FLORIDA GRASSHOPPER SPARROW
Ammodramus savannarum floridanus

Order: Passeriformes
Family: Passerellidae
FNAI Ranks: G5T1/S1
U.S. Status: Endangered
FL Status: Endangered

Description: This small sparrow has a flat head and short tail, a pale stripe down the center of the head, shoulders and back that are streaked with brown and black, and a buffy breast. Juveniles have a distinctive streaked breast.

Similar Species: In winter, Henslow's (*Ammodramus henslowii*) and Le Conte's (*A. leconteii*) sparrows may be confused with grasshopper sparrows. Adult Henslow's and LeConte's have streaked breasts and sides in contrast to the buffy breasts of adult grasshopper sparrows. Also, grasshopper sparrows prefer drier areas in winter compared to the other two. Bachman's sparrows (*Peucea aestivalis*) also prefer drier areas but are larger, grayish in appearance in flight, and have a longer tail.

Habitat: Requires large, frequently burned dry prairie habitat containing bare, open patches that provide better access to seeds and insects. May persist in semi-natural pasture lands that retain open ground-level conditions and short-statured vegetation.

Seasonal Occurrence: Non-migratory and year-round resident in Florida. May move over large areas based on habitat suitability and presence of other conspecifics. Arrival of migratory subspecies in winter can complicate identification during fall and winter.

Florida Distribution: These resident Florida birds are geographically isolated from conspecific populations by over 400 km. Currently restricted to a very limited area of prairie and pasture region in southern Polk, southern Osceola, northern Highlands, and western Okeechobee counties. Florida grasshopper sparrows have not been observed at previously known sites in Glades and De Soto counties since the early 1990s and 1997, respectively. The sparrow's range appears to have been reduced substantially even though its historical range is vague.

Range-wide Distribution: Same as for Florida distribution.

Conservation Status: Populations are monitored using counts of singing, territorial males, which are presumed to represent a breeding pair. Since late 1990s/2000 the estimated number of Florida grasshopper sparrows has declined from ca. 670 individuals to fewer than 80 individuals in 2018. Reasons for the declines are unknown. Populations are restricted to four properties, one federally-owned and three state (one formerly private property [The Ranch] was donated to University of Florida in 2020 and is now DeLuca Preserve).Avon Park Air Force Range experienced a precipitous decline beginning in 1999 that fell to 6 sparrows from 2003 to 2018. Kissimmee Prairie Preserve State Park experienced more gradual declines that fell from about 175 birds in 2008 to fewer than a dozen individuals and one pair in 2018. Three Lakes Wildlife Management Area's population appeared stable until it too began falling in 2008. The roughly 280 birds counted on this site in 2008 has fallen to less than 50 birds as of 2018. Population estimates for DeLuca Preserve also show decreases, from 44 adults in 2015 to 20 in 2018. A captive breeding program was initiated in 2015 and began releasing captive-reared birds into the Three Lakes WMA population in 2019 and the Avon Park AFR population in 2021. Total population numbers were up in 2023 with a total of 175 – 181 adults although skewed heavily male (124-125 male; 52-58 female) and 103 fledglings.

Protection and Management: The factors leading to these declines are unclear. The Florida Grasshopper Sparrow Working Group was organized in 2002 to coordinate monitoring and land management objectives among the sites that support the sparrow. The group consists of federal and state employees, private organizations, and academicians that want to recover the species from its dire circumstances. Predation, flooding, and disease, as well as land management strategies, are among the issues being addressed. Fecal samples and whole blood samples have been collected to assess possible disease vectors. Captive breeding began in 2015 followed by releases of captive-reared birds in 2019. Two of the populations have been bolstered by the introductions and may help sustain the species while concrete habitat management solutions are developed. This ground-nesting sparrow experiences high nest failure from predators (mostly spotted skunks, snakes, raccoons); nests are also prone to flooding later in the season. Fire ants have also been implicated in the declines on Kissimmee Prairie Preserve State Park. High fire frequency (1-2 years) in the dry prairie habitat is required for this subspecies, but the role of season of fire is less clear. Growing-season fires may in fact push most nesting attempts into the rainy season when flooding of nests is a concern. Current burn recommendations focus on applying Feb-Mar burns in areas containing territorial males the previous season and reserving

growing season fires (Apr-Sep) for restoration of areas that formerly supported sparrows. The timing avoids the destruction of active nests and young fledglings as well as re-nesting attempts.Quickly constructed fencing around nests deters predators and has improved nesting success, as has treating fire ant mounds in the vicinity of nests. Flood-prone nests benefit from recently developed "nest lifting" protocols that lift nests above rising water levels. Ground beneath the nest is cut; the intact vegetation and nest are then lifted while sod or rock is inserted below the elevated clump.The overarching threat to this species has been conversion (and drainage) of native dry prairie to improved pastures and loss of prairies to more intensive uses. On a positive note, the Florida Forever acquisition Corrigan Ranch, ca 4,386 acres, much of which is dry prairie, was added to Kissimmee Prairie Preserve State Park in December of 2021. Continued acquisition, management, and restoration of prairie habitat will be needed once the more immediate issues of population security are addressed. Developing incentives for private ranch lands to maintain and restore pastures in an "unimproved" state would help. Fine tuning burn regimes so they are capable of maintaining stable populations and lowering the threats posed by predators is another priority. Support for at least a decade of work on captive breeding and other stop-gap measures also will be needed to work through many complicated issues that include both the maintenance of captive populations and fine tuning the best procedures for returning captive-bred individuals back to the wild.

References: Cox and Korosy 2014, Cox 2015, Delany and Linda 1994, Delany 1996, Florida Fish and Wildlife Conservation Commission 2017, Greenlaw et al. 2014, Hewett Ragheb 2018, Hewett Ragheb et al. 2019, Peterson 2024, Larned et al. 2023, Sah et al. 2022, Schrott 2013, Schneider 2024, Stevenson and Anderson 1994, Vickery 1996.

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