

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for the Florida Grasshopper Sparrow

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: The Florida grasshopper sparrow (*Ammodramus savannarum floridanus*), a bird endemic to the prairie region of south-central Florida, is determined by the Service to be an endangered species pursuant to the Endangered Species Act of 1973 (Act), as amended; no critical habitat is designated. In the early 1900's the populations of this bird were reportedly large and widespread in central Florida. However, surveys conducted between 1980 and 1984 indicate a present population of only about 250 adult birds. The principal reason for this decline is habitat loss or degradation resulting from conversion of native vegetation to improve pasture. This rule implements the Federal protection and recovery provisions afforded by the Act for the Florida grasshopper sparrow.

EFFECTIVE DATE: September 2, 1986.

ADDRESSES: The complete file for this rule is available for inspection, by appointment, during normal business hours at the Endangered Species Field Office, U.S. Fish and Wildlife Service, 2747 Art Museum Drive, Jacksonville, Florida 32207.

FOR FURTHER INFORMATION CONTACT: Mr. David J. Wesley, Endangered Species Field Supervisor at the above address (904/791-2580 or FTS 946-2580).

SUPPLEMENTARY INFORMATION:**Background**

The following information is abstracted primarily from a report by Delany and Cox (1985) prepared for the U.S. Fish and Wildlife Service.

The grasshopper sparrow (*Ammodramus savannarum*) occurs throughout most of temperate North America. The Florida subspecies (*A. s. floridanus*) is geographically isolated from its nearest conspecific, the eastern race (*A. s. pratensis*), by at least 500 kilometers (300 miles) and is limited in distribution to the prairie region of south-central Florida.

The Florida subspecies was discovered in 1901 by E.A. Mearns at a location "on the Kissimmee Prairie, 7 miles [11 km] east of Alligator Bluff,

Osceola County, Florida" (Mearns 1902). Howell (1932) set the northern limit of distribution as 13 km (8 mi) southwest of Kenansville (Osceola County), where 10 specimens were collected from a small colony in 1929. He also documented a 1927 report of "numerous" Florida grasshopper sparrows at a location 24 km (15 mi) northwest of Basinger (Okeechobee County); referred to two nests found south of Lake Hicpochee (Hendry County); and stated that Nicholson saw a "number" of birds southeast of Immokalee (Hendry County), where they appeared to be breeding. In 1932, an unspecified number of birds were found south of Fort Drum (Okeechobee County).

More recent records (cited by Delany and Cox 1985) include one male bird heard singing 14 km (9 mi) north of Okeechobee (1962), and two birds located 1.6 km (1 mi) south of Brighton in Glades County (1963). In 1968, one specimen was collected atypical habitat near the Everglades National Park (Dade County); one singing male was reported "west of Lake Okeechobee" in 1971. Finally, in 1973 and again in 1974, several birds were located southwest of Kenansville. Unfortunately, the lack of early distributional information precludes a precise delineation of the historical range of the subspecies.

Florida grasshopper sparrows are small, short-tailed birds, about 13 centimeters (5 inches) long. Dorsally they are much darker than the eastern race of the species (*A. s. pratensis*), being mostly black and gray, lightly streaked with brown on the nape and upper back. Ventrally, adults are whitish and unstreaked, with some buff on the throat and breast. The breast is streaked in the juvenile plumage. The stripe over the eye is ochraceous, and the bend of the wing is yellow; the feet are flesh colored. There are no obvious sexual differences. The Florida grasshopper sparrow is a well-marked subspecies that has been universally accepted as valid since it was described by Mearns in 1902. This subspecies is non-migratory, while the other two subspecies found east of the Rocky Mountains winter across the southern U.S. from Texas to South Carolina.

The Florida grasshopper sparrow inhabits the stunted growth of saw palmetto, dwarf oaks 30 to 70 cm (12-27 in) high, bluestems, and wiregrass, seemingly preferring this habitat to the grassy areas usually occupied by other subspecies of grasshopper sparrows (Howell 1932). According to Nicholson (1936), the Florida grasshopper sparrow uses the open spaces where saw palmetto are small (25 to 40 cm [10-16 in] high) and grass is sparse. A low, but

sparse growth of saw palmetto, woody shrubs, and bluestems and wiregrass, rather than sod forming grasses, is apparently needed for nesting. Dense vegetation and accumulated litter probably preclude effective foraging by the sparrow.

Delany and Cox (1985) found that, in general, grasshopper sparrows occurred on treeless, relatively poorly drained sites that have been burned frequently. Common shrubs in Florida grasshopper sparrow habitat include pawpaw (*Asimina* spp.), dwarf oak (*Quercus minima*), gopher apple (*Licania michauxii*), and St. John's Wort (*Hypericum fasciculatum*). The grass and herbaceous ground layer usually is rich in species, being dominated by pineland threeawn (*Aristida stricta*), bluestems (*Andropogon* spp.) and flat-topped goldenrod (*Euthamia minor*). In wetter areas of lower elevation, the herbaceous layer includes beak rushes (*Rhynchospora* spp.), pipewort (*Eriocaulon* spp.), and yellow-eyed grass (*Xyris* spp.). Cattle grazing, at a rate of one per 8 hectares (20 acres), occurs on all sites occupied by the sparrows, and does not appear to be detrimental to the birds.

In the early 1900's the populations of Florida grasshopper sparrows were reportedly large and widespread (Howell 1932). Surveys by Delany and Cox, however, conducted between 1980 and 1984, located only 182 sparrows occurring at nine sites. These sites were in southern Osceola County, southern Polk County, northern Highlands County, western Okeechobee County, and western Glades County. Of the 182 sparrows located, 119 were males. Male sparrows are far more conspicuous than females. If each of the males was mated to a single female, a minimum population estimate for the subspecies would be less than 250 adults. In addition, Delany and Cox found sparrows at only two of the eight sites from which they have been known historically. These facts imply a reduction in both abundance and occupied range for the subspecies. Alteration and loss of habitat due to conversion of native grasslands to improved pastures have been, and continue to be, the greatest threats to the survival of the Florida grasshopper sparrow.

Summary of Comments and Recommendations

The Service published a proposed rule in the Federal Register of December 15, 1985 (50 FR 51565) to list the Florida grasshopper sparrow as an endangered species. At that time, all interested

parties were requested to submit factual reports or information that might contribute to the development of a final rule. Comments on the proposal were due by February 18, 1986. Appropriate State agencies, county governments, Federal agencies, scientific authorities, private landowners, and other interested parties were contacted and requested to comment. Newspaper notices were published in the *Orlando Sentinel* on January 5, 1986, and in the *Okeechobee News* on January 10, 1986, which invited general public comment. Five comments were received as a result of the proposed rule, none of which were in opposition to it.

The Interior Department's Bureau of Land Management (BLM) pointed out that the principal range of the grasshopper sparrow contains mineral estates under BLM's management. In Polk County, there are six Federal leases totaling 243.55 ha (601.35 ac) that have been issued for phosphate mining; one tract of 16 ha (40 ac) is producing at the present time. Most of BLM's phosphate reserves are located in the Air Force's Avon Park Bombing Range in Polk and Highlands Counties, but there are no current or planned mineral leases in the Bombing Range. BLM stated that if Federal leasing is considered in any area it manages within the range of the Florida grasshopper sparrow, it will initiate consultation with the Service as required by section 7(a) of the Act.

The U.S. Air Force's Avon Park Bombing Range presented the following summary of its comments on the proposed listing. "... the present Florida grasshopper sparrow habitat in flatwood sites [on the Bombing Range] may eventually be changed as natural reforestation of pine forests occur in the future; our range impact areas should be surveyed for sparrows; wildfires from ordnance are extinguished wherever they occur outside of impact areas. We would recommend further study into the relationships of sparrows, cattle grazing, and prescribed burning."

Dr. Michael F. Delany of the Florida Game and Fresh Water Fish Commission corrected some minor errors in the proposed rule. These corrections have been made in the final rule.

The Florida Department of Natural Resources advised the Service that it had circulated the Service's Florida grasshopper sparrow proposal to appropriate staff members and requested them to provide pertinent information. No subsequent communications were received from the staff of the Department of Natural Resources.

Summary of Factors Affecting the Species

After a thorough review and consideration of all information available, the Service has determined that the Florida grasshopper sparrow should be classified as an endangered species. Procedures found at section 4(a)(1) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*), and regulations (50 CFR Part 424) promulgated to implement the listing provisions of the Act were followed. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in section 4(a)(1) of the Act. These factors and their application to the Florida grasshopper sparrow

(*Ammodramus savannarum floridanus*) are as follows (abstracted from Delany and Cox 1985, unless otherwise noted);

A. *The present or threatened destruction, modification, or curtailment of its habitat or range.* The principle threat to the Florida grasshopper sparrow is habitat loss or degradation resulting from conversion of native grasslands to improved pastures. The subspecies apparently can tolerate some alteration in vegetation composition and structure, as evidenced by its occurrence in some improved pastures (Stevenson *in* Kale 1978). Sparrows have been found in improved pastures where some native vegetation exists. It appears, however, that the species cannot adapt to conditions that result from intensive pasture management which removes all shrubs and saw palmetto. Grasshopper sparrows have been found only in areas that have at least some saw palmetto, shrubs, bluestems and/or wiregrass. Nest sites are located on the ground beneath bushes or tall clumps of grass, features that do not exist in most improved pastures.

Delany and Cox believe that six of the eight historically known populations of the Florida grasshopper sparrow may have been extirpated as a result of range management. They located seven new localities for the subspecies, plus two of the historically known sites. Areas now occupied by sparrows are managed for cattle by periodic burning during the winter (November-January) at 2- to 3-year intervals. For the most part this does not appear to have adversely affected the grasshopper sparrow populations because prescribed burning improves the habitat for this subspecies by maintaining the prairie grassland community at an early successional stage.

There is a possibility that changes in intensity of management could render

these sites unsuitable for grasshopper sparrows. More intensive management (removing saw palmetto and planting grass) would eliminate nesting sites. Less intensive management, which would exclude burning or mechanical clearing, would allow vegetation to reach a successful stage that would be unusable by the birds. Much of the land within the range of the Florida grasshopper sparrow is contained in a few large, private ranches; most of the landowners are not aware of the sparrows' existence or needs. Present land use trends indicate a continued loss of habitat for the subspecies due to increased pasture conversion and changes in intensity of management of already converted pastureland.

B. *Overutilization for commercial, recreational, scientific, or educational purposes.* There is no indication that any of these factors have had a significant impact on the Florida grasshopper sparrow in the past. However, there is a potential for adverse impact if isolated pairs are collected, or scientific collection is conducted at locations where numbers are small.

C. *Disease or predation.* Hogs, snakes and skunks are known to destroy nests and prey upon Florida grasshopper sparrows (Nicholson *in* Smith 1968). However, these natural losses do not appear to be causing any of the major reductions in range and numbers that have been observed.

D. *The inadequacy of existing regulatory mechanisms.* The Florida grasshopper sparrow occurs on private land, on a State Wildlife Management Area (WMA) (Three Lakes WMA in Osceola County), and on land managed and administered by the Federal Government (U.S. Air Force's Avon Park Bombing Range); the Air Force leases pastures on the Bombing Range for cattle grazing. There are no regulatory mechanisms to assure protection of prairie grassland habitat in private ownership; however, the needs of the grasshopper sparrow are considered by the Air Force when habitat decisions made on the Bombing Range.

The species is listed as endangered the State of Florida (Chapter 39-27, Florida Administrative Code), but this legislation does not provide habitat protection. Habitat protection is also afforded under the Migratory Bird Treaty Act (16 U.S.C. 703 *et seq.*).

E. *Other natural or manmade factors affecting its continued existence.* It is not known if grasshopper sparrows live directly within the target areas of the Air Force's Avon Park Bombing Range if so, the birds might be directly affected.

by exploding ordnance. The explosions might also cause fires that could spread to other areas and result in temporary damage to nearby resident sparrows' habitat. However, this is unlikely, as the Air Force has an aggressive fire control program. In addition, fires may benefit the sparrows, if they occur at the right frequency and at the right season, as indicated under factor A above. Because the Bombing Range cannot be entered, the Service cannot evaluate how many, if any, sparrows are present within the drop zone.

The Service has carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by this species in making this rule final. Based on this evaluation, the preferred action is to list the Florida grasshopper sparrow as endangered. The total population of this bird may be less than 250 adults at nine scattered sites in the prairie region of south-central Florida. All available evidence indicates that it has declined greatly in range and in numbers. This has been due to habitat loss or degradation resulting from pasture conversion and changes in intensity of management of converted pasture. Present land use trends indicate a continued loss of acceptable habitat for the species. Given these factors, the Florida grasshopper sparrow appears to be in danger of extinction throughout all or a significant portion of its range and therefore is being listed as an endangered species. Critical habitat has not been designated for the Florida grasshopper sparrow for reasons discussed below in the "Critical Habitat" section.

Critical Habitat

In order for the Florida grasshopper sparrow to survive, it is necessary to maintain a habitat that has a low (30–70 cm [12–27 in]), but sparse growth of palmettos and woody shrubs. Prescribed burning or mechanical clearing is needed to maintain this sort of suitable habitat. Delany and Cox (1985) presented the following information to illustrate how grasshopper sparrow populations fluctuate depending upon the condition of the habitat. They reported that in 1981–82, only 4 adult grasshopper sparrows were found at the Three Lakes Wildlife Management Area in Osceola County. Many of the pastures at Three Lakes were burned in the winter of 1983–84, and 37 adult grasshopper sparrows were found there in 1984.

At a pasture site in Okeechobee County, no sparrows were found in 1982, but 32 were found in 1984. This particular pasture is burned every 3

years and was last burned in the winter of 1982–83. In the summer of 1982, when no sparrows were present, it had been two and a half years since the pasture was last burned. In another pasture, only one grasshopper sparrow was found in 1982, but eight were found in 1984. This pasture is burned every 2 or 3 years, and was last burned in the winter of 1982–83. In contrast, pastures in the Avon Park Bombing Range contained eight grasshopper sparrows in 1982, but only one could be found in 1984. Some of the pasture in this area had not been burned in the intervening years, and the vegetation was generally very dense, with little bare ground. From the above, it seems evident that periodic burning (and/or mechanical clearing) of vegetative cover greatly improves the quality of pastures for grasshopper sparrows, and that the birds move from area to area as habitat improves or deteriorates.

Section 4(a)(3) of the Act, as amended, requires that to the maximum extent prudent and determinable, the Secretary designate critical habitat at the time a species is determined to be endangered or threatened. The Service finds that designation of critical habitat is not prudent for the Florida grasshopper sparrow for the following two reasons.

First, as discussed above, the Florida grasshopper sparrow is a species which moves around frequently in order to take advantage of the changing mosaic of available habitat. The habitat needs of the species are specific, and its presence in any one area over a long term cannot be predicted or assured. As one area becomes too thickly overgrown to support breeding populations, the birds move to more sparsely vegetated areas that have been recently burned or mechanically cleared. Thus, the sparrows are not stable residents of any specific area for long periods of time.

Second, most of the habitat occupied by the Florida grasshopper sparrow is on privately owned land and would not be affected by a determination of critical habitat. There would be no benefit to the species from determining any of this privately owned land as critical habitat. The only Federal agency that might be involved is the U.S. Air Force's Avon Park Bombing Range. The Air Force is already fully aware of its obligation under the Act to protect listed species.

Therefore, a determination of critical habitat would provide no benefits to the species that would not already be available through the listing itself without critical habitat. For the above reasons, the Service determines that a designation of critical habitat for the

grasshopper sparrow is not prudent at the present time.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Endangered Species Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing encourages and results in conservation actions by Federal, State, and private agencies, groups, and individuals. The Endangered Species Act provides for possible land acquisition and cooperation with the States and requires that recovery actions be carried out for all listed species. Such actions are initiated by the Service following listing. The protection required of Federal agencies and the prohibitions against taking and harm are discussed, in part, below.

Section 7(a) of the Act, as amended, requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened and with respect to its critical habitat if any is being designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR Part 402 (see revision at 51 FR 19926), June 3, 1986). Section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of a listed species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into formal consultation with the Service.

The only Federal agency that might be affected by the Florida grasshopper sparrow listing is the U.S. Air Force (Avon Park Bombing Range). Grasshopper sparrows that are resident in target areas of the Bombing Range may be directly affected by exploding ordnance. Fires from exploding ordnance also could spread to nearby areas inhabited by grasshopper sparrows and may temporarily damage the sparrow populations. A 1000-foot extension of an existing runway may intrude into good sparrow habitat, but this will be determined via the consultation process. With the listing of the Florida grasshopper sparrow as endangered, the Air Force will be required to consult with the Service and to insure that actions it authorizes, funds, or carries out are not likely to jeopardize the continued existence of the species.

The Act and implementing regulations found at 50 CFR 17.21 set forth a series of general prohibitions and exceptions that apply to all endangered wildlife. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to take (including harass, harm, etc.—see definitions at 50 CFR 17.3), import or export, ship in interstate commerce in the course of commercial activity, or sell or offer for sale in interstate or foreign commerce any listed species. It also is illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken illegally. Certain exceptions apply to agents of the Service and State conservation agencies.

Permits may be issued to carry out otherwise prohibited activities involving endangered wildlife species under certain circumstances. Regulations governing permits are at 50 CFR 17.22 and 17.23. Such permits are available for scientific purposes, to enhance the propagation or survival of the species, and/or for incidental take in connection with otherwise lawful activities. The Florida grasshopper sparrow is not used for economic purposes, is not a commercial species, and is not legally hunted, sold, or traded. Only a few requests for taking permits (mostly research on marked individuals) are anticipated. This bird is presently

protected under 50 CFR Parts 10 and 20 as a migratory bird.

National Environmental Policy Act

The Fish and Wildlife Service has determined that an Environmental Assessment, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act of 1973, as amended. A notice outlining the Service's reasons for this determination was published in the *Federal Register* on October 25, 1983 (48 FR 49244).

References Cited

Delany, M.F., and J.A. Cox. 1985. Florida grasshopper sparrow status survey. Unpublished report prepared for U.S. Fish and Wildlife Service, Jacksonville, Florida. 21 pp., tables and figures.
 Howell, A.H. 1932. Florida bird life. Coward-McCann, New York, New York. 579 pp.
 Kale, H.W., II. 1978. Rare and endangered biota of Florida, Vol. 2: birds. Univ. Florida Presses, Gainesville. 121 pp.
 Mearns, E.A. 1902. Description of three new birds from the southern United States. Proc. U.S. Nat. Mus. 24:915-926.
 Nicholson, W.H. 1936. Notes on the habits of the Florida grasshopper sparrow. Auk 53:318-319.
 Smith, R.L. 1968. Grasshopper sparrow. Pp. 725-745 in O.L. Austin, Jr., ed., Life histories of North American cardinals, grosbeaks, buntings, towhees, finches, sparrows, and allies. U.S. Nat. Mus. Bull. 237, Part 2.

Author

The primary author of this final rule is John L. Paradiso, Endangered Species Field Office, U.S. Fish and Wildlife Service, 2747 Art Museum Drive, Jacksonville, Florida 32207 (904/791-2580 or FTS 946-2580).

List of Subjects in 50 CFR Part 17

Endangered and threatened wildlife, Fish, Marine mammals, Plants (agriculture).

Regulation Promulgation

PART 17—[AMENDED]

Accordingly, Part 17, Subchapter B of Chapter I, Title 50 of the Code of Federal Regulations, is amended as set forth below:

1. The authority citation for Part 17 continues to read as follows:

Authority: Pub. L. 93-205, 87 Stat. 884; Pub. L. 94-359, 90 Stat. 911; Pub. L. 95-632, 92 Stat. 3751; Pub. L. 96-159, 93 Stat. 1225; Pub. L. 97-304, 96 Stat. 1411 (16 U.S.C. 1531 *et seq.*).

2. Amend § 17.11 by adding the following, in alphabetical order under Birds, to the List of Endangered and Threatened Wildlife:

§ 17.11 Endangered and threatened wildlife.

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Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical Habitat	Special rules
Common name	Scientific name						
Birds							
Sparrow, Florida grasshopper	<i>Ammodramus</i> <i>danus</i>	Red U.S.A. (FL)	Entire	E	239	NA	NA

Dated: July 11, 1986.
 Susan Rocca,
 Deputy Assistant Secretary for Fish and Wildlife and Parks.
 [FR Doc. 86-17221 Filed 7-30-86; 8:45 am]
 BILLING CODE 4310-05-M