

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Final Rule To List *Gouania hillebrandii* as an Endangered Species and To Designate Its Critical Habitat

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: The U.S. Fish and Wildlife Service determines *Gouania hillebrandii*, a shrub in the buckthorn family, to be an endangered species, and designates four areas in the Lahaina District, County and island of Maui, Hawaii as critical habitat. These actions are taken under the authority of the Endangered Species Act of 1973, as amended. The populations of this species are vulnerable to any substantial habitat alteration and face threats of browsing and trampling by livestock in at least one of these areas. An introduced insect, *Pinnaspis strachani* (hibiscus snow scale), present in this area for at least forty years, has weakened and killed many of the plants. The present rule is intended to provide *Gouania hillebrandii* the protection available under the Act.

EFFECTIVE DATE: The effective date of this rule is December 10, 1984.

ADDRESSES: The complete file for this rule is available for inspection, by appointment, during normal business hours at 500 N.E. Multnomah Street, Suite 1692, Portland, Oregon 97232 (503/231-6131).

FOR FURTHER INFORMATION CONTACT: Mr. Sanford R. Wilbur, U.S. Fish and Wildlife Service, Lloyd 500 Building, Suite 1692, 500 NE. Multnomah Street, Portland, Oregon 97232 (503/231-6131).

SUPPLEMENTARY INFORMATION:**Background**

The type specimen for *Gouania hillebrandii* Oliver was collected by the German physician and botanist William Hillebrand in August 1870. Since that time, the taxon only occasionally has been collected (1910, 1943, 1955, 1965, 1966, 1978, 1979, 1980). All collections prior to 1979 probably were from the dry gulches and ridges behind Lahaina, West Maui (St. John 1959). Although the type specimen is labeled "Maui! gulches of Kula and Lahaina," no collections from the Kula region (East Maui) have been verified as *G. hillebrandii*. Of the five species of *Gouania* known from Maui, only *G. hillebrandii* has been seen since the 1870's. In 1979 Robert Hobdy

and Rene Sylva of Maui discovered sizeable populations of *G. hillebrandii* behind Olowalu, West Maui, some 2 to 3 miles from the Lahaina population (Hobdy 1980). Today, it is known only from these two localities; the west-facing slopes of Pa'upa'u, above Lahaina, and Lihau, both in the District of Lahaina, County and island of Maui, Hawaii.

No Hawaiian name has been recorded for this taxon. However, archaeological sites in the vicinity of present day populations and the highly developed botanical knowledge of the Hawaiians before European contact indicate that a Hawaiian name probably did exist but has been lost.

The plant is a shrub up to 6 feet tall, often comprised of a single unbranched or sparingly branched stem when below 2 feet but becoming more branched and rounded with increased height. Branches are slender and covered with a rust- or ash-colored fuzz. Leaves are oval or oblong in shape, 2 to 3 inches long by $\frac{3}{4}$ to 1 inch wide, broadly pointed, entire (without toothed or lobed edges) dark green, fuzzy and pale below, thin and somewhat papery. Flowers are quite small and nearly white, quite fragrant, borne on short fuzzy branching flower stalks that arise from the junction of the leaves with the stem. Flower stalks are 1 to 1½ inches long, and bear 3 to 5 flowers each. The tiny brown seeds are in small, 3-winged capsules that are covered with soft white fuzz.

Livestock and introduced insects pose serious threats to this native shrub. Browsing and trampling by domestic cattle have decimated this taxon, especially at Pa'upa'u, and will probably extirpate that population if continued. The introduced insect *Pinnaspis strachani* (hibiscus snow scale) now infests at least half of all known plants. Many of the most heavily infested plants have died.

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 of the U.S. Fish and Wildlife Service 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 1973 Act, and of his intention thereby to review the status of the plant taxa named within. On June 16, 1976, the Director published a proposed rule in the **Federal Register** (41 FR 24523) to determine approximately 1,700 vascular

plant taxa, including *Gouania hillebrandii*, 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. *Gouania hillebrandii* 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 (P.L. 95-632) subsequently required that all proposals over 2 years old be withdrawn. On December 10, 1979, the Service published a notice of the withdrawal of the June 16, 1976, proposal along with four other proposals that had expired (44 FR 70796). A reproposal was published September 7, 1983 (48 FR 40407), based on information available at the time of the 1976 proposal and information gathered after that time and summarized in a detailed status report prepared under contract by a University of Hawaii botanist (Holt 1982). The comment period on this reproposal closed on November 7, 1983.

In the June 2, 1977, Federal Register (42 FR 32373, codified at 50 CFR 17.61, 17.62, and 17.63) the Service published a final rule detailing regulations to protect endangered plant species. These regulations established prohibitions and a permit procedure to grant exceptions to the prohibitions under certain conditions.

Summary of Comments and Recommendations

In the September 7, 1983 proposed rule (48 FR 40407) and associated notifications, all interested parties were requested to submit factual reports or information that might contribute to the development of a final rule. Appropriate State agencies, the county government, Federal agencies, scientific organizations, and other interested parties were contacted and requested to comment. A newspaper notice was published in the *Honolulu Star-Bulletin* on October 5, 1983, which invited general public comment. Four comments were received and are summarized and discussed below.

The State Department of Land and Natural Resources, Division of Forestry and Wildlife, supported the listing of *Gouania hillebrandii* as an endangered species and the designation of its critical habitat. They noted that of the fifteen described species, only three are still known to exist and state that, " * * * In light of this apparent generic susceptibility, we feel a special effort

should be made to protect this species." Additionally, the letter contained an update on the population estimate for the species as a result of recent botanical work in the Lahaina area. The Service was aware of the surveys and their results are included in the status report which is in the administrative file for the plant. A particularly pertinent statement in the letter needs to be emphasized: "Plants that grow on the flatter slopes above Lahainaluna School, where feral cattle graze, have decreased from an estimated 300 to 30 plants over the last 10 years." Feral and domestic livestock probably have been the greatest threat historically to *Gouania hillebrandii* and to its habitat. The State proposes to withdraw the cattle grazing permit for the entire Lahainaluna area where these plants grow and fence it to protect them from further damage by cattle.

A map was submitted showing the areas the State considers to be critical habitat for the species. The area is somewhat larger than that the Service proposed, because the State has included a large portion of its proposed Lihau Natural Area as critical habitat.

A research biologist and a research associate of Haleakala National Park on Maui co-signed a letter supporting the listing of *Gouania hillebrandii* as endangered. They emphasized that " * * * the entire genus in the Hawaiian Islands is clearly endangered, a situation not mentioned in the *Federal Register* writeup which would perhaps add urgency to protection of *G. hillebrandii*." They comment that in discussing the type specimen the Service's statement that " * * * although the type specimen is labelled 'Maui gulches of Kula and Lahaina,' no collections from the Kula region (East Maui) have been verified as *Gouania hillebrandii* * * *" may foster the erroneous idea that another species of the genus survives on East Maui. In fact, of the five species of *Gouania* described from Maui, four apparently have not been seen since the 1870's.

A member of Congress from the State of Hawaii expressed his appreciation for being informed of this action. He declined to comment, stating that his office had no information on the plant, but referred the letter to the Maui County Council.

On November 4, 1983, the Council of the County of Maui adopted a resolution supporting the Service's proposed rule determining *Gouania hillebrandii* as an endangered species and designating its critical habitat. The resolution was passed unanimously by the council members present.

Summary of Factors Affecting the Species

After a thorough review and consideration of all information available, the Service has determined that *Gouania hillebrandii* should be classified as an endangered species. Procedures found at 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 (codified at 50 CFR Part 424; under revision to accommodate 1982 amendments—see proposal at 48 FR 36062, August 8, 1983) were followed. 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 *Gouania hillebrandii* Oliver are as follows:

A. *The present or threatened destruction, modification, or curtailment of its habitat or range.* Feral and domestic livestock (cattle and goats) probably have been the greatest threat historically to the habitat of *Gouania hillebrandii*. Their trampling removes vegetation and litter important to soil-water relations, compacts the soil and promotes erosion. Cutting of native trees and subsequent reforestation attempts have further altered the habitat at Pa'upa'u. Agricultural pressures have been relaxed at Lihau, but domestic cattle continue to graze and trample the Pa'upa'u habitat, promoting erosion, especially along ridge-top paths, and favoring the survival of less palatable introduced plant species over native species.

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

C. *Disease or predation.* Grazing has been a serious problem for the habitat of *Gouania hillebrandii*, as indicated under factor A above. Undiscovered populations probably have been eliminated before they could be found. Additionally, an insect herbivore, *Pinnaspis strachani* (hibiscus snow scale) has been present at Pa'upa'u at least since 1943, and is now present at Lihau. Many of the *Gouania hillebrandii* at Pa'upa'u have been killed by this insect. Finally, unknown chewing insects have caused extensive leaf damage noted in herbarium specimens collected since about 1955.

D. *The inadequacy of existing regulatory mechanisms.* This species is not now the subject of any regulation.

E. *Other natural or manmade factors affecting its continued existence.* Exotic plant species, especially matted grasses and trees, may compete adversely with

Gouania hillebrandii. Other factors of probable importance, such as the availability of pollinating organisms, need additional study before they can be identified.

Critical Habitat

Critical habitat, as defined by Section 3 of the Act and at 50 CFR Part 424, means: (i) The specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) that may require special management considerations or protection, and (ii) specific areas outside the geographical area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

The Act in Section 4(a)(3) requires that critical habitat be designated to the maximum extent prudent and determinable concurrent with the determination that a species is endangered or threatened. Critical habitat is being designated for *Gouania hillebrandii* to include two zones of Lahaina District, island and County of Maui, Hawaii, as follows: (1) Pa'upa'u Zone—a quadrangular area of approximately 52 acres centered about one-half mile east of Lahainaluna School, on three ridges that form the south wall of Kanaha Stream valley; (2) Lihau Zone—approximately 60 acres of land divided among three circular areas of 0.1 mile radius (about 20 acres) each, lying between 800 ft. and 1,700 ft. in elevation on the west flank of Lihau Mountain above Olowalu cinder pits: one area centered at Pu'u Hipa Peak, and the two others centered about 0.7 miles southeast and south by southeast respectively from Pu'u Hipa Peak. Within the designated areas are irregular, smaller areas of primary habitat consisting of dry, exposed ridge crests and north-facing slopes down to about 160 ft. below the crests, where strong prevailing winds exclude much of the competing exotic vegetation, allowing the wind-adapted *Gouania hillebrandii* to survive.

At this time, primary constituent elements of this habitat are considered to include: (a) Xeric climate, wind exposure and certain soil and drainage factors that discourage introduced plants or herbivorous insects, and (b) permanent freedom from unrestricted browsing and trampling by feral or domestic livestock. Other elements needing additional research, such as types of organisms important for

pollination, may prove to be primary elements as well.

Section 4(b)(8) requires, for any proposed or final regulation that designates critical habitat, that a brief description and evaluation of those activities, public and private, which may adversely modify such habitat or may be affected by such designation be included. Such activities are identified below for this species. It should be emphasized that critical habitat designation will not affect most of the activities mentioned below, as critical habitat designation only relates to programs or activities conducted by Federal agencies or with Federal funding or authorization affected through Section 7 of the Act.

Any activity that would significantly disturb the soil, topography or other physical and biological components of the area where *Gouania hillebrandii* occurs could adversely modify its critical habitat. Livestock grazing and other land uses in the immediate vicinity of the population and in its surroundings should be examined carefully to prevent such modifications. Any effective conservation program might require measures such as fencing to prevent livestock grazing within the primary habitat areas, although to the extent that no Federal agency involvement is connected with the State leasing program, any such modifications of existing patterns of land use would be voluntary on the part of the State. Any direct, unselective removal of vegetation or alteration of wind exposure or moisture regime probably would adversely modify this habitat.

Subsection 4(b)(2) of the Act requires the Service to consider economic and other impacts of designating a particular area as critical habitat. The Service has prepared an economic analysis for the present designation in order to avoid undesirable impacts that such designation might have. On the basis of this analysis, the Service believes that the economic impacts of this action are not significant in the foreseeable future.

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.

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. 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 29989; 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 to destroy or adversely modify its 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 Federal agency must enter into consultation with the Service. With regard to *Gouania hillebrandii*, no Federal actions are known or expected to occur that would jeopardize this species or adversely modify its critical habitat.

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 *Gouania hillebrandii*, all trade prohibitions of Section 9(a)(2) of the Act, implemented by 50 CFR 17.61, apply. These prohibitions, in part, 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 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. It is anticipated that few trade permits will ever be sought or issued since the species is not common in cultivation or in the wild.

Section 9(a)(2)(B) of the Act, as amended in 1982, states that it is unlawful to remove and reduce to possession endangered plant species from areas under Federal jurisdiction. The new prohibition now applies to *Gouania hillebrandii*. Permits for

exceptions to this prohibition are available through Section 10(a) and 4(d) 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 these will be made final following public comment. As all known individuals of *Gouania hillebrandii* occur on State lands, no permit requests are anticipated.

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).

The Service also will review the status of this species to determine whether it should be proposed to the Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora for placement upon the appropriate appendices to that Convention or whether it should be considered under other appropriate international agreements.

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).

Regulatory Flexibility Act and Executive Order 12291

The Department of the Interior has determined that designation of critical habitat for this species will not constitute a major action under Executive Order 12291 and certifies that this designation will not have a significant economic effect on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*). No significant economic or other impacts are expected to result from the designation of critical habitat for *Gouania hillebrandii*. The entire critical habitat area is owned and administered by the State of Hawaii. There is no known involvement of Federal funds or permits for these State lands within the critical habitat designation. No direct costs, enforcement costs, or information or recordkeeping requirements are imposed on small entities by the designation. These determinations are based on a Determination of Effects that is available at Lloyd 500 Building, Suite 1692, 500 NE. Multnomah Street, Portland, Oregon.

References

Hobdy, R. 1980. Threatened and endangered species action plan for *Gouania hillebrandii*. Maui District, State of Hawaii, Division of Forestry and Wildlife. Unpubl. rept.
 Holt, R.A. 1982. Status report on *Gouania hillebrandii*. Report on contract 14-16-0001-79096 to U.S. Fish and Wildlife Service. 36 pp.

St. John, H. 1969. Monograph of the Hawaiian species of *Gouania* (Rhamnaceae). Hawaiian plant studies 34. Pacific Sci. 23(4):507-543.

Author

The primary author of this final rule is Dr. Derral Herbst. U.S. Fish and Wildlife Service, 300 Ala Moana Boulevard, P.O. Box 50167, Honolulu, Hawaii 96850 (808/546-7530). Dr. George E. Drewry, of the Service's Washington Office, served as editor.

List of Subjects in 50 CFR Part 17

Endangered and threatened wildlife, Fish, Marine mammals, Plants (agriculture).

Regulations Promulgation

PART 17—[AMENDED]

Accordingly, Part 17, Subchapter B of Chapter I, Title 50 of the Code of Federal Regulations, is amended 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. Amend § 17.12(h) by adding the following in alphabetical order under Rhamnaceae to the List of Endangered and Threatened Plants:

§ 17.12 Endangered and threatened plants.

* * * * *
 (h) * * *

Species	Scientific name	Common name	Historic range	Status	When listed	Critical habitat	Special rules
Rhamnaceae—Buckthorn family:							
	<i>Gouania hillebrandii</i>	None	U.S.A. (HI)	E		17.96(a)	NA

3. Amend Section 17.96(a) by adding critical habitat of *Gouania hillebrandii* as follows:

§ 17.96 Critical Habitat—plants.

(a) Flowering plants.

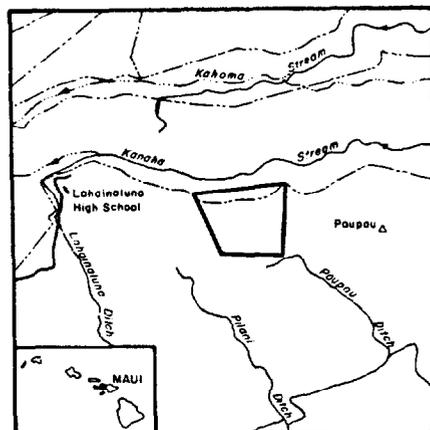
* * * * *

Family Rhamnaceae: *Gouania hillebrandii*. Hawaii, Maui County, Maui Island, Lahaina District, two zones located as follows:

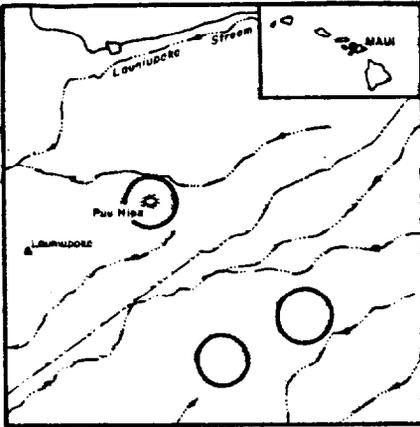
(1) Pa'upa'u Zone, Ahupua'a of Kuia. The following Universal Transverse Mercator (UTM) designations form the corners of the quadrangular Pa'upa'u habitat area:

- NW:0744123121
- NE:0744723122
- SW:0744223118

SE:0744723117



(2) Lihau Zone, Ahupua'a of Kuia. This zone consists of three circular areas having radii of 0.1 mile on the western slopes of Lihau Mountain, one centered at Pu'u Hipa (near UTM 0746823070), one at UTM 0747723063, and the third at UTM 0747223059.



Primary constituent habitat elements are considered to be climatic and edaphic factors that discourage introduced plant competitors and insect pests, and freedom from unrestricted browsing and trampling by domestic or feral livestock.

* * * * *

Dated: October 15, 1984.

G. Ray Arnett,
Assistant Secretary for Fish and Wildlife and Parks.

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