

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018-AB97

231a-94

Endangered and Threatened Wildlife and Plants; Endangered Status for the Plant *Poa Mannii* (Mann's Bluegrass)

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: The U.S. Fish and Wildlife Service (Service) designates endangered status pursuant to the Endangered Species Act of 1973, as amended (Act), for the plant *Poa mannii* (Mann's bluegrass). Four extant populations containing a total of approximately 125 individuals of the species are known to occur in the northwestern and north-central region of the island of Kauai. The species and its habitat are threatened by goats, competition by naturalized, introduced vegetation, fire, landslides, and erosion. The existence of few populations and individuals increases the likelihood of extinction from stochastic events and/or reduced reproductive vigor.

This final rule implements the Federal protection provisions provided by the Act.

EFFECTIVE DATE: December 12, 1994.

ADDRESSES: The complete file for this final rule is available for public inspection, by appointment, during normal business hours, at the U.S. Fish and Wildlife Service, Pacific Islands Office, 300 Ala Moana Boulevard, Room 6307, P.O. Box 50167, Honolulu, Hawaii 96850.

FOR FURTHER INFORMATION CONTACT: Robert P. Smith, Field Supervisor, at the above address (808/541-2749).

SUPPLEMENTARY INFORMATION:

Background

Poa mannii was first collected by Horace Mann, Jr. and William Tufts Brigham in 1864 or 1865 in Waimea Canyon on the island of Kauai. The name *Poa mannii* was published without a description (attributed to William Munro) in Seemann's *Journal of Botany* in 1869. The specific epithet was selected to honor one of the original collectors. Subsequently, the species was validly published by Hillebrand (1888) in his flora.

Poa mannii of the grass family (Poaceae) is a perennial with short rhizomes (underground stems) and erect, tufted culms (bunched stems) 50 to 75 centimeters (cm) (20 to 30 inches

(in)) tall. The leaf sheath completely surrounds the leaf, and the ligule (appendage at the junction of the leaf blade and sheath) completely encircles the stem, is about 0.5 millimeters (mm) (0.02 in) long, and has a tooth about 2 to 4 mm (0.08 to 0.2 in) long and a fringed margin. The leaf blade is up to 15 cm (6 in) long and 2 to 4 mm (0.08 to 0.2 in) wide, and has a rough upper surface and a hairless lower surface. The panicles (branched flower clusters) are usually less than 5 cm (2 in) long and have primary branches 5 to 20 mm (0.2 to 0.8 in) long. The 4 to 7 mm (0.2 to 0.3 in) long, flattened spikelets (ultimate flower clusters) are pale greenish or yellowish brown and usually are comprised of 4 or 5 flowers. The glumes (small pair of bracts at the base of each spikelet) are about 3 mm (0.1 in) long. The lemma (outer bract at the base of a floret) is 3 to 4 mm (0.1 to 0.2 in) long and has cobwebby hairs at its base. The palea (inner bract at the base of a floret) is 3 to 3.5 mm (about 0.1 in) long and has a sharp, longitudinal ridge. The reddish brown grain-like fruit is elliptical to spindle-shaped and about 1.5 mm (0.06 in) long. All three native species of *Poa* in the Hawaiian Islands are endemic to the island of Kauai. *Poa mannii* is distinguished from both *Poa siphonoglossa* and *Poa sandvicensis* by its fringed ligule and from *Poa sandvicensis* by its shorter panicle branches (O'Connor 1990).

Poa mannii is found only on the northwestern and west-central portions of the island of Kauai. The four known populations extend over a distance of about 10.5 by 8.5 kilometers (km) (6.5 by 5.3 miles (mi)) and are found in Kalalau, Makaha, Koaie, and Waialae Valleys, all on State lands (David Lorence, National Tropical Botanical Garden, pers. comm., 1992). The species was formerly found in Olokele Gulch (O'Connor 1990). Approximately 125 individuals have been observed in the extant populations. This species typically grows on cliffs and rock faces at elevations between 469 and 1,150 meters (m) (1,510 and 3,770 feet (ft)) in lowland and montane mesic forests. Associated species include: *Chamaesyce* sp. ('akoko), *Exocarpos luteolus* (heau), *Labordia helleri* (kamakahala), and *Nototrichium* sp. in Kalalau Valley; *Cyrtandra wawrae* (ha'iwale) in Makaha Valley; *Acacia koa* (koa), *Alectryon macrococcus* (mahoe), and *Antidesma platyphyllum* (hame) in Koaie Valley; and *Bidens cosmoides* (po'ola nui), *Carex meyenii*, *Dodonaea viscosa* ('a'ali'i), and *Schiedea amplexicaulis* in Waialae Valley. Threats to *Poa mannii* include habitat damage, trampling, and

browsing by feral goats (*Capra hircus*); competition with invasive alien plants, especially *Erigeron karvinskianus* (daisy fleabane), *Lantana camara* (lantana), and *Rubus argutus* (prickly Florida blackberry); landslides in the steep habitat; fire; and reduced reproductive vigor and/or extinction from stochastic events due to the small number of existing populations and individuals (D. Lorence and Ken Wood, Hawaii Plant Conservation Center, pers. comms., 1992).

Previous Federal Action

Federal action on *Poa mannii* began as a result of section 12 of the Act, which directed the Secretary of the Smithsonian Institution to prepare a report on plants considered to be endangered, threatened, or extinct in the United States. 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 the Smithsonian report as a petition within the context of section 4(c)(2) (now section 4(b)(3)) of the Act, and giving notice of its intention to review the status of the plant taxa named therein. As a result of that review, on June 16, 1976, the Service published a proposed rule in the **Federal Register** (41 FR 24523) to determine endangered status pursuant to section 4 of the Act for approximately 1,700 vascular plant species. The 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. General comments received in response to the 1976 proposal are summarized in an April 26, 1978, **Federal Register** publication (43 FR 17909). In 1978, amendments to the Act 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 in the **Federal Register** (44 FR 70796) withdrawing the portion of the June 16, 1976, proposal that had not been made final, including *Poa mannii*, along with four other proposals that had expired. The Service published updated notices of review for plants on December 15, 1980 (45 FR 82479), September 27, 1985 (50 FR 39525), and February 21, 1990 (55 FR 6183). *Poa mannii* was first included in the 1980 and 1985 notices of review as a category 1 species. Category 1 taxa are those for which the Service has on file substantial information on biological

vulnerability and threats to support preparation of listing proposals. In the 1990 notice of review, *Poa mannii* was considered a category 1* species. Category 1* taxa are those which are possibly extinct. Since the 1990 notice of review, three previously unknown populations of the species have been discovered, and a population has been found in an area in which the plant was formerly known.

Section 4(b)(3)(B) of the Act requires the Secretary to make findings on petitions that present substantial information indicating that the petitioned action may be warranted within 12 months of their receipt. Section 2(b)(1) of the 1982 amendments further required all petitions pending on October 13, 1982, be treated as having been newly submitted on that date. On October 13, 1983, the Service found that the petitioned listing of *Poa mannii* was warranted, but precluded by other pending listing actions, in accordance with section 4(b)(3)(B)(iii) of the Act; notification of this finding was published on January 20, 1984 (49 FR 2485). Such a finding requires the Service to consider the petition as having been resubmitted pursuant to section 4(b)(3)(C)(i) of the Act. The finding was reviewed in October of 1984, 1985, 1986, 1987, 1988, 1989, 1990, and 1991. Publication of the proposed rule constituted the final 1-year finding for this species.

On April 7, 1993, the Service published in the *Federal Register* (58 FR 18073) a proposal to list the plant *Poa mannii* as endangered. This proposal was based primarily on information supplied by Hawaii State Department of Land and Natural Resources unpublished reports and observations by botanists and naturalists. The Service now determines *Poa mannii* to be endangered with the publication of this rule.

Summary of Comments and Recommendations

In the April 7, 1993, proposed rule and associated notifications, all interested parties were requested to submit factual reports or information that might contribute to the development of a final rule. The public comment period ended June 7, 1993. Appropriate State agencies, county governments, Federal agencies, scientific organizations, and other interested parties were contacted and requested to comment. A newspaper notice inviting public comment was published in "The Honolulu Advertiser" on May 12, 1993, and "The Garden Isle" on May 16, 1993. No letters of comment were received.

Summary of Factors Affecting the Species

Section 4 of the Endangered Species Act (16 U.S.C. 1533) and regulations (50 CFR Part 424) promulgated to implement the Act set forth the procedures for adding species to the Federal Lists. A species may be determined to be an endangered species due to one or more of the five factors described in section 4(a)(1). These factors and their application to *Poa mannii* Munro ex Hillebr. (Mann's bluegrass) are as follows:

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

The area of Kauai in which *Poa mannii* is found has undergone extreme alteration because of past and present land management practices, including grazing, deliberate alien plant and animal introductions, water diversion, and recreational development (Wagner *et al.* 1985). Feral animals have had the greatest overall impact, altering and degrading the vegetation and habitats of the area; feral goats currently cause the greatest damage to the area.

Feral goats, which have inhabited the drier, more rugged areas of Kauai since the 1820s, consume native vegetation, trample roots and seedlings, cause erosion, and promote the invasion of alien plants (Cuddihy and Stone 1990). Feral goats on Kauai are managed as a game species with a limited hunting season (Tomich 1986), but their numbers are large enough to cause considerable habitat damage. *Poa mannii* survives only in very steep areas that are inaccessible to goats, suggesting that goat predation may have eliminated this species from more accessible locations, as is the case for other rare plants from northwestern Kauai (Corn *et al.* 1979). Populations of *Poa mannii* are affected by erosion and landslides, resulting, in part, from goat activities in surrounding areas (K. Wood, pers. comm., 1992).

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

Unrestricted collecting for scientific or horticultural purposes and excessive visits by individuals interested in seeing rare plants could result from increased publicity. This is a potential threat to *Poa mannii* that could also promote erosion and greater ingress by competing alien species.

C. Disease or Predation

Poa mannii is not known to be unpalatable to goats, which inhabit the areas where all four known populations

of *Poa mannii* grow. Predation is a probable reason that this species is currently found only on cliff faces inaccessible to goats (D. Lorence and K. Wood, pers. comms., 1992). Predation by goats constitutes a threat to the expansion of the extant populations of *Poa mannii*.

D. The Inadequacy of Existing Regulatory Mechanisms

All four populations of *Poa mannii* are located on State conservation district land, which, among other purposes, are regarded as necessary for the protection of endemic biological resources and the maintenance or enhancement of the conservation of natural resources. Activities permitted in the conservation district are chosen by considering how best to make multiple use of the land (HRS, sect. 205-2). Some uses, such as maintaining animals for hunting, are based on policy decisions, while others, such as preservation of endangered species, are mandated by both Federal and State laws. Requests for amendments to district boundaries or variances within existing classifications can be made by government agencies and private landowners (HRS, sect. 205-4). Before decisions on these requests are made, the impact of the proposed reclassification on "preservation or maintenance of important natural systems or habitat" (HRS, sects. 205-4, 205-17), as well as the maintenance of natural resources, is required to be taken into account (HRS, sects. 205-2, 205-4). For any proposed land use change that would occur on county or State land, that would be funded in part or whole by county or State funds, or that would occur within land classified as conservation district, an environmental assessment is required to determine whether or not the environment will be significantly affected (HRS, chapt. 343). If it is found that an action will have a significant effect, preparation of a full Environmental Impact Statement is required. Hawaii environmental policy and, thus, approval of land use, is required by law to safeguard " * * * the State's unique natural environmental characteristics * * *" (HRS, sect. 344-3(1)) and includes guidelines to "protect endangered species of individual plants and animals * * *" (HRS, sect. 344-4(3)(A)). However, the species is not presently protected as an endangered species under the State's endangered species provisions, and, despite provisions for conserving endemic resources, individual rare species may be overlooked during consideration of other land use priorities.

E. Other Natural or Manmade Factors Affecting Its Continued Existence

The existence of only four populations consisting of approximately 125 individuals of *Poa mannii* increases the potential for extinction from stochastic events. The limited gene pool may depress reproductive vigor, or a single human-caused or natural environmental disturbance, a disease, or predation could destroy an entire population and a significant percentage of the known individuals of the species. In the steep areas where *Poa mannii* grows, erosion and landslides due to natural weathering can result in the death of individual plants as well as habitat destruction. This process especially affects the continued existence of species or populations with limited numbers and/or narrow ranges, such as *Poa mannii*, and can be exacerbated by human disturbance and land use practices.

Competition by alien plant species is a threat to *Poa mannii*. Brought to Hawaii as a cultivated herbaceous plant, daisy fleabane has become naturalized in wetter regions of four islands (Wagner *et al.* 1990). Daisy fleabane has invaded Kalalau, Koaie, and Waialae Valleys, three of the four areas where *Poa mannii* occurs (K. Wood, pers. comm., 1992). Lantana, brought to Hawaii as an ornamental plant, is an aggressive, thicket-forming shrub that can now be found on all of the main islands in mesic forests, dry shrublands, and other dry, disturbed habitats (Wagner *et al.* 1990). Lantana threatens all known populations of *Poa mannii* (D. Lorence and K. Wood, pers. comm., 1992). Prickly Florida blackberry, an aggressive alien species in disturbed mesic to wet forests and subalpine grasslands on four islands, is considered a noxious weed by the State of Hawaii (Smith 1985, Wagner *et al.* 1990). Prickly Florida blackberry threatens the Kalalau and Waialae Valley populations of *Poa mannii* (K. Wood, pers. comm., 1992).

Fire is considered an immediate threat to the rare plants of the cliff faces and valleys of the Na Pali Coast, where the largest known population of *Poa mannii* occurs. Under dry conditions, human-set fires would spread rapidly and could destroy these plants, due to the strong prevailing winds and dry fuel load on cliff ledges. Fire could destroy dormant seeds as well as plants, even on steep cliffs (Clarke and Cuddihy 1980).

The Service has carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by this species in finalizing this rule. Based on

this evaluation, this rulemaking will list *Poa mannii* as endangered. This species numbers only approximately 125 individuals in four known extant populations. Threats to the continued existence of the species include habitat degradation and/or predation by goats, competition from alien plants, fire, landslides and erosion, and lack of legal protection or difficulty in enforcing laws that become effective with this listing action. Small population size and limited distribution make the species particularly vulnerable to extinction and/or reduced reproductive vigor from stochastic events. Because *Poa mannii* is in danger of extinction throughout all or a significant portion of its range, it fits the definition of endangered as defined in the Act.

Critical habitat is not being proposed for *Poa mannii* for reasons discussed in the "Critical Habitat" section of this final rule.

Critical Habitat

Section 4(a)(3) of the Act, as amended, requires that, to the maximum extent prudent and determinable, the Secretary designate critical habitat at the time a species is determined to be endangered or threatened. The Service finds that designation of critical habitat is not presently prudent for *Poa mannii*. The publication of a map and precise description of critical habitat in the **Federal Register**, as required in a designation of critical habitat, would increase the degree of threat to this species from take or vandalism and, therefore, could contribute to its decline. The listing of this species as endangered publicizes the rarity of the plant and, thus, can make it attractive to researchers, curiosity seekers, or collectors of rare plants. All involved parties and the major landowner have been notified of the location and importance of protecting the habitat of this species, which will be addressed through the recovery process and through the section 7 consultation process. There are no known Federal activities within the currently known natural habitat of this species. Therefore, the Service finds that designation of critical habitat for this species is not prudent at this time, because such designation would increase the degree of threat from vandalism, collecting, or other human activities and because it is unlikely to aid in the conservation of this species.

Available Conservation Measures

Conservation measures provided to species listed as endangered under the Act include recognition, recovery actions, requirements for Federal

protection, and prohibitions against certain activities. Listing encourages conservation actions by Federal, State, and local agencies, private organizations, and individuals. The Act provides for possible land acquisition and cooperation with the State and requires that recovery plans be developed for listed species. The requirement for Federal agencies and the prohibitions against certain activities involving listed plants are discussed, in part, below.

Section 7(a) of the Act, as amended, requires Federal agencies to evaluate their actions with respect to any taxon that is proposed or listed as endangered 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)(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 Federal agency must enter into consultation with the Service. There are no known Federal activities that occur within the presently known habitat of *Poa mannii*.

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 *Poa mannii*, all prohibitions of section 9(a)(2) of the Act, implemented by 50 CFR 17.61, would apply. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to import or export any endangered plant species to/from the United States; transport such species in interstate or foreign commerce in the course of a commercial activity; sell or offer for sale such species in interstate or foreign commerce; remove and reduce to possession any such species from areas under Federal jurisdiction; maliciously damage or destroy any such species on any area under Federal jurisdiction; or remove, cut, dig up, damage, or destroy any such species on any other area in knowing violation of any State law or regulation or in the course of any violation of a State criminal trespass law. Certain exceptions apply to agents of the Service and State conservation agencies. Section 10 of the Act and 50 CFR 17.62 also provide for the issuance of permits under certain circumstances to carry out activities involving

endangered plants that are otherwise prohibited by section 9.

It is the policy of the Service (59 FR 34272) to identify to the maximum extent practicable at the time a species is listed those activities that would or would not constitute a violation of section 9 of the Act. Such information is intended to clarify the potential impacts of a species' listing on proposed and ongoing activities within the species' range. The four known populations of *Poa mannii* occur on cliffs and rock faces located on State lands. The Service is not aware of any otherwise legal activities proposed or being conducted by the public at this time that will be affected by this listing and result in a violation of section 9. Questions regarding whether specific activities will constitute a violation of section 9 should be directed to the Field Supervisor of the Service's Pacific Islands Office (see ADDRESSES section). Requests for copies of the regulations concerning listed plants and general inquiries regarding prohibitions and permits may be addressed to the U.S. Fish and Wildlife Service, Ecological Services, Endangered Species Permits, 911 N.E. 11th Avenue, Portland, Oregon 97232-4181 (503/231-2063; FAX 503/231-6243).

Hawaii State Law

Federal listing will automatically invoke listing under the State's endangered species act. Hawaii's endangered species act states, "Any species of aquatic life, wildlife, or land plant that has been determined to be an

endangered species pursuant to the [Federal] Endangered Species Act shall be deemed to be an endangered species under the provisions of this chapter * * * (HRS, sect. 195D-4(a)). Therefore, Federal listing will accord the species listed status under Hawaii State law. State law prohibits cutting, collecting, uprooting, destroying, injuring, or possessing any listed species of plant on State or private land, or attempting to engage in any such conduct. State law also encourages conservation of such species by State agencies and triggers other State regulations to protect the species (HRS, sect. 195D-4 and 5). Two populations of *Poa mannii* occur in forest reserves, which have rules and regulations for the protection of resources. State law mandates the development and implementation of programs concerning the conservation of biological resources, including this endangered species (HRS, sect. 195D-5(a)).

National Environmental Policy Act

The Fish and Wildlife Service has determined that an Environmental Assessment or Environmental Impact Statement, 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).

References Cited

A complete list of all references cited herein is available, upon request, from the Field Supervisor, Pacific Islands Office (see ADDRESSES section).

Authors

The authors of this rule are Marie M. Bruegmann and Zella E. Ellshoff of the Pacific Islands Office (see ADDRESSES section), (808/541-3441).

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, and Transportation.

Regulation Promulgation

Accordingly, part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, is amended as set forth below:

PART 17—[AMENDED]

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

Authority: 16 U.S.C. 1361-1407; 16 U.S.C. 1531-1544; 16 U.S.C. 4201-4245; Pub. L. 99-625, 100 Stat. 3500; unless otherwise noted.

2. Section 17.12(h) is amended by adding the following, in alphabetical order under FLOWERING PLANTS, to the List of Endangered and Threatened Plants, to read as follows:

§ 17.12 Endangered and threatened plants.
* * * * *
(h) * * *

Species		Historic range	Family	Status	When listed	Critical habitat	Special rules
Scientific name	Common name						
Flowering Plants							
<i>Poa mannii</i>	Mann's bluegrass	U.S.A. (HI)	Poaceae	E	558	NA	NA

Dated: September 9, 1994.
Mollie H. Beattie,
Director, Fish and Wildlife Service.
IFR Doc. 94-27301 Filed 11-9-94; 8:45 am)
BILLING CODE 4310-65-P

**50 CFR Part 17
RIN 1018-AB94**

Endangered and Threatened Wildlife and Plants; Endangered Status for 12 Plants From the Hawaiian Islands
AGENCY: Fish and Wildlife Service, Interior.
ACTION: Final rule.

SUMMARY: The U.S. Fish and Wildlife Service (Service) determines endangered status pursuant to the Endangered Species Act of 1973, as amended (Act), for 12 species of Hawaiian plants: *Adenophorus periens* (pendant kahi fern), *Bonamia menziesii* (no common name (NCN)), *Diellia erecta* (NCN), *Flueggea neowawraea* (mehamehame), *Hibiscus brackenridgei* (ma'o hau hele), *Mariscus pennatiformis* (NCN), *Neraudia sericea* (ma'aloa), *Plantago princeps* (ale), *Sesbania tomentosa* ('ohai), *Solanum incompletum* (thorny popolo),

Spermolepis hawaiiensis (NCN), and *Vigna o-wahuensis* (Oahu vigna). These 12 species are found on 1 or more of the following Hawaiian Islands: Laysan, Necker, Nihoa, Niihau, Kauai, Oahu, Molokai, Lanai, Kahoolawe, Maui, and Hawaii. The 12 species and their habitats have been variously affected or are currently threatened by one or more of the following: habitat degradation and/or predation by wild, feral, or domestic animals (pigs, goats, deer, cattle); competition for space, light, water, and nutrients by naturalized, introduced vegetation; habitat loss from