

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

SONG SPARROW

Melospiza melodia

Family: EMBERIZIDAE
B505

Order: PASSERIFORMES

Class: AVES

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

DISTRIBUTION, ABUNDANCE, AND SEASONALITY

A common resident of most of California, but avoids higher mountains and occurs only locally in southern deserts. In winter, most leave montane habitats; more abundant and widespread then in lowlands and deserts. At all seasons, prefers riparian, fresh or saline emergent wetland, and wet meadow habitats. Breeds in riparian thickets of willows, other shrubs, vines, tall herbs, and in fresh or saline emergent vegetation. Also breeds in damp thickets and coastal scrub of northern California and Channel Islands where fog drip and a moist climate compensate for a lack of surface water. In winter in much of northern California, also may be found far from water, in open habitats with thickets of shrubs or tall herbs. Usually avoids densely wooded habitats, except along forest edges. An uncommon resident in suitable habitat in southern deserts along western edge (very locally) and in Imperial and Colorado River valleys (Grinnell and Miller 1944, McCaskie et al. 1979, Garrett and Dunn 1981).

SPECIFIC HABITAT REQUIREMENTS

Feeding: Seeds are the most important foods in annual diet, but insects, spiders, other small invertebrates, make up almost half of diet in nesting season (Martin et al. 1961). Berries and other small fruits are minor foods. Regularly takes crustaceans and mollusks along coast. Usually forages on ground or in low vegetation, under cover of dense thickets or wetland vegetation. Gleans from ground or low plants and often scratches in litter. Sometimes forages a short distance from cover.

Cover: Requires low, dense vegetation for protective cover, usually near water, in emergent vegetation, or in other moist areas. Male typically sings from exposed perch at moderate height in shrub, tall herb, or low tree.

Reproduction: Builds nest on ground (Bent 1968); also nests in shrub, thicket, emergent vegetation, small tree, usually within 1.3 m (4 ft) of ground (Harrison 1978). Ground nest hidden under low, dense vegetation, usually near water, in emergent vegetation, or in other moist site.

Water: In more arid regions, nests only along edges of bodies of water. In northern California and Channel Islands, also nests in coastal fog zone and shaded sites where generally moist conditions compensate for a lack of surface water. In winter, may be found far from water throughout much of northern California.

Pattern: Breeds in dense riparian thickets, emergent wetlands, or dense thickets in other moist situations. An open overstory of trees may be present, but is not required. In winter, occurs in similar habitats, often far from water.

SPECIES LIFE HISTORY

Activity Patterns: Yearlong, diurnal activity.

Seasonal Movements/Migration: Most nesters in California nonmigratory, but numbers augmented in winter by migrants from north. Part of the population that breeds east of Cascade Range and Sierra Nevada migrates to more westerly and southerly portions of California in winter. Breeders in montane habitats mostly move to lower elevations for winter; more widespread than in desert riparian habitat.

Home Range: A single winter home range in New York was 0.6 ha (1.4 ac) (Butts 1927). In Kansas, Fitch (1958) measured a winter home range of 3.6 ha (8.9 ac), and estimated 29 home ranges as averaging about 2.8 ha (6.8 ac). In British Columbia, home range of an island population averaged 0.05 ha (0.12 ac) (Tompa 1962).

Territory: Territory in Ohio varied from 0.2 to 0.6 ha (0.48 to 1.4 ac), averaging 0.3 ha (0.7 ac) (Nice 1943). Breeding territory in salt marshes of Contra Costa Co. averaged about 0.04 ha (0.1 ac) in a year of high density (Johnston 1956b) adults rarely shifted location from year to year (Johnston 1956a). In a San Francisco Bay salt marsh, territory averaged 0.07 ha (0.2 ac) in human-altered linear strips of habitat, and 0.04 ha (0.1 ac) in unaltered habitat (Walton 1978). Along Minnesota lakeshores, 4 territories varied from 0.12 to 0.26 ha (0.30 to 0.65 ac), averaging 0.18 ha (0.45 ac) (McCarty 1975). On an island in British Columbia, territory averaged 0.03 ha (0.07 ac) (Tompa 1962).

Reproduction: Nesting season usually begins in April. A monogamous, solitary nester. Clutch size 3 or 4, rarely 2, 5 or 6. Often double-brooded, sometimes treble-brooded. Incubation lasts 12-14 days. Altricial young tended by both parents; leave nest at about 10 days and become independent about 25 days later. Probably breeds first at 1 yr (Harrison 1978).

Niche: Typical nest predators listed by Nice (1931) included dogs, cats, and rats. According to Friedmann (1963), one of the most frequent, if not the most frequent, host of brown-headed cowbird nest parasitism. One of the most variable bird species; 31 races in North America (Ehrlich et al. 1988).

Comments: *M. m. maxillaris*, the Suisun song sparrow, was listed as a Candidate for California Endangered status in 1988. This scarce resident race lives in habitat fragments of emergent wetland in Solano and Contra Costa cos. (California Department of Fish and Game 1989). *M. m. samuelis*, the San Pablo song sparrow, and *M. m. pusillula* the Alameda song sparrow, also are California Species of Special Concern. These 2 races also inhabit emergent wetland in the San Francisco Bay area.

REFERENCES

- Bent, A. C. (O. L. Austin, Jr., ed.). 1968. Life histories of North American cardinals, grosbeaks, buntings, towhees, finches, sparrows, and allies. 3 Parts. U.S. Natl. Mus. Bull. 237. 1889pp.
- Butts, W. K. 1927. The feeding range of certain birds. *Auk* 44:329-350.
- California Department of Fish and Game. 1989. 1988 annual report on the status of California's state listed threatened and endangered plants and animals. Sacramento. 129pp.
- Ehrlich, P. R., D. S. Dobkin, and D. Wheye. 1988. *The birder's handbook*. Simon and Schuster, New York. 785pp.
- Fitch, H. S. 1958. Home ranges, territories, and seasonal movements of vertebrates of the Natural History Reservation. Univ. Kans., Lawrence. *Publ. Mus. Nat. Hist.* 11:63-326.
- Friedmann, H. 1963. Host relations of the parasitic cowbirds. U.S. Natl. Mus. Bull. 233. 276pp.
- Garrett, K., and J. Dunn. 1981. *Birds of southern California*. Los Angeles Audubon Soc. 408pp.
- Grinnell, J., and A. H. Miller. 1944. *The distribution of the birds of California*. Pac. Coast

Avifauna No. 27. 608pp.

- Harrison, C. 1978. A field guide to the nests, eggs and nestlings of North American birds. W. Collins Sons and Co., Cleveland, OH. 416pp.
- Johnston, R. F. 1956a. Population structure in salt marsh song sparrows. Part I: Environment and annual cycle. *Condor* 58:24-44.
- Johnston, R. F. 1956b. Population structure in salt marsh song sparrows. Part II: Density, age structure, and maintenance. *Condor* 58:254-272.
- Martin, A. C., H. S. Zim, and A. L. Nelson. 1961. American wildlife and plants, a guide to wildlife food habits. Dover Publ., Inc., New York. 500pp.
- McCarty, D. R. 1975. Wax myrtle forest. Pages 1123-1124 in W. T. Van Velzen, ed. Thirty-ninth breeding bird census. *Am. Birds* 29:1080-1145.
- McCaskie, G., P. De Benedictis, R. Erickson, and J. Morlan. 1979. Birds of northern California, an annotated field list. 2nd ed. Golden Gate Audubon Soc., Berkeley. 84pp.
- Nice, M. M. 1931. Survival and reproduction in a song sparrow population during one season. *Wilson Bull.* 43:91-102.
- Nice, M. M. 1937. Studies in the life history of the song sparrow. Volume I. A population study of the song sparrow. *Trans. Linn. Soc. New York* 4:1-247.
- Nice, M. M. 1943. Studies in the life history of the song sparrow II. The behavior of the song sparrow and other passerines. *Trans. Linn. Soc. New York* 6:1-328.
- Tompa, F. S. 1962. Territorial behavior: the main controlling factor of a local song sparrow population. *Auk* 79:687-697.
- Walton, B. J. 1978. The status of the salt marsh song sparrows of the San Francisco Bay system, 1974-1976. M.A. Thesis, San Jose State Univ., San Jose, CA. 97pp.

B505

Life history accounts for species in the California Wildlife Habitat Relationships (CWHR) System were originally published in: Zeiner, D.C., W.F.Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. California's Wildlife. Vol. I-III. California Department of Fish and Game, Sacramento, California. Updates are noted in accounts that have been added or edited since original publication.