

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

BELL'S SPARROW

Artemisiospiza belli

Family: EMBERIZIDAE
B497

Order: PASSERIFORMES

Class: AVES

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DISTRIBUTION, ABUNDANCE, AND SEASONALITY

A common to uncommon resident and summer visitor. In summer, uncommon to common east of Cascade Range and Sierra Nevada, in foothills bounding Central Valley, and in Transverse, Peninsular, and coastal ranges from Trinity Co. south to Mexican border. Not migratory in many areas, but mostly withdraws from higher elevations and northern Great Basin in winter and moves to southern deserts. Frequents low, fairly dense stands of shrubs. In transmontane California, occupies sagebrush, alkali desert scrub, desert scrub, and similar habitats. In cismontane California, frequents chaparral dominated by chamise, and coastal scrub dominated by sage. Most common from western edge of Owens Valley, Inyo Co., south through southern Sierra Nevada and western edge of Mojave Desert to desert slopes of Transverse Ranges. On coastal slopes, mostly absent north of Sonoma Co., and uncommon and local to the south. Occurs only locally at montane elevations, mostly in southern California. The resident race, *A. b. clementeae*, on San Clemente Island, is classified as Federal Threatened (Grinnell and Miller 1944, McCaskie et al. 1979, Garrett and Dunn 1981).

SPECIFIC HABITAT REQUIREMENTS

Feeding: Feeds mostly on insects, spiders, and seeds while breeding, and mostly on seeds in winter; also takes green foliage. Feeds mostly by gleaning from ground and low foliage of shrubs; rarely flycatches.

Cover: Seeks cover in fairly dense stands in chaparral and scrub habitats in breeding season. Depending on locality, frequents *Artemisia*, *Atriplex*, *Purshia*, *Adenostoma*. Uses more arid, open shrub habitats in winter.

Reproduction: Nest is a cup of dry twigs and herb stems; lined with shreds of bark and grass and containing an inner lining of finer bark fiber, grass, fur, hairs, wool tufts, feathers (Harrison 1978). Nest located on ground beneath a shrub; or in a shrub usually 0.15 to 0.45 m (6-18 in) above ground, but up to 1 m (39 in).

Water: Apparently drinks regularly (Bent 1968, Smyth and Coulombe 1971). Captives could not survive exclusively on seeds unless supplemented with succulent foods. When water was available, captives drank an average 49% (range 12-99%) of body weight daily. May meet a portion of water needs from invertebrate foods (Moldenhauer and Wiens 1970).

Pattern: Breeds in fairly dense chaparral and desert scrub habitats and forages on ground beneath and between shrubs. Winter habitat is similar in structure to breeding habitat, but may be more open.

SPECIES LIFE HISTORY

Activity Patterns: Yearlong, diurnal activity.

Seasonal Movements/Migration: Migratory populations east of Cascade Range and Sierra Nevada mostly arrive in April and depart by September; many apparently move to southeastern deserts to winter. A few remain to winter in Great Basin each year. Winter visitors to southeastern deserts mostly arrive in October and depart by March. Some upslope movement postbreeding occurs in Sierra Nevada, often by small flocks of young.

Home Range: No information found. In Oregon, Gashwiler (1977) recorded 24-33 pairs per 40 ha (100 ac). In Nevada, Gustafson (1975) recorded 30 males per 40 ha (100 ac). Weston and Johnston (1980) reported density varying from 27-85 individuals per 40 ha (100 ac) in sagebrush habitat in Mono Co.

Territory: In Tehama Co., territories were "about 50 yards apart" (Bent 1968).

Reproduction: Breeds from late March to mid-August with a peak in May and June. Clutch size 3-5, usually 3 or 4. Incubation 13-16 days; altricial young fledge in 9-11 days (Harrison 1978, Ehrlich et al. 1988).

Niche: In Nevada, Bond (1940) observed predation by great horned owls. Populations of sage sparrow in cismontane California known formerly as Bell's sparrow (Grinnell and Miller 1944).

Comments: Federal Threatened San Clemente Bell's sparrow, resident on San Clemente Island, endures habitat destruction by feral goats.

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