

**DEPARTMENT OF THE INTERIOR****Fish and Wildlife Service****50 CFR Part 17**

RIN 1018-AD48

**Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for the Plant *Cordia Bellonis***

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

**SUMMARY:** The Fish and Wildlife Service (Service) determines *Cordia bellonis* (no common name) to be endangered pursuant to the Endangered Species Act (Act) of 1973, as amended. This species is a shrub endemic to the island of Puerto Rico and it is restricted to three public forests—Maricao, Susua, and Río Abajo. The species is threatened by habitat loss, some forest management practices, and restricted distribution. This final rule will implement the Federal protection and recovery provisions afforded by the Act for *Cordia bellonis*.

**DATES:** Effective February 10, 1997.

**ADDRESSES:** The complete file for this rule is available for inspection, by appointment, during normal business hours, at the Boquerón Field Office, U.S. Fish and Wildlife Service, P.O. Box 491, Boquerón, Puerto Rico 00622.

**FOR FURTHER INFORMATION CONTACT:** Ms. Marelisa Rivera at the Boquerón Field Office address (809/851-7297).

**SUPPLEMENTARY INFORMATION:****Background**

*Cordia bellonis* was described by Urban in 1899 from specimens collected by Paul Sintenis at "Monte Alegrillo" in the municipality of Maricao, Puerto Rico (Urban 1899). The name of "Monte Alegrillo" has disappeared from use, but according to Proctor (1991), N.L. Britton referred to "Monte Alegrillo" as the peak at the extreme head of the Río Maricao, with an elevation of 900 meters. This type location was developed for the installation of telecommunication towers. Paul Sintenis collected *Cordia bellonis* in the area known as Indiera Fria. The species was also collected by Britton and Brown in 1915 from Monte Cerrote near Adjuntas (Proctor 1991). Britton and Wilson (1925) described the species as *Varronia bellonis* and identified its distribution as mountain-sides in the vicinity of Maricao. Liogier and Martorell (1982) stated that the species distribution was the mountain slopes

and serpentine hills in northwestern districts of Puerto Rico. Proctor (1991) reported only 4 individuals of *Cordia bellonis* from Caín Alto Ward in the Maricao Commonwealth Forest. Breckon and Kolterman (1993) reported 87 individuals at 17 localities in three areas in Maricao. Half of the localities consist of isolated individuals.

The species was reported for the first time in Susúa in 1992, where a small population of 5 individuals was found (Breckon and Kolterman 1993). *Cordia bellonis* was also unknown from the Río Abajo Commonwealth Forest until it was found in 1994 (Federal Highway Administration and Puerto Rico Highway and Transportation Authority 1994). Approximately 118 individuals were found in 12 localities. Ninety-five (82 percent) of these individuals were removed for possible future reintroduction because of the construction of the road PR 10 (PR Highway and Transportation Authority 1995).

*Cordia bellonis* has been found in serpentine soils at Maricao and Susúa at road edges, river margins, and on steep slopes (Breckon and Kolterman 1993). In the Río Abajo Forest, the species was found either on sunny banks along dirt roads growing in thickets of vegetation or in open saddles between limestone hills (Federal Highway Administration and Puerto Rico Highway and Transportation Authority 1994).

*Cordia bellonis* is an arching to erect shrub of about 1 to 2 meters (3.3 to 6.6 feet) high with very slender twigs with short hairs. The leaves are alternate, oblong to oblong-lanceolate, 2 to 6 centimeters (0.79 to 2.36 inches) long, usually 2.5 to 3 times longer than wide. The corolla is white with 4 subcylindric lobes. The fruit is a pointed drupe, 5 millimeters (0.20 inches) in length (Proctor 1991). The white axillary flowers are unisexual and the plants are either male or female (dioecious) (Breckon and Kolterman 1993).

The species is threatened by habitat destruction and modification, forest management practices, and restricted distribution. Eighty-two percent of the individuals known from the Río Abajo Commonwealth Forest were removed from the forest for the construction of a highway. Breckon and Kolterman (1994) reported that 14 individuals from Maricao appeared to have been eliminated due to clearing along the roadside of the forest. In 1995, twenty additional individuals were apparently destroyed by the clearing which occurred for the reconstruction of Road 362 in the Camp Santana area. Restricted distribution coupled with the requirement for adequate numbers of

both male and female plants in a viable population are limiting factors for the species. In a large number of the localities where the species is found, the shrub occurs as isolated individuals. Because of forest destruction, less than half of the individuals previously known remain in these three forests.

**Previous Federal Action**

*Cordia bellonis* was designated a candidate species in the Federal Register notice of review for plant taxa dated September 30, 1993 (58 FR 51144). The species was recommended for listing by Proctor (1991) in a Status Report prepared for the species. In further studies conducted for the species, Breckon and Kolterman (1993) also recommended the species for listing. *Cordia bellonis* is considered to be a critical plant by the Natural Heritage Program of the Puerto Rico Department of Natural and Environmental Resources. A proposed rule to list *Cordia bellonis* as endangered was published on September 28, 1995 (60 FR 50176).

The processing of this final rule conforms with the Service's final listing priority guidance published in the Federal Register on May 16, 1996 (61 FR 24722). The guidance clarifies the order in which the Service will process rulemakings following two related events—(1) the lifting, on April 26, 1996, of the moratorium on final listings imposed on April 10, 1995 (Public Law 104-6), and (2) the restoration of significant funding for listing through the passage of the omnibus budget reconciliation law on April 26, 1996, following severe funding constraints imposed by a number of continuing resolutions between November 1995 and April 1996. The guidance calls for giving highest priority to handling emergency situations (Tier 1) and second highest priority (Tier 2) to resolving the listing status of the outstanding proposed listings. This final rule falls under Tier 2. At this time, there are no pending Tier 1 actions. In the development of this final rule, the Service has conducted an internal review of all available information. Based on this review, the Service has determined that there is no new information that would substantively affect this listing decision and that additional public comment is not warranted.

**Summary of Comments and Recommendations**

In the September 28, 1995, 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 agencies of the Commonwealth of Puerto Rico, Federal agencies, scientific organizations, and interested parties were requested to comment. Newspaper notices inviting general public comment were published in "The San Juan Star" on October 14, 1995, and in "El Nuevo Día" on October 16, 1995. Two comment letters were received and are discussed as follows. Dr. G.J. Breckon and Dr. D.A. Kolterman, both from the University of Puerto Rico, Mayaguez Campus, supported the proposal to list *Cordia bellonis* as an endangered species. The U.S. Department of the Army, Jacksonville District Corps of Engineers, Antilles Office, provided comments, but did not indicate support or objection to listing the species. Comments supplying supplemental data have been incorporated into the Background section of this rule, as appropriate. A public hearing was neither requested nor held.

The Service also solicited the expert opinions of three appropriate and independent specialists regarding pertinent scientific or commercial data and assumptions relating to distribution, abundance, status, and biological and ecological information for *Cordia bellonis*. Two responses from the specialists were received; they supported the listing of the species as an endangered species, and supplemental data was incorporated into this final rule.

#### Summary of Factors Affecting the Species

After a thorough review and consideration of all information available, the Service has determined that *Cordia bellonis* should be classified as an endangered species. Procedures found at section 4(a)(1) of the Endangered Species Act and regulations implementing the listing provisions of the Act (50 CFR part 424) 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 *Cordia bellonis*, are as follows:

A. *The present or threatened destruction, modification, or curtailment of its habitat or range.* Destruction and modification of the habitat is considered one of the most significant factors affecting the numbers and distribution of *Cordia bellonis*. This species is only known from three areas in Puerto Rico; Maricao, Susúa, and Río Abajo.

In Maricao, the species is found at 17 localities in three areas, for a total of 87

individuals. Thirty-four of these individuals have been eliminated due to clearing along the roadside and the reconstruction of Road 362. Half of the localities consist of isolated individuals. The dioecious condition of the species is a factor limiting reproduction by these individuals. Because the majority of these individuals occur along both sides of two public roads, maintenance of road sides, as well as fires and vandalism, may result in the loss of these individuals. In Susúa, a small population of only 5 individuals was found in 1992. The species was previously unknown from this area. This small population may be affected by forest management practices. *Cordia bellonis* was also unknown from the Río Abajo forest until it was found in 1994. Approximately 118 individuals were found in 12 localities. Ninety-five individuals were located along the construction route for a highway (which is now completed) and were removed for possible future transplantation. Of the remaining 23 individuals, 13 have been found in an area designated for compensation (mitigation) for the highway and 10 are found in highway rights-of-way. The species is also known from a private landholding where extraction of fill material for the construction of the road will likely result in the loss of these plants. The rareness and restricted distribution make this species vulnerable to habitat destruction and modification.

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 to certain Commonwealth listed species. However, *Cordia bellonis* is not yet on the Commonwealth list. Federal listing will provide immediate protection to the species, and by virtue of an existing section 6 Conservation Agreement with the Commonwealth, listing will also assure the addition of this species to the Commonwealth list and enhance its possibilities for funding needed research.

E. *Other natural or manmade factors affecting its continued existence.* Two significant factors affecting this species are its limited distribution and dioecious condition. The limited distribution of this species makes it particularly vulnerable to extinction

from naturally occurring events such as fire and local management practices. As a dioecious plant, *Cordia bellonis* requires outcrossing to successfully reproduce. Being dioecious creates a limiting factor affecting the continued existence of this rare plant since most remaining individuals are widely separated from each other and, therefore, unlikely to reproduce.

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 *Cordia bellonis* as endangered. The rarity of this plant makes the species vulnerable to the loss of any individual. Only 81 individuals of *Cordia bellonis* are known to occur in the wild. Habitat modification may dramatically affect this endemic plant. Therefore, endangered, rather than threatened, status is considered an accurate assessment of the species' condition. The reasons for not designating critical habitat for this species are discussed in the "Critical Habitat" section of this rule.

#### Critical Habitat

Critical habitat is defined in section 3 of the Act as: (i) the specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) that may require special management considerations or protection and; (ii) specific areas outside the geographical area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. "Conservation" means the use of all methods and procedures needed to bring the species to the point at which listing under the Act is no longer necessary.

Section 4(a)(3) of the Act, as amended, and implementing regulations (50 CFR 424.12) require that, to the maximum extent prudent and determinable, 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 *Cordia bellonis*. Service regulations (50 CFR 424.12 (a)(1)) state that designation of critical habitat is not prudent when one or both of the following situations exist—(1) The species is threatened by taking or other human activity, and identification of critical habitat can be expected to increase the degree of threat to the

species, or (2) such designation of critical habitat would not be beneficial to the species.

Populations of *Cordia bellonis* are small and accessible. Vandalism and cutting 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 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. The precarious status of *Cordia bellonis* necessitates identical thresholds for determining adverse modification of critical habitat and jeopardizing the continued existence of the species. Therefore, no additional protection from designating critical habitat would occur for this species.

#### Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the 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 Act provides for possible land acquisition and cooperation with the States and requires that recovery actions be carried out for all listed species. 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)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of the species or 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.

The majority of the individuals of *Cordia bellonis* known from Maricao are found along both sides of roads PR #120 and PR #362. Any widening of these roads, installation of water and sewer pipelines, and the installation of powerlines along these roads may adversely affect the species. These types of activities could be funded by Federal agencies (for example, the Federal Highway Administration, U.S. Housing and Urban Development, and Rural Development). *Cordia bellonis* was seriously affected by the construction of a highway in the Rio Abajo Commonwealth Forest. This road was funded by the Federal Highway Administration and 82 percent of the individuals of *Cordia bellonis* were removed from the Forest for possible future transplantation.

The Act and its implementing regulations set forth a series of general prohibitions and exceptions that apply to all endangered plants. All prohibitions of section 9(a)(2) of the Act, implemented by 50 CFR 17.61, 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 in interstate or foreign commerce, or remove and reduce the species to possession from areas under Federal jurisdiction. In addition, for plants listed as endangered, the Act prohibits the malicious damage or destruction on areas under Federal jurisdiction and the removal, cutting, digging up, or damaging or destroying of such plants in knowing violation of any State law or regulation, including State criminal trespass law. Certain exceptions to the prohibitions apply to agents of the Service and State 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 plants under certain circumstances. Such permits are available for scientific purposes and to enhance the propagation or survival of the species. Few trade permits for this plant will ever be sought or issued, since the species is not known to be in cultivation and is uncommon in the wild.

It is the policy of the Service, published in the Federal Register on July 1, 1994 (50 FR 34272), to identify to the maximum extent practicable those activities that would or would not constitute a violation of section 9 of the Act at the time of listing. The intent of

this policy is to increase public awareness of the effect of listing on proposed or ongoing activities. The only known populations of *Cordia bellonis* are restricted to three Commonwealth forests—Maricao, Susúa and Río Abajo. Since there is no Federal ownership, and the species is not currently in trade, the only potential section 9 involvement would relate to removing or damaging the plant in knowing violation of a Commonwealth law or regulation, including Commonwealth criminal trespass law. Section 15.01(b) of the Commonwealth "Regulation to Govern the Management of Threatened and Endangered Species in the Commonwealth of Puerto Rico" states: "It is illegal to take, cut, mutilate, uproot, burn or excavate any endangered plant species or part thereof within the jurisdiction of the Commonwealth of Puerto Rico." The Service is not aware of any otherwise lawful activities being conducted or proposed by the public that will be affected by this listing and result in a violation of section 9.

Questions regarding whether specific activities will constitute a violation of section 9 should be directed to the Field Supervisor of the Service's Boquerón Field Office (see ADDRESSES section). Requests for copies of the regulations on listed species and inquiries regarding prohibitions and permits should be addressed to U.S. Fish and Wildlife Service, Ecological Services (TE), 1875 Century Boulevard, Atlanta, Georgia 30345-3301 (404/679-7313).

#### National Environmental Policy Act

The Fish and Wildlife Service has determined that Environmental Assessment and Environmental Impact Statements, 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 CFR 49244).

#### Required Determinations

The Service has examined this regulation under the Paperwork Reduction Act of 1995 and found it to contain no information collection requirements. This rulemaking was not subject to review by the Office of Management and Budget under Executive Order 12866.

References Cited

Breckon, G.J. and D.A. Kolterman. 1993. *Cordia bellonis* Urban [Boraginaceae]. Final report under cooperative agreement No. 14-16-0004-92-970 between U.S. Fish and Wildlife Service and the University of Puerto Rico, Mayaguez Campus. 14 pp.

Breckon, G.J. and D.A. Kolterman. 1994. *Cordia bellonis* Urban [Boraginaceae]. Final report under cooperative agreement No. 14-16-0004-93-973 between U.S. Fish and Wildlife Service and the University of Puerto Rico, Mayaguez Campus. 4 pp.

Britton, N.L. and P. Wilson. 1925. Scientific survey of Porto Rico and the Virgin Islands. Volume VI—Part 1. Botany of Porto Rico and the Virgin Islands. Descriptive flora-Spermatohyta (continued). New York Academy of Sciences, New York. 158 pp.

Federal Highway Administration and the Puerto Rico Highway and Transportation Authority. 1994. Biological Assessment Relocation of PR-10 Utuado, Puerto Rico. Unpublished Report.

Liogier, H.A. and L.F. Martorell. 1982. Flora of Puerto Rico and adjacent islands: a systematic synopsis. Editorial de la Universidad de Puerto Rico, Río Piedras, Puerto Rico. 342 pp.

Proctor, G. 1991. Puerto Rican plant species of concern: Status and recommendations. Miscellaneous Scientific Publication No. 2. Department of Natural and Environmental Resources, San Juan, Puerto Rico. Pp. 59-61.

Puerto Rico Highway and Transportation Authority. 1995. Report to U.S. Fish and Wildlife Service on plant species, Puerto Rican boa and monitoring program of the broad-winged hawk PR-10 Highway, Arecibo-Utuado. Unpublished report.

Urban. 1899. Symb. Antill. 1:393.

Author

The primary author of this final rule is Ms. Marelisa Rivera, Boquerón 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, Exports, Imports, Reporting and

recordkeeping requirements, and Transportation.

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. 1531-1544; 16 U.S.C. 4201-4245; Pub. L. 99-625, 100 Stat. 3500; unless otherwise noted.

2. Section 17.12(h) is amended by adding the following, in alphabetical order under FLOWERING PLANTS, to the List of Endangered and Threatened Plants to read as follows:

**§ 17.12 Endangered and threatened plants.**

\* \* \* \* \*

(h) \* \* \*

Species		Historic range	Family	Status	When listed	Critical habitat	Special rules
Scientific name	Common name						
FLOWERING PLANTS							
* <i>Cordia bellonis</i> .....	* None .....	* U.S.A. (PR) .....	* Boraginaceae .....	* E	* 601	* NA	* NA
*	*	*	*	*	*	*	*

Dated: December 6, 1996.  
 John G. Rogers,  
 Acting Director, Fish and Wildlife Service.  
 [FR Doc. 97-564 Filed 1-9-97; 8:45 am]  
 BILLING CODE 4310-55-P

**DEPARTMENT OF THE INTERIOR**

**Fish and Wildlife Service**

**50 CFR Part 17**

**RIN 1018-AC64**

**Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for the Cumberland Elktoe, Oyster Mussel, Cumberlandian Combshell, Purple Bean, and Rough Rabbitsfoot**

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

**ACTION:** Final rule.

**SUMMARY:** The Fish and Wildlife Service (Service) determines endangered status for five freshwater mussels—Cumberland elktoe (*Alasmidonta atropurpurea*), oyster mussel

(*Epioblasma capsaeformis*), Cumberlandian combshell (*Epioblasma brevidens*), purple bean (*Villosa perpurpurea*), and rough rabbitsfoot (*Quadrula cylindrica strigillata*)—under the Endangered Species Act of 1973, as amended (Act). All five species have undergone significant reductions in range and numbers. They now exist as relatively small, isolated populations. The Cumberland elktoe exists in very localized portions of the Cumberland River system in Kentucky and Tennessee. The oyster mussel and Cumberlandian combshell persist at extremely low numbers in portions of the Cumberland and Tennessee river basins in Kentucky, Tennessee, and Virginia. The purple bean and rough rabbitsfoot currently survive in a few river reaches in the upper Tennessee River system in Tennessee and Virginia. These species were eliminated from much of their historic range by impoundments. Presently, these species and their habitats are being impacted by deteriorated water quality, primarily resulting from poor land-use practices. Because the species have such restricted

ranges, they are vulnerable to toxic chemical spills.

**DATES:** Effective February 10, 1997.

**ADDRESSES:** The complete administrative file for this rule is available for inspection, by appointment, during normal business hours at the U.S. Fish and Wildlife Service, Asheville Field Office, 160 Zillicoa Street, Asheville, North Carolina 28801.

**FOR FURTHER INFORMATION CONTACT:** Mr. Richard G. Biggins at the above address, or telephone 704/258-3939, Ext. 228.

**SUPPLEMENTARY INFORMATION:**

Background

Cumberland elktoe (*Alasmidonta atropurpurea*)

The Cumberland elktoe, described by Rafinesque (1831), has a thin but not fragile shell. The shell's surface is smooth, somewhat shiny, and covered with greenish rays. Young specimens have a yellowish brown shell, and the shells of adults are generally black. The inside of the shell is shiny with a white, bluish white, or sometimes peach or salmon color (see Clarke (1981) for a