

DEPARTMENT OF THE INTERIOR**Fish and Wildlife Service****50 CFR Part 17****Endangered and Threatened Wildlife and Plants; Proposed Endangered Status and Critical Habitat for *Kokia drynarioides* (hau-hele'ula)**

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: The Service proposes to list a plant, *Kokia drynarioides* (hau-hele'ula), as an Endangered species and to designate its Critical Habitat under the authority contained in the Endangered Species Act of 1973, as amended. This species is known only from one small wild population of about 15 individuals located in the Ka'upulehu Forest Reserve and the adjoining Pu'uwa'awa'a Ranch, County and island of Hawaii, State of Hawaii. The lone population of this species is vulnerable to any substantial habitat alteration and faces numerous threats, including continued livestock damage, destruction of seeds by rodents and fire on and near the site where it occurs. A determination that

Kokia drynarioides is an Endangered species and designation of its Critical Habitat would implement the protection provided by the Endangered Species Act of 1973, as amended. Comments and materials related to this proposal are solicited. The Service requests information on the impacts that would result from listing *Kokia drynarioides* as an Endangered species.

DATES: Comments from the public and the Hawaiian State agency must be received by December 12, 1983. A public hearing on this proposal will be held if requested by October 27, 1983.

ADDRESSES: Comments and related materials should be sent to the Pacific Islands Administrator, U.S. Fish and Wildlife Service, P.O. Box 50167, Honolulu, Hawaii 96850. Comments and materials relating to this proposal are available for public inspection by appointment during normal business hours at the Service's Office of Endangered Species, 300 Ala Moana Boulevard, Room 6307, Honolulu, Hawaii 96850.

FOR FURTHER INFORMATION CONTACT: Mr. Ernest Kosaka, Project Leader for Environmental Services, U.S. Fish and Wildlife Service, P.O. Box 50167, Honolulu, Hawaii 96850 (808/546-7530).

SUPPLEMENTARY INFORMATION: *Kokia drynarioides* (Seem.) Lewt. (koki'o, hau-hele'ula or Hawaii tress cotton) is a member of the mallow family. It is one of four native Hawaiian species belonging to this endemic genus and is the only koki'o growing on the island of Hawaii. There are no other wild trees on Hawaii with a combination of large red malvaceous flowers, palmately lobed leaves, and three large involucre bracts at the base of the flower and fruit. Initially collected during Cook's second visit to the Hawaiian Islands and described by Seemann in 1865, the species has undergone a steady population decline to a point at which only 15 plants are now known in the wild. The population was estimated at about 200 trees in 1929 (Degener and Degener, 1965). Cattle and various feral herbivores have been responsible for most of the population decline; however, the recent invasion of the exotic bunch grass (fountaingrass, *Pennisetum setaceum*) has served to inhibit regeneration as well as increase the probability, extent and intensity of wildfires.

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) of his acceptance of this report as a petition within the context of Subsection 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 rule in the **Federal Register** (41 FR 24523) to determine approximately 1,700 vascular plant taxa to be Endangered species. This list 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. *Kokia drynarioides* was included in the July 1, 1975, notice and the June 16, 1976, proposal. General comments on the 1976 proposal are summarized in an April 26, 1978, **Federal Register** publication (43 FR 17909). The Endangered Species Act Amendments of 1978 (Pub. L. 95-632) required that all proposals over 2 years old be withdrawn. On December 10, 1979, the Service published a notice of the withdrawal of that portion of the June 16, 1976, proposal that had not been made final, along with other proposals that had expired (44 FR 70796). At this time, the Service has sufficient information to warrant reproposing *Kokia drynarioides*. This new information includes a detailed status report prepared by a botanist from the University of Hawaii (Lamoureux, 1981). Its Critical Habitat is proposed for the first time.

Summary of Factors Affecting the Species

Subsection 4(a)(1) of the Endangered Species Act of 1973, as amended (15 U.S.C. 1531 *et seq.*), states that the Secretary of the Interior shall determine whether any species is an Endangered or Threatened species due to one or more of the five factors described in that subsection.

These factors and their application to *Kokia drynarioides* are as follows:

A. *The present or threatened destruction, modification, or curtailment of its habitat or range.* The habitat for this species has been greatly modified by many years of management as rangeland for livestock (see Factor C. below). The recent invasion of the exotic fountaingrass has further degraded the suitability of the habitat for seedling survival, and threatens also to increase the frequency, intensity and

extent of wildfires, which may eliminate adult trees as well.

B. *Overutilization for commercial, recreational, scientific, or educational purposes.* Not applicable to this species.

C. *Disease or predation* (including grazing). This plant is extremely palatable to herbivorous livestock. Cattle browse on the mature trees and graze any seedlings that may appear above the fountaingrass. Rodents, especially the introduced roof rat, *Rattus rattus*, eat the seeds, often before they fall from the tree.

D. *The inadequacy of existing regulatory mechanisms.* A plan to protect *Kokia drynarioides* was drawn up about 1915 (Young & Popenoe, 1916), but never thoroughly carried out (Rock, 1919). Continued use of the habitat for cattle pasture and subsequent incursion of the introduced fountaingrass have led to a continued decline of the population.

E. *Other natural or manmade factors affecting its continued existence.* The reduction in number of individuals of this species probably has a detrimental effect on the breeding system and genetic recombination. The present reduced wild population exists entirely within the potential destruction area of a dormant volcano, between lava tongues of its 1800-1801 eruption.

Critical Habitat

Section 4(a)(3) requires the Secretary to designate Critical Habitat for species concurrently with listing the species to the maximum extent prudent and determinable. 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."

Proposed Critical Habitat for *Kokia drynarioides* includes three areas of land in the North Kona District, island, County and State of Hawaii, as follows:

1. Ka'upulehu Ahupua'a area—approximately 0.76 square miles located immediately to the west of the Ka'upulehu 1800-1801 lava flow, extending between 1400 and 2600 feet of elevation, crossing Mamalahoa Highway, and including Ka'upulehu Forest Reserve, Section B.

2. A boundary area occupying most of an unnamed kipuka (discontinuity) in 1800-1801 lava that straddles the boundary between Ka'upulehu and Pu'uwa'awa'a Ahupua'a and also crosses Mamalahoa Highway. The area proposed is approximately 1.2 square miles in area.

3. Pu'uwa'awa'a Ahupua'a area—approximately 1.9 square miles, all of Halepi'ula 3, Waimea Paddock of Pu'uwa'awa'a Ranch which lies south of (upslope) and abuts Mamalahoa Highway just east of the boundary between Ka'upulehu and Pu'uwa'awa'a Ahupua'a.

The primary constituent elements of the proposed Critical Habitat are appropriate soil type and climate, protection from livestock damage, protection from aggressive exotic weeds, and presence of suitable pollinators.

Subsection 4(b)(8) 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 affected by such a designation. Such activities are identified below for this species. It should be emphasized that Critical Habitat designation may not affect all of the activities mentioned below, as Critical Habitat designation only affects Federal agency activities through Section 7 of the Act.

Any activity that would significantly disturb the soil, topography or other physical and biological components of the area in which *Kokia drynarioides* occurs could adversely modify its Critical Habitat. Existing and proposed land uses in the immediate locality of the population and in its surroundings must be carefully examined if such modifications are to be prevented. This might require revocation of grazing rights on the land and rezoning the land to conservation. Such a revocation, however, would be discretionary with the State and private landowners and would not be mandated under the Act.

Section 4(b)(2) of the Act requires the Secretary to consider the economic and other relevant impacts of designating Critical Habitat. The Service has contacted the State of Hawaii and the B. P. Bishop Estate, which have jurisdiction over the land under consideration in this proposed action. Interested Federal and State agencies as well as 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 economic impact analysis prior to the time a final rule is issued.

Available Conservation Measures

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, and any proposed or designated Critical Habitat. In particular, Section 7(a)(4) requires Federal agencies to informally confer with the Service on any of their actions that are likely to jeopardize the continued existence of this proposed species, or destroy or result in adverse modification of its proposed Critical Habitat.

If this proposal is published as a final rule, Federal agencies would be required to insure that actions they authorize, fund or carry out are not likely to jeopardize the continued existence of this species, and to insure that their actions are not likely to result in the destruction or adverse modification of Critical Habitat that has been determined by the Secretary. There is no known planned action by a Federal agency they may be affected by this proposed listing and designation of Critical Habitat.

Section 9(a)(2) of the Act and implementing regulations published in the June 24, 1977, **Federal Register** (42 FR 32373) set forth a series of general trade prohibitions and exceptions that apply to all Endangered plant species. The regulations pertaining to plants are found at 50 CFR 17.61, and are summarized below.

With respect to *Kokia drynarioides* all trade prohibitions of Section 9(a)(2) of the Act, as implemented by 50 CFR 17.61 would apply. The 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 17.62 and 17.63 also provide for the issuance of permits to carry out otherwise prohibited activities involving Endangered species under certain circumstances. No such trade in this species is known. It is anticipated that few trade permits involving the species would ever be requested.

If this plant is listed as an Endangered species and its Critical Habitat

designated, certain conservation authorities would become available and protective measures may be undertaken for it. These could include increased management of the species and its habitat, the provision of Federal funds for the species should Hawaii qualify for a cooperative agreement under Section 6(c)(2) of the Act, and the development of a recovery plan for the species as specified in Section 4(f).

National Environmental Policy Act

A draft Environmental Assessment has been prepared in conjunction with this proposal. It is on file in the Service's Pacific Islands Area Office, 300 Ala Moana Boulevard, Room. 6307, Honolulu, Hawaii 96850, and may be examined by appointment during regular business hours. A determination will be made at the time of a final rule 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 (implemented at 40 CFR Parts 1500-1508).

Public Comments Solicited

The Service intends that the rules finally adopted be as accurate and effective as possible in the conservation of each Endangered 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 this proposed rule 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 population of *Kokia drynarioides* and the reasons why any habitat of this species should or should not be designated as Critical Habitat;

(3) Additional information concerning the range and distribution of this species;

(4) Current or planned activities in the subject area and the probable impact of such activities on the area designated as Critical Habitat; and

(5) The foreseeable economic and other impacts of the the Critical Habitat designation on Federal activities, private individuals, etc.

Final promulgation of a rule on *Kokia drynarioides* 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.

Author

The primary author of the proposed rule is Dr. Derral Herbst, U.S. Fish and Wildlife Service, P.O. Box 50167, Honolulu, Hawaii. Status information and a preliminary listing package were provided by Dr. Charles H. Lamoureux, Department of Botany, University of Hawaii at Manoa, 3190 Maile Way, Honolulu, Hawaii 96822. Paul A. Opler and George E. Drewry of the Service's Washington Office served as editors.

References

- Degener, O. and I. Degener. 1965. Flora Hawaiiensis. Family: 221. Genus: *Kokia*. Species: *drynarioides*. Honolulu.
- Lamoureux, C. H. 1981. Status report on *Kokia drynarioides*. Research Corporation of the University of Hawaii under Contract 14-16-0001-79096 to the U.S. Fish and Wildlife Service. 28 pp.
- Rock, J. F. 1919. The Hawaiian genus *Kokia*, a relative of the cotton. Terr. Hawaii Bd. Agr. For. Botanical Bull. 6:1-22.
- Young, R. A. and P. Popenoe. 1916. Saving the Kokio tree. J. Heredity 7(1):24-28.

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 U.S. Code of Federal Regulations, as set forth below:

1. The authority citation for Part 17 reads as follows:

Authority: Pub. L. 93-205, 87 Stat. 884; 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, in alphabetical order, the following to the list of Endangered and Threatened plants:

Species	Scientific Name	Common Name	Historic range	Status	When listed	Critical habitat	Special rules
Malvaceae—Mallow Family	<i>Kokia drynarioides</i>	Hau-hele'ula, Koki'o or Hawaii tree cotton	U.S.A. (HI)	E	N/A	17.96(a)	N/A

3. It is further proposed that § 17.96(a) be amended by adding the Critical Habitat of *Kokia drynarioides* in alphabetical order by family and scientific name.

§ 17.96 (a) [Amended]

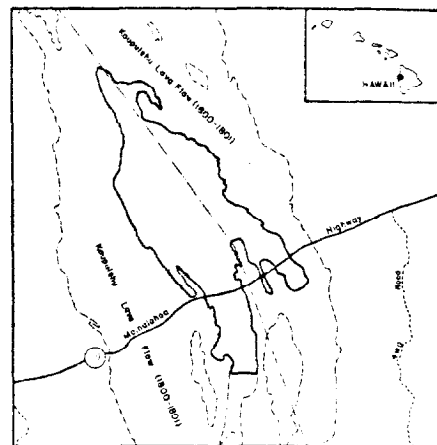
Critical Habitat for *Kokia Drynarioides*

Primary constituent elements of Critical Habitat are appropriate soil type, climate, protection from grazing damage, protection from aggressive exotic weeds, and presence of suitable pollinators.

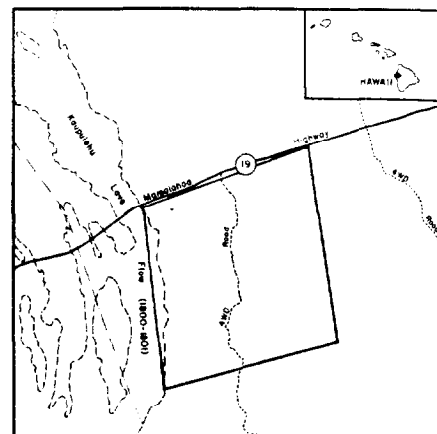
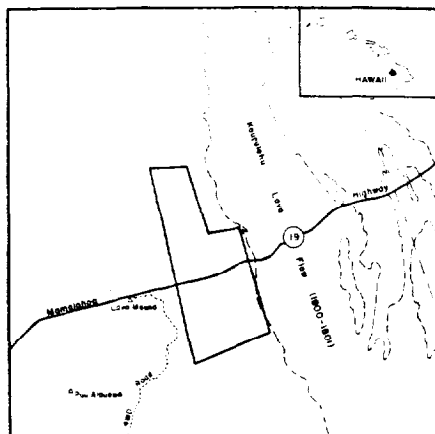
Family Malvaceae: *Kokia drynarioides* (Seem.) Lewt. Hau'hele'ula, Koki'o, or Hawaii tree cotton, State of Hawaii, island and County of Hawaii, North Kona District, 3 areas.

(1) Ka'upulehu Ahupua'a area, bounded as follows: from a point of origin at Universal Transverse Mercator (UTM) coordinate 925880 near or on the west boundary of the Ka'upulehu 1800-1901 lava flow (approximately at intersection of said west boundary and 2600 ft elevation contour); thence west southwesterly approximately 864 ft to UTM coordinate 914875 (also near 2600 ft elevation contour); thence north northwesterly approximately 1987 ft to UTM coordinate 909899 (near the 1400 ft elevation contour); thence east northeasterly approximately 378 ft to UTM coordinate 913900 (also near the 1400 ft elevation contour); thence south southeasterly approximately 720 ft to UTM coordinate 916891; thence east northeasterly approximately 320 ft to UTM coordinate 920892 (near the said west boundary of the 1800-1801 lava flow); thence south southeasterly approximately 1140 ft to the point of origin. Included in this area is Ka'upulehu Forest Reserve, Section B.

(2) Ka'upulehu Ahupua'a and Pu'uwa'awa'a Ahupua'a boundary area, identified as follows: An unnamed kipuka (discontinuity) in 1800-1801 lava that straddles the boundary between Ka'upulehu and Pu'uwa'awa'a Ahupua'a and also crosses Mamalahoa Highway between 2400 and 1000 feet of elevation. Excluded is a small tongue of the said kipuka that extends south of UTM coordinate 941885 at approximately 2400 ft of elevation and above. UTM coordinate 931924 marks the low elevation end of the said kipuka.



(3) Pu'uwa'awa'a Ahupua'a area, identified as follows: Halepi'ula 3, Waimea Paddock of Pu'uwa'awa'a Ranch, which lies south of (upslope) and abuts Mamalahoa Highway just east of the boundary between Ka'upulehu and Pu'uwa'awa'a Ahupua'a. East boundary of the 1800-1801 Ka'upulehu lava flow is the west boundary of the paddock. The paddock corners are near UTM coordinates 948901 (NW), 985909 (NE), 973886 (SE), and 971879 (SW).



Dated: June 10, 1983.

J. Craig Potter,

Acting Assistant Secretary, Fish and Wildlife and Parks.

[FR Doc. 83-24824 Filed 9-9-83; 8:45 am]

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