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**50 CFR Part 17**

**Endangered and Threatened Wildlife and Plants; Final Rule to Determine *Torreya taxifolia* (Florida torreya) to be an Endangered Species**

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

**ACTION:** Final rule.

**SUMMARY:** The Service determines *Torreya taxifolia* (Florida torreya) to be an endangered species pursuant to the

Endangered Species Act. This plant is endemic to the Apalachicola River area in Florida and Georgia. It is endangered by a fungal disease, which kills trees before they reach seed-bearing size. This rule provides *Torreya taxifolia* with the protection of the Endangered Species Act of 1973, as amended. The Service will initiate efforts for this species.

**DATES:** The effective date of this rule is February 22, 1984.

**ADDRESSES:** The complete file for this rule is available for inspection, by

appointment, during business hours (7:45 a.m.-4:30 p.m.) at the Service's Endangered Species Field Office, 2747 Art Museum Drive, Jacksonville, Florida 32207.

**FOR FURTHER INFORMATION CONTACT:** Mr. David Wesley, Field Supervisor (904/791-2580) at the above address.

**SUPPLEMENTARY INFORMATION:**

**Background**

An evergreen tree reaching 18 meters tall, *Torreya taxifolia* (Florida torrey) was first discovered in 1835 and formally described in 1838 (Arnott, 1838). The Florida torrey and other endemics of the Apalachicola River system have received much attention from scientists and local residents. The relicual nature of this area accounts for the presence of many unique species (James, 1967). During recent glaciations, species migrated southward by way of the Apalachicola River system, which served as a refugium during cooling periods. The Apalachicola River is the only Deep River system that has its head waters in the southern Appalachian Mountains. With the receding of the glaciers, cool moist conditions persisted on the bluffs and ravines of the Apalachicola River after climatic change rendered the surrounding area much drier and warmer. The entire Apalachicola River bluff system today is an extremely diverse and unique ecosystem, of which *Torreya taxifolia* is a part.

*Torreya taxifolia* is a conifer, with whorled branches and stiff sharp-pointed, needle-like leaves. The trees are conical in overall shape. Dark green, fleshy seeds mature in the midsummer to fall. The leaves of the tree have a strongly pungent or resinous odor when crushed, thus one common name, "stinking cedar."

Section 12 of the Endangered Species Act of 1973 directed the Secretary of the Smithsonian Institution to prepare a report on those plants considered to be endangered, threatened, or extinct. This report, designated as House Document No. 94-51, was presented to Congress on January 9, 1975. On July 1, 1975, the Director published a notice in the *Federal Register* (40 FR 27823) of his acceptance of the report of the Smithsonian Institution as a petition within the context of Section 4(c)(2) of the Act, and of his intention thereby to review the status of the plant taxa named within. On June 16, 1976, the Service published a proposed rule in the *Federal Register* (41 FR 24523) to determine approximately 1,700 vascular plant species to be endangered species pursuant to Section 4 of the Act. This list

of 1,700 plant taxa was assembled on the basis of comments and data received by the Smithsonian Institution and the Service in response to House Document No. 94-51 and the July 1, 1975, *Federal Register* publication. *Torreya taxifolia* was included in the July 1, 1975, notice of review and the June 16, 1976, proposal.

The Endangered Species Act Amendments of 1978 (Pub. L. 95-632, November 10, 1978) required that all proposals over 2 years old be withdrawn. A 1-year grace period was given to proposals already over 2 years old. On December 10, 1979, the Service published a notice withdrawing the portion of the June 16, 1976, proposal, that had not been subject to final action, along with 4 other proposals that had expired. A 1981 report submitted by the Georgia Plant Program, investigations carried out by Service botanists (Washington Office and Jacksonville Field Office) during the winter of 1981, and a contract completed during 1982 on *Torreya taxifolia* and *Taxus floridana* provided additional biological information. The Service reproposeed this species as endangered on April 7, 1983 (48 FR 15168).

**Summary of Comments and Recommendations**

During the public comment period for the proposal to list *Torreya taxifolia*, eight public comments were received. The proposal was supported by Florida's Department of Natural Resources, Game and Fresh Water Fish Commission, and Department of Agriculture and Consumer Services. Georgia's Department of Natural Resources also supported the proposal. The Georgia Department of Agriculture stated that the listing of this species should create no problems in the State. The Jackson County, Florida, Board of County Commissioners supported the proposal. The resource manager for U.S. Army Corps of Engineers lands on which *Torreya taxifolia* occurs commented on the status of this species and made propagation recommendations. The Florida Natural Areas Inventory supported the proposal and provided information on threats to the species from habitat alteration. A plant ecologist made recovery recommendations for *Torreya taxifolia*, and a private individual commented on the historical decline of the species.

All eight comments concurred with the Service's proposed action. No public hearing was requested or held.

**Summary of Factors Affecting the Species**

Section 4(a)(1) of the Endangered Species Act (16 U.S.C. 1531 *et seq.*) states that the Secretary of the Interior shall determine whether any species is an endangered or a threatened species due to one or more of the five factors described in Section 4(a)(1) of the Act. These factors and their application to *Torreya taxifolia* (Florida torrey) are as follows:

A. *The present or threatened destruction, modification, or curtailment of its habitat or range.* *Torreya taxifolia* occurs in the ravines along the eastern side of the Apalachicola River from Lake Seminole in Georgia to Bristol, Florida (Southeastern Wildlife Services, 1982). One population also occurs on the margin of Dog Pond (Florida) which lies to the west of the Apalachicola River.

The Georgia population contained 27 trees in 1981 and occurs entirely on public land administered by the U.S. Army Corps of Engineers (COE) on the margins of Lake Seminole (Butler, 1981). The construction of Lake Seminole has been reported to have resulted in the loss of habitat and possibly individuals of *Torreya taxifolia* (Milstead, 1978). The resource manager at Lake Seminole, however, feels that the impoundment level was below the elevation on the ravines where *Torreya taxifolia* occurs (Butler, 1981). The resource manager is sensitive to the need for proper management and protection of the species. Proper management and protection will need to continue and should not conflict with the present recreational use of the area.

The Florida populations occur on a State park, a city park, and privately-owned lands. Torreya State Park was established for the protection of *Torreya taxifolia* and the unique bluff habitats and other species associated with the area. A city park in Chattahoochee also provides some protected habitat for this species. The majority of the area occupied by *Torreya taxifolia* is in private ownership, however, where no protective status exists. Past habitat destruction has occurred due to housing developments (Baker and Smith, 1981). Another COE impoundment planned near Blountstown, Florida, is not expected to affect this species because the proposed high water mark is below the elevations at which *Torreya taxifolia* occurs. The steepness of the bluffs and ravines render them somewhat inappropriate for many types of agriculture, forestry, and housing. Damming the ravines for recreational impoundments, however, is a potential

threat to this species. Proper planning for the protection of this species will be necessary in relation to all COE projects and any other future Federal activities.

B. *Overutilization for commercial, recreational, scientific, or educational purposes.* Not applicable to this species.

C. *Disease or predation.* The major threat facing *Torreya taxifolia* is disease. Since 1962, natural populations have been drastically reduced or eliminated due to a fungal disease (Godfrey, 1962). The fungal disease causes necrosis of the needles and stems and severe defoliation; however, treatment through the application of fungicides seems possible (Alfieri *et al.*, 1967).

All that remains of the species in nature are root sprouts, reaching less than 3 meters in height (Baker and Smith, 1981). Trees formerly reached heights of 18 meters. Cultivated, uninfected, specimens exist in various botanical gardens and can provide seeds and material for future recovery efforts. Through treatment of diseased individuals or breeding resistant strains, *Torreya taxifolia* can possibly be recovered. However, extensive research is needed to determine appropriate disease treatments and investigate the possibilities of breeding trees resistant to the disease.

D. *The inadequacy of existing regulatory mechanisms.* *Torreya taxifolia* is offered protection under Florida law, Chapter 65-426, Section 855.06, which includes prohibitions concerning taking, transport, and the selling of plants listed under that law. *Torreya taxifolia* is also included under Georgia's Wild Flower Preservation Act of 1973, which prohibits taking from public lands and intrastate transport and sale of certain rare plant species. The Endangered Species Act would offer additional protection for the species through the recovery plan process, the consultation process, and interstate/international trade prohibitions.

E. *Other natural or manmade factors affecting its continued existence.* The very limited range and small size of the populations of this species increase the possibility of loss of all or a significant portion of the species as a result of any accidental or natural catastrophe.

#### Critical Habitat

The Act requires that critical habitat be designated at the time of listing, to the maximum extent prudent and determinable. The Service has determined that it would not be prudent to determine critical habitat for *Torreya taxifolia* at this time. Increased publicity of localities would increase the extreme

vulnerability of this species illegal takings under Federal or State law. The Federal Act does not prohibit the taking of plants, except on areas like Lake Seminole which are under Federal jurisdiction.

In addition, critical habitat is not identifiable at this time. All mature viable trees are located in botanical gardens and arboreta. The wild trees do not now have good long-term survival prospects. The initial focus of recovery will be to address controlling the disease. After the disease has been overcome, recovery efforts would address reintroduction of the species into the wild, and critical habitat could be designated at that time, if it is found prudent to do so. Taking would be reevaluated as a threat at that time and benefits of critical habitat weighed against possible increased threats. Sites on which the species could receive protection and proper management, such as the Army Corps of Engineers land, the State and city park, and other areas will be considered. It is not currently possible to identify which areas would be selected and, therefore, critical habitat designations would be imprudent 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 and State agencies and private groups and individuals. The Endangered Species Act requires that recovery actions be carried out for all listed species and these are initiated by the Service following listing. The protection required by Federal agencies and taking prohibitions are discussed 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. 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. If a "may affect" determination is made, the Federal agency must enter into consultation with the Service.

The Act and implementing regulations found at 50 CFR 17.61, 17.62, and 17.63 set forth a series of general trade prohibitions and exceptions which apply to all endangered plant species. With respect to *Torreya taxifolia*, all trade prohibitions of Section 9(a)(2) of the Act,

implemented by 50 CFR 17.61, will apply. These prohibitions, in part, will 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, or sell or offer for sale this species in interstate or foreign commerce.

Certain exceptions can 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 species under certain circumstances. It is anticipated that few permits will ever be sought or issued since the species is not common commercially, in cultivation, or in the wild.

Section 9(a)(2)(B) of the Act, as amended in 1982, states that it is unlawful to remove and reduce to possession endangered plant species from areas under Federal jurisdiction. The new prohibition now applies to *Torreya taxifolia*, which occurs on land under Federal jurisdiction (U.S. Army Corps of Engineers) in Decatur County, Georgia. Permits for exceptions to this prohibition are available through Sections 10(a) and 4(d) of the Act, following the general approach of 50 CFR 17.62, until revised regulations are promulgated to incorporate the 1982 amendments to the Act. Proposed regulations implementing this new prohibition were published on July 8, 1983 (48 FR 31417), and will be finalized following the public comment period.

Requests for copies of the regulations on plants, and inquiries regarding them, may be addressed to the Federal Wildlife Permit Office, U.S. Fish and Wildlife Service, Washington, D.C. 20240 (703/235-1903).

#### References

- Alfieri, S.A., Jr., A.P. Martinez, and C. Wehlburg. 1967. Stem and needle blight of Florida *torreya* (*Torreya taxifolia* Arn.). Proc. Florida State Horticultural Society 80:428-431.
- Arnott, G.A.W. 1838. On the Genus *Torreya*. Annals of Natural History 1:126-132.
- Baker, G.S., and E.L. Smith. 1981. Field notes, maps, and report prepared for U.S. Fish and Wildlife Service files. Jacksonville Field Station, Jacksonville, Florida.
- Butler, Will. 1981. Status of the Florida *torreya* in Georgia. Unpublished report prepared by the Georgia Protected Plants/Natural Areas program.
- Godfrey, R.K., and H. Kurz. 1962. The Florida *Torreya* destined for extinction. Science 136:900-902.
- James, C.W. 1961. Endemism in Florida. Brittonia 13(3):225-244.

Milstead, Wayne. 1978. Status Report. Prepared for U.S. Fish and Wildlife Service, Atlanta, Georgia.

Southern Wildlife Services. 1982. A Distribution Survey of the Populations of *Taxus floridana* and *Torreya taxifolia* in Florida. Report to U.S. Fish and Wildlife Service, Atlanta, Georgia. 39 p.

**Authors**

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**List of Subjects in 50 CFR Part 17**

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

**Regulation Promulgation**

Accordingly, Part 17, Subchapter B of Chapter I, Title 50 of the U.S. Code of Federal Regulations, is amended as set forth below:

**PART 17—[AMENDED]**

1. The authority citation for Part 17 reads as follows:

Authority: Pub. L. 93-205, 87 Stat. 884; Pub. L. 94-359, 90 Stat. 911; Pub. L. 95-632, 92-Stat. 3751; Pub. L. 96-159, 93 Stat. 1225; Pub. L. 97-304, 96 Stat. 1411 (16 U.S.C. 1531 *et seq.*).

**§ 17.12 [Amended]**

2. Amend § 17.12(h) by adding the following, in alphabetical order, to the list of Endangered and Threatened Plants:

Species		Historic range	Status	When listed	Critical habitat	Special rule
Scientific name	Common name					
Taxaceae—Yew family:						
<i>Torreya taxifolia</i>	Florida torreya	U.S.A. (FL, GA)	E		na	na

Dated: December 2, 1983.  
**G. Ray Arnett,**  
*Assistant Secretary for Fish and Wildlife and Parks.*  
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