

California Wildlife Habitat Relationships System
California Department of Fish and Wildlife
California Interagency Wildlife Task Group

WHITE-CROWNED SPARROW

Zonotrichia leucophrys

Family: EMBERIZIDAE
B510

Order: PASSERIFORMES

Class: AVES

Written by: S. Granholm
Reviewed by: L. Mewaldt
Edited by: R. Duke

DISTRIBUTION, ABUNDANCE, AND SEASONALITY

Common to abundant year-round in California. Breeds in higher mountains, and in humid coastal strip south to Santa Barbara Co. Widespread from October to April throughout most of state, below heavy snows. Occurs primarily in open brushlands, in wet meadows with low shrubs, or in open, wooded habitats with understories of similar structure. Optimal breeding habitats include open coastal scrub or willow thickets in wet meadows, or open, montane riparian habitat at high elevations. Montane breeding areas mostly limited to Mt. Shasta and vicinity, Lassen Peak area, Warner Mts., high Sierra Nevada, White Mts., and Mt. San Geronio (San Bernardino Co.). In winter frequents low shrubs, brush piles, clumps of tall forbs (Grinnell and Miller 1944, McCaskie et al. 1979, Garrett and Dunn 1981). Adapted to wintering in residential areas and parks (Mewaldt 1964).

SPECIFIC HABITAT REQUIREMENTS

Feeding: Eats primarily seeds of grasses and forbs; also feeds on green shoots, insects, spiders, flowers and berries. Insects and spiders are important foods of nestlings and breeding adults. Forages on bare ground or grassy areas near cover of shrubs, taking food from ground or low plants. Occasionally hawks insects.

Cover: Frequents willow thickets and other shrubs for cover, singing posts, resting places; also uses small lodgepole pines and other trees. In winter, brush piles and clumps of tall forbs may substitute for shrubs.

Reproduction: Coastal breeders usually nest in a dense shrub within 0.9 m (3 ft) of ground, rarely higher up in a dense tree or shrub (Grinnell and Miller 1944). In montane habitats, conceals nest on ground at base of shrub or on low limb of small willow or conifer, usually below 0.4 m (1.3 ft), but occasionally up to 1.5 m (5 ft) above ground (Grinnell and Miller 1944, Morton et al. 1972).

Water: In montane habitats, breeding territory usually near water (DeWolfe and DeWolfe 1962). Regularly drinks water (Smyth and Coulombe 1971). Captives studied by MacMillen and Snelling (1966) required drinking water; wild individuals probably do also.

Pattern: Breeds in open coastal scrub and willow thickets, and in montane meadows and along watercourses with willows, other shrubs, lodgepole pines, other conifers. Winters in open areas near shrubs, thickets, other cover.

SPECIES LIFE HISTORY

Activity Patterns: Yearlong, diurnal activity.

Seasonal Movements/Migration: Breeders in mountains mostly migrate to wintering

grounds in lowland southern California and south into Mexico, departing in September and returning in April and May. Coastal breeders mostly present year-round; not migratory (Mewaldt et al. 1968). Other individuals winter elsewhere in California lowlands and foothills and migrate to Canada and Alaska in April and May; often return to same wintering sites the following September or October (Mewaldt 1976). In montane habitats, fairly widespread in fall, but descend below heavy snows for winter and spring (Grinnell and Miller 1944).

Home Range: Pairs at Tioga Pass, Mono Co., occupied areas as large as 1.5 to 2.0 ha (3.7 to 4.9 ac) (Morton et al. 1972). Price (1931) reported home ranges of winter flocks of 6.1 to 8.1 ha (15-20 ac) in San Mateo Co. In coastal California, 10 adults had winter home ranges of 0.36 to 0.69 ha (0.9 to 1.7 ac); 12 immatures seldom were recorded more than 183 m (600 ft) from hatching site, although one was found 366 m (1200 ft) from its hatching site. One had a winter home range of 0.69 ha (1.7 ac) (Blanchard 1941).

Territory: In coastal chaparral in Marin Co., 15 breeding territories varied from 0.07 to 0.57 ha (0.17 to 1.4 ac) and averaged 0.24 ha (0.60 ac) (Ralph and Pearson 1971). In similar habitat in San Francisco, breeding territory varied from 0.04 to 0.32 ha (0.10 to 0.80 ac) and averaged 0.12 ha (0.30 ac) (Patterson and Petrinovich 1978). At Tioga Pass, Mono Co., breeding territory estimated at 0.15 to about 0.8 ha (0.4 to about 2 ac) (Morton et al. 1972).

Reproduction: Nests from late May into early September in mountains (Bent 1968), and from mid-March to late August along coast (Mewaldt and King 1977). Mostly a monogamous, solitary nester; occasionally may be polygynous (Petrinovich and Patterson 1978a). Clutch size 2-5, rarely 6 (Harrison 1978). May raise 2, sometimes 3, broods along coast (Mewaldt and King 1977), but only occasionally raises 2 broods in mountains (Morton 1978). Incubation 9-15 days. Altricial young tended by both parents; leave nest at 9-11 days and are fed for 25-30 days longer (Harrison 1978). Often attempts to breed first at 1 yr, but many of these attempts unsuccessful (Ralph and Pearson 1971).

Niche: In high Sierra Nevada, predation on eggs was the greatest cause of mortality of young (Morton et al. 1972). The most important nest predator apparently was Belding's ground squirrel, but long-tailed weasels, coyotes, badgers, and Clark's nutcrackers also were important. In general, an infrequent host of brown-headed cowbird, but Petrinovich and Patterson (1978b) reported numerous instances of parasitism in San Francisco Bay region and Marin Co.

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