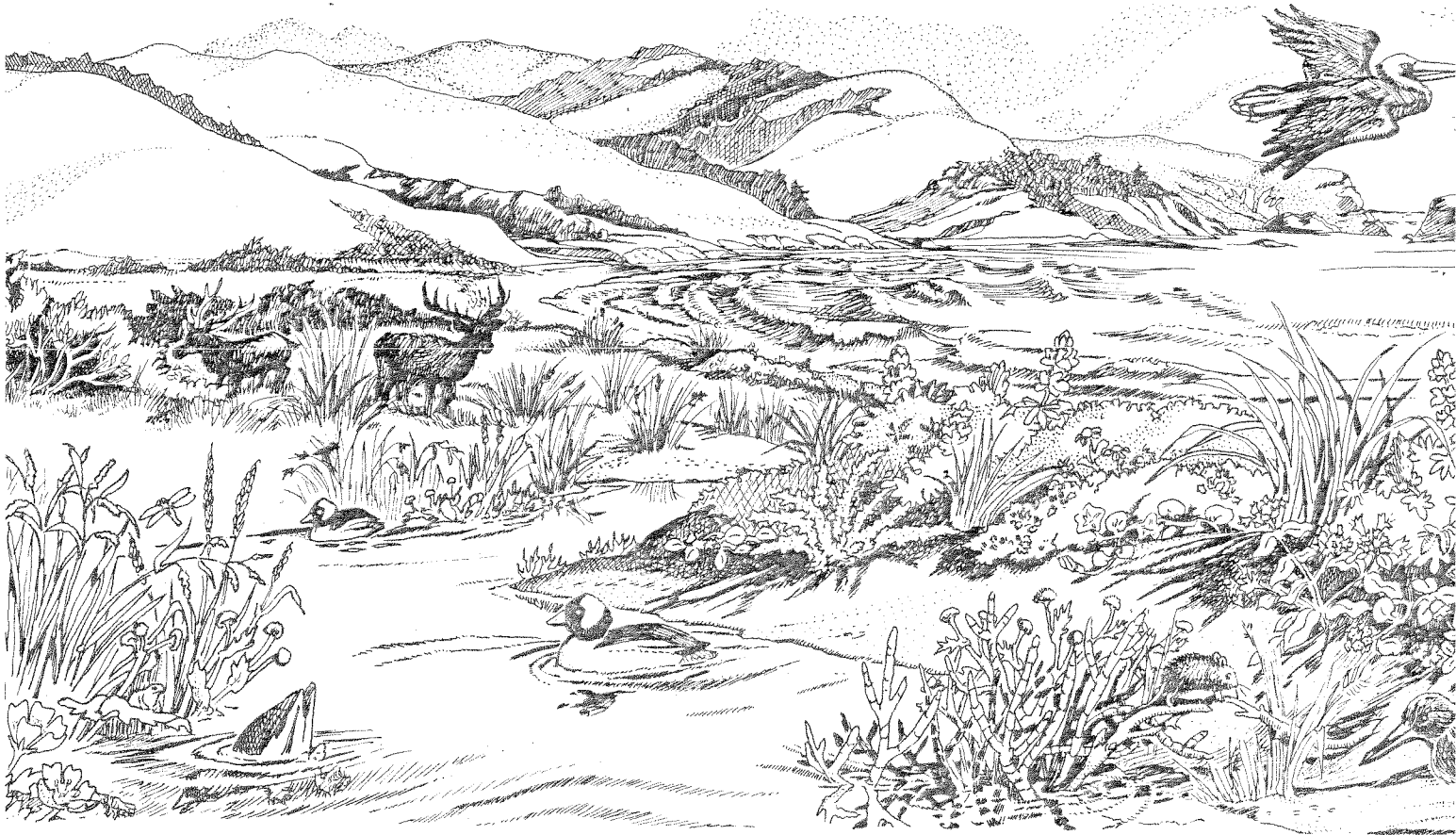


Annual Report on the Status of  
California State Listed  
Threatened and Endangered  
Animals and Plants



1992

State of California  
The Resources Agency  
Department of Fish and Game



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*Our goal is to publish an accurate and informative document. Should you discover an error, or if you have new information you would like to share with us, please contact:*

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fect this species. Several Bald Eagle studies, including population restoration efforts on the Channel Islands, have been supported with Tax Check-off funding assistance. At Catalina, some of the 36 birds released there since 1980 are now breeding, but eggs are not hatching without the intervention of artificial incubation. This is possibly because of DDE contamination, a problem that is continuing to be assessed and is being managed through captive hatching of some of the wild-laid eggs and returning the chicks to wild nests. A second reintroduction effort using translocated eaglets has been under way since 1987 in coastal Monterey County. Also, a captive breeding population is being developed at the San Francisco Zoo. Breeding status of nesting territories and winter population size and distribution are monitored annually by cooperating agencies and individuals.

The breeding population is increasing and the winter population appears to be stable, if not increasing.

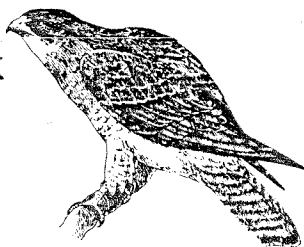
Ron Jurek

## Swainson's Hawk

(*Buteo swainsoni*)

CA - T (1983)

FED - None



General Habitat: • Valley and Foothill Grassland

The Swainson's Hawk is a medium-sized buteo with relatively long, pointed wings and a long, square tail. The species occurs in three main color morphs: light, rufous and dark, with intermediates, all of which have been observed in California populations. Adult birds have dark brown heads with a dark breast band which is set off from a lighter-colored belly in lighter morph birds. In dark birds, however, the entire body may be a sooty-brown to black color. The throat is white or partially white in dark birds. The wings are bi-colored underneath with the wing linings generally lighter than the dark flight feathers. Adult females weigh 28 to 34 ounces and males 25 to 31 ounces.

Swainson's Hawks breeding in California spend the winter in South America as far south as Argentina. The diet of the Swainson's Hawk is varied with the California Vole (*Microtus californicus*) being the staple in the Central Valley. A variety of birds and insects are also taken. Swainson's Hawks often nest peripheral to riparian systems of the valley as well as utilizing lone trees or groves of trees in agricultural fields. Valley oak (*Quercus lobata*), Fremont cottonwood (*Popu-*

*lus fremontii*), walnut (*Juglans hindsii*) and large willow (*Salix* spp.) with an average height of about 58 feet (41-82 feet) are the most commonly used nest trees in the Central Valley. Swainson's Hawks in the Great Basin area of the State (northeastern counties) occupy the juniper-sagebrush community typical to the area. Junipers (*Juniperus occidentalis*), with an average height of 15 feet are most commonly used as nest trees in the Great Basin. The diet of Great Basin populations of Swainson's Hawks consists of montane meadow voles (*M. montanus*) and Belding's Ground Squirrels (*Spermophilus beldingi*).

Swainson's Hawks require large, open grasslands with abundant prey in association with suitable nest trees. Suitable foraging areas include native grasslands or lightly-grazed pastures, alfalfa and other hay crops and certain grain and row croplands. Unsuitable foraging habitat includes row crops in which prey are scarce or unavailable due to the density of the vegetative cover. Those include vineyards, orchards, rice, corn and cotton crops. Suitable nest sites may be found in mature riparian forest, lone trees or groves of oaks and other species in agricultural fields and mature roadside trees. Over 85 percent of Swainson's hawk territories in the Central Valley are in riparian systems adjacent to suitable foraging habitats.

Swainson's Hawks were once found throughout lowland California and were absent only from the Sierra Nevada, north coast ranges and Klamath Mountains and portions of the desert regions of the State. Today, Swainson's Hawks are restricted to portions of the Central Valley and Great Basin regions of the State where suitable nesting and foraging habitat is still available. In the Central Valley, the trend toward planting of more and more crops that are unsuitable for Swainson's Hawks (e.g., vineyards, orchards, rice) and urban expansion onto surrounding agricultural and grassland areas further threatens the population. Residential and commercial development of foraging habitat is becoming increasingly prevalent in the center of Swainson's Hawk distribution in the Central Valley, particularly in Yolo, Sacramento and San Joaquin counties (see Table III).

During historic times (Ca. 1900) Swainson's Hawks may have maintained a population in excess of 17,000 pairs. Today the statewide population is estimated to be only about 550 pairs. If current trends of agricultural and urban expansion continue, the remnant population may decline to the point of endangerment. Breeding populations of Swainson's Hawks are monitored each year to determine trend and condition of habitat. Banding and color marking studies are ongoing in the Great Basin region, and recently radio-te-

lemetry was used to monitor Swainson's Hawk movements in the Central Valley. Management needs of the Swainson's Hawk include ensuring availability of suitable nesting and foraging habitat through preservation of riparian systems and lone and groves of mature trees in agricultural fields, and maintenance of compatible (with the Swainson's Hawk) agricultural practices in grasslands, pastures and croplands. Compatible agriculture is essential to the maintenance of current Swainson's Hawk populations. The loss of agricultural lands to various developments is a serious threat to Swainson's Hawks throughout California (see Table III). Additional threats are posed by habitat loss due to bank protection projects, expansion of incompatible agriculture, shooting, pesticide poisoning of prey animals, competition from other raptors and human disturbance at nest sites (see Table III).

Developing a cooperative effort between DFG and private landowners is crucial to the effectiveness of habitat management programs since 95 percent of known territories in the Central Valley are on private lands. Swainson's Hawks in the Great Basin exist on both private and public (BLM and USFS) lands. The widespread use of pesticides and rodenticides within the range of the Swainson's Hawk is cause for concern. Besides the direct and sublethal effects on adult and young birds caused by pesticides, there is a definite impact on potential prey animals upon which Swainson's Hawks depend. No statewide management plan has been prepared for the Swainson's Hawk. However, some local conservation planning efforts are underway in San Joaquin and Yolo counties. Study and monitoring programs that are part of mitigation requirements for a levee reconstruction project on the Sacramento River have yielded valuable information on reproductive biology of Swainson's hawks during 1990-92. Efforts to develop a recovery plan will commence in 1993.

Currently the population is declining statewide.  
Ron Schlorff

## American Peregrine Falcon

(*Falco peregrinus anatum*)

CA - E (1971)

FED - E (1970)

General Habitat: • Many Habitats

Adult peregrines are slate gray above and light below, and the dark cap of the head extends to the cheeks. The wingspan exceeds three feet. The range includes most of California during migrations and in winter, except in deserts. The California breeding range, which has been expanding, now includes the Channel Islands, coast of southern and central California, inland north coastal mountains, Klamath and Cas-



cade ranges and the Sierra Nevada. Nesting sites are typically on ledges of large cliff faces, but some pairs are nesting on city buildings and bridges. Nesting and wintering habitats are varied, including wetlands, woodlands, other forested habitats, cities, agricultural areas and coastal habitats. They feed on birds that are caught in flight.

Pairs formerly nested commonly in most of the State, but only about ten breeding pairs were known by the mid 1970's. The decline was attributed to the effects of DDT, which caused failure of eggs to hatch. Restrictions on use of DDT and intensive recovery efforts have helped to restore breeding to some areas of the State. The known number of breeding pairs has increased from 39 in 1980, to 70 in 1985, 90 in 1989, and 113 in 1992. Part of the increase is owing to the now-terminated program of annual releases to the wild of captive-hatched birds.

Under the Pacific Coast Recovery Plan for the peregrine falcon (1982), management has been directed to augmenting natural productivity by releasing large numbers of young, captive-hatched birds through various means. The Santa Cruz Predatory Bird Research Group produces peregrine chicks from the incubator-hatching of eggs laid by captive peregrines or of thin-shelled eggs collected from poorly reproducing pairs in the wild. Some young are released to the wild into active nests of peregrines or of prairie falcons. Others are hand reared in "hack" box nests for release where few peregrines now nest. From 1977 to 1992, 702 peregrines were released to augment natural productivity of the growing number of wild breeding pairs in California. This part of the recovery program is gradually being phased out owing to the success of recovery efforts. Other recovery actions include annual surveillance and protection of nest sites; sampling of eggs for contaminant analyses; environmental review and restrictions on developments and disturbances near nest sites; creation or enhancement of nesting ledges; and acquisition of peregrine nesting habitat.

The Federal Section 6 program, the Environmental License Plate Program and Endangered Species Tax Checkoff funds greatly supported much of this program through 1991, when funding was discontinued. Ecological Reserves protect habitats of several breeding pairs. Two western U.S. Peregrine Falcon Recovery Teams were replaced by one team in 1989 as part of Federal changes in administration of the nationwide recovery effort, and an interstate working team has been established to aid coordination. The multi-agency California Peregrine Falcon Working Team provides recovery program guidance to cooperators. An interagency memorandum of understanding was signed in 1988 to ensure the adequacy of annual surveys for a five-year period to provide information needed for eventually reevaluating its endangered status.