DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Proposed Endangered Status for Cassia mirabilis

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: The Service proposes to determine *Cassia mirabilis* (no common name) to be an endangered species pursuant to the Endangered Species Act (Act) of 1973, as amended. *Cassia mirabilis* is a plant that is endemic to the silica sands of northern Puerto Rico and is now limited to three sites in this area. The species is affected by sand extraction, the expansion of residential areas, and industrial development. This proposal, if made final, would implement the Federal protection and recovery provisions afforded by the Act. The Service seeks data and comments from the public on this proposal.

DATES: Comments from all interested parties must be received by June 13, 1989. Public hearing requests must be received by May 30, 1989.

ADDRESSES: Comments and materials concerning this proposal, and requests for public hearing, should be sent to the Field Supervisor, Caribbean Field Office, U.S. Fish and Wildlife Service, P.O. Box 491, Boqueron, Puerto Rico 00622. Comments and materials received will be available for public inspection, by appointment, at this office during normal business hours, and at the Service's Southeast Regional Office, Suite 1282, 75 Spring Street, SW., Atlanta, Georgia 30303.

FOR FURTHER INFORMATION CONTACT: Ms. Susan Silander at the Caribbean Field Office address (809/851-7297) or Mr. Tom Turnipseed at the Atlanta Regional Office address (404/331-3583 or FTS 242-3583).

SUPPLEMENTARY INFORMATION:

Background

Cassia mirabilis was first collected by Dr. Agustin Stahl in the mid-nineteenth century. In 1899, Mr. Edward Heller collected the species in Vega Baja, an

area of silica sands. Data obtained from herbarium collections indicate that this species was at one time common throughout the silica sands of the north coast of Puerto Rico (Vivaldi and Woodbury 1981). However, urban, industrial, and agricultural expansion has resulted in the restriction of the species to two areas in Dorado, and scattered populations along the southern shore of the Tortuguero Lagoon.

Although *Cassia mirabilis* has been placed by various authors in both *Cassia*, as a species, and *Chamaecrista*, as a variety (*Chamaecrista glandulosa* var. *mirabilis*) and a species (*Chamaecrista mirabilis*); Liogier and Martorell (1982), in their flora of Puerto Rico and adjacent islands retain the taxon as a species in the genus *Cassia*.

Cassia mirabilis is a prostrate, ascending or erect shrub which may reach more than 30 inches (1 meter) in height. The leaves are alternate, evenly one-pinnate, ⅛ to ¼ inches (3 to 5 millimeters) long, with some scattered-whitish hairs. The petioles have one to two stipitate glands. Flowers are yellow, solitary, ¾ inches (about 2 centimeters) in diameter, with one petal much larger than the others. Mature fruits (legumes) are glabrous, linear, 1 to 1 ½ inches (2.5 to 4 centimeters) long, ¼ inch (5 millimeters) wide, flat, elastically dehiscent, and 12 to 15 seeded. The species is endemic to the silica sands of the northern coast of Puerto Rico. These sands are fine, white, highly permeable and strongly acid. They are underlain by an impermeable hardpan located approximately 12 to 16 inches (30 to 40 centimeters) below the surface. Many species are found in Puerto Rico only on these white siliceous sands. Although a dry evergreen or littoral forest is found in the area, *Cassia mirabilis* is restricted to the open areas.

Cassia mirabilis was recommended for Federal listing by the Smithsonian Institution (Ayensu and DeFilipps 1978). The species was included among the plants being considered as endangered or threatened species by the Service, as published in the **Federal Register** (45 FR 82480) dated December 15 1980; the November 28, 1983, update (48 FR 53680) of the 1980 notice; and the September 27, 1985, revised notice (50 FR 39526). The species was designated Category 1 (species for which the Service has substantial information supporting the appropriateness of proposing to list them as endangered or threatened) in each of the three notices.

In a notice published in the **Federal Register** on February 15, 1983 (48 FR 6752), the Service reported the earlier acceptance of the new taxa in the Smithsonian's 1978 book as under petition within the context of section 4(b)(3)(A) of the Act, as amended in 1982. The Service subsequently made annual findings in each October of 1983 through 1988 that listing *Cassia mirabilis* was warranted but precluded by other pending listing actions of a higher priority, and that additional data on vulnerability and threats were still being gathered. This proposed rule constitutes the final finding that is required.

Summary of Factors Affecting the Species

Section 4(a)(1) of the Endangered Species Act (16 U.S.C. 1531 *et seq.*) and regulations (50 CFR Part 424) promulgated to implement the listing provisions of the Act set forth the procedures for adding species to the Federal lists. A species may be determined to be endangered or threatened due to one or more of the five factors described in section 4(a)(1). These factors and their application to *Cassia mirabilis* (no common name) are as follows:

A. *The present or threatened destruction, modification, or curtailment of its habitat or range.* Destruction and modification of habitat have been, and continue to be, significant factors reducing the numbers of *Cassia mirabilis*. Once distributed throughout the silica sands in northern Puerto Rico, it is now restricted to the southern shore of Toriuguero Lagoon and two sites in the Dorado area. One Dorado site has been proposed for the construction of a large office building complex. Present use of this site for grazing does not appear to adversely affect the species. A second, small population in Dorado, recently discovered during a routine evaluation of a local highway project by the Puerto Rico Department of Natural Resources, will soon be transplanted to save it from complete destruction. The Tortuguero populations, the largest, are threatened by sand extraction, squatters, and the dumping of trash in this area.

B. *Overutilization for commercial, recreational, scientific, or educational purposes.* Taking for these purposes has not been a documented factor in the decline of this species.

C. *Disease or predation.* Disease and predation have not been documented as factors in the decline of this species.

D. *The inadequacy of existing regulatory mechanisms.* The Commonwealth of Puerto Rico has adopted a regulation that recognizes and provides protection for certain Commonwealth listed species. However, *Cassia mirabilis* is not yet on the Commonwealth list. Federal listing would provide interim protection and, if the species is ultimately placed on the Commonwealth list, enhance its protection and possibilities for funding needed research.

E. *Other natural or manmade factors affecting its continued existence.* One of the most important factors affecting the continued survival of *Cassia mirabilis* is its limited distribution. Only 150 to 200 plants are known to occur in 3 areas. One population, unless transplanted successfully, is destined to be eliminated by road construction. Although the Tortuguero Lagoon area is designated by the Puerto Rico Department of Natural Resources as a Natural Reserve, the land remains in private ownership. Continued intensive land alteration could result in the extinction of the species.

The Service has carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by this species in determining to propose this rule. Based on this evaluation, the preferred action is to list *Cassia mirabilis* as endangered. The species is restricted to only three locations on the siliceous sands of the north coast, all of which are subject to habitat destruction and modification. Therefore, endangered rather than threatened status seems an accurate assessment of the species' condition. The reasons for not proposing critical habitat for this species are discussed below in the "Critical Habitat" section.

Critical Habitat

Section 4(a)(3) of the Act, as amended, requires that to the maximum extent prudent and determinable, the Secretary designate any habitat of a species which is considered to be critical habitat at the time the species is determined to be endangered or threatened. The Service finds that designation of critical habitat is not prudent for this species at this time. The number of individuals of *Cassia mirabilis* is sufficiently small that vandalism could seriously affect the survival of the species. Publication of critical habitat descriptions and maps in the **Federal Register** would increase the likelihood of such activities. The Service believes that Federal involvement in the areas where this plant occurs can be identified without the designation of critical habitat. All involved parties and landowners either have been or will be notified of the location and importance of protecting this species' habitat. Protection of this species' habitat will also be addressed through the recovery process and through the section 7 jeopardy standard.

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, Commonwealth, and private agencies, groups, and individuals. The Endangered Species Act provides for possible land acquisition and cooperation with the Commonwealth, 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 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 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)(4) requires Federal agencies to confer informally with the Service on any action that is likely to jeopardize the continued existence of a proposed species or result in destruction or adverse modification of proposed critical habitat. If a species is subsequently listed, 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 such a species or to destroy or adversely modify its critical habitat. If a Federal action may adversely affect a listed species or its critical habitat, the responsible Federal agency must enter into formal consultation with the Service. No critical habitat is being proposed for *Cassia mirabilis*, as discussed above. Federal involvement is not expected where the species is known to occur.

The Act and its implementing regulations found at 50 CFR 17.61, 17.62, and 17.63 set forth a series of general trade prohibitions and exceptions that apply to all endangered plants. All trade prohibitions of section 9(a)(2) of the Act, implemented by 50 CFR 17.61, would apply. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to import or export any endangered plant, transport it in interstate or foreign commerce in the course a commercial activity, sell or offer it for sale in interstate or foreign commerce, or remove it from areas under Federal jurisdiction and reduce it to possession. In addition, for listed plants the 1988 amendments (Pub. L. 100-478) to the Act prohibit their malicious damage or destruction on Federal lands, and their removal, cutting, digging up, or damaging or destroying in knowing violation of any State law or regulation, including state criminal tresspass law. Certain exceptions can apply to agents of the Service and Commonwealth conservation agencies. The Act and 50 CFR 17.62 and 17.63 also provide for the issuance of permits to carry out otherwise prohibited activities involving endangered species under certain circumstances. It is anticipated that few trade permits for *Cassia mirabilis* will ever be sought or issued, since the species is not known to be in cultivation and is uncommon in the wild. Requests for copies of the regulations on plants and inquiries regarding them may be addressed to the Office of Management Authority, U.S. Fish and Wildlife Service, P.O. Box 27329, Central Station, Washington, DC 20038-7329 (202/343-4955).

Public Comments Solicited

The Service intends that any final action resulting from this proposal will be as accurate and as effective as possible. Therefore, any comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, or any other interested party concerning any aspect of this proposed rule are hereby solicited. Comments particularly are sought concerning:

(1) Biological, commercial trade, or other relevant data concerning any threat (or lack thereof) to *Cassia mirabilis;*

(2) The location of any additional populations of *Cassia mirabilis*, and the reasons why any habitat should or should not be determined to be critical habitat as provided by Section 4 of the Act;

(3) Additional information concerning the range and distribution of this species; and

(4) Current or planned activities in the subject areas and their possible impacts on *Cassia mirabilis*.

Final promulgation of the regulation on *Cassia mirabilis* will take into consideration the comments and any additional information received by the Service, and such communications may lead to adoption of a final regulation that differs from this proposal.

The Endangered Species Act provides for a public hearing on this proposal, if requeated. Requests must be filed within 45 days of the proposal. Such requests must be made in writing and addressed to the Field Supervisor, Caribbean Field Office, U.S. Fish and Wildlife Service, P.O. Box 491, Boqueron, Puerto Rico 00622.

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

Ayensu, E.S. and R.A. Defilipps. 1978. Endangered and threatened plants of the United States. Smithsonian Institution and World Wildlife Fund, Washington, DC xv + 403 pp.

Liogier, H.A., and L.F. Martorell. 1982. Flora of Puerto Rico and adjacent islands: a systematic synopsis. University of Puerto Rico, Rio Piedras, Puerto Rico. 3421 pp.

Vivaldi, J.L., and R.O. Woodbury. 1981. Status report on *Chamaecrista glandulosa* var. *mirabilis* (Pollard) Irwin & Barneby. Unpublished status report submitted to the U.S. Fish and Wildlife Service, Atlanta, Georgia. 36 pp.

Author

The primary author of this proposed rule is Ms. Susan Silander, Caribbean Field Office, U.S. Fish and Wildlife Service, P.O. Box 491, Boquerón, Puerto Rico 00622 (809/851-7297).

List of Subjects in 50 CFR Part 17

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

Proposed Regulation Promulgation

Accordingly, it is hereby proposed to amend Part 17, Subchapter B of Chapter I, Title 50 of the Code of Federal Regulations, as set forth below:

PART 17—[AMENDED]

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; Pub. L. 100-478, 102 Stat. 2306; Pub. L. 100-653, 102 Stat. 3825 (16 U.S.C. 1531 *et seq.*); Pub. L. 99-625, 100 Stat. 3500, unless otherwise noted.

2. It is proposed to amend § 17.12(h) by adding the following, in alphabetical

order under Caesalpiniaceae, to the List of Endangered and Threatened Plants:

§ 17.12 Endangered and threatened plants.

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(h) * * *

Species		Historic range	Status	When listed	Critical habitat	Special rules
Scientific name	Common name					
Caesalpiniaceae-Cassia family:						
*	*	*	*	*	*	*
Cassia mirabilis	None	U.S.A. (PR)	E		NA	NA

Dated: March 16, 1989.

Becky Norton Dunlop,

Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 89-8900 Filed 4-13-89; 8:45 am]

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