

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Notice of Finding on a Petition to List

Cladonia perforata (Perforate Reindeer Lichen)

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of finding on petition.

SUMMARY: The U.S. Fish and Wildlife Service announces a 90-day petition finding for a petition to amend the List of Endangered and Threatened Plants. Substantial information has been presented that a petition to list the lichen *Cladonia perforata* (perforate reindeer lichen), from Florida, is warranted. Formal review of the status of *Cladonia perforata* is initiated herewith.

DATES: The finding announced in this notice was made in August 1989. Comments and information may be submitted until further notice.

ADDRESSES: Information, comments, or questions should be sent to the Field Supervisor, Jacksonville Field Office, U.S. Fish and Wildlife Service, 3100 University Boulevard South, Suite 120, Jacksonville, Florida 32216.

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

SUPPLEMENTARY INFORMATION:**Background**

Section 4(b)(3)(A) of the Endangered Species Act of 1973 (Act), as amended in 1982 (16 U.S.C. 1531 *et seq.*) requires that the U.S. Fish and Wildlife Service (Service) make a finding on whether a petition to list, delist, or reclassify a species presents substantial scientific or commercial information to demonstrate that the petitioned action may be warranted. To the maximum extent practicable, this finding is to be made within 90 days of the receipt of the petition, and the finding is to be published promptly in the **Federal Register**. If the finding is positive, the Service is also required to promptly commence a review of the status of the species.

Ann Buckley, a staff member of the George M. Gray Museum, Marine Biological Laboratory, Woods Hole, Massachusetts, submitted a petition to

list *Cladonia perforata* as an endangered species. The petition, dated May 28, 1989, was received by the Service on June 5, 1989.

The petition cited rapid development of the limited scrub habitat occupied by *Cladonia perforata* on the Lake Wales Ridge of central Florida as the primary threat to the lichen, combined with the frequency of fire in the remaining habitat (fires destroy group dwelling lichens). The petition cited the results of a lichen inventory at and near Archbold Biological Station in Highlands County, central Florida (Buckley and Hendrickson 1988), as well as the results of a search for this lichen by Dr. James Burkhalter and Dr. Gerould Wilhelm in May 1989 at Elgin Air Force Base and Santa Rosa Island on the Gulf coast of western Florida. Burkhalter and Wilhelm relocated a previously known population of the lichen and plan to publish a note on the discovery (file information, Florida Natural Areas Inventory). The site may be vulnerable to washover during hurricanes; in addition, the site is open to public use and is therefore subject to trampling by visitors (letter from Dr. Ann F. Johnson, Florida Natural Areas Inventory).

In central Florida's Highlands County, the loss of scrub habitat is already well documented; the Service has listed eight plants and three animals native to scrub vegetation in this county as endangered or threatened species, has prepared a recovery plan for one of the plants (Fish and Wildlife Service 1987) and is drafting another recovery plan for scrub plant species (Fish and Wildlife Service 1989). The draft plan summarizes the threats to scrub vegetation and prescribes conservation measures. To the extent that the plan is implemented, it may reduce the threats to *Cladonia perforata*.

Before proposing to list *Cladonia perforata* as an endangered or threatened species, the Service should ensure that the true geographic distribution of this lichen is known. This will require searches of areas with excessively drained white sand soil, scrub vegetation, and populations of ground-dwelling lichens in bare sunny areas where fires or other severe disturbances occur very rarely. Appropriate places to search include the Gulf Coast barrier islands from Mobile to Panama City, the Cedar Key area, the Atlantic Coastal Ridge on the east coast of Florida, and inland scrub vegetation in the Ocala National Forest and on the Lake Wales Ridge in Polk County. Because this lichen apparently has a very specialized habitat, and because

this lichen is easy to recognize throughout the year, effecting searches are feasible. Despite the need for further searches, the Service found that the petition and its supporting data presented substantial information indicating that the requested action may be warranted.

Review of the status of *Cladonia perforata* is initiated with publication of this notice. The Service would appreciate any additional data, comments, and suggestions from the public, other concerned governmental agencies, the scientific community, industry, or any interested party concerning *Cladonia perforata*.

Author

This notice was prepared by Mr. David Martin, Jacksonville Field Office, U.S. Fish and Wildlife Service, 3100 University Boulevard South, Suite 120, Jacksonville, Florida 32216 (904/791-2580 or FTS 946-2580).

References

- Buckley, A., and T.O. Hendrickson. 1988. The distribution of *Cladonia perforata* Evans on the southern Lake Wales Ridge in Highlands County, Florida. *The Bryologist* 91:354-356.
- Fish and Wildlife Service. 1987. Recovery plan for three Florida mints. Fish and Wildlife Service, Southeast Region, Atlanta, GA. 21 pp.
- Fish and Wildlife Service. 1989. Agency draft recovery plan for eleven central Florida plants. Fish and Wildlife Service, Southeastern Region, Atlanta, GA. 56 pp. + maps, tables.

Authority

The authority for this action is the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*)

List of Subjects in 50 CFR Part 17

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

Dated: October 3, 1989.

Richard N. Smith,

Acting Director, Fish and Wildlife Service.

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50 CFR Part 17

RIN 1018-AB36

#113-89

Endangered and Threatened Wildlife and Plants; Proposed Threatened Status for *Harrisia portoricensis*

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: The Service proposes to determine a cactus, *Harrisia portoricensis* (higo chumbo), to be a threatened species pursuant to the Endangered Species Act (Act) of 1973, as amended. Historically, *Harrisia portoricensis* was known from the offshore islands of Mona, Monito, and Desecheo and one area on mainland Puerto Rico. Deforestation for industrial and urban development has extirpated the species from the mainland. This endemic cactus is threatened by potential development projects on Mona Island and by impacts to vegetation from feral goats and pigs. This proposal, if made final, would implement the Federal protection and recovery provisions afforded by the Act for *Harrisia portoricensis*. The Service seeks data and comments from the public on this proposal.

DATES: Comments from all interested parties must be received by December 18, 1989. Public hearing requests must be received by December 4, 1989.

ADDRESSES: Comments and materials concerning this proposal should be sent to the Field Supervisor, Caribbean Field Office, U.S. Fish and Wildlife Service, P.O. Box 491, Boquerón, 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

Harrisia portoricensis (higo chumbo) was first collected by N.L. Britton in 1908 in southern Puerto Rico from an area to the west of Ponce called "Las Cucharas." However, urban, industrial, and agricultural expansion has resulted in the elimination of this population. Today it is known only from three small islands off the west coast of Puerto Rico: Mona, Monito and Desecheo.

This endemic cactus was placed in the genus *Harrisia* together with species from other Caribbean Islands and Florida by Britton in 1908 (Bull. Torr. Club 35:561). In 1910 Weingart transferred members of this genus to *Cereus* along with other columnar cacti (*In Urban, Symbolae Antillanae* 4:430). However, the treatment of *Harrisia* as distinct prevailed until recently when the grouping of columnar cacti into the

genus *Cereus* once again began to gain acceptance (Vivaldi and Woodbury 1981). Liogier and Martorell (1982) in their flora of Puerto Rico and adjacent islands retain the taxon as a species in the genus *Harrisia*, and it has been treated as such here.

Harrisia portoricensis is a slender, upright, columnar cactus. It is usually unbranched and may reach up to 6 feet (2 meters) tall and 3 inches (7.5 centimeters) in diameter. It has from 8 to 11 ribs separated by shallow grooves. Spines from 1 to 3 inches (2 to 7.5 centimeters) long occur in groups approximately 1/2 to 3/4 inches (1 to 2 centimeters) apart. Opening at night, the funnel-shaped flowers are greenish-white and may reach 6 inches (15 centimeters) in length. Fruits are a round, yellow berry without spines (Vivaldi and Woodbury 1981). Numerous black seeds are immersed in a white pulp. These fruits are a preferred food of the endangered yellow-shouldered blackbird (*Agelaius xanthomus*) on the island of Mona (Department of Natural Resources 1986).

The species is restricted to the islands of Mona, Monito, and Desecheo; all three islands are located in the Mona Passage between Puerto Rico and the Dominican Republic. These islands are composed of carbonate rocks, stratified limestone and dolomite, reef rock, and boulder rubble. Annual rainfall is only 32 inches (70 centimeters) in this semiarid climate. *Harrisia portoricensis* is primarily limited to, but common in, the semi-open xerophytic forest type associated with other species of columnar cacti.

Harrisia portoricensis 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 made subsequent petition findings in each October of 1983

through 1988 that listing *Harrisia portoricensis* 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 1-year finding in accordance with Section 4(b)(3)(B)(ii) of the Act.

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 *Harrisia portoricensis* Britton (higo chumbo) 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 *Harrisia portoricensis*. Dry forests similar to that on Mona and Desecheo once covered much of southern and southwestern Puerto Rico. These have been destroyed or modified for urban, industrial and agricultural development. The cactus is no longer found in the Ponce area, its type location. The islands of Mona and Monito are currently managed as wildlife reserves by the Puerto Rico Department of Natural Resources. However, in the past, various proposals have been presented for using Mona Island, which has the vast majority of the habitat, as a superport and oil storage facility and as a prison. Desecheo is currently protected as a National Wildlife Refuge; however, it was once managed as a breeding colony for monkeys by the National Institute of Health. All three islands have been utilized in the past for bombing practice by the U.S. Navy.

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; however, problems with the take of cacti in Puerto Rico continue, even on public lands, despite their protection. Should the species be reintroduced onto mainland Puerto Rico, take could become a problem. Trade in all American species of cactus is regulated by the Convention on International Trade in Endangered

Species of Wild Fauna and Flora (CITES), Appendix II.

C. *Disease or predation.* The larvae of the cactus moth (*Cactoblastis cactorum*) has caused damage to *Harrisia portoricensis* in the past, but the moth has not been observed recently. Feral pigs on Mona uproot the cactus while searching for edible roots. Feral goats on both Mona and Desecheo forage on a variety of species and may be responsible for shifts in vegetation composition.

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, *Harrisia portoricensis* 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 *Harrisia portoricensis* is its limited distribution, which increases its vulnerability to threats listed under factors A and C above. These threats include potential habitat loss from development and the impacts from feral goats and pigs.

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 *Harrisia portoricensis* as threatened. The species is restricted to only three small islands to the west of mainland Puerto Rico, the primary one of which is subject to habitat destruction and modification by development projects, and two of which are impacted by feral animals. However, because plants of all sizes and ages have been observed (Vivaldi and Woodbury 1981), threatened rather than endangered 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. Mona Island has been designated critical habitat for the yellow-shouldered blackbird (*Agelaius xanthomus*), the Mona ground iguana (*Cyclura stejnegeri*), and the Mona boa (*Epicrates monensis monensis*); and Monito Island has been designated as critical habitat for the Monito gecko (*Sphaerodactylus micropithecus*). 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 have been 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 certain activities involving listed plants 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)(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 *Harrisia portoricensis*, as discussed above. The only Federal involvement anticipated for the immediate future would be within the Service relative to possible goat control on the Desecheo National Wildlife Refuge, and possibly on Mona and Monito Islands relative to Service-administered grant-in-aid projects.

The Act and its implementing regulations found at 50 CFR 17.71 and 17.72 set forth a series of general trade prohibitions and exceptions that apply to all threatened plants. All trade prohibitions of section 9(a)(2) of the Act, implemented by 50 CFR 17.71, would apply. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to import or export, transport in interstate or foreign commerce in the course of a commercial activity, sell or offer for sale this species in interstate or foreign commerce, or to remove and reduce to possession the species from areas under Federal jurisdiction. Seeds from cultivated specimens of threatened plant species are exempt from these prohibitions provided that a statement of "cultivated origin" appears on their containers. In addition, for listed plants, the 1988 amendments (Pub. L. 100-478) to the Act prohibit the malicious damage or destruction on Federal lands and the removal, cutting, digging up, or damaging or destroying of listed plants in knowing violation of any Commonwealth law or regulation, including Commonwealth criminal trespass law. Certain exceptions apply to agents of the Service and Commonwealth conservation agencies. The Act and 50 CFR 17.72 also provide for the issuance of permits to carry out otherwise prohibited activities involving threatened species under certain circumstances. It is anticipated that few trade permits for *Harrisia portoricensis* will ever be sought or issued, since the species is not known to be in cultivation and wild populations are relatively inaccessible. 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 3507, Arlington, Virginia 22203-3507 (703/358-2104).

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 *Harrisia portoricensis*:

(2) The location of any additional populations of *Harrisia portoricensis*, 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 *Harrisia portoricensis*.

Final promulgation of the regulation on *Harrisia portoricensis* 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 requested. 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, Boquerón, 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. Defilippis. 1978. Endangered and threatened plants of the United States. Smithsonian Institution and World Wildlife Fund, Washington, D.C. xv + 403 pp.
 Department of Natural Resources. 1986. Annual report for the yellow-shouldered blackbird project. San Juan, Puerto Rico.
 Liogier, H.A., and L.F. Martorell. 1982. Flora of Puerto Rico and adjacent islands: a systematic synopsis. University of Puerto Rico, Río Piedras, Puerto Rico. 342 pp.
 Vivaldi, J.L., and R.O. Woodbury. 1981. Status report on *Harrisia portoricensis* Britton. Unpublished status report submitted to the U.S. Fish and Wildlife Service, Atlanta, Georgia. 12 pp.
 Woodbury, R.C., L.F. Martorell, and J.G. García-Turduí. 1977. The flora of

Mona and Monito Islands, Puerto Rico (West Indies). Bulletin 252. Agricultural Experiment Station, University of Puerto Rico. Mayaguez.

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

List of Subjects in 50 CFR Part 17

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

Proposed Regulation Promulgation

PART 17—[AMENDED]

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:

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

Authority: 16 U.S.C. 1361-1407; 16 U.S.C. 1531-1543; 16 U.S.C. 4201-4245; 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 Cactaceae, to the List of Endangered and Threatened Plants:

§ 17.12 Endangered and threatened plants.

* * * * *
 (h) * * *

Species		Historic range	Status	When listed	Critical habitat	Special rules
Scientific name	Common name					
Cactaceae—Cactus family:						
<i>Harrisia (=Cereus) portoricensis</i>	Higo chumbo	U.S.A. (PR)	T		NA	NA

Dated: September 25, 1989.
 Richard N. Smith,
 Acting Director, Fish and Wildlife Service.
 [FR Doc. 89-24581 Filed 10-17-89; 8:45 am]
 BILLING CODE 4310-55-M

50 CFR Part 17
RIN 1018-AB36
Endangered and Threatened Wildlife and Plants; Proposed Threatened Status for *Sagittaria secundifolia* (Kral's water-plantain)

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: The Service proposes to determine an aquatic plant, *Sagittaria*

secundifolia (Kral's water-plantain), to be a threatened species under the authority contained in the Endangered Species Act (Act) of 1973, as amended. This species is currently known only from a single population in the Little River system in northeast Alabama (De Kalb and Cherokee Counties) and northwest Georgia (Chattooga County). A historical population from Town Creek (De Kalb County, Alabama) has not been located and is believed destroyed. This species is extremely vulnerable due to its restricted range and the clearing of the river banks for silvicultural, residential, agricultural or mining purposes. This proposal, if made final, would implement Federal protection provided by the Act for *Sagittaria secundifolia*. The Service

seeks data and comments from the public on this proposal.

DATES: Comments from all interested parties must be received by December 18, 1989. Public hearing requests must be received by December 4, 1989.

ADDRESSES: Comments and materials concerning this proposal should be sent to Complex Supervisor, U.S. Fish and Wildlife Service, Jackson Mall Office Center, 300 Woodrow Wilson Avenue, Suite 316, Jackson, Mississippi 39213. Comments and materials received will be available for public inspection, by appointment, during normal business hours at the above address.

FOR FURTHER INFORMATION CONTACT: Cary Norquist, at the above address (601/965-4900 or FTS 490-4900).