

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

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VESPER SPARROW

*Pooecetes gramineus*

Family: EMBERIZIDAE  
B494

Order: PASSERIFORMES

Class: AVES

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#### DISTRIBUTION, ABUNDANCE, AND SEASONALITY

A common summer resident east of the Cascade-Sierra Nevada crest, occurring in sparse or open stands of sagebrush, low sagebrush, and similar habitats. Breeds south to White and Inyo Mts. and at Baldwin Lake in San Bernardino Mts. Formerly bred in high mountain meadows in Sequoia National Park and vicinity (Grinnell and Miller 1944). Recently noted breeding regularly in coastal Del Norte Co. Uncommon in Central Valley and bordering foothills, and fairly common locally in southern deserts in winter. Occupies grasslands, croplands, and open brushlands in winter. Most common in winter at Colorado River and Salton Sea, but occurs very locally north to Owens Valley, Carrizo Plain, and Antelope Valley. Also occurs regularly, but uncommonly, on coastal slope (Grinnell and Miller 1944, McCaskie et al. 1979, 1988, Garrett and Dunn 1981).

#### SPECIFIC HABITAT REQUIREMENTS

**Feeding:** Annual diet about half insects and spiders, and half grass and forb seeds (Bent 1968, Ehrlich et al. 1988). Insects and spiders especially important in breeding season. Gleans from ground and herbage.

**Cover:** Uses scattered shrubs and patches of tall herbs for cover.

**Reproduction:** Builds nest on ground, often in a small depression, concealed under a shrub or at base of grasses or forbs.

**Water:** Can live on air-dried seeds without drinking (Bartholomew 1972). Ohmart and Smith (1971) observed drinking, but also recorded individuals 16-24 km (10-15 mi) away from known surface water. Captives drank 19.7% of body weight per day, but could survive on dry seeds without water.

**Pattern:** Breeds in sagebrush and other shrub habitats with sparse vegetation. Occupies grasslands and croplands in winter, often using scattered shrubs and patches of tall herbs for cover.

#### SPECIES LIFE HISTORY

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

**Seasonal Movements/Migration:** Mostly arrives on breeding grounds in April and departs by October. Wintering individuals often arrive in September and depart in March or April. Not known if California breeders also winter in the state; at least part of winter population comes from north of California. An uncommon, but regular, fall migrant in September and October on Farallon Islands (DeSante and Ainley 1980).

Home Range: No information found. Breeding density per 40 ha (100 ac) reported as: 17.5 to 33 pairs in sagebrush-grassland in Montana (Best 1972), and 5 pairs in the Missouri River Breaks (Walcheck 1970); 9-50 pairs in Michigan (Bent 1968).

Territory: In Wisconsin, Wiens (1969) recorded 5 territories averaging 0.9 ha (2.2 ac) and varying from 0.6 to 1.1 ha (1.5 to 2.7 ac).

Reproduction: Breeding season late April into mid-August, with a peak in May and June. Apparently a solitary breeder. Clutch size 3-6 eggs, usually 4 or 5. Sometimes raises 2 broods per yr. Incubation 11-13 days. Altricial young tended by both parents; leave nest at 9-13 days, still unable to fly. Young dependent on parents an additional 20-22 days (Harrison 1978).

Niche: Decline in populations in areas of former abundance in Mono Co. attributed to overgrazing, which has decreased herbage cover and increased sagebrush density (Gaines 1977b).

## REFERENCES

- Bartholomew, G. A. 1972. The water economy of seed-eating birds that survive without drinking. *Proc. Int. Ornithol. Congr.* 15:237-254.
- 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.
- Best, L. B. 1972. First-year effects of sagebrush control on two sparrows. *J. Wildl. Manage.* 36:534-544.
- Desante, D. F., and D. G. Ainley. 1980. The avifauna of the South Farallon Islands, California. *Studies in Avian Biol. No. 4.* Cooper Ornithol. Soc., Lawrence, KA. 104pp.
- 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.
- 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.
- McCaskie, G., P. De Benedictis, R. Erickson, and J. Morlan. 1988. *Birds of northern California, an annotated field list.* 2nd ed. Golden Gate Audubon Soc., Berkeley. Reprinted with suppl. 108pp.
- Ohmart, R. D., and E. L. Smith. 1971. Water deprivation and use of sodium chloride solutions by vesper sparrows (*Pooecetes gramineus*). *Condor* 73:364-366.
- Walcheck, K. C. 1970. Nesting bird ecology of four plant communities in the Missouri River Breaks, Montana. *Wilson Bull.* 82:370-382.
- Wiens, J. A. 1969. An approach to the study of ecological relationships among grassland birds. *Ornithol. Monogr. No. 8.* 93pp.