

and natural factors. A determination of *Potentilla robbinsiana* to be an Endangered species would implement the protection provided by the Endangered Species Act of 1973 as amended.

DATES: Comments from the public must be received on or before May 23, 1980. Comments from the Governors of New Hampshire and Vermont must be received on or before June 23, 1980. A public meeting will be held on Monday, April 28, 1980, beginning at 7:30 p.m.

ADDRESSES: Comments and materials concerning this proposal, preferably in triplicate, should be sent to the Director (FWS/OES), U.S. Fish and Wildlife Service, Department of the Interior, Washington, D.C. 20240. Comments and materials received will be available for public inspection during normal business hours at the Service's Office of Endangered Species, 1000 N. Glebe Road, Fifth Floor, Arlington, Virginia 22201. The public meeting will be held at the YMCA, 15 North State Street, Concord, New Hampshire.

FOR FURTHER INFORMATION CONTACT: Mr. John L. Spinks, chief, Office of Endangered Species, Fish and Wildlife Service, U.S. Department of the Interior, Washington, D.C. 20240, (703) 235-2771.

SUPPLEMENTARY INFORMATION: *Potentilla robbinsiana* (Robbins' cinquefoil) was first discovered in 1829 by James Robbins for whom it was later named (Pease, 1917). This small perennial plant is a member of the rose family and forms densely tufted rosettes of leaves measuring 2-4 cm across. The yellow flowers are borne solitarily on stems, measuring only 1-3 cm long. *Potentilla robbinsiana* occurs in alpine areas of New Hampshire and Vermont. The habitat of this plant can be described as treeless, nearly barren fell-fields above 4,000 feet where the climate is extremely harsh. The substrate in which these plants occur has been described as a shallow loamy sand topped with a stony pavement like surface. This stony surface layer protects the soil from being either blown or washed away. The continued existence of this plant and the fragile habitat in which it occurs are being threatened by trampling and other factors. This rule proposes to determine *Potentilla robbinsiana* to be Endangered which would implement the protection provided by the Endangered Species Act of 1973. The following paragraphs further discuss the actions to date involving this plant, the threats to the plant, and effects of the proposed action.

Background

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 27823-27924) 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 rulemaking in the *Federal Register* (41 FR 24523-24572) 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. *Potentilla robbinsiana* was included in the July 1, 1975, notice of review and the June 16, 1976, proposal.

The Endangered Species Act Amendments of 1978 required that all proposals over two years old be withdrawn. A one year grace period was given to proposals already over two years old. On December 10, 1979, the Service published a notice withdrawing the June 16, 1976 proposal along with four other proposals which had expired. At this time the Service has sufficient new information to warrant repropounding *Potentilla robbinsiana*. Critical Habitat is being proposed for *Potentilla robbinsiana* for the first time.

Following the June 16, 1976 proposal, hundreds of comments were received from individuals, conservation organizations, botanical groups, business and professional organizations. Few of these comments were specific in nature in that they did not address individual plant species. Most comments addressed the program or the concept of Endangered plants and their protection and regulation. These comments are summarized in the April 26, 1978, *Federal Register* publication of a final rulemaking which also determined 13 plant species to be Endangered or Threatened species (43 FR 17909-17916). Additional comments which are received during the comment period for this proposal will be summarized in the final rulemaking.

In the June 24, 1977, *Federal Register* (42 FR 32373-32381), the Service

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Proposal to determine *Potentilla Robbinsiana* (Robbins' Cinquefoil) To Be an Endangered Species and To Determine its Critical Habitat.

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposal.

SUMMARY: The U.S. Fish and Wildlife Service proposes to determine a plant, *Potentilla robbinsiana* (Robbins' cinquefoil), to be an Endangered species and to determine its Critical Habitat under the authority contained in the Endangered Species Act of 1973. This plant occurs in New Hampshire solely on U.S. Forest Service lands and in Vermont on privately owned lands. The plant is threatened by human trampling

published a final rulemaking under 50 CFR Part 17 detailing the regulations to protect Endangered and Threatened plant species. The rulemaking established prohibitions and a permit procedure to grant exceptions, under certain circumstances, to the prohibitions.

The Department has determined that this is not a significant rule and does not require the preparation of a regulatory analysis under Executive Order 12044 and 43 CFR 14.

Summary of Factors Affecting the Species

Section 4(a) of the Endangered Species Act (16 U.S.C. 1531 et seq.) states that the Secretary of Interior shall determine whether any species is an Endangered species or a Threatened species due to one or more of the five factors described in Section 4(a) of the Act. These factors and their application to *Potentilla robbinsiana* Oakes (Robbins' cinquefoil) are as follows:

Potentilla robbinsiana

(1) *Present or threatened destruction, modification, or curtailment of its habitat or range.* Historically, *Potentilla robbinsiana* has been known from two locales in the White Mountains of New Hampshire and from one recently discovered locale in Vermont. One 1800's herbarium sheet was reportedly also collected in Vermont. Today *Potentilla robbinsiana* is only known from one locale in New Hampshire, where the population has been greatly reduced and impacted by man, and from the Vermont locale.

The locale in New Hampshire where *Potentilla robbinsiana* still exists is in the Presidential Range of the White Mountains. This site is bisected by the Appalachian Trail which was constructed in the summer of 1819 (Burt 1960). In 1840 the trail was expanded to a bridle path opening the way to horseback parties. Although *Potentilla robbinsiana* was discovered at this site in 1829, little was known of its population dynamics and changes until recent years. Mr. F. L. Steele, a botanist, has noted that the *Potentilla robbinsiana* plants now occupy only about ¼ of the territory they occupied in 1934. Mrs. S. K. Harris, a botanist, noted plants were growing on both side of the trail as recently as 1965. But by 1972 the plants were noted as being totally absent from the west side of the trail. Today they only exist on the east side of the trail and all plants within 8 meters of the trail have been destroyed. At present the hiker travel zone is widening at this site and further destruction of the

Potentilla robbinsiana population will likely occur (Graber, 1980).

The second New Hampshire locale where *Potentilla robbinsiana* was once known to occur was in the Franconia Ridge of the White Mountains. Two populations, a north and a south station, were known from this locale. Both of these stations were traversed by the Appalachian Trail. The north station population was discovered in 1897 and has been relocated for nearly 65 years. The south station population was discovered in 1915. Mr. F. L. Steele observed three small clumps of *Potentilla robbinsiana* at this station in 1965 but subsequent searches, including extensive searches in 1977 and 1978, have not been able to relocate any plants at the south station (Graber, 1980). *Potentilla robbinsiana* may have been extirpated from both these sites.

The reason for this decline at both locales has been primarily due to hiker impacts. Hiker traffic on the Appalachian Trail in the White Mountains has increased dramatically in recent years. The nearly barren, fell-field habitat which the *Potentilla robbinsiana* occupies is open and offers no obstacle to hikers wandering off the trail, to groups wishing to walk abreast, or to illegal campers. Plants may actually be trampled and crushed but even more damaging to the population is the shifting and dislodging of the stony pavement-like surface. Once this stony pavement-like surface is disturbed by the abrasion and churning caused by the hiker's foot, the soil between the stones is loosened and is soon blown or washed away and with it *Potentilla robbinsiana*'s habitat. Once disturbed, these fragile alpine habitats and plant communities take many years to recover. A long term solution to this problem may be to greatly reduce the human traffic in the areas where *Potentilla robbinsiana* occurs (Graber, 1980).

The Vermont locale is less well known historically since it was only recently discovered. The same threat of trampling exists for this population. The population occurs on privately-owned land and currently has received little or no protection planning.

(2) *Overutilization for commercial, sporting, scientific or educational purposes.* Steele (1964) points out that one factor threatening *Potentilla robbinsiana* is over zealous collecting by botanists. He sites this as the probable cause of the extirpation of one of the Franconia sites. Graber (1980) also notes that the collecting of specimens of *Potentilla robbinsiana* for herbaria has also taken its toll. Graber notes that over 40 herbarium sheets

containing nearly 100 plants (6 percent of the known current mature population) have been counted in various New England herbaria.

(3) *Disease or predation* (including grazing). Not applicable to this species.

(4) *The inadequacy of existing regulatory mechanisms.* Although *Potentilla robbinsiana* does appear on State lists which were developed by botanists within New Hampshire and Vermont, no State legislation currently offers it specific protection in either State. The habitat type (alpine areas) of *Potentilla robbinsiana* is offered some protection by Vermont State law. Vermont's Land Use and Development Law (Title 10 of Vermont Statutes, Part 5, Chapter 151, Act 250, Subchapter 3, Sec. 6042) does restrict what kinds of development can take place in certain *special areas*. The rules of the environmental board includes alpine areas as *special areas* and they are therefore offered some protection. Sec. 6086 of this same Act also requires the consideration of wildlife habitat and endangered species in the permitting of developments or subdivisions.

The Forest Service's regulations governing the land on which this species occurs prohibit removing, destroying, or damaging any plant that is classified as a threatened, endangered, rare, or unique species (36 CFR 261.9). These regulations, however, may be difficult to enforce. The Endangered Species Act will offer additional protection to this species.

(5) *Other natural or man-made factors affecting its continued existence.* The small size and number of the populations cause this species to be in greater danger of extinction due to natural fluctuations in the populations.

Another major cause of *Potentilla robbinsiana* mortality in addition to trampling is the harsh climate of the area where the plants occur. Only 40 percent of the seedlings survive each year and during the first few years after germination the mortality rate of the plants is very high. Frost heaving during the spring and fall is the most frequent natural cause of plant death. Many seedlings also die during the hot, dry periods from what is believed to be drought stress. Trampling may also contribute to high seedling mortality. After the first few years the mortality rate decreases and plants may survive two or more decades with some plants approaching an age of 40 years (Graber, 1980).

This high mortality rate in seedlings and young plants is not terribly unusual in the plant kingdom but for a plant which is already declining in numbers this can make it even more vulnerable.

Critical Habitat

The Act defines "Critical Habitat" as (i) the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of Section 4 of this Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographic area occupied by the species at the time it is listed in accordance with the provisions of Section 4 of this Act, upon a determination by the Secretary that such areas are essential for the conservation of the species.

Section 4(f)(4) of the Act requires, to the maximum extent practicable that any proposal to determine Critical Habitat be accompanied by a brief description and evaluation of those activities which, in the opinion of the Secretary, may adversely modify such habitat if undertaken, or may be impacted by such designation. Such activities are identified below for this species. It should be emphasized that Critical Habitat designation may not affect each of the activities listed below, as Critical Habitat designation only affects Federal agency activities, through Section 7 of the Act.

Any activity which would result in increased trampling or disturbance of the fragile alpine areas where *Potentilla robbinsiana* occurs would probably adversely modify the Critical Habitat. The long term solution on how to best protect *Potentilla robbinsiana* may be to greatly reduce the human traffic in the area where this plant occurs. This may require prohibiting the development of new trails in areas where the plant occurs, relocating old trails, or other steps by the Forest Service.

Critical Habitat for *Potentilla robbinsiana* is being determined to include the area in New Hampshire where the species currently occurs. In the future, adjacent suitable habitat may be included so as to provide areas for management, reintroduction, and natural expansion. Therefore, the Critical Habitat delineated does not necessarily include the entire area necessary for the survival of *Potentilla robbinsiana* throughout its range, and modifications this Critical Habitat designation may be proposed in the future.

Section 4(b)(4) of the Act requires the Service to consider economic and other impacts of specifying a particular area as Critical Habitat. The Service has prepared a draft impact analysis and

believes at this time that economic and other impacts of this action are not significant in the foreseeable future. The Service has notified and is working with the U.S. Forest Service which has jurisdiction over the land and water under consideration in this proposed action. The U.S. Forest Service, other Federal agencies, and other interested persons or organizations are requested to submit information on economic or other impacts of the proposed action. The Service will prepare a final impact analysis prior to the time of final rulemaking, and will use this document as the basis for its decision as to whether or not to exclude any area from Critical Habitat for *Potentilla robbinsiana*.

The Critical Habitat which is being proposed for *Potentilla robbinsiana* excludes the summit of Mt. Washington where two small tracts, one (approximately 60 acres) which is owned by the state of New Hampshire and another (approximately 9 acres) which is owned by Dartmouth College are located. These tracts are located at the top of Mt. Washington which receives heavy visitor use and where no populations of *Potentilla robbinsiana* occur. Reintroduction and natural expansion would not be desirable or likely in this area due to this heavy use and therefore this area was excluded from the critical habitat. Other areas were also excluded from the Critical Habitat in order to allow the Forest Service more time in which to incorporate plans for protecting *Potentilla robbinsiana* into their unit plan. The Forest Service and the Fish and Wildlife Service will continue to work together to identify additional areas necessary for the conservation of this species.

Effects of This Proposal if Published as a Final Rule

In addition to the effects discussed above, the effects of this proposal if published as a final rule would include, but would not necessarily be limited to, those mentioned below.

The Act and implementing regulations published in the June 24, 1977 Federal Register set forth a series of general prohibitions and exceptions which apply to all Endangered plant species. All of those prohibitions and exceptions also apply to any Threatened species, excluding seeds of cultivated plants treated as Threatened, unless a special rule pertaining to that Threatened species has been published and indicates otherwise. The regulations referred to above, which pertain to Endangered and Threatened plants, are

found at Sections 17.61 and 17.71, of 50 CFR and are summarized below.

With respect to *Potentilla robbinsiana* all prohibitions of Section 9(a)(2) of the Act, as implemented by Section 17.61 would apply. These prohibitions, in part, 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. Certain exceptions would apply to agents of the Service and State conservation agencies. The Act and 50 CFR Section 17.62 also provide for the issuance of permits to carry out otherwise prohibited activities involving Endangered or Threatened species under certain circumstances.

Section 7(a) of the Act requires Federal agencies to evaluate their actions with respect to any species which is listed as Endangered or Threatened. This protection would accrue to *Potentilla robbinsiana* if it is later determined to be Endangered as a result of this proposal.

Provisions for Interagency Cooperation implementing section 7 are codified at 50 CFR Part 402. If published as a final rule this proposal would require Federal agencies not only to insure that activities they authorize, fund, or carry out, are not likely to jeopardize the continued existence of *Potentilla robbinsiana*, but also to insure that their actions are not likely to result in the destruction or adverse modification of its Critical Habitat which has been determined by the Secretary.

National Environmental Policy Act

A draft environmental assessment has been prepared in conjunction with this proposal. It is on file in the Service's Office of Endangered Species, 1000 North Glebe Road, Arlington, Virginia, and may be examined during regular business hours. A determination will be made at the time of final rulemaking as to whether this is a major Federal action which would significantly affect the quality of the human environment within the meaning of Section 102(2)(C) of the National Environmental Policy Act of 1969.

Public Comments Solicited

The Director intends that the rules finally adopted will be as accurate and effective as possible in the conservation of any Endangered or Threatened species. Therefore, any comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, private interests, or any other interested party

concerning any aspect of these proposed rules are hereby solicited. Comments particularly are sought concerning:

- (1) Biological or other relevant data concerning any threat (or the lack thereof) to the species included in this proposal;
- (2) The location of any populations of *Potentilla robbinsiana* and the reasons why any habitat of this species should or should not be determined to be Critical Habitat as provided for by Section 7 of the Act;
- (3) Additional information concerning the range and distribution of this species;
- (4) Current or planned activities in the subject area; the probable impacts of such activities on the area designated as Critical Habitat; and
- (5) The foreseeable economic and other impacts of the Critical Habitat designation on federal activities.

Final promulgation of the regulations on *Potentilla robbinsiana* will take into

consideration the comments and any additional information received by the Director, and such communications may lead him to adopt a final regulation that differs from this proposal.

Public Meetings

The Service hereby announces that a public meeting will be held on this proposed rule. The public is invited to attend these meetings and to present opinions and information on the proposal. Specific information relating to the public meetings are set out below:
 1. Place: YMCA, 15 North State Street, Concord, N.H.

Date: April 28, 1980.
 Time: 7:30 p.m.
 Subject: Proposal of *Potentilla robbinsiana* to be endangered.
 This proposal is being published under the authority contained in the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.; 87 Stat. 884). The primary author of this

proposed rule is Ms. E. LaVerne Smith, Washington Office of Endangered Species (703/235-1975).

Literature Cited

Burt, F. A. 1960. The Story of Mount Washington. Dartmouth Publications, Hanover, New Hampshire.
 Graber, R. E. 1980. The life history and ecology of *Potentilla robbinsiana*. *Rhodora*: 82(829):131-140.
 Pease, A. S. 1917. Notes on the botanical explorations of the White Mountains. *Appalachia* 14:157-178.
 Steele, F. L. 1964. *Potentilla robbinsiana* in the White Mountains of New Hampshire. *Rhodora* 66:408-411.

Regulations Promulgation

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. It is proposed to amend Section 17.12 by adding, in alphabetical order, the following to the list of plants:

§ 17.12 Endangered and threatened plants.

Species		Range		Status	When listed	Special rules
Scientific name	Common name	Known distribution	Portion endangered			
Rosaceae—Rose family. <i>Potentilla robbinsiana</i>	Robbins' cinquefoil	U.S.C. New Hampshire and Vermont.	Entire	E		NA

§ 17.96(a) [Amended]

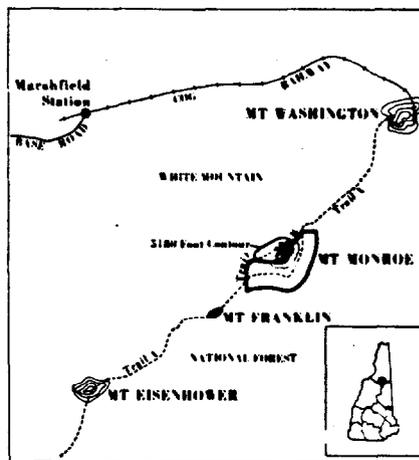
2. Also, the Service proposes to amend 17.96(a) by adding the Critical Habitat of *Potentilla robbinsiana* after that of the Poaceae—*Zizania texana*, as follows:

Rosaceae

Potentilla robbinsiana

Robbins' cinquefoil

New Hampshire, Coos County; the area bounded by the 5180 foot contour; by the Monroe Loop Trail north from the 5180 foot contour to the Crawford Path trail; by a line running due east for 200 feet from the northern junction of Monroe Loop Trail and Crawford Path; by a line running parallel to but 200 feet east or south of Crawford Path; by a line extending 200 feet south from the southern junction of the Monroe Loop Trail and Crawford Path; and by the Monroe Loop Trail north from its southern junction with Crawford Path to the 5180 foot contour.



Dated: March 17, 1980.
 Lynn A. Greenwalt,
 Director, Fish and Wildlife Service.
 [FR Doc. 80-8790 Filed 3-21-80; 8:45 am]
 BILLING CODE 4310-55-M