

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Proposal To Determine Threatened Status for *Solidago houghtonii* (Houghton's Goldenrod)

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: The Service proposes to determine threatened status for *Solidago houghtonii* (Houghton's goldenrod), a perennial native to the sand beach flats of the northern shorelines of Lakes Michigan and Huron. This plant is threatened by residential development, hydrologic changes of the Great Lakes, destabilization of the shoreline sand dunes and beach flats, human disturbance, and the use of off-road vehicles. *S. houghtonii* is presently known to occur at 39 sites within eight Michigan counties. There are also several populations in Ontario, Canada. This proposal, if made final, will implement the protection provided by the Endangered Species Act of 1973, as amended, for *S. houghtonii*. The Service seeks data and comments from the public.

DATES: Comments from all interested parties must be received by October 19, 1987. Public hearing requests must be received by October 5, 1987.

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

FOR FURTHER INFORMATION CONTACT: James M. Engel, Endangered Species Coordinator, at the above address (612-725-3276 or FTS 725-3276).

SUPPLEMENTARY INFORMATION:**Background**

Solidago houghtonii (Houghton's goldenrod), a plant of the family Asteraceae, was discovered in 1839, by Douglas Houghton, Michigan's first State Geologist, along the north shore of Lake Michigan in Mackinac County, Michigan, between what are not the communities of Naubinway and Epoufette (Morton 1979). This large-headed goldenrod, 8-20 inches tall, is characterized by a highly developed fibrous root system. The stem is slender

and smooth, with a few tiny hairs on the upper portions. Leaves are smooth and linear, are alternately arranged, and number 7 to 15. The basal and lower leaves are up to 8 inches long and $\frac{3}{8}$ inch wide, tapering and partially clasping the stem. The upper leaves are similar but reduced upwards. All leaves are weakly triple veined, acute, and scabrous. Inflorescences, which appear from midsummer until fall, consist of a few somewhat flat-topped clusters of 5-15 heads containing relatively large flowers. The stems of the inflorescence are hairy.

Solidago houghtonii typically occurs on the sparsely vegetated, moist calcareous sand beach shoreline flats, and the damp hollows or depressions between the foredune ridges of northern Lake Michigan and Lake Huron (Nepstad 1981). Its occurrence behind the lakefront dunes has also been noted (Morton 1979). Two other candidates for Federal listing, *Cirsium pitcheri* (Pitcher's thistle) and *Iris lacustris* (dwarf lake iris) occur in some of the same areas.

Nepstad (1981) described localities in six Michigan counties (Cheboygan, Chippewa, Crawford, Delta, Emmet, and Mackinac) where *S. houghtonii* is found in more or less continuous or semicontinuous populations along the lakeshore. He noted that it may be misleading to count each population as an individual occurrence, as these populations are merely separated by local discontinuities in habitat. He considered there to be no more than 18 known populations of *S. houghtonii*. However, after later survey work, Sue Crispin (The Nature Conservancy, pers. comm., December 1985 and February 1986) identified additional populations. A review of data furnished by The Nature Conservancy, indicates that within the general areas of the 18 populations noted by Nepstad (1981), about 39 sites of occurrence now actually exist. *S. houghtonii* is currently known from about 37 sites in seven Michigan counties (Cheboygan, Chippewa, Delta, Emmet, Mackinac, Presque Isle, and Schoolcraft) along the northern shores of Lake Michigan and Lake Huron, and from 2 sites in inland Crawford County within the confines of the State-owned Camp Grayling military reservation (Nepstad 1981). The plant is also known from several sites in Canada, specifically the Manitoulin district of Ontario on the Bruce Peninsula near Cabot Head, and Great Cloche Island in Lake Huron (Morton 1979). The taxon is considered rare in the Province of Ontario (Semple and Ringius 1983).

An additional population of *S. houghtonii* has been reported to occur in Berger Swamp, Genesee County, New York (Guire and Voss 1963). That population, however, is now considered to represent recent hybridization between the species *Solidago ohioensis* and *Aster ptarmicoides* (Morton 1979).

Solidago houghtonii is threatened by residential development, lakefront dune destabilization because of hydrologic changes, human disturbance, and outdoor recreational vehicle traffic (Nepstad 1981). Section 12 of the Endangered Species Act of 1973 (Act) 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 Service published a notice in the **Federal Register** (40 FR 27823) of its acceptance of this report as a petition within the context of former section 4(c)(2) of the Act (petition acceptance is now governed by section 4(b)(3)) and of its intention to review the status of the plant taxa named within. *S. houghtonii* was named in the Smithsonian Report as threatened and was included in the Service's 1975 notice of review. *S. houghtonii* was also included as a category 1 species in an updated notice of review for plants published in the **Federal Register** of December 15, 1980 (45 FR 82480). Category 1 comprises taxa for which the Service presently has sufficient biological information to support their being proposed to be listed as endangered or threatened species.

The Endangered Species Act Amendments of 1982 required that all petitions pending as of October 13, 1982, be treated as having been submitted on that date. Section 4(b)(3) of the Act, as amended, requires that, within 12 months of the receipt of a petition, as finding be made as to whether the requested action is warranted, not warranted, or warranted but precluded by other listing activity. On October 13, 1983, October 12, 1984, October 11, 1985, and October 10, 1986, the petition finding was made that listing *S. houghtonii* was warranted but precluded. Such a finding requires a reevaluation of the petition within 12 months, pursuant to section 4(b)(3)(C)(i) of the Act. Therefore, a new finding must be made; this proposed rule constitutes the new finding that the petitioned action is warranted, in accordance with section 4(b)(3)(B)(ii) of the Act.

Summary of Factors Affecting the Species

Section 4(a)(1) of the Endangered Species Act (16 U.S.C. 1531 *et seq.*) and regulations (50 CFR Part 424) promulgated to implement the listing provisions of the Act set forth the procedures for adding species to the Federal Lists. A species may be determined to be endangered or threatened due to one or more of the five factors described in section 4(a)(1). These factors and their application to *Solidago houghtonii* Torrey and Gray are as follows:

A. *The present or threatened destruction, modification, or curtailment of its habitat or range.* *S. houghtonii* is presently threatened by the potential development of the shoreline along those portions of Lakes Michigan and Huron where the species is found (Nepstad 1981). Private development has already rendered some lakeshore areas unsuitable as long-term habitat for this species. Crispin (pers. comm.) also has reported that beachfront development has destroyed part of a population of *S. houghtonii* in Cheboygan County, Michigan. In addition to current and potential shoreline development, *S. houghtonii* is threatened by disturbances to the lakefront dune habitat caused by recreational vehicles and by other human activities. Nepstad (1981) stated that while the ability of *S. houghtonii* to tolerate changes in the habitat has not yet been determined, the narrow habitat requirements of the plant indicate that destabilization of the foredunes and beach flats could be detrimental to the species. Presently, *S. houghtonii* is found at about 37 sites in seven Michigan counties along the shores of Lake Michigan and Lake Huron, 2 sites inland in Crawford County, Michigan, and several sites in Ontario. Of the 39 sites in Michigan, 14 are publicly owned; 11 by the State, 2 by the Federal Government, and 1 by the Nature Conservancy. The remaining 25 areas are privately owned and subject to various types of habitat alterations, which could adversely affect *S. houghtonii*.

Data do not indicate that this plant was ever more widespread geographically than it now is; however, some formerly known populations within the current range can no longer be located (Crispin pers. comm.). Current information indicates that 10 populations may have been extirpated within the last 10 years. Crispin has further noted that several monitoring projects for *S. houghtonii* have been initiated by The Nature Conservancy. However, extensive knowledge of the

species' ecological requirements are not known.

B. *Overutilization for commercial, recreational, scientific, or educational purposes.* There is no known trade in this species, and scientific or horticultural collecting is not known to pose any threat to it. The species is attractive, and publicity concerning its rarity could stimulate greater interest and collecting.

C. *Disease or predation.* This species is not known to be threatened by disease or predation.

D. *The inadequacy of existing regulatory mechanisms.* *S. houghtonii* is official listed as threatened in Michigan and afforded protection under State law, which generally prohibits taking possession, sale, purchase, and transport of plant species on the Federal and State endangered and threatened lists. Federal listing would reinforce and broaden protection for the species and its habitat.

E. *Other natural or manmade factors affecting its continued use.* Since many populations of this species occur on lake beachfronts, the plants are subject to hydrologic changes, as well as human and vehicular disturbances. The fact that approximately 20 percent of earlier known populations have not been found since 1975 (Crispin pers. comm.) points out the need for research into the population dynamics of the taxon.

The Service has carefully assessed the best scientific information available regarding the past, present, and future threats faced by this taxon in determining to propose this rule. Based on this evaluation, the preferred action is to list *Solidago houghtonii* as a threatened species. Although not thought to be in imminent danger of extinction, this plant is rare, has suffered the loss of many local populations, and faces the prospect of further losses occurring as a result of habitat alteration. 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, required 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 designation of critical habitat is not considered to be prudent when such designation would not be of net benefit to the species involved (50 CFR 424.12). In the present case, the Service considers that designation of critical habitat would not be prudent because no benefit to the taxon can be identified

that would outweigh the potential threat of vandalism or collection, which might be exacerbated by the publication of a detailed critical habitat description.

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 land acquisition, if necessary, and cooperation with the States; it also requires that recovery actions be carried out for all listed species. These actions are initiated by the Service following listing. Some actions may be initiated prior to listing, circumstances permitting. Management actions that may be of benefit to *S. houghtonii* include monitoring populations, obtaining protective easements at sites of occurrence, providing protection against human disturbance, investigating measures to prevent long-term habitat degradation, and State-Federal cooperation in habitat management and reintroduction projects. The protection required of Federal agencies and applicable prohibitions are discussed in part below.

Section 7(a) of the act, as amended, requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened and with respect to its critical habitat, if any is being designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR Part 402. Section 7(a)(4) requires Federal agencies to confer informally with the Service on any action that is likely to jeopardize the continued existence of a proposed species or result in destruction or adverse modification of proposed critical habitat. When a species is listed, section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of such a species or to destroy or adversely modify its critical habitat. If an activity may affect a listed species or its critical habitat, the responsible Federal agency must enter into formal consultation with the Service. Two of the sites at which *S. houghtonii* occurs are administered by Federal agencies, but not authorized

activities, actually or potentially detrimental to the species, are known in these areas. The U.S. Bureau of Land Management has jurisdiction over a small island in Chippewa County, Michigan, where the plant is found. It is contemplated that ownership of this island will soon be transferred to the State of Michigan. Another small population is located on the Hiawatha National Forest in Mackinac County. Implementation of the management plan for this area, by the U.S. Forest Service, could involve *S. houghtonii* and its habitat.

Section 9 of the act, and 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. 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 remove it from land under Federal jurisdiction and reduce it to possession. Seeds from cultivated specimens of threatened plant species are exempt from trade prohibitions, provided that a statement of "cultivated origin" appears on their containers. 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 collecting or 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 Federal Wildlife Permit Office, U.S. Fish and Wildlife Service, Washington, DC 20240 (703/235-1903).

Public Comments Solicited

The Service intends that any final rule adopted will be accurate and as effective as possible in the conservation

of endangered or 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 proposed rule are hereby solicited. Comments particularly are sought concerning:

- (1) Biological, commercial trade, or other relevant data concerning any threat (or lack thereof) to *S. houghtonii*;
- (2) The location of any additional populations of *S. houghtonii* 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 their possible impacts on *S. houghtonii*.

Final promulgation of the regulation on *S. houghtonii* 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 publication of the proposal. Such requests must be made in writing and addressed to the Regional Director, U.S. Fish and Wildlife Service, Federal Building, Fort Snelling, Twin Cities, Minnesota 55111.

National Environmental Policy Act

The Fish and Wildlife Service has determined that Environmental Assessments, as defined under the authority of the National Environmental Policy Act 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

Guire, K.E., and E.G. Voss. 1963. Distribution of distinctive shoreline plants in the Great Lakes region. *The Michigan Botanist* 2:99-114.
 Morton, J.K. 1979. Observations on Houghton's Goldenrod (*Solidago houghtonii*). *The Michigan Botanist* 18:31-35.
 Nepstad, D.C. 1981. Status report on *Solidago houghtonii* Torrey and Gray. Department of Botany and Plant Pathology, Michigan State University, Unpubl. ms., 29 pp.
 Semple, J.C., and G.S. Ringius. 1983. *Solidago houghtonii* Torrey and Gray. In G.W. Argus and D.J. White, eds., Atlas of the rare vascular plants of Ontario, National Museum of Natural Science, Ottawa.

Author

The primary author of this proposed rule is William F. Harrison (see ADDRESSES section) (612-725-3276 or FTS 725-3276).

List of Subjects in 50 CFR Part 17

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

PART 17—[AMENDED]

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

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

Authority: 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.*).

- 2. It is proposed to amend § 17.12(h) by adding the following, in alphabetical order under the family Asteraceae, to the List of Endangered and Threatened Plants:

§ 17.12 Endangered and threatened plants.

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 (h) * * *

Species		Historic range	Status	When listed	Critical habitat	Special rules
Scientific name	Common name					
Asteraceae—Aster family:						
<i>Solidago houghtonii</i>	Houghton's goldenrod	U.S.A. (MI), Canada (ON)	T			NA NA

Dated: August 3, 1987.
 Susan Recce,
 Acting Assistant Secretary for Fish and Wildlife and Parks.
 [FR Doc. 87-18963 Filed 8-18-87; 8:45 am]
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