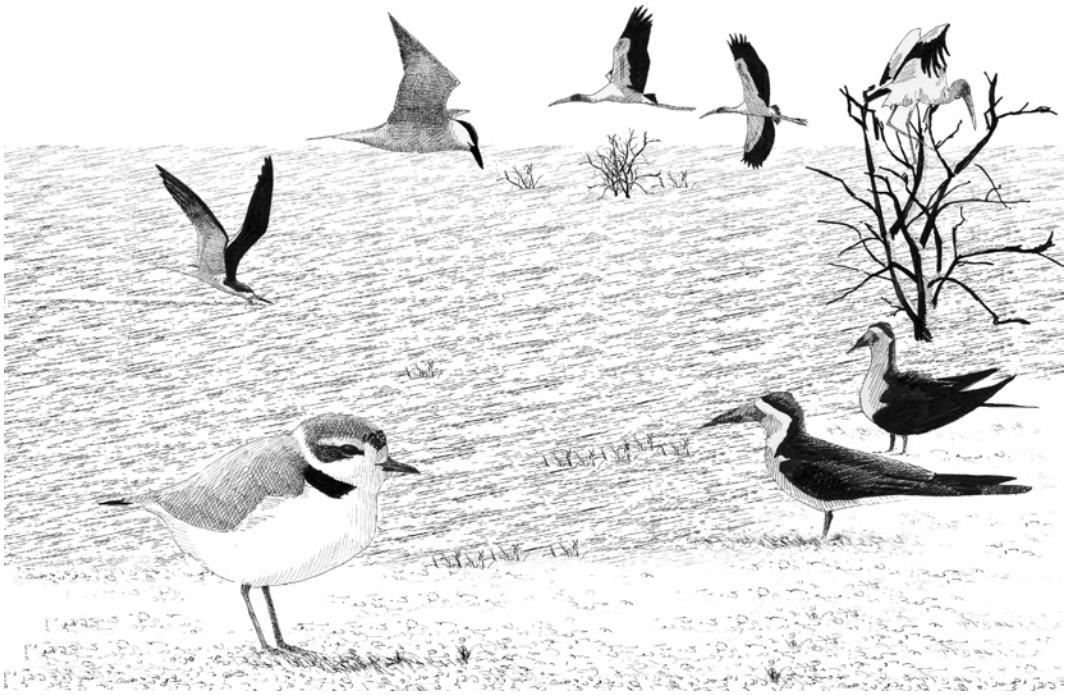
# II

# Species Accounts



*Andy Birch*

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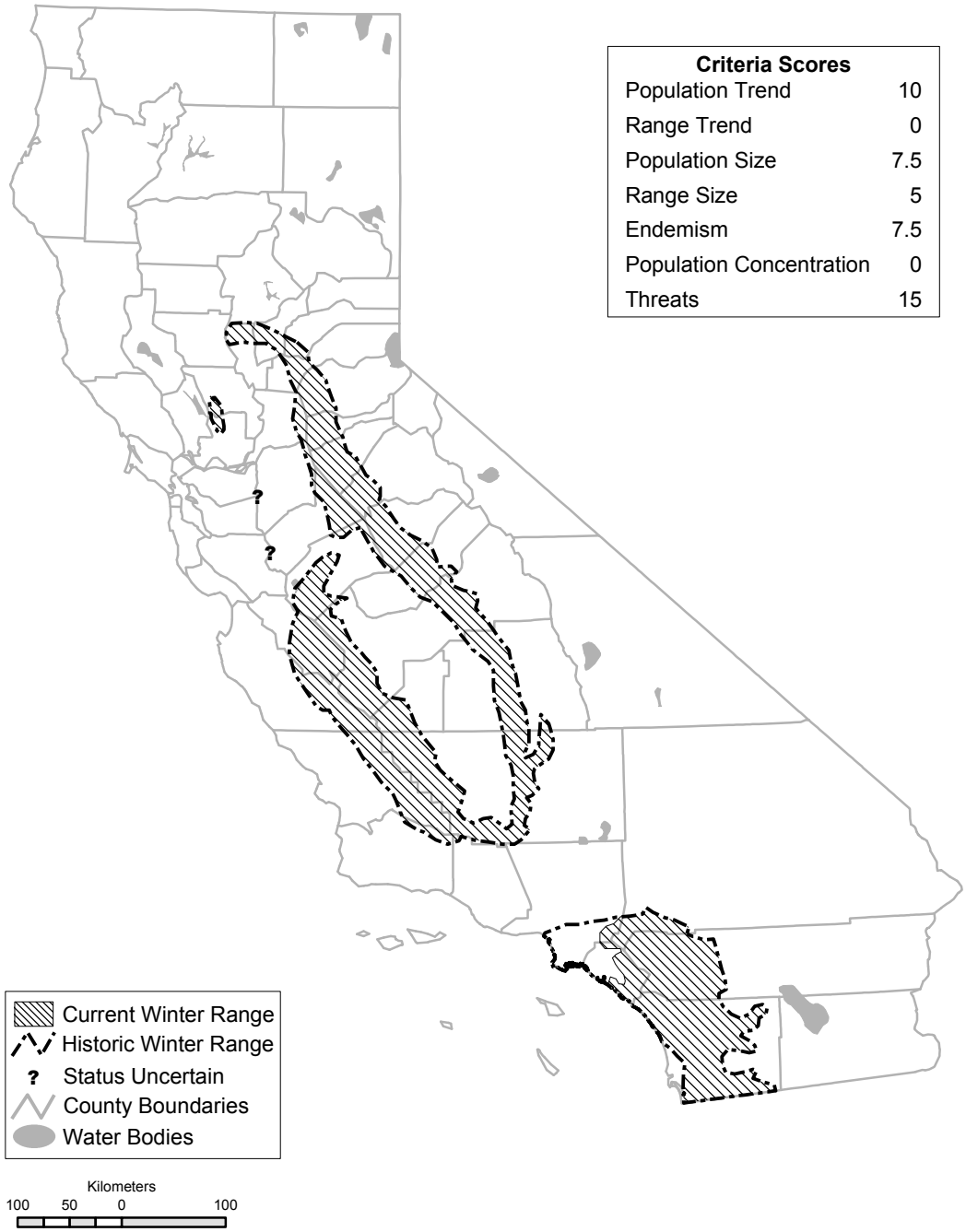
# OREGON VESPER SPARROW (*Pooecetes gramineus affinis*)

Richard A. Erickson




Current and historic (ca. 1944) winter range of the Oregon Vesper Sparrow in California; patterns are obscured by the co-occurrence of wintering *P. g. confinis*. Overall range mainly intact, except for retraction in parts of the southern coast, but wintering numbers appear to have declined moderately. Birds are occasionally found in winter throughout most of the Pacific slope of California, particularly in areas closest to the mapped range. A small nesting population in northern Del Norte County is likely dependent for its persistence on the health of the population and its habitat in adjacent Oregon.

### Special Concern Priority

Currently considered a Bird Species of Special Concern (wintering), priority 2. Not included on previous lists (Remsen 1978, CDFG 1992).

### Breeding Bird Survey Statistics for California

Not applicable.

### General Range and Abundance

The Vesper Sparrow (*Pooecetes gramineus*) breeds from central British Columbia across southern Canada to Nova Scotia and south to northern and eastern California and across the southern and central United States to Tennessee and North Carolina; it winters from central California across the central United States to Pennsylvania and Connecticut and south to Baja California Sur, southern Mexico, and central Florida (AOU 1998, Jones and Cornely 2002).

The Oregon Vesper Sparrow (*P. g. affinis*), one of four subspecies recognized, is restricted almost entirely to California in winter, but its winter range overlaps broadly with that of the Great Basin Vesper Sparrow (*P. g. confinis*) and thus is not well known. *Affinis* is generally found in the lower valleys and plains west of the mountains from central California south to northwestern Baja California (Grinnell 1928, AOU 1957, King 1968). Highest densities apparently occur in central and southwestern (at least formerly) California (Willett 1933, Grinnell and Miller 1944). In general, *P. g. affinis* breeds in the lower valleys and plains west of the Cascade Range in western Washington, western Oregon, and extreme northwestern California (AOU 1957, 1998; King 1968).

### Seasonal Status in California

Occurs on the breeding grounds from early April to September (Erickson et al. 1997) and on the wintering grounds from September to April (Willett 1933).

### Historic Range and Abundance in California

Grinnell and Miller (1944) described the winter range of the Oregon Vesper Sparrow in the state as the lowlands west of the Sierra Nevada from the San Francisco Bay area through the San Joaquin Valley to coastal southern California, with definite records from Fulton, Sonoma County; Oakland, Alameda County (possibly migrants); La Grange, Stanislaus County; Pasadena, Los Angeles County; and El Cajon, San Diego County. Records of Vesper Sparrows they considered probably representing this subspecies were from Gridley, Butte County, and 30 mi east of Stockton, San Joaquin County. Abundance was "rated variously as 'rare,' 'fairly common,' or even 'common,' but total numbers evidently small, especially to northward in winter" (Grinnell and Miller 1944). The subspecies was considered "common" in southwestern California in the late 19th and early 20th centuries (Grinnell 1898, Willett 1933).

The status of *affinis* is confounded by overlap with *confinis*, which was said to winter in the deserts and in coastal areas north to Santa Barbara County and "more sparingly in San Joaquin Valley and coastal valleys north at least to Fresno district and San Benito County" (Grinnell and Miller 1944). Unchecked data from 251 specimens identified to subspecies (housed at six museums listed in the acknowledgments), collected in cismontane California and northwestern Baja California primarily early in the 20th century, were tallied to better understand the winter ranges of these two subspecies. The birds involved were assumed to be on their wintering grounds, but some migrants may be included, and the subspecific identification of all specimens is not guaranteed. Oregon Vesper Sparrow specimen localities range from Sonoma and Amador counties southward; Great Basin Vesper Sparrow specimen localities range from Solano and Stanislaus counties southward. Oregon Vesper Sparrows account for 14 of 18 specimens taken north of Kern County but only 1 of 6 within Kern County. South of the Tehachapi Mountains, Oregon Vesper Sparrows account for 45 (21%) of 214 California specimens (30% of Vesper Sparrows in Los Angeles County, 11% in Riverside County, and 9% in San Diego County). Four of 13 Baja California specimens were identified as *affinis*. Based on this review, the Oregon Vesper Sparrow may have been the predominate subspecies north of Kern County, with the reverse true to the south.

Though the breeding season population is not treated in this account, *affinis* was not known to breed in California until 1976 (McCaskie et al. 1979).

### Recent Range and Abundance in California

Very little has been written specifically about the winter status of this subspecies in California since

1944. Although the general outline of its winter range may be unchanged (see map), the number of birds wintering in California must be greatly reduced on the basis of an estimated 99% loss of grassland in California (Vickery et al. 1999). Areas of grassland loss include the Los Angeles basin, where the subspecies was once considered common. In the latter half of the 20th century, the Vesper Sparrow (subspecies not specified) was generally considered "rare" to "uncommon" on the wintering grounds in California (e.g., Pyle and Small 1961, McCaskie and De Benedictis 1966, McCaskie et al. 1979, Garrett and Dunn 1981). Occasional birds are found in winter throughout the lowlands of western California (especially in the foothills surrounding the Sacramento Valley), but regular wintering areas extend from the Sutter Buttes, Sutter County (Manolis and Webb 1977), southward, primarily through the low foothills surrounding (especially east of) the San Joaquin Valley (Leeman and Edson 2002) to the foothills and valleys of southwestern California. There are no recent records from Baja California; on the basis of their experience in the region, Patten et al. (2003) suggested that the winter range may have retracted northward.

Leeman and Edson (2002) summarized 15 years of data from 15 Christmas Bird Counts in and adjacent to the Central Valley and found high counts in excess of 32 Vesper Sparrows at only three locations: Folsom (to 115), Lost Lake-Fresno (to 80), and the Carrizo Plain (to 59). They also reported an exceptional concentration of 600+ birds in Yokohl Valley, Tulare County, 2 January 1997. Over 200 were reported at Sutter Buttes 22 February 1975 (unpubl. data, MPCR files). Additional quantitative information was provided for southeastern Monterey County (flocks of up to 20–40; Roberson 2002), the Cuyama Valley, Santa Barbara County (max. count of 30, typical counts of 5–10; Lehman 1994), and Orange County (<10 total now seen in county each winter; Hamilton and Willick 1996). Of the 477 blocks of the San Diego County bird atlas, 47 had maximum daily counts of 1–5 Vesper Sparrows, 44 had 6–20, and 9 had 21–79 (Unitt 2004). The species' distribution correlated with the larger grasslands, with San Felipe Valley the only site with >50 individuals in a day (P. Unitt in litt.). Other important areas for the species were Camp Pendleton, the Lake Henshaw region, the Ramona grasslands, Rancho Jamul, Proctor Valley, and Marron Valley.

Populations of the Oregon Vesper Sparrow appear to be declining on the breeding grounds (Peterjohn and Sauer 1999, Altman 2003, Wahl et al. 2005). In California, no meaningful change in range or status has been noted since the subspecies was first found in the mid-1970s in coastal Del Norte County, where the known breeding range is limited to the coastal dune system from Pt. Saint George to the Smith River mouth (G. S. Lester pers. comm.). Rough estimates of the size of this population have ranged variously from about 10 to 15–25 pairs (Harris 2005, A. D. Barron pers. comm., G. S. Lester pers. comm.).

## Ecological Requirements

The Vesper Sparrow is an obligate grassland species (Vickery et al. 1999) that feeds on both invertebrates and seeds procured on the ground and in vegetation (Zeiner et at. 1990, Jones and Cornely 2002). Grinnell and Miller (1944) characterized the habitat of Oregon Vesper Sparrows wintering in California as mainly open ground with little vegetation or grown to short grass and low annuals, including stubble fields, meadows, and road edges. Grinnell (1898) and Willett (1933) found this subspecies wintering in the company of the Great Basin Vesper Sparrow, but the former was more numerous on "damp meadows of the lowlands," whereas the latter was more typical of "stubble fields, washes, and especially dry mesas." Vesper Sparrows in the Cuyama Valley winter in semidesert scrub as well as grasslands, weedy agricultural fields, and alfalfa (Lehman 1994). Garrett and Dunn (1981) reported that wintering Vesper Sparrows often occur in areas with sandy substrates.

## Threats

The main threat on the wintering grounds is the development of relatively open, flat ground at low elevations (e.g., the development of the Los Angeles basin and San Fernando Valley). Agricultural pressures, perhaps especially a proliferation of vineyards, may be the greatest threat north of the Tehachapi Mountains, whereas residential and commercial pressures are probably the greatest to the south. Problems associated with fragmentation of Vesper Sparrow habitat on the breeding grounds (Vickery et al. 1994, Bock et al. 1999) also apply on the wintering grounds (Unitt 2004). It is unknown whether overgrazing poses a problem on the winter grounds, as Gaines (1992) concluded it did on the breeding grounds of the Great Basin Vesper Sparrow in Mono County.

Because it is unknown whether this sparrow is limited on the wintering or breeding grounds,

threats during breeding should also be considered. Conditions north of the California border, in the heart of its breeding range, may be most important for the long-term well-being of the subspecies. There, destruction of grasslands was assumed responsible for population declines (DeSante and George 1994); in these areas relatively open, flat ground at low elevations is highly desirable for various forms of development. Altman (2003) listed these but also trampling of nests by livestock, changes in agricultural practices (early and more frequent mowing, elimination of weedy edges and hedgerows), pesticides and contaminants, and increased predation by mammals associated with human habitation as factors that may have contributed to declines in Oregon.

## Management and Research Recommendations

- Preserve grassland areas known to support high numbers of Vesper Sparrows, using purchase, easements, and incentives as necessary or possible.
- Conduct a review of existing museum material—augmented by new material if necessary—to better define the winter range of the subspecies.
- Compare occupied and unoccupied sites to better understand what habitat characteristics (including patch size) are most important for this subspecies, and implement management plans accordingly where prudent.
- Conduct reconnaissance surveys to identify the most important wintering sites.

## Monitoring Needs

Once important wintering sites have been identified, those areas should be surveyed annually for at least three years and then as often as possible in subsequent years. Winter-season surveys for passerines are challenging, and this is especially true for birds with habits that make detection difficult and for which identification (in this case to subspecies) is an issue. It will be necessary to develop standardized winter-season grassland bird surveys that combine large-scale general counts (e.g., line transects, areas searches) with methods that can aid in identification to the subspecies level (e.g., trap lines and banding) at a subset of sites. The latter may provide data that can be used to "correct" general surveys.

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