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**DEPARTMENT OF THE INTERIOR****Fish and Wildlife Service****50 CFR Part 17****Endangered and Threatened Wildlife  
and Plants; Proposal To Determine  
*Astragalus robbinsii* var. *jesupi*  
(Jesup's Milk-Vetch) To Be an  
Endangered Species****AGENCY:** Fish and Wildlife Service,  
Interior.**ACTION:** Proposed rule.

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**SUMMARY:** The Service proposes to determine *Astragalus robbinsii* var. *jesupi* (Jesup's milk-vetch) to be an endangered species, and thereby to provide 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 proposed. Comments are solicited.

**DATES:** Comments from all interested parties must be received by February 18, 1986. Public hearing requests must be received by February 3, 1986.

**ADDRESSES:** Comments and materials concerning this proposal should be sent to: Regional Director, U.S. Fish and Wildlife Service, One Gateway Center, Suite 700, Newton Corner, Massachusetts 02158. Comments and materials received will be available for public inspection by appointment during normal business hours at the above address.

**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 1/3-3/4 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*. Of these three known varieties, *A. robbinsii* var. *robbinsii* is now extinct, *A. robbinsii* var. *minor* is very rare, and the third, *A. robbinsii* var. *jesupi*, is the subject of this proposal (Barneby, 1964).

*Astragalus robbinsii* (Oakes) Gray var. *jesupi* Eggleston and Sheldon has persisted at the Hartland, Vermont, location since it was first discovered on

May 19, 1881, by Jesup and Perkins. Many early collections were made at this site. This population now consists of fewer than 75 plants. Although collecting for scientific purposes is not now considered a threat to the species' continued existence, any additional loss or taking of plants for any purpose would be extremely detrimental.

Two other populations of Jesup's milk-vetch are known to exist. One small population of six plants occurs at Sumner's Falls near Plainfield, New Hampshire, and the most vigorous colony, of several hundred plants, 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 habitat for a variety of 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 this state of New Hampshire in need of conservation."

*Astragalus robbinsii* var. *jesupi* was first recommended for Federal listing as an endangered plant 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), indicating 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.

The Endangered Species Act Amendments of 1982 required that all petitions pending as of October 13, 1982, be treated as having been newly submitted on that date. The species listed in the December 15, 1980, notice of review were considered to be petitioned and the deadline for a finding of 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. Notification of the 1983 finding was published in the *January 20, 1984, Federal Register* (49 FR 2485); notification of the 1984 finding was published on May 10, 1985 (50 FR 19761). Such a finding requires a recycling of the petition, pursuant to Section 4(b)(3)(c)(i) of the Act. Therefore, a new finding must be made on or before October 13, 1986; this proposed rule constitutes the finding that the petitioned action is warranted, and proposes to implement the 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 FR Part 424 set forth the procedures for adding species to the Federal lists. 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 alteration of its habitat by future hydropower projects. The Federal Energy Regulatory Commission (FERC) has issued a preliminary permit to a private developer for a 20 megawatt dam that would destroy two of the three populations and may have an adverse impact on 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 primarily based on concerns regarding the project's adverse impacts on the Connecticut Salmon Restoration Program, the loss of important fish and wildlife habitats, and the effects on rare, threatened and endangered species. Although it is uncertain if the developer will proceed with the project, other private developers would be free to examine the suitability for a hydropower facility at Hart Island if the original applicant does withdraw.

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 plants' 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's Falls is a scenic area and is heavily utilized for recreational purposes, including canoeing, fishing, sightseeing, picnicking, etc. The increased 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's Falls, population. Only a few plants remain at this easily accessible site, and 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; Storke 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 species 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 or any endangered species \* \* \*". 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 becomes 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 propose this rule. 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 designation of critical habitat is not considered to be prudent when such designation would not be of benefit to the species involved (50 CFR 424.12). In the present case, the Service believes 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 caused by the publication of a detailed critical habitat description and map.

#### 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 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, and are now under revision (see proposal at 48 FR 29990, June 29, 1983). 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 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 would affect *Astragalus robbinsii* var. *jesupi* involves the Federal Energy Regulatory Commission 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 and notified 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) also notified FERC that substantial information was on hand to support the biological appropriateness of listing the milk-vetch and that the Service intended to initiate the formal listing process within a few months.

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 trade prohibitions and exceptions that apply to all endangered plant species. With respect to *Astragalus robbinsii* var. *jesupi* all trade prohibitions of section 9(a)(2) of the Act, implemented by 50 CFR 17.61, would apply. With certain exceptions, these prohibitions would 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. 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 the Service therefore anticipates few, if any, requests for such permits.

Section 9(a)(2)(B) of the Act, as amended in 1982, prohibits the removal and reduction to possession of endangered plant species in areas under Federal jurisdiction. This prohibition would apply to *A. robbinsii* var. *jesupi*. Permits for exceptions to this prohibition are available under regulations published September 30, 1985 (50 FR 39681). *Astragalus robbinsii* var. *jesupi*, however, does not occur on Federal lands.

#### 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 are particularly sought concerning:

(1) Biological, commercial trade, or other relevant data concerning any threat (or lack thereof) to *Astragalus robbinsii* var. *jesupi*;

(2) The location of any additional populations of this species and the reasons why any habitat 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 that may impact existing populations.

Final promulgation of a regulation on *Astragalus robbinsii* var. *jesupi* will take into consideration the comments and any additional information received by the Service, and such communications may lead to a final regulation that differs from this proposal.

The Endangered Species Act provides for a public hearing on this proposal if 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, One Gateway

Center, Suite 700, Newton Corner, Massachusetts 02158.

#### 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, 594-1288.
- 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 proposed 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).

#### Proposed Regulation Promulgation

##### 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 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 robbinsi</i> var. <i>jesupi</i>	Jesup's milk-vetch	U.S.A. (NH, VT)	E		NA	NA

Dated: December 4, 1985.

**P. Daniel Smith,**

*Acting Assistant Secretary for Fish and  
Wildlife and Parks.*

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