

Grasshopper Sparrow *Ammodramus savannarum*

The Grasshopper Sparrow is San Diego County's bird most restricted to native grassland—one of southern California's most threatened habitats. The habitat, dominated by bunchgrasses of the genus

Nassella, was once widespread in the inland valleys. Now it has been much diminished and degraded by overgrazing, groundwater pumping, invasion of exotic plants, conversion to agriculture, and urban

sprawl. As a result, the Grasshopper Sparrow is localized and generally uncommon; it has been designated a species of special concern by the California Department of Fish and Game. Yet at a few sites it persists in numbers even where the native grass has been replaced totally by nonnative species. Because the species is so difficult to find and identify except when singing (mainly March–July), its seasonal status is still not clear. Nevertheless, atlas observers generated enough winter records to demonstrate that in San Diego County the Grasshopper Sparrow is at most a partial migrant.

Breeding distribution: The Grasshopper Sparrow's range in San Diego County is now reduced to five main blocks and a few other scattered colonies. Camp Pendleton supports the largest area of contiguous habitat and probably the largest population, with single-day counts of up to 20 around Case Spring (B4) 30 June 1998 (P. A. Ginsburg) and 18 in Piedra de Lumbre Canyon north of Pulgas Lake (D4) 29 May 1999 (P. Unitt, B. O'Leary, J. Asmus). Both the abundance of clay soil and frequent fires favor native grassland on the base. In central coastal San Diego County the original broad distribution of grassland is much fragmented, and most of what remains is threatened by urbanization. The sites of the largest counts in this region are from the only two large areas not subject to urban sprawl: Los Peñasquitos Canyon Preserve (N8; up to 20 on 3 June 2001, B. Siegel) and Marine Corps Air Station Miramar/Mission Trails Regional Park (up to 12 in West Sycamore Canyon, O12, 24 March 1999, P. Unitt). In the southern part of the county Grasshopper Sparrow habitat is now narrowly wedged between the cities of San Diego and Chula Vista and the higher chaparral-covered mountains, McGinty and Otoy. Even though the site is former agricultural land, much of which is

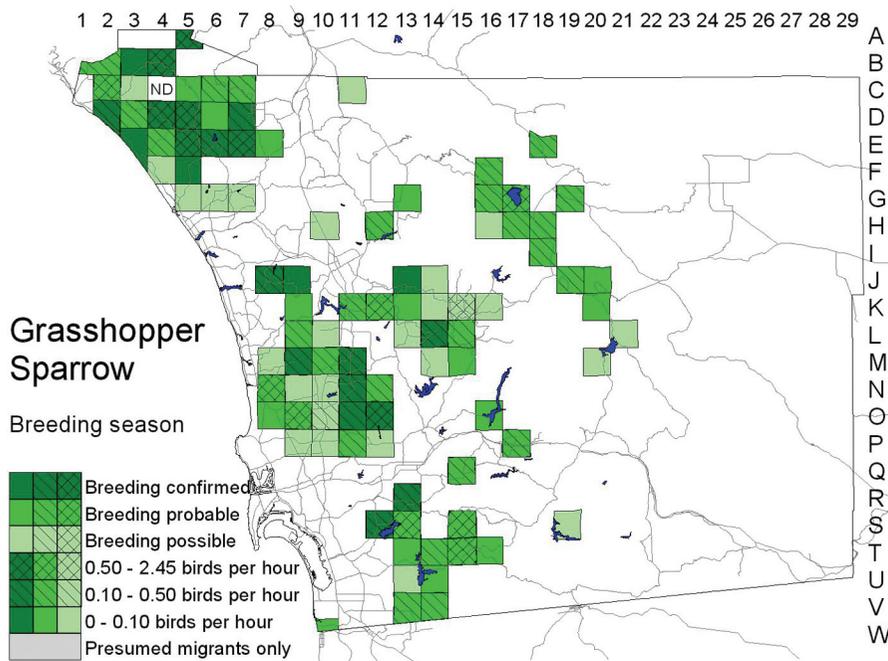


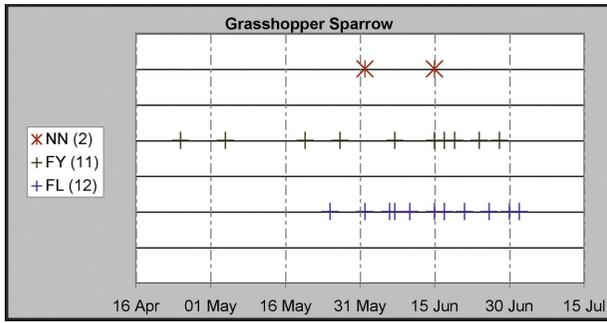
Photo by Anthony Mercieca

now vegetated with exotic grasses only, Rancho Jamul, now acquired by the California Department of Fish and Game, appears to host the key population in this region (S15/T15; up to 47 on 22 April 2001, M. and B. McIntosh, V. Marquez). The Ramona grasslands are also important to the Grasshopper Sparrow, though poor access impeded our quantifying this. The site of our largest count in this region, northeast of Ramona (K15; 23 on 25 May 1998, M. and B. McIntosh), had houses built on it the following year.

In the mountains, from Dyche and Love valleys (F16) southeast of Palomar Mountain to Lake Cuyamaca (M20), Grasshopper Sparrow habitat is discontinuous and the birds appear less numerous and more irregular than at lower elevations. The highest counts were of 16 at Wynola (J19) 2 July 1999 (S. E. Smith) and nine at Lake Henshaw (G17) 12 May 2001 (R. and S. L. Breisch). Of the more isolated colonies, by far the most important is that around Willow Spring (A5), with counts of up to 20 on 25 May and 10 June 1999 (K. J. Winter).

The Grasshopper Sparrow's grassland habitat usually has some shrubs typical of coastal sage scrub, and some of its sites are shrubby enough to have been mapped as scrub rather than as grassland. Wet winters that stimulate the spread of grass stimulate the Grasshopper Sparrow to move into marginal habitat. Its sensitivity to rainfall variation is dramatized by figures from West Sycamore Canyon in Miramar, monitored annually 1997–2002. The same area that had up to 12 territorial males in 1998 and 1999 had no more than two during the drought of 2002 (P. Unitt). After the wet winter of 1983–84, Roger Higson reported up to 30 in summer 1984 at Lake Henshaw and one at the Palomar Observatory (D15) 5 May 1984 (AB 38:1063, 1984). An atypical site for the Grasshopper Sparrow





is Border Field State Park (W10), where on 23 May 2000 three birds had established territories in former salt marsh still dominated by pickleweed, now degraded by silt washed in from Tijuana (W. E. Haas). Dawson (1923) mentioned a nest near Escondido in an alkaline meadow covered with saltgrass, but no significant stands of such habitat remain inland.

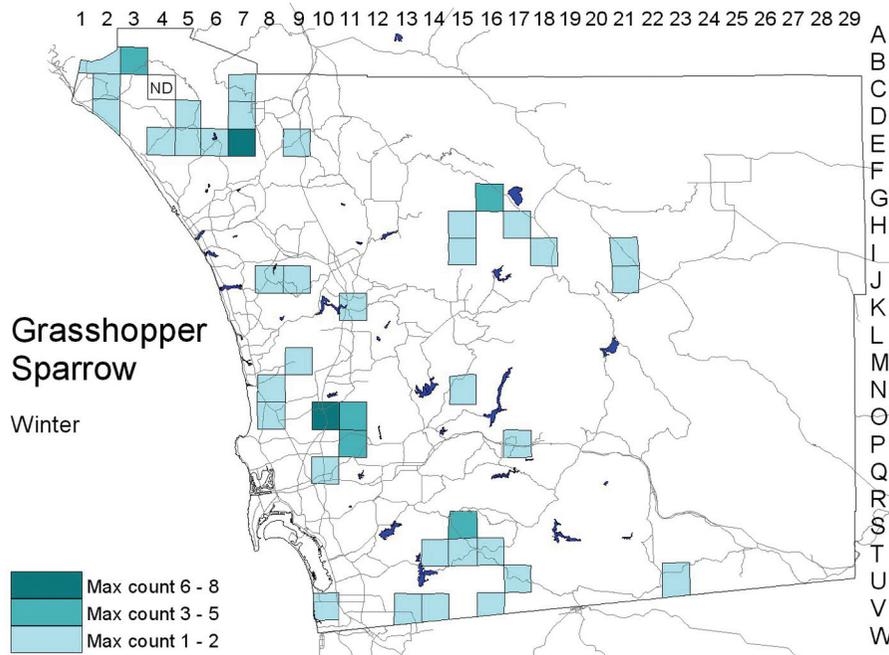
Nesting: Hidden on the ground under clumps of grass, screened from above by a dome, Grasshopper Sparrow nests are notoriously hard to find. Only three were reported during the atlas period. The dates of breeding behavior we observed imply egg laying from the second week of April to the last week of May.

Migration: Records of winter visitors south to Cabo San Lucas demonstrate that the Grasshopper Sparrow is migratory, but in San Diego County the species is very rarely seen away from its breeding habitat. There are no records of such migrants in spring. The three records from Point Loma (S7) coincide in late fall: 25 October–1 November 1984 (R. E. Webster, AB 39:104, 1985), 30–31 October 1986 (R. E. Webster, AB 41:146, 1987), 22 October 1989 (M. A. Patten, AB 44:165, 1990).

Winter: Our field work for this atlas generated 55 winter records of the Grasshopper Sparrow, far more than expected and far more than reported previously. Excluding eight records from the last week of February, when the birds may begin singing, still leaves 47. By the end of the project it became clear that the species could be found consistently in its summer habitat, at least at low elevations, with persistent searching. Winter counts, excluding those in late February, ranged up to six, near Pilgrim Creek, Camp Pendleton (E7), 4 December 1998 (P. A. Ginsburg). Even the birds at higher elevations may be resident, with three as high as 3430 feet in Love Valley (G16) 22 January 2001 (W. E. Haas). The most notable winter records were from San Felipe Valley (I21, one on 8 February 2000; J21, two on 14 December 1999, P. K. Nelson), in grassland but on the desert slope where the species is not known in summer. Two at Campo (U23) 14 January 2001 (D. S. and A. W. Hester) were also in suitable habitat but at a site where no breeding birds were found.

Conservation: Dependent on a threatened habitat, the Grasshopper Sparrow’s outlook in San Diego County is dim. Most habitat is privately owned and subject to intense pressure for development. Conservation of all grasslands under multiple-species conservation plans is relatively poor (around 31% under the plan for the north county), and little native grassland remains in the areas covered by these plans. As a result, the Grasshopper Sparrow was excluded from the list of species “covered” by San Diego’s plan.

Conservation of the Grasshopper Sparrow will require action on multiple fronts. Maintaining grassland’s value as habitat may require control of invasive weeds and enhancement, possibly through burning, to give native species an advantage over exotics. In Warner Valley, San Diego County’s largest grassland, where the birds are now confined to patches around seeps, recovery will require that grazing and groundwater pumping be reduced. The largest tracts of Grasshopper Sparrow habitat currently lie on military bases and water-district lands set aside for purposes other than wildlife conservation. It is far from certain that existing parks and reserves, mainly Los Peñasquitos, Mission Trails, and Rancho Jamul, covering only a small fraction of the Grasshopper Sparrow’s habitat, will suffice to ensure the species’ survival in San Diego County.



Taxonomy: Only the western subspecies *A. s. perpallidus* has been collected in California. It is paler and drabber than the other Grasshopper Sparrows of North America.