SPECIES SPOTLIGHT: **Grasshopper Sparrow (*Ammodramus savannarum*)**

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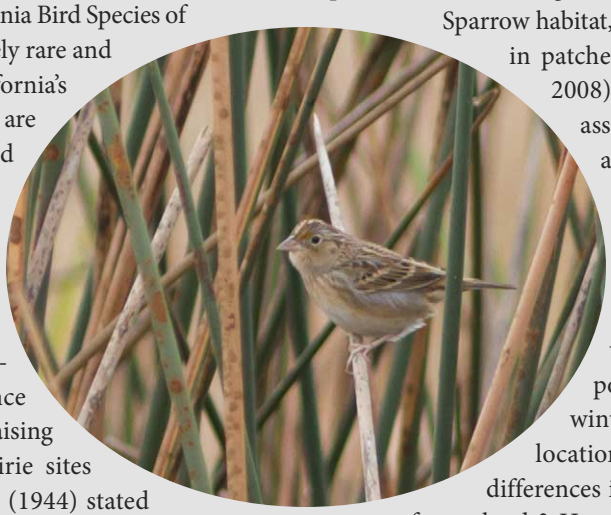
A faint "tsip" or an insect-like high pitch buzzy trill is usually the only evidence that the diminutive Grasshopper Sparrow is present in its grassland habitat. If you happen to flush one, you will see a small "football-shaped" ball of feathers flying directly in front of you for a few dozen feet, and then as it drops into the grass, it will turn 180 degrees to get a look at the intruder before disappearing on the ground. After landing, it will scamper off like a vole. Males will sometimes sing on perches on the tallest forbs or even on fence posts or barbed wires to afford the best looks of this secretive sparrow. Grasshopper Sparrow diet consists primarily of grasshoppers and seeds, and they consume other insects to a lesser degree (Vickery 1996).



The Grasshopper Sparrow is a "California Bird Species of Special Concern" because it is relatively rare and patchily distributed throughout California's dwindling grasslands. Although they are primarily summer residents and breeders, a few individuals are occasionally detected in the winter in the valley. Their true winter status is unclear due to the difficulty in detecting non-singing birds. They arrive on territory as early as mid-March, and circumstantial evidence exists that they leave the valley after raising a brood, to re-nest on coastal prairie sites (Shuford 1993). Grinnell and Miller (1944) stated that Grasshopper Sparrows were "sparse and irregularly distributed. They listed only four locations for the Central Valley, from Sacramento to Tulare County. We now know that they are found in many more areas. However, due to lack of systematic surveys and lack of access to much of the species' potential habitat on private rangelands, its true breeding and wintering status and distribution throughout the Central Valley and surrounding foothills are unclear.

In the Central Valley, Grasshopper Sparrows are most often found in clusters of breeding territories, which results in a clumped distribution leaving much seemingly available habitat unoccupied. However, because of the vast areas of inaccessible potential habitat, the primary areas for this species are difficult to clarify, especially with a dearth of surveys. Gently rolling hills on the west side of the Central Valley probably have the highest number of breeding records, but valley floor locations such as the southern Yolo Bypass also have important breeding populations. In the Central Valley, Grasshopper Sparrows are found in a variety of grassland habitats, including wild rye, irrigated pasture, annual grasslands with scattered forbs, and native bunchgrasses. Occasionally, migrants are also found in alfalfa fields and annual grasslands dominated by star thistle. Although they most often occupy hillsides in rolling foothills, Grasshopper Sparrows also occur in flat terrain on the valley floor. Winter habitat may differ from breeding habitat, but there are too few records of wintering birds in the Central Valley to adequately compare these differences. Grasshopper Sparrows are predominately found in large expanses of grasslands, but may also be found in relatively small, irrigated pastures (~40 acres) within riparian and oak woodland mosaics (Sterling pers. obs.). However, a study from Contra Costa and Alameda counties, just outside of the Central Valley, found that patch size was not a significant variable in modeling Grasshopper Sparrow habitat, but that sparrows were only detected in patches greater than 343 acres (Roa et al. 2008). This study also found a negative association with landscape heterogeneity at the 2-km scale.

There is still much to be learned about Grasshopper Sparrows in the Central Valley and adjacent foothills aside from the task of determining their current distribution and population size. How many stay for the winter, and do they move to different locations and/or habitats? Are there differences in breeding success in different types of grasslands? How do different grazing regimes affect breeding success and habitat quality? What is their overall population trend? What is their meta-population dynamic (do colonies come and go)? Until we come to fill these information gaps, we will have very little understanding of this rare, quintessential grassland specialist.

References

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Above: Grasshopper Sparrow (*Ammodramus savannarum*). *Photo: John Sterling*

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