

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Determination of *Astragalus robbinsii* var. *jesupi* (Jesup's milk-vetch) To Be an Endangered Species

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: The Service determines *Astragalus robbinsii* var. *jesupi* (Jesup's milk-vetch) to be an endangered species, and thereby provides the species needed protection under the authority contained in the Endangered Species Act of 1973, as amended. This species is known from one site in Vermont and two sites in New Hampshire. The total known range of the species is along approximately 16 miles (25 kilometers) of the Connecticut River, where the plants are associated with calcareous bedrock outcrops. Hydropower development and increased recreational activity along the river could threaten the species' continued existence. Critical habitat is not being designated.

DATES: The effective date of this rule is July 6, 1987.

ADDRESSES: The complete file for this rule is available for inspection, by appointment, during normal business hours at the Service's Regional Office, One Gateway Center, Suite 700, Newton Corner, Massachusetts 02158.

FOR FURTHER INFORMATION CONTACT: Richard W. Dyer at the above address (617/965-5100 or FTS 829-9316).

SUPPLEMENTARY INFORMATION:

Background

Jesup's milk-vetch is a plant of the pea family (Fabaceae) that is only known to occur at three sites on the banks of the Connecticut River in New Hampshire and Vermont. The total range of the species is restricted to approximately 16 miles (25 kilometers) along the river, where it occurs on calcareous schist outcrops. The perennial herbs grow from rhizomes in the silt-filled crevices of

outcrops or at the high water mark, where they are shaded by associated trees and shrubs. The one to several stems are 8-24 inches (2-6 decimeters) tall and are either smooth or sparsely covered by short appressed hairs. The leaves are pinnately compound. The 9-17 leaflets are 1/2-3/4 inches (1-2 centimeters) long, oblong to elliptic in shape, and may also have a few short hairs. The violet to bluish-purple flowers appear in late May or early June. The fruit is a flattened tapered pod; the form of the pod is important in differentiating among the three New England varieties of *Astragalus robbinsii* (Barneby 1964). Of these three known varieties, *A. robbinsii* var. *robbinsii* is now extinct, *A. robbinsii* var. *minor* is very rare in New England, and the third, *A. robbinsii* var. *jesupi*, is the subject of this rule.

Astragalus robbinsii (Oakes) Gray var. *jesupi* Eggleston and Sheldon has persisted at two of its three known locations since the late 1800's. The plant was first collected in 1877 at Sumner Falls in Plainfield, New Hampshire, by Professor Henry G. Jesup of Dartmouth College. This population now consists of only six plants. The Hartland, Vermont location was discovered on May 19, 1881, by Jesup and Perkins. Many early collections were made at the Hartland site, and fewer than 75 plants now occur there.

The most vigorous colony, of approximately 1,000 plants, was found in 1956 and occurs approximately sixteen miles downstream in Claremont, New Hampshire. This unique stretch of river not only provides the essential habitat requirements for the milk-vetch but is also the habitat for a variety of other rare plants and animals. Two other candidates for Federal listing, the dwarf wedge mussel (*Alasmidonta heterodon*) and the cobblestone tiger beetle (*Cicindela marginipennis*), are known to exist in the same area. Fifteen plant species considered by the New Hampshire Natural Heritage Inventory as being rare, threatened, or endangered in the State also occur along this stretch of river. Due to the diverse assemblage of plants and animals of State and Federal significance, the New Hampshire Natural Heritage Inventory, in a letter dated November 15, 1984, to the Federal Energy Regulatory Commission, has identified a portion of this habitat as "the most significant

natural area in the State of New Hampshire in need of conservation."

Astragalus robbinsii var. *jesupi* was first recommended for Federal listing as an endangered species by the Smithsonian Institution in its December 15, 1974, report to Congress, *Report on Endangered and Threatened Plant Species of the United States* (House Document No. 94-51). On July 1, 1975, the Service published a notice of review in the *Federal Register* (40 FR 27823) of its acceptance of the Smithsonian report as a petition within the context of section 4(c)(2) of the Endangered Species Act of 1973 (Act) (petition acceptance is now covered by section 4(b)(3) of the Act, as amended). Jesup's milk-vetch was one of approximately 1,700 plant species proposed for Federal listing on June 16, 1976 (41 FR 24523). On December 10, 1979 (44 FR 70796), the Service published notice of the withdrawal of that portion of the 1976 proposal that had not been made final, because of the provisions mandated in the Endangered Species Act Amendments of 1978 (Pub. L. 95-632). The withdrawal notice was required because of a deadline for making rules final and was not related to the conservation status of the proposed taxa.

The Service published a comprehensive *Federal Register* notice on December 15, 1980 (45 FR 82480), that was intended to reflect the Service's judgment of the probable status of all plant taxa that had been included in previous notices or proposals. Jesup's milk-vetch was recognized as a category 2 candidate in that notice. Category 2 candidates are taxa for which existing information indicates the possible appropriateness of proposing to list as endangered or threatened, but for which sufficient information is not presently available to biologically support a proposed rule. A subsequent notice of review, published on September 27, 1985 (50 FR 39526), recognized the species as a category 1 candidate, one for which the Service has substantial information to support the appropriateness of proposing to list it as endangered or threatened.

The Endangered Species Act Amendment 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 species, including *Astragalus robbinsii* var. *jesupi*, was October 13, 1983. On October 13, 1983, October 12, 1984, and again on October 11, 1985, the petition finding was made that listing *Astragalus robbinsii* var. *jesupi* was warranted but precluded by other pending listing actions, in accordance with section 4(b)(3)(B)(iii) of the Act. Such findings require a recycling of the petition, pursuant to Section 4(b)(3)(c)(i) of the Act. The proposed rule of December 19, 1985 (50 FR 51718), constituted the Service's most recent finding that listing of this species was warranted, in accord with section 4(b)(3)(c)(ii) of the Act.

Summary of Comments and Recommendations

In the December 19, 1985, proposed rule (50 FR 51718) 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 State agencies, county governments, Federal agencies, conservation and scientific organizations, and other interested parties were contacted and requested to comment. A newspaper notice inviting general public comments was published in a local paper in the vicinity of the known populations. Six comments were received that either supported the proposed rule or stated the listing would not create any conflict. The comments are discussed below.

The Vermont Agency of Environmental Conservation supported the rule, stating Jesup's milk-vetch had been proposed for listing under the Vermont Endangered Species Law (10 V.S.A. Chapter 123) but had not yet been officially designated. The Agency expressed concern for the single Vermont population and a willingness to work with the Service on the protection and recovery of the species. No comments were received from the New Hampshire Fish and Game Department or the New Hampshire Water Resources Board.

The Federal Energy Regulatory Commission (FERC) commented that there were no licensed hydroelectric projects nor any preliminary permits or license applications before the Commission that would affect the species. FERC stated that the preliminary permit for the Hart Island Project, discussed in the proposed rule, had been surrendered by the permittee and that the permit was now terminated.

The Nature Conservancy Natural Heritage Programs in New Hampshire and Vermont both favored the proposed rule and stated that they were actively working to protect the sites in their

respective states. The Eastern Regional Office of The Nature Conservancy also commented in favor of the proposed rule. The Vermont Institute of Natural Science indicated that it has no information to offer on the species. All information provided in comments is incorporated into this rule, and the Service greatly appreciates the assistance of all parties involved.

Summary of Factors Affecting the Species

After a thorough review and consideration of all information available, the Service has determined that *Astragalus robbinsii* var. *jesupi* 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 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 *Astragalus robbinsii* (Oakes) Gray var. *jesupi* Eggleston and Sheldon are as follows:

A. The present or threatened destruction, modification, or curtailment of its habitat or range. The most significant threat to Jesup's milk-vetch is the direct inundation or alternation of its habitat by future hydropower projects. The Federal Energy Regulatory Commission (FERC) issued a preliminary permit to a private developer for a 20-megawatt dam that would have destroyed two of the three populations and might have adversely impacted the third. A preliminary permit does not authorize the construction of a project but rather grants the permittee exclusive rights to conduct studies on the feasibility of the project at the specified site.

The Service officially notified FERC on November 4, 1984, that the proposed Hart Island project would have "substantial environmental impacts that will be difficult or impossible to mitigate . . ." The Service also stated it would "oppose issuances of a license . . ." and would likely "recommend intervention during the licensing process . . ." The Service's comments were provided under the authority of the Fish and Wildlife Coordination Act, and were primarily based on concerns regarding the project's adverse impacts on the Connecticut River Salmon Restoration Program, the loss of important fish and wildlife habitats, and the effects on rare, threatened and endangered species. FERC stated in its comments to the proposed rule that the

Hart Island developer had dropped the project and the permit was terminated on July 1, 1985. However, comments from the New Hampshire Natural Heritage program indicated that another developer, Connecticut River Hydro Partners, has recently filed a permit application with FERC for a proposed hydro project at Chase Island. Chase Island is just upstream from the largest known population of Jesup's milk-vetch. This new application demonstrates the continuing threat to Jesup's milk-vetch by future hydropower projects.

The riverbank ecosystem provides the essential requirements for the species' growth and reproduction. Spring flows annually scour the calcareous outcrops and deposit nutrient-rich sediments in the rock crevices and depressions, creating niches for the plants' existence. Shade provided by the mature hardwood trees at the top of the riverbank is also an important factor in the plant's survival. The cutting of trees at the top of the bank or the development of any water-resources project that would significantly alter the river's flow regime in the area where *Astragalus robbinsii* var. *jesupi* exists would be a serious threat to the species' continued existence.

Sumner Falls is a scenic area and is heavily utilized for recreational purposes, including canoeing, fishing, sightseeing, picnicking, etc. The increasing demand for recreational opportunities will attract more people to the area, and inadvertent trampling of the few remaining plants is a major concern.

B. Overutilization for commercial, recreational, scientific or educational purposes. Many historical scientific collections of this plant were recorded from the Sumner Falls and Hartland populations. Only a few plants remain at Sumner Falls, an easily accessible site; fewer than 75 plants remain at Hartland. Additional taking or collecting for any purpose could be extremely detrimental.

C. Disease or predation. Not applicable to this species.

D. The inadequacy of existing regulatory mechanisms. Both New Hampshire and Vermont recognize *Astragalus robbinsii* var. *jesupi* as an endangered species in unofficial State reports prepared as part of a cooperative project between the New England Botanical Club and the Service (Crow 1982, Countryman 1978, Storks and Crow 1978). Neither State, however, offers the species any official protection at this time. The State of Vermont provides a limited degree of protection for the area in which the species occurs

under a comprehensive law called Act 250 (10 V.S.A. 6001-91). Under Act 250 a permit for a proposed development would be denied if the project would cause an adverse impact on ". . . a rare and irreplaceable natural area . . ." or ". . . destroy or significantly imperil necessary wildlife habitat . . ." The species has also been proposed for official listing under a recently passed Vermont State endangered species law. Final action is still pending, however.

E. *Other natural or manmade factors affecting its continued existence.* Two of the three remaining populations are small and easily accessible, and occur in areas where there is heavy recreational use. The small number of plants and limited reproductive potential combined with the vulnerability of the sites are causes for concern, as human related or natural chance events could have a serious impact on these populations. The species' biology and population dynamics are not well understood, and it is difficult to assess the significance of a chance event like reproductive failure due to severe weather, change in micro-climatic conditions, etc.

In addition, the protection of the specific areas where the plants occur may not provide sufficient protection if development projects or other actions in the upstream portions of the watershed significantly affect the local flow regime. An understanding of the species' biology and relationship to river flow therefore is an important consideration in the species' protection and recovery strategy.

The Service has carefully assessed the best scientific 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 *Astragalus robbinsii* var. *jesupi* as endangered. Due to the small number of populations and the threats to its riverine habitat, the plant is in need of protection if it is to survive.

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 which is considered to be 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 because no benefit to the taxon can be identified that would outweigh the potential threat of vandalism or collection that could be exacerbated by the publication of a detailed critical habitat description and map. These potential threats are of particular significance since the sites

involved are easily accessible, the habitats are fragile, and increased public access would be difficult to control under existing authorities. As mentioned under Factor B, two of the sites contain small populations, and any collection could be extremely detrimental.

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, private conservation organizations, and individuals. Because of the diverse assemblage of rare plants and invertebrates of State and Federal significance associated with the habitat in which the milk-vetch occurs, The Nature Conservancy is actively working to protect the sites of known populations. Other conservation measures, including required protection efforts by Federal agencies and 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 listed as endangered or threatened, and with respect to its critical habitat, if any is designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR Part 402 (see revision at 51 FR 19926; June 3, 1986). 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 agency must enter into formal consultation with the Service. The only known current Federal action that may affect *Astragalus robbinsii* var. *jesupi* involves FERC and its authority for issuing permits and operating licenses to private developers for hydropower projects. The Department of the Interior responded to FERC's Public Notice of September 17, 1984, concerning an application for a preliminary permit for the Hart Island hydropower project, notifying FERC of the existence of three Federal candidate species in the project area. The November 14, 1984, letter signed by the Regional Environmental Officer (Office of the Secretary of Interior) also notified FERC that substantial information was on hand to support the biological

appropriateness of listing the milk vetch as endangered. The application for the preliminary permit at Hart Island has been terminated; however, another permit application has been filed with FERC for a proposed project at Chase Island, just upstream from the largest population of *Astragalus robbinsii* var. *jesupi*.

The State of New Hampshire has initiated a program to promote the recreation opportunities and enhance the tourist economy of the Connecticut River Valley. In addition to attracting visitors to the river, one of the program's objectives is to protect the significant natural resources of the area. Protecting endangered and threatened species and their habitats will need to be a major consideration in the program due to the potentially severe adverse impacts that can occur if expanded recreational opportunities are not carefully planned. The Service will work closely with the State of New Hampshire and private conservation organizations to ensure that the protection of the milk-vetch is carefully considered in the development of alternative recreational plans.

The Act and its implementing regulations found at 50 CFR 17.61, 17.62, and 17.63 set forth a series of general prohibitions and exceptions that apply to all endangered plant species. With respect to *Astragalus robbinsii* var. *jesupi* 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 this species, transport it in interstate or foreign commerce in the course of a commercial activity, sell it or offer it for sale in interstate or foreign commerce, or remove it from land under Federal jurisdiction and reduce it to possession. 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. There is no known commercial trade in *Astragalus robbinsii* var. *jesupi*, and it is not known to occur on Federal lands. The Service therefore anticipates few, if any, requests for such permits. 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).

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).

Literature Cited

Barneby, R.C. 1964. Atlas of the North American *Astragalus*. *Memoirs of the New York Botanical Garden* 13:1-594, 597-1288.
 Countryman, W.D. 1978. Rare and Endangered Vascular Plant Species in Vermont. U.S. Fish and Wildlife Service, Region 5, Newton Corner, Massachusetts.

Crow, G.E. 1982. New England's Rare, Threatened and Endangered Plants. U.S. Government Printing Office, Washington, DC
 Storks, I.M. and G.E. Crow. 1978. Rare and Endangered Vascular Plant Species in New Hampshire. U.S. Fish and Wildlife Service, Region 5, Newton Corner, Massachusetts.

Author

The author of this final rule is Richard W. Dyer, Endangered Species Staff, U.S. Fish and Wildlife Service, One Gateway Center, Suite 700, Newton Corner, Massachusetts 02158 (617/965-5100 or FTS 829-9316).

List of Subjects in 50 CFR Part 17

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

Regulation Promulgation

PART 17—[AMENDED]

Accordingly, Part 17, Subchapter B of Chapter I, Title 50 of the Code of Federal Regulations, is amended 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. 96-150, 93 Stat. 1225; Pub. L. 97-304, 96 Stat. 1411; (16 U.S.C. 1531 *et seq.*).

2. Amend § 17.12(h) by adding the following, in alphabetical order under family 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>Astragalus robbinsii</i> var. <i>jesupi</i>	Jesup's milk-vetch	U.S.A. (NH, VT)	E	271	NA	NA

Dated: May 27, 1987.
Susan Recce,
Acting Assistant Secretary for Fish and Wildlife and Park.
 [FR Doc. 87-12878 Filed 6-4-87; 8:45 am]
BILLING CODE 4310-55-M