
DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

**Endangered and Threatened Wildlife
and Plants; Threatened Status for the
Florida Scrub Jay**

AGENCY: Fish and Wildlife Service,
Interior.

ACTION: Final rule.

SUMMARY: The Florida scrub jay (*Aphelocoma coerulescens coerulescens*) is exclusively confined to scrub habitat in peninsular Florida. Much of the coastal scrub formerly inhabited by the bird has been cleared for beachfront hotels, houses, and condominiums. Many areas in the interior of Florida are presently being developed for citrus groves and housing. Clearly, the major cause of decline has been habitat destruction. Other threats to the Florida scrub jay are malicious shooting of the birds by vandals, accidents with motor vehicles, and unfavorable habitat succession

problems in some areas. This rule implements the protection and recovery provisions of the Endangered Species Act of 1973, as amended, for the Florida scrub jay.

DATES: The effective date of this rule is July 6, 1987.

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

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

SUPPLEMENTARY INFORMATION:

Background

The Florida scrub jay (*Aphelocoma coerulescens coerulescens*) was originally named by Bosc, 1795, as *Corvus coerulescens*. The species *Aphelocoma coerulescens* is widely distributed in the western United States, but the Florida subspecies, *Aphelocoma coerulescens coerulescens*, an isolated form of the species, is restricted to scrub habitat areas of peninsular Florida. The Florida scrub jay is a 30 centimeter (12 inch), bluish-colored, crestless jay totally lacking the white-tipped wings and tail feathers of the more common and widespread blue jay (*Cyanocitta cristata*). A necklace of blue feathers separates the white throat from the grayer underparts, and a white line over the eye often blends into a whitish forehead. The tail is long and loose in appearance (Woolfenden in Kale 1978). The subspecies has been recorded only once from outside of peninsular Florida, on Jekyll Island, Georgia (Moore 1975).

The following information on the biology of the Florida scrub jay is abstracted from Cox (1984) and Woolfenden and Fitzpatrick (1984). Scrub jays are long-lived (10 years or more), sedentary, permanently monogamous inhabitants of oak scrub. They typically nest at the edge of an oak thicket, near an open area. Scrub jays rarely breed at one year of age, even though they are then physiologically mature; instead they may remain on their natal territories for a number of years and assist their parents in raising further broods. Scrub jay breeding pairs with helpers have significantly greater reproductive success than pairs without helpers. Males may remain with their parents as helpers for longer periods (up to six years) than females. As the group's size increases, the territory grows. Eventually, a male helper may be able to claim part of the enlarged

territory for his own breeding territory. Females rarely help for more than two years, and disperse within the local population as breeding vacancies arise. Scrub jays are omnivorous, eating almost anything they can catch, but they concentrate on lizards and arthropods in spring and summer, and acorns in fall and winter. Surplus acorns are frequently cached in the ground.

The Florida scrub jay lives only in the Florida scrub habitat, which occurs on fine, white, well drained sands. This type of sand occurs along the present coastline of Florida, and on inland dunes deposited during the past when sea levels were much higher than at present. The most important of these dune systems include the Atlantic coastal ridge along the Atlantic coast of Florida, the Lake Wales Ridge in Polk and Highlands Counties, and the extensive sand dunes of Ocala National Forest. Cox (1984) stated that the most commonly occupied jay habitat is "oak scrub." Oak scrub consists of a single layer of evergreen shrubs, usually dominated by three species of oaks—myrtle oak (*Quercus myrtifolia*), sand live oak (*Quercus geminata*), and Chapman oak (*Quercus chapmanii*). Scrub jays are rarely found as residents in habitat with more than 50% canopy cover that is over 3 meters (10 feet tall). In summary, scrub jay habitat consists of dense thickets of scrub oaks less than 3 meters in height, interspersed with bare sand for foraging and storing acorns.

Scrub jays have been reported in the past from scrub habitat in each of the following Florida Counties: Alachua, Brevard, Broward, Charlotte, Citrus, Clay, Collier, Dade, De Soto, Dixie, Duval, Flagler, Gilchrist, Glades, Hardee, Hendry, Hernando, Highlands, Hillsborough, Indian River, Lake, Lee, Levy, Manatee, Marion, Martin, Okeechobee, Orange, Osceola, Palm Beach, Pasco, Pinellas, Polk, Putnam, St. Johns, St. Lucie, Sarasota, Seminole, Sumter, and Volusia. Today, scrub jays have been completely eliminated from Broward, Dade, Duval, Pinellas, and St. Johns Counties, and their numbers have decreased drastically in Brevard, Highlands, Orange, Palm Beach, and Seminole Counties. In virtually every county where the species occurs, it is known to have declined in numbers. It has disappeared from fully 40% of the locations from which it was known historically, and the total population has probably dropped by half in the past century (Cox 1984). The major cause of the jay's population decline and its disappearance from specific sites is habitat destruction. The total number of Florida scrub jays estimated by Cox to

survive in Florida today is between 15,000 and 22,000 birds, of which about 13,000 to 20,000 are on public lands, and about 2,000 on private property.

On March 16, 1984, Jeffrey A. Cox, Florida State Museum, University of Florida, Gainesville, Florida, petitioned the Service to list the Florida scrub jay as a threatened species. Dr. Cox provided a comprehensive report on the status of this species in support of the petition. The Service found on May 4, 1984, that the petitioned action may be warranted and published the finding on July 13, 1984 (49 FR 28584). A 12-month finding was made on March 18, 1985, and published on July 18, 1985 (50 FR 24238), that the action requested was warranted but precluded by work on other pending proposals. Publication of the proposed rule to list the Florida scrub jay as threatened, published in the Federal Register (51 FR 18627) on May 21, 1986, constituted the next and final 12-month finding for the Florida scrub jay, as required under section 4(b)(3)(c)(i) of the Act, that the petitioned action is warranted.

Summary of Comments and Recommendations

In the May 1986, proposed rule, and associated notifications, all interested parties were requested to submit factual reports or information that might contribute to the development of a final rule. Appropriate State agencies, county governments, Federal agencies, scientific organizations, and other interested parties were contacted and requested to comment. Newspaper notices were published in the *Orlando Sentinel* on June 15, 1986, and the *Palm Beach Post* on June 14, 1986, which invited general public comment. Twenty-one comments were received, none of which opposed the action. A summary of substantive comments is presented below.

Tom Webber, Biologist, the Florida State Museum, Gainesville, wrote that he resurveyed some of the scrub jay populations that Jeffrey A. Cox censused in 1981. He found that the picture of overall decline remains; of the five northernmost populations (in Clay and Putnam Counties), four have disappeared since 1981, and the fifth has been reduced to one bird. Other populations that have held out since 1981 are often in places where their habitat will probably be destroyed soon and irreversibly.

Theodore O. Hendrickson urged the Service to perhaps consider a category "more urgent" than "threatened" for this bird. Because the scrub jay is still fairly widespread in distribution in Florida,

and occurs in large part on protected Federal and State lands, the Service feels a threatened category, rather than endangered, is more appropriate for the species.

The Florida Department of Community Affairs provided the following comment: "As Florida is one of the fastest growing States in the nation, and remaining coastal and inland xeric scrub habitats are among the most desirable sites for development, it is certain that Florida scrub jay populations will continue to decrease as the species' required scrub habitat continues to be destroyed by land development activities." Other comments reported the continued loss of jay habitat in Florida or the locations of recent observations of jays.

The Avon Park Air Force Range expressed concern that, should the bird be listed, the operation of the bombing range might be restricted. The Service does not anticipate any significant restrictions, if any, upon Avon Park Air Force Range by the listing of this species. A significant amount of jay habitat occurs outside the drop zones and can be managed by the Range for the jay.

Summary of Factors Affecting the Species

After a thorough review and consideration of all information available, the Service has determined that the Florida scrub jay should be classified as an endangered species. Procedures found at section 4(a)(1) of the Endangered Species Act (16 U.S.C. 1531 *et seq.*) and regulations promulgated (50 CFR Part 424) to implement the listing provision 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). These factors and their application to the Florida scrub jay, *Aphelocoma coerulescens coerulescens*, are as follows (abstracted from Cox 1984 and data and comments received):

A. *The present or threatened destruction, modification, or curtailment of its habitat or range.* The future of the Florida scrub jay depends on the continued existence of its scrub habitat. Unfortunately most scrub lands are in areas that have high real estate interest. Much of the coastal scrub has been cleared for beachfront hotels, houses, and condominiums. Scrub habitats in the interior of the Florida peninsula are subject to development for citrus groves and housing developments. Scrub jays have disappeared from 40% of the locations where they formerly occurred, and the total population has declined by

half in the past 100 years. The major cause of the declines and disappearances is habitat destruction.

Although housing and agricultural development have been occurring in Florida for many years, the pace of this development has accelerated since the 1960's. The human population of Florida nearly doubled from 1960 to 1980, from 4.95 million to 9.75 million (Terhune 1982). This trend will continue into the foreseeable future, placing even more pressures on natural habitats. Most of the housing developments that are located in scrub habitats are less than 20 years old. In many developments, scrub jays are barely hanging on, and they will probably disappear in a few years as land-clearing continues. The sites most likely to be destroyed by development in the near future are concentrated in Brevard, Highlands, and Palm Beach Counties. In Palm Beach County, most of the originally existing xeric scrub habitat has already been effectively lost to land development (Florida Department of Community Affairs, pers. comm. 1986), and it is possible that no scrub jays will remain by 1990 (Cox 1984).

Of the 15,000 to 22,000 scrub jays that may survive in Florida at the present time, over 80% occur in only two general areas: Merritt Island/Cape Canaveral (Brevard County) and Ocala National Forest (Lake, Marion, and Putnam Counties). Elsewhere, only small populations are scattered locally throughout peninsular Florida.

B. *Overutilization for commercial, recreational, scientific, or educational purposes.* By far, habitat destruction has played the major role in the decline of the Florida scrub jay. Nevertheless, there is evidence that, in St. Johns County at least, some scrub jays have been shot by vandals. People have been seen with guns in the area along SR A1A, and a tame scrub jay would present a tempting target to vandals. In addition, the tameness and beauty of the bird make it desirable (although illegal) as a pet, and it is known to have been used for such purposes in the recent past.

C. *Disease or predation.* Disease and predation are not thought to be factors that have led to the scrub jay's decline.

D. *The inadequacy of existing regulatory mechanisms.* The Florida scrub jay is protected by the Migratory Bird Treaty Act (16 U.S.C. 703 *et seq.*) and by Florida State law (Chapter 39-27, Florida Administrative Code). These laws, however, do not protect the birds from habitat destruction, the major cause of the species' decline in Florida.

E. *Other natural or manmade factors affecting its continued existence.*

Human interference with the natural functioning and development of an ecosystem has played an important part in the decline of the scrub jay in certain areas. Historically, fires caused by lightning were major factors in maintaining the sparse, low scrub vegetation preferred by the scrub jay. In some parts of the range of this species, human efforts to prevent and/or control natural fires have allowed the scrub to become too dense and tall to support populations of scrub jays. An example of such a situation is found in the miles of coastal barrier scrub in St. Johns County. Scrub jays were known to be resident in this area in the past, but none currently occurs there. Fire suppression to protect human interests has allowed the scrub to become too dense for the scrub jays. Thus, a large area of coastal St. Johns County, which used to support a healthy population of the species, no longer contains suitable habitat.

Cox (1984) believed that, in St. Johns County at least, one of the factors in the extirpation of the scrub jay may have been accidental road kills from passing trucks and cars. Scrub jays frequently forage along roadsides and other openings in the scrub, and, since SR A1A runs directly down the middle of the scrub on the long, narrow, barrier island, there was a high potential for birds to be killed in this manner.

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 final rule. Based on this evaluation, the preferred action is to list the Florida scrub jay as a threatened species. Threatened rather than endangered status was chosen for the following reasons. A high percentage of scrub jays occur on Federal lands that can be managed to benefit the birds. On the other hand, the facts that the bird no longer occurs at 40% of the localities where it once was found and has decreased in numbers by at least 50% in the past century, indicate that it is extremely vulnerable, and could become an endangered species unless surviving populations are protected and managed. Critical habitat has not been determined for the Florida scrub jay for reasons discussed in the next section.

Critical Habitat

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 scrub jay at this time. All concerned Federal agencies already know of the presence of the scrub jay on lands they manage, and are aware of the habitat needs of the bird. In addition, the Federal lands involved cover extensive areas, not all of which will be, or will remain, critical over extended periods of time. As scrub habitat is burned or clear-cut in some areas, scrub jay populations may move into other areas with more suitable habitat. As the burned or clear-cut areas grow back, jays may reinvade them. Thus, there is and will continue to be a periodic change in localities within the Federal lands occupied by the birds.

The rest of the populations of scrub jays (20% of the estimated total number of birds) are widely and thinly scattered over peninsular Florida in many small localities which would be nearly impossible to delineate in a meaningful or productive fashion. Finally, the tameness and trusting nature of this species make it particularly vulnerable to malicious or random shooting. To point out precisely where the few remaining birds on private land occur, through a delineation of critical habitat and publication of locality maps, could enhance the possibility of such vandalism, and thus actually increase the threat to the species. For all of the above reasons, a determination of critical habitat would not benefit the species or its conservation and is not prudent for the Florida scrub jay.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Endangered Species Act include recognition, recovery action, 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. Section 7(a)(2) requires Federal agencies to insure 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.

At the present time, the Service knows of four Federal agencies that may be affected by this listing action. These are: (1) The U.S. Fish and Wildlife Service (Merritt Island National Wildlife Refuge), (2) the National Aeronautics and Space Administration (Kennedy Space Center), (3) the U.S. Air Force (Cape Canaveral Air Force Station and Avon Park Air Force Range), and (4) the U.S. Forest Service (Ocala National Forest). Impacts on these agencies, however, are expected to be minimal, and may be summarized as follows:

Merritt Island National Wildlife Refuge/Kennedy Space Center—The largest population of scrub jays occurs in this area; the Refuge includes the lands of the Kennedy Space Center. The Refuge has begun a program of controlled burning of all scrub on land under its jurisdiction. Unless the burning occurs too often, it should help to maintain the suitability of habitat for scrub jays. The Refuge will now need to take the interests of the scrub jay into consideration in its program of controlled burning of scrub. In addition, any expansion of Kennedy Space Center facilities will also need to consider the needs of the scrub jay before being undertaken.

Cape Canaveral Air Force Station—The scrub at this Station has suffered more clearing than at the Merritt Island National Wildlife Refuge. Aerial photos disclose that about 20% of the land on the Station has been cleared in the past several decades. Habitat clearing for construction in the future will need to consider the effect of such clearing on scrub jay populations before being undertaken. Also, it may be necessary to cut or burn existing scrub periodically to maintain its suitability as habitat for the scrub jay.

Avon Park Air Force Range—The U.S. Air Force's Avon Park Air Force Range, in Polk and Highlands Counties, contains several thousand acres of scrub which do, or may, support scrub jays. There is an undetermined amount of this habitat within the confines of the bombing range impact areas. Fires in impact areas, from exploding ordinance or other causes, are not controlled, and

for many years the impact areas have been subject to continuous disturbance from mission activities. Since these areas cannot be entered, it is not possible to determine if scrub jays are present, but under the continuous disturbance to which they have been subjected, it seems unlikely that there would be a large number of birds. The continued use of the impact zone does not jeopardize the continued existence of the jay, if any birds are present. In areas outside impact areas, the Avon Park Air Force Range now plans to manage the habitat for the scrub jay through continued protection and perhaps through controlled burning and/or mechanical choppings.

Ocala National Forest—The scrub jay population is scattered throughout the scrub portions of the Forest. The Forest Service clear-cuts on a rotational basis. This may have a beneficial effect on the scrub jays because it may provide a continually changing mosaic of habitat within the forest. When scrub in one area becomes too old and dense, scrub jays may move to colonize another more recently cleared site. Therefore, present Forest Service management practices may be compatible with the well-being of the scrub jay, and only minimal effect on this agency is presently anticipated.

The Act and implementing regulations found at 50 CFR 17.21 and 17.31 set forth a series of general prohibitions and exceptions that apply to all threatened wildlife. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to take, 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 threatened wildlife species under certain circumstances. Regulations governing permits are at 50 CFR 17.22, 17.23, and 17.32. Such permits are available for scientific purposes, to enhance the propagation or survival of the species, for incidental take in connection with otherwise lawful activities, and for zoological exhibition or educational or special purposes consistent with the purposes of the Act. In some instances, permits may be issued during a specified period of time to relieve undue economic hardship that would be suffered if such relief were not available. Since the jay is already

protected under the Migratory Bird Treaty Act, no economic hardship applications are expected.

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

Cox, J.A. 1984. Conservation and ecology of the Florida scrub jay. Doctoral Dissertation. Department of Zoology, University of Florida. 185 pp.

Kale, H.W., II. 1978. Rare and endangered biota of Florida. Vol. II. Birds, University of Florida Presses, Gainesville. 121 pp.
 Moore, T.S. 1975. First modern record of the scrub jay in Georgia. *Oriole*, 40:1-2.
 Terhune, F.W., ed. 1982. Florida statistical abstract. University of Florida Presses, Gainesville.
 Woolfenden, G.E., and J.W. Fitzpatrick. 1984. The Florida scrub jay. Monographs in Population Biology No. 30, Princeton University Press, 406 pp.

Author

The primary author of this final rule is John L. Paradiso, Endangered Species Field Station, U.S. Fish and Wildlife Service, 2747 Art Museum Drive, Jacksonville, Florida 32207 (telephone 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(h) 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							
Jay, Florida scrub	<i>Aphelocoma coerulescens</i>	U.S.A. (FL)	Ende	T	267	NA	NA

Dated: May 27, 1987.
 Susan Recce,
 Acting Assistant Secretary for Fish and Wildlife and Parks.
 [FR Doc. 87-12834 Filed 6-2-87; 8:45 am]
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