

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

---

FOX SPARROW

*Passerella iliaca*

Family: EMBERIZIDAE  
B504

Order: PASSERIFORMES

Class: AVES

Written by: D. Dobkin, S. Granholm  
Reviewed by: L. Mewaldt, D. Airola  
Edited by: R. Duke

#### DISTRIBUTION, ABUNDANCE, AND SEASONALITY

Breeds commonly in mountains of California, in dense montane chaparral and brushy understory of other wooded, montane habitats. Although absent from desert ranges, breeds in Great Basin ranges south through White Mts. Less common in winter east of Cascade Range and Sierra Nevada than elsewhere in state. Mostly leaves mountains in winter; common then in dense brush habitats, including understories of open forests, throughout foothills and lowlands, except in southern deserts. Prefers montane chaparral for breeding, dominated by manzanita, ceanothus, chinkapin, and riparian thickets of low willow, aspen, alder, wild rose. Suitable habitat provided both by extensive brushfields and by thickets scattered in forest stands (Grinnell and Miller 1944, McCaskie et al. 1979, Garrett and Dunn 1981).

#### SPECIFIC HABITAT REQUIREMENTS

**Feeding:** Feeds on seeds, berries, other small fruits, buds, insects, spiders, millipedes, other small invertebrates. Seeds are the most important foods, but invertebrates make up almost half the diet in breeding season (Martin et al. 1961). Usually forages beneath dense brush by scratching vigorously in litter and duff; rarely flycatches. Both summer and winter residents require ample leaf litter for foraging.

**Cover:** Dense chaparral and dense, brushy under-stories of a variety of wooded habitats provide cover in summer. Dense chaparral and other shrub habitats used in winter, as well as dense undergrowth of lower elevation forests. Riparian thickets used more frequently in summer than in winter.

**Reproduction:** Nest is a bulky, deep cup of twigs, bark shreds, grass and forb stems, wood chips, mosses; lined with fine rootlets, fur, feathers (Harrison 1978). Nest usually located on ground; also in low, dense foliage of a shrub or riparian thicket; rarely in a tree; usually 1 m (3 ft) or less above ground (Bent 1968).

**Water:** Has been observed drinking water (Bartholomew and Cade 1963); water probably required.

**Pattern:** Breeds and winters in dense, brushy habitats or riparian thickets and forages on ground beneath shrubs.

#### SPECIES LIFE HISTORY

**Activity Patterns:** Yearlong, diurnal activity.

**Seasonal Movements/Migration:** Summer residents arrive on montane breeding grounds in April and depart mostly in August. Some move southward and westward to winter at lower

elevations, but many winter south of California. There is a substantial influx of wintering individuals from breeding grounds north of California, arriving in September and October and departing in April and May. Many migrants occur in montane habitats in fall, until forced downslope by heavy snows (Gaines 1977b).

**Home Range:** No information found. Linsdale (1928) reported a density of 6 pairs on 2.6 ha (6.5 ac) in Lassen Co. In Grant Co., Oregon, Archie and Hudson (1973) found 5 males per 40 ha (100 ac). Near Sagehen Creek, Sierra Co., Bock and Lynch (1970) reported 1.2 pairs per 40 ha (100 ac) on a brush area burned 6-8 years earlier. Savidge (1978) reported 98 pairs per 40 ha (100 ac) on an 11-yr-old brush plot, which had been cleared of trees. On a matched plot sprayed with herbicide, which killed most of the ceanothus, 40 pairs per 40 ha (100 ac) were present.

**Territory:** Apparently strongly territorial in breeding season, but no data found on territory size.

**Reproduction:** Breeding season mid-May into early August, with a peak in June. Clutch size usually is 3 or 4 eggs, occasionally 2 or 5; may raise 2 broods per yr. Incubation apparently 12-14 days. Altricial young tended by both parents; leave nest at about 9-11 days (Harrison 1978, Ehrlich et al. 1988).

**Niche:** Apparently parasitized frequently where brown-headed cowbird is abundant in Sierra Nevada (Airola 1986).

## REFERENCES

- Airola, D. A. 1986. Brown-headed cowbird parasitism and habitat disturbance in the Sierra Nevada. *J. Wildl. Manag.* 50:571-575.
- Archie, M. A., and R. A. Hudson. 1973. Scattered mixed coniferous forest in subalpine meadows and spruce bogs. Pages 1002-1003 in W. T. Van Velzen, ed. Thirty-seventh breeding bird census. *Am. Birds* 27:955-1019.
- Bartholomew, G. A., and T. J. Cade. 1963. The water economy of land birds. *Auk* 80:504-539.
- 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.
- Bock, C. E., and J. F. Lynch. 1970. Breeding bird populations of burned and unburned conifer forests in the Sierra Nevada. *Condor* 72:182-189.
- Ehrlich, P. R., D. S. Dobkin, and D. Wheye. 1988. *The birder's handbook*. Simon and Schuster, New York. 785pp.
- Gaines, D. 1977b. *Birds of the Yosemite Sierra*. California Syllabus, Oakland. 153pp.
- 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.
- Linsdale, J. M. 1928. The species and subspecies of the fringillid Genus *Passerella* (Swainson). *Condor* 30:349-351.
- 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.
- 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.
- Savidge, J. A. 1978. Wildlife in an herbicide-treated Jeffrey pine plantation in eastern California. *J. For.* 76:476-478.

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.