

50 CFR Part 17**Endangered and Threatened Wildlife and Plants; Proposed Endangered Status for *Santalum freycinetianum* Guad. var. *lanaiense* Rock (Lanai sandalwood or 'Iliahi)****AGENCY:** Fish and Wildlife Service, Interior.**ACTION:** Proposed rule.

SUMMARY: The Service proposes to determine *Santalum freycinetianum* var. *lanaiense* (lanai sandalwood or 'Iliahi) to be an endangered species, under the authority contained in the Endangered Species Act of 1973, as amended. This plant is known only from two areas, one at Kanepu'u, island of Lanai, and the other comprising the summit ridge system of the island of Lanai, County of Maui, Hawaii. The 39 known individuals of this variety are vulnerable to any substantial habitat alteration and face the threats of grazing and browsing by federal game animals, rat predation on fruits, and the potential threats of taking and fire at the sites they occupy. A determination that *Santalum freycinetianum* var. *lanaiense* is an endangered species would implement the protection provided by the Endangered Species Act of 1973, as

amended. The Service seeks data and comments from the public on this proposal.

DATES: Comments from all interested parties must be received by May 6, 1985. Public hearing requests must be received by April 22, 1985.

ADDRESSES: Comments and materials concerning this proposal should be sent to the Regional Director, U.S. Fish and Wildlife Service, 500 N.E. Multnomah Street, Portland, Oregon 97232. Comments and materials received will be available for public inspection, by appointment, during normal business hours at the above address.

FOR FURTHER INFORMATION CONTACT: Wayne S. White, Chief, Division of Endangered Species, U.S. Fish and Wildlife Service, 500 N.E. Multnomah Street, Portland, Oregon 97232 (503/231-6131 or FTS 429-6131).

SUPPLEMENTARY INFORMATION:**Background**

Santalum freycinetianum var. *lanaiense* is a small gnarled tree with leaves that vary from nearly round to twice as long as broad, and are dark green on the upper surface. The tree bears small clusters of bright red flowers. J.F. Rock discovered the sandalwood on the island of Lanai in 1910 and formally described it in 1913. Historically, it has been collected and/or reported from several widely spaced localities on the island. Sandalwood trade prior to this plant's discovery by the scientific community could have already reduced the number of trees by

an unknown amount. Thirty-nine individuals of the variety are now known and are widely spaced over its range. These can be divided into two populations, one near Kanepu'u and the other near the summit of the island. Both populations occur on private lands owned by Castle and Cook, Inc.

The species is found in a range of habitats from dry lowland forests on well drained barren soils to mesic forests on shallow soils at higher elevations. The habitat has been severely degraded by grazing and browsing by livestock and exotic game animals. Much of the native vegetation has been removed, increasing wind erosion of the fragile soils. Rat predation on developing fruit has all but eliminated reproduction (Carr, 1981).

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 Service published a notice in the **Federal Register** (40 FR 27823-27924) of its acceptance of this report as a petition within the context of section 4(c)(2) of the Act (petition acceptance is now governed by section 4(b)(3) of the Act, as amended), and of its intention 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 24523-24572) 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. *Santalum freycinetianum* var. *lanaiense* was included in the July 1, 1975, notice and the June 16, 1976, proposal. General comments on the 1976 proposal were summarized in an April 26, 1978, Federal Register publication (43 FR 17909-17916).

The Endangered Species Act Amendments of 1978 required that all proposals over two years old be withdrawn. A 1-year grace period was given to those proposals already more than 2 years old. Subsequently, on December 10, 1979, the Service published a notice of the withdrawal of the portion of the June 16, 1976, proposal that had not been made final, along with other proposals that had expired (44 FR 70796-70797); this withdrawal included *Santalum freycinetianum* var. *lanaiense*. *Santalum freycinetianum* var. *lanaiense* was included in the December 15, 1980 (45 FR 82480-82569) notice of review of plant taxa as a candidate for listing. On February 15, 1983, the Service published a notice (48 FR 6752) of its prior petition finding that sufficient information exists to indicate that listing of this taxon may be warranted in accordance with section 4(b)(3)(A) of the Act. On October 13, 1983, and again on October 13, 1984, the petition finding was made that listing this taxon 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 appeared in the Federal Register of January 20, 1984 (49 FR 2485). Such a finding requires recycling of the petition pursuant to section 4(b)(3)(C)(i) of the Act. Therefore, a new finding must be made; consequently the Service finds that the petitioned action is warranted and hereby publishes a proposed rule for its implementation 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 (to be codified at 50 CFR Part 424; see 49 FR 38900, October 1, 1984) set forth the procedures for adding species to the Federal lists. A species may be determined to 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 *Santalum freycinetianum*

Gaud. var. *lanaiense* Rock (Lanai sandalwood) are as follows:

A. *The present or threatened destruction, modification, or curtailment of its habitat or range.* Only 39 individuals are presently known to be extant (Peter Connally, State Conservation Officer, Lanai City, pers. comm.). The recent decline in numbers of the species is largely due to loss of habitat. Natural vegetation has been eliminated over vast areas of Lanai and native dryland forests have been severely degraded (Spence and Montgomery, 1976). Agricultural development has removed large tracts of native vegetation, first for pasture and later for pineapple production. Cattle, sheep and axis deer, which had been introduced into this area, have removed and trampled vegetation, contributing to severe erosion of soils.

B. *Overutilization for commercial, recreational, scientific, or educational purposes.* Extensive removal of Hawaiian sandalwoods for trade occurred from 1790 to 1820. The wood is valued for its fragrance and beauty and was used in making incense and in decorative woodworking. Although the species is no longer common enough for profitable commercial use, it may be threatened by individuals seeking the wood.

C. *Disease or predation.* The Lana'i sandalwood is grazed by introduced animals, including axis deer maintained for hunting, as demonstrated by the high browse line on the few remaining trees. Fruit predation by rats has resulted in virtual lack of reproduction in this taxon.

D. *The inadequacy of existing regulatory mechanisms.* No regulatory mechanisms exist at the present time to protect this taxon. Federal listing would automatically invoke listing under Hawaii State law, which prohibits taking and encourages conservation by State government agencies.

E. *Other natural or manmade factors affecting its continued existence.* Only one sapling has recently been observed, indicating that reproduction of *Santalum freycinetianum* var. *lanaiense* is almost non-existent. Several factors may contribute including reduction of the breeding population and rodent damage to fruit. The low numbers of individuals remaining has greatly reduced the gene pool for the species and may threaten its adaptive potential.

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 *Santalum freycinetianum* var. *lanaiense* as endangered. The species is proposed for endangered status due to the imminent threat of extinction. This choice reflects the strong likelihood that without the institution of appropriate conservation measures, the species will become extinct. The conditions leading to a proposal without critical habitat designation are discussed in the "Critical Habitat" section.

Critical Habitat

Section 4(a)(3) of the Act, as amended, requires that to the maximum extent prudent and determinable, the Secretary designate any habitat of a species which is considered to be critical habitat at the time the species is determined to be endangered or threatened. The Service finds that designation of critical habitat is not prudent for this species at this time. As discussed under Factor "B" in the "Summary of Factors Affecting the Species" sandalwood is used for incense and decorative wood products and in the past this taxon was extensively harvested. Taking is an activity difficult to enforce against and not regulated by the Endangered Species Act with respect to plants, except for a prohibition against removal and reduction to possession of endangered plants from lands under Federal jurisdiction. Publication of critical habitat descriptions would make this species more vulnerable to collection. Therefore, it would not be prudent to determine critical habitat for *Santalum freycinetianum* var. *lanaiense* at this time.

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, State, and private agencies, groups, and individuals. The Endangered Species Act provides for possible land acquisition and cooperation with the States and requires that recovery actions be carried out for all listed species. Such actions are initiated by the Service following listing. The protection required of Federal agencies and the 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 proposed. 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, 1984). Section 7(a)(4) requires Federal agencies to informally confer with the Service on any action that is likely to jeopardize the continued existence of a proposed species or result in adverse modification of proposed critical habitat. If a species is listed subsequently, 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 Federal agency must enter into consultation with the Service. *Santalum freycinetianum* var. *lanaiense* is found on private land. No Federal action currently exists or is anticipated with regard to this species.

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 *Santalum freycinetianum* var. *lanaiense*, all trade prohibitions of section 9(a)(2) of the Act, implemented by 50 CFR 17.61 would apply. These prohibitions, in part, would make it illegal for any persons 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 can apply to agents of the Service and State conservation agencies. The Act and 50 CFR 17.62 and 17.63 also provide for the issuance of permits to carry out otherwise prohibited activities involving endangered species under certain circumstances. No trade in this species has been known since 1820. It is anticipated that few trade points involving *Santalum freycinetianum* var. *lanaiense* would be requested.

Section 9(a)(2)(B) of the Act, as amended in 1982, prohibits the removal and reduction to possession of endangered plant species from areas under Federal jurisdiction. The prohibition would apply to *Santalum freycinetianum* var. *lanaiense* if it should be found on Federal land or if

any of the land it is now found on should pass into Federal jurisdiction. Permits for exceptions to this prohibition are available through section 10(a) of the Act, until revised regulations are promulgated to incorporate the 1982 Amendments. Proposed regulations implementing this new prohibition were published on July 8, 1983 (48 FR 31417), and it is anticipated that these will be made final following public comment. As all known plants occur on private lands, it is anticipated that few, if any, taking permits will be requested for *Santalum freycinetianum* var. *lanaiense*. Requests for copies of the regulations on plants and inquiries regarding them may be addressed to the Federal Wildlife Permit Office, U.S. Fish and Wildlife Service, Washington, D.C. 20240 (703/235-1903).

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 particularly are sought concerning:

- (1) Biological, commercial trade, or other relevant data concerning any threat (or lack thereof) to *Santalum freycinetianum* var. *lanaiense*;
- (2) The location of any additional populations of *Santalum freycinetianum* var. *lanaiense* and the reason why any habitat of this taxon should or should not be designated as critical habitat;
- (3) Additional information concerning the range and distribution of this species; and
- (4) Current or planned activities in the subject area and their possible impacts on *Santalum freycinetianum* var. *lanaiense*.

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

The Endangered Special 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, 500 NE. Multnomah Street, Portland, Oregon 97232.

National Environmental Policy Act

The Fish and Wildlife Service has determined that an Environmental Assessment, as defined by 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

- Carr, G.D. 1961. Status Report on *Santalum freycinetianum* var. *lanaiense*. Research Corporation of the University of Hawaii, under contract 14-16-001-79096 to the U.S. Fish and Wildlife Service.
- Spence, G.E., and S. Montgomery. 1976. Ecology of the dryland forest at Kanepu'u, Island of Lana'i. *Hawaiian Botanical Society Newsletter* 15:62-80.

Author

The primary author of this proposed rule is Carol A. Wilson, U.S. Fish and Wildlife Service, 500 NE. Multnomah Street, Portland, Oregon 97232 (503/231-6131 or FTS 429-6131).

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 reads 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 the family Santalaceae, to the List of Endangered and Threatened Plants:

§17.12 Endangered and threatened plants.

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(h) * * *

Species		Historic range	Status	When listed	Critical habitat	Special rules
Scientific name	Common name					
SANTALACEAE—Sandalwood family						
<i>Santalum freycinetianum</i> var. <i>lanaiense</i> .	Lanai sandalwood ('iliahii).	(Lanai U.S.A. (HI)	E		NA	NA

Dated: February 14, 1985.

J. Craig Potter,
Acting Assistant Secretary for Fish and Wildlife and Parks.

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