	Salisbury Potrero	582D	Sanhedrin Mtn.	046D	Seventeen Palms	280A	Slate Range Crossing
686B	Salmon Mtn.	142B	Santa Barbara	202B	Seventeenmile Point	737D	Slater Butte
276B	Salsberry Peak	SBRA	Santa Barbara Island	354C	Shadequarter Mtn.	179D	Sleeping Beauty
547D	Salt Canyon	SCTE	Santa Catalina East	159A	Shadow Mountains	162D	Sleepy Valley
476C	Salt Spring Valley	SCTN	Santa Catalina North	159D	Shadow Mountains SE	374B	Slide Bluffs
235B	Saltdale NW	SCTS	Santa Catalina South	621A	Shaffer Mtn.	232C	Slocum Mtn.
235D	Saltdale SE	SCTW	Santa Catalina West	266C	Shale Point	495B	Sloughhouse
045B	Salton	387E	Santa Cruz	268B	Shandon	509A	Sly Park
670A	Salyer	SCZA	Santa Cruz Island A	615A	Shannon Butte	543A	Smartville
732A	Sams Neck	SCZB	Santa Cruz Island B	416A	Sharktooth Peak	316D	Smith Mountain
476B	San Andreas	SCZC	Santa Cruz Island C	714A	Sharp Mtn.	740B	Smith River
317C	San Ardo	SCZD	Santa Cruz Island D	648C	Shasta Bally	696B	Snag Hill
363D	San Benito	246A	Santa Margarita	647B	Shasta Dam	147C	Snaggletooth
339C	San Benito Mtn.	245C	Santa Margarita Lake	397D	Shaver Lake	673A	Snake Lake
107A	San Bernardino North	195B	Santa Maria	268C	Shedd Canyon	440C	Snelling
107D	San Bernardino South	140D	Santa Paula	124B	Sheep Camp Spring	639A	Snowstorm Mtn.
079B	San Bernardino Wash	140A	Santa Paula Peak	252D	Sheep Creek Spring	591D	Soapstone Hill
052A	San Clemente	402D	Santa Rita Bridge	731C	Sheep Mountain	344B	Soberanes Point
SCMC	San Clemente Island	339D	Santa Rita Peak	659D	Sheepshead	203A	Soda Lake North
	Central	501B	Santa Rosa	731A	Sheepy Lake	203D	Soda Lake South
SCMN	San Clemente Island North	327B	Santa Rosa Flat	031A	Shell Reef	555C	Soda Springs
SCMS	San Clemente Island South	170D	Santa Rosa Hills	739A	Shelly Creek Ridge	411C	Soldier Pass
109D	San Dimas	SROE	Santa Rosa Island East	618D	Shelter Cove	342A	Soledad
385B	San Felipe	SRON	Santa Rosa Island North	273D	Shenandoah Peak	186B	Soledad Mtn.
137C	San Fernando	SROS	Santa Rosa Island South	528B	Sheridan	308C	Solo Peak
466C	San Francisco North	SROW	Santa Rosa Island West	316A	Sherman Peak	227A	Solomons Knob
448B	San Francisco South	138C	Santa Susana (= Simi Valley East)	584D	Sherwood Peak	716A	Solomons Temple
484C	San Geronimo			691A	Shields Creek	169C	Solvang
105D	San Gorgonio Mtn.	407A	Santa Teresa Hills	510B	Shingle Springs	444D	Solyo
429C	San Gregorio	169D	Santa Ynez	627B	Shingletown	019D	Sombrero Peak
165B	San Guillermo	033C	Santa Ysabel	638B	Shinn Mountain	703B	Somes Bar
084C	San Jacinto	191A	Santiago Creek	722A	Ship Mountain	500C	Sonoma
083C	San Jacinto Peak	070A	Santiago Peak	576C	Shippee	458B	Sonora
359C	San Joaquin	570C	Sardine Peak	681D	Shoeinhorse Mtn.	489C	Sonora Pass
427D	San Jose East	140C	Saticoy	277B	Shore Line Butte	387B	Soquel
427C	San Jose West	571C	Sattley	276A	Shoshone	691D	Soup Creek

279D	Sourdough Spring	085B	Sunnymead	064A	Thermal Canyon	414D	Tungsten Hills
700D	South China Mtn.	154B	Sunshine Peak	368D	Thimble Peak	525B	Tunnel Hill
089B	South Gate	207A	Superior Lake	318B	Thompson Canyon	640D	Tunnison Mtn.
522B	South Lake Tahoe	232D	Superior Valley	685D	Thompson Peak	457B	Tuolumne
726C	South Mtn.	017A	Superstition Mtn.	479B	Thornton	241D	Tupman
641A	Spalding Tract	171A	Surf	644A	Thousand Lakes Valley	423A	Turlock
256C	Spangler Hills East	708C	Surprise	113A	Thousand Oaks	441D	Turlock Lake
257D	Spangler Hills West	622B	Susanville	385A	Three Sisters	402B	Turner Ranch
711C	Spaulding Butte	544B	Sutter	041A	Thumb Peak	227B	Turquoise Mtn.
620D	Spencer Creek	545A	Sutter Buttes	668B	Thurston Peaks	157B	Turtle Valley
353A	Sphinx Lakes	529B	Sutter Causeway	230D	Tiefert Mountains	628A	Tuscan Buttes NE
490B	Spicer Meadows Res.	624A	Swain Mountain	008D	Tierra Del Sol	610A	Tuscan Springs
393C	Split Mtn.	643A	Swains Hole	294C	Tierra Redonda Mountain	071A	Tustin
633B	Sportshaven	018C	Sweeney Pass	472C	Tiltill Mtn.	606D	Twain
365C	Spreckels	487B	Sweetwater Creek	436D	Timber Knob	474C	Twain Harte
589A	Spring Garden	342C	Sycamore Flat	678B	Timbered Crater	183A	Twelve Gauge Lake
309A	Springville	411A	Sylvania Canyon	369B	Tin Mountain	298C	Twelvemile Spring
417A	Squaw Dome	410B	Sylvania Mts.	392C	Tinemaha Reservoir	102A	Twentynine Palms
603C	Squaw Valley Peak	216B	Taft	454A	Tioga Pass	101C	Twentynine Palms Mtn.
516C	St. Helena	538B	Tahoe City	311D	Tipton	471A	Twin Lakes
564B	St. John Mtn.	144A	Tajiguas	545D	Tisdale Weir	195A	Twitchell Dam
458A	Standard	327C	Talc City Hills	687D	Tish Tang Point	502D	Two Rock
120B	Standard Wash	491A	Tamarack	285D	Tobias Peak	672B	Tyee City
621C	Standish	455C	Tamarack Flat	485B	Tomales	187B	Tylerhorse Canyon
475A	Stanislaus	600D	Tan Oak Park	519B	Tombs Creek	389C	Ubehebe Crater
248B	State Line Pass	683B	Tangle Blue Lake	682D	Tombstone Mtn.	349A	Ubehebe Peak
431D	Station Peak	702D	Tanners Peak	433C	Toms Place	392B	Uhlmeier Spring
086D	Steele Peak	220B	Tar Spring Ridge	112D	Topanga	550B	Ukiah
727B	Steele Swamp	464D	Tassajara	165D	Topatopa Mountains	720D	Ukonom Lake
148D	Stepladder Mountains	320A	Tassajara Hot Springs	505A	Topaz Lake	720C	Ukonom Mtn.
148C	Stepladder Mountains SW	218C	Taylor Canyon	341A	Topo Valley	462C	Union Island
148A	Stepladder Mts. NE	513A	Taylor Monument	146B	Topock	351A	Union Wash
148B	Stepladder Mts. NW	636B	Taylor Peak	065C	Toro Peak	599B	Updegraff Ridge
240C	Stevens	311C	Taylor Weir	090D	Torrance	305A	Upper Centennial Flat
423D	Stevinson	605D	Taylorville	028A	Tortuga	549B	Upper Lake
298B	Stewart Valley	370D	Teakettle Junction	472A	Tower Peak	049B	Vail Lake
520B	Stewarts Point	009C	Tecate	444B	Tracy	138B	Val Verde
592A	Stirling City	275C	Tecopa	507B	Tragedy Spring	064C	Valerie
293A	Stockdale Mountain	275D	Tecopa Pass	360A	Tranquillity	251A	Valjean Hills
461B	Stockton East	212A	Tehachapi NE	171D	Tranquillon Mtn.	293B	Valleton
462A	Stockton West	212B	Tehachapi North	334B	Traver	035A	Valley Center
157A	Stoddard Well	212C	Tehachapi South	338A	Tres Pecos Farms	502C	Valley Ford
355C	Stokes Mtn.	375A	Tehipite Dome	385D	Tres Pinos	101B	Valley Mtn.
579D	Stone Valley	214D	Tejon Hills	377A	Trimmer	477A	Valley Springs
603B	Stony Ridge	213C	Tejon Ranch	689C	Trinidad	477C	Valley Springs SW
564A	Stonyford	134D	Telegraph Peak	666B	Trinity Center	226B	Valley Wells
591A	Storrie	302A	Telescope Peak	667D	Trinity Dam	135A	Valyermo
347C	Stovepipe Wells	050B	Temecula	686C	Trinity Mtn.	566A	Van Arsdale Reservoir
347A	Stovepipe Wells NE	269C	Templeton	353D	Triple Divide Peak	111B	Van Nuys
625D	Stover Mtn.	329C	Templeton Mtn.	113C	Triunfo Pass	176D	Van Winkle Spring
313A	Stratford	455A	Ten Lakes	280D	Trona East	151A	Van Winkle Wash
313D	Stratford SE	454C	Tenaya Lake	280C	Trona West	336C	Vanguard
474A	Strawberry	223C	Tenmile Well	640B	Troxel Point	090B	Venice
574D	Strawberry Valley	714C	Tennant	180D	Troy Lake	343C	Ventana Cones
660D	Straylor Lake	291C	Tent Hills	554C	Truckee	141D	Ventura
508B	Stump Spring, Calif. (= Old Iron Mountain)	194B	Tepusquet Canyon	045C	Truckhaven	328C	Vermillion Canyon
274A	Stump Spring, Nev.	479C	Terminus	450B	Truman Meadows	444A	Vernalis
419A	Stumpfield Mtn.	657C	Termo	032B	Tubb Canyon	529D	Verona
076A	Styx	582A	Thatcher Ridge	355B	Tucker Mtn.	376D	Verplank Ridge
309C	Success Dam	208C	The Buttes	325A	Tucki Wash	158D	Victorville
725D	Sugar Hill	292A	The Dark Hole	311A	Tulare	158B	Victorville NW
469C	Sulphur Pond	326B	The Dunes	410D	Tule Canyon	078C	Victory Pass
722D	Summit Valley	534D	The Geysers	674B	Tule Mountain	096D	Vidal
102B	Sunfair	729C	The Panhandle	020B	Tule Springs	096A	Vidal Junction
137D	Sunland	374D	The Sphinx	729B	Tulelake	096B	Vidal NW
		715C	The Whaleback	361C	Tumey Hills	020C	Viejas Mountain

296C	Villa Creek	635C	Weott	543C	Wheatland	422A	Winton
594A	Vina	081C	West Berdoo Canyon	166D	Wheeler Springs	044D	Wister
482D	Vine Hill	290D	West Camp	121C	Whipple Mts. SW	542C	Wolf
644C	Viola	242D	West Elk Hills	121D	Whipple Wash	505C	Wolf Creek
334D	Visalia	715D	West Haight Mtn.	648A	Whiskeytown	522D	Woodfords
454D	Vogelsang Peak	228C	West Of Baker	683D	Whisky Bill Peak	333A	Woodlake
282A	Volcano Peak	561A	West Of Biggs	533C	Whispering Pines	514A	Woodland
403C	Volta	233B	West Of Black Hills	163C	Whitaker Peak	200D	Woods Mountains
368A	Wahguyhe Peak	175C	West Of Blind Hills	418A	White Chief Mtn.	429A	Woodside
356B	Wahtoke	178B	West Of Broadwell Mesa	283C	White Dome	310C	Woodville
259A	Walker Pass	177C	West Of Budweiser Wash	281C	White Hills	463A	Woodward Island
477B	Wallace	230B	West Of Drinkwater Lake	156C	White Horse Mtn.	262A	Woody
465A	Walnut Creek	299B	West Of Eagle Mtn.	141B	White Ledge Peak	260D	Woolstalf Creek
516A	Walter Springs	173C	West Of Flattop Mtn.	432A	White Mtn. Peak	375D	Wren Peak
395B	Ward Mountain	324B	West Of Furnace Creek	286D	White River	294A	Wunpost
519A	Warm Springs Dam	611D	West Of Gerber	369C	White Top Mtn.	653D	Yager Junction
163D	Warm Springs Mountain	177B	West Of Glasgow	083B	White Water	684D	Ycatapom Peak
048C	Warner Springs	389B	West Of Gold Mtn.	695C	Whitehorse	702A	Yellow Dog Peak
033B	Warners Ranch	468C	West Of Huntoon Spring	658B	Whitinger Mtn.	681C	Yellowjacket Mtn.
690B	Warren Peak	198B	West Of Juniper Mine	645B	Whitmore	181A	Yermo
264D	Wasco	712C	West Of Kephart	434A	Whitmore Hot Springs	613A	Yolla Bolly 15' NE (was Tomhead Mtn. 7.5')
264B	Wasco NW	254C	West Of Leach Spring	709B	Whittemore Ridge	613B	Yolla Bolly 15' NW (was North Yolla Bolly 7.5')
264C	Wasco SW	123B	West Of Mohawk Spring	089A	Whittier	613D	Yolla Bolly 15' SE (was South Yolla Bolly 7.5')
557D	Washington	231B	West Of Nelson Lake	028C	Wiest	613C	Yolla Bolly 15' SW (was Solomon Peak 7.5')
693B	Washington Mtn.	077B	West Of Palen Pass	547C	Wilbur Springs	088A	Yorba Linda
080C	Washington Wash	041C	West Of Palo Verde Peak	425D	Wilcox Ridge	270D	York Mountain
207C	Water Valley	229C	West Of Red Pass Lake	183D	Wild Crossing	535B	Yorkville
442A	Waterford	273C	West Of Shenandoah Peak	069D	Wildomar	455D	Yosemite Falls
478C	Waterloo	639B	West Of Snowstorm Mtn.	325D	Wildrose Peak	421B	Yosemite Lake
135C	Waterman Mtn.	203B	West Of Soda Lake	531A	Wildwood School	686A	Youngs Peak
386B	Watsonville East	370C	West Of Teakettle Junction	041B	Wileys Well	500A	Yountville
387A	Watsonville West	349B	West Of Ubehebe Peak	124A	Wilhelm Spring	717B	Yreka
433B	Watterson Canyon	725B	West Of Willow Ranch	546B	Williams	544A	Yuba City
371B	Waucoba Canyon	156B	West Ord Mtn.	295A	Williams Hill	106D	Yucaipa
392D	Waucoba Mtn.	493A	West Point	206B	Williams Well	103B	Yucca Valley North
391C	Waucoba Spring	643C	West Prospect Peak	583D	Willis Ridge	103C	Yucca Valley South
312A	Waukena	256B	Westend	567A	Willits	006A	Yuba Basin
437C	Wawona	412C	Westgard Pass	670B	Willow Creek	001A	Yuma East
649B	Weaverville	313B	Westhaven	725A	Willow Ranch	001B	Yuma West
555B	Webber Peak	443C	Westley	187A	Willow Springs	169B	Zaca Creek
699B	Weed	029D	Westmorland (=Westmorland East)	578C	Willows	194D	Zaca Lake
214B	Weed Patch	585A	Westport	245B	Wilson Corner	530C	Zamora
727A	Weed Valley	337B	Westside	532B	Wilson Valley	536B	Zeni Ridge
687B	Weitchpec	540B	Westville	068A	Winchester	615B	Zenia
260A	Weldon	623C	Westwood East	255A	Wingate Pass		
217C	Wells Ranch	624D	Westwood West	278D	Wingate Wash East		
620C	Wendel	147A	Whale Mtn.	278C	Wingate Wash West		
621D	Wendel Hot Springs	032D	Whale Peak	514C	Winters		
539D	Wentworth Springs			188B	Winters Ridge		

Appendix II: Plants of List 1A and List 3, The Lists of Uncertainty

The following two lists are presented to highlight our need to know more about the plants on List 1A (Plants Presumed Extinct in CA) and List 3 (Plants About Which We Need More Information). We hope our contributors will seek to rediscover the plants on List 1A, and consult the records for the information missing for each List 3 plant and try to provide it.

In previous editions we have included all the plants in the *Inventory* sorted by each of the five lists. The utility of this has now dwindled with the release of the CNPS *Electronic Inventory*, which allows preparation of customized lists such as the ones below. Users wishing to know the list placement for a plant are referred to the main body of the text; for printed summaries of the plants by list, please consult the *Electronic Inventory*.

List 1A

Total number of taxa: 34

<i>Arctostaphylos hookeri</i> ssp. <i>franciscana</i>	<i>M. parishii</i>
<i>Astragalus mojavenis</i> var. <i>hemigyris</i>	<i>Mimulus brandegei</i>
<i>A. pycnostachyus</i> var. <i>lanosissimus</i>	<i>M. traskiae</i>
<i>Calochortus monanthus</i>	<i>M. whipplei</i>
<i>Carex livida</i>	<i>Monardella leucocephala</i>
<i>Castilleja uliginosa</i>	<i>M. pringlei</i>
<i>Chorizanthe parryi</i> var. <i>fernandina</i>	<i>Montia howellii</i>
<i>Dissanthelium californicum</i>	<i>Ophioglossum pusillum</i>
<i>Erigeron mariposanus</i>	<i>Orthocarpus pachystachyus</i>
<i>Eriogonum truncatum</i>	<i>Phacelia cinerea</i>
<i>Eschscholzia rhombipetala</i>	<i>Plagiobothrys glaber</i>
<i>Helianthus nuttallii</i> ssp. <i>parishii</i>	<i>P. hystricululus</i>
<i>Hemizonia mohavensis</i>	<i>P. lithocaryus</i>
<i>Howellia aquatilis</i>	<i>P. mollis</i> var. <i>vestitus</i>
<i>Lycium verrucosum</i>	<i>Poliomintha incana</i>
<i>Malacothamnus mendocinensis</i>	<i>Potentilla multijuga</i>
	<i>Ranunculus hydrocharoides</i>
	<i>Tropidocarpum capparideum</i>

List 3

Total number of taxa: 47

<i>Achnatherum lemmonii</i> var. <i>pubescens</i>	<i>Lewisia cotyledon</i> var. <i>howellii</i>
<i>Agrostis hendersonii</i>	<i>Lupinus albifrons</i> var. <i>abramsii</i>
<i>Arenaria macradenia</i> var. <i>kuschei</i>	<i>L. eximius</i>
<i>Berberis fremontii</i>	<i>Madia yosemitana</i>
<i>Calyptridium parryi</i> var. <i>hesseae</i>	<i>Marsilea oligospora</i>
<i>Calystegia atriplicifolia</i> ssp. <i>butensis</i>	<i>Mimulus acutidens</i>
<i>Camissonia lewisii</i>	<i>M. brachiatus</i>
<i>Cardamine pachystigma</i> var. <i>dissectifolia</i>	<i>Monardella antonina</i> ssp. <i>antonina</i>
<i>Chorizanthe parryi</i> var. <i>parryi</i>	<i>Myosurus minimus</i> ssp. <i>apus</i>
<i>Dudleya alainae</i>	<i>Opuntia wigginsii</i>
<i>Equisetum palustre</i>	<i>Phacelia amabilis</i>
<i>Erigeron biolettii</i>	<i>Pinus edulis</i>
<i>Eriogonum luteolum</i> var. <i>caninum</i>	<i>Plagiobothrys chorisianus</i> var. <i>chorisianus</i>
<i>Eschscholzia procera</i>	<i>P. glyptocarpus</i> var. <i>modestus</i>
<i>Galium oreganum</i>	<i>Pogogyne douglasii</i> ssp. <i>parviflora</i>
<i>Gentiana affinis</i> var. <i>parvidentata</i>	<i>Polygonum marinense</i>
<i>Helianthemum suffrutescens</i>	<i>Polystichum lonchitis</i>
<i>Hemizonia congesta</i> ssp. <i>leucocephala</i>	<i>Ribes amarum</i> var. <i>hoffmannii</i>
<i>Hordeum intercedens</i>	<i>Salvia dorrii</i> var. <i>incana</i>
<i>Ivesia arizonica</i> var. <i>arizonica</i>	<i>Scutellaria holmgreniorum</i>
<i>Lathyrus sulphureus</i> var. <i>argillaceus</i>	<i>Selaginella densa</i> var. <i>scopulorum</i>
<i>Lessingia hololeuca</i>	<i>Senecio hydrophiloides</i>
	<i>Silene occidentalis</i> ssp. <i>longistipitata</i>
	<i>Tiarella trifoliata</i> var. <i>trifoliata</i>
	<i>Vaccinium coccineum</i>

Appendix III: Plants by County and Island

The following lists include all the plants on CNPS Lists 1 through 4. Since we record occurrences in mainland counties and on islands separately, the county lists in Appendix III do not include island occurrences even if an island occurs in that county.

Counties

Alameda County

Total number of taxa: 64

List 1A: 4; List 1B: 36; List 2: 0; List 3: 4; List 4: 20

Acanthomintha lanceolata, *Allium sharsmithae*, *Amsinckia grandiflora*, *A. lunaris*, *Androsace elongata* ssp. *acuta*, *Arctostaphylos pallida*, *Aspidotis carlotta-halliae*, *Astragalus tener* var. *tener*, *Atriplex cordulata*, *A. coronata* var. *coronata*, *A. depressa*, *A. joaquiniana*, *Balsamorhiza macrolepis* var. *macrolepis*, *Blepharizonia plumosa* ssp. *plumosa*, *Calochortus umbellatus*, *Campanula exigua*, *Chorizanthe cuspidata* var. *cuspidata*, *C. robusta* var. *robusta*, *Cirsium fontinale* var. *campylon*, *Clarkia breweri*, *C. concinna* ssp. *automixa*, *C. franciscana*, *Cordylanthus maritimus* ssp. *palustris*, *C. mollis* ssp. *hispidus*, *C. palmatus*, *Cryptantha hooveri*, *Delphinium californicum* ssp. *interius*, *D. recurvatum*, *Dirca occidentalis*, *Eriogonum luteolum* var. *caninum*, *E. truncatum*, *Eriophyllum jepsonii*, *Eschscholzia rhombipetala*, *Fritillaria agrestis*, *F. falcata*, *F. liliacea*, *Galium andrewsii* ssp. *gatense*, *Grindelia stricta* var. *angustifolia*, *Helianthella castanea*, *Hemizonia parryi* ssp. *congdonii*, *Holocarpha macradenia*, *Horkelia cuneata* ssp. *sericea*, *Lasthenia conjugens*, *Lathyrus jepsonii* var. *jepsonii*, *Lessingia hololeuca*, *Lilaeopsis masonii*, *Linanthus acicularis*, *L. ambiguus*, *L. grandiflorus*, *Malacothammus hallii*, *Micropus amphibolus*, *Monardella antonina* ssp. *antonina*, *M. villosa* ssp. *globosa*, *Myosurus minimus* ssp. *apus*, *Phacelia phacelioides*, *Piperia michaelii*, *Plagiobothrys glaber*, *Psilocarphus brevissimus* var. *multiflorus*, *Ranunculus lobbii*, *Sanicula maritima*, *Streptanthus albidus* ssp. *peramoenus*, *Suaeda californica*, *Trifolium amoenum*, and *Tropidocarpum capparideum*.

Alpine County

Total number of taxa: 19

List 1A: 0; List 1B: 2; List 2: 5; List 3: 1; List 4: 11

Agrostis humilis, *Antennaria pulchella*, *Bolandra californica*, *Carex davyi*, *C. petasata*, *Chaenactis douglasii* var. *alpina*, *Claytonia megarhiza*, *C. umbellata*, *Cryptantha crymophila*, *Draba asterophora* var. *asterophora*, *Eriogonum ovalifolium* var. *eximium*, *Juncus hemiendytus* var. *abjectus*, *Podistera nevadensis*, *Polystichum kruckebergii*, *P. lonchitis*, *Potamogeton robbinsii*, *Silene invisa*, *Tonestus eximius*, and *Veronica cusickii*.

Amador County

Total number of taxa: 26

List 1A: 0; List 1B: 7; List 2: 1; List 3: 2; List 4: 16

Arctostaphylos myrtifolia, *Bolandra californica*, *Calochortus clavatus* var. *avius*, *Carex davyi*, *Clarkia virgata*, *Eriogonum apricum* var. *apricum*, *E.*

apricum var. *prostratum*, *E. tripodum*, *Eryngium pinnatisectum*, *Helianthemum suffrutescens*, *Horkelia parryi*, *Jepsonia heterandra*, *Lilium humboldtii* ssp. *humboldtii*, *Lomatium stebbinsii*, *Madia yosemitana*, *Mimulus inconspicuus*, *M. laciniatus*, *Monardella candicans*, *Navarretia eriocephala*, *N. myersii*, *N. subuligera*, *Ophioglossum californicum*, *Perideridia bacigalupii*, *Silene invisa*, *Sphenopholis obtusata*, and *Veronica cusickii*.

Butte County

Total number of taxa: 71

List 1A: 0; List 1B: 28; List 2: 10; List 3: 9; List 4: 24

Agrostis hendersonii, *Allium jepsonii*, *A. sanbornii* var. *sanbornii*, *Arctostaphylos mewukka* ssp. *truei*, *Astragalus pauperculus*, *A. tener* var. *ferrisiae*, *Atriplex cordulata*, *Azolla mexicana*, *Balsamorhiza macrolepis* var. *macrolepis*, *Botrychium ascendens*, *B. crenulatum*, *B. manganense*, *B. montanum*, *Calycadenia oppositifolia*, *Calystegia atriplicifolia* ssp. *buttensis*, *Cardamine pachystigma* var. *dissectifolia*, *Carex gejeri*, *C. vulpinoidea*, *Chamaesyce hooveri*, *Clarkia gracilis* ssp. *albicaulis*, *C. mildrediae*, *C. mosquinii* ssp. *mosquinii*, *C. mosquinii* ssp. *xerophila*, *Claytonia palustris*, *Corydalis caseana* ssp. *caseana*, *Cypripedium californicum*, *C. fasciculatum*, *Eleocharis quadrangulata*, *Erigeron inornatus* var. *calidipetris*, *E. petrophilus* var. *sierrensis*, *Fritillaria eastwoodiae*, *F. pluriflora*, *Hibiscus lasiocarpus*, *Juncus leiospermus* var. *ahartii*, *J. leiospermus* var. *leiospermus*, *Lewisia cantelovii*, *Lilium humboldtii* ssp. *humboldtii*, *Limnanthes floccosa* ssp. *californica*, *L. floccosa* ssp. *floccosa*, *Lupinus dalesiae*, *Marsilea oligospora*, *Mimulus glaucescens*, *M. inconspicuus*, *M. laciniatus*, *Monardella douglasii* ssp. *venosa*, *Myosurus minimus* ssp. *apus*, *Navarretia heterandra*, *N. subuligera*, *Ophioglossum californicum*, *Orcuttia pilosa*, *Paronychia ahartii*, *Penstemon personatus*, *Perideridia bacigalupii*, *Pogogyne douglasii* ssp. *parviflora*, *Polygonum bidwelliae*, *Polystichum kruckebergii*, *Rhynchospora californica*, *Rupertia hallii*, *Sagittaria sanfordii*, *Sanicula tracyi*, *Scirpus subterminalis*, *Sedum albomarginatum*, *Senecio eurycephalus* var. *lewisrosei*, *S. hydrophiloides*, *Sidalcea robusta*, *Silene occidentalis* ssp. *longistipitata*, *Stellaria longifolia*, *S. obtusa*, *Streptanthus drepanoides*, *Tuctoria greenei*, and *Vaccinium coccineum*.

Calaveras County

Total number of taxa: 26

List 1A: 1; List 1B: 7; List 2: 0; List 3: 2; List 4: 16

Agrostis hendersonii, *Allium sanbornii* var. *sanbornii*, *A. tribracteatum*, *Arctostaphylos myrtifolia*, *Bolandra californica*, *Calycadenia hooveri*, *Carex davyi*, *Ceanothus fresnensis*, *Clarkia virgata*, *Cryptantha mariposae*, *Delphinium hansenii* ssp. *ewanianum*, *Eryngium pinnatisectum*, *E. racemosum*, *Helianthemum suffrutescens*, *Horkelia parryi*, *Jepsonia*

heterandra, *Juncus leiospermus* var. *ahartii*, *Lilium humboldtii* ssp. *humboldtii*, *Lomatium stebbinsii*, *Mimulus inconspicuus*, *M. pulchellus*, *M. whipplei*, *Monardella candicans*, *Navarretia eriocephala*, *Perideridia bacigalupii*, and *Psilocarphus tenellus* var. *globiferus*.

Colusa County

Total number of taxa: 53

List 1A: 1; List 1B: 23; List 2: 2; List 3: 3; List 4: 24

Allium fimbriatum var. *purdyi*, *Antirrhinum subcordatum*, *Arctostaphylos malloryi*, *Asclepias solanoana*, *Astragalus breweri*, *A. clevelandii*, *A. rattanii* var. *jepsonianus*, *A. rattanii* var. *rattanii*, *A. tener* var. *ferrisiae*, *Atriplex depressa*, *A. joaquiniana*, *Brodiaea coronaria* ssp. *rosea*, *Chamaesyce ocellata* ssp. *rattanii*, *Chlorogalum pomeridianum* var. *minus*, *Collomia diversifolia*, *Cordylanthus palmatus*, *Cryptantha excavata*, *Delphinium recurvatum*, *D. uliginosum*, *Epilobium nivium*, *Eriastrum brandegeae*, *Eriogonum luteolum* var. *caninum*, *E. nervulosum*, *E. strictum* var. *greenei*, *E. tripodum*, *Eschscholzia rhombipetala*, *Fritillaria pluriflora*, *F. purdyi*, *Helianthus exilis*, *Hesperolinon drymarioides*, *Hibiscus lasiocarpus*, *Horkelia bolanderi*, *Layia septentrionalis*, *Linanthus rattanii*, *Lomatium ciliolatum* var. *hooveri*, *Lotus rubriflorus*, *Lupinus milobakeri*, *L. sericatus*, *Madia hallii*, *Malacothamnus helleri*, *Mimulus brachiatus*, *M. glaucescens*, *Myosurus minimus* ssp. *apus*, *Navarretia heterandra*, *N. jepsonii*, *N. leucocephala* ssp. *bakeri*, *Neostapfia colusana*, *Penstemon purpusii*, *Raillardiodopsis scabrida*, *Senecio clevelandii* var. *clevelandii*, *Silene campanulata* ssp. *campanulata*, *Thelypodium brachycarpum*, and *Trichocoronis wrightii* var. *wrightii*.

Contra Costa County

Total number of taxa: 66

List 1A: 3; List 1B: 36; List 2: 4; List 3: 3; List 4: 20

Amsinckia grandiflora, *A. lunaris*, *Androsace elongata* ssp. *acuta*, *Arabis blepharophylla*, *Arctostaphylos auriculata*, *A. manzanita* ssp. *laevigata*, *A. pallida*, *Aster lentus*, *Astragalus tener* var. *tener*, *Atriplex cordulata*, *A. coronata* var. *coronata*, *A. depressa*, *A. joaquiniana*, *Blepharizonia plumosa* ssp. *plumosa*, *Calandrinia breweri*, *Calochortus pulchellus*, *C. umbellatus*, *Campanula exigua*, *Collomia diversifolia*, *Convolvulus simulans*, *Cordylanthus mollis* ssp. *mollis*, *C. nidularius*, *Cryptantha hooveri*, *Delphinium californicum* ssp. *interius*, *D. recurvatum*, *Dirca occidentalis*, *Eleocharis parvula*, *Eriogonum luteolum* var. *caninum*, *E. nudum* var. *decurrens*, *E. truncatum*, *Eriophyllum jepsonii*, *Erysimum capitatum* ssp. *angustatum*, *Eschscholzia rhombipetala*, *Fritillaria agrestis*, *F. liliacea*, *Galium andrewsii* ssp. *gatense*, *Grindelia stricta* var. *angustifolia*, *Helianthella castanea*, *Hemizonia parryi* ssp. *congdonii*, *Hesperolinon breweri*, *Hibiscus lasiocarpus*, *Holocarpha macradenia*, *Isocoma arguta*, *Juglans californica* var. *hindsii*, *Lasthenia conjugens*, *Lathyrus jepsonii* var. *jepsonii*, *Lilaeopsis masonii*, *Limosella subulata*, *Linanthus acicularis*, *L. ambiguus*, *Madia radiata*, *Malacothamnus hallii*, *Micropus amphibolus*, *Monardella antonina* ssp. *antonina*, *M. villosa* ssp. *globosa*, *Myosurus minimus* ssp. *apus*, *Oenothera deltoides* ssp. *howellii*, *Phacelia phacelioides*, *Piperia michaelii*, *Potamogeton zosteriformis*, *Ranunculus lobbii*, *Sanicula saxatilis*, *Senecio aphanactis*, *Streptanthus albidus* ssp. *peramoenus*, *S. hispidus*, and *Tropidocarpum capparideum*.

Del Norte County

Total number of taxa: 115

List 1A: 1; List 1B: 20; List 2: 28; List 3: 3; List 4: 63

Abronia umbellata ssp. *breviflora*, *Allium siskiyouense*, *Antennaria suffrutescens*, *Arabis aculeolata*, *A. koehleri* var. *stipitata*, *A. macdonaldiana*, *A. serpentinicola*, *Arctostaphylos hispidula*, *A. nortensis*, *Arnica cernua*, *A. spathulata*, *Asarum marmoratum*, *Asplenium trichomanes* ssp. *trichomanes*, *Boschniakia hookeri*, *Calamagrostis crassiglumis*, *C. foliosa*, *Cardamine nuttallii* var. *gemmata*, *Carex gigas*, *C. leptalea*, *C. praticola*, *Castilleja hispida* ssp. *brevilobata*, *C. miniata* ssp. *elata*, *Cochlearia officinalis* var. *arctica*, *Collomia tracyi*, *Cupressus nootkatensis*, *Cypripedium californicum*, *C. fasciculatum*, *C. montanum*, *Darlingtonia californica*, *Dicentra formosa* ssp. *oregana*, *Draba carnosula*, *Empetrum nigrum* ssp. *hermaphroditum*, *Epilobium oregonum*, *E. rigidum*, *Erigeron bloomeri* var. *nudatus*, *E. cervinus*, *Eriogonum hirtellum*, *E. nudum* var. *paralinum*, *E. pendulum*, *E. ternatum*, *Erythronium citrinum* var. *citrinum*, *E. hendersonii*, *E. howellii*, *Galium oregonum*, *Gentiana plurisetosa*, *G. setigera*, *Heuchera chlorantha*, *Horkelia congesta* ssp. *nemorosa*, *H. sericata*, *Iliamna latibracteata*, *Iris bracteata*, *I. innominata*, *Juncus supiniformis*, *Lathyrus delnorticus*, *L. palustris*, *Lewisia cotyledon* var. *howellii*, *L. oppositifolia*, *Lilium bolanderi*, *L. kelloggii*, *L. occidentale*, *L. pardalinum* ssp. *vollmeri*, *L. pardalinum* ssp. *wigginsii*, *L. rubescens*, *L. washingtonianum* ssp. *purpurascens*, *Listera cordata*, *Lomatium howellii*, *L. martindalei*, *Lupinus lapidicola*, *L. tracyi*, *Lycopus uniflorus*, *Melica spectabilis*, *Minuartia howellii*, *Monotropa uniflora*, *Montia howellii*, *Navarretia subuligera*, *Oenothera wolfii*, *Perideridia gairdneri* ssp. *gairdneri*, *Phacelia argentea*, *Pinguicula vulgaris* ssp. *macroceras*, *Piperia candida*, *Pityopus californicus*, *Pleuropogon refractus*, *Poa piperi*, *P. rhizomata*, *Potamogeton foliosus* var. *fibrillosus*, *Pyrrocoma racemosa* var. *congesta*, *Rhynchospora alba*, *Ribes laxiflorum*, *Rubus nivalis*, *Sagittaria sanfordii*, *Salix delnortensis*, *Sanguisorba officinalis*, *Sanicula peckiana*, *S. tracyi*, *Saxifraga howellii*, *S. nuttallii*, *Scirpus subterminalis*, *Sedum laxum* ssp. *flavidum*, *S. laxum* ssp. *heckneri*, *Selaginella densa* var. *scopulorum*, *Senecio macounii*, *Sidalcea malvaeflora* ssp. *patula*, *Smilax jamesii*, *Streptanthus howellii*, *Tauschia glauca*, *Thermopsis gracilis*, *T. robusta*, *Trientalis arctica*, *Trifolium howellii*, *Triteleia crocea* var. *crocea*, *Vancouveria chrysantha*, *Veratrum insolitum*, *Viola langsdorffii*, *V. palustris*, and *V. primulifolia* ssp. *occidentalis*.

El Dorado County

Total number of taxa: 46

List 1A: 1; List 1B: 18; List 2: 6; List 3: 3; List 4: 18

Allium sanbornii var. *congdonii*, *A. sanbornii* var. *sanbornii*, *Antennaria pulchella*, *Arctostaphylos nissenana*, *Bolandra californica*, *Botrychium ascendens*, *Calochortus clavatus* var. *avius*, *Calystegia stebbinsii*, *Carex davyi*, *C. limosa*, *Ceanothus roderickii*, *Chaenactis douglasii* var. *alpina*, *Chlorogalum grandiflorum*, *Clarkia virgata*, *Draba asterophora* var. *asterophora*, *D. asterophora* var. *macrocarpa*, *Epilobium oregonum*, *Erigeron petrophilus* var. *sierrensis*, *Eriogonum ovalifolium* var. *eximium*, *E. tripodum*, *Fremontodendron decumbens*, *Galium californicum* ssp. *sierrae*, *Helianthemum suffrutescens*, *Horkelia parryi*, *Jepsonia heterandra*,

Lewisia longipetala, *L. serrata*, *Lilium humboldtii* ssp. *humboldtii*, *Marsilea oligospora*, *Monardella candicans*, *Navarretia eriocephala*, *N. prolifera* ssp. *lutea*, *Ophioglossum pusillum*, *Phacelia stebbinsii*, *Podistera nevadensis*, *Polystichum lonchitis*, *Potamogeton epihydrus* ssp. *nutallii*, *Rorippa subumbellata*, *Scirpus subterminalis*, *Scutellaria galericulata*, *Senecio layneae*, *Silene invisus*, *Sparganium natans*, *Tonestus eximius*, *Viola tomentosa*, and *Wyethia reticulata*.

Fresno County

Total number of taxa: 115

List 1A: 0; **List 1B:** 48; **List 2:** 4; **List 3:** 3; **List 4:** 60

Acanthomintha lanceolata, *A. obovata* ssp. *obovata*, *Amsinckia vernicosa* var. *fiucata*, *Androsace elongata* ssp. *acuta*, *Angelica callii*, *Antennaria pulchella*, *Arabis bodiensis*, *Astragalus kentrophyta* var. *danaus*, *A. monoensis* var. *ravenii*, *Atriplex cordulata*, *A. coronata* var. *coronata*, *A. depressa*, *A. minuscula*, *A. vallicola*, *Botrychium minganense*, *Calyptridium pulchellum*, *Calystegia collina* ssp. *venusta*, *C. malacophylla* var. *berryi*, *Camissonia benitensis*, *C. sierrae* ssp. *alticola*, *Carex congdonii*, *C. tompkinsii*, *Carpenteria californica*, *Castilleja campestris* ssp. *succulenta*, *Caulanthus californicus*, *Ceanothus fresnensis*, *Chorizanthe biloba* var. *immemora*, *Clarkia breweri*, *Claytonia palustris*, *Cordylanthus palmatus*, *C. tenuis* ssp. *barbatus*, *Cryptantha rattanii*, *Delphinium gypsophilum* ssp. *gypsophilum*, *D. inopinum*, *D. recurvatum*, *Dicentra nevadensis*, *Draba sharsmithii*, *D. sierrae*, *Epilobium howellii*, *Eriastrum hooveri*, *Erigeron aequifolius*, *E. inornatus* var. *keilii*, *Eriogonum eastwoodianum*, *E. gossypinum*, *E. heermannii* var. *occidentale*, *E. nudum* var. *indictum*, *E. nudum* var. *murinum*, *E. nudum* var. *regivirum*, *E. polypodum*, *E. prattenianum* var. *avium*, *E. vestitum*, *Eriophyllum lanatum* var. *obovatum*, *Eryngium spinosepalum*, *Eschscholzia hypocoides*, *Fritillaria agrestis*, *Galium andrewsii* ssp. *gatense*, *Goodmania luteola*, *Gratiola heterosepala*, *Hackelia sharsmithii*, *Hordeum intercedens*, *Hulsea brevifolia*, *Ivesia campestris*, *I. unguiculata*, *Jamesia americana* var. *rosea*, *Lathyrus jepsonii* var. *jepsonii*, *Layia discoidea*, *L. heterotricha*, *L. munzii*, *Lembertia congdonii*, *Lepidium jaredii* ssp. *album*, *Lessingia occidentalis*, *Lewisia congdonii*, *L. longipetala*, *Lilium humboldtii* ssp. *humboldtii*, *Linanthus acicularis*, *L. oblanceolatus*, *L. serrulatus*, *Lupinus citrinus* var. *citrinus*, *L. lepidus* var. *culbertsonii*, *Madia radiata*, *M. yosemitana*, *Malacothamnus aboriginum*, *Mimulus acutidens*, *M. gracilipes*, *M. grayi*, *M. laciniatus*, *M. subsecundus*, *Minuartia obtusiloba*, *Monardella candicans*, *Navarretia nigelliformis* ssp. *radians*, *Nemacladus gracilis*, *Nemophila parviflora* var. *quercifolia*, *Orcuttia inaequalis*, *Phacelia orogenes*, *Pityopus californicus*, *Plagiobothrys myosotoides*, *Pseudobahia bahiifolia*, *P. peirsonii*, *Psilocarphus tenellus* var. *globiferus*, *Puccinellia californica*, *Raillardiaopsis muirii*, *Ribes menziesii* var. *ixoderme*, *Sagittaria sanfordii*, *Scirpus clementis*, *Senecio aphanactis*, *Sidalcea keckii*, *Solidago guiradonis*, *Sphenopholis obtusata*, *Streptanthus farnsworthianus*, *S. fenestratus*, *S. gracilis*, *Trichostema ovatum*, *Trifolium bolanderi*, *Tuctoria greenei*, and *Wyethia elata*.

Glenn County

Total number of taxa: 32

List 1A: 1; **List 1B:** 15; **List 2:** 2; **List 3:** 0; **List 4:** 14

Antirrhinum subcordatum, *Asclepias solanoana*, *Astragalus rattanii* var. *jepsonianus*, *A. rattanii* var. *rattanii*, *Atriplex cordulata*, *A. depressa*, *A. joaquiniana*, *Brodiaea coronaria* ssp. *rosea*, *Calyptridium quadripetalum*, *Chamaesyce hooveri*, *C. ocellata* ssp. *rattanii*, *Collomia diversifolia*, *Epilobium nivium*, *Eriastrum brandegeae*, *Eriogonum nervulosum*, *Fritillaria pluriflora*, *F. purdyi*, *Hackelia amethystina*, *Helianthus exilis*, *Hesperolinon drymarioides*, *H. tehamense*, *Hibiscus lasiocarpus*, *Linanthus rattanii*, *Malacothamnus belleri*, *Navarretia jepsonii*, *Orcuttia pilosa*, *Orobanche valida* ssp. *howellii*, *Penstemon purpusii*, *Sedum laxum* ssp. *flavidum*, *Sidalcea oregana* ssp. *hydrophila*, *Stellaria obtusa*, and *Tropidocarpum capparideum*.

Humboldt County

Total number of taxa: 111

List 1A: 1; **List 1B:** 28; **List 2:** 17; **List 3:** 3; **List 4:** 62

Abronia umbellata ssp. *breviflora*, *Allium hoffmanii*, *A. siskiyouense*, *Antennaria suffrutescens*, *Arabis rigidissima* var. *rigidissima*, *Arctostaphylos canescens* ssp. *sonomensis*, *A. hispidula*, *Arnica cernua*, *A. spatulata*, *Astragalus agnicidus*, *A. rattanii* var. *rattanii*, *A. umbraticus*, *Bensoniella oregana*, *Boschniakia hookeri*, *Calamagrostis bolanderi*, *C. crassiglumis*, *C. foliosa*, *Carex geyeri*, *C. leptalea*, *C. praticola*, *Castilleja ambigua* ssp. *humboldtiensis*, *C. mendocinensis*, *Clarkia amoena* ssp. *whitneyi*, *Collinsia corymbosa*, *Collomia tracyi*, *Cordylanthus maritimus* ssp. *palustris*, *Cypripedium californicum*, *C. fasciculatum*, *C. montanum*, *Dicentra formosa* ssp. *oregana*, *Draba howellii*, *Eleocharis parvula*, *Empetrum nigrum* ssp. *hermaphroditum*, *Epilobium oreganum*, *E. septentrionale*, *Erigeron biolettii*, *E. decumbens* var. *robustior*, *E. petrophilus* var. *viscidulus*, *Erysimum menziesii* ssp. *eurekaense*, *Erythronium citrinum* var. *citrinum*, *Fritillaria purdyi*, *Gentiana plurisetosa*, *Glyceria grandis*, *Hemizonia congesta* ssp. *tracyi*, *Hesperovex sparsiflora* var. *brevifolia*, *Hesperolinon adenophyllum*, *Horkelia sericata*, *Iliamna latibracteata*, *Iris tenax* ssp. *klamathensis*, *Juncus dudleyi*, *J. supiniformis*, *Lathyrus biflorus*, *L. glandulosus*, *L. palustris*, *Layia carnosa*, *Lewisia coryledon* var. *heckneri*, *L. coryledon* var. *howellii*, *Lilium bolanderi*, *L. kelloggii*, *L. occidentale*, *L. pardalinum* ssp. *vollmeri*, *L. rubescens*, *L. washingtonianum* ssp. *purpurascens*, *Linanthus acicularis*, *Listera cordata*, *Lomatium tracyi*, *Lotus yollabollinsensis*, *Lupinus constancei*, *L. lapidicola*, *L. tracyi*, *Lycopodiella inundata*, *Lycopodium clavatum*, *Lycopus uniflorus*, *Melica spectabilis*, *Microseris borealis*, *Minuartia decumbens*, *Monardella villosa* ssp. *globosa*, *Monotropa uniflora*, *Montia howellii*, *Oenothera wolfii*, *Orthocarpus cuspidatus* ssp. *cuspidatus*, *Penstemon purpusii*, *Perideridia gairdneri* ssp. *gairdneri*, *Piperia candida*, *P. michaelii*, *Pityopus californicus*, *Pleuropogon refractus*, *Puccinellia pumila*, *Ribes laxiflorum*, *R. marshallii*, *Rorippa columbiae*, *Sanguisorba officinalis*, *Sanicula tracyi*, *Scirpus subterminalis*, *Sedum laxum* ssp. *flavidum*, *S. laxum* ssp. *heckneri*, *Sidalcea malachroides*, *S. malvaeflora* ssp. *patula*, *S. oregana* ssp. *eximia*, *Silene marmorensis*, *Stellaria obtusa*, *Tauschia glauca*, *Thermopsis gracilis*, *T. robusta*, *Thlaspi californicum*, *Tiarella trifoliata* var. *trifoliata*, *Tracyina rostrata*, *Trifolium howellii*, *Veratrum insolitum*, *Viola palustris*, and *Wyethia longicaulis*.

Imperial County

Total number of taxa: 52

List 1A: 0; **List 1B:** 13; **List 2:** 17; **List 3:** 1; **List 4:** 21

Allium parishii, *Astragalus crotalariae*, *A. douglasii* var. *perstrictus*, *A. insularis* var. *harwoodii*, *A. lentiginosus* var. *borreganus*, *A. magdalenae* var. *peirsonii*, *A. nutans*, *Bursera microphylla*, *Calliandra eriophylla*, *Carnegiea gigantea*, *Castela emoryi*, *Chaenactis carphocliniavar. peirsonii*, *Chamaesyce arizonica*, *C. platysperma*, *Colubrina californica*, *Condalia globosa* var. *pubescens*, *Croton wigginsii*, *Cryptantha costata*, *C. holoptera*, *Cynanchum utahense*, *Delphinium parishii* ssp. *subglobosum*, *Ditaxis clariana*, *Eschscholzia hypocoides*, *Escobaria vivipara* var. *alversonii*, *Eucnide rupestris*, *Fremontodendron mexicanum*, *Helianthus niveus* ssp. *tephrodes*, *Ipomopsis effusa*, *I. tenuifolia*, *Juncus acutus* ssp. *leopoldii*, *Koerberlinia spinosa* ssp. *tenuispina*, *Lotus haydonii*, *Lupinus excubitus* var. *medius*, *Lycium parishii*, *Lyrocarpa coulteri* var. *palmeri*, *Malperia tenuis*, *Mentzelia hirsutissima*, *Mimulus aridus*, *Mirabilis tenuiloba*, *Nama stenocarpum*, *Opuntia munzii*, *O. wigginsii*, *O. wolfii*, *Palafoxia arida* var. *gigantea*, *Penstemon clevelandii* var. *connatus*, *P. thurberi*, *Pholisma sonora*, *Pilosyles thurberi*, *Proboscidea althaeifolia*, *Salvia greatae*, *Senna covesii*, and *Xylorhiza orcuttii*.

Inyo County

Total number of taxa: 160

List 1A: 2; **List 1B:** 50; **List 2:** 46; **List 3:** 2; **List 4:** 60

Abronia nana ssp. *covillei*, *Achnatherum aridum*, *Agave utahensis*, *Androstaphium breviflorum*, *Antennaria pulchella*, *Arabis bodiense*, *A. dispar*, *A. pulchra* var. *munciensis*, *A. pygmaea*, *A. shockleyi*, *Arctomecon merriamii*, *Astragalus argophyllus* var. *argophyllus*, *A. atratus* var. *mensanus*, *A. funereus*, *A. geyeri* var. *geyeri*, *A. gilmanii*, *A. kentrophyta* var. *danaus*, *A. kentrophyta* var. *elatus*, *A. lentiginosus* var. *kernensis*, *A. lentiginosus* var. *micans*, *A. lentiginosus* var. *piscinensis*, *A. lentiginosus* var. *sesquimetralis*, *A. mojaviensis* var. *hemigyus*, *A. monoensis* var. *ravenii*, *A. platytropis*, *A. preussii* var. *preussii*, *A. serenoivar. shockleyi*, *Blepharidachne kingii*, *Bouteloua trifida*, *Calochortus excavatus*, *C. panamintensis*, *Camissonia boothii* ssp. *boothii*, *Carex congdonii*, *C. eleocharis*, *C. incurviformis* var. *danaensis*, *Caulostramina jaegeri*, *Chaenactis douglasii* var. *alpina*, *Cheilanthes wootonii*, *Chenopodium simplex*, *Chrysothamnus gramineus*, *Cordylanthus eremicus* ssp. *eremicus*, *C. eremicus* ssp. *kernensis*, *C. tecopenensis*, *Crepis runcinata* ssp. *hallii*, *Cryptantha costata*, *C. holoptera*, *C. roosiorum*, *C. scoparia*, *C. tumulosa*, *Cymopterus gilmanii*, *C. ripleyi*, *Dedeckera eurekaensis*, *Delphinium inopinum*, *Draba californica*, *D. sharsmithii*, *D. sierrae*, *D. subumbellata*, *Dryopteris filix-mas*, *Dudleya calcicola*, *D. saxosa* ssp. *saxosa*, *Enceliopsis covillei*, *E. nudicaulis*, *Ericameria gilmanii*, *Erigeron calvus*, *E. uncialis* var. *uncialis*, *Eriogonum bifurcatum*, *E. contiguum*, *E. eremicola*, *E. gilmanii*, *E. hoffmannii* var. *hoffmannii*, *E. hoffmannii* var. *robustus*, *E. intrafractum*, *E. microthecum* var. *lapidicola*, *E. microthecum* var. *panamintense*, *E. puberulum*, *E. shockleyi* var. *shockleyi*, *Erioneuron pilosum*, *Fendlerella utahensis*, *Fimbristylis thermalis*, *Galium hilendiae* ssp. *carneum*, *G. hypotrachium* ssp. *tomentellum*, *Gentiana prostrata*, *Gilia ripleyi*, *Gilmania luteola*, *Goodmania luteola*, *Grindelia fraxino-pratensis*, *Hackelia brevicula*, *H. sharsmithii*, *Halimolobos virgata*, *Heuchera dwanii*, *Horkelia hispidula*,

Hulsea vestita ssp. *inyoensis*, *Ivesia arizonica* var. *arizonica*, *I. campestris*, *I. kingii* var. *kingii*, *Jamesia americana* var. *rosea*, *Junus nodosus*, *Lasthenia leptalea*, *Linanthus arenicola*, *L. oblanceolatus*, *Loeflingia squarrosa* var. *artemisiarum*, *Lomatium foeniculaceum* ssp. *inyoense*, *L. rigidum*, *Lupinus gracilentus*, *L. holmgrenanus*, *L. magnificus* var. *glarecola*, *L. magnificus* var. *hesperius*, *L. magnificus* var. *magnificus*, *L. padre-crowleyi*, *Maurandya petrophila*, *Mimulus glabratus* ssp. *utahensis*, *M. rupicola*, *Minuartia obtusiloba*, *Monardella beneolens*, *Muilla coronata*, *Nitrophila mohavensis*, *Oenothera caespitosa* ssp. *crinita*, *O. californica* ssp. *eurekaensis*, *Opuntia pulchella*, *Oryctes nevadensis*, *Oxytheca watsonii*, *Penstemon calcareus*, *P. fruticiformis* var. *amargosae*, *P. papillatus*, *P. stephensii*, *Perityle inyoensis*, *P. villosa*, *Petalonyx thurberi* ssp. *gilmanii*, *Peteria thompsoniae*, *Phacelia amabilis*, *P. anelsonii*, *P. inyoensis*, *P. mustelina*, *P. nashiana*, *P. novenmillensis*, *P. pulchella* var. *gooddingii*, *Phlox dispersa*, *Pinus longaeva*, *Piptatherum micranthum*, *Plagiobothrys salsus*, *Polygala heterorhyncha*, *Populus angustifolia*, *Potamogeton robbinsii*, *Ranunculus hydrocharoides*, *Salvia funerea*, *Scirpus clemeniis*, *Sclerocactus polyanctistrus*, *Scutellaria lateriflora*, *Selaginella leucobryoides*, *Selinocarpus nevadensis*, *Sidalcea covillei*, *Spartina gracilis*, *Sphaeralcea rusbyi* var. *eremicola*, *Sphenopholis obtusata*, *Streptanthus gracilis*, *S. oliganthus*, *Swallenia alexandrae*, *Tetracoccus ilicifolius*, *Tonestus eximius*, and *Trifolium macilentum* var. *dedeckerae*.

Kern County

Total number of taxa: 122

List 1A: 0; **List 1B:** 63; **List 2:** 2; **List 3:** 2; **List 4:** 55

Allium shevockii, *Amsinckia vernicosa* var. *furcata*, *Androsace elongata* ssp. *acuta*, *Angelica callii*, *Aniurhinum ovatum*, *Astragalus erterae*, *A. macrodon*, *A. subvestitus*, *Atriplex cordulata*, *A. coronata* var. *coronata*, *A. depressa*, *A. minuscula*, *A. tularensis*, *A. vallicola*, *Azolla mexicana*, *Calochortus palmeri* var. *palmeri*, *C. striatus*, *C. westonii*, *Calycadenia villosa*, *Camissonia integrifolia*, *C. kernensis* ssp. *kernensis*, *Canbya candida*, *Castilleja plagiotoma*, *Caulanthus californicus*, *Chorizanthe spinosa*, *Cirsium crassicaule*, *Clarkia exilis*, *C. tembloriensis* ssp. *calientensis*, *C. xantiana* ssp. *parviflora*, *Convolvulus simulans*, *Cordylanthus eremicus* ssp. *kernensis*, *C. mollis* ssp. *hispidus*, *Cupressus arizonica* ssp. *nevadensis*, *Cymopterus deserticola*, *Delphinium gypsophilum* ssp. *gypsophilum*, *D. hansenii* ssp. *ewanianum*, *D. inopinum*, *D. parryi* ssp. *purpureum*, *D. purpusii*, *D. recurvatum*, *Dudleya calcicola*, *Eremalche kernensis*, *Eriastrum hooveri*, *Ericameria gilmanii*, *Erigeron aequifolius*, *Eriogonum breedlovei* var. *breedlovei*, *E. breedlovei* var. *shevockii*, *E. gossypinum*, *E. kennedyi* var. *pinicola*, *E. nudum* var. *indictum*, *E. temblorense*, *Eriophyllum jepsonii*, *E. lanatum* var. *hallii*, *E. lanatum* var. *obovatum*, *Eschscholzia lemmonii* ssp. *kernensis*, *E. minutiflora* ssp. *twisselmannii*, *E. procera*, *Fimbristylis thermalis*, *Friitillaria agrestis*, *F. brandegei*, *F. striata*, *Galium angustifolium* ssp. *onycense*, *Gilia latiflora* ssp. *cuyamensis*, *Goodmania luteola*, *Hemizonia arida*, *Heterotheca villosa* var. *shevockii*, *Hulsea vestita* ssp. *parryi*, *Lasthenia glabrata* ssp. *coulteri*, *L. leptalea*, *Layia heterotricha*, *L. leucopappa*, *L. munzii*, *Lembertia congdonii*, *Lepidium jaredii* ssp. *jaredii*, *Lewisia disepala*, *Linanthus grandiflorus*, *L. serrulatus*, *Loeflingia squarrosa* var. *artemisiarum*, *Lomatium shevockii*, *Lupinus excubitus* var. *johnstonii*, *Madia radiata*, *Mimulus microphyllus*, *M. pictus*, *M. shevockii*, *Monardella beneolens*, *M. candicans*, *M. linoides* ssp. *oblonga*, *Mucronea californica*, *Muilla coronata*, *Myosurus minimus*

ssp. *apus*, *N. peninsularis*, *N. setiloba*, *Nemacladus gracilis*, *N. twisselmannii*, *Nemophila parviflora* var. *quercifolia*, *Opuntia basilaris* var. *treleasei*, *Penstemon papillatus*, *Perideridia gairdneri* ssp. *gairdneri*, *P. pringlei*, *Phacelia exilis*, *P. nashiana*, *P. novemmillensis*, *Pseudobahia peirsonii*, *Psilocarphus tenellus* var. *globiferus*, *Psorothamnus arborescens* var. *arborescens*, *Puccinellia parishii*, *Raillardiopsis muirii*, *Ribes menziesii* var. *ixoderme*, *Sagittaria sanfordii*, *Sclerocactus polyancistrus*, *Selaginella asprella*, *Senecio ionophyllus*, *Streptanthus cordatus* var. *piutensis*, *S. farnsworthianus*, *Stylocline citroleum*, *S. masonii*, *Swertia neglecta*, *Syntrichopappus lemmonii*, *Trichostema ovatum*, *Trifolium macilentum* var. *dedeckeriae*, *Viola aurea*, and *V. pinetorum* ssp. *grisea*.

Kings County

Total number of taxa: 16

List 1A: 0; **List 1B:** 8; **List 2:** 0; **List 3:** 1; **List 4:** 7

Amsinckia verrucosa var. *furcata*, *Atriplex cordulata*, *A. coronata* var. *coronata*, *A. vallicola*, *Caulanthus californicus*, *Cirsium crassicaule*, *Delphinium gypsophilum* ssp. *gypsophilum*, *D. recurvatum*, *Eriastrum hooveri*, *Eriogonum gossypinum*, *Hordeum intercedens*, *Layia heterotricha*, *Lembertia condonii*, *Madia radiata*, *Nemacladus gracilis*, and *Trichostema ovatum*.

Lake County

Total number of taxa: 93

List 1A: 1; **List 1B:** 42; **List 2:** 3; **List 3:** 5; **List 4:** 42

Achnatherum lemmonii var. *pubescens*, *Allium fimbriatum* var. *purdyi*, *Amsinckia lunaris*, *Antirrhinum subcordatum*, *A. virga*, *Arabis oregana*, *Arctostaphylos canescens* ssp. *sonomensis*, *A. stanfordiana* ssp. *raichei*, *Asclepias solanoana*, *Astragalus breweri*, *A. clevelandii*, *A. rattanii* var. *jepsonianus*, *A. rattanii* var. *rattanii*, *Azolla mexicana*, *Brodiaea coronaria* ssp. *rosea*, *Calamagrostis ophitidis*, *Calyptridium quadripetalum*, *Calystegia collina* ssp. *oxyphylla*, *Carex comosa*, *C. confusus*, *C. divergens*, *Chlorogalum pomeridianum* var. *minus*, *Collomia diversifolia*, *Cordylanthus tenuis* ssp. *brunneus*, *Cryptantha clevelandii* var. *dissita*, *C. excavata*, *Delphinium uliginosum*, *Epilobium nivium*, *Equisetum palustre*, *Eriastrum brandegeae*, *Erigeron angustatus*, *Eriogonum luteolum* var. *caninum*, *E. nervulosum*, *E. tripodum*, *Eryngium constancei*, *Erythronium helenae*, *Fritillaria pluriflora*, *F. purdyi*, *Gratiola heterosepala*, *Hackelia amethystina*, *Helianthus exilis*, *Hemizonia congesta* ssp. *calyculata*, *Hesperolinon adenophyllum*, *H. bicarpellatum*, *H. didymocarpum*, *H. drymarioides*, *H. serpentinum*, *Horkelia bolanderi*, *Lasthenia burkei*, *Layia septentrionalis*, *Legenere limosa*, *Lilium rubescens*, *Limnanthes floccosa* ssp. *floccosa*, *Linanthus acicularis*, *L. rattanii*, *Lomatium ciliolatum* var. *hooveri*, *L. repostum*, *Lupinus antoninus*, *L. sericatus*, *Madia hallii*, *Malacothamnus helleri*, *Micropus amphibolus*, *Mimulus brachiatus*, *M. glaucescens*, *M. nudatus*, *Monardella villosa* ssp. *globosa*, *M. viridis* ssp. *viridis*, *Navarretia heterandra*, *N. jepsonii*, *N. leucocephala* ssp. *bakeri*, *N. leucocephala* ssp. *pauciflora*, *N. leucocephala* ssp. *pliantha*, *N. myersii*, *N. subuligera*, *Orcuttia tenuis*, *Orobancha validasp. howellii*, *Parvisedum leiocarpum*, *Penstemon newberryi* var. *sonomensis*, *P. purpusii*, *Pityopus californicus*, *Plagiobothrys lithocaryus*, *Pleuropogon davayi*, *Pogogyne douglasii* ssp. *parviflora*, *Potamogeton zosteriformis*, *Raillardiopsis scabrada*, *Senecio clevelandii* var. *clevelandii*, *Sidalcea oregana* ssp. *hydrophila*,

Streptanthus brachiatus ssp. *brachiatus*, *S. brachiatus* ssp. *hoffmanii*, *S. morrisonii* ssp. *elatus*, *S. morrisonii* ssp. *kruckebergii*, *Thelypodium brachycarpum*, and *Tracyina rostrata*.

Lassen County

Total number of taxa: 56

List 1A: 0; **List 1B:** 13; **List 2:** 21; **List 3:** 3; **List 4:** 19

Allium atrorubens var. *atrorubens*, *Antennaria flagellaris*, *Arnica fulgens*, *A. sororia*, *Astragalus anxius*, *A. argophyllus* var. *argophyllus*, *A. inversus*, *A. pulsiferae* var. *pulsiferae*, *A. pulsiferae* var. *suksdorfii*, *Camissonia boothii* ssp. *alyssoides*, *C. minor*, *C. tanacetifolia* ssp. *quadriperforata*, *Carex lasiocarpa*, *C. petasata*, *Claytonia umbellata*, *Collomia tracyi*, *Cordylanthus capitatus*, *Corydalis caseana* ssp. *caseana*, *Dalea ornata*, *Dimeresia howellii*, *Drosera anglica*, *Erigeron elegantulus*, *Eriogonum nutans*, *E. prociduum*, *Geum aleppicum*, *Gratiola heterosepala*, *Hackelia cusickii*, *Iliamna bakeri*, *Ivesia aperta* var. *aperta*, *I. baileyi* var. *baileyi*, *I. paniculata*, *I. sericoleuca*, *Juncus hemiendytus* var. *abjectus*, *Lomatium hendersonii*, *L. ravenii*, *Marsilea oligospora*, *Mimulus pygmaeus*, *Pedicularis centranthera*, *Penstemon cinicola*, *Perideridia gairdneri* ssp. *gairdneri*, *Phacelia inundata*, *Pogogyne floribunda*, *Polygala subspinoso*, *Potamogeton filiformis*, *P. praelongus*, *P. robbinsii*, *P. zosteriformis*, *Potentilla basaltica*, *Psilocarphus elatior*, *Rhynchospora alba*, *Scutellaria holmgreniorum*, *Senecio eurycephalus* var. *lewisrosei*, *S. hydrophiloides*, *Silene invisa*, *Stenotus lanuginosus*, and *Thermopsis californica* var. *argentata*.

Los Angeles County

Total number of taxa: 133

List 1A: 4; **List 1B:** 59; **List 2:** 6; **List 3:** 3; **List 4:** 61

Abronia maritima, *Acanthomintha obovata* ssp. *cordata*, *Androsace elongata* ssp. *acuta*, *Aphanisma blitoides*, *Arctostaphylos gabrielensis*, *Arenaria paludicola*, *Aster greatae*, *Astragalus brauntonii*, *A. lentiginosus* var. *antoniuss*, *A. leucolobus*, *A. preussii* var. *laxiflorus*, *A. pycnostachyus* var. *lanosissimus*, *A. tener* var. *titi*, *Atriplex coulteri*, *A. pacifica*, *A. parishii*, *A. serenana* var. *davidsonii*, *Baccharis plummerae* ssp. *plummerae*, *Berberis nevini*, *Botrychium crenulatum*, *Boykinia rotundifolia*, *Brodiaea filifolia*, *Calandrinia breweri*, *C. maritima*, *Calochortus catalinae*, *C. clavatus* var. *clavatus*, *C. clavatus* var. *gracilis*, *C. palmeri* var. *palmeri*, *C. plummerae*, *C. striatus*, *C. weedii* var. *intermedius*, *Calystegia peirsonii*, *C. sepium* ssp. *binghamiae*, *Camissonia lewisii*, *Canbya candida*, *Castilleja gleasonii*, *C. plagiotoma*, *Cercocarpus betuloides* var. *blancheae*, *Chamaebatia australis*, *Chorizanthe parryi* var. *fernandina*, *C. parryi* var. *parryi*, *C. procumbens*, *C. spinosa*, *Convolvulus simulans*, *Cordylanthus maritimus* ssp. *maritimus*, *Crossosoma californicum*, *Cymopterus deserticola*, *Dichondra occidentalis*, *Dithyrea maritima*, *Dodecagema leptoceras*, *Dudleya blochmaniae* ssp. *blochmaniae*, *D. cymosa* ssp. *crebrifolia*, *D. cymosa* ssp. *marcescens*, *D. cymosa* ssp. *ovatifolia*, *D. densiflora*, *D. multicaulis*, *D. virens*, *Erigeron breweri* var. *bisanctus*, *E. breweri* var. *jacinteus*, *Eriogonum kennedyi* var. *alpigenum*, *E. microthecum* var. *johnstonii*, *E. umbellatum* var. *minus*, *Erysimum insulare* ssp. *suffrutescens*, *Galium angustifolium* ssp. *gabrielense*, *G. cliffonsmithii*, *G. grande*, *G. jepsonii*, *G. johnstonii*, *Gilia latiflora* ssp. *cuyamensis*, *Goodmania luteola*, *Harpagonella palmeri*, *Helianthus nuttallii* ssp. *parishii*, *Hemizonia minthornii*, *H. parryi* ssp. *australis*, *Heuchera*

abramsii, *H. elegans*, *Hordeum intercedens*, *Hulsea vestita* ssp. *gabrielensis*, *Juglans californica* var. *californica*, *Juncus acutus* ssp. *leopoldii*, *J. duranii*, *Lasthenia glabrata* ssp. *coulteri*, *Lepechinia fragrans*, *Lepidium virginicum* var. *robinsonii*, *Lilium humboldtii* ssp. *ocellatum*, *L. parryi*, *Linanthus concinnus*, *L. orcuttii*, *Loeflingia squarrosa* var. *artemisiarum*, *Lupinus elatus*, *L. excubitus* var. *johnstonii*, *L. peirsonii*, *Lycium brevipes* var. *hassei*, *Malacothamnus davidsonii*, *Microseris douglasii* var. *platycarpa*, *Monardella cinerea*, *M. viridis* ssp. *saxicola*, *Mucronea californica*, *Muhlenbergia californica*, *Muilla coronata*, *Nama stenocarpum*, *Nemacaulis denudata* var. *denudata*, *Nemacladus gracilis*, *Opuntia basilaris* var. *brachyclada*, *Orcuttia californica*, *Oreonana vestita*, *Orobanche valida* ssp. *valida*, *Oxytheca caryophylloides*, *Pentachaeta lyonii*, *Perideridia gairdneri* ssp. *gairdneri*, *P. pringlei*, *Phacelia exilis*, *P. mohavensis*, *P. stellaris*, *Polygala cornuta* var. *fishiae*, *Potenilla glandulosa* ssp. *ewanii*, *P. multijuga*, *Quercus engelmannii*, *Ribes divaricatum* var. *parishii*, *Romneya coulteri*, *Rorippa gambellii*, *Scutellaria bolanderi* ssp. *austromontana*, *Selaginella asprella*, *Senecio aphanactis*, *S. ionophyllum*, *Sidalcea neomexicana*, *Stylocline masonii*, *Suaeda esteroa*, *S. taxifolia*, *Swertia neglecta*, *Syntrichopappus lemmonii*, *Thelypteris puberula* var. *sonorensis*, and *Thermopsis californica* var. *argentata*.

Madera County

Total number of taxa: 46

List 1A: 0; List 1B: 21; List 2: 2; List 3: 2; List 4: 21

Atriplex cordulata, *A. depressa*, *A. minuscula*, *Calycadenia hooveri*, *Calyptridium pulchellum*, *Carex congdonii*, *C. praticola*, *Castilleja campestris* ssp. *succulenta*, *Ceanothus fresnensis*, *Clarkia australis*, *Collomia rawsoniana*, *Cordylanthus palmatus*, *Cryptantha hooveri*, *Cypripedium montanum*, *Delphinium gypsophilum* ssp. *gypsophilum*, *D. hansenii* ssp. *ewanianum*, *Eriogonum prattenianum* var. *avium*, *Eriophyllum nubigenum*, *Eryngium spinosepalum*, *Erythronium pluriflorum*, *Goodmania luteola*, *Gratiola heterosepala*, *Hulsea brevifolia*, *Ivesia unguiculata*, *Lewisia disepala*, *Lilium humboldtii* ssp. *humboldtii*, *Linanthus grandiflorus*, *L. serrulatus*, *Lupinus citrinus* var. *citrinus*, *Madia yosemitana*, *Mimulus acutidens*, *M. grayi*, *M. laciniatus*, *Monardella candicans*, *Nemophila parviflora* var. *quercifolia*, *Orcuttia inaequalis*, *O. pilosa*, *Perideridia bacigalupii*, *Potamogeton robbinsii*, *Pseudobahia bahiifolia*, *Scirpus clementis*, *Streptanthus farnsworthianus*, *Trifolium bolanderi*, *Tuctoria greenei*, *Veronica cusickii*, and *Wyethia elata*.

Marin County

Total number of taxa: 90

List 1A: 1; List 1B: 54; List 2: 4; List 3: 5; List 4: 26

Agrostis blasdalei, *Alopecurus aequalis* var. *sonomensis*, *Amsinckia lunaris*, *Arabis blepharophylla*, *Arctostaphylos hookeri* ssp. *montana*, *A. virgata*, *Aspidotis carlotta-halliae*, *Astragalus breweri*, *Blennosperma nanum* var. *robustum*, *Boschniakia hookeri*, *Calamagrostis crassiglumis*, *C. ophitidis*, *Calandrinia breweri*, *Calochortus tiburonensis*, *C. umbellatus*, *Campanula californica*, *Carex leptalea*, *Castilleja affinis* ssp. *neglecta*, *C. ambigua* ssp. *humboldtensis*, *Ceanothus gloriosus* var. *gloriosus*, *C. gloriosus* var. *porrectus*, *C. masonii*, *Chorizanthe cuspidata* var. *cuspidata*, *C. cuspidata* var. *villosa*, *C. valida*, *Cirsium andrewsii*, *C. hydrophilum* var. *vaseyi*, *Clarkia concinna* ssp. *raichei*, *Collinsia corymbosa*, *Cordylanthus*

maritimus ssp. *palustris*, *C. mollis* ssp. *mollis*, *Cypripedium californicum*, *Delphinium bakeri*, *Dichondra occidentalis*, *Dirca occidentalis*, *Elymus californicus*, *Erigeron biolettii*, *E. supplex*, *Eriogonum luteolum* var. *caninum*, *Erysimum franciscanum*, *Fritillaria lanceolata* var. *tristulis*, *F. liliacea*, *Grindelia hirsutula* var. *maritima*, *G. stricta* var. *angustifolia*, *Helianthella castanea*, *Hemizonia congesta* ssp. *leucocephala*, *Hesperovax sparsiflora* var. *brevifolia*, *Hesperolinon congestum*, *Holocarpa macradenia*, *Horkelia cuneata* ssp. *sericea*, *H. marinensis*, *H. temuloba*, *Lathyrus jepsonii* var. *jepsonii*, *Layia carnosa*, *Lessingia hololeuca*, *L. micradenia* var. *micradenia*, *Lilaeopsis masonii*, *Lilium maritimum*, *Limnanthes douglasii* ssp. *sulphurea*, *Limosella subulata*, *Linanthus acicularis*, *L. grandiflorus*, *Lupinus tidestromii*, *Micropus amphibolus*, *Monardella undulata*, *M. villosa* ssp. *globosa*, *Navarretia leucocephala* ssp. *bakeri*, *N. rosulata*, *Pentachaeta bellidiflora*, *Perideridia gairdneri* ssp. *gairdneri*, *Phacelia insularis* var. *continentis*, *Piperia michaelii*, *Pityopus californicus*, *Plagiobothrys glaber*, *Pleuropogon hooverianus*, *P. refractus*, *Polygonum marinense*, *Psilocarphus tenellus* var. *globiferus*, *Ranunculus lobbii*, *Rhynchospora californica*, *Ribes victoris*, *Sagittaria sanfordii*, *Sidalcea calycosa* ssp. *rhizomata*, *S. hickmanii* ssp. *viridis*, *Stebbinsoseris decipiens*, *Streptanthus batrachopus*, *S. glandulosus* ssp. *pulchellus*, *S. niger*, *Trifolium amoenum*, and *Triphysaria floribunda*.

Mariposa County

Total number of taxa: 58

List 1A: 1; List 1B: 25; List 2: 4; List 3: 1; List 4: 27

Agrostis humilis, *Allium sanbornii* var. *congdonii*, *A. yosemitense*, *Balsamorhiza macrolepis* var. *macrolepis*, *Bolandra californica*, *Calandrinia breweri*, *Calochortus clavatus* var. *avius*, *Calycadenia hooveri*, *Calyptridium pulchellum*, *Camissonia sierrae* ssp. *alticola*, *Carex congdonii*, *C. tompkinsii*, *Castilleja campestris* ssp. *succulenta*, *Ceanothus fresnensis*, *Clarkia australis*, *C. biloba* ssp. *australis*, *C. lingulata*, *C. rostrata*, *C. virgata*, *Claytonia megarhiza*, *Collomia rawsoniana*, *Cryptantha mariposae*, *Cypripedium montanum*, *Downingia pusilla*, *Erigeron mariposanus*, *Eriogonum tripodum*, *Eriophyllum congdonii*, *E. nubigenum*, *Fritillaria agrestis*, *Horkelia parryi*, *Hulsea brevifolia*, *Ivesia unguiculata*, *Jepsonia heterandra*, *Lewisia congdonii*, *L. disepala*, *Lilium humboldtii* ssp. *humboldtii*, *Linanthus serrulatus*, *Lomatium congdonii*, *Lupinus citrinus* var. *deflexus*, *L. gracilentus*, *L. spectabilis*, *Madia yosemitana*, *Mimulus filicaulis*, *M. gracilipes*, *M. grayi*, *M. inconspicuus*, *M. laciniatus*, *M. pulchellus*, *Monardella candicans*, *Ophioglossum californicum*, *Perideridia bacigalupii*, *Potamogeton epihydrus* ssp. *nuttallii*, *Rhynchospora californica*, *Scirpus clementis*, *Trichostema rubisepalum*, *Trifolium bolanderi*, *Veronica cusickii*, and *Wyethia elata*.

Mendocino County

Total number of taxa: 104

List 1A: 4; List 1B: 44; List 2: 9; List 3: 4; List 4: 43

Abronia umbellata ssp. *breviflora*, *Agrostis blasdalei*, *Antirrhinum virga*, *Arabis macdonaldiana*, *Arctostaphylos canescens* ssp. *sonomensis*, *A. mendocinoensis*, *A. stanfordiana* ssp. *raichei*, *Asclepias solanoana*, *Astragalus breweri*, *A. rattanii* var. *rattanii*, *Blennosperma nanum* var. *robustum*, *Boschniakia hookeri*, *Calamagrostis bolanderi*, *C. crassiglumis*, *C. foliosa*, *Calandrinia breweri*, *Campanula californica*, *Cardamine*

pachystigma var. *dissectifolia*, *Carex californica*, *C. livida*, *Castilleja mendocinensis*, *Ceanothus confusus*, *C. foliosus* var. *vineatus*, *C. gloriosus* var. *gloriosus*, *Chorizanthe howellii*, *Clarkia amoena* ssp. *whitneyi*, *Collinsia corymbosa*, *Collomia diversifolia*, *Cupressus goveniana* ssp. *pigmaea*, *Cypripedium montanum*, *Epilobium nivium*, *E. oreganum*, *E. septentrionale*, *Erigeron biolettii*, *E. supplex*, *Eriogonum kelloggii*, *E. strictum* var. *greenei*, *Erysimum menziesii* ssp. *menziesii*, *Eschscholzia hypocoides*, *Friüllaria agrestis*, *F. purdyi*, *F. roderickii*, *Gentiana setigera*, *Glyceria grandis*, *Hackelia amethystina*, *Hemizonia congesta* ssp. *calyculata*, *H. congesta* ssp. *leucocephala*, *H. congesta* ssp. *tracyi*, *Hesperovax sparsiflora* var. *brevifolia*, *Hesperolinon adenophyllum*, *Horkelia bolanderi*, *H. marinensis*, *H. tenuiloba*, *Howellia aquatilis*, *Juncus supiniformis*, *Lasthenia burkei*, *L. conjugens*, *Lathyrus glandulosus*, *Layia septentrionalis*, *Lewisia stebbinsii*, *Lilium maritimum*, *L. rubescens*, *Limnanthes bakeri*, *Linanthus acicularis*, *L. rattanii*, *Lomatium engelmannii*, *Lupinus antoninus*, *L. milo-bakeri*, *Malacothamnus mendocinensis*, *Melica spectabilis*, *Microseris borealis*, *Mimulus nudatus*, *Navarretia leucocephala* ssp. *bakeri*, *N. subuligera*, *Orobanche valida* ssp. *howellii*, *Penstemon purpusii*, *Perideridia gairdneri* ssp. *gairdneri*, *Phacelia insularis* var. *continentis*, *Pinus contorta* ssp. *bolanderi*, *Piperia candida*, *Pityopus californicus*, *Plagiobothrys lithocaryus*, *Pleuropogon davayi*, *P. hooverianus*, *P. refractus*, *Pogogyne douglasii* ssp. *parviflora*, *Potamogeton epihydrus* ssp. *nuttallii*, *Puccinellia pumila*, *Raillardiopsis scabrada*, *Ranunculus lobbii*, *Rhynchospora alba*, *Ribes victoris*, *Sanguisorba officinalis*, *Sedum eastwoodiae*, *Sidalcea calycosa* ssp. *rhizomata*, *S. malachroides*, *S. oregana* ssp. *hydrophila*, *Silene campanulata* ssp. *campanulata*, *Streptanthus drepanoides*, *Thlaspi californicum*, *Trifolium amoenum*, *Veratrum fimbriatum*, *Viola palustris*, and *Wyethia longicaulis*.

Merced County

Total number of taxa: 43

List 1A: 2; **List 1B:** 22; **List 2:** 5; **List 3:** 1; **List 4:** 13

Acanthomintha lanceolata, *Agrostis hendersonii*, *Astragalus tener* var. *tener*, *Atriplex cordulata*, *A. coronata* var. *coronata*, *A. depressa*, *A. joaquiniana*, *A. minuscula*, *A. vallicola*, *Calycadenia hooveri*, *Castilleja campestris* ssp. *succulenta*, *Clarkia breweri*, *C. rostrata*, *Cordylanthus mollis* ssp. *hispidus*, *Cryptantha hooveri*, *C. rattanii*, *Delphinium gypsophilum* ssp. *gypsophilum*, *D. recurvatum*, *Downingia pusilla*, *Eleocharis quadrangulata*, *Eriogonum nudum* var. *indictum*, *E. vestitum*, *Eryngium racemosum*, *Linanthus ambiguus*, *L. grandiflorus*, *Malacothamnus hallii*, *Monardella leucocephala*, *Navarretia myersii*, *N. nigelliformis* ssp. *radians*, *Nemacladus gracilis*, *Neostapfia colusana*, *Ophioglossum californicum*, *Orcuttia inaequalis*, *O. pilosa*, *Phacelia ciliata* var. *opaca*, *Plagiobothrys glaber*, *Potamogeton filiformis*, *Psilocarphus tenellus* var. *globiferus*, *Sagittaria sanfordii*, *Senecio aphanactis*, *Streptanthus insignis* ssp. *lyonii*, *Trichocoronis wrightii* var. *wrightii*, and *Tuctoria greenei*.

Modoc County

Total number of taxa: 63

List 1A: 0; **List 1B:** 13; **List 2:** 23; **List 3:** 4; **List 4:** 23

Antennaria flagellaris, *Arabis cobrensis*, *A. microphylla* var. *microphylla*, *A. oregana*, *Arnica fulgens*, *A. sororia*, *Astragalus inversus*, *A. pulsiferae* var. *pulsiferae*, *Azolla mexicana*, *Botrychium crenulatum*, *B. lunaria*,

Calochortus greenei, *C. longebarbatus* var. *longebarbatus*, *Camissonia minor*, *Campanula scabrella*, *Carex petasata*, *C. sheldonii*, *Chenopodium simplex*, *Claytonia megarhiza*, *C. umbellata*, *Cordylanthus capitatus*, *Cupressus bakeri*, *Cypripedium montanum*, *Delphinium stachydeum*, *Dimeresia howellii*, *Erigeron elegantulus*, *E. inornatus* var. *calidipetris*, *Eriogonum prociduum*, *E. umbellatum* var. *glaberrimum*, *Galium glabrescens* ssp. *modocense*, *G. serpenticum* ssp. *warnerense*, *Gentiana affinis* var. *parvidentata*, *Geum aleppicum*, *Gratiola heterosepala*, *Hackelia cusickii*, *Iliamna bakeri*, *Ivesia baileyi* var. *beneolens*, *Lomatium hendersonii*, *Marsilea oligospora*, *Mimulus pygmaeus*, *Navarretia subuligera*, *Penstemon cinereus*, *P. cinicola*, *P. heterodoxus* var. *shastensis*, *Perideridia gairdneri* ssp. *gairdneri*, *Phacelia inundata*, *P. sericea* var. *ciliosa*, *Plagiobothrys salsus*, *Pogogyne floribunda*, *Polygonum polygaloides* ssp. *esotericum*, *Potamogeton epihydrus* ssp. *nuttallii*, *P. zosteriformis*, *Potentilla newberryi*, *Psilocarphus elatior*, *Ribes hudsonianum* var. *petiolare*, *Rorippa columbiana*, *Salix bebbiana*, *Salvia dorrii* var. *incana*, *Saxifraga cespitosa*, *Senecio hydrophiloides*, *Solidago gigantea*, *Stenotus lanuginosus*, and *Thermopsis californica* var. *argentata*.

Mono County

Total number of taxa: 101

List 1A: 0; **List 1B:** 30; **List 2:** 47; **List 3:** 1; **List 4:** 23

Abronia nana ssp. *covillei*, *Achnatherum aridum*, *Allium atrorubens* var. *atorrubens*, *Antennaria pulchella*, *Arabis bodiensis*, *A. cobrensis*, *A. dispar*, *A. fernaldiana* var. *stylosa*, *A. microphylla* var. *microphylla*, *A. pinzlae*, *A. tiehmii*, *Arnica sororia*, *Astragalus argophyllus* var. *argophyllus*, *A. geyeri* var. *geyeri*, *A. johannis-howellii*, *A. kentrophyta* var. *danaus*, *A. lentiginosus* var. *piscinensis*, *A. monoensis* var. *monoensis*, *A. monoensis* var. *ravenii*, *A. oophorus* var. *lavinii*, *A. platytropis*, *A. pseudiodanthus*, *A. serenoii* var. *shockleyi*, *Blepharidachne kingii*, *Botrychium lunaria*, *Calochortus excavatus*, *Camissonia boothii* ssp. *boothii*, *Carex congdonii*, *C. eleocharis*, *C. incurviformis* var. *danaensis*, *C. norvegica*, *C. parryana* var. *hallii*, *C. petasata*, *C. praticola*, *C. tiogana*, *Claytonia megarhiza*, *C. umbellata*, *Crepis runcinata* ssp. *hallii*, *Cusickiella quadricostata*, *Dedeckera ewekensis*, *Draba asterophora* var. *asterophora*, *D. californica*, *D. cana*, *D. cruciata*, *D. incrasata*, *D. monoensis*, *D. subumbellata*, *Dryopteris filix-mas*, *Elymus scribneri*, *Epilobium howellii*, *Eriogonum beatleyae*, *E. nutans*, *E. ochrocephalum* var. *alexanderiae*, *Fimbristylis thermalis*, *Gentiana prostrata*, *Glyceria grandis*, *Goodmania luteola*, *Hackelia brevicula*, *Halimolobos virgata*, *Heuchera duranii*, *Hordeum intercedens*, *H. hispidula*, *Hulsea vestita* ssp. *inyoensis*, *Ivesia kingii* var. *kingii*, *Jamesia americana* var. *rosea*, *Juncus hemiendytus* var. *abjectus*, *Kobresia bellardii*, *Lupinus duranii*, *L. lepidus* var. *culbertsonii*, *L. padre-crowleyi*, *Mimulus glabratus* ssp. *utahensis*, *Minuartia obtusiloba*, *Opuntia pulchella*, *Oxytropis deflexa* var. *sericea*, *Pedicularis crenulata*, *Penstemon barnebyi*, *P. papillatus*, *Phacelia inyoensis*, *P. monoensis*, *Pinus longaeva*, *Piptatherum micranthum*, *Plagiobothrys glomeratus*, *Poa abbreviata* ssp. *marshii*, *P. pattersonii*, *Podistera nevadensis*, *Polemonium chartaceum*, *Potamogeton filiformis*, *Potentilla concinna*, *P. morefieldii*, *P. newberryi*, *Salix brachycarpa* ssp. *brachycarpa*, *S. reticulata* ssp. *nivalis*, *Scirpus clementis*, *S. pumilus*, *Senecio pattersonensis*, *Spartina gracilis*, *Sphenopholis obtusata*, *Streptanthus oliganthus*, *Townsendia parryi*, *Trifolium macilentum* var. *dedeckerae*, and *Viola aurea*.

Monterey County

Total number of taxa: 137

List 1A: 1; **List 1B:** 67; **List 2:** 0; **List 3:** 4; **List 4:** 65

Abies bracteata, *Acanthomintha lanceolata*, *A. obovata* ssp. *obovata*, *Allium hickmanii*, *Antirrhinum ovatum*, *Arctostaphylos cruzensis*, *A. edmundsii*, *A. hookeri* ssp. *hookeri*, *A. hooveri*, *A. montereyensis*, *A. obispoensis*, *A. pajaroensis*, *A. pilosula*, *A. pumila*, *Aristocapsa insignis*, *Aspidotis carlotta-halliae*, *Astragalus macrodon*, *A. tener* var. *tener*, *A. tener* var. *titi*, *Atriplex coronata* var. *coronata*, *Bloomeria humilis*, *Calandrinia breweri*, *Calochortus weedii* var. *vestus*, *Calycadenia villosa*, *Calyptridium parryi* var. *hesseae*, *Calystegiacollinassp. venusta*, *Camissoniahardhamiae*, *Castilleja latifolia*, *Ceanothus cuneatus* var. *rigidus*, *Chlorogalum purpureum* var. *purpureum*, *Chorizanthe biloba* var. *immemora*, *C. douglasii*, *C. palmeri*, *C. pungens* var. *pungens*, *C. rectispina*, *C. robusta* var. *robusta*, *Cirsium occidentale* var. *compactum*, *Clarkia breweri*, *C. jolonensis*, *C. lewisii*, *Collinsia multicolor*, *Cordylanthus rigidus* ssp. *littoralis*, *Corethrogyne leucophylla*, *Cryptantha rattanii*, *Cupressus goveniana* ssp. *goveniana*, *C. macrocarpa*, *Delphinium gypsophilum* ssp. *gypsophilum*, *D. gypsophilum* ssp. *parviflorum*, *D. hutchinsoniae*, *D. umbraculorum*, *Elymus californicus*, *Eriastrum luteum*, *E. virgatum*, *Ericameria fasciculata*, *Eriogonum argillosum*, *E. butterworthianum*, *E. eastwoodianum*, *E. heermannii* var. *occidentale*, *E. nortonii*, *E. nudum* var. *indictum*, *E. temblorense*, *Erysimum ammophilum*, *E. menziesii* ssp. *menziesii*, *E. menziesii* ssp. *yadonii*, *Eschscholzia hypocoides*, *Fritillaria agrestis*, *F. falcata*, *F. liliacea*, *F. viridea*, *Galium andrewsii* ssp. *gatense*, *G. californicum* ssp. *lucianense*, *G. clementis*, *G. cliffsmithii*, *G. hardhamiae*, *Gilia tenuiflora* ssp. *arenaria*, *Grindelia hirsutula* var. *maritima*, *G. stricta* var. *angustifolia*, *Hemizonia halliana*, *H. parryi* ssp. *congdonii*, *Holocarpha macradenia*, *Horkelia cuneata* ssp. *sericea*, *H. yadonii*, *Lasthenia leptalea*, *Layia carnosa*, *L. heterotricha*, *L. jonesii*, *Lessingia hololeuca*, *L. occidentalis*, *Linanthus grandiflorus*, *Lomatium parvifolium*, *Lupinus albifrons* var. *abramsii*, *L. cervinus*, *L. tidestromii*, *Madia radiata*, *Malacothamnus abbottii*, *M. aboriginum*, *M. davidsonii*, *M. jonesii*, *M. niveus*, *M. palmeri* var. *involutus*, *M. palmeri* var. *lucianus*, *M. palmeri* var. *palmeri*, *Malacothrix saxatilis* var. *arachnoidea*, *Micropus amphibolus*, *Mimulus subsecundus*, *Monardella antonina* ssp. *antonina*, *M. antonina* ssp. *benitensis*, *M. palmeri*, *M. undulata*, *Mucronea californica*, *Navarretia Jaredii*, *N. nigelliformis* ssp. *radians*, *Ophioglossum californicum*, *Pedicularis dudleyi*, *Pentachaeta exilis* ssp. *aeolica*, *Perideridia gairdneri* ssp. *gairdneri*, *P. pringlei*, *Pinus radiata*, *Piperia michaelii*, *P. yadonii*, *Plagiobothrys uncinatus*, *Pogogyne clareana*, *Potentilla hickmanii*, *Psilocarphus tenellus* var. *globiferus*, *Raillardiodopsis muirii*, *Ribes sericeum*, *Sanicula hoffmannii*, *S. maritima*, *Sidalcea hickmanii* ssp. *hickmanii*, *S. malachroides*, *Stebbinsoseris decipiens*, *Stylocline masonii*, *Syntrichopappus lemmonii*, *Systemotheca vortriedei*, *Trifolium polyodon*, *T. trichocalyx*, and *Tropidocarpum capparideum*.

Napa County

Total number of taxa: 87

List 1A: 0; **List 1B:** 41; **List 2:** 1; **List 3:** 5; **List 4:** 40

Antirrhinum virga, *Arabis modesta*, *A. oregana*, *Asclepias solanoana*, *Aster lentus*, *Astragalus breweri*, *A. clarianus*, *A. clevelandii*, *A. rattanii* var.

jepsonianus, *A. tener* var. *tener*, *Atriplex joaquiniana*, *Balsamorhiza macrolepis* var. *macrolepis*, *Calamagrostis ophitidis*, *Calandrinia breweri*, *Calyptridium quadripetalum*, *Calystegia collina* ssp. *oxyphylla*, *Castilleja affinis* ssp. *neglecta*, *Ceanothus confusus*, *C. divergens*, *C. purpureus*, *C. sonomensis*, *Collomia diversifolia*, *Cordylanthus mollis* ssp. *mollis*, *C. tenuis* ssp. *brunneus*, *Cryptantha clevelandii* var. *dissita*, *Delphinium uliginosum*, *Downingia pusilla*, *Eleocharis parvula*, *Erigeron angustatus*, *E. biolettii*, *Eriogonum luteolum* var. *caninum*, *E. nervulosum*, *E. tripodum*, *Erythronium helenae*, *Fritillaria pluriflora*, *F. purdyi*, *Grindelia stricta* var. *angustifolia*, *Helianthus exilis*, *Hesperolinon bicarpellatum*, *H. breweri*, *H. drymarioides*, *H. serpentinum*, *Juglans californica* var. *hindsii*, *Lasthenia conjugens*, *Lathyrus jepsonii* var. *jepsonii*, *Layia septentrionalis*, *Legenere limosa*, *Lessingia hololeuca*, *Lilaeopsis masonii*, *Lilium rubescens*, *Limnanthes vincularis*, *Linanthus acicularis*, *Lomatium ciliolatum* var. *hooveri*, *L. repostum*, *Lupinus sericatus*, *Madia hallii*, *M. nutans*, *Malacothamnus helleri*, *Micropus amphibolus*, *Mimulus nudatus*, *Monardella villosa* ssp. *globosa*, *M. viridis* ssp. *viridis*, *Navarretia jepsonii*, *N. leucocephala* ssp. *bakeri*, *N. leucocephala* ssp. *pauciflora*, *N. rosulata*, *N. subuligera*, *Orobanche valida* ssp. *howellii*, *Penstemon newberryi* var. *sonomensis*, *Perideridia gairdneri* ssp. *gairdneri*, *Pityopus californicus*, *Plagiobothrys strictus*, *Poa napensis*, *Pogogyne douglasii* ssp. *parviflora*, *Polygonum marinense*, *Psilocarphus brevissimus* var. *multiflorus*, *Ranunculus lobbii*, *Ribes victoris*, *Senecio clevelandii* var. *clevelandii*, *Sidalcea hickmanii* ssp. *viridis*, *S. oregana* ssp. *hydrophila*, *Streptanthus brachiatus* ssp. *brachiatus*, *S. morrisonii* ssp. *elatus*, *S. morrisonii* ssp. *kruckebergii*, *Thelypodium brachycarpum*, *Trichostema rubisepalum*, and *Trifolium amoenum*.

Nevada County

Total number of taxa: 35

List 1A: 0; **List 1B:** 11; **List 2:** 5; **List 3:** 3; **List 4:** 16

Allium sanbornii var. *congdonii*, *A. sanbornii* var. *sanbornii*, *Azolla mexicana*, *Calystegia stebbinsii*, *Carex davyi*, *Claytonia megarhiza*, *Cypripedium fasciculatum*, *Darlingtonia californica*, *Drosera anglica*, *Erigeron miser*, *E. petrophilus* var. *sierrensis*, *Eriogonum umbellatum* var. *torreyanum*, *Fremontodendron decumbens*, *Ivesia sericoleuca*, *Juncus hemiendytus* var. *abjectus*, *J. marginatus* var. *marginatus*, *Lathyrus sulphureus* var. *argillaceus*, *Lewisia cantelovii*, *L. longipetala*, *Lilium humboldtii* ssp. *humboldtii*, *Lycopodiella inundata*, *Lycopus uniflorus*, *Marsilea oligospora*, *Monardella candicans*, *M. follettii*, *Perideridia bacigalupii*, *P. pringlei*, *Plagiobothrys glyptocarpus* var. *modestus*, *Rhynchospora alba*, *Rorippa subumbellata*, *Scutellaria galericulata*, *Sidalcea stipularis*, *Silene invisiva*, *Trifolium lemmonii*, and *Viola tomentosa*.

Orange County

Total number of taxa: 69

List 1A: 3; **List 1B:** 33; **List 2:** 7; **List 3:** 1; **List 4:** 25

Abronia maritima, *Aphanisma blitoides*, *Astragalus brauntonii*, *A. pycnostachyus* var. *lanosissimus*, *Atriplex coulteri*, *A. pacifica*, *A. parishii*, *A. serenana* var. *davidsonii*, *Bergerocactus emoryi*, *Boykinia rotundifolia*, *Brodiaea filifolia*, *B. orcuttii*, *Calandrinia maritima*, *Calochortus catalinae*, *C. weedii* var. *intermedius*, *Calystegia sepium* ssp. *binghamiae*, *Camissonia lewisii*, *Chorizanthe parryi* var. *fernandina*, *C. procumbens*,

Comarostaphylis diversifolia ssp. *diversifolia*, *Cordylanthus maritimus* ssp. *maritimus*, *Cupressus forbesii*, *Dichondra occidentalis*, *Dudleya blochmaniae* ssp. *blochmaniae*, *D. cymosa* ssp. *ovatifolia*, *D. multicaulis*, *D. stolonifera*, *D. viscida*, *Eleocharis parvula*, *Eriastrum densifolium* ssp. *sanctorum*, *Euphorbia misera*, *Fremontodendron mexicanum*, *Harpagonella palmeri*, *Helianthus nuttallii* ssp. *parishii*, *Hemizonia parryi* ssp. *australis*, *Holocarpha virgata* ssp. *elongata*, *Isocoma menziesii* var. *decumbens*, *Juglans californica* var. *californica*, *Juncus acutus* ssp. *leopoldii*, *Lasthenia glabrata* ssp. *coulteri*, *Lepechinia cardiophylla*, *Lepidium virginicum* var. *robinsonii*, *Lilium humboldtii* ssp. *ocellatum*, *Microseris douglasii* var. *platycarpha*, *Mimulus clevelandii*, *M. diffusus*, *Monardella hypoleuca* ssp. *lanata*, *M. macrantha* ssp. *hallii*, *Mucronea californica*, *Nama stenocarpum*, *Nemacaulis denudata* var. *denudata*, *Ophioglossum californicum*, *Perideridia gairdneri* ssp. *gairdneri*, *Phacelia suaveolens* ssp. *keckii*, *Polygala cornuta* var. *fishiae*, *Quercus dumosa*, *Q. engelmannii*, *Romneya coulteri*, *Rorippa gambellii*, *Sagittaria sanfordii*, *Satureja chandleri*, *Selaginella asprella*, *S. cinerascens*, *Senecio aphanactis*, *Sidalcea neomexicana*, *Suaeda esteroa*, *S. taxifolia*, *Tetracoccus dioicus*, and *Verbesina dissita*.

Placer County

Total number of taxa: 36

List 1A: 0; List 1B: 15; List 2: 4; List 3: 2; List 4: 15

Allium sanbornii var. *congdonii*, *A. sanbornii* var. *sanbornii*, *Arabis rigidissima* var. *demota*, *Astragalus pauperculus*, *Balsamorhiza macrolepis* var. *macrolepis*, *Cardamine pachystigma* var. *dissectifolia*, *Carex davyi*, *C. sheldonii*, *Chlorogalum grandiflorum*, *Cordylanthus mollis* ssp. *hispidus*, *Corydalis caseana* ssp. *caseana*, *Downingia pusilla*, *Erigeron miser*, *Eriogonum tripodum*, *E. umbellatum* var. *torreyanum*, *Fritillaria agrestis*, *Glyceria grandis*, *Gratiola heterosepala*, *Ivesia sericoleuca*, *Juncus leiospermus* var. *ahartii*, *Lathyrus sulphureus* var. *argillaceus*, *Legenere limosa*, *Lewisia longipetala*, *L. serrata*, *Lilium humboldtii* ssp. *humboldtii*, *Monardella candicans*, *Navarretia eriocephala*, *N. prolifera* ssp. *lutea*, *Phacelia stebbinsii*, *Podistera nevadensis*, *Rorippa subumbellata*, *Scutellaria galericulata*, *Silene invisus*, *Sparganium natans*, *Veronica cusickii*, and *Viola tomentosa*.

Plumas County

Total number of taxa: 67

List 1A: 0; List 1B: 20; List 2: 16; List 3: 5; List 4: 26

Arabis constancei, *A. microphylla* var. *microphylla*, *Arctostaphylos mewukka* ssp. *truei*, *Arnica fulgens*, *Astragalus leniformis*, *A. pulsiferae* var. *pulsiferae*, *A. pulsiferae* var. *suksdorfii*, *A. webberi*, *Azolla mexicana*, *Camissonia tanacetifolia* ssp. *quadriperforata*, *Carex geyeri*, *C. gigas*, *C. lasiocarpa*, *C. limosa*, *C. scoparia*, *C. sheldonii*, *Chenopodium simplex*, *Clarkia mildrediae*, *Claytonia palustris*, *Corallorhiza trifida*, *Corydalis caseana* ssp. *caseana*, *Cupressus bakeri*, *Cypripedium californicum*, *C. fasciculatum*, *C. montanum*, *Darlingtonia californica*, *Drosera anglica*, *Epilobium luteum*, *Erigeron inornatus* var. *calidipetris*, *E. petrophilus* var. *sierrensis*, *Fritillaria pluriflora*, *Hackelia amethystina*, *Ivesia aperta* var. *aperta*, *I. baileyi* var. *baileyi*, *I. sericoleuca*, *I. webberi*, *Juncus hemiendyus* var. *abjectus*, *Lewisia cantelovii*, *Lupinus dalesiae*, *Lycopus uniflorus*, *Marsilea oligospora*, *Mimulus laciniatus*, *M. pygmaeus*, *Monardella*

follettii, *M. stebbinsii*, *Orcuttia tenuis*, *Penstemon personatus*, *Polystichum kruckebergii*, *P. lonchitis*, *Potamogeton epihydrus* ssp. *nuttallii*, *P. praelongus*, *Pyrocoma lucida*, *Rhynchospora alba*, *Scheuchzeria palustris* var. *americana*, *Scirpus subterminalis*, *Scutellaria galericulata*, *Sedum albomarginatum*, *Senecio eurycephalus* var. *lewisrosei*, *S. hydrophiloides*, *Silene invisus*, *S. occidentalis* ssp. *longistipitata*, *Solidago gigantea*, *Sparganium natans*, *Trifolium lemmonii*, *Trimorpha acris* var. *debilis*, *Vaccinium coccineum*, and *Viola tomentosa*.

Riverside County

Total number of taxa: 154

List 1A: 2; List 1B: 72; List 2: 26; List 3: 4; List 4: 50

Acleisanthes longiflora, *Allium munzii*, *A. parishii*, *Ambrosia pumila*, *Ammoselinum giganteum*, *Antirrhinum cyathiferum*, *Arabis johnstonii*, *Arctostaphylos peninsularis* ssp. *peninsularis*, *A. rainbowensis*, *Astragalus bicristatus*, *A. crotalariae*, *A. insularis* var. *harwoodii*, *A. lentiginosus* var. *borreganus*, *A. lentiginosus* var. *coachellae*, *A. leucolobus*, *A. nutans*, *A. pachypus* var. *jaegeri*, *A. tricarinatus*, *Atriplex coronata* var. *notatior*, *A. coulteri*, *A. pacifica*, *A. parishii*, *A. serenana* var. *davidsonii*, *Ayenia compacta*, *Berberis nevini*, *Boykinia rotundifolia*, *Brodiaea filifolia*, *B. orcuttii*, *Calochortus palmeri* var. *munzii*, *C. palmeri* var. *palmeri*, *C. plummerae*, *C. weedii* var. *intermedius*, *Carnegiea gigantea*, *Castela emoryi*, *Castilleja lasiorhyncha*, *Caulanthus simulans*, *Ceanothus cyaneus*, *C. ophiophilus*, *Chaenactis carphoclinia* var. *peirsonii*, *C. parishii*, *Chamaesyce arizonica*, *C. platysperma*, *Chorizanthe leptotheca*, *C. parryi* var. *parryi*, *C. polygonoides* var. *longispina*, *C. procumbens*, *C. xanti* var. *leucotheca*, *Colubrina californica*, *Comarostaphylis diversifolia* ssp. *diversifolia*, *Condalia globosa* var. *pubescens*, *Convolvulus simulans*, *Cryptantha costata*, *C. holoptera*, *Cynanchum utahense*, *Delphinium hesperium* ssp. *cuyamaca*, *Ditaxis californica*, *D. clariana*, *Dodecagema leptoceras*, *Dudleya multicaulis*, *D. saxosa* ssp. *saxosa*, *D. viscida*, *Erigeron breweri* var. *jacinteus*, *E. parishii*, *Eriogonum foliosum*, *Eryngium aristulatum* var. *parishii*, *Escobaria vivipara* var. *alversonii*, *Euphorbia misera*, *Galium angustifolium* ssp. *gracillimum*, *G. angustifolium* ssp. *jacinticum*, *G. californicum* ssp. *primum*, *Gilia caruifolia*, *G. maculata*, *Githopsis diffusa* ssp. *flicaulis*, *Harpagonella palmeri*, *Hemizonia mohavensis*, *H. pungens* ssp. *laevis*, *Heuchera hirsutissima*, *H. parishii*, *Holocarpha virgata* ssp. *elongata*, *Hordeum intercedens*, *Hulsea vestita* ssp. *callicarpa*, *H. vestita* ssp. *parryi*, *Ivesia callida*, *Juglans californica* var. *californica*, *Juncus duranii*, *Lasthenia glabrata* ssp. *coulteri*, *Lepechinia cardiophylla*, *Lepidium virginicum* var. *robinsonii*, *Leptodactylon jaegeri*, *Lilium humboldtii* ssp. *ocellatum*, *L. parryi*, *Limnanthes gracilis* ssp. *parishii*, *Linanthus floribundus* ssp. *hallii*, *L. orcuttii*, *Loeflingia squarrosa* var. *artemisiarum*, *Lycium parishii*, *Machaeranthera canescens* var. *ziegleri*, *Malaxis monophyllos* ssp. *brachypoda*, *Marina orcuttii* var. *orcuttii*, *Matelea parvifolia*, *Microseris douglasii* var. *platycarpha*, *Mimulus clevelandii*, *M. diffusus*, *Mirabilis tenuiloba*, *Monardella macrantha* ssp. *hallii*, *M. pringlei*, *M. robinsonii*, *Mucronea californica*, *Muhlenbergia californica*, *Myosurus minimus* ssp. *apus*, *Navarretia fossalis*, *Nemacaulis denudata* var. *gracilis*, *Opuntia munzii*, *O. wigginsii*, *Orcuttia californica*, *Oxytheca caryophylloides*, *O. emarginata*, *Penstemon californicus*, *P. clevelandii* var. *connatus*, *P. thurberi*, *Phacelia suaveolens* ssp. *keckii*, *Phaseolus filiformis*, *Pilostyles thurberi*, *Polygala cornuta* var. *fishiae*, *Portulaca halimoides*, *Potentilla rimicola*, *Proboscidea althaeifolia*, *Quercus*

engelmannii, *Romneya coulteri*, *Rupertia rigida*, *Salvia eremostachya*, *S. greatae*, *Satureja chandleri*, *Scutellaria bolanderi* ssp. *austromontana*, *Sedum niveum*, *Selaginella asprella*, *S. eremophila*, *Senecio aphanactis*, *Senna covesii*, *Sidalcea neomexicana*, *Sphenopholis obtusata*, *Streptanthus bernardinus*, *S. campestris*, *Stylocline sonorensis*, *Syntrichopappus lemmonii*, *Tetracoccus dioicus*, *Tetradymia argyreae*, *Thelypteris puberula* var. *sonorensis*, *Trichocoronis wrightii* var. *wrightii*, *Trichostema austromontanum* ssp. *compactum*, *T. micranthum*, *Wislizenia refracta* ssp. *refracta*, *Xylorhiza cognata*, and *X. orcuttii*.

Sacramento County

Total number of taxa: 21

List 1A: 0; List 1B: 13; List 2: 3; List 3: 2; List 4: 3

Aster lentus, *Atriplex joaquiniana*, *Downingia pusilla*, *Eryngium pinnatisectum*, *Fritillaria agrestis*, *Gratiola heterosepala*, *Helianthemum suffrutescens*, *Hibiscus lasiocarpus*, *Juglans californica* var. *hindsii*, *Juncus leiopermus* var. *ahartii*, *Lathyrus jepsonii* var. *jepsonii*, *Legenere limosa*, *Lilaeopsis masonii*, *Limosella subulata*, *Navarretia eriocephala*, *N. myersii*, *Oenothera deltoidea* ssp. *howellii*, *Orcuttia tenuis*, *O. viscida*, *Pogogyne douglasii* ssp. *parviflora*, and *Sagittaria sanfordii*.

San Benito County

Total number of taxa: 61

List 1A: 1; List 1B: 19; List 2: 0; List 3: 3; List 4: 38

Acanthomintha lanceolata, *A. obovata* ssp. *obovata*, *Amsinckia vernicosa* var. *furcata*, *Antirrhinum ovatum*, *Aristocapsa insigne*, *Aspidotis carlottahalliae*, *Astragalus clevelandii*, *A. macrodon*, *A. tener* var. *tener*, *Atriplex joaquiniana*, *Calochortus clavatus* var. *clavatus*, *Calyptridium parryi* var. *hesseae*, *Calystegia collina* ssp. *venusta*, *Camissonia benitensis*, *Campanula exigua*, *Chorizanthe biloba* var. *immemora*, *C. douglasii*, *C. palmeri*, *Clarkia breweri*, *C. lewisii*, *Convolvulus simulans*, *Cryptantha rattanii*, *Eriastrum hooveri*, *E. virgatum*, *Eriogonum argillosum*, *E. heermannii* var. *occidentale*, *E. nortonii*, *E. nudum* var. *indictum*, *E. vestitum*, *Eriophyllum jepsonii*, *Eryngium aristulatum* var. *hooveri*, *Eschscholzia hypocoides*, *Fritillaria agrestis*, *F. falcata*, *F. liliacea*, *F. viridea*, *Galium andrewsii* ssp. *gatense*, *Hemizonia halliana*, *Hordeum intercedens*, *Isocoma menziesii* var. *diabolica*, *Lathyrus jepsonii* var. *jepsonii*, *Layia discoidea*, *L. heterotricha*, *Lembertia congdonii*, *Lepidium Jaredii* ssp. *album*, *Lessingia occidentalis*, *Linanthus ambiguus*, *Madia radiata*, *Malacothamnus aboriginum*, *Mimulus subsecundus*, *Monardella antonina* ssp. *antonina*, *M. antonina* ssp. *benitensis*, *Navarretia nigelliformis* ssp. *radians*, *Pentachaeta exilis* ssp. *aeolica*, *Perideridia gairdneri* ssp. *gairdneri*, *Phacelia phacelioides*, *Piperia michaelii*, *Plagiobothrys glaber*, *P. uncinatus*, *Solidago guiradonis*, and *Trichostema rubisepalum*.

San Bernardino County

Total number of taxa: 232

List 1A: 5; List 1B: 91; List 2: 61; List 3: 5; List 4: 70

Abronia nana ssp. *covillei*, *Achnatherum aridum*, *Agave utahensis*, *Allium nevadense*, *A. parishii*, *Androsace elongata* ssp. *acuta*, *Androstaphium breviflorum*, *Antennaria marginata*, *Arabis breweri* var.

pecuniaria, *A. dispar*, *A. parishii*, *A. pulchra* var. *munciensis*, *A. shockleyi*, *Arctomecon merriamii*, *Arenaria macradenia* var. *kuschei*, *A. paludicola*, *A. ursina*, *Argyroschisma limitanea* var. *limitanea*, *Astragalus albens*, *A. allochrous* var. *playanus*, *A. bicristatus*, *A. cimae* var. *cimae*, *A. jaegerianus*, *A. lentiginosus* var. *antoniui*, *A. lentiginosus* var. *borreganus*, *A. lentiginosus* var. *sierrae*, *A. leucolobus*, *A. nutans*, *A. preussii* var. *preussii*, *A. tricarinatus*, *Astrolepis cochisensis*, *Atriplex coulteri*, *A. parishii*, *Ayenia compacta*, *Berberis fremontii*, *B. nevini*, *Botrychium crenulatum*, *Bouteloua trifida*, *Boykinia rotundifolia*, *Brodiaea filifolia*, *Calandrinia breweri*, *Calochortus palmeri* var. *palmeri*, *C. plummerae*, *C. striatus*, *Camissonia boothii* ssp. *boothii*, *Canbya candida*, *Carex comosa*, *Carnegeia gigantea*, *Castela emoryi*, *Castilleja cinerea*, *C. lasiorhyncha*, *C. montigena*, *C. plagiotoma*, *Chamaesyce platysperma*, *Cheilanthes wootonii*, *Chorizanthe leptotheca*, *C. parryi* var. *parryi*, *C. procumbens*, *C. spinosa*, *C. xanti* var. *leucotheca*, *Chrysothamnus gramineus*, *Claytonia lanceolata* var. *peirsonii*, *Cordylanthus eremicus* ssp. *eremicus*, *C. parviflorus*, *C. tecopensis*, *Cryptantha clokeyi*, *C. costata*, *C. holoptera*, *C. tumulosa*, *Cymopterus deserticola*, *C. gilmanii*, *Cynanchum utahense*, *Ditaxis clariana*, *Dodecahema leptoceras*, *Dryopteris filix-mas*, *Dudleya abramsii* ssp. *affinis*, *D. multicaulis*, *D. saxosa* ssp. *saxosa*, *Echinocereus engelmannii* var. *howei*, *Enceliopsis nudicaulis*, *Emeapogon desvauxii*, *Eriastrum densifolium* ssp. *sanctorum*, *Erigeron breweri* var. *bisanctus*, *E. breweri* var. *jacinteus*, *E. parishii*, *E. uncialis* var. *uncialis*, *Eriodictyon angustifolium*, *Eriogonum bifurcatum*, *E. contiguum*, *E. ericifolium* var. *thornei*, *E. foliosum*, *E. heermannii* var. *floccosum*, *E. kennedyi* var. *alpigenum*, *E. kennedyi* var. *austromontanum*, *E. microthecum* var. *corymbosoides*, *E. microthecum* var. *johnstonii*, *E. ovalifolium* var. *vineum*, *E. umbellatum* var. *juniporinum*, *E. umbellatum* var. *minus*, *Eriogonum pilosum*, *Eriophyllum lanatum* var. *obovatum*, *E. mohavense*, *Escobaria vivipara* var. *alversonii*, *E. vivipara* var. *rosea*, *Euphorbia exstipulata* var. *exstipulata*, *Fendlerella utahensis*, *Fimbristylis thermalis*, *Galium angustifolium* ssp. *gabrielense*, *G. angustifolium* ssp. *gracillimum*, *G. californicum* ssp. *primum*, *G. hilendiae* ssp. *kingstonense*, *G. jepsonii*, *G. johnstonii*, *G. munzii*, *G. wrightii*, *Gentiana fremontii*, *Gilia maculata*, *Glossopetalon pungens*, *Helianthus nuttallii* ssp. *parishii*, *Hemizonia mohavensis*, *H. pungens* ssp. *laevis*, *Heuchera abramsii*, *H. elegans*, *H. parishii*, *Horkelia wilderae*, *Hulsea vestita* ssp. *gabrielensis*, *H. vestita* ssp. *parryi*, *Ivesia argyrocoma*, *I. jaegeri*, *I. patellifera*, *Juglans californica* var. *californica*, *Juncus duranii*, *Lasthenia glabrata* ssp. *coulteri*, *Lepidium virginicum* var. *robinsonii*, *Lesquerella kingii* ssp. *bernardina*, *Lewisia brachycalyx*, *Lilium humboldtii* ssp. *ocellatum*, *L. parryi*, *Linanthus arenicola*, *L. concinnus*, *L. killipii*, *Lotus argyraeus* var. *multicaulis*, *L. argyraeus* var. *notitius*, *Lycium parishii*, *Lycurus phleoides* var. *phleoides*, *Malacothamnus parishii*, *Malaxis monophyllos* ssp. *brachypoda*, *Matelea parvifolia*, *Maurandya antirrhiniflora* ssp. *antirrhiniflora*, *Mimulus exiguus*, *M. mohavensis*, *M. purpureus*, *Monardella cinerea*, *M. macrantha* ssp. *hallii*, *M. pringlei*, *M. robinsonii*, *M. viridis* ssp. *saxicola*, *Mucronea californica*, *Muhlenbergia appressa*, *M. arsenei*, *M. californica*, *M. fragilis*, *M. pauciflora*, *Mulla coronata*, *Mumroa squarrosa*, *Myosurus minimus* ssp. *apus*, *Nama dichotomum* var. *dichotomum*, *Navarretia peninsularis*, *Oenothera caespitosa* ssp. *crinta*, *Ophioglossum californicum*, *O. basilaris* var. *brachyclada*, *O. curvospina*, *Oreonana vestita*, *Oxytheca caryophylloides*, *O. parishii* var. *cienegensis*, *O. parishii* var. *goodmaniana*, *Pellaea truncata*, *Penstemon albomarginatus*, *P. calcareus*, *P. fruticiformis* var. *amargosae*, *P. stephensii*,

P. thurberi, *Perideridia parishii* ssp. *parishii*, *Phacelia anelsonii*, *P. exilis*, *P. mohavensis*, *P. mustelina*, *P. parishii*, *Phlox dolichantha*, *Pholistoma auritum* var. *arizonicum*, *Physalis lobata*, *Pinus edulis*, *Piptatherum micranthum*, *Poa atropurpurea*, *Podistera nevadensis*, *Poliomnitha incana*, *Polystichum kruckebergii*, *Populus angustifolia*, *Portulaca halimoides*, *Psoralea arborescens* var. *arborescens*, *Puccinellia parishii*, *Pyrocoma uniflora* var. *gossypina*, *Ribes divaricatum* var. *parishii*, *Rupertia rigida*, *Salvia greatae*, *Sanvitalia abertii*, *Sclerocactus polyanctistrus*, *Scleropogon brevifolius*, *Scuellaria bolanderi* ssp. *austromontana*, *Sedum niveum*, *Selaginella asprella*, *S. leucobryoides*, *Senecio bernardinus*, *S. ionophyllus*, *Senna covesii*, *Sidalcea hickmanii* ssp. *parishii*, *S. neomexicana*, *S. pedata*, *Sphaeralcea rusbyi* var. *eremicola*, *Sphenopholis obtusata*, *Streptanthus bernardinus*, *S. campestris*, *Swertia neglecta*, *Syntrichopappus lemmonii*, *Taraxacum californicum*, *Tetradymia argyrea*, *Thelypodium stenopetalum*, *Trichostema micranthum*, *Viola aurea*, *V. pinetorum* ssp. *grisea*, *Wislizenia refracta* ssp. *refracta*, and *Woodsia plummerae*.

San Diego County

Total number of taxa: 210

List 1A: 1; **List 1B:** 97; **List 2:** 47; **List 3:** 6; **List 4:** 59

Abronia maritima, *Acanthomintha ilicifolia*, *Achnatherum diegoense*, *Adolphia californica*, *Agave shawii*, *Ambrosia chenopodiifolia*, *A. pumila*, *Androsace elongata* ssp. *acuta*, *Aphanisma blitoides*, *Arctostaphylos glandulosa* ssp. *crassifolia*, *A. otayensis*, *A. rainbowensis*, *Artemisia palmeri*, *Astragalus crotalariae*, *A. deanei*, *A. douglasii* var. *perstrictus*, *A. insularis* var. *harwoodii*, *A. lentiginosus* var. *borreganus*, *A. leucolobus*, *A. magdalenae* var. *peirsonii*, *A. oocarpus*, *A. tener* var. *titi*, *Atriplex coulteri*, *A. pacifica*, *A. parishii*, *A. serenana* var. *davidsonii*, *Ayenia compacta*, *Azolla mexicana*, *Baccharis vanessae*, *Berberis fremontii*, *B. nevini*, *Bergerocactus emoryi*, *Boykinia rotundifolia*, *Brodiaea filifolia*, *B. orcuttii*, *Bursera microphylla*, *Calandrinia breweri*, *C. maritima*, *Calliandra eriophylla*, *Calochortus catalinae*, *C. dunii*, *Camissonia lewisii*, *Carlwrightia arizonica*, *Castilleja lasiorhyncha*, *Caulanthus simulans*, *Ceanothus cyaneus*, *C. verrucosus*, *Chaenactis carphoclinia* var. *peirsonii*, *C. parishii*, *Chamaebatia australis*, *Chamaesyce arizonica*, *C. platysperma*, *Chorizanthe leptotheca*, *C. orcuttiana*, *C. parryi* var. *fernandina*, *C. polygonoides* var. *longispina*, *C. procumbens*, *Clarkia delicata*, *Colubrina californica*, *Comarostaphylis diversifolia* ssp. *diversifolia*, *Convolvulus simulans*, *Cordylanthus maritimus* ssp. *maritimus*, *C. orcuttianus*, *Coreopsis maritima*, *Corethrogyne filaginifolia* var. *incana*, *C. filaginifolia* var. *linifolia*, *Cryptantha costata*, *C. ganderi*, *C. holoptera*, *Cupressus forbesii*, *C. stephensonii*, *Cynanchum utahense*, *Delphinium hesperium* ssp. *cuyamaca*, *D. parishii* ssp. *subglobosum*, *Dichondra occidentalis*, *Ditaxis californica*, *Downingia concolor* var. *brevior*, *Dudleya alainae*, *D. attenuata* ssp. *orcuttii*, *D. blochmaniae* ssp. *blochmaniae*, *D. blochmaniae* ssp. *brevifolia*, *D. multicaulis*, *D. variegata*, *D. viscida*, *Ericameria cuneata* var. *macrocephala*, *E. palmeri* ssp. *palmeri*, *Eriogonum foliosum*, *Eryngium aristulatum* var. *parishii*, *Euclide rupestris*, *Euphorbia misera*, *Ferocactus viridescens*, *Frankenia palmeri*, *Fremontodendron mexicanum*, *Galium angustifolium* ssp. *borregoense*, *G. johnstonii*, *Geraea viscida*, *Gilia caruifolia*, *Githopsis diffusa* ssp. *filicaulis*, *Grindelia hirsutula* var. *hallii*, *Harpagonella palmeri*, *Hazardia orcuttii*, *Hemizonia conjugens*, *H. floribunda*, *H. parryi* ssp. *australis*, *H. pungens* ssp. *laevis*, *Herissantia crispa*, *Heuchera brevistaminea*, *H. rubescens* var. *versicolor*, *Holocarpa*

virgata ssp. *elongata*, *Hordeum intercedens*, *Horkelia truncata*, *Hulsea californica*, *H. mexicana*, *H. vestita* ssp. *callicarpa*, *Ipomopsis tenuifolia*, *Isonoma menziesii* var. *decumbens*, *Iva hayesiana*, *Juglans californica* var. *californica*, *Juncus acutus* ssp. *leopoldii*, *Lasthenia glabrata* ssp. *coulteri*, *Lathyrus splendens*, *Lepechinia cardiophylla*, *L. ganderi*, *Lepidium flavum* var. *felipense*, *L. virginicum* var. *robinsonii*, *Lessingia glandulifera* var. *tomentosa*, *Lewisia brachycalyx*, *Lilium humboldtii* ssp. *ocellatum*, *L. parryi*, *Limnanthes gracilis* ssp. *parishii*, *Linanthus bellus*, *L. floribundus* ssp. *hallii*, *L. orcuttii*, *Lotus crassifolius* var. *otayensis*, *L. haydonii*, *L. nuttallianus*, *Lupinus excubitus* var. *medius*, *Lycium parishii*, *Lyrocarpa coulteri* var. *palmeri*, *Machaeranthera asteroides* var. *lagunensis*, *M. juncea*, *Malperia tenuis*, *Matelea parvifolia*, *Mentzelia hirsutissima*, *Microseris douglasii* var. *platycarpa*, *Mimulus aridus*, *M. clevelandii*, *M. diffusus*, *Mirabilis tenuiloba*, *Monardella hypoleuca* ssp. *lanata*, *M. linoides* ssp. *viminea*, *M. macrantha* ssp. *hallii*, *M. nana* ssp. *leptosiphon*, *Mucronea californica*, *Muilla clevelandii*, *Myosurus minimus* ssp. *apus*, *Nama stenocarpum*, *Navarretia fossalis*, *N. peninsularis*, *Nemacaulis denudata* var. *denudata*, *N. denudata* var. *gracilis*, *Nolina interrata*, *Ophioglossum californicum*, *Opuntia parryi* var. *serpentina*, *O. wigginsii*, *O. wolfii*, *Orcuttia californica*, *Ornithostaphylos oppositifolia*, *Orobanche parishii* ssp. *brachyloba*, *Penstemon clevelandii* var. *connatus*, *P. thurberi*, *Perideridia gairdneri* ssp. *gairdneri*, *Phacelia stellaris*, *Pilostyles thurberi*, *Pinus torreyana* ssp. *torreyana*, *Poa atropurpurea*, *Pogogyne abramsii*, *P. nudiuscula*, *Polygala cornutavar. fishiae*, *Proboscidea althaeifolia*, *Quercus dumosa*, *Q. engelmannii*, *Rhus trilobata* var. *simplicifolia*, *Ribes canthariforme*, *R. viburnifolium*, *Romneya coulteri*, *Rorippa gambellii*, *Rosa minutifolia*, *Rubus glaucifolius* var. *ganderi*, *Rupertia rigida*, *Salvia eremostachya*, *S. munzii*, *Satureja chandleri*, *Scuellaria bolanderi* ssp. *austromontana*, *Selaginella asprella*, *S. cinerascens*, *S. eremophila*, *Senecio aphanactis*, *S. ganderi*, *Senna covesii*, *Streptanthus bernardinus*, *S. campestris*, *Stylocline citroleum*, *Suaeda esteroa*, *S. taxifolia*, *Tetracoccus dioicus*, *Thermopsis californica* var. *semota*, *Viguiera laciniata*, *Viola aurea*, and *Xylorhiza orcuttii*.

San Francisco County

Total number of taxa: 33

List 1A: 1; **List 1B:** 20; **List 2:** 1; **List 3:** 2; **List 4:** 9

Arabis blepharophylla, *Arctostaphylos hookeri* ssp. *franciscana*, *A. hookeri* ssp. *ravenii*, *Arenaria paludicola*, *Astragalus tener* var. *tener*, *Carex comosa*, *Chorizanthe cuspidata* var. *cuspidata*, *Cirsium andrewsii*, *C. occidentale* var. *compactum*, *Clarkia franciscana*, *Collinsia corymbosa*, *C. multicolor*, *Equisetum palustre*, *Erysimum franciscanum*, *Fritillaria liliacea*, *Grindelia hirsutulavar. maritima*, *G. stricta* var. *angustifolia*, *Helianthella castanea*, *Hesperovax sparsiflora* var. *brevifolia*, *Hesperolinon congestum*, *Horkelia cuneata* ssp. *sericea*, *Layia carnosae*, *Lessingia germanorum*, *Lilium maritimum*, *Linanthus grandiflorus*, *Monardella undulata*, *Piperia michaelii*, *Plagiobothrys chorisianus* var. *chorisianus*, *P. diffusus*, *Sanicula maritima*, *Sidalcea hickmanii* ssp. *viridis*, *Silene verecunda* ssp. *verecunda*, and *Triphysaria floribunda*.

San Joaquin County

Total number of taxa: 30

List 1A: 1; **List 1B:** 16; **List 2:** 5; **List 3:** 0; **List 4:** 8

Amsinckia grandiflora, *Androsace elongata* ssp. *acuta*, *Aster lentus*, *Astragalus tener* var. *tener*, *Atriplex cordulata*, *A. coronata* var. *coronata*, *A. joaquiniana*, *Blepharizonia plumosa* ssp. *plumosa*, *Carex comosa*, *Cirsium crassicaule*, *Convolvulus simulans*, *Cordylanthus palmatus*, *Cryptantha hooveri*, *Delphinium californicum* ssp. *interius*, *D. gypsophilum* ssp. *gypsophilum*, *Eryngium racemosum*, *Gratiola heterosepala*, *Hibiscus lasiocarpus*, *Lathyrus jepsonii* var. *jepsonii*, *Lilaeopsis masonii*, *Limosella subulata*, *Linanthus ambiguus*, *Madia radiata*, *Monardella candicans*, *Psilocarphus brevissimus* var. *multiflorus*, *Sagittaria sanfordii*, *Scutellaria lateriflora*, *Trichocoronis wrightii* var. *wrightii*, *Tropidocarpum capparideum*, and *Tuctoria greenii*.

San Luis Obispo County

Total number of taxa: 151

List 1A: 1; **List 1B:** 75; **List 2:** 1; **List 3:** 0; **List 4:** 74

Abies bracteata, *Abronia maritima*, *Acanthomintha obovata* ssp. *cordata*, *A. obovata* ssp. *obovata*, *Agrostis hooveri*, *Allium hickmanii*, *Amsinckia vernicosa* var. *furcata*, *Androsace elongata* ssp. *acuta*, *Antirrhinum ovatum*, *Arctostaphylos cruzensis*, *A. hookeri* ssp. *hearstiorum*, *A. hooveri*, *A. luciana*, *A. morroensis*, *A. obispoensis*, *A. osoensis*, *A. pechoensis*, *A. pilosula*, *A. rudis*, *A. tomentosa* ssp. *daciticola*, *A. wellsii*, *Arenaria paludicola*, *Aristocapsa insignis*, *Aspidotis carlotta-halliae*, *Astragalus macrodon*, *Atriplex coronata* var. *coronata*, *A. vallicola*, *Baccharis plummerae* ssp. *glabrata*, *Bloomeria humilis*, *Calandrinia breweri*, *Calochortus catalinae*, *C. clavatus* ssp. *recurvifolius*, *C. clavatus* var. *clavatus*, *C. obispoensis*, *C. palmeri* var. *palmeri*, *C. simulans*, *C. weedii* var. *vestus*, *Calycadenia villosa*, *Calystegia subacaulis* ssp. *episcopalis*, *Camissonia hardhamiae*, *Carex obispoensis*, *Castilleja plagiotoma*, *Caulanthus californicus*, *Ceanothus cuneatus* var. *rigidus*, *C. hearstiorum*, *C. maritimus*, *Chlorogalum pomeridianum* var. *minus*, *C. purpureum* var. *reductum*, *Chorizanthe blakleyi*, *C. breweri*, *C. douglasii*, *C. palmeri*, *C. rectispina*, *Cirsium fontinale* var. *obispoense*, *C. loncholepis*, *C. occidentale* var. *compactum*, *C. rhotophyllum*, *Clarkia speciosa* ssp. *immaculata*, *Convolvulus simulans*, *Cordylanthus maritimus* ssp. *maritimus*, *Corethrogyne leucophylla*, *Delphinium californicum* ssp. *interius*, *D. gypsophilum* ssp. *gypsophilum*, *D. gypsophilum* ssp. *parviflorum*, *D. parryi* ssp. *blochmaniae*, *D. recurvatum*, *D. umbraculorum*, *Dithyrea maritima*, *Dudleya abramsii* ssp. *bettinae*, *D. abramsii* ssp. *murina*, *D. blochmaniae* ssp. *blochmaniae*, *Eleocharis parvula*, *Eriastrum hooveri*, *E. luteum*, *Erigeron blochmaniae*, *E. sanctarum*, *Eriodictyon altissimum*, *Eriogonum gossypinum*, *E. nudum* var. *indictum*, *E. temblorense*, *Eryngium aristulatum* var. *hooveri*, *E. capitatum* ssp. *lompocense*, *E. insulare* ssp. *suffrutescens*, *Eschscholzia hypocoides*, *E. rhombipetala*, *Fritillaria agrestis*, *F. ojaiensis*, *F. viridea*, *Galium andrewsii* ssp. *gatense*, *G. cliffsmithii*, *G. hardhamiae*, *Grindelia hirsutula* var. *maritima*, *Hemizonia halliana*, *H. parryi* ssp. *congdonii*, *H. cuneata* ssp. *sericea*, *H. yadonii*, *Juncus acutus* ssp. *leopoldii*, *Lasthenia glabrata* ssp. *coulteri*, *L. leptalea*, *Lajia heterotricha*, *L. jonesii*, *L. munzii*, *Lembertia congdonii*, *Lepidium jaredii* ssp. *album*, *L. jaredii*

ssp. *jaredii*, *Leptodactylon californicum* ssp. *tomentosum*, *Lessingia tenuis*, *Lilium humboldtii* ssp. *ocellatum*, *Linanthus grandiflorus*, *Lomatium parvifolium*, *Lupinus cervinus*, *L. ludovicianus*, *L. nipomensis*, *Madia radiata*, *Malacothammus davidsonii*, *M. gracilis*, *M. jonesii*, *M. niveus*, *M. palmeri* var. *involutus*, *M. palmeri* var. *palmeri*, *Malacothrix incana*, *Mimulus subsecundus*, *Monardella antonina* ssp. *benitensis*, *M. crispa*, *M. frutescens*, *M. palmeri*, *M. undulata*, *Mucronea californica*, *Navarretia jaredii*, *N. nigelliformis* ssp. *radians*, *Orobanche parishii* ssp. *brachyloba*, *Pedicularis dudleyi*, *Perideridia gairdneri* ssp. *gairdneri*, *P. pringlei*, *Pinus radiata*, *Piperia michaelii*, *Plagiobothrys uncinatus*, *Prunus fasciculata* var. *punctata*, *Psilocarphus tenellus* var. *globiferus*, *Ribes sericeum*, *Rorippa gambellii*, *Sanicula hoffmannii*, *S. maritima*, *Scrophularia atrata*, *Senecio aphanactis*, *Sidalcea hickmanii* ssp. *anomala*, *Stylocline masonii*, *Suaeda californica*, *S. taxifolia*, *Systemotheca vortriedei*, and *Triteleia ixiooides* ssp. *cookii*.

San Mateo County

Total number of taxa: 59

List 1A: 0; **List 1B:** 32; **List 2:** 0; **List 3:** 6; **List 4:** 21

Acanthomintha duttonii, *Arabis blepharophylla*, *Arctostaphylos andersonii*, *A. imbricata*, *A. montaraensis*, *A. regismontana*, *Calandrinia breweri*, *Calochortus umbellatus*, *Chorizanthe cuspidata* var. *cuspidata*, *C. robusta* var. *robusta*, *Cirsium andrewsii*, *C. fontinale* var. *fontinale*, *Collinsia multicolor*, *Cordylanthus maritimus* ssp. *palustris*, *Cupressus abramsiana*, *Cypripedium fasciculatum*, *C. montanum*, *Dirca occidentalis*, *Elymus californicus*, *Equisetum palustre*, *Eriogonum luteolum* var. *caninum*, *Eriophyllum latilobum*, *Erysimum ammphilum*, *E. franciscanum*, *Fritillaria agrestis*, *F. biflora* var. *ineziana*, *F. liliacea*, *Grindelia hirsutula* var. *maritima*, *G. stricta* var. *angustifolia*, *Helianthella castanea*, *Hesperolinon congestum*, *Hordeum intercedens*, *Horkelia cuneata* ssp. *sericea*, *H. marinensis*, *Legenere limosa*, *Lessingia arachnoidea*, *L. germanorum*, *L. hololeuca*, *Lilium maritimum*, *Limnanthes douglasii* ssp. *sulphurea*, *Linanthus acicularis*, *L. ambiguus*, *L. grandiflorus*, *L. eximius*, *Malacothammus arcuatus*, *Monardella undulata*, *M. villosa* ssp. *globosa*, *Pedicularis dudleyi*, *Pentachaeta bellidiflora*, *Perideridia gairdneri* ssp. *gairdneri*, *Pinus radiata*, *Piperia candida*, *P. michaelii*, *Plagiobothrys chorisianus* var. *chorisianus*, *Potentilla hickmanii*, *Sanicula hoffmannii*, *Sidalcea hickmanii* ssp. *viridis*, *Silene verecunda* ssp. *verecunda*, and *Triphysaria floribunda*.

Santa Barbara County

Total number of taxa: 87

List 1A: 0; **List 1B:** 41; **List 2:** 3; **List 3:** 2; **List 4:** 14

Abronia maritima, *Acanthomintha obovata* ssp. *cordata*, *Agrostis hooveri*, *Antirrhinum ovatum*, *Aphanisma blitoides*, *Arctostaphylos purissima*, *A. refugioensis*, *A. rudis*, *A. tomentosa* ssp. *eastwoodiana*, *Atriplex coulteri*, *A. serenana* var. *davidsonii*, *Baccharis plummerae* ssp. *plummerae*, *Boykinia rotundifolia*, *Calandrinia breweri*, *C. maritima*, *Calochortus catalinae*, *C. clavatus* var. *clavatus*, *C. weedii* var. *vestus*, *Calystegia collina* ssp. *venusta*, *C. sepium* ssp. *binghamiae*, *Caulanthus amplexicaulis* var. *barbarae*, *C. californicus*, *Chorizanthe blakleyi*, *C. palmeri*, *C. rectispina*, *Cirsium loncholepis*, *C. rhotophyllum*, *Convolvulus simulans*, *Cordylanthus maritimus* ssp. *maritimus*, *C. rigidus* ssp. *littoralis*,

Delphinium parryi ssp. *blochmaniae*, *Dichondra occidentalis*, *Dithyrea maritima*, *Dudleya blochmaniae* ssp. *blochmaniae*, *Eriastrum hooveri*, *Erigeron blochmaniae*, *E. sanctarum*, *Eriodictyon capitatum*, *Eriophyllum lanatum* var. *hallii*, *Erysimum capitatum* ssp. *lom pocense*, *E. insulare* ssp. *suffrutescens*, *Fritillaria agrestis*, *F. ojaiensis*, *Galium cliftonsmithii*, *Gilia latiflora* ssp. *cuyamensis*, *Hemizonia increscens* ssp. *villosa*, *H. parryi* ssp. *australis*, *Hordeum intercedens*, *Horkelia cuneata* ssp. *sericea*, *H. yadonii*, *Juglans californica* var. *californica*, *Juncus acutus* ssp. *leopoldii*, *Lasthenia conjugens*, *L. glabrata* ssp. *coulteri*, *Layia carnosa*, *L. heterotricha*, *Lembertia congdonii*, *Lepidium virginicum* var. *robinsonii*, *Leptodactylon californicum* ssp. *tomentosum*, *Lessingia tenuis*, *Lilium humboldtii* ssp. *ocellatum*, *Linanthus grandiflorus*, *Malacothamnus niveus*, *Malacothrix incana*, *M. saxatilis* var. *arachnoidea*, *Monardella crispa*, *M. frutescens*, *M. undulata*, *Mucronea californica*, *Navarretia peninsularis*, *Oxytheca parishii* var. *abramsii*, *Perideridia pringlei*, *Polygala cornuta* var. *fishiae*, *Prunus fasciculata* var. *punctata*, *Quercus dumosa*, *Q. parvula* var. *parvula*, *Ribes amarum* var. *hoffmannii*, *Sanicula hoffmannii*, *Scrophularia atrata*, *Senecio aphanactis*, *Sidalcea hickmanii* ssp. *parishii*, *S. neomexicana*, *Suaeda esteroa*, *S. taxifolia*, *Thelypteris puberula* var. *sonorensis*, *Thermopsis californica* var. *argentata*, and *T. macrophylla*.

Santa Clara County

Total number of taxa: 64

List 1A: 2; **List 1B:** 35; **List 2:** 2; **List 3:** 4; **List 4:** 21

Acanthomintha lanceolata, *Allium sharsmithiae*, *Arctostaphylos andersonii*, *Astragalus tener* var. *tener*, *Atriplex joaquiniana*, *Azolla mexicana*, *Balsamorhiza macrolepis* var. *macrolepis*, *Calandrinia breweri*, *Calochortus umbellatus*, *Calyptridium parryi* var. *hesseae*, *Campanula exigua*, *C. sharsmithiae*, *Castilleja affinis* ssp. *neglecta*, *Ceanothus ferrisae*, *Chorizanthe cuspidata* var. *cuspidata*, *C. robusta* var. *robusta*, *Cirsium fontinale* var. *campylon*, *Clarkia breweri*, *C. concinna* ssp. *automixa*, *Cordylanthus maritimus* ssp. *palustris*, *Coreopsis hamiltonii*, *Cypripedium fasciculatum*, *Delphinium californicum* ssp. *interius*, *Dirca occidentalis*, *Dudleya setchellii*, *Eriastrum brandegeae*, *Eriogonum argillosum*, *E. luteolum* var. *caninum*, *Eriophyllum jepsonii*, *Eryngium aristulatum* var. *hooveri*, *Erysimum franciscanum*, *Fritillaria falcata*, *F. liliacea*, *Galium andrewsii* ssp. *gatense*, *Grindelia stricta* var. *angustifolia*, *Hemizonia parryi* ssp. *congdonii*, *Isocoma menziesii* var. *diabolica*, *Lasthenia conjugens*, *Lathyrus jepsonii* var. *jepsonii*, *Lessingia hololeuca*, *L. micradenia* var. *glabrata*, *Linanthus ambiguus*, *L. grandiflorus*, *Malacothamnus arcuatus*, *M. hallii*, *Monardella antonina* ssp. *antonina*, *Penstemon rattanii* var. *kleei*, *Perideridia gairdneri* ssp. *gairdneri*, *Phacelia phacelioides*, *Plagiobothrys glaber*, *P. myosotoides*, *P. uncinatus*, *Potamogeton filiformis*, *Psilocarphus brevissimus* var. *multiflorus*, *Ranunculus lobbii*, *Sanicula saxatilis*, *Senecio aphanactis*, *Sidalcea malachroides*, *Streptanthus albidus* ssp. *albidus*, *S. albidus* ssp. *peramoemus*, *S. callistus*, *Suaeda californica*, *Trifolium amoenum*, and *Tropidocarpum capparideum*.

Santa Cruz County

Total number of taxa: 58

List 1A: 0; **List 1B:** 30; **List 2:** 1; **List 3:** 2; **List 4:** 25

Agrostis blasdalei, *Amsinckia lunaris*, *Arabis blepharophylla*, *Arctostaphylos andersonii*, *A. glutinosa*, *A. hookeri* ssp. *hookeri*, *A. pajaroensis*, *A.*

regismontana, *A. silvicola*, *Arenaria paludicola*, *Calandrinia breweri*, *Calochortus umbellatus*, *Calyptridium parryi* var. *hesseae*, *Campanula californica*, *Carex comosa*, *Castilleja latifolia*, *Ceanothus cuneatus* var. *rigidus*, *Chorizanthe pungens* var. *hartwegiana*, *C. pungens* var. *pungens*, *C. robusta* var. *hartwegii*, *C. robusta* var. *robusta*, *Collinsia multicolor*, *Corethrogyne leucophylla*, *Cupressus abramsiana*, *Cypripedium fasciculatum*, *Elymus californicus*, *Eriogonum nudum* var. *decurrens*, *Erysimum ammophilum*, *E. franciscanum*, *E. teretifolium*, *Grindelia hirsutula* var. *maritima*, *Hemizonia parryi* ssp. *congdonii*, *Hesperivax sparsiflora* var. *brevifolia*, *Holocarpha macradenia*, *Horkelia cuneata* ssp. *sericea*, *H. marinensis*, *Lilium rubescens*, *Linanthus ambiguus*, *L. grandiflorus*, *Lomatium parvifolium*, *Malacothamnus arcuatus*, *Micropus amphibolus*, *Mimulus rattanii* ssp. *decurtatus*, *Monardella undulata*, *Pedicularis dudleyi*, *Penstemon rattanii* var. *kleei*, *Pentachaeta bellidiflora*, *Perideridia gairdneri* ssp. *gairdneri*, *Pinus radiata*, *Piperia candida*, *P. michaelii*, *Plagiobothrys chorisianus* var. *chorisianus*, *P. diffusus*, *Sanicula hoffmannii*, *Sidalcea malachroides*, *Silene verecunda* ssp. *verecunda*, *Stebbinsoseris decipiens*, and *Trifolium buckwestiorum*.

Shasta County

Total number of taxa: 96

List 1A: 0; **List 1B:** 28; **List 2:** 14; **List 3:** 5; **List 4:** 49

Ageratina shastensis, *Agrostis hendersonii*, *Allium hoffmannii*, *A. sanbornii* var. *sanbornii*, *Amsinckia lunaris*, *Arctostaphylos klamathensis*, *A. malloryi*, *Arnica venosa*, *Asclepias solanoana*, *Asplenium septentrionale*, *Astragalus inversus*, *A. pauperculus*, *A. pulsiferae* var. *suksdorfii*, *Calochortus longebarbatus* var. *longebarbatus*, *Campanula scabrella*, *C. shetleri*, *Carex comosa*, *C. scoparia*, *C. vulpinoidea*, *Clarkia borealis* ssp. *arida*, *C. borealis* ssp. *borealis*, *Collomia diversifolia*, *C. larsenii*, *Corydalis caseana* ssp. *caseana*, *Cryptantha crinita*, *Cupressus bakeri*, *Cypripedium californicum*, *C. fasciculatum*, *Darlingtonia californica*, *Draba aureola*, *D. howellii*, *Epilobium oregonum*, *Ericameria ophitidis*, *Erigeron elegantulus*, *E. inornatus* var. *calidipetris*, *E. petrophilus* var. *viscidulus*, *Eriogonum congdonii*, *E. libertini*, *Erythronium klamathense*, *Fritillaria eastwoodiae*, *Gratiola heterosepala*, *Helianthus exilis*, *Iliamna bakeri*, *Ivesia longibracteata*, *Juncus leiospermus* var. *leiospermus*, *Lathyrus sulphureus* var. *argillaceus*, *Lewisia cantelovii*, *L. cotyledon* var. *howellii*, *Lilium rubescens*, *Limnanthes floccosa* ssp. *bellingertiana*, *L. floccosa* ssp. *floccosa*, *Lomatium tracyi*, *Lupinus croceus* var. *pilosellus*, *Madia stebbinsii*, *Marsilea oligospora*, *Mimuartia decumbens*, *M. rosei*, *Navarretia heterandra*, *N. subuligera*, *Neviusia cliftonii*, *Orcuttia tenuis*, *Paronychia ahartii*, *Penstemon filiformis*, *P. heterodoxus* var. *shastensis*, *P. purpusii*, *Phacelia dalesiana*, *Phlox muscoides*, *Picea engelmannii*, *Pogogyne floribunda*, *Polygonum bidwelliae*, *Polystichum kruckebergii*, *Potamogeton praelongus*, *P. zosteriformis*, *Puccinellia howellii*, *Raillardiodopsis scabrida*, *Sagittaria sanfordii*, *Scutellaria galericulata*, *Sedum laxum* ssp. *flavidum*, *S. paradisum*, *Silene invisiva*, *S. occidentalis* ssp. *longistipitata*, *S. suksdorfii*, *Smelowskia ovalis* var. *congesta*, *Smilax jamesii*, *Sparganium natans*, *Stellaria longifolia*, *Streptanthus drepanoides*, *Thelypodium brachycarpum*, *Thermopsis californica* var. *argentata*, *T. gracilis*, *Trillium ovatum* ssp. *oettingeri*, *Trimorpha acris* var. *debilis*, *Triteleia crocea* var. *crocea*, *T. crocea* var. *modesta*, *Tuctoria greenei*, and *Veratrum insolitum*.

Sierra County

Total number of taxa: 32

List 1A: 0; List 1B: 14; List 2: 4; List 3: 2; List 4: 12

Arabis constancei, *Asplenium trichomanes-ramosum*, *Astragalus pulsiferae* var. *pulsiferae*, *A. webberi*, *Camissonia tanacetifolia* ssp. *quadriperforata*, *Carex geyseri*, *Corydalis caseana* ssp. *caseana*, *Cypripedium fasciculatum*, *C. montanum*, *Darlingtonia californica*, *Drosera anglica*, *Epilobium howellii*, *Erigeron petrophilus* var. *sierrensis*, *Eriogonum umbellatum* var. *torreyanum*, *Ivesia aperta* var. *aperta*, *I. aperta* var. *canina*, *I. sericoleuca*, *I. webberi*, *Juncus hemiendytus* var. *abjectus*, *Lewisia cantelovii*, *Lupinus dalesiae*, *Marsilea oligospora*, *Polygonum polygaloides* ssp. *esotericum*, *Polystichum kruckebergii*, *Potamogeton praelongus*, *Pyrrocoma lucida*, *Scheuchzeria palustris* var. *americana*, *Silene invisiva*, *Trifolium lemmonii*, *Vaccinium coccineum*, *Veronica cusickii*, and *Viola tomentosa*.

Siskiyou County

Total number of taxa: 182

List 1A: 3; List 1B: 38; List 2: 43; List 3: 7; List 4: 91

Abies amabilis, *A. lasiocarpa* var. *lasiocarpa*, *Allium siskiyouense*, *Amsinckia lunaris*, *Androsace elongata* ssp. *acuta*, *A. filiformis*, *Arabis aculeolata*, *A. koehleri* var. *stipitata*, *A. modesta*, *A. oregana*, *A. rigidissima* var. *rigidissima*, *A. serpentinicola*, *Arctostaphylos klamathensis*, *Arnica cernua*, *A. spathulata*, *A. viscosa*, *Asarum marmoratum*, *Astragalus inversus*, *Balsamorhiza hookeri* var. *lanata*, *B. sericea*, *Botrychium pinnatum*, *Calochortus greenei*, *C. longebarbatus* var. *longebarbatus*, *C. monanthus*, *C. persistens*, *Campanula scabrella*, *C. shetleri*, *C. wilkinsiana*, *Carex geyseri*, *C. gigas*, *C. halliana*, *C. vulpinoidea*, *Castilleja hispida* ssp. *brevilobata*, *C. miniata* ssp. *elata*, *C. schizotricha*, *Chaenactis douglasii* var. *alpina*, *C. suffrutescens*, *Cirsium ciliolatum*, *Claytonia palustris*, *C. umbellata*, *Collomia larsenii*, *C. tracyi*, *Cordylanthus tenuis* ssp. *pallescens*, *Cupressus bakeri*, *C. nootkatensis*, *Cypripedium californicum*, *C. fasciculatum*, *C. montanum*, *Darlingtonia californica*, *Delphinium uliginosum*, *Deschampsia atropurpurea*, *Dicentra formosa* ssp. *oregana*, *Dimeresia howellii*, *Draba aureola*, *D. carnosula*, *D. howellii*, *D. pterosperma*, *Drosera anglica*, *Epilobium luteum*, *E. oreganum*, *E. rigidum*, *E. siskiyouense*, *Erigeron bloomeri* var. *nudatus*, *E. cervinus*, *E. elegantulus*, *E. inornatus* var. *calidipetris*, *E. petrophilus* var. *viscidulus*, *Eriogonum alpinum*, *E. congedonii*, *E. declinum*, *E. hirtellum*, *E. siskiyouense*, *E. strictum* var. *greenei*, *E. ternatum*, *E. umbellatum* var. *humistratum*, *Erythronium citrinum* var. *citrinum*, *E. hendersonii*, *E. klamathense*, *Galium oreganum*, *G. serpenticum* ssp. *scotticum*, *Gentiana plurisetosa*, *Geum aleppicum*, *Hackelia cusickii*, *Helianthus exilis*, *Hierochloa odorata*, *Horkelia hendersonii*, *Iliamna bakeri*, *Iris tenax* ssp. *klamathensis*, *Ivesia pickeringii*, *Juncus dudleyi*, *J. regelii*, *Lathyrus delnorticus*, *Lewisia cotyledon* var. *heckneri*, *L. cotyledon* var. *howellii*, *Lilium bolanderi*, *L. pardalinum* ssp. *vollmeri*, *L. pardalinum* ssp. *wigginsii*, *L. rubescens*, *L. washingtonianum* ssp. *purpurascens*, *Limnanthes floccosa* ssp. *floccosa*, *Listera cordata*, *Lomatium engelmannii*, *L. howellii*, *L. martindalei*, *L. peckianum*, *L. tracyi*, *Lupinus croceus* var. *pilosellus*, *L. lapidicola*, *L. tracyi*, *Mertensia bella*, *Minuartia stolonifera*, *Ophioglossum pusillum*, *Opuntia fragilis*, *Orcuttia tenuis*, *Orthocarpus cuspidatus* ssp. *cuspidatus*, *O. pachystachyus*, *Pedicularis bracteosa* var. *flavida*, *P. contorta*,

P. howellii, *Penstemon cinereus*, *P. cinicola*, *P. heterodoxus* var. *shastensis*, *Perideridia gairdneri* ssp. *gairdneri*, *P. leptocarpa*, *Phacelia cookei*, *P. dalesiana*, *P. greenei*, *P. leonis*, *P. sericea* var. *ciliosa*, *Phlox hirsuta*, *P. muscoides*, *Picea engelmannii*, *Pinguicula vulgaris* ssp. *macroceras*, *Piperia candida*, *Pityopus californicus*, *Poa piperi*, *P. rhizomata*, *Polemonium chartaceum*, *Polystichum kruckebergii*, *P. lonchitis*, *Potamogeton robbinsii*, *Potenilla cristae*, *P. newberryi*, *Raillardella pringlei*, *Ribes hudsonianum* var. *petiolare*, *R. marshallii*, *Rorippa columbiana*, *Salix bebbiana*, *S. delnortensis*, *Salvia dorrii* var. *incana*, *Saussurea americana*, *Saxifraga cespitosa*, *S. howellii*, *S. rufidula*, *Scutellaria galericulata*, *Sedum divergens*, *S. laxum* ssp. *flavidum*, *S. laxum* ssp. *heckneri*, *S. oblanceolatum*, *Selaginella densa* var. *scopulorum*, *Senecio hydrophiloides*, *S. macounii*, *Silene marmorensis*, *S. suksdorfii*, *Smilax jamesii*, *Tauschia howellii*, *Thelypodium brachycarpum*, *Thermopsis californica* var. *argentata*, *T. gracilis*, *T. robusta*, *Tonestus lyallii*, *Trifolium howellii*, *Trillium ovatum* ssp. *oettingeri*, *Trimorpha acris* var. *debilis*, *Triteleia crocea* var. *crocea*, *T. crocea* var. *modesta*, *T. hendersonii* var. *hendersonii*, *Vaccinium coccineum*, *V. scoparium*, *Vancouveria chrysantha*, *Veratrum insolitum*, and *Veronica copelandii*.

Solano County

Total number of taxa: 44

List 1A: 2; List 1B: 27; List 2: 4; List 3: 3; List 4: 8

Aster lentus, *Astragalus tener* var. *ferrisiae*, *A. tener* var. *tener*, *Atriplex cordulata*, *A. depressa*, *A. joaquiniana*, *Blepharizonia plumosa* ssp. *plumosa*, *Calochortus pulchellus*, *Ceanothus purpureus*, *Cirsium hydrophilum* var. *hydrophilum*, *Cordylanthus mollis* ssp. *hispidus*, *C. mollis* ssp. *mollis*, *Delphinium recurvatum*, *Downingia pusilla*, *Erigeron biolettii*, *Eriogonum truncatum*, *Friullaria liliacea*, *F. pluriflora*, *Gratiola heterosepala*, *Grindelia stricta* var. *angustifolia*, *Hemizonia parryi* ssp. *congedonii*, *Hesperolinon breweri*, *Hibiscus lasiocarpus*, *Isocoma arguta*, *Juglans californica* var. *hindsii*, *Lasthenia conjugens*, *Lathyrus jepsonii* var. *jepsonii*, *Legenere limosa*, *Lessingia hololeuca*, *Lilaeopsis masonii*, *Limosella subulata*, *Lomatium repostum*, *Monardella viridis* ssp. *viridis*, *Myosurus minimus* ssp. *apus*, *Navarretia leucocephala* ssp. *bakeri*, *Neostaffia colusana*, *Perideridia gairdneri* ssp. *gairdneri*, *Plagiobothrys hystriculus*, *Psilocarphus brevisimus* var. *multiflorus*, *Ranunculus lobbii*, *Ribes victoris*, *Senecio aphanactis*, *Trifolium amoenum*, and *Tuctoria mucronata*.

Sonoma County

Total number of taxa: 122

List 1A: 2; List 1B: 67; List 2: 5; List 3: 8; List 4: 40

Abronia umbellata ssp. *breviflora*, *Agrostis blasdalei*, *Alopecurus aequalis* var. *sonomensis*, *Antirrhinum virga*, *A. blepharophylla*, *Arctostaphylos bakeri* ssp. *bakeri*, *A. bakeri* ssp. *sublaevis*, *A. canescens* ssp. *sonomensis*, *A. densiflora*, *A. hispidula*, *A. stanfordiana* ssp. *decumbens*, *Asclepias solanoana*, *Astragalus breweri*, *A. clarianus*, *A. rattanii* var. *rattanii*, *A. tener* var. *tener*, *Blennosperma bakeri*, *Calamagrostis bolanderi*, *C. crassiglumis*, *C. ophitidis*, *Calandrinia breweri*, *Calochortus raichei*, *Calyptridium quadripetalum*, *Calystegia collina* ssp. *oxyphylla*, *Campanula californica*, *Cardamine pachystigma* var. *dissectifolia*, *Carex albida*, *C. californica*, *C. comosa*, *Castilleja uliginosa*, *Ceanothus confusus*, *C. divergens*, *C. foliosus* var. *vineatus*, *C. gloriosus* var. *gloriosus*, *C.*

sonomensis, *Chlorogalum pomeridianum* var. *minus*, *Chorizanthe cuspidata* var. *cuspidata*, *C. cuspidata* var. *villosa*, *C. valida*, *Cirsium andrewsii*, *Clarkia imbricata*, *Collinsia corymbosa*, *Cordylanthus maritimus* ssp. *palustris*, *C. mollis* ssp. *mollis*, *C. tenuis* ssp. *brunneus*, *C. tenuis* ssp. *capillaris*, *Cupressus goveniana* ssp. *pigmaea*, *Cypripedium californicum*, *C. montanum*, *Delphinium bakeri*, *D. luteum*, *Dichantheium lanuginosum* var. *thermale*, *Dirca occidentalis*, *Downingia pusilla*, *Eleocharis parvula*, *Elymus californicus*, *Erigeron angustatus*, *E. biolettii*, *E. serpentinus*, *E. supplex*, *Eriogonum luteolum* var. *caninum*, *E. nervulosum*, *E. ternatum*, *Erysimum franciscanum*, *Erythronium helenae*, *Fritillaria liliacea*, *Grindelia stricta* var. *angustifolia*, *Helianthus exilis*, *Hemizonia congesta* ssp. *leucocephala*, *Hesperovax sparsiflora* var. *brevifolia*, *Hesperolinon bicarpellatum*, *Horkelia tenuiloba*, *Lasthenia burkei*, *Layia septentrionalis*, *Legenere limosa*, *Lessingia arachnoidea*, *L. hololeuca*, *Lilium maritimum*, *L. pardalinum* ssp. *pitkinense*, *L. rubescens*, *Limnanthes vinculans*, *Linanthus acicularis*, *L. grandiflorus*, *Lomatium repostum*, *Lupinus eximius*, *L. sericatus*, *L. tidesstromii*, *Madia nutans*, *Micropus amphibolus*, *Monardella undulata*, *M. villosa* ssp. *globosa*, *M. viridis* ssp. *viridis*, *Navarretia leucocephala* ssp. *bakeri*, *N. leucocephala* ssp. *pliantha*, *Orobanche valida* ssp. *howellii*, *Penstemon newberryi* var. *sonomensis*, *Perideridia gairdneri* ssp. *gairdneri*, *Piperia candida*, *Pityopus californicus*, *Plagiobothrys mollis* var. *vestitus*, *Pleuropogon hooverianus*, *Pogogyne douglasii* ssp. *parviflora*, *Polygonum marinense*, *Potentilla hickmanii*, *Ranunculus lobbii*, *Rhynchospora alba*, *R. californica*, *R. globularis* var. *globularis*, *Ribes victoris*, *Sidalcea calycosa* ssp. *rhizomata*, *S. hickmanii* ssp. *viridis*, *S. oregana* ssp. *valida*, *Streptanthus brachiatus* ssp. *brachiatus*, *S. brachiatus* ssp. *hoffmanii*, *S. glandulosus* var. *hoffmanii*, *S. morrisonii* ssp. *elatus*, *S. morrisonii* ssp. *hirtiflorus*, *S. morrisonii* ssp. *kruckebergii*, *S. morrisonii* ssp. *morrisonii*, *Tracyina rostrata*, *Trifolium amoenum*, and *Veratrum fimbriatum*.

Stanislaus County

Total number of taxa: 44

List 1A: 2; List 1B: 23; List 2: 1; List 3: 1; List 4: 17

Acanthomintha lanceolata, *Allium sharsmithae*, *Astragalus tener* var. *tener*, *Atriplex cordulata*, *A. coronata* var. *coronata*, *A. depressa*, *Blepharizonia plumosa* ssp. *plumosa*, *Bolandra californica*, *Calycadenia hooveri*, *Campanula exigua*, *C. sharsmithae*, *Castilleja campestris* ssp. *succulenta*, *Chamaesyce hooveri*, *Cirsium fontinale* var. *campylon*, *Clarkia breweri*, *C. rostrata*, *Collomia diversifolia*, *Convolvulus simulans*, *Coreopsis hamiltonii*, *Cryptantha hooveri*, *Delphinium gypsophilum* ssp. *gypsophilum*, *Downingia pusilla*, *Eriophyllum jepsonii*, *Eryngium racemosum*, *E. spinosepalum*, *Eschscholzia rhombipetala*, *Fritillaria agrestis*, *F. falcata*, *Jepsonia heterandra*, *Legenere limosa*, *Linanthus ambiguus*, *Lotus rubriflorus*, *Monardella candicans*, *M. leucocephala*, *Myosurus minimus* ssp. *apus*, *Neostaphia colusana*, *Ophioglossum californicum*, *Orcuttia inaequalis*, *O. pilosa*, *Phacelia phacelioides*, *Pseudobahia bahiifolia*, *Psilocarphus brevisimus* var. *multiflorus*, *P. tenellus* var. *globiferus*, and *Tuctoria greenii*.

Sutter County

Total number of taxa: 6

List 1A: 0; List 1B: 4; List 2: 2; List 3: 0; List 4: 0

Astragalus tener var. *ferrisiae*, *Hibiscus lasiocarpus*, *Layia septentrionalis*, *Monardella douglasii* ssp. *venosa*, *Pseudobahia bahiifolia*, and *Trichocoronis wrightii* var. *wrightii*.

Tehama County

Total number of taxa: 79

List 1A: 0; List 1B: 32; List 2: 9; List 3: 3; List 4: 35

Achnatherum lemmonii var. *pubescens*, *Allium hoffmanii*, *A. sanbornii* var. *sanbornii*, *Androsace elongata* ssp. *acuta*, *Antirrhinum subcordatum*, *Arctostaphylos canescens* ssp. *sonomensis*, *Asclepias solanoana*, *Asplenium septentrionale*, *Astragalus pauperculus*, *A. rattanii* var. *jepsonianus*, *A. rattanii* var. *rattanii*, *Balsamorhiza macrolepis* var. *macrolepis*, *Botrychium ascendens*, *B. crenulatum*, *B. manganense*, *B. montanum*, *Brodiaea coronaria* ssp. *rosea*, *Calyptridium quadripetalum*, *Campanula wilkinsiana*, *Chamaesyce hooveri*, *C. ocellata* ssp. *rattanii*, *Chlorogalum pomeridianum* var. *minus*, *Claytonia palustris*, *Collomia tracyi*, *Corydalis caseana* ssp. *caseana*, *Cryptantha crinita*, *Cypripedium fasciculatum*, *C. montanum*, *Downingia pusilla*, *Eleocharis quadrangulata*, *Epilobium oreganum*, *Eriastrum brandegeae*, *Ericameria ophitidis*, *Eriogonum libertini*, *E. strictum* var. *greenii*, *E. ternatum*, *E. tripodum*, *Fritillaria eastwoodiae*, *F. pluriflora*, *F. purdyi*, *Gratiola heterosepala*, *Hackelia amethystina*, *Helianthus exilis*, *Hesperolinon tehamense*, *Juncus leiospermus* var. *leiospermus*, *Lathyrus sulphureus* var. *argillaceus*, *Layia septentrionalis*, *Legenere limosa*, *Limnanthes floccosa* ssp. *floccosa*, *Linanthus nuttallii* ssp. *howellii*, *L. rattanii*, *Lomatium tracyi*, *Lotus rubriflorus*, *Lupinus antoninus*, *Madia stebbinsii*, *Malacothamnus helleri*, *Mimulus glaucescens*, *Minuartia decumbens*, *M. rosei*, *Navarretia heterandra*, *N. jepsonii*, *N. leucocephala* ssp. *bakeri*, *N. subuligera*, *Orcuttia pilosa*, *O. tenuis*, *Orobanche valida* ssp. *howellii*, *Paronychia ahartii*, *Penstemon purpusii*, *Polygonum bidwelliae*, *Raillardiopsis scabrida*, *Rupertia hallii*, *Sagittaria sanfordii*, *Sanicula tracyi*, *Scirpus heterochaetus*, *S. subterminalis*, *Sedum laxum* ssp. *flavidum*, *Silene occidentalis* ssp. *longistipitata*, *Streptanthus drepanoides*, and *Tuctoria greenii*.

Trinity County

Total number of taxa: 117

List 1A: 1; List 1B: 32; List 2: 9; List 3: 4; List 4: 17

Allium hoffmanii, *A. siskiyouense*, *Arabis macdonaldiana*, *A. modesta*, *A. oregana*, *A. rigidissima* var. *rigidissima*, *Arctostaphylos klamathensis*, *A. malloryi*, *Arnica spathulata*, *A. venosa*, *A. viscosa*, *Asclepias solanoana*, *Astragalus rattanii* var. *rattanii*, *Balsamorhiza sericea*, *Calyptridium quadripetalum*, *Campanula scabrella*, *C. wilkinsiana*, *Carex gigas*, *C. hystericina*, *C. leptalea*, *C. vulpinoidea*, *Chaenactis suffrutescens*, *Clarkia borealis* ssp. *borealis*, *Collomia tracyi*, *Cypripedium californicum*, *C. fasciculatum*, *C. montanum*, *Darlingtonia californica*, *Deschampsia atropurpurea*, *Draba aureola*, *D. carnosula*, *D. howellii*, *Epilobium nivium*, *E. oreganum*, *E. septentrionale*, *E. siskiyouense*, *Eriastrum brandegeae*, *Ericameria ophitidis*, *Erigeron cervinus*, *E. decumbens* var.

robustior; *E. petrophilus* var. *viscidulus*, *Eriogonum alpinum*, *E. congdonii*, *E. dicinum*, *E. libertini*, *E. siskiyouense*, *E. strictum* var. *greenei*, *E. umbellatum* var. *humistratum*, *Erythronium citrinum* var. *citrinum*, *E. citrinum* var. *roderickii*, *Fritillaria purdyi*, *Galium serpenticum* ssp. *scoticum*, *Gentiana plurisetosa*, *Hackelia amethystina*, *Helianthus exilis*, *Hemizonia congesta* ssp. *tracyi*, *Ivesia pickeringii*, *Juncus dudleyi*, *J. regelii*, *Lewisia cotyledon* var. *heckneri*, *L. cotyledon* var. *howellii*, *L. stebbinsii*, *Lilium rubescens*, *L. washingtonianum* ssp. *purpurascens*, *Limnanthes floccosa* ssp. *floccosa*, *Lomatium engelmannii*, *L. tracyi*, *Lotus yollabollensis*, *Lupinus antoninus*, *L. constancei*, *L. croceus* var. *pilosellus*, *L. lapidicola*, *L. tracyi*, *Madia doris-nilesiae*, *M. stebbinsii*, *Marsilea oligospora*, *Minuartia decumbens*, *M. rosei*, *Montia howellii*, *Navarretia heterandra*, *Oenothera wolfii*, *Pedicularis bracteosa* var. *flavida*, *P. contorta*, *Penstemon filiformis*, *P. purpusii*, *P. tracyi*, *Perideridia gairdneri* ssp. *gairdneri*, *Phacelia dalesiana*, *P. leonis*, *Picea engelmannii*, *Piperia candida*, *Poa rhizomata*, *Polemonium characeum*, *Polystichum lonchitis*, *Potentilla cristae*, *Raillardella pringlei*, *Raillardopsis scabrida*, *Sanicula tracyi*, *Sedum laxum* ssp. *flavidum*, *S. laxum* ssp. *heckneri*, *S. paradisum*, *Senecio clevelandii* var. *clevelandii*, *Silene invis*a, *Smilax jamesii*, *Streptanthus drepanoides*, *Swertia fastigiata*, *Tauschia glauca*, *Thelypodium brachycarpum*, *Thermopsis gracilis*, *Tiarella trifoliata* var. *trifoliata*, *Tonestus lyallii*, *Trillium ovatum* ssp. *oettingeri*, *Triteleia crocea* var. *crocea*, *T. crocea* var. *modesta*, *Veratrum insolitum*, *Veronica copelandii*, and *Wyethia longicaulis*.

Tulare County

Total number of taxa: 111

List 1A: 0; List 1B: 52; List 2: 5; List 3: 3; List 4: 51

Abronia alpina, *Angelica callii*, *Antennaria pulchella*, *Arabis bodiensis*, *A. dispar*, *A. pygmaea*, *Asplenium septentrionale*, *Astragalus lentiginosus* var. *kernensis*, *A. shevockii*, *A. subvestitus*, *Atriplex cordulata*, *A. depressa*, *A. joaquiniana*, *A. minuscula*, *Azolla mexicana*, *Botrychium cremulatum*, *Brodiaea insignis*, *Calochortus westonii*, *Calystegia malacophylla* var. *berryi*, *Carex congdonii*, *C. incurviformis* var. *danaensis*, *Caulanthus californicus*, *Ceanothus fresnensis*, *Chamaesyce hooveri*, *Clarkia exilis*, *C. springvillensis*, *Claytonia palustris*, *Cordylanthus eremicus* ssp. *kernensis*, *Corydalis caseana* ssp. *caseana*, *Cupressus arizonica* ssp. *nevadensis*, *Delphinium inopinum*, *D. purpusii*, *D. recurvatum*, *Dicentra nevadensis*, *Draba cruciata*, *D. sharsmithii*, *Dudleya calcicola*, *D. cymosa* ssp. *costifolia*, *Eriastrum hooveri*, *Erigeron aequifolius*, *E. inornatus* var. *keilii*, *E. multiceps*, *Eriogonum breedlovei* var. *shevockii*, *E. nudum* var. *murinum*, *E. polypodum*, *E. twisselmannii*, *E. wrightii* var. *olanchense*, *Eriophyllum lanatum* var. *obovatum*, *Eryngium spinosepalum*, *Erythronium pusaterii*, *Fritillaria brandegei*, *F. striata*, *Goodmania luteola*, *Hackelia sharsmithii*, *Horkelia tularensis*, *Hulsea brevifolia*, *Iris munzii*, *Ivesia campestris*, *Jamesia americanavar. rosea*, *Juncus hemiendytus* var. *abjectus*, *J. nodosus*, *Lasthenia glabrata* ssp. *coulteri*, *Lembertia congdonii*, *Lewisia disepala*, *Linanthus ob lanceolatus*, *L. serrulatus*, *Lotus oblongifolius* var. *cupreus*, *Lupinus lepidus* var. *culbertsonii*, *L. padre-crowleyi*, *Madia yosemitana*, *Marsilea oligospora*, *Mimulus acutidens*, *M. grayi*, *M. laciniatus*, *M. norrisii*, *M. pictus*, *Monardella beneolens*, *M. candicans*, *M. linoides* ssp. *oblonga*, *Mulla coronata*, *Navarretia setiloba*, *Nemacladus twisselmannii*, *Nemophila parviflora* var. *quercifolia*, *Orcuttia inaequalis*, *Oreonana purpurascens*, *Oxytheca caryophylloides*, *Perideridia*

pringlei, *Phacelia exilis*, *P. nashiana*, *P. novemmillensis*, *P. oregones*, *Phlox dispersa*, *Pityopus californicus*, *Plagiobothrys myosotoides*, *Pseudobahia peirsonii*, *Psilocarphus tenellus* var. *globiferus*, *Puccinellia californica*, *Raillardopsis muirii*, *Ribes menziesii* var. *ixoderme*, *R. tularensis*, *Scirpus clementis*, *Selaginella asprella*, *Sidalcea keckii*, *Sphenopholis obtusata*, *Streptanthus farnsworthianus*, *S. gracilis*, *Trichostema ovatum*, *Trifolium macilentum* var. *dedeckeriae*, *Tuctoria greenei*, *Viola pinetorum* ssp. *grisea*, and *Wyethia elata*.

Tuolumne County

Total number of taxa: 64

List 1A: 0; List 1B: 20; List 2: 7; List 3: 2; List 4: 35

Agrostis humilis, *Allium jepsonii*, *A. sanbornii* var. *congdonii*, *A. tribracteatum*, *A. tuolumnense*, *A. yosemitense*, *Antennaria pulchella*, *Arctostaphylos nissenana*, *Astragalus kentrophyta* var. *danaus*, *Bolandra californica*, *Botrychium lunaria*, *Brodiaea pallida*, *Carex congdonii*, *C. davyi*, *C. incurviformis* var. *danaensis*, *C. praticola*, *Ceanothus fresnensis*, *Chaenactis douglasii* var. *alpina*, *Chlorogalum grandiflorum*, *Clarkia australis*, *C. biloba* ssp. *australis*, *C. virgata*, *Claytonia megarhiza*, *Cryptantha crymophila*, *C. mariposae*, *Cypripedium montanum*, *Draba asterophora* var. *asterophora*, *Eriogonum tripodum*, *Eriophyllum nubigenum*, *Eryngium pinnatisectum*, *Erythronium tuolumnense*, *Fritillaria agrestis*, *Helianthemum suffrutescens*, *Hulsea brevifolia*, *Iris hartwegii* ssp. *columbiana*, *Jepsonia heterandra*, *Juncus hemiendytus* var. *abjectus*, *Lilium humboldtii* ssp. *humboldtii*, *Lomatium congdonii*, *L. stebbinsii*, *Lupinus spectabilis*, *Lycopus uniflorus*, *Madia yosemitana*, *Mimulus filicaulis*, *M. inconspicuus*, *M. laciniatus*, *M. pulchellus*, *Minuartia obtusiloba*, *Monardella candicans*, *M. douglasii* ssp. *venosa*, *Ophioglossum californicum*, *Perideridia bacigalupii*, *Podistera nevadensis*, *Polystichum kruckebergii*, *Potamogeton robbinsii*, *Scirpus clementis*, *Senecio clevelandii* var. *heterophyllum*, *S. layneae*, *Silene invis*a, *Sparganium natans*, *Stellaria obtusa*, *Trichostema rubisepalum*, *Verbena californica*, and *Veronica cusickii*.

Ventura County

Total number of taxa: 64

List 1A: 1; List 1B: 25; List 2: 2; List 3: 1; List 4: 35

Abronia maritima, *Acanthomintha obovata* ssp. *cordata*, *Allium howellii* var. *clokeyi*, *Antirrhinum ovatum*, *Aphanisma blitoides*, *Astragalus brauntonii*, *A. pycnostachyus* var. *lanosissimus*, *Atriplex pacifica*, *A. serenana* var. *davidsonii*, *Baccharis plummerae* ssp. *plummerae*, *Boykinia rotundifolia*, *Calandrinia breweri*, *C. mariuima*, *Calochortus catalinae*, *C. plummerae*, *C. weedii* var. *vestus*, *Cercocarpus betuloides* var. *blancheae*, *Chorizanthe procumbens*, *Cordylanthus maritimus* ssp. *maritimus*, *Delphinium inopinum*, *D. parryi* ssp. *blochmaniae*, *D. parryi* ssp. *purpureum*, *Dichondra occidentalis*, *Dudleya abramsii* ssp. *parva*, *D. blochmaniae* ssp. *blochmaniae*, *D. cymosa* ssp. *marcescens*, *D. cymosa* ssp. *ovatifolia*, *D. verityi*, *Eriogonum crocatum*, *E. kennedyi* var. *alpigenum*, *Eriophyllum jepsonii*, *Erysimum insulare* ssp. *suffrutescens*, *Fritillaria ojaiensis*, *Galium cliffionsmithii*, *Gilia latiflora* ssp. *cuyamensis*, *Hemizonia minthornii*, *Hordeum intercedens*, *Hulsea vestita* ssp. *gabrielensis*, *H. vestita* ssp. *parryi*, *Juglans californica* var. *californica*, *Juncus acutus* ssp. *leopoldii*, *Lasthenia glabrata* ssp. *coulteri*, *Layia heterotricha*, *Lepechinia*

fragrans, *Lessingia tenuis*, *Lilium humboldtii* ssp. *ocellatum*, *Lupinus elatus*, *Malacothrix incana*, *Monardella linoides* ssp. *oblonga*, *Mucronea californica*, *Orcuttia californica*, *Oxytheca caryophylloides*, *O. parishii* var. *abramsii*, *Pentachaeta lyonii*, *Perideridia pringlei*, *Phacelia exilis*, *Polygala cornuta* var. *fishiae*, *Sagittaria sanfordii*, *Senecio aphanactis*, *Sidalcea neomexicana*, *Suaeda esteroa*, *S. taxifolia*, *Suertia neglecta*, and *Thermopsis californica* var. *argentata*.

Yolo County

Total number of taxa: 28

List 1A: 0; List 1B: 15; List 2: 1; List 3: 1; List 4: 11

Asclepias solanoana, *Astragalus breweri*, *A. clevelandii*, *A. rattanii* var. *jepsonianus*, *A. tener* var. *ferrisiae*, *A. tener* var. *tener*, *Atriplex depressa*, *A. joaquiniana*, *Collomia diversifolia*, *Cordylanthus palmatus*, *Cryptantha excavata*, *Eriogonum nervulosum*, *Fritillaria pluriflora*, *F. purdyi*, *Hesperolinon drymarioides*, *Hibiscus lasiocarpus*, *Juglans californica* var. *hindsii*, *Layia septentrionalis*, *Lepidium latipes* var. *beckardii*, *Lessingia hololeuca*, *Lomatium ciliolatum* var. *hooveri*, *Madia hallii*, *Malacothamnus helleri*, *Navarretia jepsonii*, *Neostapfia colusana*, *Psilocarphus brevissimus* var. *multiflorus*, *Senecio clevelandii* var. *clevelandii*, and *Tuctoria mucronata*.

Yuba County

Total number of taxa: 13

List 1A: 0; List 1B: 4; List 2: 0; List 3: 0; List 4: 9

Allium sanbornii var. *sanbornii*, *Arctostaphylos mewukka* ssp. *truei*, *Astragalus pauperculus*, *Clarkia mildrediae*, *Cypripedium fasciculatum*, *Darlingtonia californica*, *Erigeron petrophilus* var. *sierrensis*, *Fritillaria eastwoodiae*, *Lilium humboldtii* ssp. *humboldtii*, *Lupinus dalesiae*, *Navarretia heterandra*, *Pseudobabia bahiifolia*, and *Pyrrocoma lucida*.

Islands

Anacapa Island

Total number of taxa: 26

List 1A: 0; List 1B: 10; List 2: 0; List 3: 1; List 4: 15

Abronia maritima, *Achnatherum diegoense*, *Aphanisma blitoides*, *Arabis hoffmannii*, *Astragalus miguelensis*, *Atriplex coulteri*, *A. pacifica*, *Baccharis plummerae* ssp. *plummerae*, *Berberis pinnata* ssp. *insularis*, *Calandrinia maritima*, *Castilleja lanata* ssp. *hololeuca*, *Eriogonum grande* var. *grande*, *E. grande* var. *rubescens*, *Erysimum insulare* ssp. *insulare*, *Gilia nevinii*, *Hazardia detonsa*, *Hemizonia clementina*, *Heuchera maxima*, *Hordeum intercedens*, *Lavatera assurgentiflora* ssp. *assurgentiflora*, *Lotus dendroideus* var. *dendroideus*, *Malacothrix foliosa*, *M. squalida*, *Mimulus flemingii*, *Quercus tomentella*, and *Suaeda taxifolia*.

San Clemente Island

Total number of taxa: 56

List 1A: 1; List 1B: 33; List 2: 4; List 3: 1; List 4: 17

Abronia maritima, *Aphanisma blitoides*, *Astragalus miguelensis*, *A. nevinii*, *Atriplex coulteri*, *A. pacifica*, *Bergerocactus emoryi*, *Brodiaea kinkiensis*, *Calandrinia maritima*, *Calystegia macrostegia* ssp. *amplissima*, *Camissonia guadalupensis* ssp. *clementina*, *Castilleja grisea*, *Convolvulus simulans*, *Crossosoma californicum*, *Cryptantha traskiae*, *Delphinium variegatum* ssp. *kinkiense*, *D. variegatum* ssp. *thornei*, *Dendromecon harfordii* var. *rhamnoides*, *Dissanthelium californicum*, *Dudleya virens*, *Eriogonum giganteum* var. *formosum*, *E. grande* var. *grande*, *Eriophyllum nevinii*, *Eschscholzia ramosa*, *Euphorbia misera*, *Galium catalinense* ssp. *acrispum*, *Galvezia speciosa*, *Gilia nevinii*, *Hazardia cana*, *Hemizonia clementina*, *Hordeum intercedens*, *Isocoma menziesii* var. *decumbens*, *Jepsonia malvifolia*, *Lavatera assurgentiflora* ssp. *glabra*, *Linanthus pygmaeus* ssp. *pygmaeus*, *Lithophragma maximum*, *Lomatium insulare*, *Lotus argophyllus* var. *adsurgens*, *L. dendroideus* var. *traskiae*, *Lupinus guadalupensis*, *Lycium brevipes* var. *hassei*, *Lyonothamnus floribundus* ssp. *asplenifolius*, *Malacothamnus clementinus*, *Malacothrix foliosa*, *Microseris douglasii* var. *platycarpa*, *Mimulus flemingii*, *Muhlenbergia appressa*, *Nama stenocarpum*, *Phacelia floribunda*, *Quercus tomentella*, *Scrophularia villosa*, *Sibara filifolia*, *Stephanomeria blairii*, *Suaeda taxifolia*, *Trifolium gracilentum* var. *palmeri*, and *Triteleia clementina*.

San Miguel Island

Total number of taxa: 22

List 1A: 0; List 1B: 12; List 2: 0; List 3: 0; List 4: 10

Abronia maritima, *Achnatherum diegoense*, *Astragalus miguelensis*, *Atriplex coulteri*, *Castilleja lanata* ssp. *hololeuca*, *C. mollis*, *Dichondra occidentalis*, *Dithyrea maritima*, *Dudleya candelabrum*, *D. greenii*, *Eriogonum grande* var. *rubescens*, *Erysimum insulare* ssp. *insulare*, *Eschscholzia ramosa*, *Galium buxifolium*, *G. californicum* ssp. *miguelense*, *Helianthemum greenii*, *Lavatera assurgentiflora* ssp. *assurgentiflora*, *Lotus dendroideus* var. *veatchii*, *Malacothrix incana*, *M. indecora*, *Orobanche parishii* ssp. *brachyloba*, and *Phacelia insularis* var. *insularis*.

San Nicolas Island

Total number of taxa: 24

List 1A: 2; List 1B: 10; List 2: 0; List 3: 1; List 4: 11

Abronia maritima, *Achnatherum diegoense*, *Aphanisma blitoides*, *Astragalus traskiae*, *Atriplex pacifica*, *Calystegia macrostegia* ssp. *amplissima*, *Cryptantha traskiae*, *Dithyrea maritima*, *Dudleya virens*, *Eriogonum grande* var. *timorum*, *Eschscholzia ramosa*, *Gilia nevinii*, *Hemizonia clementina*, *Hordeum intercedens*, *Jepsonia malvifolia*, *Lavatera assurgentiflora* ssp. *assurgentiflora*, *Lomatium insulare*, *Lycium verrucosum*, *Malacothrix foliosa*, *M. incana*, *Orobanche parishii* ssp. *brachyloba*, *Phacelia cinerea*, *Suaeda taxifolia*, and *Trifolium gracilentum* var. *palmeri*.

Santa Barbara Island

Total number of taxa: 17

List 1A: 0; **List 1B:** 8; **List 2:** 0; **List 3:** 1; **List 4:** 8

Aphanisma blitoides, *Astragalus traskiae*, *Calandrinia maritima*, *Calystegia macrostegia* ssp. *amplissima*, *Dudleya traskiae*, *Eriogonum giganteum* var. *compactum*, *Eriophyllum nevinii*, *Eschscholzia ramosa*, *Galvezia speciosa*, *Gilia nevinii*, *Hemizonia clementina*, *Hordeum intercedens*, *Malacothrix foliosa*, *Phacelia floribunda*, *Platystemon californicus* var. *ciliatus*, *Suaeda taxifolia*, and *Trifolium gracilentum* var. *palmeri*.

Santa Catalina Island

Total number of taxa: 51

List 1A: 2; **List 1B:** 20; **List 2:** 4; **List 3:** 1; **List 4:** 24

Abronia maritima, *Aphanisma blitoides*, *Arctostaphylos catalinae*, *Atriplex coulteri*, *A. pacifica*, *Berberocactus emoryi*, *Calandrinia maritima*, *Calochortus catalinae*, *Cercocarpus betuloides* var. *blancheae*, *C. traskiae*, *Convolvulus simulans*, *Crossosoma californicum*, *Dendromecon harfordii* var. *rhamnoides*, *Dichondra occidentalis*, *Dissanthelium californicum*, *Dithyrea maritima*, *Dudleya greenei*, *D. virens*, *Eriogonum grande* var. *grande*, *Eriophyllum nevinii*, *Eschscholzia ramosa*, *Euphorbia misera*, *Galium catalinense* ssp. *catalinense*, *G. nuttallii* ssp. *insulare*, *Galvezia speciosa*, *Gilia nevinii*, *Harpagonella palmeri*, *Helianthemum greenei*, *Hemizonia clementina*, *H. parryi* ssp. *australis*, *Hordeum intercedens*, *Isocoma menziesii* var. *decumbens*, *Jepsonia malvifolia*, *Lavatera assurgentiflora* ssp. *glabra*, *Lepechinia fragrans*, *Lotus dendroideus* var. *dendroideus*, *Lycium brevipes* var. *hassei*, *Lyonothamnus floribundus* ssp. *floribundus*, *Microseris douglasii* var. *platycarpha*, *Mimulus traskiae*, *Nemacaulis denudata* var. *denudata*, *Orobancha parishii* ssp. *brachyloba*, *Pentachaeta lyonii*, *Quercus engelmannii*, *Q. tomentella*, *Ribes viburnifolium*, *Scrophularia villosa*, *Sibara filifolia*, *Solanum wallacei*, *Suaeda taxifolia*, and *Trifolium gracilentum* var. *palmeri*.

Santa Cruz Island

Total number of taxa: 61

List 1A: 1; **List 1B:** 22; **List 2:** 1; **List 3:** 1; **List 4:** 36

Abronia maritima, *Achnatherum diegoense*, *Aphanisma blitoides*, *Arabis hoffmannii*, *Arctostaphylos tomentosa* ssp. *insulicola*, *A. tomentosa* ssp. *subcordata*, *A. viridissima*, *Astragalus miguelensis*, *Atriplex coulteri*, *A. pacifica*, *Baccharis plummerae* ssp. *plummerae*, *Berberis pinnata* ssp.

insularis, *Calandrinia breweri*, *C. maritima*, *Calochortus catalinae*, *Castilleja lanata* ssp. *hololeuca*, *Ceanothus megacarpus* var. *insularis*, *Cercocarpus betuloides* var. *blancheae*, *Chorizanthe wheeleri*, *Convolvulus simulans*, *Dendromecon harfordii* var. *harfordii*, *Dichondra occidentalis*, *Dudleya candelabrum*, *D. greenei*, *D. nesiotica*, *Erigeron sanctarum*, *Eriogonum grande* var. *grande*, *E. grande* var. *rubescens*, *Erysimum insulare* ssp. *insulare*, *Eschscholzia ramosa*, *Galium buxifolium*, *G. nuttallii* ssp. *insulare*, *Gilia nevinii*, *Hazardia detonsa*, *Helianthemum greenei*, *Heuchera maxima*, *Hordeum intercedens*, *Jepsonia malvifolia*, *Lepechinia fragrans*, *Lepidium virginicum* var. *robinsonii*, *Lilium humboldtii* ssp. *ocellatum*, *Lotus argophyllus* var. *niveus*, *L. dendroideus* var. *dendroideus*, *Lyonothamnus floribundus* ssp. *asplenifolius*, *Malacothamnus fasciculatus* var. *nesioticus*, *Malacothrix incana*, *M. indecora*, *M. squalida*, *Mimulus brandegei*, *M. flemingii*, *Orobancha parishii* ssp. *brachyloba*, *Piperia michaelii*, *Quercus parvula* var. *parvula*, *Q. tomentella*, *Ribes thacherianum*, *Sanicula hoffmannii*, *Senecio aphanactis*, *Sibara filifolia*, *Solanum clokeyi*, *Suaeda taxifolia*, and *Thysanocarpus conchuliferus*.

Santa Rosa Island

Total number of taxa: 54

List 1A: 0; **List 1B:** 23; **List 2:** 1; **List 3:** 1; **List 4:** 29

Achnatherum diegoense, *Aphanisma blitoides*, *Arctostaphylos confertiflora*, *A. tomentosa* ssp. *insulicola*, *A. tomentosa* ssp. *subcordata*, *Astragalus miguelensis*, *Atriplex coulteri*, *A. pacifica*, *A. serenana* var. *davidsonii*, *Berberis pinnata* ssp. *insularis*, *Calandrinia maritima*, *Calochortus catalinae*, *Castilleja lanata* ssp. *hololeuca*, *C. mollis*, *Ceanothus megacarpus* var. *insularis*, *Cercocarpus betuloides* var. *blancheae*, *Chorizanthe wheeleri*, *Dendromecon harfordii* var. *harfordii*, *Dichondra occidentalis*, *Dudleya blochmaniae* ssp. *insularis*, *D. candelabrum*, *D. greenei*, *Erigeron sanctarum*, *Eriogonum grande* var. *rubescens*, *Erysimum ammophilum*, *E. insulare* ssp. *insulare*, *Eschscholzia ramosa*, *Galium buxifolium*, *G. californicum* ssp. *miguelense*, *G. nuttallii* ssp. *insulare*, *Gilia nevinii*, *G. tenuiflora* ssp. *hoffmannii*, *Hazardia detonsa*, *Helianthemum greenei*, *Heuchera maxima*, *Hordeum intercedens*, *Jepsonia malvifolia*, *Lasthenia glabrata* ssp. *coulteri*, *Lavatera assurgentiflora* ssp. *assurgentiflora*, *Lepechinia fragrans*, *Lilium humboldtii* ssp. *ocellatum*, *Lotus dendroideus* var. *dendroideus*, *Lyonothamnus floribundus* ssp. *asplenifolius*, *Malacothrix incana*, *Mimulus flemingii*, *Orobancha parishii* ssp. *brachyloba*, *Phacelia insularis* var. *insularis*, *Pinus torreyana* ssp. *insularis*, *Quercus tomentella*, *Salvia brandegei*, *Sanicula hoffmannii*, *Senecio aphanactis*, *Solanum clokeyi*, and *Suaeda taxifolia*.

Appendix IV: Plants by Family

The following list include all plants on CNPS Lists 1 through 4. Family arrangement matches that in *The Jepson Manual*.

- Acanthaceae**
Carlowrightia arizonica
- Alismataceae**
Sagittaria sanfordii
- Anacardiaceae**
Rhus trilobata var. *simplicifolia*
- Apiaceae**
Ammoselinum giganteum
Angelica callii
Cymopterus deserticola
C. gilmanii
C. ripleyi
Eryngium aristulatum var. *hooveri*
E. aristulatum var. *parishii*
E. constancei
E. pinnatisectum
E. racemosum
E. spinosepalum
Lilaeopsis masonii
Lomatium ciliolatum var. *hooveri*
L. congdonii
L. engelmannii
L. foeniculaceum ssp. *inyoense*
L. hendersonii
L. howellii
L. insulare
L. martindalei
L. parvifolium
L. peckianum
L. ravenii
L. repostum
L. rigidum
L. shevockii
L. stebbinsii
L. tracyi
Oreonana purpurascens
O. vestita
Perideridia bacigalupii
P. gairdneri ssp. *gairdneri*
P. leptocarpa
P. parishii ssp. *parishii*
P. pringlei
- Podistera nevadensis*
Sanicula hoffmannii
S. maritima
S. peckiana
S. saxatilis
S. tracyi
Tauschia glauca
T. howellii
- Aristolochiaceae**
Asarum marmoratum
- Asclepiadaceae**
Asclepias solanoana
Cynanchum utahense
Matelea parvifolia
- Aspleniaceae**
Asplenium septentrionale
A. trichomanes ssp. *trichomanes*
A. trichomanes-ramosum
- Asteraceae**
Ageratina shastensis
Ambrosia chenopodiifolia
A. pumila
Antennaria flagellaris
A. marginata
A. pulchella
A. suffrutescens
Arnica cernua
A. fulgens
A. sororia
A. spathulata
A. venosa
A. viscosa
Artemisia palmeri
Aster greatae
A. lentus
Baccharis plummerae ssp. *glabrata*
B. plummerae ssp. *plummerae*
B. vanessae
Balsamorhiza hookeri var. *lanata*
B. macrolepis var. *macrolepis*
B. sericea
Blennosperma bakeri
- B. nanum* var. *robustum*
Blepharizonia plumosa ssp. *plumosa*
Calycadenia hooveri
C. oppositifolia
C. villosa
Chaenactis carphoclinia var. *peirsonii*
C. douglasii var. *alpina*
C. parishii
C. suffrutescens
Chrysothamnus gramineus
Cirsium andrewsii
C. ciliolatum
C. crassicaule
C. fontinale var. *campylon*
C. fontinale var. *fontinale*
C. fontinale var. *obispoense*
C. hydrophilum var. *hydrophilum*
C. hydrophilum var. *vaseyi*
C. loncholepis
C. occidentale var. *compactum*
C. rhothophilum
Coreopsis hamiltonii
C. maritima
Corethrogyne filaginifolia var. *incana*
C. filaginifolia var. *linifolia*
C. leucophylla
Crepis runcinata ssp. *hallii*
Dimeresia howellii
Enceliopsis covillei
E. nudicaulis
Ericameria cuneata var. *macrocephala*
E. fasciculata
E. gilmanii
E. ophitidis
E. palmeri ssp. *palmeri*
Erigeron aequifolius
E. angustatus
E. biolettii
E. blochmaniae
E. bloomeri var. *nudatus*
E. breweri var. *bisanctus*
E. breweri var. *jacinteus*
E. calvus
- E. cervinus*
E. decumbens var. *robustior*
E. elegantulus
E. inornatus var. *calidipetris*
E. inornatus var. *keilii*
E. mariposanus
E. miser
E. multiceps
E. parishii
E. petrophilus var. *sierrensis*
E. petrophilus var. *viscidulus*
E. sanctarum
E. serpentinus
E. supplex
E. uncialis var. *uncialis*
Eriophyllum congdonii
E. jepsonii
E. lanatum var. *hallii*
E. lanatum var. *obovatum*
E. latilobum
E. mohavense
E. nevini
E. nubigenum
Geraea viscida
Grindelia fraxino-pratensis
G. hirsutula var. *hallii*
G. hirsutula var. *maritima*
G. stricta var. *angustifolia*
Hazardia cana
H. detonsa
H. orcuttii
Helianthella castanea
Helianthus exilis
H. niveus ssp. *tephrodes*
H. nuttallii ssp. *parishii*
Hemizonia arida
H. clementina
H. congesta ssp. *calyculata*
H. congesta ssp. *leucocephala*
H. congesta ssp. *tracyi*
H. conjugens
H. floribunda
H. halliana
H. increscens ssp. *villosa*
H. minthornii
H. mohavensis
H. parryi ssp. *australis*
H. parryi ssp. *congdonii*

- H. pungens* ssp. *laevis*
Hesperervax sparsiflora var. *brevifolia*
Heterotheca villosa var. *shevockii*
Holocarpa macradenia
H. virgata ssp. *elongata*
Hulsea brevifolia
H. californica
H. mexicana
H. vestita ssp. *callicarpa*
H. vestita ssp. *gabrielensis*
H. vestita ssp. *inyoensis*
H. vestita ssp. *parryi*
Isocoma arguta
I. menziesii var. *decumbens*
I. menziesii var. *diabolica*
Iva hayesiana
Lasthenia burkei
L. conjugens
L. glabrata ssp. *coulteri*
L. leptalea
Layia carnosa
L. discoidea
L. heterotricha
L. jonesii
L. leucopappa
L. munzii
L. septentrionalis
Lembertia congonii
Lessingia arachnoidea
L. germanorum
L. glandulifera var. *tomentosa*
L. hololeuca
L. micradenia var. *glabrata*
L. micradenia var. *micradenia*
L. occidentalis
L. tenuis
Machaeranthera asteroides var. *lagunensis*
M. canescens var. *ziegleri*
M. juncea
Madia doris-nilesiae
M. hallii
M. nutans
M. radiata
M. stebbinsii
M. yosemitana
Malacothrix foliosa
M. incana
M. indecora
M. saxatilis var. *arachnoidea*
M. squalida
Malperia tenuis
Micropus amphibolus
Microseris borealis
M. douglasii var. *platycarpa*
Palafoxia arida var. *gigantea*
Pentachaeta bellidiflora
P. exilis ssp. *aeolica*
P. lyonii
Perityle inyoensis
P. villosa
Pseudobahia bahiifolia
P. peirsonii
Psilocarphus brevissimus var. *multiflorus*
P. elatior
P. tenellus var. *globiferus*
Pyrrcoma lucida
P. racemosa var. *congesta*
P. uniflora var. *gossypina*
Raillardella pringlei
Raillardopsis muirii
R. scabrida
Sanvitalia abertii
Saussurea americana
Senecio aphanactis
S. bernardinus
S. clevelandii var. *clevelandii*
S. clevelandii var. *heterophyllus*
S. eurycephalus var. *lewisrosei*
S. ganderi
S. hydrophiloides
S. ionophyllus
S. layneae
S. macounii
S. pattersonensis
Solidago gigantea
S. guiradonis
Stebbinsoseris decipiens
Stenotus lanuginosus
Stephanomeria blairii
Stylocline citroleum
S. masonii
S. sonorensis
Syntrichopappus lemmonii
Taraxacum californicum
Tetradymia argyrea
Tonestus eximius
T. lyallii
Townsendia parryi
Tracyina rostrata
Trichocoronis wrightii var. *wrightii*
Trimorpha acris var. *debilis*
Verbesina dissita
Viguiera laciniata
Wyethia elata
W. longicaulis
W. reticulata
Xylorhiza cognata
X. orcuttii
- Azollaceae**
Azolla mexicana
- Berberidaceae**
Berberis fremontii
B. nevinii
B. pinnata ssp. *insularis*
Vancouveria chrysantha
- Boraginaceae**
Amsinckia grandiflora
A. lunaris
A. vernicosa var. *furcata*
Cryptantha clevelandii var. *dissita*
C. clokeyi
C. costata
C. crinita
C. crymophila
C. excavata
C. ganderi
C. holoptera
C. hooveri
C. mariposae
C. rattanii
C. roosiorum
C. scoparia
C. traskiae
C. tumulosa
Hackelia amethystina
H. brevicula
H. cusickii
H. sharsmithii
Harpagonella palmeri
Mertensia bella
Plagiobothrys chorisianus var. *chorisianus*
P. diffusus
P. glaber
P. glomeratus
P. glyptocarpus var. *modestus*
P. hystriculus
P. lithocaryus
P. mollis var. *vestitus*
P. myosotoides
P. salsus
P. strictus
P. uncinatus
- Brassicaceae**
Arabis aculeolata
A. blepharophylla
A. bodiensis
A. breweri var. *pecuniaria*
A. cobrensis
A. constancei
A. dispar
A. fernaldiana var. *stylosa*
A. hoffmannii
A. johnstonii
A. koehleri var. *stipitata*
A. macdonaldiana
A. microphylla var. *microphylla*
A. modesta
A. oregana
A. parishii
A. pinzlae
A. pulchra var. *munciensis*
A. pygmaea
A. rigidissima var. *demota*
A. rigidissima var. *rigidissima*
A. serpentinicola
A. shockleyi
A. tiehmii
Cardamine nuttallii var. *gemmata*
C. pachystigma var. *dissectifolia*
Caulanthus amplexicaulis var. *barbarae*
C. californicus
C. simulans
Caulostramina jaegeri
Cochlearia officinalis var. *arctica*
Cusickiella quadricostata
Dithyrea maritima
Draba asterophora var. *asterophora*
D. asterophora var. *macrocarpa*
D. aureola
D. californica
D. cana
D. carnosula
D. cruciata
D. howellii
D. incrassata
D. monoensis
D. pterosperma
D. sharsmithii
D. sierrae
D. subumbellata
Erysimum ammophilum
E. capitatum ssp. *angustatum*
E. capitatum ssp. *lompocense*
E. franciscanum
E. insulare ssp. *insulare*
E. insulare ssp. *suffrutescens*
E. menziesii ssp. *eurekaense*
E. menziesii ssp. *menziesii*

- E. menziesii* ssp. *yadonii*
E. teretifolium
Halimolobos virgata
Lepidium flavum var. *felipense*
L. jaredii ssp. *album*
L. jaredii ssp. *jaredii*
L. latipes var. *heckardii*
L. virginicum var. *robinsonii*
Lesquerella kingii ssp.
 bernardina
Lyrocarpa coulteri var. *palmeri*
Rorippa columbiae
R. gambellii
R. subumbellata
Sibara filifolia
Smelowskia ovalis var. *congesta*
Streptanthus albidus ssp. *albidus*
S. albidus ssp. *peramoenus*
S. batrachopus
S. bernardinus
S. brachiatus ssp. *brachiatus*
S. brachiatus ssp. *hoffmanii*
S. callistus
S. campestris
S. cordatus var. *piutensis*
S. drepanoides
S. farnsworthianus
S. fenestratus
S. glandulosus ssp. *pulchellus*
S. glandulosus var. *hoffmanii*
S. gracilis
S. hispidus
S. howellii
S. insignis ssp. *lyonii*
S. morrisonii ssp. *elatus*
S. morrisonii ssp. *hirtiflorus*
S. morrisonii ssp. *kruckebergii*
S. morrisonii ssp. *morrisonii*
S. niger
S. oliganthus
Thelypodium brachycarpum
T. stenopetalum
Thlaspi californicum
Thysanocarpus conchuliferus
Tropidocarpum capparideum
- Burseraceae**
Bursera microphylla
- Cactaceae**
Bergerocactus emoryi
Carnegiea gigantea
Echinocereus engelmannii var.
 howei
Escobaria vivipara var. *alversonii*
- E. vivipara* var. *rosea*
Ferocactus viridescens
Opuntia basilaris var.
 brachyclada
O. basilaris var. *treleasei*
O. curvospina
O. fragilis
O. munzii
O. parryi var. *serpentina*
O. pulchella
O. wigginsii
O. wolfii
Sclerocactus polyancistrus
- Campanulaceae**
Campanula californica
C. exigua
C. scabrella
C. sharsmithiae
C. shetleri
C. wilkinsiana
Downingia concolor var. *brevior*
D. pusilla
Githopsis diffusa ssp. *flicaulis*
Howellia aquatilis
Legenere limosa
Nemacladus gracilis
N. twisselmannii
- Capparaceae**
Wislizenia refracta ssp. *refracta*
- Caryophyllaceae**
Arenaria macradenia var.
 kuschei
A. paludicola
A. ursina
Loeflingia squarrosa var.
 artemisiarum
Minuartia decumbens
M. howellii
M. obtusiloba
M. rosei
M. stolonifera
Paronychia abartii
Silene campanulata ssp.
 campanulata
S. invisa
S. marmorensis
S. occidentalis ssp.
 longistipitata
S. suksdorfii
S. verecunda ssp. *verecunda*
Stellaria longifolia
S. obtusa
- Chenopodiaceae**
Aphanisma blitoides
Atriplex cordulata
A. coronata var. *coronata*
A. coronata var. *notatior*
A. coulteri
A. depressa
A. joaquiniana
A. minuscula
A. pacifica
A. parishii
A. serenana var. *dauidsonii*
A. tularensis
A. vallicola
Chenopodium simplex
Nitrophila mohavensis
Suaeda californica
S. esteroa
S. taxifolia
- Cistaceae**
Helianthemum greenii
H. suffrutescens
- Convolvulaceae**
Calystegia atriplicifolia ssp.
 buttensis
C. collina ssp. *oxyphylla*
C. collina ssp. *venusta*
C. macrostegia ssp. *amplissima*
C. malacophylla var. *berryi*
C. peirsonii
C. sepium ssp. *binghamiae*
C. stebbinsii
C. subacaulis ssp. *episcopalis*
Convolvulus simulans
Dichondra occidentalis
- Crassulaceae**
Dudleya abramsii ssp. *affinis*
D. abramsii ssp. *bettinae*
D. abramsii ssp. *murina*
D. abramsii ssp. *parva*
D. alainae
D. attenuata ssp. *orcuttii*
D. blochmaniae ssp.
 blochmaniae
D. blochmaniae ssp. *brevifolia*
D. blochmaniae ssp. *insularis*
D. calcicola
D. candelabrum
D. cymosa ssp. *costafolia*
D. cymosa ssp. *crebrifolia*
D. cymosa ssp. *marcescens*
- D. cymosa* ssp. *ovatifolia*
D. densiflora
D. greenii
D. multicaulis
D. nesiotica
D. saxosa ssp. *saxosa*
D. setchellii
D. stolonifera
D. traskiae
D. variegata
D. verityi
D. virens
D. viscida
Parvisedum leiocarpum
Sedum albomarginatum
S. divergens
S. eastwoodiae
S. laxum ssp. *flavidum*
S. laxum ssp. *heckneri*
S. niveum
S. oblanceolatum
S. paradisum
- Crossosomataceae**
Crossosoma californicum
Glossopetalon pungens
- Cupressaceae**
Cupressus abramsiana
C. arizonica ssp. *nevadensis*
C. bakeri
C. forbesii
C. goveniana ssp. *govoniana*
C. goveniana ssp. *pigmaea*
C. macrocarpa
C. nootkatensis
C. stephensonii
- Cyperaceae**
Carex albida
C. californica
C. comosa
C. congdonii
C. davyi
C. eleocharis
C. geyeri
C. gigas
C. halliana
C. hystricina
C. incurviformis var. *danaensis*
C. lasiocarpa
C. leptalea
C. limosa
C. livida
C. norvegica

- C. obispoensis*
C. parryana var. *hallii*
C. petasata
C. praticola
C. scoparia
C. sheldoni
C. tiogana
C. tompkinsii
C. vulpinoidea
Eleocharis parvula
E. quadrangulata
Fimbristylis thermalis
Kobresia bellardii
Rhynchospora alba
R. californica
R. globularis var. *globularis*
Scirpus clementis
S. heterochaetus
S. pumilus
S. subterminalis
- Droseraceae**
Drosera anglica
- Dryopteridaceae**
Dryopteris filix-mas
Polystichum kruckebergii
P. lonchitis
Woodsia plummerae
- Empetraceae**
Empetrum nigrum ssp. *hermaphroditum*
- Equisetaceae**
Equisetum palustre
- Ericaceae**
Arctostaphylos andersonii
A. auriculata
A. bakeri ssp. *bakeri*
A. bakeri ssp. *sublaevis*
A. canescens ssp. *sonomensis*
A. catalinae
A. confertiflora
A. cruzensis
A. densiflora
A. edmundsii
A. gabrielensis
A. glandulosa ssp. *crassifolia*
A. glutinosa
A. hispidula
A. hookeri ssp. *franciscana*
A. hookeri ssp. *bearstiorum*
A. hookeri ssp. *hookeri*
- A. hookeri* ssp. *montana*
A. hookeri ssp. *ravenii*
A. hooveri
A. imbricata
A. klamathensis
A. luciana
A. malloryi
A. manzanita ssp. *laevigata*
A. mendocinoensis
A. mewukka ssp. *truei*
A. montaraensis
A. montereyensis
A. morroensis
A. myrtifolia
A. nissenana
A. nortensis
A. obispoensis
A. osoensis
A. otayensis
A. pajaroensis
A. pallida
A. pechoensis
A. peninsularis ssp. *peninsularis*
A. pilosula
A. pumila
A. purissima
A. rainbowensis
A. refugioensis
A. regismontana
A. rudis
A. silvicola
A. stanfordiana ssp. *decumbens*
A. stanfordiana ssp. *raichei*
A. tomentosa ssp. *daciticola*
A. tomentosa ssp. *eastwoodiana*
A. tomentosa ssp. *insulicola*
A. tomentosa ssp. *subcordata*
A. virgata
A. viridissima
A. wellsii
Comarostaphylis diversifolia ssp. *diversifolia*
Monotropa uniflora
Ornithostaphylos oppositifolia
Pityopus californicus
Vaccinium coccineum
V. scoparium
- Euphorbiaceae**
Chamaesyce arizonica
C. hooveri
C. ocellata ssp. *rattanii*
C. platysperma
Croton wigginsii
Ditaxis californica
- D. clariana*
Euphorbia exstipulata var. *exstipulata*
E. misera
Tetracoccus dioicus
T. ilicifolius
- Fabaceae**
Astragalus agnicidus
A. albens
A. allochrous var. *playanus*
A. anxius
A. argophyllus var. *argophyllus*
A. atratus var. *mensanus*
A. bicristatus
A. brauntonii
A. breweri
A. cimae var. *cimae*
A. clarianus
A. clevelandii
A. crotalariae
A. deanei
A. douglasii var. *perstrictus*
A. ertterae
A. funereus
A. geyeri var. *geyeri*
A. gilmanii
A. insularis var. *harwoodii*
A. inversus
A. jaegerianus
A. johannis-howellii
A. kentrophyta var. *danaus*
A. kentrophyta var. *elatus*
A. lentiformis
A. lentiginosus var. *antonius*
A. lentiginosus var. *borreganus*
A. lentiginosus var. *cochellae*
A. lentiginosus var. *kernensis*
A. lentiginosus var. *micans*
A. lentiginosus var. *piscinensis*
A. lentiginosus var. *sesquimetralis*
A. lentiginosus var. *sierrae*
A. leucolobus
A. macrodon
A. magdalenae var. *peirsonii*
A. miguelensis
A. mojavenis var. *hemigyris*
A. monoensis var. *monoensis*
A. monoensis var. *ravenii*
A. nevinii
A. nutans
A. oocarpus
A. oophorus var. *lavinii*
A. pachypus var. *jaegeri*
A. pauperculus
- A. platytropis*
A. preussii var. *laxiflorus*
A. preussii var. *preussii*
A. pseudiodanthus
A. pulsiferae var. *pulsiferae*
A. pulsiferae var. *suksdorfii*
A. pycnostachyus var. *lanosissimus*
A. rattanii var. *jepsonianus*
A. rattanii var. *rattanii*
A. serenoii var. *shockleyi*
A. shevockii
A. subvestitus
A. tener var. *ferrisiae*
A. tener var. *tener*
A. tener var. *titi*
A. traskiae
A. tricarinatus
A. umbraticus
A. webberi
Calliandra eriophylla
Dalea ornata
Lathyrus biflorus
L. delnorticus
L. glandulosus
L. jepsonii var. *jepsonii*
L. palustris
L. splendens
L. sulphureus var. *argillaceus*
Lotus argophyllus var. *adsurgens*
L. argophyllus var. *niveus*
L. argyraeus var. *multicaulis*
L. argyraeus var. *notitius*
L. crassifolius var. *otayensis*
L. dendroideus var. *dendroideus*
L. dendroideus var. *traskiae*
L. dendroideus var. *veatchii*
L. haydonii
L. nuttallianus
L. oblongifolius var. *cupreus*
L. rubriflorus
L. yollabolliensis
Lupinus albifrons var. *abramsii*
L. antoninus
L. cervinus
L. citrinus var. *citrinus*
L. citrinus var. *deflexus*
L. constancei
L. croceus var. *pilosellus*
L. dalesiae
L. duranii
L. elatus
L. excubitus var. *johnstonii*
L. excubitus var. *medius*
L. eximius
L. gracilentus

L. guadalupensis
L. holmgrenianus
L. lapidicola
L. lepidus var. *culbertsonii*
L. ludovicianus
L. magnificus var. *glarecola*
L. magnificus var. *hesperius*
L. magnificus var. *magnificus*
L. milo-bakeri
L. nipomensis
L. padre-crowleyi
L. peirsonii
L. sericatus
L. spectabilis
L. tidestromii
L. tracyi
Marina orcuttii var. *orcuttii*
Oxytropis deflexa var. *sericea*
Peteria thompsoniae
Phaseolus filiformis
Psoralea arborescens var. *arborescens*
Rupertia hallii
R. rigida
Senna covesii
Thermopsis californica var. *argentata*
T. californica var. *semota*
T. gracilis
T. macrophylla
T. robusta
Trifolium amoenum
T. bolanderi
T. buckwestiorum
T. gracilentum var. *palmeri*
T. howellii
T. lemmonii
T. macilentum var. *dedeckeriae*
T. polyodon
T. trichocalyx

Fagaceae

Quercus dumosa
Q. engelmannii
Q. parvula var. *parvula*
Q. tomentella

Frankeniaceae

Frankenia palmeri

Gentianaceae

Gentiana affinis var. *parvidentata*
G. fremontii
G. plurisetosa

G. prostrata
G. setigera
Swertia fastigiata
S. neglecta

Grossulariaceae

Ribes amarum var. *hoffmannii*
R. canthariforme
R. divaricatum var. *parishii*
R. hudsonianum var. *petiolare*
R. laxiflorum
R. marshallii
R. menziesii var. *ixoderme*
R. sericeum
R. thacherianum
R. tularense
R. viburnifolium
R. victoris

Hydrangeaceae

Carpenteria californica
Fendlerella utahensis

Hydrophyllaceae

Eriodictyon altissimum
E. angustifolium
E. capitatum
Nama dichotomum var. *dichotomum*
N. stenocarpum
Nemophila parviflora var. *quercifolia*
Phacelia amabilis
P. anelsonii
P. argentea
P. ciliata var. *opaca*
P. cinerea
P. cookei
P. dalesiana
P. exilis
P. floribunda
P. greenei
P. insularis var. *continentis*
P. insularis var. *insularis*
P. inundata
P. inyoensis
P. leonis
P. mohavensis
P. monoensis
P. mustelina
P. nashiana
P. novenmillensis
P. orogenes
P. parishii
P. phacelioides

P. pulchella var. *gooddingii*
P. sericea var. *ciliosa*
P. stebbinsii
P. stellaris
P. suaveolens ssp. *keckii*
Pholistoma auritum var. *arizonicum*

Iridaceae

Iris bracteata
I. hartwegii ssp. *columbiana*
I. innominata
I. munzii
I. tenax ssp. *klamathensis*

Juglandaceae

Juglans californica var. *californica*
J. californica var. *hindsii*

Juncaceae

Juncus acutus ssp. *leopoldii*
J. dudleyi
J. duranii
J. hemiendytus var. *abjectus*
J. leiospermus var. *ahartii*
J. leiospermus var. *leiospermus*
J. marginatus var. *marginatus*
J. nodosus
J. regelii
J. supiniiformis

Koeberliniaceae

Koeberlinia spinosa ssp. *tenuispina*

Lamiaceae

Acanthomintha duttonii
A. ilicifolia
A. lanceolata
A. obovata ssp. *cordata*
A. obovata ssp. *obovata*
Lepechinia cardiophylla
L. fragrans
L. ganderi
Lycopus uniflorus
Monardella antonina ssp. *antonina*
M. antonina ssp. *benitensis*
M. beneolens
M. candicans
M. cinerea
M. crispa
M. douglasii ssp. *venosa*
M. follettii

M. frutescens
M. hypoleuca ssp. *lanata*
M. leucocephala
M. linoides ssp. *oblonga*
M. linoides ssp. *viminea*
M. macrantha ssp. *hallii*
M. nana ssp. *leptosiphon*
M. palmeri
M. pringlei
M. robinsonii
M. stebbinsii
M. undulata
M. villosa ssp. *globosa*
M. viridis ssp. *saxicola*
M. viridis ssp. *viridis*
Pogogyne abramsii
P. clareana
P. douglasii ssp. *parviflora*
P. floribunda
P. nudiuscula
Poliomintha incana
Salvia brandegei
S. dorrii var. *incana*
S. eremostachya
S. finerea
S. greatae
S. munzii
Satureja chandleri
Scutellaria bolanderi ssp. *austromontana*
S. galericulata
S. holmgreniorum
S. lateriflora
Trichostema austromontanum ssp. *compactum*
T. micranthum
T. ovatum
T. rubisepalum

Lennoaceae

Pholisma sonorae

Lentibulariaceae

Pinguicula vulgaris ssp. *macroceras*

Liliaceae

Agave shawii
A. utahensis
Allium atrorubens var. *atrorubens*
A. fimbriatum var. *purdyi*
A. hickmanii
A. hoffmanii
A. howellii var. *clokeyi*
A. jepsonii

- A. munzii*
A. nevadense
A. parishii
A. sanbornii var. *congdonii*
A. sanbornii var. *sanbornii*
A. sharsmithae
A. shevockii
A. siskiyouense
A. tribracteatum
A. tuolumnense
A. yosemitense
Androstephium breviflorum
Bloomeria humilis
Brodiaea coronaria ssp. *rosea*
B. filifolia
B. insignis
B. kinkiensis
B. orcuttii
B. pallida
Calochortus catalinae
C. clavatus ssp. *recurvifolius*
C. clavatus var. *avius*
C. clavatus var. *clavatus*
C. clavatus var. *gracilis*
C. dumii
C. excavatus
C. greenii
C. longebarbatus var. *longebarbatus*
C. monanthus
C. obispoensis
C. palmeri var. *munzii*
C. palmeri var. *palmeri*
C. panamintensis
C. persistens
C. plummerae
C. pulchellus
C. raichei
C. simulans
C. striatus
C. tiburonensis
C. umbellatus
C. weedii var. *intermedius*
C. weedii var. *vestus*
C. westonii
Chlorogalum grandiflorum
C. pomeridianum var. *minus*
C. purpureum var. *purpureum*
C. purpureum var. *reductum*
Erythronium citrinum var. *citrinum*
E. citrinum var. *roderickii*
E. helenae
E. hendersonii
E. howellii
- E. klamathense*
E. pluriflorum
E. pusaterii
E. tuolumnense
Fritillaria agrestis
F. biflora var. *ineziana*
F. brandegei
F. eastwoodiae
F. falcata
F. lanceolata var. *tristidus*
F. liliacea
F. ojaiensis
F. pluriflora
F. purdyi
F. roderickii
F. striata
F. viridea
Lilium bolanderi
L. humboldtii ssp. *humboldtii*
L. humboldtii ssp. *ocellatum*
L. kelloggii
L. maritimum
L. occidentale
L. pardalinum ssp. *pitkinense*
L. pardalinum ssp. *vollmeri*
L. pardalinum ssp. *wigginsii*
L. parryi
L. rubescens
L. washingtonianum ssp. *purpurascens*
Muilla clevelandii
M. coronata
Nolina interrata
Trillium ovatum ssp. *oettingeri*
Triteleia clementina
T. crocea var. *crocea*
T. crocea var. *modesta*
T. hendersonii var. *hendersonii*
T. ixioides ssp. *cookii*
Veratrum fimbriatum
V. insolitum
- Limnanthaceae**
Limnanthes bakeri
L. douglasii ssp. *sulphurea*
L. floccosa ssp. *bellingeriana*
L. floccosa ssp. *californica*
L. floccosa ssp. *floccosa*
L. gracilis ssp. *parishii*
L. vinculans
- Linaceae**
Hesperolinon adenophyllum
H. bicarpellatum
H. breweri
- H. congestum*
H. didymocarpum
H. drymarioides
H. serpentinum
H. tehamense
- Loasaceae**
Eucnide rupestris
Mentzelia hirsutissima
Petalonyx thurberi ssp. *gilmanii*
- Lycopodiaceae**
Lycopodiella inundata
Lycopodium clavatum
- Malvaceae**
Eremalche kernensis
Herissantia crispa
Hibiscus lasiocarpus
Iliamna bakeri
I. latibracteata
Lavatera assurgentiflora ssp. *assurgentiflora*
L. assurgentiflora ssp. *glabra*
Malacothamnus abbottii
M. aboriginum
M. arcuatus
M. clementinus
M. davidsonii
M. fasciculatus var. *nesioticus*
M. gracilis
M. hallii
M. helleri
M. jonesii
M. mendocinensis
M. niveus
M. palmeri var. *involutus*
M. palmeri var. *lucianus*
M. palmeri var. *palmeri*
M. parishii
Sidalcea calycosa ssp. *rhizomata*
S. covillei
S. hickmanii ssp. *anomala*
S. hickmanii ssp. *hickmanii*
S. hickmanii ssp. *parishii*
S. hickmanii ssp. *viridis*
S. keckii
S. malachroides
S. malvaeflora ssp. *patula*
S. neomexicana
S. oregana ssp. *eximia*
S. oregana ssp. *hydrophila*
S. oregana ssp. *valida*
S. pedata
S. robusta
- S. stipularis*
Sphaeralcea rusbyi var. *eremicola*
- Marsileaceae**
Marsilea oligospora
- Martyniaceae**
Proboscidea althaeifolia
- Nyctaginaceae**
Abronia alpina
A. maritima
A. nana ssp. *covillei*
A. umbellata ssp. *breviflora*
Acleisanthes longiflora
Mirabilis tenuiloba
Selinocarpus nevadensis
- Onagraceae**
Camissonia benitensis
C. boothii ssp. *alysoides*
C. boothii ssp. *boothii*
C. guadalupensis ssp. *clementina*
C. hardhamiae
C. integrifolia
C. kernensis ssp. *kernensis*
C. lewisii
C. minor
C. sierrae ssp. *alticola*
C. tanacetifolia ssp. *quadriperforata*
Clarkia amoena ssp. *whitneyi*
C. australis
C. biloba ssp. *australis*
C. borealis ssp. *arida*
C. borealis ssp. *borealis*
C. breweri
C. concinna ssp. *automixa*
C. concinna ssp. *raichei*
C. delicata
C. exilis
C. franciscana
C. gracilis ssp. *albicaulis*
C. imbricata
C. jolonensis
C. lewisii
C. lingulata
C. mildrediae
C. mosquinii ssp. *mosquinii*
C. mosquinii ssp. *xerophila*
C. rostrata
C. speciosa ssp. *immaculata*
C. springvillensis
C. tembloriensis ssp. *calientensis*

C. virgata
C. xantiana ssp. *parviflora*
Epilobium howellii
E. luteum
E. nivium
E. oreganum
E. rigidum
E. septentrionale
E. siskiyouense
Oenothera caespitosa ssp. *crinita*
O. californica ssp. *eurekaensis*
O. deltooides ssp. *howellii*
O. wolfii

Ophioglossaceae

Botrychium ascendens
B. crenulatum
B. lunaria
B. minganense
B. montanum
B. pinnatum
Ophioglossum californicum
O. pusillum

Orchidaceae

Corallorhiza trifida
Cypripedium californicum
C. fasciculatum
C. montanum
Listera cordata
Malaxis monophyllos ssp. *brachypoda*
Piperia candida
P. michaelii
P. yadonii

Orobanchaceae

Boschiakia hookeri
Orobanche parishii ssp. *brachyloba*
O. valida ssp. *howellii*
O. valida ssp. *valida*

Papaveraceae

Arctomecon merriamii
Canbya candida
Corydalis caseana ssp. *caseana*
Dendromecon harfordii var. *harfordii*
D. harfordii var. *rhamnoides*
Dicentra formosa ssp. *oregana*
D. nevadensis
Eschscholzia hypocoides
E. lemmonii ssp. *kernensis*
E. minutiflora ssp. *twisselmannii*

E. procera
E. ramosa
E. rhombipetala
Platystemon californicus var. *ciliatus*
Romneya coulteri

Philadelphaceae

Jamesia americana var. *rosea*

Pinaceae

Abies amabilis
A. bracteata
A. lasiocarpa var. *lasiocarpa*
Picea engelmannii
Pinus contorta ssp. *bolanderi*
P. edulis
P. longaeva
P. radiata
P. torreyana ssp. *insularis*
P. torreyana ssp. *torreyana*

Poaceae

Achnatherum aridum
A. diegoense
A. lemmonii var. *pubescens*
Agrostis blasdalei
A. hendersonii
A. hooveri
A. humilis
Alopecurus aequalis var. *sonomensis*
Blepharidachne kingii
Bouteloua trifida
Calamagrostis bolanderi
C. crassiglumis
C. foliosa
C. ophitidis
Deschampsia atropurpurea
Dichanthelium lanuginosum var. *thermale*
Dissanthelium californicum
Elymus californicus
E. scribneri
Erneapogon desvauxii
Erioneuron pilosum
Glyceria grandis
Hierochloa odorata
Hordeum intercedens
Lycurus phleoides var. *phleoides*
Melica spectabilis
Muhlenbergia appressa
M. arsenei
M. californica
M. fragilis

M. pauciflora
Munroa squarrosa
Neostapfia colusana
Orcuttia californica
O. inaequalis
O. pilosa
O. tenuis
O. viscida
Piptatherum micranthum
Pleuropogon davyi
P. hooverianus
P. refractus
Poa abbreviata ssp. *marshii*
P. atropurpurea
P. napensis
P. pattersonii
P. piperi
P. rhizomata
Puccinellia californica
P. howellii
P. parishii
P. pumila
Scleropogon brevifolius
Spartina gracilis
Sphenopholis obtusata
Swallenia alexandrae
Tuctoria greenei
T. mucronata

Polemoniaceae

Collomia diversifolia
C. larsenii
C. rawsoniana
C. tracyi
Eriastrum brandegeae
E. densifolium ssp. *sanctorum*
E. hooveri
E. luteum
E. virgatum
Gilia caruifolia
G. latiflora ssp. *cuyamensis*
G. maculata
G. nevinii
G. ripleyi
G. tenuiflora ssp. *arenaria*
G. tenuiflora ssp. *hoffmannii*
Ipomopsis effusa
I. tenuifolia
Leptodactylon californicum ssp. *tomentosum*
L. jaegeri
Linanthus acicularis
L. ambiguus
L. arenicola
L. bellus

L. concinnus
L. floribundus ssp. *hallii*
L. grandiflorus
L. killipii
L. nuttallii ssp. *howellii*
L. oblanceolatus
L. orcuttii
L. pygmaeus ssp. *pygmaeus*
L. rattanii
L. serrulatus
Navarretia eriocephala
N. fossalis
N. heterandra
N. Jaredii
N. jepsonii
N. leucocephala ssp. *bakeri*
N. leucocephala ssp. *pauciflora*
N. leucocephala ssp. *plieantha*
N. myersii
N. nigelliformis ssp. *radians*
N. peninsularis
N. prolifera ssp. *lutea*
N. rosulata
N. setiloba
N. subuligera
Phlox dispersa
P. dolichantha
P. hirsuta
P. muscoides
Polemonium chartaceum

Polygalaceae

Polygala cornuta var. *fishiae*
P. heterorhyncha
P. subspinosa

Polygonaceae

Aristocapsa insignis
Chorizanthe biloba var. *immemora*
C. blakleyi
C. breweri
C. cuspidata var. *cuspidata*
C. cuspidata var. *villosa*
C. douglasii
C. howellii
C. leptotheca
C. orcuttiana
C. palmeri
C. parryi var. *fernandina*
C. parryi var. *parryi*
C. polygonoides var. *longispina*
C. procumbens
C. pungens var. *hartwegiana*
C. pungens var. *pungens*

C. rectispina
C. robusta var. *hartwegii*
C. robusta var. *robusta*
C. spinosa
C. valida
C. wheeleri
C. xanti var. *leucotheca*
Dedeckera eurekaensis
Dodecabema leptoceras
Eriogonum alpinum
E. apricum var. *apricum*
E. apricum var. *prostratum*
E. argillosum
E. beatleyae
E. bifurcatum
E. breedlovei var. *breedlovei*
E. breedlovei var. *shevockii*
E. butterworthianum
E. congdonii
E. contiguum
E. crocatum
E. declinum
E. eastwoodianum
E. eremicola
E. ericifolium var. *thornei*
E. foliosum
E. giganteum var. *compactum*
E. giganteum var. *formosum*
E. gilmanii
E. gossypinum
E. grande var. *grande*
E. grande var. *rubescens*
E. grande var. *timorum*
E. heermannii var. *floccosum*
E. heermannii var. *occidentale*
E. hirtellum
E. hoffmannii var. *hoffmannii*
E. hoffmannii var. *robustius*
E. intrafractum
E. kelloggii
E. kennedyi var. *alpigenum*
E. kennedyi var. *austromontanum*
E. kennedyi var. *pinicola*
E. libertini
E. luteolum var. *caninum*
E. microthecum var. *corymbosoides*
E. microthecum var. *johnstonii*
E. microthecum var. *lapidicola*
E. microthecum var. *panamintense*
E. nervulosum
E. nortonii
E. nudum var. *decurrens*

E. nudum var. *indictum*
E. nudum var. *murinum*
E. nudum var. *paralinum*
E. nudum var. *regivirum*
E. nutans
E. ochrocephalum var. *alexanderiae*
E. ovalifolium var. *eximium*
E. ovalifolium var. *vineum*
E. pendulum
E. polypodum
E. prattenianum var. *avium*
E. prociduum
E. puberulum
E. shockleyi var. *shockleyi*
E. siskiyouense
E. strictum var. *greenii*
E. temblorense
E. ternatum
E. tripodum
E. truncatum
E. twisselmannii
E. umbellatum var. *glaberrimum*
E. umbellatum var. *humistratum*
E. umbellatum var. *juniporinum*
E. umbellatum var. *minus*
E. umbellatum var. *torreyanum*
E. vestitum
E. wrightii var. *olanchense*
Gilmania luteola
Goodmania luteola
Mucronea californica
Nemacaulis denudata var. *denudata*
N. denudata var. *gracilis*
Oxytheca caryophylloides
O. emarginata
O. parishii var. *abramsii*
O. parishii var. *cienegensis*
O. parishii var. *goodmaniana*
O. watsonii
Polygonum bidwelliae
P. marinense
P. polygaloides ssp. *esotericum*
Systenotheca vortriedei

Portulacaceae

Calandrinia breweri
C. maritima
Calyptridium parryi var. *hesseae*
C. pulchellum
C. quadripetalum
Claytonia lanceolata var. *peirsonii*
C. megarhiza
C. palustris

C. umbellata
Lewisia brachycalyx
L. cantelovii
L. congdonii
L. cotyledon var. *heckneri*
L. cotyledon var. *howellii*
L. disepala
L. longipetala
L. oppositifolia
L. serrata
L. stebbinsii
Montia howellii
Portulaca halimoides

Potamogetonaceae

Potamogeton epihydrus ssp. *nuttallii*
P. filiformis
P. foliosus var. *fibrillosus*
P. praelongus
P. robbinsii
P. zosteriformis

Primulaceae

Androsace elongata ssp. *acuta*
A. filiformis
Trientalis arctica

Pteridaceae

Argyrochosma limitanea var. *limitanea*
Aspidotis carlotta-halliae
Astrolepis cochisensis
Cheilanthes wootonii
Pellaea truncata

Rafflesiaceae

Pilostyles thurberi

Ranunculaceae

Delphinium bakeri
D. californicum ssp. *interius*
D. gypsophilum ssp. *gypsophilum*
D. gypsophilum ssp. *parviflorum*
D. hansenii ssp. *ewanianum*
D. hesperium ssp. *cuyamacae*
D. hutchinsoniae
D. inopinum
D. luteum
D. parishii ssp. *subglobosum*
D. parryi ssp. *blochmaniae*
D. parryi ssp. *purpureum*
D. purpusii
D. recurvatum
D. stachydeum

D. uliginosum
D. umbraculorum
D. variegatum ssp. *kinkiense*
D. variegatum ssp. *thornei*
Myosurus minimus ssp. *apus*
Ranunculus hydrocharoides
R. lobbii

Rhamnaceae

Adolphia californica
Ceanothus confusus
C. cuneatus var. *rigidus*
C. cyaneus
C. divergens
C. ferrisae
C. foliosus var. *vineatus*
C. fresnensis
C. gloriosus var. *gloriosus*
C. gloriosus var. *porrectus*
C. hearstiorum
C. maritimus
C. masonii
C. megacarpus var. *insularis*
C. ophiochilus
C. purpureus
C. roderickii
C. sonomensis
C. verrucosus
Colubrina californica
Condalia globosa var. *pubescens*

Rosaceae

Cercocarpus betuloides var. *blancheae*
C. traskiae
Chamaebatia australis
Geum aleppicum
Horkelia bolanderi
H. congesta ssp. *nemorosa*
H. cuneata ssp. *sericea*
H. hendersonii
H. hispidula
H. marinensis
H. parryi
H. sericata
H. tenuiloba
H. truncata
H. tularensis
H. wilderae
H. yadonii
Ivesia aperta var. *aperta*
I. aperta var. *canina*
I. argyrocoma
I. arizonica var. *arizonica*
I. baileyi var. *baileyi*

I. baileyi var. *beneolens*
I. callida
I. campestris
I. jaegeri
I. kingii var. *kingii*
I. longibracteata
I. paniculata
I. patellifera
I. pickeringii
I. sericoleuca
I. unguiculata
I. webberi

Lyonothamnus floribundus ssp.
asplenifolius

L. floribundus ssp. *floribundus*

Neviusia cliffonii

Potentilla basaltica

P. concinna

P. cristae

P. glandulosa ssp. *ewanii*

P. hickmanii

P. morefieldii

P. multijuga

P. newberryi

P. rimicola

Prunus fasciculata var. *punctata*

Rosa minutifolia

Rubus glaucifolius var. *ganderi*

R. nivalis

Sanguisorba officinalis

Rubiaceae

Galium andrewsii ssp. *gatense*

G. angustifolium ssp. *borregoense*

G. angustifolium ssp. *gabrielense*

G. angustifolium ssp.
gracillimum

G. angustifolium ssp. *jacinticum*

G. angustifolium ssp. *onycense*

G. buxifolium

G. californicum ssp. *luciense*

G. californicum ssp. *miguelense*

G. californicum ssp. *primum*

G. californicum ssp. *sierrae*

G. catalinense ssp. *acrispum*

G. catalinense ssp. *catalinense*

G. clementis

G. cliffonsmithii

G. glabrescens ssp. *modocense*

G. grande

G. hardhamiae

G. hilendiae ssp. *carneum*

G. hilendiae ssp. *kingstonense*

G. hypotrichium ssp.
tomentellum

G. jepsonii

G. johnstonii

G. munzii

G. nuttallii ssp. *insulare*

G. oreganum

G. serpenticum ssp. *scotticum*

G. serpenticum ssp. *warnerense*

G. wrighthii

Salicaceae

Populus angustifolia

Salix bebbiana

S. brachycarpa ssp. *brachycarpa*

S. delnortensis

S. reticulata ssp. *nivalis*

Sarraceniaceae

Darlingtonia californica

Saxifragaceae

Bensoniella oregona

Bolandra californica

Boykinia rotundifolia

Heuchera abramsii

H. brevistaminea

H. chlorantha

H. duranii

H. elegans

H. hirsutissima

H. maxima

H. parishii

H. rubescens var. *versicolor*

Jepsonia heterandra

J. malvifolia

Lithophragma maximum

Saxifraga cespitosa

S. howellii

S. nuttallii

S. rufidula

Tiarella trifoliata var.
trifoliata

Scheuchzeriaceae

Scheuchzeria palustris var.
americana

Scrophulariaceae

Antirrhinum cyathiferum

A. ovatum

A. subcordatum

A. virga

Castilleja affinis ssp. *neglecta*

C. ambigua ssp. *humboldtensis*

C. campestris ssp. *succulenta*

C. cinerea

C. gleasonii

C. grisea

C. hispida ssp. *brevilobata*

C. lanata ssp. *hololeuca*

C. lasiorhyncha

C. latifolia

C. mendocinensis

C. miniata ssp. *elata*

C. mollis

C. montigena

C. plagiotoma

C. schizotricha

C. uliginosa

Collinsia corymbosa

C. multicolor

Cordylanthus capitatus

C. eremicus ssp. *eremicus*

C. eremicus ssp. *kernensis*

C. maritimus ssp. *maritimus*

C. maritimus ssp. *palustris*

C. mollis ssp. *hispidus*

C. mollis ssp. *mollis*

C. nidularius

C. orcuttianus

C. palmatus

C. parviflorus

C. rigidus ssp. *littoralis*

C. tecopensis

C. tenuis ssp. *barbatus*

C. tenuis ssp. *brunneus*

C. tenuis ssp. *capillaris*

C. tenuis ssp. *pallescens*

Galvezia speciosa

Gratiola heterosepala

Limosella subulata

Maurandya antirrhiniflora ssp.
antirrhiniflora

M. petrophila

Mimulus acutidens

M. aridus

M. brachiatus

M. brandegei

M. clevelandii

M. diffusus

M. exiguus

M. filicaulis

M. flemingii

M. glabratus ssp. *utahensis*

M. glaucescens

M. gracilipes

M. grayi

M. inconspicuus

M. laciniatus

M. microphyllus

M. mohavensis

M. norrisii

M. nudatus

M. pictus

M. pulchellus

M. purpureus

M. pygmaeus

M. rattanii ssp. *decurtatus*

M. rupicola

M. shevockii

M. subsecundus

M. traskiae

M. whipplei

Orthocarpus cuspidatus ssp.
cuspidatus

O. pachystachyus

Pedicularis bracteosa var.
flavida

P. centranthera

P. contorta

P. crenulata

P. dudleyi

P. howellii

Penstemon albomarginatus

P. barnebyi

P. calcareus

P. californicus

P. cinereus

P. cinicola

P. clevelandii var. *connatus*

P. filiformis

P. fruticiformis var. *amargosae*

P. heterodoxus var. *shastensis*

P. newberryi var. *sonomensis*

P. papillatus

P. personatus

P. purpusii

P. rattanii var. *kleei*

P. stephensii

P. thurberi

P. tracyi

Scrophularia atrata

S. villosa

Triphysaria floribunda

Veronica copelandii

V. cusickii

Selaginellaceae

Selaginella asprella

S. cinerascens

S. densa var. *scopulorum*

S. eremophila

S. leucobryoides

Simaroubaceae

Castela emoryi

Smilacaceae

Smilax jamesii

Solanaceae

- Lycium brevipes* var. *hassei*
- L. parishii*
- L. verrucosum*
- Oryctes nevadensis*
- Physalis lobata*
- Solanum clokeyi*
- S. wallacei*

Sterculiaceae

- Ayenia compacta*
- Fremontodendron decumbens*
- F. mexicanum*

Thelypteridaceae

- Thelypteris puberula* var. *sonorensis*

Thymelaeaceae

- Dirca occidentalis*

Typhaceae

- Sparganium natans*

Verbenaceae

- Verbena californica*

Violaceae

- Viola aurea*
- V. langsdorfii*
- V. palustris*
- V. pinetorum* ssp. *grisea*
- V. primulifolia* ssp. *occidentalis*
- V. tomentosa*



Ceanothus ophiocbilus

Appendix V: Plants New to This Edition

The following list includes all the plants that are new to this edition. A few have been considered but rejected or overlooked in past editions, but most are either newly described or more endangered now than previously.

Abronia maritima, *A. nana* ssp. *covillei*, *Acanthomintha obovata* ssp. *cordata*, *Acleisanthes longiflora*, *Allium atropurubens* var. *atropurubens*, *A. jepsonii*, *A. nevadense*, *A. sanbornii* var. *congdonii*, *A. sanbornii* var. *sanbornii*, *Androsace elongata* ssp. *acuta*, *Antennaria marginata*, *A. pulchella*, *Arabis dispar*, *A. rigidissima* var. *demota*, *Arctostaphylos andersonii*, *A. bakeri* ssp. *sublaevis*, *A. gabriellensis*, *A. glandulosa* ssp. *crassifolia*, *A. malloryi*, *A. mendocinoensis*, *A. nortensis*, *A. osoensis*, *A. rainbowensis*, *A. regismontana*, *A. tomentosa* ssp. *daciticola*, *Arnica fulgens*, *A. sororia*, *Asclepias solanoana*, *Aspidotis carlotta-halliae*, *Astragalus allochrous* var. *playanus*, *A. lentiginosus* var. *antoniuss*, *A. lentiginosus* var. *sierrae*, *A. pachypus* var. *jaegeri*, *A. platytropis*, *A. pulsiferae* var. *pulsiferae*, *A. pulsiferae* var. *suksdorfii*, *A. tener* var. *ferrisiae*, *A. tener* var. *tener*, *Atriplex coronata* var. *coronata*, *A. coulteri*, *A. depressa*, *A. minuscula*, *A. pacifica*, *A. serenana* var. *dauidsonii*, *Azolla mexicana*, *Baccharis plummerae* ssp. *glabrata*, *Balsamorhiza hookeri* var. *lanata*, *Berberis fremontii*, *Blepharizonia plumosa* ssp. *plumosa*, *Boschniakia hookeri*, *Botrychium ascendens*, *B. lunaria*, *B. minganense*, *B. montanum*, *B. pinnatum*, *Calandrinia breweri*, *Calochortus clavatus* var. *gracilis*, *C. palmeri* var. *palmeri*, *C. panamintensis*, *C. plummerae*, *C. weedii* var. *intermedius*, *C. weedii* var. *vestus*, *Calycadenia villosa*, *Calystegia sepium* ssp. *binghamiae*, *Camissonia lewisii*, *Canbya candida*, *Carex comosa*, *C. hystericina*, *C. incurviformis* var. *danaensis*, *C. leptalea*, *C. limosa*, *C. norvegica*, *C. scoparia*, *C. tiogana*, *C. vulpinoidea*, *Carlownightia arizonica*, *Ceanothus ophiochilus*, *Chaenactis carphoclinia* var. *peirsonii*, *C. douglasii* var. *alpina*, *Chlorogalum pomeridianum* var. *minus*, *Chorizanthe biloba* var. *immemora*, *C. cuspidata* var. *cuspidata*, *C. cuspidata* var. *villosa*, *C. leptotheca*, *C. palmeri*, *C. parryi* var. *parryi*, *C. polygonoides* var. *longispina*, *C. procumbens*, *C. pungens* var. *hartwegiana*, *C. robusta* var. *hartwegii*, *C. xanti* var. *leucotheca*, *Clarkia concinna* ssp. *automixa*, *C. concinna* ssp. *raichei*, *C. gracilis* ssp. *albicaulis*, *C. xantiana* ssp. *parviflora*, *Claytonia umbellata*, *Collinsia corymbosa*, *Condalia globosa* var. *pubescens*, *Convolvulus simulans*, *Corallorhiza trifida*, *Crepis runcinata* ssp. *hallii*, *Cryptantha clevelandii* var. *dissita*, *C. clokeyi*, *Delphinium*



Holocarpa macradenia

hanseni ssp. *ewanianum*, *Dicentra nevadensis*, *Draba californica*, *D. monoensis*, *D. subumbellata*, *Dudleya cymosa* ssp. *costafolia*, *Eleocharis quadrangulata*, *Epilobium howellii*, *Equisetum palustre*, *Ericameria cuneata* var. *macrocephala*, *Erigeron angustatus*, *E. biolettii*, *E. breweri* var. *bisanctus*, *E. breweri* var. *jacinteus*, *E. calvus*, *E. inornatus* var. *calidipetris*, *E. inornatus* var. *keilii*, *E. mariposanus*, *E. petrophilus* var. *sierrensis*, *E. petrophilus* var. *viscidulus*, *E. serpentinus*, *Eriogonum foliosum*, *E. heermannii* var. *occidentale*, *E. kennedyi* var. *alpigenum*, *E. microthecum* var. *corymbosoides*, *E. microthecum* var. *lapidicola*, *E. nudum* var. *decurrens*, *E. nudum* var. *indictum*, *E. nudum* var. *paralinum*, *E. nudum* var. *regivirum*, *E. ochrocephalum* var. *alexanderae*, *E. ovalifolium* var. *eximium*, *E. prattenianum* var. *avium*, *E. tripodum*, *E. umbellatum* var. *humistratum*, *Erysimum menziesii* ssp. *eurekaense*, *E. menziesii* ssp. *yadonii*, *Erythronium citrinum* var. *roderickii*, *E. belenae*, *Erythronium pluriflorum*, *Eschscholzia lemmonii* ssp. *kernensis*, *E. minutiflora* ssp. *twisselmannii*, *Fritillaria biflora* var. *ineziana*, *F. lanceolata* var. *tristulis*, *Galium andrewsii* ssp. *gatense*, *G. angustifolium* ssp. *gracillimum*, *G. angustifolium* ssp. *jacinticum*, *Gentiana plurisetosa*, *Geum aleppicum*, *Goodmania luteola*, *Hemizonia parryi* ssp. *congdonii*, *Hesperoax sparsiflora* var. *brevifolia*, *Hesperolinon serpentinum*, *H. tehavense*, *Heterotheca villosa* var. *shevockii*, *Heuchera chlorantha*, *Hierochloa odorata*, *Holocarpa virgata* ssp. *elongata*, *Hordeum intercedens*, *Horkelia yadonii*, *Hulsea mexicana*, *H. vestita* ssp. *callicarpa*, *H. vestita* ssp. *gabriellensis*, *H. vestita* ssp. *parryi*, *Isocoma arguta*, *I. menziesii* var. *decumbens*, *I. menziesii* var. *diabolica*, *Ivesia aperta* var. *canina*, *I. baileyi* var. *beneolens*, *I. campestris*, *I. longibracteata*, *Jamesia americana* var. *rosea*, *Jepsonia heterandra*, *Juglans californica* var. *californica*,

Juncus marginatus var. *marginatus*, *Lasthenia glabrata* ssp. *coulteri*, *Lathyrus palustris*, *L. sulphureus* var. *argillaceus*, *Layia heterotricha*, *L. septentrionalis*, *Lepidium jaredii* ssp. *album*, *L. latipes* var. *heckardii*, *L. virginicum* var. *robinsonii*, *Leptodactylon californicum* ssp. *tomentosum*, *Lessingia arachnoidea*, *L. hololeuca*, *L. micradenia* var. *glabrata*, *L. micradenia* var. *micradenia*, *Lilium humboldtii* ssp. *humboldtii*, *L. humboldtii* ssp. *ocellatum*, *L. kelloggii*, *Limosella subulata*, *Linanthus acicularis*, *L. ambiguus*, *L. grandiflorus*, *L. pygmaeus* ssp. *pygmaeus*, *Lomatium hendersonii*, *Lotus argyraeus* var. *multicaulis*, *L. argyraeus* var. *notitius*, *L. haydonii*, *Madia yosemitana*, *Marsilea oligospora*, *Mertensia bella*, *Microseris borealis*, *M. douglasii* var. *platycarpha*, *Minuartia obtusiloba*, *M. stolonifera*, *Monardella beneolens*, *M. candicans*, *M. follettii*, *M. stebbinsii*, *M. villosa* ssp. *globosa*, *Montia howellii*, *Mucronea californica*, *Muhlenbergia appressa*, *M. californica*, *M. fragilis*, *Munroa squarrosa*, *Nama dichotomum* var. *dichotomum*, *N. stenocarpum*, *Navarretia leucocephala* ssp. *bakeri*, *N. myersii*, *N. nigelliformis* ssp. *radians*, *N. peninsularis*, *Nemacaulis denudata* var. *denudata*, *N. denudata* var. *gracilis*, *Neviusia cliftonii*, *Opuntia curvospina*, *O. fragilis*, *O. wolfii*, *Oxytheca parishii* var. *abramsii*, *Pedicularis centranthera*, *Phacelia exilis*, *P. mohavensis*, *P. pulchella* var. *gooddingii*, *P. stellaris*, *Phlox dispersa*, *Piperia candida*, *P. yadonii*, *Plagiobothrys glomeratus*, *P. salsus*, *Poa abbreviata* ssp. *marshii*, *Pogogyne floribunda*, *Poliomintha*

incana, *Polygala heterorhyncha*, *Potamogeton epihydrus* ssp. *nuttallii*, *P. filiformis*, *P. foliosus* var. *fibrillosus*, *P. praelongus*, *P. robbinsii*, *P. zosteriformis*, *Potentilla basaltica*, *P. cristae*, *P. glandulosa* ssp. *ewanii*, *P. morefieldii*, *P. newberryi*, *P. rimicola*, *Psilocarphus brevissimus* var. *multiflorus*, *P. elatior*, *P. tenellus* var. *globiferus*, *Puccinellia howellii*, *Quercus dumosa*, *Q. tomentella*, *Rhus trilobata* var. *simplicifolia*, *Rupertia hallii*, *Salix bebbiana*, *Sanguisorba officinalis*, *Scirpus heterochaetus*, *Scutellaria bolanderi* ssp. *austromontana*, *S. galericulata*, *S. lateriflora*, *Sedum divergens*, *Selaginella asprella*, *S. densa* var. *scopulorum*, *S. eremophila*, *Senecio aphanactis*, *S. clevelandii* var. *heterophyllus*, *Sidalcea calycosa* ssp. *rhizomata*, *S. malachroides*, *S. malvaeflora* ssp. *patula*, *S. neomexicana*, *S. oregana* ssp. *eximia*, *S. oregana* ssp. *hydrophila*, *Solidago gigantea*, *S. guiradonis*, *Stellaria longifolia*, *Stenotus lanuginosus*, *Streptanthus brachiatus* ssp. *hoffmannii*, *S. campestris*, *S. morrisonii* ssp. *elatus*, *S. morrisonii* ssp. *hirtiflorus*, *S. morrisonii* ssp. *kruckebergii*, *S. morrisonii* ssp. *morrisonii*, *Stylocline citroleum*, *S. masonii*, *S. sonorensis*, *Suaeda taxifolia*, *Thelypteris puberula* var. *sonorensis*, *Thermopsis gracilis*, *T. robusta*, *Tiarella trifoliata* var. *trifoliata*, *Trifolium buckwestiorum*, *Triteleia hendersonii* var. *hendersonii*, *Vaccinium scoparium*, *Viola aurea*, *V. langsdorfii*, *V. palustris*, *V. pinetorum* ssp. *grisea*, *V. tomentosa*, and *Wislizenia refracta* ssp. *refracta*.

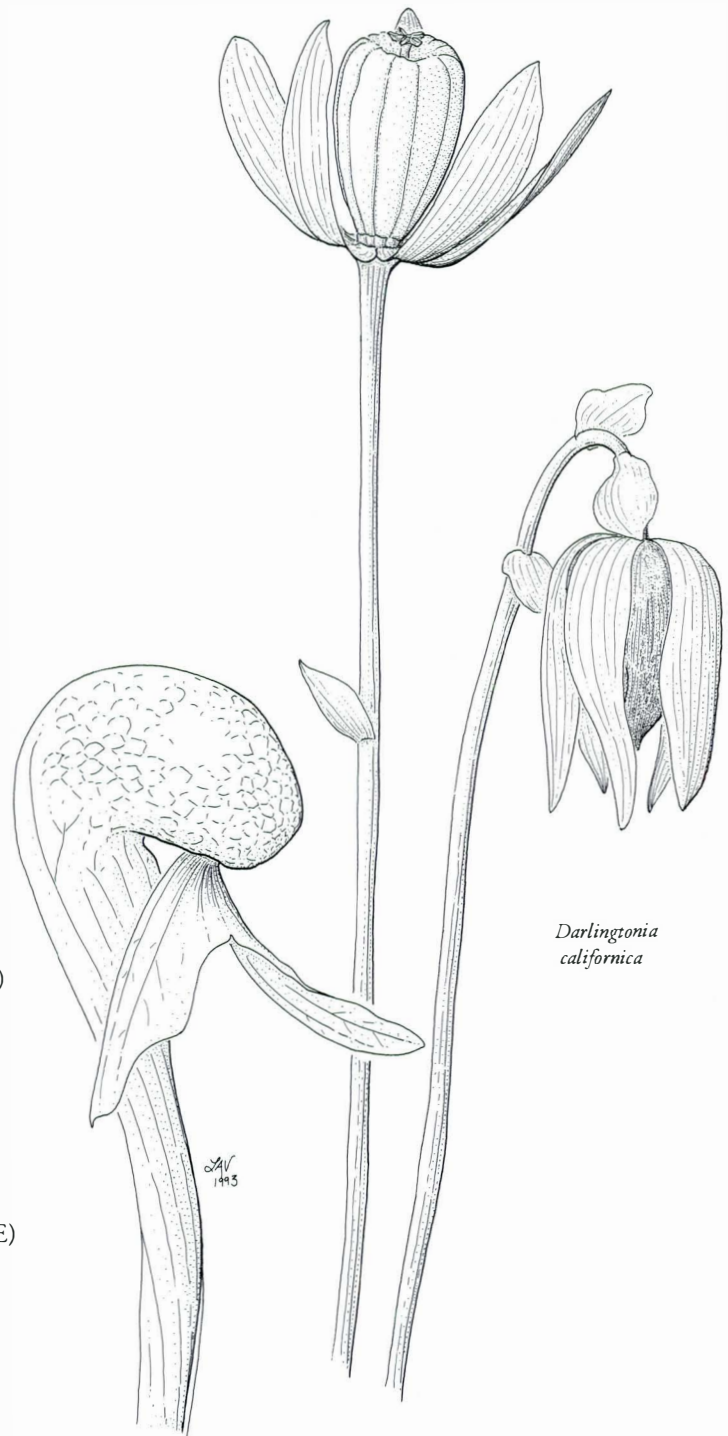
Appendix VI: Plants Listed or Candidates Under State Law

Minus the six plants mentioned below, this list includes the 216 native plants that as of November 1993 have been designated as Endangered (CE, 128 plants), Threatened (CT, 19 plants), Rare (CR, 68 plants), or Candidate (CC, 1 plant) by the Fish and Game Commission pursuant to Section 1904 (Native Plant Protection Act of 1977) and Section 2074.2 and 2075.5 (California Endangered Species Act of 1984) of the Fish and Game Code. For additional information, contact the Endangered Plant Program, 1416 Ninth Street, Sacramento, CA 95814, or the nearest Department of Fish and Game office (see *Appendix X*).

The following State-listed taxa have been rejected from the fifth edition of the *Inventory* for taxonomic reasons, and do not appear in the list below: *Arctostaphylos edmundsii* var. *parvifolia* (CR), *Arctostaphylos pacifica* (CE), *Agrostis blasdalei* var. *marinensis* (CR), *Mahonia sonnei* (CE), *Caulanthus stenocarpus* (CR), and *Eriastrum tracyi* (CR). *Erysimum menziesii* (CE) has been split into three subspecies in the *Inventory*; all are protected by State law. Note also that the list below uses the nomenclature adopted in the *Inventory*, which in a few cases differs from that of the State of California. Entries in this *Inventory* give the name under which a taxon is State-listed if it differs from the name used here.

- | | | | |
|--|---|---|---|
| <i>Acanthomintha duttonii</i> (CE) | <i>B. insignis</i> (CE) | <i>C. speciosa</i> | <i>E. apricum</i> var. <i>apricum</i> (CE) |
| <i>A. ilicifolia</i> (CE) | <i>B. pallida</i> (CE) | ssp. <i>immaculata</i> (CR) | <i>E. apricum</i> var. <i>prostratum</i> (CE) |
| <i>Allium munzii</i> (CT) | <i>Calamagrostis foliosa</i> (CR) | <i>C. springvillensis</i> (CE) | <i>E. butterworthianum</i> (CR) |
| <i>A. yosemitense</i> (CR) | <i>Calochortus dumii</i> (CR) | <i>Cordylanthus maritimus</i> ssp. | <i>E. crocatum</i> (CR) |
| <i>Amsinckia grandiflora</i> (CE) | <i>C. persistens</i> (CR) | <i>maritimus</i> (CE) | <i>E. ericifolium</i> var. <i>thornei</i> (CE) |
| <i>Arabis macdonaldiana</i> (CE) | <i>C. tiburonensis</i> (CT) | <i>C. mollis</i> ssp. <i>mollis</i> (CR) | <i>E. giganteum</i> |
| <i>Arctostaphylos bakeri</i> | <i>Calystegia stebbinsii</i> (CE) | <i>C. nidularius</i> (CR) | var. <i>compactum</i> (CR) |
| ssp. <i>bakeri</i> (CR) | <i>Carex albida</i> (CE) | <i>C. palmatus</i> (CE) | <i>E. grande</i> var. <i>timorum</i> (CE) |
| <i>A. densiflora</i> (CE) | <i>C. tompkinsii</i> (CR) | <i>C. rigidus</i> ssp. <i>littoralis</i> (CE) | <i>E. kelloggii</i> (CE) |
| <i>A. hookeri</i> ssp. | <i>Carpenteria californica</i> (CT) | <i>C. tenuis</i> ssp. <i>capillaris</i> (CR) | <i>E. twisselmannii</i> (CR) |
| <i>hearstiorum</i> (CE) | <i>Castilleja affinis</i> | <i>Croton wigginsii</i> (CR) | <i>Eriophyllum congdonii</i> (CR) |
| <i>A. hookeri</i> ssp. <i>ravenii</i> (CE) | ssp. <i>neglecta</i> (CT) | <i>Cryptantha roosiorum</i> (CR) | <i>E. latilobum</i> (CE) |
| <i>A. imbricata</i> (CE) | <i>C. campestris</i> | <i>Cupressus abramsiana</i> (CE) | <i>Eryngium aristulatum</i> var. |
| <i>A. pallida</i> (CE) | ssp. <i>succulenta</i> (CE) | <i>Dedeckera eurekensis</i> (CR) | <i>parishii</i> (CE) |
| <i>Arenaria paludicola</i> (CE) | <i>C. gleasonii</i> (CR) | <i>Delphinium bakeri</i> (CR) | <i>E. constancei</i> (CE) |
| <i>Astragalus agnicidus</i> (CE) | <i>C. grisea</i> (CE) | <i>D. hesperium</i> | <i>E. racemosum</i> (CE) |
| <i>A. clarianus</i> (CT) | <i>C. uliginosa</i> (CE) | ssp. <i>cuyamacae</i> (CR) | <i>Erysimum capitatum</i> |
| <i>A. johannis-howellii</i> (CR) | <i>Caulanthus californicus</i> (CE) | <i>D. luteum</i> (CR) | ssp. <i>angustatum</i> (CE) |
| <i>A. lentiginosus</i> | <i>Ceanothus hearstiorum</i> (CR) | <i>D. variegatum</i> | <i>E. menziesii</i> ssp. <i>eurekaense</i> (CE) |
| var. <i>sesquimetralsis</i> (CE) | <i>C. maritimus</i> (CR) | ssp. <i>kinkiense</i> (CE) | <i>E. menziesii</i> ssp. <i>menziesii</i> (CE) |
| <i>A. magdalenae</i> | <i>C. masonii</i> (CR) | <i>Dichanthelium lanuginosum</i> | <i>E. menziesii</i> ssp. <i>yadonii</i> (CE) |
| var. <i>peirsonii</i> (CE) | <i>C. ophiochilus</i> (CE) | var. <i>thermale</i> (CE) | <i>E. teretifolium</i> (CE) |
| <i>A. monoensis</i> | <i>C. roderickii</i> (CR) | <i>Dithyrea maritima</i> (CT) | <i>Fremontodendron</i> |
| var. <i>monoensis</i> (CR) | <i>Cercocarpus traskiae</i> (CE) | <i>Dodecahema leptoceras</i> (CE) | <i>decumbens</i> (CR) |
| <i>A. tener</i> var. <i>titi</i> (CE) | <i>Chlorogalum purpureum</i> | <i>Downingia concolor</i> | <i>F. mexicanum</i> (CR) |
| <i>A. traskiae</i> (CR) | var. <i>reductum</i> (CR) | var. <i>brevior</i> (CE) | <i>Fritillaria roderickii</i> (CE) |
| <i>Atriplex tularensis</i> (CE) | <i>Chorizanthe howellii</i> (CT) | <i>Dudleya blochmaniae</i> | <i>F. striata</i> (CT) |
| <i>Baccharis vanessae</i> (CE) | <i>C. orcuttiana</i> (CE) | ssp. <i>brevifolia</i> (CE) | <i>Galium angustifolium</i> |
| <i>Bensoniella oregona</i> (CR) | <i>C. valida</i> (CE) | <i>D. cymosa</i> ssp. <i>marcescens</i> (CR) | ssp. <i>borregoense</i> (CR) |
| <i>Berberis nevini</i> (CE) | <i>Cirsium ciliolatum</i> (CE) | <i>D. nesiotica</i> (CR) | <i>G. buxifolium</i> (CR) |
| <i>B. pinnata</i> ssp. <i>insularis</i> (CE) | <i>C. fontinale</i> var. <i>fontinale</i> (CE) | <i>D. stolonifera</i> (CT) | <i>G. californicum</i> ssp. <i>sierrae</i> (CR) |
| <i>Blennosperma bakeri</i> (CE) | <i>C. fontinale</i> var. <i>obispoense</i> (CE) | <i>D. traskiae</i> (CE) | <i>G. catalinense</i> ssp. <i>acrispum</i> (CE) |
| <i>B. nanum</i> var. <i>robustum</i> (CR) | <i>C. loncholepis</i> (CT) | <i>Eriastrum densifolium</i> | <i>Gilia tenuiflora</i> |
| <i>Bloomeria humilis</i> (CR) | <i>C. rhotophilum</i> (CT) | ssp. <i>sanctorum</i> (CE) | ssp. <i>arenaria</i> (CT) |
| <i>Brodiaea coronaria</i> | <i>Clarkia franciscana</i> (CE) | <i>Eriodictyon altissimum</i> (CE) | <i>Gratiola heterosepala</i> (CE) |
| ssp. <i>rosea</i> (CE) | <i>C. imbricata</i> (CE) | <i>E. capitatum</i> (CR) | <i>Helianthus niveus</i> |
| <i>B. filifolia</i> (CE) | <i>C. lingulata</i> (CE) | <i>Eriogonum alpinum</i> (CE) | ssp. <i>tephrodes</i> (CE) |

- Hemizonia arida* (CR)
H. conjugens (CE)
H. increscens ssp. *villosa* (CE)
H. mintonii (CR)
H. mohavensis (CE)
Hesperolinon congestum (CT)
H. didymocarpum (CE)
Holocarpha macradenia (CE)
Ivesia callida (CR)
Lasthenia burkei (CE)
Layia carnosa (CE)
Lessingia germanorum (CE)
Lewisia congonii (CR)
Lilaeopsis masonii (CR)
Lilium occidentale (CE)
L. pardalinum
 ssp. *pitkinense* (CE)
Limnanthes bakeri (CR)
L. douglasii ssp. *sulphurea* (CE)
L. floccosa ssp. *californica* (CE)
L. gracilis ssp. *parishii* (CE)
L. vinculans (CE)
Lithophragma maximum (CE)
Lotus argophyllus
 var. *adsurgens* (CE)
L. argophyllus var. *niveus* (CE)
L. dendroideus var. *traskiae* (CE)
Lupinus citrinus var. *deflexus*
 (CT)
L. milo-bakeri (CT)
L. nipomensis (CE)
L. padre-crowleyi (CR)
L. tidestromii (CE)
Machaeranthera asteroides
 var. *lagunensis* (CR)
Malacothamnus
 clementinus (CE)
M. fasciculatus
 var. *nesioticus* (CE)
Maurandya petrophila (CR)
Monardella linoides
 ssp. *viminea* (CE)
Navarretia leucocephala
 ssp. *pauciflora* (CT)
N. leucocephala
 ssp. *plieantha* (CE)
Nemacladus twisselmannii (CR)
Neostapfia colusana (CE)
Nitrophila mohavensis (CE)
Nolina interrata (CE)
Oenothera californica
 ssp. *eurekaensis* (CR)
O. deltoides ssp. *howellii* (CE)
Opuntia basilaris
 var. *treleasei* (CE)
Orcuttia californica (CE)
O. inaequalis (CE)
O. pilosa (CE)
O. tenuis (CE)
O. viscida (CE)
Parvisedum leiocarpum (CE)
Pedicularis dudleyi (CR)
Pentachaeta bellidiflora (CE)
P. lyonii (CE)
Phlox hirsuta (CE)
Plagiobothrys diffusus (CE)
P. strictus (CT)
Pleuropogon hooverianus (CR)
Poa napensis (CE)
Pogogyne abramsii (CE)
P. clareana (CE)
P. nudiuscula (CE)
Potentilla hickmanii (CE)
Pseudobahia bahiifolia (CE)
P. peirsonii (CE)
Rorippa gambellii (CT)
R. subumbellata (CE)
Rosa minutifolia (CE)
Sanicula maritima (CR)
S. saxatilis (CR)
Senecio ganderi (CR)
S. layneae (CR)
Sidalcea covillei (CE)
S. hickmanii
 ssp. *anomala* (CR)
S. hickmanii ssp. *parishii* (CR)
S. oregana ssp. *valida* (CE)
S. pedata (CE)
S. stipularis (CE)
Silene campanulata
 ssp. *campanulata* (CE)
Streptanthus niger (CE)
Swallenia alexandrae (CR)
Thelypodium stenopetalum (CE)
Thermopsis macrophylla (CR)
Trifolium polyodon (CR)
T. trichocalyx (CE)
Tiuctoria greenei (CR)
T. mucronata (CE)
Verbena californica (CC)
Verbesina dissita (CT)



Darlingtonia californica

Appendix VII: Plants Listed or Candidates Under Federal Law

Minus the one plant mentioned below, this list includes the 48 California native plants that as of June 1993 have been designated as Endangered (FE, 45 plants) or Threatened (FT, 3 plants) by the U.S. Fish and Wildlife Service under Section 4 of the Endangered Species Act (1973). Also included are the 58 plants which have been proposed for listing under the Act as either Endangered (PE, 43 plants) or Threatened (PT, 15 plants). For additional information, contact the U.S. Fish and Wildlife Service, 2800 Cottage Way, Room E-1823, Sacramento, CA 95825.

Mahonia sonnei (FE) has been rejected from the fifth edition of the *Inventory* for taxonomic reasons, and does not appear on the list below. *Erysimum menziesii* (FE) has been split into three subspecies in the *Inventory*; all are protected by Federal law. Note also that this list uses the nomenclature adopted in the *Inventory*, which in a few cases differs from that of the U.S. Fish and Wildlife Service. Entries in this *Inventory* give the name under which a taxon is Federally-listed if it differs from the name used here.

<i>Acanthomintha duttonii</i> (FE)	<i>C. orcuttiana</i> (PE)	<i>E. hooveri</i> (FT)	<i>Neostaphia colusana</i> (PT)
<i>Amsinckia grandiflora</i> (FE)	<i>C. pungens</i>	<i>Erigeron parishii</i> (PE)	<i>Nitrophila mohavensis</i> (FE)
<i>Arabis macdonaldiana</i> (FE)	var. <i>hartwegiana</i> (PE)	<i>Eriodictyon altissimum</i> (PE)	<i>Oenothera californica</i>
<i>Arctostaphylos glandulosa</i>	<i>C. pungens</i> var. <i>pungens</i> (PE)	<i>Eriogonum ovalifolium</i>	ssp. <i>eurekaensis</i> (FE)
ssp. <i>crassifolia</i> (PE)	<i>C. robusta</i> var. <i>hartwegii</i> (PE)	var. <i>vineum</i> (PE)	<i>O. deltoides</i> ssp. <i>howellii</i> (FE)
<i>A. hookeri</i> ssp. <i>ravenii</i> (FE)	<i>C. robusta</i> var. <i>robusta</i> (PE)	<i>Eriophyllum latilobum</i> (PE)	<i>Opuntia basilaris</i>
<i>A. morroensis</i> (PE)	<i>C. valida</i> (FE)	<i>Eryngium aristulatum</i>	var. <i>treleasei</i> (FE)
<i>Arenaria paludicola</i> (FE)	<i>Cirsium fontinale</i>	var. <i>parishii</i> (FE)	<i>Orcuttia californica</i> (FE)
<i>Astragalus albens</i> (PE)	var. <i>fontinale</i> (PE)	<i>E. constancei</i> (FE)	<i>O. inaequalis</i> (PE)
<i>A. brauntonii</i> (PE)	<i>C. fontinale</i> var. <i>obispoense</i> (PE)	<i>Erysimum capitatum</i>	<i>O. pilosa</i> (PE)
<i>A. jaegerianus</i> (PE)	<i>Clarkia franciscana</i> (PE)	ssp. <i>angustatum</i> (FE)	<i>O. tenuis</i> (PT)
<i>A. lentiginosus</i>	<i>C. speciosa</i> ssp. <i>immaculata</i> (PE)	<i>E. menziesii</i> ssp. <i>eurekaense</i> (FE)	<i>O. viscida</i> (PE)
var. <i>coachellae</i> (PE)	<i>Cordylanthus maritimus</i>	<i>E. menziesii</i> ssp. <i>menziesii</i> (FE)	<i>Oxytheca parishii</i>
<i>A. lentiginosus</i> var. <i>micans</i> (PT)	ssp. <i>maritimus</i> (FE)	<i>E. menziesii</i> ssp. <i>yadonii</i> (FE)	var. <i>goodmaniana</i> (PE)
<i>A. lentiginosus</i>	<i>C. palmatus</i> (FE)	<i>E. teretifolium</i> (PE)	<i>Pentachaeta bellidiflora</i> (PE)
var. <i>piscinensis</i> (PE)	<i>C. tenuis</i> ssp. <i>capillaris</i> (PE)	<i>Gilia tenuiflora</i>	<i>P. lyonii</i> (PE)
<i>A. lentiginosus</i>	<i>Corethrogyne filaginifolia</i>	ssp. <i>arenaria</i> (FE)	<i>Pogogyne abramsii</i> (FE)
var. <i>sesquimetralsis</i> (PT)	var. <i>linifolia</i> (PT)	<i>Grindelia fraxino-pratensis</i> (FT)	<i>P. nudiuscula</i> (FE)
<i>A. magdalenae</i>	<i>Cupressus abramsiana</i> (FE)	<i>Hesperolinon congestum</i> (PT)	<i>Pseudobahia bahiifolia</i> (PE)
var. <i>peirsonii</i> (PE)	<i>Delphinium variegatum</i>	<i>Howellia aquatilis</i> (PT)	<i>P. peirsonii</i> (PE)
<i>A. tricarinatus</i> (PE)	ssp. <i>kinkiense</i> (FE)	<i>Lasthenia burkei</i> (FE)	<i>Rorippa gambellii</i> (FE)
<i>Baccharis vanessae</i> (PE)	<i>Dodecanehema leptoceras</i> (FE)	<i>Layia carnosa</i> (FE)	<i>Sidalcea pedata</i> (FE)
<i>Blennosperma bakeri</i> (FE)	<i>D. abramsii</i> ssp. <i>parva</i> (PT)	<i>Lembertia congdonii</i> (FE)	<i>Streptanthus albidus</i>
<i>Calochortus tiburonensis</i> (PT)	<i>Dudleya blochmaniae</i>	<i>Lesquerella kingii</i>	ssp. <i>albidus</i> (PE)
<i>Camissonia benitensis</i> (FT)	ssp. <i>brevifolia</i> (PE)	ssp. <i>bernardina</i> (PE)	<i>S. niger</i> (PE)
<i>Castilleja affinis</i>	<i>D. cymosa</i> ssp. <i>marcescens</i> (PT)	<i>Lilium occidentale</i> (PE)	<i>Suaeda californica</i> (PE)
ssp. <i>neglecta</i> (PE)	<i>D. cymosa</i> ssp. <i>ovatifolia</i> (PT)	<i>Limnanthes floccosa</i>	<i>Swallenia alexandrae</i> (FE)
<i>C. campestris</i> ssp. <i>succulenta</i> (PT)	<i>D. setchellii</i> (PE)	ssp. <i>californica</i> (FE)	<i>Thelypodium stenopetalum</i> (FE)
<i>C. grisea</i> (FE)	<i>D. traskiae</i> (FE)	<i>L. vinculans</i> (FE)	<i>Tuctoria greenei</i> (PE)
<i>Caulanthus californicus</i> (FE)	<i>D. verityi</i> (PT)	<i>Lotus dendroideus</i>	<i>T. mucronata</i> (FE)
<i>Ceanothus ferrisae</i> (PE)	<i>Eremalche kernensis</i> (FE)	var. <i>traskiae</i> (FE)	<i>Verbesina dissita</i> (PT)
<i>Chamaesyce hooveri</i> (PT)	<i>Eriastrum densifolium</i>	<i>Lupinus tidestromii</i> (FE)	
<i>Chorizanthe howellii</i> (FE)	ssp. <i>sanctorum</i> (FE)	<i>Malacothamnus clementinus</i> (FE)	

Appendix VIII: CNPS Policies Regarding Rare Plants

Policy Regarding Mitigation of Impacts to Rare and Endangered Plants

The policy of the California Native Plant Society is that all potential direct, indirect, and cumulative impacts to rare, threatened, or endangered plants and their habitats must be assessed and that appropriate measures be implemented to prevent such impacts resulting from projects. The policy of the Society is also that environmental documents and mitigation plans be based on complete, accurate, and current scientific information. Viability of rare, threatened, or endangered plants and their habitats takes precedence over economic or political expediency. Because of the tremendous diversity of rare plant habitats in California, and the dependence of rare plants on their local habitats, it is imperative that mitigation measures be developed on a site-specific basis. Local environmental conditions, species biology, land use patterns, and other factors must be incorporated into the design of mitigation plans.

The goals of this policy are to prevent the decline of rare plants and their habitats and to ensure that effective rare plant preservation measures are implemented.

Of the mitigation measures listed in the California Environmental Quality Act, the Society fully endorses only that of avoiding the impact. Measures to minimize, to rectify, or to reduce or eliminate the impact over time are recognized by the Society as partial mitigation. The Society does not recognize off-site compensation as mitigation.

Guidelines for project review and evaluation of mitigation proposals are available from the California Native Plant Society.

Adopted June 1987 by the CNPS Board of Directors

Policy on Appropriate Application of *Ex Situ* Conservation Techniques

The California Native Plant Society has always emphasized and will always emphasize *in situ* approaches to the conservation of rare and endangered plants. *In situ* conservation protects and enhances populations and species by protecting appropriate habitat within the historic range of the target species. *In situ* conservation is regarded by this society and by existing biological resource laws as the best available approach for conserving biological diversity at the species level.

In recent years, however, it has become clear that the rates of endangerment and extinction of entire species are accelerating. Habitat destruction remains the principle reason for accelerated endangerment in California, the nation, and the world. The destruction of biologically valuable habitat must be slowed, if not stopped, by using political, legislative, and economic strategies. Nevertheless, we recognize that for some species the risk of extinction is so high that only aggressive and extraordinary measures may affect their conservation. Such measures remove plants or propagules from their habitats into cold storage, gardens, or managed sites in the hope that the species can be re-established in the wild at some later date. Those measures fall under the realm of *ex situ* conservation.

Ex situ conservation involves a temporary, short-term set of germplasm preservation techniques that are usually applied as choices of last resort. The techniques include, but are not limited to: propagule collection from natural populations and cryogenic storage, garden propagation, tissue culture, transplantation, and the establishment of new populations in nature. Such techniques do not conserve all of the genetic varia-

tion, the metapopulation characteristics, the symbionts, the associated species, the community as a whole, the habitat, or the ecosystem of the endangered plant. Consequently, they do not conserve a species in its entirety and they do not conserve a species within its evolutionary and ecological contexts. For these reasons and also because we lack a solid knowledge of the effectiveness and limits of *ex situ* techniques at this time, we view the application of such techniques with scientific skepticism.

However, the members of CNPS recognize the gravity of the extinction problem and will not oppose the use of certain *ex situ* conservation techniques under certain circumstances. Those circumstances can be summarized as one of two general types:

1. During mandated recovery of endangered species, *ex situ* techniques may be essential for establishing new populations when all extant natural populations are fully protected *in situ*. This approach, if successful, can result in a gross (as opposed to net) increase in the number of extant populations of an endangered species. All recovery activities, including those which use *ex situ* techniques, must be designed and executed by qualified biologists with the approval of relevant state and federal government agencies (e.g., California Department of Fish and Game, U.S. Fish and Wildlife Service).
2. During the analysis of extinction probabilities for a given species (usually based on demographic or minimum viable population studies) it is determined that the remaining natural population(s) is (are) likely to go extinct in the near future due to stochastic, genetic, or natural ecological factors. This approach can minimize the effect of degenerative extinction processes that are effective when the

population(s) is (are) very small. Such analysis must be conducted by qualified biologists with the approval of relevant state and federal government agencies (e.g., California Department of Fish and Game, U.S. Fish and Wildlife Service).

We continue to strongly oppose the use of *ex situ* conservation techniques under the following circumstances:

1. When applied as mitigation for human-caused impacts to natural populations other than those impacts which operate on a global scale (e.g., global warming, acid rain). Losses of plant populations considered "significant" under the California Environmental Quality Act (CEQA) or the National Environmental Policy Act (NEPA) cannot be mitigated to less-than-significant levels using *ex situ* conservation techniques. Decreases in the number of individuals and populations of an endangered plant impacted by human activity cannot be compensated for in this manner.
2. When adequate ecological information does not exist for the remaining natural populations of a target species. Adequate studies of microhabitat selection, fecundity, essential pollinators, community relationships, and other important biological characteristics must be completed before seeds or other plant materials are removed from natural habitats for an *ex situ* conservation effort.
3. When reestablishment in the wild of plant material stored *ex situ* could result in genetic contamination of existing wild populations of the same or different taxa. Such reestablishment projects must be carefully reviewed to protect the target species from genetic contamination.
4. When the *ex situ* techniques are not based on scientific principles or facts, or when the methods and results of such projects are not fully documented.
5. When an *ex situ* conservation effort is not designed or conducted by qualified biologists or with the knowledge and consent of relevant governmental agencies (e.g., California Department of Fish and Game, U.S. Fish and Wildlife Service).

Glossary

cryogenic preservation - storage of rare materials at very low temperatures (usually below -25 C)

***ex situ* conservation** - conserving a germplasm, species, or natural community in the absence of its natural habitat or ecosystem, usually by removing propagules from the habitat and storing them temporarily "off site" (e.g., in a freezer, botanical garden, etc.)

germplasm - the contents of a species' genes, the actual genetic material (DNA contained in chromosomes)

***in situ* conservation** - conserving a germplasm, species, or community within its natural habitat or ecosystem

metapopulation - one of several interacting populations of a species

propagule - any living material that can be used to propagate a species; includes seeds, fruits, rhizomes, stolons, or buds

species - fundamental category in a taxonomic hierarchy, a "kind" of organism which shares similar appearance, ecology and behavior with others of its kind in time and space. For purposes of this document it includes subspecies, varieties, and other legally-recognized categories of organisms

stochastic - random, unpredictable

symbionts - different kinds of organisms that must live together in order to mutually prosper

Adopted September 1992 by the CNPS Board of Directors

Policy with Regard to Plant Collecting for Educational Purposes

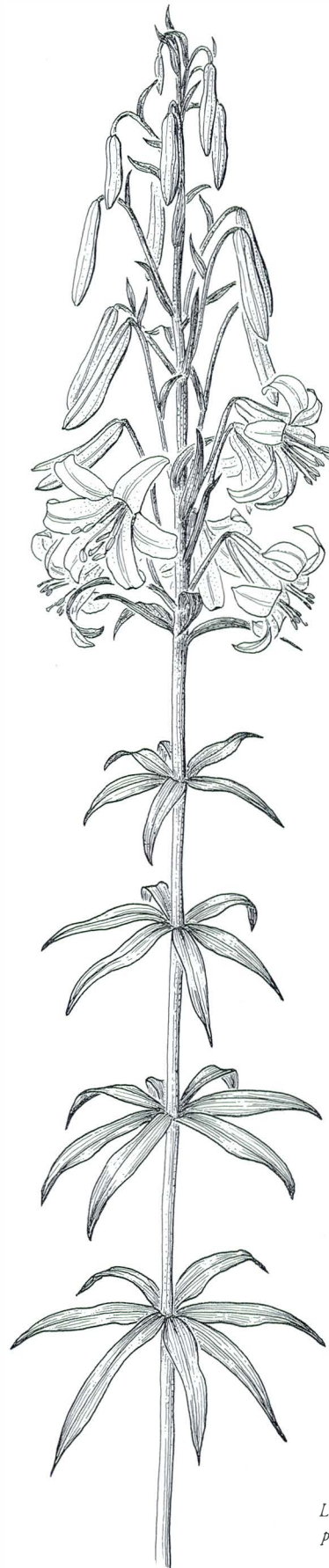
The California Native Plant Society (CNPS) supports the use of plant and wildflower collections as a valid means of providing students at many educational levels with knowledge of and appreciation for the wonder, diversity, and beauty of plant life. However, to avoid breaking the law or damaging the viability of populations of plants, the instructor must make known several important points to the students who will be making the collections.

There are two levels of collection for educational and scientific purposes which are considered in this policy: (1) collection of plant specimens for herbaria, and (2) collections of plant and wildflower specimens for lower level science and biology classes. Most of the considerations discussed apply to both levels.

1. It is illegal to collect plants along a highway right of way, in National Parks, National Monuments or National Forests, State Parks, or most local parks without a collecting permit. Plants and wildflowers growing in such locations are part of a natural system designed for public enjoyment, and in most cases should be left to natural processes. Permits for collecting plants must be obtained from the appropriate supervising agency.
2. It is legal and permissible to collect wildflowers on private lands provided that permission of the landowner is obtained. Particularly appropriate sites for collection are lands slated for development.
3. It is the responsibility of the instructor to ensure that the students are made aware of rare plants endemic to the area in which the collecting is to take place, and to caution the students against collecting these plants. It is not appropriate (and there are substantial penalties) to allow collection of rare or

endangered plants, and areas known to contain rare plants should be avoided. The instructor may contact CNPS to find out about rare plants in the area in question.

4. To increase the environmental awareness associated with making the collection, the students should be requested to observe and describe the habitat in which the plant was growing.
5. Collecting (at the high-school or lower division college level) should be limited to the taking of as little of the plant as necessary to allow identification.
6. All collecting activities should be done inconspicuously, so that casual (uninformed) observers are not encouraged to do likewise.
7. CNPS encourages all botany and science instructors to use common, especially weedy or garden, species for demonstrating collecting techniques, plant structures, and diagnostic features.
8. The primary reason for collecting plants for herbaria is to increase knowledge of California's flora. Repeated collecting in well known areas may serve no useful purpose. While it is important to document the distribution of plants, including rare species, it is critical to first evaluate the impact of collecting on the plant population. Known and documented populations of rare plants should not be subject to additional collection.
9. A key to ensuring preservation of California's diverse flora and fauna is to develop a public informed about the value of these natural resources. For this reason, CNPS encourages limited and discriminating collection of plants as part of the educational process.



*Lilium
parryi*

California Native Species Field Survey Form

Mail to:
 Natural Diversity Data Base
 California Dept. of Fish and Game
 1416 Ninth Street, 12th Floor
 Sacramento, CA 95814

For office use only	
Source Code _____	Quad Code _____
Elm Code _____	Occ # _____
Copy to _____	Map Index # _____

Date of field work: - -
mo day year

Scientific Name (no codes): _____

Species Found? [] [] _____
yes no If not, why?

Total # Individuals: _____ Subsequent visit? []yes []no

Compared to your last visit: []more []same []fewer

Is this an existing NDDB occurrence? [] [] [] []
Yes, Occ. # no unk.

Collection? If yes: _____
number Museum/Herbarium

Reporter: _____

Address: _____

Phone: () _____

Other knowledgeable individuals (name/address/phone): _____

Plant Information:

Phenology: _____
% vegetative % flowering % fruiting

Animal Information:

Age Structure: _____
adults # juveniles # unknown

Site Function: [] [] [] [] [] []
breeding foraging wintering roosting burrow site other

Location: (Please also attach or draw map on back.)

County: _____ Landowner/Mgr: _____

Quad Name: _____ Elevation: _____ UTM: _____

T _____ R _____ 1/4 of _____ 1/4 Sec _____ T _____ R _____ 1/4 of _____ 1/4 Sec _____

Habitat Description: (Plant communities, dominants, associates, substrate/soils, aspect/slope)

Other rare spp.? _____

Site Information: Current/surrounding land use: _____

Visible disturbances, possible threats: _____

Overall site quality: []Excellent []Good []Fair []Poor Comments: _____

Determination: (Check one or more, fill in the blanks)

_____ Keyed in a site reference: _____

_____ Compared with specimen housed at: _____

_____ Compared with photo/drawing in: _____

_____ By another person (name): _____

_____ Other: _____

Photographs: (Check one or more) *Slide* *Print*

Plan/animal	_____	_____
Habitat	_____	_____
Diagnostic Feature	_____	_____
Other	_____	_____

May we obtain duplicates at our expense? []yes []no

California Natural Community Field Survey Form

Mail to:
 Natural Diversity Data Base
 California Dept. of Fish and Game
 1416 Ninth Street
 Sacramento, CA 95814
 (916) 324-6857

For office use only	
Source Code _____	Quad Code _____
Community Code _____	Occ # _____
Map Index # _____	Update Y _____ N _____

Please provide as much of the following information as you can. Please attach a map (if possible, based on the USGS 7.5 minute series) showing the site's location and boundaries. Use the back if needed.

Community name: _____

Reporter: _____ Phone _____

Affiliation and Address _____

Date of field work: _____ County: _____

Location: _____

Quad name: _____ T _____ R _____ ¼ of _____ ¼ sec _____ Meridian _____

UTM Zone _____ Northing _____ Easting _____

Landowner/Manager: _____ Photographs: Slide Print

Elevation: _____ Aspect: _____ Slope (indicate % or °) _____ Drainage: _____

Site acreage: _____ Evidence of disturbance/threats: _____

Current land use: _____

Substrate/Soils: _____

General description of community: _____

Any Special Plants or Animals present: _____

Successional status/Evidence of regeneration of dominant taxa: _____

Overall site quality: Excellent ___ Good ___ Fair ___ Poor ___ Comments: _____

Basis for report: Remote image ___ Binocular/Telescopic survey _____

Windshield survey ___ Brief walk-thru ___ Detailed survey ___ Other _____

Relevé: In the space below, indicate each species cover % within the following growth form categories:

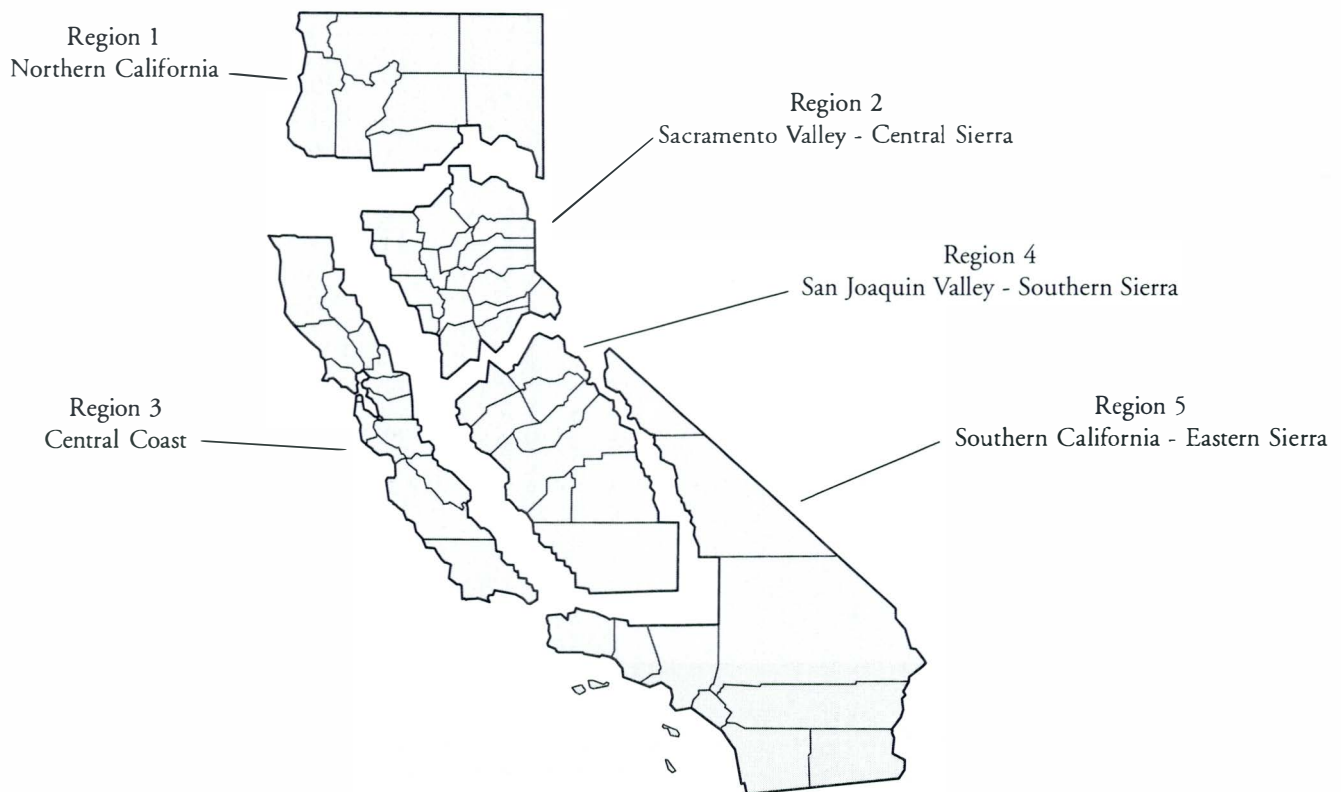
Trees	Shrubs	Herbs/Graminoids

Continue on back if needed. Thank you for your contribution.

Appendix X: California Department of Fish and Game Programs, Contacts, and Regions

Program	Role	Telephone
<i>Natural Heritage Division</i>		916/322-2493
Endangered Plant Program	Listing, management, research, recovery of State-listed plants	916/227-2318
Natural Diversity Data Base— Science	Inventory of distribution, ecology, and status information on rare, threatened, endangered, and sensitive plants, animals, and natural communities	916/322-2493
Natural Diversity Data Base— Information Services	NDDDB products including <i>RareFind</i> , rare plant status reports, GIS text reports, map overlays, and lists of sensitive and listed species and natural communities	916/324-3812
Lands and Natural Areas Program	Coordination of land acquisition and management, identification of significant natural areas (Significant Natural Areas Program)	916/322-2493
<i>Regional Offices</i>		
Region 1 (Redding) Region 2 (Rancho Cordova) Region 3 North (Yountville) Region 3 South (Monterey) Region 4 (Fresno) Region 5 (Long Beach)	For local conservation issues and questions, contact regional biologists, environmental services staff, or plant ecologists	916/225-2300 916/355-0978 707/944-5500 408/649-2870 209/222-3761 310/590-5132

Department of Fish & Game Regions



Appendix XI: Useful Addresses

Government Agencies

Federal

Fish and Wildlife Service

Sacramento Endangered Species Office
2800 Cottage Way, Room E-1823
Sacramento, CA 95825
Attn: Staff Botanist

Forest Service

Pacific Southwest Region
630 Sansome St.
San Francisco, CA 94111
Attn: Regional Botanist

Bureau of Land Management

California State Office
2800 Cottage Way, Room E-2841
Sacramento, CA 95825
Attn: Endangered Species Coordinator

State

California Department of Parks and Recreation

1416 9th St.
Sacramento, CA 95814

Non-Governmental Organizations

Audubon Society

Western Regional Office
555 Audubon Place
Sacramento, CA 95825

California Native Plant Society

1722 J St., Suite 17
Sacramento, CA 95814

Defenders of Wildlife

California Office
1228 N St., Suite 6
Sacramento, CA 95814

The Nature Conservancy

California Field Office
785 Market St.
San Francisco, CA 94103

Planning and Conservation League

926 J St., Suite 612
Sacramento, CA 95814

Sierra Club

State Legislative Office
923 12th St., Suite 200
Sacramento, CA 95814

Appendix XII: Publications of the California Native Plant Society**Inventory of Rare and Endangered Vascular Plants of California**

Edited by Mark W. Skinner and Bruce M. Pavlik
Special Publication #1 (Fifth Edition)
1994 338 pp. \$22.95

California's Changing Landscapes: Diversity and Conservation of California Vegetation

By Michael Barbour, Bruce Pavlik, Susan Lindstrom, and Frank Drysdale
1993 224 pp. \$24.95

Conservation and Management of Rare and Endangered Plants

Edited by Thomas E. Elias
1987 640 pp. \$24.95 softbound / \$45.00 clothbound

Terrestrial Vegetation of California (New Expanded Edition)

Edited by Michael G. Barbour and Jack Major
1988 1,036 pp. \$55.00

Flora of Mount Hamilton Range, California

By Helen K. Sharsmith
Special Publication #6
1982 100 pp. \$7.50

Flora of Northern Mojave Desert, California

By Mary DeDecker
Special Publication #7
1984 184 pp. \$8.95

A Flora of the San Bruno Mountains

By Elizabeth McClintock, Paul Reeberg, and Walter Knight
1990 223 pp. \$9.50

Geographic and Edaphic Distribution of Vernal Pools in the Great Central Valley

By Robert Holland
1977 2 maps/text \$7.50

Oak Action Kit

Edited by Joan Stewart and Pam Muick
Third edition, 3-ring binder format
1989 387 pp. \$13.00

Plant Communities of Marin County

By W. David Shuford and Irene Timossi
1989 32 pp. \$8.95

Bibliography for the Fifth Edition

James P. Smith, Jr.

The list of references that follows is meant to provide you with literature citations for some of the standard California floras, for statewide treatments of rare and endangered plants in California and selected western states, for theoretical and legal aspects of rarity and endangerment, for conservation biology and the management of rare plant populations, and for descriptions of plant communities in California.

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Rare Floras

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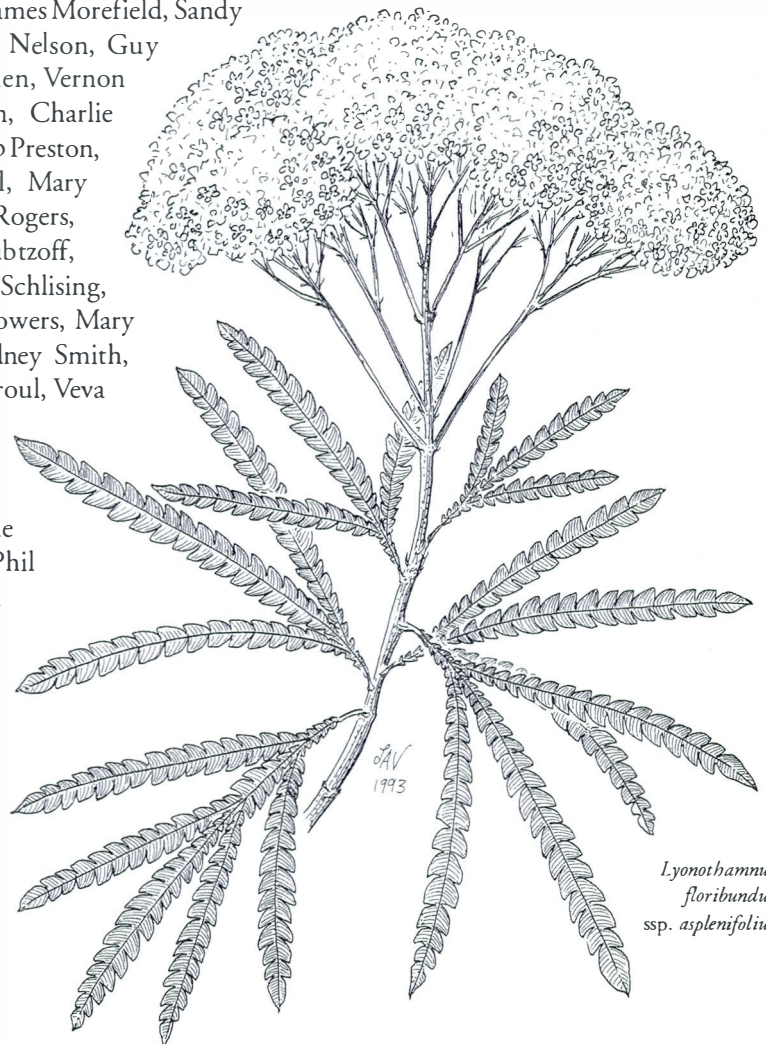
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*Lyonothamnus
floribundus
ssp. asplenifolius*

Forest Service all deserve special recognition because of their many contributions, both of data and ideas. The Forest Service's many dedicated botanists are a nationwide model of agency cooperation and data sharing. The Department of Fish and Game's generosity in sharing office space and facilities since 1982 has made close collaboration with our most important partner a reality.

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Before his untimely death, Editor Jim Hickman kept us alert to relevant botanical discoveries at *The Jepson Manual* Project, furnished us with crucial stacks of draft text, and worked with us to refine rarity codes for the *Manual*. Later, Project Manager Dieter Wilken smoothly continued this valuable exchange. Their cooperation allowed us to get the jump on thousands of changes to our information.

Tom Lupo and Mike Byrne drafted the terrific new quad map. John Ellison provided useful programming and computer assistance.

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Dave Bramlet, Steve Boyd, Fred Roberts, Tom Oberbauer, Tim Ross, and Andy Sanders served as a vital southern California outpost of the Rare Plant Program, always willing to analyze lists, come to important meetings, or provide information from their home institutions. In particular, Andy contributed essential summaries of holdings from the U.C. Riverside herbarium for many of the newly recognized rare plants.

The CNPS Rare Plant Coordinators are uncommonly knowledgeable, and as a group provided much of the basic rare plant information for this *Inventory*. The contributions of R. Morgan, Virginia Norris, Brad Olson, Jake Rugyt, and Carol Witham deserve special notice.

The many Rare Plant Program assistants did much of the painstaking research involved in production of this volume, and helped lighten the load of the oft-beleaguered Botanist. Anne Gurnee, Tom Fraser, and Steve Henderson provided valuable general research support. Nina Bicknese and Amy Hiss did superior work while researching the new ecological information on plant blooming time and life form. Becky Yahr was an anchor in the program for two years, and performed essential comparisons with NDDDB distributional information. Becky also carefully reviewed each record from the fourth edition for accuracy and made hundreds of necessary corrections. Staci Markos tackled the complex and pivotal tasks of library and herbarium research for the 313 plants new to this addition, and distilled much of this information into records. Staci also carefully prepared many of the provisional review lists. David Tibor distinguished himself as the Program's first official Assistant Botanist. David researched many of the new plants and improved all their records, checked the database for consistency in numerous creative ways, updated information on threats and natural communities from the NDDDB, entered rarity information from other states, and entirely reworked the notes for the entries. We thank you all.

Roxanne Bittman, the Natural Diversity Data Base Botanist, merits special thanks for her close cooperation, encouragement, and advice during all phases of this project.

The past editors of the *Inventory*, Bob Powell, Jane Cole, John Sawyer, and especially James P. Smith, Jr., initially compiled much of the information presented here, and this book is as much theirs as ours. And finally, we wish to thank Rick York and Ken Berg for their fundamental contributions to this edition. As the past CNPS Botanists, both Ken and Rick co-edited various editions and paved the way for preparation of this one. These efforts, along with Ken's gracious assistance during the transition to a new CNPS Botanist, made our task much easier.

THE CNPS R-E-D CODE

R (Rarity)

- 1 — Rare, but found in sufficient numbers and distributed widely enough that the potential for extinction is low at this time
- 2 — Distributed in a limited number of occurrences, occasionally more if each occurrence is small
- 3 — Distributed in one to several highly restricted occurrences, or present in such small numbers that it is seldom reported

E (Endangerment)

- 1 — Not endangered
- 2 — Endangered in a portion of its range
- 3 — Endangered throughout its range

D (Distribution)

- 1 — More or less widespread outside California
- 2 — Rare outside California
- 3 — Endemic to California

STATE-LISTED PLANTS

- CE State-listed, endangered
CT State-listed, threatened
CR State-listed, rare
CC Candidate for State listing

FEDERALLY-LISTED PLANTS

- FE Federally-listed, endangered
FT Federally-listed, threatened
PE Federally-proposed, endangered
PT Federally-proposed, threatened
C1 Enough data are on file to support federal listing
C2 Threat and/or distribution data are insufficient to support federal listing
C2* Threat and/or distribution data are insufficient to support federal listing, but the plant is presumed extinct
C3a Extinct
C3b Taxonomically invalid
C3c Too widespread and/or not threatened

MISCELLANEOUS ABBREVIATIONS

- | | | | |
|----------|---|-------|---|
| ACEC | Area of Critical Environmental Concern | NA | North America |
| AFB | Air Force Base | NF | National Forest |
| BA | Botanical Area | NM | National Monument |
| BLM | Bureau of Land Management | NP | National Park |
| CalTrans | California Department of Transportation | NS | National Seashore |
| Co. | County | Pk. | Peak |
| Cyn. | Canyon | Pt. | Point |
| DFG | California Department of Fish and Game | RNA | Research Natural Area |
| DOD | United States Department of Defense | SP | State Park |
| ER | Ecological Reserve | SR | State Reserve |
| Ft. | Fort | TNC | The Nature Conservancy |
| Isl. | Island | USFS | United States Forest Service |
| Mt. | Mount | USFWS | United States Fish and Wildlife Service |
| Mtn. | Mountain | WA | Wildlife Area |
| Mtns. | Mountains | | |

NEW 1994 EDITION

COMPLETELY REVISED AND UPDATED

CALIFORNIA NATIVE PLANT SOCIETY'S
INVENTORY
OF RARE AND ENDANGERED
VASCULAR PLANTS OF CALIFORNIA

NOW WITH BLOOMING TIME AND PLANT LIFE FORM

A COMPLETE REFERENCE

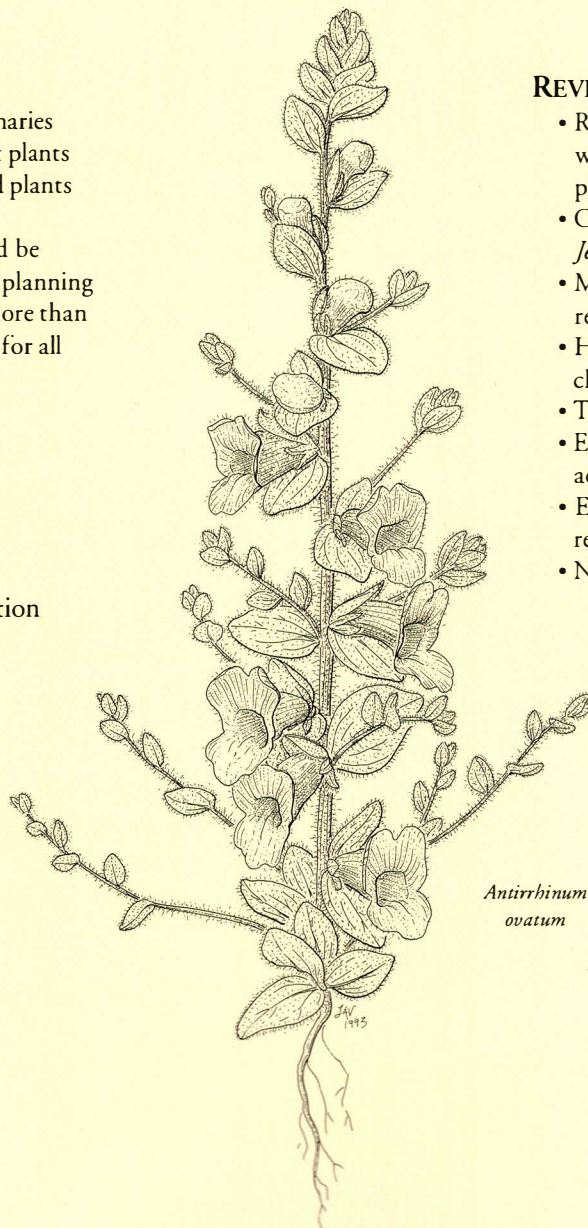
- Status and distribution summaries for 1742 of California's rarest plants
- All State- and Federally-listed plants and candidates
- Hundreds more which should be considered in environmental planning
- Topographic quad data for more than 1200 plants and county data for all 1742 plants

USEFUL NEW FEATURES

- Blooming time for all entries
- Plant life form for all entries
- New appendices:
Quads listed by name
Plants new to this edition

REVISED AND UPDATED

- Revised and expanded *Introduction*, with new discussion of rarity and rare plant ecology
- Completely cross-referenced to *The Jepson Manual*
- More than 300 plants added, including recently described taxa
- Hundreds of status revisions and name changes
- Thousands of distributional updates
- Every entry critically reviewed for accuracy
- Expanded species notes and literature references
- Newly revised quadrangle map



*Antirrhinum
ovatum*