DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

## Endangered and Threatened Wildlife and Plants; Proposal To Determine Boltonia decurrens (Decurrent false aster) To Be a Threatened Species

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

**ACTION:** Proposed rule.

**SUMMARY:** The Service proposes to list *Boltonia decurrens* (Decurrent false aster), a wet prairie perennial, as a threatened species under the authority of the Endangered Species Act of 1973, as amended. Twelve populations are known to be extant in five Illinois counties, and two populations, one of which is divided into two subpopulations, are known in one Missouri county. The plant is believed extirpated from 13 other counties in Illinois and three counties in Missouri. It is threatened by destruction and modification of the floodplain forest along the Illinois and Mississippi rivers due to wetland drainage and agricultural expansion. Because of extensive row crop cultivation within the watersheds of these rivers, habitat of the decurrent false aster is continually being modified or destroyed by heavy siltation. This proposed rule, if made final, will extend the Act's protection to *Boltonia decurrens*. Critical habitat is not proposed for this plant. The Service seeks data and comments from the public on this proposed rule.

**DATES:** Comments from all interested parties must be recieved by April 25, 1988. Public hearing requests must be received by April 11, 1988.

**ADDRESSES:** Comments and materials concerning this proposal should be sent to the Endangered Species Division, U.S. Fish and Wildlife Service, Federal Building, Fort Snelling, Twin Cites, Minnesota 55111. Comments and materials received will be available for public inspection, by appointment, during normal business hours at the above address.

**FOR FURTHER INFORMATION CONTACT:** James M. Engel, Endangered Species Coordinator (see **ADDRESSES** section) at 612/725-3276 or FRS 725-3276.

**SUPPLEMENTARY INFORMATION:**

### Background

*Boltonia decurrens*, a member of the Aster family was recognized as a distinct species by Schwegman and Nyboer (1985). However, the taxon has gone be many names in the past. Torrey and Gray (1841) first described it as *Boltonia glastifolia* L'Her. beta *decurrens*. Subsequently, Wood (1869) described it as *Boltonia decurrens*; Engleman (1884) as *B. asteroides* (L.) L'Her. var. *decurrens*; and Fernald and Griscom (1940) considered it *B. latisquama* var. *decurrens*. According to Schwegman and Nyboer (1985), most taxonomists considered the one distinctive feature of the taxon to be leaf bases that are decurrent down the stem. However, Fernald and Griscom (1940) attached more significance to the underground parts and qualified their

treatment of *Boltonia latisquama* var. *decurrens* pending further analysis of the underground parts of *Boltonia*. Thus, Schwegman and Nyboer (1985) undertook a comprehensive study of the roots and rhizomes of *Boltonia asteroides* var. *recognita* and *Boltonia decurrens* and concluded that *B. decurrens* is clearly separated from *B. asteroides* var. *recognita* by its decurrent leaves and the lack of long white creeping rhizomes. Schwegman and Nyboer (1985) observed that where *Boltonia decurrens* and *Boltonia asteroides* var. *recognita* were found growing together, the former never had rhizomes, and the latter always produced them.

*Boltonia decurrens*, a perennial, reproduces both vegetatively, by producing basal shoots, and sexually. It will grow to a height of 1.5 meters (59 inches), sometimes reaching heights of more than two meters (79 in.). It is characterized by conspicuous decurrent leaves that are linear to lanceolate, about 5–15 cm (2–6 in.) long and 5–20 mm (.2–.8 in.) wide. The lower leaves are generally broader and longer. The inflorescence is branched and somewhat leafy with several aster-like heads with yellow disks 7–14 mm (.3–.6 in.) wide. The rays are white to purple (more frequently purple or violet than white) and 1–1.8 cm (.4–.7 in.) long. Aster-like flower heads about the size of a quarter-dollar appear on the tall bushy plants from July to October.

*Boltonia decurrens* was first collected by Dr. Short about 1841 in habitat described as "wet prairies of Illinois". Subsequent investigators, Morgan (1980), Kurz (1981), and Schwegman and Nyboer (1985) list habitat as disturbed alluvial ground and open muddy shore of the floodplain forest along the Mississippi and Illinois rivers. historically, *B. decurrens* has been known from this type of habitat along a 400-km (250-mile) stretch of river floodplain from LaSalle, Illinois, on the Illinois River, downstream to St. Louis, Missouri, on the Mississippi River. An outlying record, reported in 1976 but not relocated since, is known from Cape Girardeau, Missouri, about 195 km (120 miles) down the Mississippi River from St. Louis (Schwegman and Nyboer 1985). It is thought to be extirpated from thirteen counties in Illinois.

Extensive surveys for the plant were conducted from 1980 to 1985 by Schwegman and Nyboer (1985). These surveys located a total of 13 populations in Illinois. Schwegman (pers. comm.) reports a 1986 total of 12 populations in Illinois; three previously known populations having disappeared (two were plowed up and one succumbed to forest succession), but two new populations were discovered. These 12 Illinois populations are located along the Illinois River in Morgan, Schuyler, Fulton, and Marshall counties, and one along the Mississippi River in St. Clair County. In addition, two populations are presently known from St. Louis County, Missouri (S. Morgan, Missouri Department of Conservation, pers. comm., and B. Stebbins, Fish and Wildlife Service, pers. comm.).

Schwegman and Nyboer (1985) report that the extant populations in Illinois are found in disturbed alluvial soil habitats such as old agricultural fields, roadsides, and disturbed lake shores. The plant is found in similar habitat (disturbed areas) in Missouri (J.H. Wilson, Missouri Department of Conservation, pers. comm.).

Kurz (1981) identifies associated open forest species of *Boltonia decurrens* to include *Acer saccharinum, Populus deltoides, Platanus occidentalis, Betula nigra, Salix nigra,* and *Acer negundo.* Herbaceous associates are *Polygonum pensylvanicum, Leersia oryzoides, Xanthium strumarium,* and *Bidens aristosa.* Because of frequent flooding, both the overstory and understory are often open.

*Boltonia asteroides* was first recommended for Federal listing as a threatened species by the Smithsonian Institution in its December 15, 1974, report to Congress, "Report on Endangered and Threatened Plant Species of the United States." On July 1, 1975, the Service published a notice in the **Federal Register** (40 FR 27823) of its acceptance of the Smithsonian Institution report as a petition within the context of section 4(c)(2) (petition acceptance is now governed by section 4(b)(3) of the Act). On December 15, 1980, the Service published a revised notice of review for native plants (45 FR 82480). *Boltonia asteroides* var. *decurrens* was included in that notice as a category 2 species.

Category 2 species are those for which the Service believes additional data must be obtained before a proposal to list is warranted. On September 27, 1985 (50 FR 39526), the Service again published a revised notice for native plants in the **Federal Register**; *Boltonia asteroides* var. *decurrens* was included in that notice as a category 2 species. The treatment of *Boltonia decurrens* by Schwegman and Nyboer in 1985, and status information received since the September 27, 1985 (50 FR 39525), notice indicates that proposing to list *Boltonia decurrens* as a threatened species is warranted.

The Endangered Species Act Amentments of 1982 required that all petitions pending as of October 13, 1982, be treated as having been newly submitted on that date. The deadline for a finding on those petitions, including the one for *B. decurrens*, was October 13, 1983. On October 13, 1983; October 12 1984; October 11, 1985; October 10, 1986; and again on October 13, 1987; the petition finding was made that listing *B. decurrens* was warranted but precluded by other pending listing actions, in accordance with section 4(b)(3)(B)(iii) of the Act. Such a finding requires a recycling of the petition, pursuant to section 4(b)(3)(C)(i) of the Act. This proposed rule constitutes the final finding on the petitioned action 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 promulgated to implement the listing provisions of the Act (50 CFR Part 424) 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 *Boltonia decurrens* (Torr. & Gray) Wood are as follows:

A. *The Present or Threatened Destruction, Modification, or Curtailment of its Habitat or Range*

*Boltonia decurrens* is threatened by the elimination and modification of its floodplain habitat. Schwegman and Nyboer (1985) attribute this to the elimination of wet prairies and marshes for agricultural development. As a result of the increased agricultural activities, flooding schemes have changed and siltation has increased. Schwegman and Nyboer (1985) also cite extensive rowcrop agricultural practices and numerous levee systems that increase the amount of silt deposited on river banks during floods, and contribute to the problem. The increased amount of siltation is considered to be the main factor in the reduction of *Boltonia decurrens.* Schwegman (Ambrose 1986) explains that the plant prefers moist, sandy areas, normally found around natural lakes in the Illinois River floodplain, however, these areas now receive two to three inches of silt per year, preventing seed germination. Before the river carried so much silt, the sandier shores of lakes and streams were suitable for seed germination and maintenance of this species. Schwegman (Ambrose 1986) expects that the only

remaining populations of *Boltonia decurrens* occur in areas where agricultural practices maintain proper conditions for seed germination. Without this manipulation, and in the absence of silt-free flooding, the species is not self sustaining. Effects of flooding on the distribution of *Boltonia decurrens* are not well understood. Research is needed to provide a better understanding of the plant's survival capabilities. Kurz (1981) believes that siltations is apparently more severe now than in pre-settlement times. Increased use of herbicides may also have potential detrimental affects, but more study is needed.

Four of the 14 known extant populations of *B. decurrens* occur on public lands; three on Illinois State lands and one on Army Corps of Engineers lands in St. Charles County, Missouri. Management plans are being developed for the *Boltonia decurrens* populations found on Illinois State lands. The Corps of Engineers may soon enter into a Cooperative management agreement with the Missouri Department of Conservation on one of the areas in St. Charles County, Missouri. Soil manipulation on selected sites within these areas will help us to better understand reproductive requirements of this taxon. Over 70 percent of the known populations of *Boltonia decurrens* are found on private lands and receive no protection or management consideration.

*B. Overutilization for Commercial, Recreational, Scientific or Educational Purposes*

Commercial trade of this plant is not known to exist, but collection could reduce populations in more accessible sites.

*C. Disease or Predation*

None known that affects this taxon.

*D. The Inadequacy of Existing Regulatory Mechanisms*

*Boltonia decurrens* is not presently recognized by the State of Illinois as being endangered or threatened, however it is currently under review for addition to the State's threatened list. The plant is listed as endangered by Missouri, where State regulations prohibit exportation, transportation, or sale of plants on the State or Federal lists. Collecting, digging, or picking any rare or endangered plant without permission of the property owner is also prohibited. While approximately 20 percent of the known populations of *Boltonia decurrens* are located upon land owned by the State of Illinois and receive some form of protection, a majority of the known populations are, as yet, unprotected. One of the populations in Missouri is found on land administered by the Corps of Engineers. Although plants are found on public lands, there is no guarantee of protection without specific management plans for *Boltonia decurrens*. The Endangered Species Act offers possibilities for additional protection of this taxon through section 6 cooperation between the States and the Service, and through section 7 (interagency cooperation) requirements. The Endangered Species Act would afford additional protection to *Boltonia decurrens*.

*E. Other Natural or Manmade Factors Affecting Its Continued Existence*

Because *Boltonia decurrens* seems to thrive in disturbed areas, the inadvertent destruction of plants in the course of normal agricultural activities will continue to plague the species' survival (Schwegman and Nyboer 1985). According to Schwegman (Ambrose 1986), the threat of a severe flood such as the one in 1981 that inundated the Illinois floodplain and deposited large amounts of silt still exists. For several years after that flood it was feared that *B. decurrens* was gone forever. In Illinois, the taxon is only known from disturbed habitat. Nearly all the known populations are found in habitat kept open by occasional cropping. Research is needed to better understand the amount of disturbance and habitat alteration the plant can tolerate.

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. Over 70 percent of the 14 known populations are on privately owned property and receive no protection or management designed to enhance the species' continued existence.

Based on this evaluation, the preferred action is to list *B. decurrens* as threatened, as opposed to endangered, because the species is not in danger of immediate extinction, but does have a restricted range and is confronted by a number of problems. For reasons detailed below, it is not considered prudent to propose designation of critical habitat.

**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 that is considered to be critical habitat at the time the species is determined to be endangered or threatened. The Service believes that designation of critical habitat for *Boltonia decurrens* would not be prudent because no benefit to the species can be identified that would outweigh the potential threat of vandalism or collection, which might be exacerbated by the publication of detailed critical habitat maps.

**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, State, and private agencies, groups, and individuals. The Endangered Species Act provides for possible land aquisition and cooperation with the States and requires that recovery actions be carried out for all listed species. Such actions are intitiated by the Service following listing. Some may be undertaken prior to listing, cicumstances permitting. Potential habitat management actions that might benefit *Boltonia decurrens* include: developing and implementing protection plans for publicly owned areas; establishing a monitoring system; censusing all known populations; and establishing controlled till plots to monitor seedling emergence after cultivation. The protection required of Federal agencies and the prohibitions against collecting 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 aderse modification of proposed critical habitat. If a species is listed subsequently, 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 destory or adversely modify its critical habitat. If a Federal action may affect a listed species, the responsible Federal agency must enter into formal consultation with the Service. The U.S. Army Corp of Engineers has jurisdiction over one of the *Boltonia decurrens* populations in St. Charles county, Missouri.

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 plant species. With respect to *Boltonia decurrens*, 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 subjet to the jurisdiction of the United States to import or export, transport in interestate of foreign commerce in the course of a commercial activity, or sell or offer for sale this species in interstate or foreign commerce. Seeds from cultivated specimens are exempt from these prohibitions provided that a statement of "cultivated origin" appears on their containers. Certain exceptions would apply to agents of the Service and State conservation agencies. The Act and 50 CFR 17.72 also provide for the issuance of permits to carry out otherwise prohibited activities involving endangered species under certain circumstances. International and interstate commerce in *Boltonia decurrens* is not known to exist. It is anticipated that few trade permits would ever be sought or issued, since this plant is not common in cultivation or in the wild. Requests for copies of the regulations on plants and inquiries regarding them may be addressed to the Office of Management Authority, P.O. Box 27329, U.S. Fish and Wildlife Service, Washington, DC 20038–7329 (202/343–4955).

### Public Comments Solicited

The Service intends that any final rule adopted will be accurate and as effective as possible in the conservation of endangered and threatened species. 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 rule, are hereby solicited. Comments particularly are sought concerning:

(1) Bioligical, commercial trade, or other relevant data concerning any threat (or lack thereof) to *Boltonia decurrens;*

(2) The location of any additional populations of *Boltonia decurrens* and the reasons why any habitat of this species 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 area and the possible impacts on *Boltonia decurrens.*

Final promulgation of a regulation on *Boltonia decurrens* 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 one is requested. Requests must be filed within 45 days of the date of the proposal. Such requests must be made in writing and addressed to the Regional Director, U.S. Fish and Wildlife Service, Federal Building, Twin Cities, Minnesota 55111.

### 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. The reasons for this determination were published in the **Federal Register** on October 25, 1983 (48 FR 49244).

### References Cited

Ambrose, D. 1986. Rare flowers such as these. Outdoor Highlights. Illinois Department of Conservation. 14(8):6–9.

Englemann, G. 1884. *in* Gray, A synoptical flora of North America 1(2):166.

Fernald, M. and L. Griscom. 1940. A century of additions to the flora of Virginia. Rhodora 42:355–416, 419–482, 503–521.

Kurz, D.R. 1981. Status report on *Boltonia asteroides* var. *decurrens* in Illinois. Unpublished report, 9 pp.

Morgan, S.W. 1980. Status report on *Boltonia asteroides* var. *decurrens* in Missouri. Unpublished report, 13 pp.

Schwegman, J.E. and R.W. Nyboer. 1985. The taxonomic and population status of *Boltonia decurrens.* Castanea 50 (2):112–115.

Schwegman, J.E. 1984. 1984 status report on *Boltonia decurrens* in Illinois. Unpublished report, 4 pp.

Torrey, J. and A. Gray. 1841. Flora of North America. 2:188. Wood, A. 1869. Class-Book of Botany. p. 430.

### Author

The primary author of this rule is William F. Harrison (see **ADDRESSES** section).

### List of Subjects in 50 CFR Part 17

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

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

## PART 17—[AMENDED]

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

**Authority:** Pub. L. 93–205, 87 Stat. 884; Pub. L. 94–359, 90 Stat. 911; Pub. L. 95–632, 92 Stat. 3751; Pub. L. 96–159, 93 Stat. 1225; Pub. L. 97–304, 96 Stat. 1411 (16 U.S.C. 1531 *et seq.* ); Pub. L. 99–625, 100 Stat. 3500 (1986), unless otherwise noted.

2. It is proposed to amend § 17.12(h) by adding the following, in alphabetic order under the family Asteraceae, 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 | | | | | |
| Asteraceae—Aster family: | | | | | | |
| * | * | * | * | * | * | * |
| *Boltonia decurrens* | Decurrent false aster | U.S.A. (IL,MO) | T | | NA | NA |
| * | * | * | * | * | * | * |

Dated: January 13, 1988.

**Susan Recce,**

*Assistant Secretary for Fish and Wildlife and Parks.*

[FR Doc. 88-3949 Filed 2-24-88; 8:45 am]

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