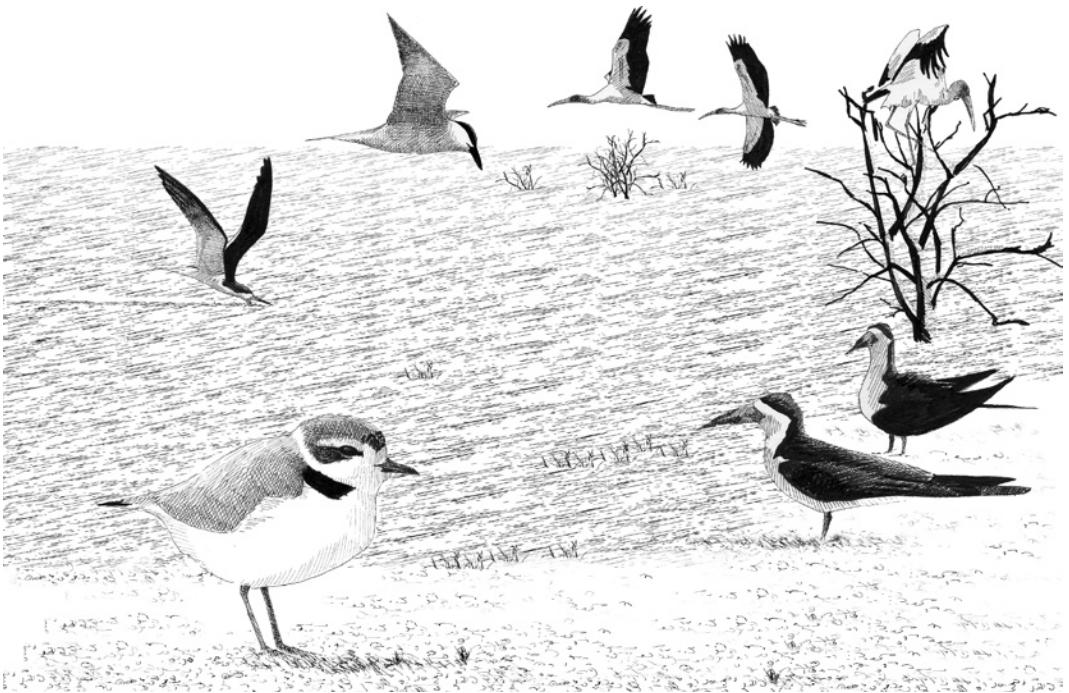


II

SPECIES ACCOUNTS



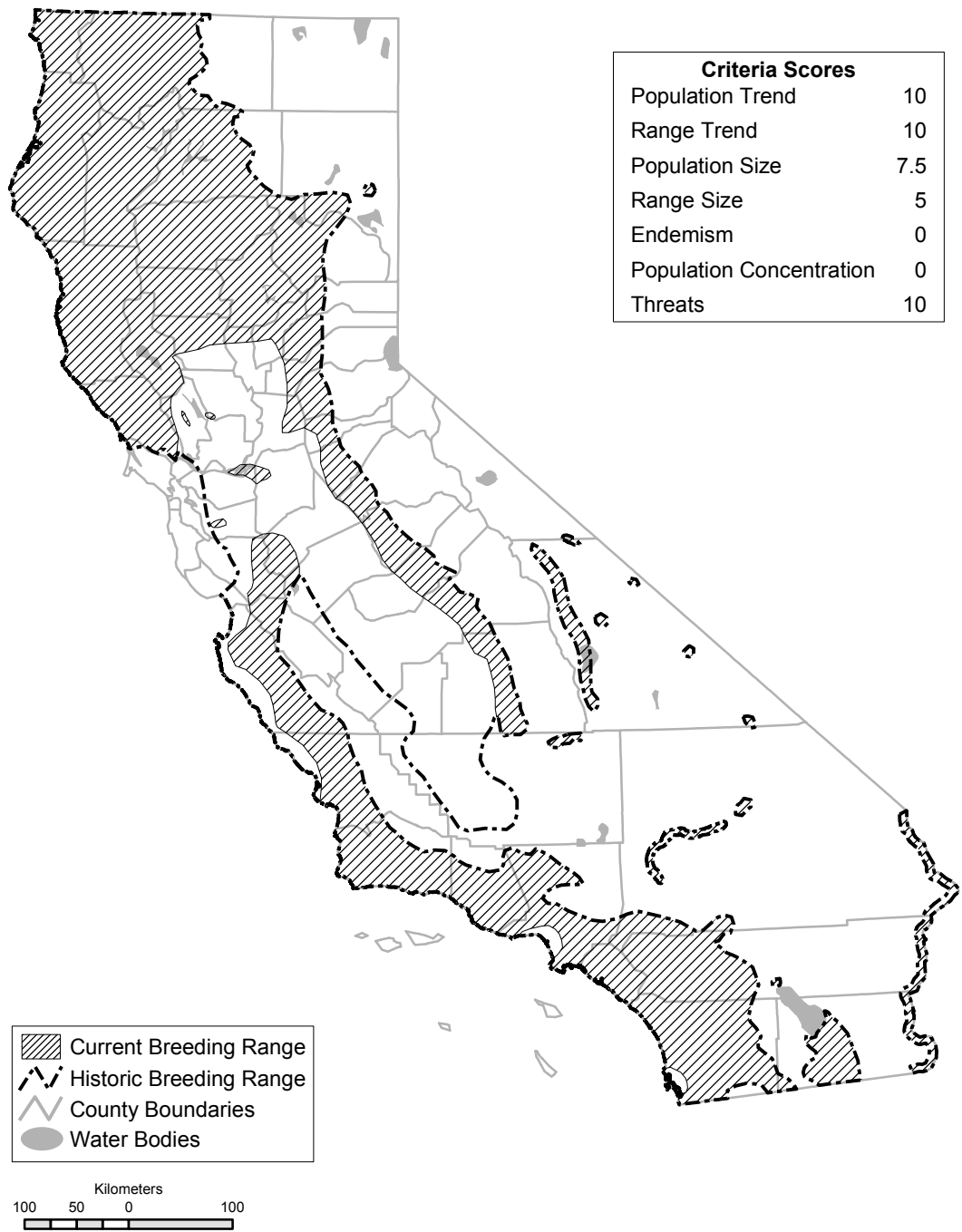
Andy Birch

PDF of Yellow-breasted Chat account from:

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YELLOW-BREASTED CHAT (*Icteria virens*)

LYANN A. COMRACK



Current and historic (ca. 1944) breeding range of the Yellow-breasted Chat in California; occurs more widely, though secretively, during migration. Numbers have declined in many areas, and the species is extirpated from much of the floor of the Central (especially San Joaquin) Valley, and from parts of the central and southern coast.

SPECIAL CONCERN PRIORITY

Currently considered a Bird Species of Special Concern (breeding), priority 3. Included on prior special concern lists (Remsen 1978, 2nd priority; CDFG 1992).

GENERAL RANGE AND ABUNDANCE

Two subspecies restricted to the New World: *I. v. auricollis* nests in western and *I. v. virens* in eastern North America. *I. v. auricollis* breeds from southern British Columbia east to southern Saskatchewan and North Dakota, south to south-central Baja California, west Texas, and (at least formerly) southern Tamaulipas; winters from southern Baja California and south Texas south to western Mexico through central Guatemala (AOU 1957, Eckerle and Thompson 2001). Patchily distributed throughout its breeding range, with highest concentrations in the Klamath region of California and Oregon, southern Nevada, southeastern Arizona, southwestern Texas, and eastern Montana and western North Dakota (Sauer et al. 2005).

SEASONAL STATUS IN CALIFORNIA

Occurs as a migrant and summer resident primarily from late March to late September (Garrett and Dunn 1981, Unitt 2004); breeds from late April through early August (Eckerle and Thompson 2001, Unitt 2004).

HISTORIC RANGE AND ABUNDANCE IN CALIFORNIA

Grinnell and Miller (1944) described the Yellow-breasted Chat as a “fairly common to common” summer resident that bred the length and breadth of mainland California up to about 5000 ft (1520 m) elevation. It was most numerous toward the interior, but status varied regionally and locally.

Northwestern California. Chats were reported widely in this region. Representative breeding season localities included Requa, Del Norte County; Hayfork, Trinity County; Scott River at Callahan, Siskiyou County; Ukiah, Mendocino County; Clear Lake, Lake County; and Sonoma and Santa

Rosa, Sonoma County (Grinnell and Miller 1944, MVZ specimens or egg sets). Records extended east to Hornbrook, Siskiyou County, and the McCloud River, Shasta County.

Northeastern California. On the basis of recent information, chats observed at 4500 ft (1372 m) in Secret Valley, Lassen County (Grinnell et al. 1930), likely represented breeders, but individuals collected in late May and early August near Goose Lake and in the Surprise Valley, Modoc County (Mailliard 1927, MVZ specimens), likely represented migrants.

Central Valley and west slope of Sierra Nevada. Apparently numerous in the Sacramento Valley, chats were recorded at Paines Creek near Dale’s, Tehama County; Rumsey and Woodland, Yolo County; Sacramento, Sacramento County; and elsewhere. They also were found throughout the San Joaquin Valley, where representative localities were the Tuolumne River near Modesto, Stanislaus County; Los Banos and Snelling (where 20 individuals were recorded in an hour-and-a-half survey of bottomlands), Merced County; near Tarpey, Fresno County; and Bakersfield, Kern County (Grinnell and Storer 1924, Grinnell and Miller 1944, Calif. Nat. Diversity Database [CNDDB] unpubl. data, MVZ and WFVZ egg sets). Chats were reported from several specific sites in the Sierra Nevada foothills (e.g., Nevada City, Nevada County; Smith River east of Coulterville, Mariposa County; Dry Creek near Badger, Tulare County) and were considered “common” along the west base of the Sierra Nevada and at Kernville, Kern County (Fisher 1893, Grinnell and Storer 1924, Grinnell and Miller 1944, CNDDB unpubl. data, MVZ specimens).

Central and southern coast. Grinnell and Wythe (1927) noted that chats were “fairly common in the warm interior valleys” of the San Francisco Bay region; many records exist for Solano, Contra Costa, Alameda, and Santa Clara counties (Grinnell and Miller 1944, CNDDB unpubl. data, MVZ egg sets). They were considered “rare” in any season in Marin County (Shuford 1993). Along the central coast, chats nested at San Lorenzo, Santa Cruz County; “North San Benito County”; and Paso Robles, San Luis Obispo

BREEDING BIRD SURVEY STATISTICS FOR CALIFORNIA

1968–2004						1968–1979			1980–2004			All data from Sauer et al. (2005)
Trend	P	n	(95% CI)	R.A.		Trend	P	n	Trend	P	n	Credibility
0.4	0.60	60	–1.0, 1.7	0.78		5.0	0.20	26	–0.5	0.47	55	Medium

County (Grinnell and Miller 1944, MVZ and WFVZ egg sets). Pemberton and Carriger (1915) considered chats to be “fairly common” along the San Antonio River, Monterey County. The species was described as a “common” breeder in coastal southern California (Willett 1912), with records for Ventura, Ventura County; El Monte, Los Angeles County; near Colton, San Bernardino County; Temecula, Riverside County; and Campo, San Diego County (Unitt 1984, MVZ and WFVZ egg sets).

Southern deserts. Fisher (1893) described the chat as “moderately common” in the Owens Valley (e.g., Independence Creek, Olancho, Morans) and “tolerably common” in Death Valley; the species was also found in the Panamint (Willow Creek, 22 May, thus of uncertain breeding status) and Inyo (Hunter’s arastra to the bottom of the Saline Valley) mountains, Inyo County. The chat occurred locally throughout the Mojave and Colorado deserts, with representative breeding sites including Yermo and Big Morongo Valley, San Bernardino County; Mecca, Riverside County; and Niland, Imperial County (CNDDDB unpubl. data, MVZ egg sets). Grinnell (1914) considered it to be one of the five most common breeding bird species along the lower Colorado River.

RECENT RANGE AND ABUNDANCE IN CALIFORNIA

Although still widely distributed, the Yellow-breasted Chat is now rare or absent as a breeder in much of the Central Valley and parts of the southern coastal slope. The current breeding range is estimated to be about 35% reduced from its historic extent (see map). Chat populations may be rebuilding along the Colorado River, but this gain is more than offset by declines elsewhere. Numbers of Yellow-breasted Chats were relatively stable on Breeding Bird Survey (BBS) routes in California from 1968 to 2004 (Sauer et al. 2005). These data are of medium credibility, being deficient in having low abundance (<1.0 bird per route).

Northwestern California. Chats are still numerous in this region, especially in Humboldt and western Siskiyou and Shasta counties. BBS data indicate that northwestern rivers, including the Klamath and Trinity, support the highest densities in the state (Sauer et al. 2005). The Humboldt County breeding bird atlas found chats in 80 blocks (10 confirmed), representing 19% of all blocks surveyed (Hunter et al. 2005). Further, singing chats were recorded at all point count stations ($n = 70$) in a survey of gravel bars on

the lower Eel River, Humboldt County in 1999 (R. Hewitt pers. comm.). Chats are regularly reported on BBS routes in Mendocino County (e.g., Longvale and Laytonville) and Lake County (e.g., Hullville, rarely Bartlett Springs; Sauer et al. 2005). The Sonoma County breeding bird atlas confirmed nesting only at Annadel State Park, but chats were also found in 18 other atlas blocks, suggesting breeding along Santa Rosa Creek at Spring Lake, Russian River at Guerneville, Rio Nido, Dry Creek, and elsewhere (Parmeter 1995, M. Ricketts pers. comm.).

Northeastern California. Chats were likely never established breeders in far northeastern California (see above). The few recent records for Modoc County (J. Sterling, B. Stovall pers. comm.) appear to represent migrants, though perhaps some remain to breed. Despite no confirmation of nesting in Lassen County, chats occurred regularly at about 4590 ft (1400 m) on Secret Creek between Ravendale and Litchfield in the 1970s (T. Manolis in litt.); a fire recently destroyed suitable habitat (B. Stovall in litt.). Chats used to occur annually in the Susan River Canyon above Susanville in the 1980s (B. Stovall pers. comm.), but they were not recorded on point counts there in 2002 and 2003 (D. Humple/PRBO unpubl. data). In Mono County, Gaines (1992) suggested possible sporadic breeding on the west shore of Mono Lake. Recent riparian bird surveys, however, did not find chats breeding in the Mono Basin or at 10 higher-elevation tributaries to the east and west of the Walker River drainage (Heath and Ballard 2002).

Central Valley and west slope of Sierra Nevada and Cascade Range. Yellow-breasted Chats have declined in the Sacramento Valley, with most recent confirmed nesting observations concentrated to the north, where the species still seems to be doing well. At Clear Creek, Shasta County, densities reach 6 territories per 10 ha (R. Burnett/PRBO unpubl. data; the 11 HY and 8 AHY birds caught during one year of mist-netting represented a high productivity ratio of 1.37; Gardali et al. 1999). Gaines (1974) found singing males to be “common” along the upper Sacramento River of Colusa County and “uncommon” on the Feather River from Oroville, Butte County, to Verona, Sutter County. Other recent locations with chats include Bidwell Park and Oroville WA, Butte County; Stillwater, Glenn County; and Little Stony Creek at East Park Reservoir, Colusa County (Holmes et al. 2000, PRBO unpubl. data 1998–1999). The Sacramento County breeding bird atlas estimated a total of 20–30 pairs

of chats in 11 atlas blocks (T. Manolis pers. comm.), and the Contra Costa County atlas (unpubl. data) recorded chats in three blocks in the western Sacramento–San Joaquin River Delta. The species is now found in only a few places in the San Joaquin Valley (Small 1994), including White Slough and the Mokelumne River at the Camanche Reservoir dam, San Joaquin County, and the Stanislaus River at Horseshoe Bend Recreation Area, Stanislaus County (PRBO data 1998, D. Gifford pers. comm.).

Chats nest locally but regularly along low- and midelevation streams in the Sierra Nevada (e.g., South Yuba River, Nevada County; Tuolumne River downstream from Don Pedro Reservoir, Tuolumne County; Kaweah River west of Terminus Dam, Tulare County; T. Beedy pers. comm.). Two pairs on Finegold Creek northeast of O'Neals, Madera County, in 2006 were at a previously undocumented location (J. Davis in litt.). BBS data show them numerous only in the Gold Hills and Folsom areas of El Dorado County in the north (Sauer et al. 2005) and the South Fork Kern River Preserve, Kern County, in the south, where an estimated 30 to 45 nesting pairs occur (M. Whitfield pers. comm.). In the northern Sierra, a few chats are found east to 3300 ft (1006 m) on Spanish Creek in Quincy and at 3500 ft (1037 m) on Indian Creek in Indian Valley, Plumas County (H. Green in litt.). Lower down (mainly 400–2000 ft [122–610 m]), chats are more numerous. They are considered “very common” along Butte Creek, Chico Creek, and the Feather River drainage in the Oroville area (T. Manolis in litt.) and “fairly common” in the Lassen area of the Cascades on Battle, Dye, Deer, and Mill creeks and many other tributaries (R. Burnett in litt.). By contrast, Siegel and DeSante (1999) noted the drastic decline of the species on the west slope of the Sierra over the past 50 years and considered it “rare” at best.

Central and southern coast. In the San Francisco Bay region, there are relatively few records of chats from recent breeding bird atlas projects. They occurred in six atlas blocks (1 confirmed) in Napa County (mostly in Napa Valley, where numbers have declined since the 1980s; Berner et al. 2003), two in Marin County (Shuford 1993), and two in Alameda County (unpubl. data). By contrast, the Santa Clara County atlas confirmed breeding in 7 blocks distributed in two general areas: the southern Santa Clara Valley and the San Antonio Valley at 2000+ ft (610+ m) in the Diablo Range (W. G. Bousman in litt.). Chats also breed on the east slope of this range in Del Puerto Canyon,

Stanislaus County (J. Gain in litt.). The chat is a rare and local breeder in Monterey County, where the current population of about 40 pairs is distributed patchily along the Salinas and Carmel river systems and along the San Antonio River where it enters San Antonio Reservoir (Roberson 1993). Chats are considered “uncommon to locally fairly common” in the interior of San Luis Obispo County, where breeding is highly likely along the Salinas River, Trout Creek, and Arroyo Grande Creek above Lopez Lake (T. Edell unpubl. atlas data). In Santa Barbara County, chats have declined markedly and now nest mainly at Barka Slough on Vandenberg Air Force Base, the Santa Ynez River, and Mono and Agua Caliente creeks (Lehman 1994).

Garrett and Dunn (1981) described the chat as having “greatly declined as a breeder in recent years” in southern California. On the basis of surveys during 1994–1999, the chat was judged to be a “fairly common” breeder on the Santa Clara River, where found consistently, in appropriate habitat, from east of Fillmore to Victoria Avenue in Ventura County, plus at a few locations eastward to Interstate 5 in Los Angeles County (J. Greaves in litt.). Chats remain rare and localized in Los Angeles (L. Allen unpubl. atlas data) and Orange (Hamilton and Willick 1996) counties. Chats have become “increasingly rare” in Orange County, where the atlas recorded them in 17 blocks (Gallagher 1997). Chats still nest locally in Riverside County, particularly at the Prado Basin, Santa Ana River, San Timoteo Creek, Temescal Canyon, Canyon Lake, Temecula Creek, and Vail Lake (L. Hays pers. comm.). Despite no formal census of the Prado Basin and adjacent Santa Ana River, L. Hays (pers. comm.) estimated that about 400 pairs occur there. In San Diego County, chats are faring better than elsewhere on the southern coast. Counts of 20 to 50 in a day have been made along the Santa Margarita River north of Fallbrook, along the San Luis Rey River between Interstate 15 and Pala, in the San Pasqual Valley down to Lake Hodges, in the lower Los Peñasquitos Canyon, along the Sweetwater River in the Jamacha area, and in the Tijuana River Valley. Chats occur locally along many small creeks as well as main rivers (Unitt 2004).

Southern deserts. In Inyo County, chats breed along the Owens River (north to Birchim Canyon; T. & J. Heindel in litt.), but were present at only 1 (Hogback Creek) of 18 of its tributaries surveyed in 1998–2000 (Heath et al. 2001). Chats are “rare and local” in the White Mountains, with an exceptionally high-elevation record of 6750 ft (2060 m)

at Wyman Canyon (Johnson and Cicero 1986, 1991; MVZ specimens). Other current locations in Inyo County of known or probable chat breeding are the Deep Springs ponds, Saline Valley salt marsh, Scotty's Castle and Furnace Creek Ranch in Death Valley, and Tecopa/Amargosa River area (T. & J. Heindel in litt.). Breeding chats are few and widely scattered in the Mojave Desert of San Bernardino County (Myers 1998): Mojave River at Victorville (6–10 pairs), Morongo Valley (2–7 pairs), and Cushenberry Springs (1 pair). They also possibly nest in Afton Canyon and Camp Cady. Breeding chats have declined in the Salton Sea area, where in the 1990s a total of at most six pairs was known from only four sites (Patten et al. 2003). Rosenberg et al. (1991) estimated that chats numbered about 700 individuals along the lower Colorado River in 1986, representing a decline of 30% since 1976 attributable to habitat loss from flooding in the 1980s. While surveying Southwestern Willow Flycatchers (*Empidonax traillii extimus*) along the lower Colorado in 1996–2001, R. McKernan (pers. comm.) confirmed nesting by chats at Headgate Dam (15 pairs), San Bernardino County; Hall Island (15 pairs), Riverside County; and several sites in Imperial County, including Cibola NWR (10 pairs on California side), Walker Lake (15 pairs), Draper Lake (20 pairs), Paradise Valley (20 pairs), Clear Lake (15 pairs), Picacho State Recreation Area (30 pairs), Ferguson Lake (15 pairs), and below Laguna Dam (10 pairs). Chats' ability to nest in tamarisk (*Tamarix* spp.) accounts for recent population rebounds there of an unknown magnitude (Hunter 1984, S. Laymon pers. obs.).

ECOLOGICAL REQUIREMENTS

Nesting Yellow-breasted Chats occupy early successional riparian habitats with a well-developed shrub layer and an open canopy. Vegetation structure, however, more than age appears to be the important factor in nest-site selection (Eckerle and Thompson 2001). Nesting habitat is usually restricted to the narrow border of streams, creeks, sloughs, and rivers and seldom forms extensive tracts. Blackberry (*Rubus* spp.), wild grape (*Vitis* spp.), willow, and other plants that form dense thickets and tangles are frequently selected as nesting strata (Grinnell and Miller 1944). The nest is typically placed within 1 m of the ground but may range up to 2.4 m (Ehrlich et al. 1988). Taller trees, such as cottonwood (*Populus* spp.) and alder (*Alnus* spp.), are required for song perches (Dunn and Garrett 1997). Chats establish and defend

individual territories, but pairs tend to congregate, suggesting loose coloniality (Eckerle and Thompson 2001).

Chats will nest in tamarisk, Himalayan Blackberry (*Rubus discolor*), Russian Olive (*Elaeagnus angustifolius*), and other non-native plants that provide dense shrub layers. Hunter et al. (1988) found chats using *Tamarix chinensis* preferentially to native vegetation along the Pecos River, Texas. Brown and Trosset (1989), however, reported that along the Colorado River in the Grand Canyon, Arizona, they nest in tamarisk and native shrubs in direct proportion to their frequency of occurrence in a given area. At Clear Creek, Shasta County, most chat nests found were in exotic Himalayan Blackberry rather than in the less abundant native California Blackberry (*R. ursinus*). Chat abundance was highly correlated with the presence of the native blackberry but not significantly with the exotic blackberry (Burnett and DeStaeblér 2001).

Diet studies of chats are lacking in California. Elsewhere, adults feed predominantly on insects and spiders; wild fruits and berries are also important. Adults feed nestlings primarily soft-bodied insects (orthopterans and larval lepidopterans; Eckerle and Thompson 2001).

THREATS

Destruction of riparian woodland was implicated in the early decline of the Yellow-breasted Chat in California (Remsen 1978), but the species' absence from seemingly suitable habitat suggests additional pressures. Chats are frequent hosts to nest parasitism by the Brown-headed Cowbird (*Molothrus ater*) through much of their range (Ehrlich et al. 1988). Hanna (1928) documented chat nests parasitized by cowbirds in southern California, but the extent of parasitism in the state is still poorly understood. Gaines (1974) supposed the chat's susceptibility to parasitism in the Sacramento Valley was moderate. At Clear Creek, Shasta County, the 1 of 14 chat nests parasitized still fledged three chats (Burnett and DeStaeblér 2001). Chats have become quite numerous on Camp Pendleton, San Diego County, where intensive cowbird trapping has been conducted for years (P. Unitt pers. comm.), suggesting a causal effect. Large-scale cowbird trapping at the Prado Basin, Riverside County, has likely increased its chat population (L. Hays pers. comm.). In each case, however, habitat restoration and exotic plant control may have played critical roles in enhancing conditions for chats.

Chats' dependence on understory and shrubby riparian vegetation for nesting makes them vulnerable to habitat loss from vegetation removal along river channels during flood-control maintenance and from urban and agricultural development. The species is sensitive to grazing and hence may be a good indicator of its effects on riparian birds (Sedgwick and Knopf 1987). Chat densities increased fourfold over a six-year period in response to the cessation of livestock grazing along the San Pedro River, Arizona (Ohmart 1994).

MANAGEMENT AND RESEARCH RECOMMENDATIONS

- Preserve existing, and restore degraded, riparian habitat. Advocate a multispecies approach to restoration to help both chats and other riparian obligates (Brown and Trosset 1989, RHJV 2004).
- Manage riparian habitat to maintain and/or promote a dense shrub layer; install a shrub layer in the early stages of restoration projects.
- Time removal of exotic plants from riparian areas used by nesting chats to avoid disturbance during breeding, and proceed only after careful assessment and mitigation for any potential detrimental effects to chats.
- Identify and protect areas with healthy breeding populations of chats and conduct ecological studies needed to increase and expand their populations.
- Compare chats' reproductive success in native versus non-native vegetation.
- Examine the effects of cowbird nest parasitism, and its control, on chats by region, and take appropriate management actions as needed.

MONITORING NEEDS

The BBS is inadequate for monitoring fluctuations in populations of the Yellow-breasted Chat. BBS data are too few to detect population trends in the Great Basin, San Joaquin Valley, coastal southern California, and the Mojave and Sonoran deserts. Improved BBS coverage, while desirable, would not in itself be enough to monitor chats adequately in their linear or patchy habitats. A statewide population monitoring program should be conducted once every 3–5 years using standardized off-road point counts or constant-effort mist-netting (Ralph et al. 1993).

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