

**Paperwork Reduction Act of 1980**

These regulations have been examined under the Paperwork Reduction Act of 1980 and have been found to contain no information collection requirements.

**Assessment of Educational Impact**

The Secretary has determined that the regulations in this document do not require transmission of information that is being gathered by or is available from any other agency or authority of the United States.

**List of Subjects in 34 CFR Part 690**

Administrative practice and procedure, Education, Education of disadvantaged, Grant programs—education, Student aid.

(Catalog of Federal Domestic Assistance Number: 84.063 Pell Grant Program)

Dated: March 8, 1990.  
**Lauro F. Cavazos,**  
*Secretary of Education.*

The Secretary amends part 690 of title 34 of the Code of Federal Regulations as follows:

**PART 690—PELL GRANT PROGRAM**

1. The authority citation for part 690 continues to read as follows:

**Authority:** 20 U.S.C. 1070a through 1070a-6, unless otherwise noted.

**§ 690.31 [Amended]**

2. In § 690.31, paragraph (a), the introductory text is amended by removing "1989-90", and adding, in its place, "1990-91", and by removing "1989", and adding, in its place, "1990"; paragraphs (a) (2), (3), (4), and paragraph (b), are amended by removing "1989" each time it appears, and adding, in its place, "1990"; paragraphs (a) (1), (2), (3), (4), and (6), are amended by

removing "1988" each time it appears, and adding, in its place, "1989"; and the authority citation is revised to read as follows:

(Authority: Pub. L. 101-164)

**§ 690.32 [Amended]**

3. In § 690.32, paragraph (a), the introductory text is amended by removing "1989-90", and adding, in its place, "1990-91", and by removing "1989", and adding, in its place, "1990"; paragraphs (a) (1), (2), (3), (5), and paragraph (b) are amended by removing "1989" each time it appears, and adding, in its place, "1990"; paragraphs (a) (1), (2), (3), and (5), are amended by removing "1988" each time it appears, and adding, in its place, "1989"; and the authority citation is revised to read as follows:

(Authority: Pub L. 101-164)

[FR Doc. 90-7762 Filed 4-4-90; 8:45 am]

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# Federal Register

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Thursday  
April 5, 1990

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## Part IV

## Department of the Interior

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### Fish and Wildlife Service

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#### 50 CFR Part 17

**Endangered and Threatened Wildlife and  
Plants; *Cassia mirabilis*; *Stahlia  
monosperma*; *Geum radiatum* and  
*Hedyotis purpurea*; and *Lampsilis powelli*;  
Final Rule**

## DEPARTMENT OF THE INTERIOR

## Fish and Wildlife Service

## 50 CFR Part 17

RIN 1018-AB31

Endangered and Threatened Wildlife and Plants; *Cassia Mirabilis* Determined To Be Endangered

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

**SUMMARY:** The Service determines *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 final rule will implement the Federal protection and recovery provisions afforded by the Act.

**EFFECTIVE DATE:** May 7, 1990.

**ADDRESSES:** The complete file for this rule is available for inspection, by appointment, during normal business hours at the Caribbean Field Office, U.S. Fish and Wildlife Service, P.O. Box 491, Boqueron, Puerto Rico 00622, 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. David P. Flemming 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 *Cassia* as a species and in *Chamaecrista* both as a species and a variety (*Chamaecrista glandulosa* var. *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,  $\frac{1}{8}$  to  $\frac{1}{4}$  inches (3 to 5 millimeters) long, with some scattered-whitish hairs. The petioles have one to two stipitate glands. Flowers are yellow, solitary,  $\frac{3}{4}$  inches (about 2 centimeters) in diameter, with one petal much larger than the others. Mature fruits (legumes) are glabrous, linear, 1 to 1  $\frac{1}{2}$  inches (2.5 to 4 centimeters) long,  $\frac{1}{4}$  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 in 1978 by the Smithsonian Institution (Ayensu and DeFilippis 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. The Service proposed listing *Cassia mirabilis* on April 14, 1989 (54 FR 14976). That action represented the final finding required for the petition process.

**Summary of Comments and Recommendations**

In the April 14, 1989, proposed rule and associated notifications, all interested parties were requested to submit factual reports of information that might contribute to the development of a final rule. Appropriate agencies of the Commonwealth of Puerto Rico, Federal agencies, scientific organizations, and other interested parties were contacted and requested to comment. A newspaper notice inviting general public comment was published in the "San Juan Star" on April 29, 1989. Two letters of comment were received and are discussed below. A public hearing was neither requested nor held.

Two comments were received from U.S. Army Corps of Engineers (Corps). Neither had additional information on the status of the plant. The Jacksonville office of the Corps stated that a now inactive beach erosion project was previously identified as possibly impacting the species. If the project were to be reactivated its impact on this species should be evaluated. The species was not identified as being present in studies carried out for the Rio de La Plata Flood Protection Project.

The San Juan Corps office identified a project that had been submitted by the Hyatt Dorado Beach Hotel for the construction of a village complex within the range of the species.

**Summary of Factors Affecting the Species**

After a thorough review and consideration of all information available, the Service has determined that *Cassia mirabilis* 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 (50 CFR part 424) promulgated to implement the listing provisions of the Act were followed. 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* (Pollard) Urban 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 Tortuguero 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 Derado, 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 immediate protection and, if the species is ultimately placed on the Commonwealth list, it would further enhance its protection and the 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 make this rule final. 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 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 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. 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 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 interagency cooperation provision of the Act are codified at 50 CFR part 402. 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. 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 of 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 endangered 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 trespass law. The 1988 amendments do not reflect this protection for threatened plants. 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 3607, Arlington, Virginia 22203 (703/358-2104).

#### 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, 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. 342 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 final 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 species, Fish, Marine mammals, Plants (agriculture).

#### Regulation Promulgation

Accordingly, part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations is amended, as set forth below:

#### PART 17—[AMENDED]

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. 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.

\* \* \* \* \*  
(h) \* \* \*

Species	Historic range	Status	When listed	Critical habitat	Special rules
Scientific name	Common name				
Caesalpiniaceae-Cassia family: <i>Cassia mirabilis</i> .....	(None).....	U.S.A. (PR).....	E.....	379 NA.....	NA.....

Dated: March 15, 1990.

Richard N. Smith,

Acting Director, Fish and Wildlife Service.

[FR Doc. 90-7810 Filed 4-4-90; 8:45 am]

BILLING CODE 4310-55-M

## DEPARTMENT OF THE INTERIOR

### 50 CFR Part 17

RIN 1018-AB31

#### Endangered and Threatened Wildlife and Plants; Determination of Threatened Status for *Stahlia monosperma* (Cóbana Negra)

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Final rule.

**SUMMARY:** The Service determines *Stahlia monosperma* (cóbana negra) to be a threatened species pursuant to the Endangered Species Act (Act) of 1973, as amended. *Stahlia monosperma* is a medium-sized evergreen tree endemic to the island of Puerto Rico and the nearby Dominican Republic. The species is found in brackish, seasonally flooded wetlands in association with mangrove communities. *Stahlia monosperma* is affected by coastal development and the elimination of these wetlands by both filling and dredging, cutting of the tree for use in furniture and as fenceposts, and grazing. This final rule will extend the Federal protection and recovery provisions afforded by the Act to *Stahlia monosperma*.

**EFFECTIVE DATE:** May 7, 1990.

**ADDRESSES:** The complete file for this rule is available for inspection, by appointment, during normal business hours at the Caribbean Field Office, U.S. Fish and Wildlife Service, P.O. Box 491, Boquerón, Puerto Rico 00622 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. David P. Flemming at the Atlanta Regional Office address (404/331-3583) or FTS 242-3583.

#### SUPPLEMENTARY INFORMATION:

##### Background

*Stahlia monosperma* (cóbana negra) was placed in the genus *Stahlia* in 1881 in honor of Dr. Augustin Stahl, a physician and botanist of Puerto Rico who authored "Estudios sobre la flora de Puerto Rico". It is the only species in this genus. It was initially thought to be endemic to Puerto Rico and the adjacent island of Vieques, but was later collected in eastern Hispaniola. While at one time rather common on the edges of salt flats and shallow lagoons, filling or draining of these areas, cutting for use in furniture and fenceposts, and grazing have left only scattered small populations in Puerto Rico and Vieques. The largest remaining population occurs in the extreme southwest of Puerto Rico, an area currently subject to intense pressure for residential and tourist development (Department of Natural Resources 1988). Botanists from the Dr. Rafael M. Moscoso National Botanical

Gardens in the Dominican Republic indicate that the species has been similarly affected in that part of the range.

*Stahlia monosperma* is a medium-sized evergreen tree that may reach 25 to 50 feet (8 to 16 meters) in height and 1 to 1½ feet (.3 to .5 meters) in diameter. The pinnately compound, alternate leaves have from 6 to 12 opposite leaflets with scattered black dots or glands on the lower surface. Racemes (3 to 6 inches or 7 to 15 centimeters) of yellow flowers are produced between March and May, with the exact period being dependent upon rainfall. The fruits are about 1 inch (2 to 3 centimeters) in diameter and have a thin, red fleshy covering surrounding the single, large seed. These fruits have the noticeable odor of ripe apple. Seeds are apparently animal dispersed and germinate after burial and when surface water has receded (Densmore 1987).

Only scattered populations are known to occur in Puerto Rico and the nearby island of Vieques. The largest population occurs on the southwestern coast of Puerto Rico near Boquerón. Here 23 mature trees have been observed along with a group of 35 seedlings, all on the edge of salt flats. It is found associated with black mangrove (*Avicennia germinans*) and buttonwood (*Conocarpus erectus*). Several more individuals, which have been planted, are known to occur in yards and roadways. Other mature trees are found near mangrove areas in Rio Grande on the northeast coast and on the edge of mangrove forest on Vieques,

a 52 square mile island to the east of Puerto Rico. From 30 to 40 individuals occur on Vieques, all on U.S. Navy property. These populations are threatened by encroachment of development into these wetland areas and the elimination of mature trees. Establishment of seedlings is frequently difficult as they are either trampled or browsed by cattle grazing in the area.

*Stahlia monosperma* 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 Fish and Wildlife Service, as published in the Federal Register (45 FR 82480) dated December 15, 1980; the November 28, 1983, update (48 FR 53640) 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 candidate 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 *Stahlia monosperma* 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. The Service proposed listing *Stahlia monosperma* on May 12, 1989 (54 FR 20616). That action constituted the final finding required by the petition process.

#### Summary of Comments and Recommendations

In the May 12, 1989, proposed rule and associated notifications, all interested parties were requested to submit factual reports of information that might contribute to the development of a final rule. Appropriate agencies of the Commonwealth of Puerto Rico, Federal agencies, scientific organizations, and other interested parties were contacted and requested to comment. A newspaper notice inviting general public comment was published in the "El Dia" on May 27, 1989. Four letters of comment were received and are discussed below. A public hearing was neither requested nor held.

The Department of the Navy, Environmental Engineering Division of Roosevelt Roads Naval Station and

Vieques Island, reported that *Stahlia monosperma* could be found in both Ensenada Honda and Laguna Kiani. Both areas are classified as Class I Ecological Conservation Zones in which the cutting of vegetation, off road maneuvers, or development are not permitted. Grazing is also excluded from these areas.

The Puerto Rico Department of Natural Resources supported the designation of *Stahlia monosperma* as threatened and reported several cultivated trees from the Vega Commonwealth Forest and the Cayey Campus of the University of Puerto Rico. The U.S. Corps of Engineers, Jacksonville District, did not have civil works projects or active permit applications in the Boquerón area; however, they anticipated receiving at least one permit application during the next year.

Professor Gary Breckon, of the Mayaguez Campus of the University of Puerto Rico, supplied information on the distribution of *cóbana negra* in Puerto Rico and the Dominican Republic and on the reproductive biology of the species. He reported individuals in the Boquerón area in Puerto Rico and from only one area, La Altagracia Province, in the Dominican Republic. Additional cultivated individuals were reported. Professor Breckon reported flowering from March and April and fruit set during late June through mid July. Concern was expressed for the number and source of cultivated plants, all possibly originating from a single seed source.

#### Summary of Factors Affecting the Species

After a thorough review and consideration of all information available, the Service has determined that *Stahlia monosperma* should be classified as a threatened species. Procedures found at 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 were followed. 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 *Stahlia monosperma* (Tul.) Urban (*cóbana negra*) are as follows:

A. *The present or threatened destruction, modification, or curtailment of its habitat or range.* The most significant factor reducing the numbers of *Stahlia monosperma* has been the destruction and modification of habitat. Coastal development continues to encroach on coastal mangrove forests

and salt flats. Both residential and tourist development complexes are proposed for southwestern Puerto Rico. Many trees are known to have been eliminated in this way. Although in many of these areas the mangroves are part of the Commonwealth Forest system, the specimens of *Stahlia monosperma* lie just inland of black mangrove and are therefore not included within the Forest boundaries.

B. *Overutilization for commercial, recreational, scientific, or educational purposes.* *Stahlia monosperma* is highly valued for fenceposts and the species may have been greatly reduced in number by cutting of smaller size classes for this purpose. It is also suited for use in furniture.

C. *Disease or predation.* Disease has not been documented as a factor in the decline of this species. However, seedlings are apparently often short-lived in the wild, as those accessible to cattle are usually either trampled or browsed within one year following establishment. Some large trees have also been observed to be damaged by heavy browsing (Densmore 1987).

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, *Stahlia monosperma* is not yet on the Commonwealth list. Federal listing would provide immediate 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.* Other natural or manmade factors are not known to be significantly affecting the species at present.

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 make this rule final. Based on this evaluation the preferred action is to list *Stahlia monosperma* as threatened. Since the species appears to produce large quantities of viable seed, protection from the effects of grazing may increase natural colonization. Planting of this species has been successful and propagation efforts are ongoing by the Puerto Rico Department of Natural Resources. Therefore, 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 requires, to the maximum extent prudent and determinable, that the Secretary designate 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 *Stahlia monosperma* 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 key 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. Therefore, it would not be prudent to determine critical habitat for *Stahlia monosperma* at this 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, 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 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 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. No critical habitat is being proposed for *Stahlia monosperma*, as discussed above. Federal involvement relates to the Army Corps of Engineers regulatory program in areas under jurisdiction of section 404 of the Clean Water Act, as well as internal actions taken by the Corps relative to U.S. Navy property.

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 any threatened plant, transport it in interstate or foreign commerce in the course of a commercial activity, sell or offer it for sale 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. Certain exceptions can 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 *Stahlia monosperma* will ever be sought or issued since the species is not known to be in commercial 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 3507, Arlington, Virginia 22203-3507 (703/358-2104).

#### 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.
- Densmore, R. 1987. Status report on *Stahlia monosperma* (cobana negra) in southwestern Puerto Rico. Unpublished report submitted to the Caribbean Field Office, U.S. Fish and Wildlife Service, Boqueron, Puerto Rico.
- Department of Natural Resources, Natural Heritage Program. 1988. Status information on *Stahlia monosperma* in Puerto Rico and adjacent islands. San Juan, Puerto Rico.

#### Author

The primary author of this final 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).

#### Regulation Promulgation

Accordingly, part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, is amended as set forth below:

#### PART 17—[AMENDED]

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. Amend § 17.12(h) by adding the following, in alphabetical order, under Fabaceae 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					
Fabaceae—Pea family:						
<i>Stahliia monosperma</i>	Cobana negra	U.S.A. (PR) Dominican Republic.	T	380	NA	NA.

Dated: March 15, 1990.

Richard N. Smith,

Acting Director, Fish and Wildlife Service.

[FR Doc. 90-7811 Filed 4-4-90; 8:45 am]

BILLING CODE 4310-55-M

## 50 CFR Part 17

RIN 1018-AB31

### Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for *Geum radiatum* and *Hedyotis purpurea* var. *montana*

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

**SUMMARY:** The Service lists two plants, *Geum radiatum*, (spreading avens) and *Hedyotis purpurea* var. *montana* (Roan Mountain bluet), as endangered species under authority of the Endangered Species Act of 1973, as amended (Act). These perennial herbs, limited to 11 *Geum* populations and 6 *Hedyotis* populations in North Carolina and Tennessee, are endangered by residential and recreational development, habitat disturbance due to heavy use by hikers and climbers, collection, and natural succession. This action implements Federal protection provided by the Act for *Geum radiatum* and *Hedyotis purpurea* var. *montana*

**EFFECTIVE DATE:** May 7, 1990.

**ADDRESSES:** The complete file for this rule is available for inspection, by appointment, during normal business hours at the U.S. Fish and Wildlife Service, 100 Otis Street, Room 224, Asheville, North Carolina 28801.

**FOR FURTHER INFORMATION CONTACT:** Nora Murdock at the above address (704/259-0321 or FTS 672-0321).

**SUPPLEMENTARY INFORMATION:**

#### Background

*Geum radiatum*, described by André Michaux (1803) from material collected in North Carolina, is a perennial herb with basal rosettes of leaves arising from horizontal rhizomes. The stems grow 2 to 5 decimeters tall and are topped with an indefinite cyme of bright yellow actinomorphic flowers.

Flowering occurs from June through September, with fruiting from August through October. The fruit is a hemispheric aggregate of hirsute achenes, 7 to 9 millimeters in diameter (Kral 1983, Radford *et al.* 1968, Massey *et al.* 1980). This species can be easily distinguished from other Southeastern *Geums* by its large yellow flowers and by its leaves (mostly basal), which have large terminal lobes and small laterals (Massey *et al.* 1980). *Geum radiatum* has been placed in other genera by various workers; Robert Brown (1823) placed it in the genus *Sieversia*; Bolle (1933) placed it in the genus *Acomastylis*; and Hara (1935) placed it in *Parageum*. Currently accepted taxonomic treatment places this species in the genus of Michaux's original description (Raynor 1952, Robertson 1974).

*Hedyotis purpurea* (L.) T. & G. var. *montana* (Small) Fosberg was first described as *Houstonia montana* in 1903 by J. K. Small from specimens collected by J. W. Chickering, Jr., in 1877 from the summit of Roan Mountain in North Carolina and Tennessee. Another synonym is *Houstonia purpurea* L. var. *montana* (Small) (Terrell 1959, Terrell 1978). This species is a shallow-rooted perennial that forms low-growing, loose tufts 1 to 1.5 decimeters tall. The inflorescence is a subsessile few-flowered cyme. The bright purple flowers appear in July and early August, followed by the many-seeded capsule (Kral 1983, Radford *et al.* 1968). *H. purpurea* var. *montana* is distinguished from *H. p.* var. *purpurea* by its larger corolla size, different corolla color (deep purple as opposed to purplish to white in *H. p.* var. *purpurea*), and its larger seed size (Kral 1983, Terrell 1978).

These two species are endemic to a few scattered mountaintops in western North Carolina and eastern Tennessee where they grow, exposed to full sunlight, in the shallow acidic soils of high elevation cliffs, outcrops, steep slopes, and gravelly talus associated with cliffs. Substrate types are variable for the species but include various igneous, metamorphic, and metasedimentary rocks such as quartz diorite, garnet-rich biotite, muscovite and quartz schist, quartz phyllite, metagraywacke, metaconglomerate, and

metarkoses containing feldspar and chlorite, amphibole, hornblende, and feldspar gneiss (Massey *et al.* 1980). Common associates of these two species include *Leiophyllum buxifolium*, *Menziesia pilosa*, *Rhododendron catawbiense*, *Aster* spp., *Carex* spp., *Solidago* spp., *Heuchera villosa*, *Saxifraga michauxii*, and various grass species. Some of the sites are also occupied by *Liatris helleri* and/or *Solidago spithamea*, species that are already federally listed as threatened. The high elevation coniferous forests adjacent to the rock outcrops and cliffs occupied by these two species are dominated by red spruce (*Picea rubens*) and another Federal candidate species, Fraser fir (*Abies fraseri*) (Massey *et al.* 1980, Morgan 1980, Kral 1983).

Sixteen populations of *Geum radiatum* have been reported historically; 11 remain in existence. Three of these populations are in Ashe County, North Carolina, with one population each remaining in Avery, Transylvania, Watauga, Buncombe, and Yancey Counties, North Carolina, and Sevier County, Tennessee; the other two populations are located on the Mitchell County, North Carolina/Carter County, Tennessee line and the Avery/Watauga County line in North Carolina. Six of the remaining populations are located on privately owned lands; four are located on public land administered by the U.S. Forest Service and the National Park Service, and one is located on State park land administered by the North Carolina Department of Environment, Health, and Natural Resources. Five additional populations were historically known for this species. The reasons for the disappearance of *Geum radiatum* at these sites are undocumented. However, most of the sites have been subjected to heavy recreational use by hikers, climbers, and sightseers.

*Hedyotis purpurea* var. *montana* was known historically from seven populations; six remain. Two of these are located on the line between Avery and Watauga Counties, North Carolina; one is at the juncture of the boundaries of Mitchell and Avery Counties, North Carolina, and Carter County, Tennessee; two are in Ashe County, North Carolina;