DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018–AH09

Endangered and Threatened Wildlife and Plants; Proposed Determinations of Prudency and Proposed Designations of Critical Habitat for Plant Species From the Northwestern Hawaiian Islands, HI

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule and notice of determinations of whether designation of critical habitat is prudent.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), propose critical habitat for five (*Amaranthus brownii, Mariscus pennatiformis, Pritchardia remota, Schiedea verticillata,* and *Sesbania tomentosa*) of the six plant species known historically from the Northwestern Hawaiian Islands (Nihoa Island, Necker Island, French Frigate Shoals, Gardner Pinnacles, Maro Reef, Laysan Island, Lisianski Island, Pearl and Hermes Atoll, Midway Atoll, and Kure Atoll) that are listed under the Endangered Species Act of 1973, as amended. Critical habitat is not proposed for *Cenchrus agrimonioides* var. *laysanensis* as it has not been seen in the wild for over twenty years and no viable genetic material of this variety is known to exist.

We propose critical habitat designations for five species on three islands (Nihoa, Necker, and Laysan) totaling approximately 498 hectares (ha) (1,232 acres (ac)). If this proposal is made final, section 7 of the Act requires Federal agencies to ensure that actions they carry out, fund, or authorize do not destroy or adversely modify critical habitat to the extent that the action appreciably diminishes the value of the critical habitat for the conservation of the species. Section 4 of the Act requires us to consider economic and other relevant impacts of specifying any particular area as critical habitat.

We solicit data and comments from the public on all aspects of this proposal, including data on the economic and other impacts of the proposed designations. We may revise this proposal to incorporate or address new information received during the comment period.

DATES: We will accept comments until July 15, 2002. Public hearing requests must be received by June 28, 2002.

ADDRESSES: If you wish to comment, you may submit your comments and materials concerning this proposal by any one of the following methods:

(1) You may submit written comments and information to the Field Supervisor, U.S. Fish and Wildlife Service, Pacific Islands Office, 300 Ala Moana Blvd., P.O. Box 50088, Honolulu, HI 96850–0001.

(2) You may hand-deliver written comments to our Pacific Islands Office at 300 Ala Moana Blvd., Room 3–122, Honolulu, HI 96850.

You may view comments and materials received, as well as supporting documentation used in the preparation of this proposed rule by appointment, during normal business hours at the Pacific Islands Office.

FOR FURTHER INFORMATION CONTACT: Paul Henson, Field Supervisor, Pacific Islands Office (*see* **ADDRESSES** section) (telephone: 808/541–3441; facsimile: 808/541–3470).

SUPPLEMENTARY INFORMATION:

Background

In the Lists of Endangered and Threatened Plants (50 CFR 17.12), there are six plant species that, at the time of listing, were reported from the Northwestern Hawaiian Islands (Nihoa Island, Necker Island, French Frigate Shoals, Gardner Pinnacles, Maro Reef, Laysan Island, Lisianski Island, Pearl and Hermes Atoll, Midway Atoll, and Kure Atoll) (Table 1). *Amaranthus brownii, Cenchrus agrimonioides* var. *laysanensis, Mariscus pennatiformis* ssp. *bryanii, Pritchardia remota,* and *Schiedea verticillata* are endemic to the Northwestern Hawaiian Islands, while *Sesbania tomentosa* is reported from one or more other islands, as well as the Northwestern Hawaiian Islands.

In previously published proposals we proposed that critical habitat was prudent for *Cenchrus agrimonioides, Mariscus pennatiformis,* and *Sesbania tomentosa.* No change is made to these prudency determinations in this proposal and they are hereby incorporated in this proposal (65 FR 66808, 65 FR 79192, 67 FR 3940, 67 FR 9806).

In this proposal, we propose that critical habitat designation is prudent for *Amaranthus brownii, Pritchardia remota,* and *Schiedea verticillata* for which proposed prudency determinations have not been made previously, because the potential benefits of designating critical habitat essential for the conservation of these species outweigh the risks that may result from human activity because of critical habitat designation.

TABLE 1.—SUMMARY OF ISLAND DISTRIBUTION OF SIX SPECIES FROM THE NORTHWESTERN HAWAIIAN ISLANDS

Species	Island Distribution						
	Kauai	Oahu	Molokai	Lanai	Maui	Hawaii	NW Hawaiian Islands, Kahoolawe, Niihau
Amaranthus brownii (no common name)							Nihoa (C)
Cenchrus agrimonioides var. *laysanensis* (kamanomano)							Kure (H), Laysan (H), Midway ((H)
Mariscus pennatiformis (no common name)	H	H			C	R	Laysan (C)
Pritchardia remota (loulu)							Nihoa (C), Laysan (R)
Schiedea verticillata (no common name)							Nihoa (C)
Sesbania tomentosa (ohai)	C	C	C	H	C	C	Niihau (H), Kahoolawe (C), Necker (C), Nihoa (C)

KEY:
C (Current)—population last observed within the past 30 years.
H (Historical)—population not seen for more than 30 years.

R (Reported)—reported from undocumented observations.
NW Hawaiian Islands includes Kure Atoll, Midway Atoll, and Laysan, Necker, Nihoa island.

In this proposal, we propose designation of critical habitat for five (*Amaranthus brownii, Mariscus pennatiformis, Pritchardia remota, Schiedea verticillata,* and *Sesbania tomentosa*) of the six species reported from the Northwestern Hawaiian Islands. Critical habitat is not proposed for *Cenchrus agrimonioides* in the Northwestern Hawaiian Islands, because *C. agrimonioides* var. *laysanensis* has not been seen in the wild for over twenty years and no viable genetic material of this variety is known to exist.

Critical habitat is proposed for designation on the islands of Nihoa, Necker, and Laysan. The land area for these three islands totals approximately 498 ha (1,232 ac).

The Northwestern Hawaiian Islands

The NWHI are a chain of islands that extend along a linear path approximately 1,600 kilometers (km) (1,000 miles (mi)) northwest from Nihoa Island to Kure Atoll (Figure 1). They are remnants of once larger islands that have slowly eroded and subsided, which today exist as small land masses or coral atolls that cover the remnants of the volcanic islands (Department of Geography 1998; U.S. Fish and Wildlife Service (USFWS) 1998).

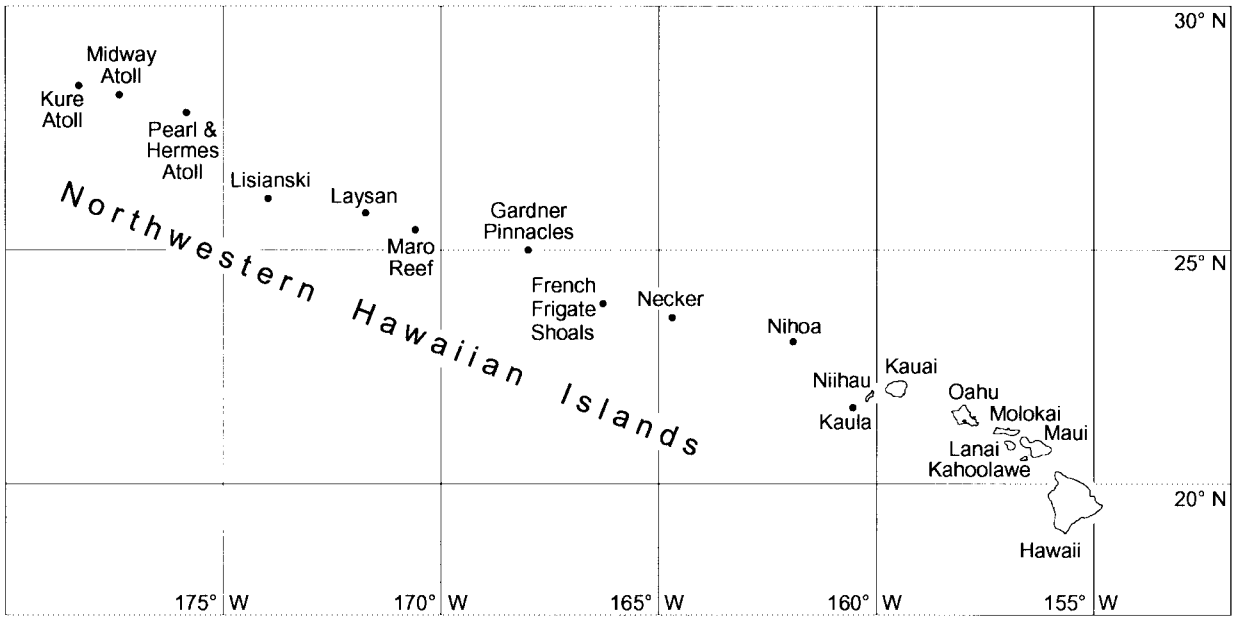

Figure 1. Northwestern Hawaiian Islands

Nihoa rises approximately 274 meters (m) (900 feet (ft)) above sea level and has an area of approximately 69 ha (171 ac). Its steep topography and crater shape reveal its volcanic origin. Necker Island, less than 92 m (300 ft) in elevation and 19 ha (46 ac) in area, consists of thin-layered weathered lava flows. La Perouse Pinnacles at French Frigate Shoals and Gardner Pinnacles are the last exposed volcanic remnants in the archipelago. French Frigate Shoals is a crescent shaped atoll nearly 29 km (18 mi) across. More than a dozen small sandy islands dot the fringes of this atoll. Maro Reef is a largely submerged area marked by breakers and a few pieces of coral that intermittently protrude above the waterline. Laysan Island is nearly 5.18 square kilometer (sq km) (2 square miles (sq mi)) in size and is fringed by a reef. An 81 ha (200 ac) hypersaline lagoon is located in the center of the island. Lisianski Island is 147 ha (364 ac) in size, but is bounded to the north by an extensive reef system. A central lagoon once found on this island has filled with sand. Pearl and Hermes Reef, an inundated atoll, includes nearly 40,469 ha (100,000 ac) of submerged reef and seven small sandy islets totaling less than 34 ha (85 ac). Midway Atoll is approximately 8 km (5 mi) in diameter and includes three islands: Sand, Eastern, and Spit. Both Sand and Eastern islands are highly altered by man. Kure Atoll is the northernmost exposed land in the Hawaiian archipelago. Two islands, Green and Sand, are found on the southern edge of the atoll and are included in the Hawaii State Seabird Sanctuary System. Green Island was altered considerably in the past and today suffers from enormous alien species problems (Elizabeth Flint, USFWS, pers. comm., 2000; USFWS 1986).

One listed plant species was known from Kure Atoll (*Cenchrus agrimonioides* var. *laysanensis*), three were known from Laysan (*Cenchrus agrimonioides* var. *laysanensis, Mariscus pennatiformis* and *Pritchardia remota*), one from Midway (*Cenchrus agrimonioides* var. *laysanensis*), four from Nihoa (*Amaranthus brownii, Pritchardia remota, Schiedea verticillata* and *Sesbania tomentosa*) and one from Necker (*Sesbania tomentosa*) (Table 1).

Nihoa (209 km (140 mi) from Niihau) and Necker (an additional 290 km (180 mi) beyond Nihoa) are closest to the main Hawaiian Islands. Both are small, residual fragments of volcanoes that formed 7.2 and 10.3 million years ago respectively (USFWS 1986). Although both of these islands were uninhabited at the time of their modern discovery in

the late eighteenth century, there is an extensive heiau (indigenous place of worship, shrine) complex on Necker, and agricultural terraces and other Hawaiian archaeological features can be found on Nihoa (Cleghorn 1984, Department of Geography 1998, USFWS 1986).

In 1892, a guano mining business began operation on Laysan and flourished until the last load was shipped in 1904. During this time, rabbits were introduced to Laysan for a rabbit canning industry, and allowed to reproduce and roam freely (Morin and Conant 1998, Tomich 1986). This, too, failed as a profitable business and no attempt was made to control the number of rabbits on the island. The rabbits were finally eradicated from the island in the early 1920s, though not before the vegetation had been thoroughly devastated. Since then, the vegetation of Laysan has recovered to a remarkable degree, though some species, like the native palms (*Pritchardia* sp.), are no longer found on the island (Tomich 1986; E. Flint, pers. comm., 2000).

Kure Atoll was discovered and named in 1827 by the captain of a Russian vessel. Between 1876 and 1936 Australian Copra & Guano Ltd. mined guano from Green Island and Sand Island, the two islands that make up Kure Atoll. Military bases were built on the islands during World War II and a Loran C station with two 158 m (518 ft) high masts was operated until 1998. The towers are no longer on the islands. The airstrip built on Green Island is no longer usable and landing is only possible by boat (USFWS 1998a).

Midway Atoll was discovered and named Middlebrook Islands in 1859 by Captain Nick Brooks. The atoll was taken into possession by the United States in 1867 and in 1903 President Theodore Roosevelt placed the atoll under the control of the Navy. In 1935 Pan American World Airways set up an airbase for the weekly Trans-Pacific Flying Clipper Seaplane service. In 1941, the Japanese attacked Midway Atoll on their return from the attack on Pearl Harbor, but in 1942 the United States ambushed and defeated the Japanese Fleet north of the atoll, turning the tide of World War II in the Pacific. In 1988, the atoll was added to the National Wildlife Refuge system and in 1996 the jurisdiction of Midway Atoll was transferred from the U.S. Navy to the Department of Interior (USFWS 2000). Despite this evidence of earlier human use, these islands continue to support an assemblage of endemic plants and animals not found elsewhere in the archipelago (Department of Geography 1998).

Hawaiian Islands National Wildlife Refuge

The reefs and islets of the Northwestern Hawaiian chain from Nihoa Island through Pearl and Hermes Atoll are protected as the Hawaiian Islands National Wildlife Refuge (HINWR). The HINWR was established in 1909 to protect the large colonies of seabirds, which were being slaughtered for the millinery trade, as well as a variety of other marine organisms, including sea turtles and the critically endangered Hawaiian monk seal (*Monachus schauinslandi*), and to put a halt to the unregulated commercial exploitation of wildlife resources (Executive Order 1019). Within its boundaries are eight islands and atolls: Nihoa, Necker, French Frigate Shoals, Gardner Pinnacles, Maro Reef, Laysan, Lisianski, and Pearl and Hermes Atoll. There is no general public or recreational use allowed at HINWR. Access is strictly regulated through a permit system because of the sensitivity of the organisms, like the Hawaiian monk seal, on these islands to human disturbance and the high risk of importation of alien plant and invertebrate species. In addition, strict quarantine procedures are in effect for those accessing the refuge. Other than the refuge staff, only individuals conducting scientific research or undertaking natural history film recording have been granted official permission to visit the HINWR (E. Flint, pers. comm., 2000).

Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve

On December 4, 2000, President Clinton issued an Executive Order establishing the 33,993,594 ha (84 million ac) Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve that includes the marine waters and submerged lands of the NWHI, extending approximately 2,222 km (1,200 nautical mi) long and 185 km (100 nautical mi) wide. The Reserve is adjacent to the State of Hawaii waters and submerged lands and the Midway Atoll National Wildlife Refuge, and includes the HINWR outside of state waters.

Discussion of the Plant Taxa

Species Endemic to the Northwestern Hawaiian Islands

Amaranthus brownii (no common name)

Amaranthus brownii, a member of the amaranth family (Amaranthaceae), is an herb with leafy upright or ascending stems, 30 to 90 centimeters (cm) (1 to 3 feet (ft)) long. The slightly hairy, alternate leaves are long and narrow, 4 to 7 cm (1.6 to 2.8 inches (in)) long, 1.5 to 4 millimeter (mm) (0.06 to 0.16 in) wide, and more or less folded in half lengthwise. Flowers are either male or female, and both sexes are found on the same plant. This species can be distinguished from other Hawaiian members of the genus by its spineless leaf axils, its linear leaves, and its fruit which does not split open when mature (Wagner *et al.* 1999).

Amaranthus brownii is an herbaceous annual with a growing season that extends from December to June or July. Conant (1985) reported finding plants in an early stage of flowering in February and collecting seed from dead plants during June. Phenology may vary somewhat from year to year, depending on rainfall and climatic factors. The means of pollination are unknown (USFWS 1998d).

Amaranthus brownii is the rarest native plant on the island of Nihoa (Conant 1985). When it was first collected in 1923, it was ''most common on the ridge leading to Miller's Peak, but abundant also on the ridges to the east'' (Herbst 1977). In 1983, the two known groupings of colonies were separated by a distance of 0.4 km (0.25 mi) and contained approximately 35 plants: 1 colony of about 23 plants near Miller's Peak and about a dozen plants in 3 small colonies in Middle Valley. No plants have been seen at either location since 1983, even though Service staff have surveyed for them annually (USFWS 1998d). In order to get an accurate population count and collect seeds or cuttings to establish *ex situ* populations, it will be necessary to conduct winter surveys. However, none of the surveys since 1983 have been done during the winter, when these annuals are easiest to find and identify. Access to the island is limited particularly during the winter due to difficult and dangerous landing conditions. Sea conditions are apt to change without warning, stranding any visitors on this inhospitable island that has no fresh water and no regular food supply (Cindy Rehkemper, USFWS, pers. comm., 2001).

Amaranthus brownii typically grows in shallow soil on rocky outcrops. It is found in fully exposed locations at elevations between 30 and 242 m (100 and 800 ft). Associated native plant taxa include *Schiedea verticillata* (no common name (NCN)), *Chenopodium oahuense* (aheahea), *Ipomoea pes-caprae* ssp. *brasiliensis* (pohuehue), *Ipomoea indica* (koali awa), *Scaevola sericea* (naupaka), *Sida fallax* (ilima), *Solanum nelsonii* (akia), *Sicyos*

pachycarpus (kupala), *Eragrostis variabilis* (kawelu), and *Panicum torridum* (kakonakona) (Hawaii Natural Heritage Program (HINHP) Database 2000).

The threats to *Amaranthus brownii* on Nihoa are competition with the alien plant *Portulaca oleracea* (pigweed); changes in the substrate; fire; introduction of rats; human disturbances; a risk of extinction from naturally occurring events (such as hurricanes); and reduced reproductive vigor due to the small number of extant individuals (USFWS 1998d).

Pritchardia remota (loulu)

Pritchardia remota, a member of the palm family (Arecaceae), is a tree 4 to 5 m (13 to 16 ft) tall with a ringed, wavy trunk about 15 cm (5.9 in) in diameter. The rather ruffled, fan-shaped leaves are about 80 cm (31 in) in diameter and are somewhat waxy to pale green with a few tiny scales on the lower surface. The flowering stalks, up to 30 cm (12 in) long, are branched and have flowers arranged spirally along the hairless stalks. It is the only species of *Pritchardia* on the island of Nihoa and can be distinguished from other species of the genus in Hawaii by its wavy leaves; its short, hairless inflorescences; and its small, globose (spherical/round) fruits (Read and Hodel 1999, 61 FR 43178).

Pritchardia remota is a long-lived perennial, and populations have remained stable for several years. Conant (1985) reported finding plants with fruit and flowers in the spring and summer. Phenology may vary somewhat from year to year, depending on rainfall and climatic factors. The means of pollination are unknown.

Pritchardia remota was historically known from Nihoa and Laysan islands. Currently, *Pritchardia remota* is known from four colonies presently extant along 0.2 km (0.1 mi) of the length of each of two valleys which are about 0.6 km (0.4 mi) apart on opposite sides of the island of Nihoa. Including seedlings, more than 680 plants are found in West Palm Valley and more than 392 plants in East Palm Valley (HINHP Database 2000). A few trees also grow at the bases of basaltic cliffs on the steep outer slopes of each of the two valleys (HINHP Database 2000). Plants grow from 15 to 151 m (50 to 500 ft) in elevation.

Pritchardia remota is unusual among Hawaiian members of the genus in that it occurs in the relatively dry climate found on Nihoa. However, its distribution on Nihoa may be related to water availability since many plants are found in valleys and near freshwater seeps by cliffs (USFWS 1998d). Within the *Pritchardia remota* coastal forest community, *Pritchardia remota* assumes complete dominance with a closed canopy and thick layers of fallen fronds in the understory (Gagne and Cuddihy 1999). Native plants growing nearby include *Chenopodium oahuense, Sesbania tomentosa* (ohai), *Solanum nelsonii*, and *Sida fallax* (USFWS 1998d).

The threats to *Pritchardia remota* on the island of Nihoa are competition with alien plants, seed predation by rodents, possibly alien insects, fire, human disturbances, a risk of extinction from naturally occurring events (such as landslides), and reduced reproductive vigor due to the small number of extant individuals (USFWS 1998d).

Schiedea verticillata (no common name)

Schiedea verticillata, a member of the pink family (Caryophyllaceae), is a perennial herb which dies back to an enlarged root during dry seasons. The stems, which can reach 0.4 to 0.6 m (1.3 to 2 ft) in length, are upright or sometimes pendent (drooping). The stalkless leaves are fleshy, broad, and pale green; usually arranged in threes; and measure 9 to 15 cm (3.5 to 5.9 in) long and 7 to 9 cm (2.8 to 3.5 in) wide. Flowers are arranged in open, branched clusters, usually 17 to 25 cm (6.7 to 9.8 in) long. This species, the only member of its genus to grow in the Northwestern Hawaiian Islands, is distinguished from other species of the genus by its exceptionally large sepals and, usually, three leaves per node (Wagner *et al.* 1999). Dr. Steve Weller of the University of California at Irvine, found that *Schiedea verticillata* produces more seeds and more nectar than any other species in its genus. It also has the highest degree of genetic diversity between individuals of any species in the genus (USFWS 1998d).

Schiedea verticillata is a short-lived perennial. Conant's data (1985) indicated that the reproductive cycle may not be seasonal, since many life stages were found simultaneously throughout the year. Her observations also indicate that the individual plants flower, set, and disperse seed in a relatively short period of time. The means of pollination are unknown (USFWS 1998d).

All but one historically known colony of *Schiedea verticillata* are known to be extant on Nihoa. Colony locations and levels appear to have shifted somewhat, but total numbers have remained relatively stable for several years. Seven populations, containing a total of 497, individuals were counted between 1980 and 1983 (HINHP Database 2000). In 1992, Service staff counted only 170 to 190 plants in six populations (USFWS 1998d). However, in 1996, Rowland counted a total of 359 plants in 10 populations (USFWS 1998d). These were distributed primarily on the western half of the island, although a population of 13 plants was seen on the east spur of the island near Tunnel Cave. Two previously unobserved populations containing 2 and 99 plants, respectively, were seen on the north cliffs above Miller's Valley. Other locations included a population of 24 plants at Dog's Head; 37 plants at Devil's Slide; 10 plants near Miller's Peak; a previously unknown population of 62 plants on the ridge separating West and West Palm valleys; 80 plants near lower West valley; 28 individuals near Pinnacle Peak; and a small colony of 4 plants northeast of Pinnacle Peak (USFWS 1998d).

Schiedea verticillata typically grows in rocky scree, soil pockets, and cracks on coastal cliff faces and in *Pritchardia remota* coastal mesic forest at elevations between 30 and 242 m (100 and 800 ft). Associated taxa include *Tribulus cistoides* (nohu), *Eragrostis variabilis, Rumex albescens* (huahuako), and lichens on surrounding rock (HINHP Database 2000).

The threats to *Schiedea verticillata* on the island of Nihoa are competition with alien plant species, possible herbivory by alien insect species, predation by rodents, human disturbances, a risk of extinction from naturally occurring events (such as rockslides), and reduced reproductive vigor due to the small number of individuals (Conant 1985, USFWS 1998d).

Multi-Island Species

Cenchrus agrimonioides (kamanomano)

Cenchrus agrimonioides, a short-lived perennial member of the grass family (Poaceae), is a grass with leaf blades which are flat or folded and have a prominent midrib. The two varieties, *Cenchrus agrimonioides* var. *laysanensis* and *Cenchrus agrimonioides* var. *agrimonioides*, differ from each other in that var. *agrimonioides* has smaller burs, shorter stems, and narrower leaves. *Cenchrus agrimonioides* var. *agrimonioides* is known only from the main Hawaiian Islands while *Cenchrus agrimonioides* var. *laysanensis* is known only from (endemic to) the NWHI. This species is distinguished from others in the genus by the cylindrical to lance-shaped bur and the arrangement and position of the bristles (O'Connor 1999).

Little is known about the life history of this plant. Reproductive cycles,

longevity, specific environmental requirements, and limiting factors are generally unknown; however, this species has been observed to produce fruit year round (USFWS 1999).

Historically, *Cenchrus agrimonioides* var. *agrimonioides* was known from Oahu, Lanai, and the south slope of Haleakala and Ulupalakua on Maui; there is also an undocumented report from Hawaii Island (61 FR 53108). Currently, *Cenchrus agrimonioides* var. *agrimonioides* is known from Oahu and Maui (65 FR 79192). Historically, *Cenchrus agrimonioides* var. *laysanensis* was known from Laysan, Kure, and Midway in the Northwestern Hawaiian Islands but has not been seen there since about 1980 (HINHP Database 2000; O'Connor 1999). Morin and Conant (1998) reported that *Cenchrus agrimonioides* var. *laysanensis* disappeared from Laysan before 1923, from Midway Atoll sometime shortly after 1902, and was last seen on Green Island, Kure Atoll in about 1980. The last comprehensive botanical surveys of all of these islands were conducted in the 1980s. No viable genetic material of this variety is known to exist. Because this variety has not been seen in the wild for over 20 years and no viable genetic material is known to exist, critical habitat is not proposed at this time.

Cenchrus agrimonioides var. *laysanensis* was historically found on coastal sandy substrate in *Scaevola-Eragrostis variabilis* scrub at an elevation of 5 m (16 ft).

This species was threatened by competition with various alien plant species, seed predation by rats and mice, and, potentially, alien insects, and fire.

Mariscus pennatiformis (no common name)

Mariscus pennatiformis, a member of the sedge family (Cyperaceae), is a perennial plant with a woody root system covered with brown scales. The stout, smooth, three-angled stems are between 0.4 and 1.2 m (1.3 and 4 ft) long, slightly concave, and 3 to 7 mm (0.1 to 0.3 in) in diameter in the lower part. The three to five linear, somewhat leathery leaves are 8 to 17 mm (0.3 to 0.7 in) wide and at least as long as the stem. This species differs from other members of the genus by its three-sided, slightly concave, smooth stems; the length and number of spikelets (elongated flower-clusters); the leaf width; and the length and diameter of stems. The two subspecies are distinguished primarily by larger and more numerous spikelets, larger achenes (dry, one-seeded fruits), and more overlapping and yellower glumes (scaly bracts of spikelets) in ssp. *pennatiformis* as compared with ssp. *bryanii* (Koyama 1999). *Mariscus pennatiformis* ssp. *bryanii* is the only subspecies found in the Northwestern Hawaiian Islands.

Individuals of *Mariscus pennatiformis* ssp. *bryanii* on Laysan Island were closely monitored for 10 years, but flowering was never observed until the continuous flowering of one individual from November 1994 to December 1995 (USFWS 1999). This flowering event coincided with record high rainfall on Laysan (USFWS 1999). Little else is known about the life history of this plant (USFWS 1999).

Historically, *Mariscus pennatiformis* was found on Kauai, Oahu, and Hawaii. Currently, *Mariscus pennatiformis* ssp. *pennatiformis* is found on Maui while *Mariscus pennatiformis* ssp. *bryanii* is known only from Laysan Island. This subspecies was found until recently on the southeast end of the central lagoon and the west and northeast sides of the island on sandy substrate at an elevation of 5 m (16 ft) (HINHP Database 2000, Koyama 1999). The population has fluctuated from as many as 200 to as few as 1 individual over the past 10 years. Currently, a single population of about 200 individuals of *Mariscus pennatiformis* ssp. *bryanii* remains on the southeast end of the lagoon (USFWS 1999).

Mariscus pennatiformis ssp. *bryanii* is found on coastal sandy substrate at an elevation of 5 m (16 ft). Associated species include *Cyperus laevigatus* (makaloa), *Eragrostis variabilis*, and *Ipomoea* sp. (HINHP Database 2000, Koyama 1999).

The threats to *Mariscus pennatiformis* ssp. *bryanii* on the island of Laysan are seed predation by the endangered Laysan finch (*Telespiza cantans*) and destruction of the remaining individuals during burrowing activities of nesting seabirds. The native plant *Ipomoea pes-caprae* (beach morning glory), is another possible threat since it periodically grows over the *Mariscus* individuals (USFWS 1999). In addition, native *Sicyos* spp. vines, *Eragrostis variabilis*, and *Boerhavia repens* (alena) appear to have impeded natural dispersal of *Mariscus pennatiformis* ssp. *bryanii* to other suitable locations (Schultz 2000).

Sesbania tomentosa (ohai)

Sesbania tomentosa, a member of the legume family (Fabaceae), is typically a sprawling short-lived perennial shrub but may also be a small tree. Each compound leaf consists of 18 to 38 oblong to elliptic leaflets that are usually sparsely to densely covered with silky hairs. The flowers are salmon color tinged with yellow, orange-red, scarlet, or rarely, pure yellow coloration. *Sesbania tomentosa* is the only endemic Hawaiian species in the genus, differing from the naturalized *Sesbania sesban* by the color of the flowers, the longer petals and calyx, and the number of seeds per pod (Geesink *et al.* 1999).

The pollination biology of *Sesbania tomentosa* is being studied by David Hopper, a graduate student in the Department of Zoology at the University of Hawaii at Manoa. His preliminary findings suggest that although many insects visit *Sesbania* flowers, the majority of successful pollination is accomplished by native bees of the genus *Hylaeus* and that populations at Kaena Point on Oahu are probably pollinator limited. Flowering at Kaena Point is highest during the winter-spring rains, and gradually declines throughout the rest of the year (USFWS 1999). Other aspects of this plant's life history are unknown.

Currently, *Sesbania tomentosa* occurs on at least six of the eight main Hawaiian Islands (Kauai, Oahu, Molokai, Kahoolawe, Maui, and Hawaii) and in the Northwestern Hawaiian Islands (Nihoa and Necker). Although once found on Niihau and Lanai, it is no longer extant on these islands (59 FR 56333, Geographic Decision Systems International (GDSI) 2000, USFWS 1999, HINHP Database 2000). On Nihoa this species has been described as relatively common in some areas, with one population consisting of several thousand individual plants known (USFWS 1999). On Necker Island, *Sesbania tomentosa* is known to occur from 45 m (150 ft) elevation to the 84 m (276 ft) summit, growing on the tops of all hills of the main island. A few individuals are found on the Northwest Cape, as well (USFWS 1999).

Sesbania tomentosa is found in shallow soil on sandy beaches and dunes in *Chenopodium oahuense* coastal dry shrubland (HINHP Database 2000, Geesink *et al.* 1999). Associated plant species include *Sida fallax, Scaevola sericea, Solanum nelsonii,* and *Pritchardia remota* (HINHP Database 2000).

The primary threats to *Sesbania tomentosa* on the islands of Nihoa and Necker are competition with various alien plant species; lack of adequate pollination; seed predation by rats and mice and, potentially, alien insects; and fire (USFWS 1999).

Previous Federal Action

Federal action on these plants 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. In that document *Pritchardia remota* and *Sesbania tomentosa* (as *S. hobdyi* and *S. tomentosa* var. *tomentosa*) were considered endangered. On July 1, 1975, we published a notice in the **Federal Register** (40 FR 27823) of our 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 our intention to review the status of the plant taxa named therein. As a result of that review, on June 16, 1976, we 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 taxa, including *Amaranthus brownii, Cenchrus agrimonioides* var. *laysanensis*, and *Sesbania tomentosa*. 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 2 years old be withdrawn. A 1-year grace period was given to proposals already over 2 years old. On December 10, 1979, we 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, 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), February 21, 1990 (55 FR 6183), and September 30, 1993 (58 FR 51144). A summary of the status categories for *Amaranthus brownii, Cenchrus agrimonioides, Mariscus pennatiformis, Pritchardia remota, Schiedea verticillata,* and *Sesbania tomentosa* in the 1980 to 1993 notices of review can be found in Table 2(a). We listed these six species as endangered between 1994 and 1996. A summary of the listing actions can be found in Table 2(b).

TABLE 2(a).—SUMMARY OF CANDIDACY STATUS FOR SIX PLANT SPECIES FROM THE NORTHWESTERN HAWAIIAN ISLANDS

Species	Federal Register Notice of Review			
	1980	1985	1990	1993
Amaranthus brownii	C1	C1	C1	
Cenchrus agrimonioides var. *laysanensis*	C1*	C1*	C1*	C2*
Mariscus pennatiformis	C1	C1		
Pritchardia remota	C1	C1	C1	
Schiedea verticillata	C1	C1	C1	
Sesbania tomentosa	C1*	C1*	C1	

Key:
C1: Taxa for which the Service has on file enough sufficient information on biological vulnerability and threat(s) to support proposals to list them as endangered or threatened species.
C1*: Taxa of known vulnerable status in the recent past that may already have become extinct.
C2*: Taxa for which information now in the possession of the Service indicates that proposing to list as endangered or threatened is possibly appropriate, but for which sufficient data on biological vulnerability and threat are not currently available to support proposed rules. Continued existence of these species is in doubt.

Federal Register Notices of Review:
1980: 45 FR 82479
1985: 50 FR 39525
1990: 55 FR 6183
1993: 58 FR 51144

TABLE 2(b).—SUMMARY OF LISTING ACTIONS FOR SIX PLANT SPECIES FROM THE NORTHWESTERN HAWAIIAN ISLANDS

Species	Federal status	Proposed Rule		Final Rule	
		Date	Federal Register	Date	Federal Register
Amaranthus brownii	E	03/24/93	58 FR 15828	08/21/96	61 FR 43178
Cenchrus agrimonioides	E	10/2/95	60 FR 51417	10/10/96	61 FR 53108
Mariscus pennatiformis	E	09/14/93	58 FR 48012	11/10/94	59 FR 56333
Pritchardia remota	E	03/24/93	58 FR 15828	08/21/96	61 FR 43178
Schiedea verticillata	E	03/24/93	58 FR 15828	08/21/96	61 FR 43178
Sesbania tomentosa	E	09/14/93	58 FR 48012	11/10/94	59 FR 56333

Key: E = Endangered.

Critical Habitat

Section 4(a)(3) of the Act, as amended, and implementing regulations (50 CFR 424.12) require that, to the maximum extent prudent and determinable, the Secretary designate critical habitat at the time the species is determined to be endangered or threatened. Our regulations (50 CFR 424.12(a)(1)) state that designation of critical habitat is not prudent when one or both of the following situations exist: (1) the species is threatened by taking or other human activity, and identification of critical habitat can be expected to increase the degree of threat to the species, or (2) such designation of critical habitat would not be beneficial to the species. At the time each plant was listed, we determined that designation of critical habitat was not prudent because it would not benefit the plant and/or would increase the degree of threat to the species.

The not prudent determinations for these species, along with others, were challenged in *Conservation Council for Hawaii v. Babbitt.* 2 F. Supp. 2d 1280 (D. Haw. 1998). On March 9, 1998, the United States District Court for the District of Hawaii directed us to review the prudency determinations for 245 listed plant species in Hawaii, including *Amaranthus brownii, Cenchrus agrimonioides, Mariscus pennatiformis, Pritchardia remota, Schiedea verticillata,* and *Sesbania tomentosa.* Among other things, the Court held that in most cases we did not sufficiently demonstrate that the species are threatened by human activity or that such threats would increase with the designation of critical habitat. The Court also held that we failed to balance any risks of designating critical habitat against any benefits (*id.* at 1283–1285).

Regarding our determination that designating critical habitat would have no additional benefits to the species above and beyond those already provided through the section 7 consultation requirement of the Act, the Court ruled that we failed to consider the specific effect of the consultation requirement on each species (*id.* at 1286–88). In addition, the Court stated that we did not consider benefits outside of the consultation requirements. In the Court's view, these potential benefits include substantive and procedural protections. The Court held that, substantively, designation establishes a ''uniform protection plan'' prior to consultation and indicates where compliance with section 7 of the Act is required. Procedurally, the Court stated that the designation of critical habitat educates the public and State and local governments and affords them an opportunity to participate in the designation (*id.* at 1288). The Court also stated that private lands may not be excluded from critical habitat designation even though section 7 requirements apply only to Federal agencies. In addition to the potential benefit of informing the public and State and local governments of the listing and of the areas that are essential to the species' conservation, the Court found that there may be Federal activity on the private property in the future, even though no such activity may be occurring there at the present (*id.* at 1285–88).

On August 10, 1998, the Court ordered us to publish proposed critical habitat designations or non-designations for at least 100 species by November 30, 2000, and to publish proposed designations or non-designations for the remaining 145 species by April 30, 2002 (24 F. Supp. 2d 1074).

On November 30, 1998, we published a notice in the **Federal Register** requesting public comments on our reevaluation of whether designation of critical habitat is prudent for the 245 Hawaiian plants at issue (63 FR 65805). The comment period closed on March 1, 1999, and was reopened from March 24, 1999, to May 24, 1999 (64 FR 14209). We received over 100 responses from individuals, non-profit organizations, county governments, the State of Hawaii's Division of Forestry and Wildlife, and Federal agencies (U.S. Department of Defense—Army, Navy, Air Force). Only a few responses offered information on the status of individual plant species or on current management actions for one or more of the 245 Hawaiian plants. While some of the respondents expressed support for the designation of critical habitat for 245 Hawaiian plants, more than 80 percent opposed the designation of critical habitat for these plants. In general, these respondents opposed designation because they believed it will cause economic hardship, chill cooperative projects, polarize relationships with hunters, or potentially increase trespass or vandalism on private lands. In addition, commenters also cited a lack of information on the biological and ecological needs of these plants which, they suggested, may lead to designation based on guesswork. The respondents who supported the designation of critical habitat cited that designation will provide a uniform protection plan for the Hawaiian Islands; promote funding for management of these plants; educate the public and State government; and protect partnerships with landowners and build trust.

To comply with the Court's order, we are publishing seven rules that will include proposed determinations of whether critical habitat is prudent, along with proposed designations if appropriate. Each rule, arranged by island or island group (Kauai and Niihau; Maui and Kahoolawe; Lanai; Molokai; Northwestern Hawaiian Islands; Hawaii; Oahu), has or will contain the prudency determination (or incorporate the prudency determination when it has been published in a prior proposal) and, when appropriate, proposed designations of critical habitat for each plant species known to occur from that island or group of islands. The proposed rules for Kauai and Niihau, Maui and Kahoolawe, Lanai, and Molokai have already been published. On November 7, 2000, we published the first of the court-ordered prudency determinations and proposed critical habitat designations for Kauai and Niihau plants (65 FR 66808). The prudency determinations and proposed critical habitat designations for Maui and Kahoolawe plants were published on December 18, 2000 (65 FR 79192), for Lanai plants on December 27, 2000 (65 FR 82086), and for Molokai plants on December 29, 2000 (65 FR 83158). All of these proposed rules were sent to the **Federal Register** by or on November 30, 2000, as required by the Court's order. Revised proposals for the islands of Kauai and Niihau, Lanai, Maui and Kahoolawe, and Molokai have also been published, consistent with a court ordered stipulation dated October 5, 2001, extending the deadlines for the rulemakings to allow us to prepare revised proposals taking into account information received during the public comment periods. In earlier proposals we determined that critical habitat was prudent for three species (*Cenchrus agrimonioides* (65 FR 79192), *Mariscus pennatiformis* (65 FR 79192), and *Sesbania tomentosa* (65 FR 66808) that are reported from the Northwestern Hawaiian Islands. This prudency determination and proposed rule designating critical habitat for *Amaranthus brownii, Cenchrus agrimonioides, Mariscus pennatiformis, Pritchardia remota, Schiedea verticillata,* and *Sesbania tomentosa,* from the NWHI responds to the court order in *Conservation Council for Hawaii v. Babbitt.*

Critical Habitat

Critical habitat is defined in section 3 of the Act as—(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. ''Conservation'' means the use of all methods and procedures that are necessary to bring an endangered or threatened species to the point at which listing under the Act is no longer necessary.

Critical habitat receives protection under section 7 of the Act through the prohibition against destruction or adverse modification of critical habitat with regard to actions carried out, funded, or authorized by a Federal agency. Section 7 also requires conferences on Federal actions that are likely to result in the destruction or adverse modification of proposed

critical habitat. Destruction or adverse modification is direct or indirect alteration that appreciably diminishes the value of critical habitat for the conservation of a listed species. Such alterations include, but are not limited to, alterations adversely modifying any of those physical or biological features that were the basis for determining the habitat to be critical. Aside from the added protection that may be provided under section 7, the Act does not provide other forms of regulatory protection to lands designated as critical habitat. Because consultation under section 7 of the Act does not apply to activities on private or other non-Federal lands that do not involve a Federal nexus, critical habitat designation would not afford any additional regulatory protections under the Act against such activities.

Critical habitat also provides non-regulatory benefits to the species by informing the public and private sectors of areas that are important for species recovery and where conservation actions would be most effective. Designation of critical habitat can help focus conservation activities for a listed species by identifying areas that contain the physical and biological features that are essential for the conservation of that species, and can alert the public, as well as land-managing agencies to the importance of those areas. Critical habitat also identifies areas that may require special management considerations or protection, and may help provide protection to areas where significant threats to the species have been identified to help to avoid accidental damage to such areas.

In order to be included in a critical habitat designation, the habitat must first be ''essential to the conservation of the species.'' Critical habitat designations identify, to the extent known using the best scientific and commercial data available, habitat areas that provide essential life cycle needs of the species (i.e., areas on which are found the primary constituent elements, as defined at 50 CFR 424.12(b)). Section 3(5)(C) of the Act states that not all areas that can be occupied by a species should be designated as critical habitat unless the Secretary determines that all such areas are essential to the conservation of the species. Our regulations (50 CFR 424.12(e)) also state that, ''The Secretary shall designate as critical habitat areas outside the geographic area presently occupied by the species only when a designation limited to its present range would be inadequate to ensure the conservation of the species.''

Section 4(b)(2) of the Act requires that we take into consideration the economic impact, and any other relevant impact, of specifying any particular areas as critical habitat. We may exclude areas from critical habitat designation when the benefits of exclusion outweigh the benefits of including the areas within critical habitat, provided the exclusion will not result in extinction of the species.

Our Policy on Information Standards Under the Endangered Species Act, published on July 1, 1994 (59 FR 34271), provides criteria, establishes procedures, and provides guidance to ensure that decisions made by the Service represent the best scientific and commercial data available. It requires that our biologists, to the extent consistent with the Act and with the use of the best scientific and commercial data available, use primary and original sources of information as the basis for recommendations to designate critical habitat. When determining which areas are critical habitat, a primary source of information should be the listing rule for the species. Additional information may be obtained from a recovery plan, articles in peer-reviewed journals, conservation plans developed by States and counties, scientific status surveys and studies, and biological assessments or other unpublished materials.

Section 4 requires that we designate critical habitat based on what we know at the time of the designation. Habitat is often dynamic, however, and populations may move from one area to another over time. Furthermore, we recognize that designation of critical habitat may not include all of the habitat areas that may eventually be determined to be necessary for the recovery of the species. For these reasons, critical habitat designations do not signal that habitat outside the designation is unimportant or may not be required for recovery. Habitat areas outside the critical habitat designation will continue to be subject to conservation actions that may be implemented under section 7(a)(1) of the Act and to the regulatory protections afforded by the section 7(a)(2) jeopardy standard, and the section 9 take prohibition, as determined on the basis of the best available information at the time of the action. It is possible that federally funded or assisted projects affecting listed species outside their designated critical habitat areas could jeopardize those species. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans, or other species conservation planning and recovery efforts if new information available to these planning efforts calls for a different outcome.

A. Prudency Redeterminations

As previously stated, designation of critical habitat is not prudent when one or both of the following situations exist: (i) the species is threatened by taking or other human activity, and identification of critical habitat can be expected to increase the degree of such threat to the species; or (ii) such designation of critical habitat would not be beneficial to the species (50 CFR 424.12(a)(1)).

To determine whether critical habitat would be prudent for *Amaranthus brownii, Pritchardia remota,* and *Schiedea verticillata,* we analyzed the potential threats and benefits for each species in accordance with the court's order. Due to low numbers of individuals and populations and their inherent immobility, the three plants may be vulnerable to unrestricted collection, vandalism, or disturbance, though this is unlikely given their inaccessibility. Recently we received information on the commercial trade in palms conducted through the internet (Grant Canterbury, USFWS, *in litt.* 2000). Several nurseries advertise and sell seedlings and young plants, including 13 species of Hawaiian *Pritchardia.* Seven of these species are federally protected, including *Pritchardia remota.* While we have determined that designation of critical habitat is not prudent for other species of *Pritchardia* because the benefits of designating critical habitat do not outweigh the potential increased threats from vandalism or collection (65 FR 66808, 65 FR 83158), we do not believe this species is threatened by these same activities because of its inaccessibility. Nihoa is more than 273 km (170 mi) from Lihue, Kauai, and more than 1,600 km (1,000 mi) from Midway. It is a part of the HINWR and a permit is required for access to the island. Access to the island is further limited due to difficult and dangerous landing conditions. There is only a 30 percent chance of a safe landing on the rocky coast, needing a soft bottomed boat (such as a Zodiac), small waves, and good timing. Passengers must be dropped off and the boat sent back out to sea (there are no mooring docks or beaches), returning to pick up the passengers, if conditions allow. Sea conditions are apt to change without warning, stranding any visitors on this inhospitable island that has no fresh water and no regular food supply (Cindy Rehkemper, USFWS, pers. comm., 2001).

We examined the evidence available for *Amaranthus brownii* and *Schiedea verticillata* and have not, at this time, found specific evidence of taking, vandalism, collection or trade of these taxa or of similar species. Consequently, while we remain concerned that these activities could potentially threaten *Amaranthus brownii, Pritchardia remota,* and *Schiedea verticillata* in the future, consistent with applicable regulations (50 CFR 424.12(a)(1)(i)) and the Court's discussion of these regulations, we do not find that these three species are currently threatened by taking or other human activity, which threats would be exacerbated by the designation of critical habitat.

In the absence of finding that critical habitat would increase threats to a species, if there are any benefits to critical habitat designation, then a prudent finding is warranted. The potential benefits include: (1) Triggering section 7 consultation in new areas where it would not otherwise occur because, for example, it is or has become unoccupied or the occupancy is in question; (2) focusing conservation activities on the most essential areas; (3) providing educational benefits to State or county governments or private entities; and (4) preventing people from causing inadvertent harm to the species.

In the case of *Amaranthus brownii, Pritchardia remota,* and *Schiedea verticillata,* there would be some benefits to critical habitat. The primary regulatory effect of critical habitat is the section 7 requirement that Federal agencies refrain from taking any action that destroys or adversely affects critical habitat. All of these species are reported on Federal lands within national wildlife refuges where most actions would be subject to section 7. Critical habitat designation for habitat currently occupied by these species would usually be unlikely to change the section 7 consultation outcome, because an action that destroys or adversely modifies such critical habitat would also be likely to result in jeopardy to the species. However, there also may be some educational or informational benefits to the designation of critical habitat. Education benefits include the notification of land managers, and the general public of the importance of protecting the habitat of these species and dissemination of information regarding their essential habitat requirements.

Therefore, we propose that designation of critical habitat is prudent for *Amaranthus brownii, Pritchardia remota,* and *Schiedea verticillata.*

B. Primary Constituent Elements

In accordance with section 4(b)(2) of the Act and regulations at 50 CFR 424.12, in determining which areas to propose as critical habitat, we are required to base critical habitat determinations on the best scientific and commercial data available and to consider those physical and biological features that are essential to the conservation of the species and that may require special management considerations or protection. Such requirements include, but are not limited to, space for individual and population growth, and for normal behavior; food, water, air, light, minerals, or other nutritional or physiological requirements; cover or shelter; sites for breeding, reproduction, or rearing of offspring, germination, or seed dispersal; and, habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species.

We are proposing to define the primary constituent elements on the basis of general habitat features of the areas in which the plant species are reported from, such as the type of plant community, associated native plant species, locale information (*e.g.,* steep rocky cliffs, talus slopes, stream banks), and elevation. These habitat features provide the ecological components required by the plants. The type of plant community and associated native plant species provide information on specific microclimatic conditions, retention and availability of water in the soil, soil microorganism community, and nutrient cycling and availability. The locale provides information on soil type, elevation, rainfall regime, and temperature. Elevation provides information on daily and seasonal temperature and sun intensity.

On Nihoa Island, the currently known primary constituent elements of critical habitat for *Amaranthus brownii* are habitat components that provide: (1) Shallow soil in fully exposed locations on rocky outcrops and containing one or more of the following associated native plant species: *Schiedea verticillata, Chenopodium oahuense, Ipomoea pes-caprae* ssp. *brasiliensis, Ipomoea indica, Scaevola sericea, Sida fallax, Solanum nelsonii, Sicyos pachycarpus, Eragrostis variabilis,* or *Panicum torridum*; and (2) elevations between 30 and 242 m (100 and 800 ft).

On Laysan and Nihoa islands, the currently known primary constituent elements of critical habitat for *Pritchardia remota* are habitat components that provide: (1) Coastal forest community containing one or more of the following associated native plant species: *Chenopodium oahuense, Sesbania tomentosa, Solanum nelsonii,* or *Sida fallax*; and (2) from 15 to 151 m (50 to 500 ft) in elevation.

On Nihoa Island, the currently known primary constituent elements of critical habitat for *Schiedea verticillata* are habitat components that provide: (1) Rocky scree, soil pockets and cracks on coastal cliff faces and in *Pritchardia remota* coastal mesic forest and containing one or more of the following associated native plant species: *Tribulus cistoides, Eragrostis variabilis, Rumex albescens*, or lichens; and (2) elevations between 30 and 242 m (100 and 800 ft).

On Laysan Island, the currently known primary constituent elements of critical habitat for *Mariscus pennatiformis* are habitat components that provide: (1) Coastal sandy substrate containing one or more of the following associated native plant species: *Cyperus laevigatus, Eragrostis variabilis,* or *Ipomoea* sp.; and (2) elevation of 5 m (16 ft).

On Nihoa and Necker islands, the currently known primary constituent elements of critical habitat for *Sesbania tomentosa* are habitat components that provide: (1) shallow soil on sandy beaches and dunes in *Chenopodium oahuense* coastal dry shrubland and containing one or more of the following associated native plant species: *Sida fallax, Scaevola sericea, Solanum nelsonii*, or *Pritchardia remota*; and (2) elevations between sea level and 84 m (0 and 276 ft).

C. Methods

As required by the Act and regulations (section 4(b)(2) and 50 CFR 424.12) we used the best scientific information available to determine areas that contain those physical and biological features that are essential for the conservation of the five plant species. This information included site-specific species information from the Hawaii Natural Heritage Program (HINHP) and our rare plant database, biological surveys and reports, our recovery plans for these five species, discussions with botanical experts, and recommendations (see below) from the Hawaii and Pacific Plant Recovery Coordinating Committee (HPPRCC) (HINHP 2000; HPPRCC 1998; USFWS 1998d, 1999).

In 1994, the HPPRCC initiated an effort to identify and map habitat it believed to be important for the recovery of 282 endangered and threatened plant species. The HPPRCC identified these areas on most of the islands in the Hawaiian chain, and in

1999 we published them in our *Recovery Plan for the Multi-Island Plants* (USFWS 1999). The HPPRCC expects there will be subsequent efforts to further refine the locations of important habitat areas and that new survey information or research findings may also lead to additional refinements (HPPRCC 1998).

Because the HPPRCC identified essential habitat areas for all listed, proposed, and candidate plant species and evaluated species of concern to determine if essential habitat areas would provide for their habitat needs as well, the HPPRCC's mapping of habitat is distinct from the regulatory designation of critical habitat as defined by the Act. More data has been collected since the recommendations made by the HPPRCC in 1998. Much of the area that was identified by the HPPRCC as inadequately surveyed has now been surveyed in some way. New location data for many species has been gathered. Also, the HPPRCC identified areas as essential based on species clusters (areas that included listed species, as well as candidate species, and species of concern) while we have only delineated areas that are essential for the conservation of the five listed species at issue. As a result, the proposed critical habitat designations in this proposed rule include habitat that was not identified as essential habitat in the 1998 recommendations.

We considered several criteria in the selection and proposal of specific boundaries for critical habitat units for these five species. These criteria, which follow the recommendations in the approved recovery plans, include expansion of existing wild populations and reestablishment of wild populations within historic range of each species (USFWS 1998d, 1999). The long-term probability of the conservation of these species is dependent upon the protection of existing population sites and suitable unoccupied habitat within historic range.

For these five plant species from the Northwestern Hawaiian Islands, currently and historically occupied habitat was examined. Critical habitat is not proposed for *Cenchrus agrimonioides* var. *laysanensis* on the Northwestern Hawaiian Islands for the following reasons. *Cenchrus agrimonioides* var. *laysanensis* is historically known from Laysan, Midway, and Kure Atoll. This plant has not been reported on Laysan and Midway for over 70 and 100 years, respectively. A permanent year-round camp on Laysan, staffed by paid employees and volunteers, conducts periodic monitoring of both native and non-native plant species, and *Cenchrus agrimonioides* var. *laysanensis* has not been seen during these monitoring efforts (Morin and Conant 1998). On Midway, *Cenchrus agrimonioides* var. *laysanensis* was not seen during the most recent botanical surveys of 1995 and 1999 (Chris Swenson, USFWS, pers. comm. 2002). *Cenchrus agrimonioides* var. *laysanensis* has not been seen on Kure Atoll for over 20 years though the State DOFAW conducts annual seabird surveys and a botanical survey was conducted there as recently as 2001 (DOFAW, 2001). In addition, no viable genetic material of this plant is know to exist. The rediscovery of currently unknown individual plants on these three islands and atolls is believed to be extremely unlikely. On the other hand, critical habitat is proposed for *Amaranthus brownii*, a plant that has not been seen since the early 1980s, on Nihoa because it is believed that there is a strong likelihood that this Nihoa endemic is still extant on the island. None of the surveys on Nihoa in the last twenty years have been conducted during the winter when *Amaranthus brownii*, an annual, is most easily located and identified. Winter surveys on the Nihoa have not been conducted because access to the island is particularly limited during this season due to difficult and dangerous landing conditions.

Critical habitat boundaries were delineated to include the entire island on which the species are found or were historically found, for mapping convenience. Within the critical habitat boundaries, adverse modification could occur only if the primary constituent elements are affected. Therefore, not all activities within critical habitat would trigger an adverse modification conclusion. In addition, existing man-made features and structures within boundaries of the mapped unit, such as buildings, roads, aqueducts, telecommunications equipment, radars, telemetry antennas, missile launch sites, arboreta and gardens, heiau (indigenous places of worship or shrines), airports, other paved areas, and other rural residential landscaped areas do not contain one or more of the primary constituent elements and would be excluded under the terms of this proposed regulation. Federal actions limited to those areas would not trigger a section 7 consultation unless they affect the species or primary constituent elements in adjacent critical habitat.

All currently or historically occupied sites containing one or more of the primary constituent elements considered essential to the conservation of the five plant species were examined to determine if additional special management considerations or protection are required above those currently provided. We reviewed all available management information on these plants at these sites including published and unpublished reports, surveys, and plans; internal letters, memos, trip reports; and, section 7 consultations. Additionally, we considered current management for these plants on national wildlife refuge lands.

For the five species for which designation of critical habitat is prudent, we know of no areas in the HINWR at this time that do not require special management or protection.

Administration

In summary, the proposed critical habitat areas described below constitute our best assessment of the physical and biological features needed for the conservation of the five plant species (*Amaranthus brownii, Mariscus pennatiformis, Pritchardia remota, Schiedea verticillata*, and *Sesbania tomentosa*) and the special management needs of the species, and are based on the best scientific and commercial information available and described above. We put forward this proposal acknowledging that we may have incomplete information regarding many of the primary biological and physical requirements for these species. However, both the Act and the relevant court order require us to proceed with designation at this time based on the best information available. As new information accrues, we may reevaluate which areas warrant critical habitat designation. We anticipate that comments received through the public review process and from any public hearings, if requested, will provide us with additional information to use in our decision making process and in assessing the potential impacts of designating critical habitat for one or more of these species.

Proposed critical habitat includes habitat for five species on the islands of Nihoa, Necker, and Laysan. Lands proposed are under Federal ownership and managed by the Department of the Interior (the Service). The entire islands of Nihoa, Necker, and Laysan are proposed as critical habitat. A brief description of each island is presented below.

Descriptions of Critical Habitat in the Northwestern Hawaiian Islands

Key for Nihoa, Necker, and Laysan.

‡ Not all suitable habitat is proposed to be designated, only those areas essential to the conservation of the species.

1. This unit is needed to meet the recovery plan objectives of 8 to 10 viable populations (self perpetuating and sustaining for at least 5 years) with 100 to 500 mature, reproducing individuals per species throughout its historical range as specified in the recovery plans.
2. Island endemic.
3. Multi-island species with current locations on other islands.
4. Multi-island species with no current locations on other islands.
5. Current locations do not necessarily represent viable populations with the required number of mature individuals.
6. Several current locations may be affected by one naturally occurring, catastrophic event.
7. Species with variable habitat requirements, usually over wide areas. Wide ranging species require more space per individual over more land area to provide needed primary constituent elements to maintain healthy population size.
8. Not all currently occupied habitat was determined to be essential to the recovery of the species.
9. Life history, long-lived perennial-100 mature, reproducing individuals per population.
10. Life history, short-lived perennial-300 mature, reproducing individuals per population.
11. Life history, annual-500 mature, reproducing individuals per population.
12. Narrow endemic, the species probably never naturally occurred in more than a single or a few populations.
13. Species has extremely restricted, specific habitat requirements.
14. Hybridization is possible so distinct populations of related species should not overlap, requiring more land area.

Nihoa

The proposed unit Nihoa provides occupied habitat for three species: *Pritchardia remota, Schiedea verticillata,* and *Sesbania tomentosa.* It is proposed for designation because it contains the physical and biological features that are considered essential for their conservation on Nihoa and provides habitat to support one or more of the 8 to 10 populations for each species and 100 mature individuals per population for *Pritchardia remota,* or 300 mature individuals per population for *Schiedea verticillata,* and *Sesbania tomentosa* throughout their known historical range considered by the recovery plans to be necessary for the conservation of each species (see the discussion of conservation requirements in Section D) (see Table Nihoa below). This unit also provides unoccupied habitat for one species: *Amaranthus brownii.* Designation of this unit is essential to the conservation of this species because it contains the physical and biological features that are considered essential for its conservation on Nihoa, and provides habitat to support one or more additional populations necessary to meet the recovery objectives for this species of 8 to 10 populations and 500 mature individuals per population for *Amaranthus brownii,* throughout its known historical range considered by the recovery plans to be necessary for the conservation of each species (see the discussion of conservation requirements in Section D) (see Table Nihoa below). *Amaranthus brownii* has not been seen in the wild since 1983. Service staff have surveyed for this species annually, though never in the winter season when it is most likely to be seen. Access to the island is limited, particularly during the winter due to difficult and dangerous landing conditions. Sea conditions are apt to change without warning, stranding any visitors on this inhospitable island that has no fresh water and no regular food supply. There is a high likelihood that the plants exist but are not detectable during the dry season and that there is a seed bank present on the island.

Nihoa has an area of approximately 69 ha (171 ac). Nihoa is owned solely by the Federal government.

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Table for Nihoa

Species	1. 8–10 pop. guidelines.	2. Island endemic.	3. Multi-island/current other islands.	4. Multi-island/no current other islands.	5. Non-viable populations.	6. Several occ. vulnerable to	7. Species with variable habitats.	8. Not all occupied habitat needed.	9. Long-lived perennial–100/pop.	10. Short-lived perennial–300/pop.	11. Annual–500/pop.	12. Narrow endemic.	13. Restricted habitat requirements.	14. Hybridization is possible.	Notes
Amaranthus brownii	X*	X**			X						X	X	X***		*Not enough suitable habitat for 8 to 10 populations at this time. ** Historical on Nihoa. ***Shallow soil on rocky outcrops.
Pritchardia remota	X*		X		X	X			X			X	X**		*Species is wide ranging.‡ ** Valleys and near freshwater seeps by cliffs.
Schiedea verticillata	X	X			X	X				X		X	X*		* Rocky scree, soil pockets and cracks on coastal cliff faces.
Sesbania tomentosa	X*		X		X	X				X					*Species is wide ranging.‡

Necker

The proposed unit Necker provides occupied habitat for one species, *Sesbania tomentosa.* It is proposed for designation because it contains the physical and biological features that are considered essential for its conservation

on Necker and provides habitat to support one or more of the 8 to10 populations and 300 mature individuals per population for *Sesbania tomentosa,* throughout its known historical range considered by the recovery plan to be necessary for the conservation of this species (see the discussion of conservation requirements in Section D) (see Table Necker below).

Necker has an area of approximately 18 ha (46 ac). Necker is owned solely by the Federal government.

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Table for Necker

Species	1. 8–10 pop. guidelines.	2. Island endemic.	3. Multi-island/current other islands.	4. Multi-island/no current other islands.	5. Non-viable populations.	6. Several occ. vulnerable to	7. Species with variable habitats.	8. Not all occupied habitat needed.	9. Long-lived perennial–100/pop.	10. Short-lived perennial–300/pop.	11. Annual–500/pop.	12. Narrow endemic.	13. Restricted habitat requirements.	14. Hybridization is possible.	Notes
Amaranthus brownii	X*	X**			X						X	X	X***		*Not enough suitable habitat for 8 to 10 populations at this time. ** Historical on Nihoa. ***Shallow soil on rocky outcrops.

Laysan

The proposed unit Laysan provides occupied habitat for two species: *Mariscus pennatiformis* ssp. *bryanii* and *Pritchardia remota.* It is proposed for designation because it contains the physical and biological features that are considered essential for its conservation on Laysan and provides habitat to support one or more of the 8 to 10 populations for each species and 100 mature individuals per population for *Pritchardia remota*, or 300 mature individuals per population for *Mariscus pennatiformis* ssp. *bryanii* throughout their known historical range considered by the recovery plan to be necessary for the conservation of each species (see the discussion of conservation requirements in Section D) (see Table Laysan below).

Laysan has an area of approximately 411 ha (1,015 ac). Laysan is owned solely by the Federal government.

Table for Laysan

Species	1. 8–10 pop. guidelines.	2. Island endemic.	3. Multi-island/current other islands.	4. Multi-island/no current other islands.	5. Non-viable populations.	6. Several occ. vulnerable to	7. Species with variable habitats.	8. Not all occupied habitat needed.	9. Long-lived perennial–100/pop.	10. Short-lived perennial–300/pop.	11. Annual–500/pop.	12. Narrow endemic.	13. Restricted habitat requirements.	14. Hybridization is possible.	Notes
Mariscus pennatiformis	X*		X* *		X	X				X					*Not enough suitable habitat for 8 to 10 populations at this time. **Subspecies bryanii only known from Laysan.
Pritchardia remota	X*		X		X	X			X			X	X**		*Species is wide ranging.‡ ** Valleys and near freshwater seeps by cliffs.

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Effects of Critical Habitat Designation

Section 7 Consultation

Section 7(a)(2) of the Act requires Federal agencies to ensure that actions they fund, authorize, or carry out do not jeopardize the continued existence of a listed species or destroy or adversely modify its critical habitat. Destruction or adverse modification of critical habitat occurs when a Federal action directly or indirectly alters critical habitat to the extent it appreciably diminishes the value of critical habitat for the conservation of the species. Such alterations include, but are not limited to, alterations adversely modifying any of those physical or biological features that were the basis for determining the habitat to be critical (50 CFR 402.02). Individuals, organizations, States, local governments, and other non-Federal entities are affected by the designation of critical habitat only if their actions occur on Federal lands, require a Federal permit, license, or other authorization, or involve Federal funding.

Section 7(a) of the Act means that Federal agencies must evaluate their actions with respect to any proposed or designated critical habitat. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402. If a Federal action may affect critical habitat, the responsible Federal agency must enter into consultation with us. If, at the conclusion of consultation, we issue a biological opinion concluding that the project is likely to result in the destruction or adverse modification of critical habitat, we also provide reasonable and prudent alternatives to the project, if any are identifiable. Reasonable and prudent alternatives are defined at 50 CFR 402.02 as alternative actions identified during consultation that can be implemented in a manner consistent with the intended purpose of the action, that are consistent with the scope of the Federal agency's legal authority and jurisdiction, that are economically and technologically feasible, and that the Director believes would avoid destruction or adverse modification of critical habitat.

Section 7(a)(4) requires Federal agencies to confer with us on any action that is likely to result in destruction or adverse modification of proposed critical habitat. Conference reports provide conservation recommendations to assist the agency in eliminating conflicts that may be caused by the proposed action. The conservation recommendations in a conference report are advisory. We may issue a formal conference report if requested by a Federal agency. Formal conference reports on proposed critical habitat contain a biological opinion that is prepared according to 50 CFR 402.14, as if critical habitat were designated. We may adopt the formal conference report as a biological opinion when the critical habitat is designated, if no significant new information or changes in the action alter the content of the opinion. *See* 50 CFR 402.10(d).

Regulations at 50 CFR 402.16 require Federal agencies to reinitiate consultation on previously reviewed actions under certain circumstances, including instances where critical habitat is subsequently designated and the Federal agency has retained discretionary involvement or control or is authorized by law. Consequently, some Federal agencies may request reinitiation of consultation or conferencing with us on actions for which formal consultation has been completed if those actions may affect designated critical habitat or adversely modify or destroy proposed critical habitat.

Activities on lands being proposed as critical habitat for these five species or activities that may indirectly affect such lands and that are conducted by a Federal agency, funded by a Federal agency or require a permit from a Federal agency will be subject to the section 7 consultation process. Federal actions not affecting critical habitat will not require section 7 consultation.

Section 4(b)(8) of the Act requires us to briefly describe and evaluate in any proposed or final regulation that designates critical habitat those activities involving a Federal action that may adversely modify such habitat or that may be affected by such designation. We note that such activities may also jeopardize the continued existence of the species. Activities that, when carried out, funded, or authorized by a Federal agency, may directly or indirectly destroy or adversely modify critical habitat include, but are not limited to:

(1) Activities that appreciably degrade or destroy habitat defined in the discussion of primary constituent elements including but not limited to: clearing or cutting of native live trees and shrubs, whether by burning or mechanical, chemical, or other means (*e.g.,* woodcutting or herbicide application); introducing or enabling the spread of non-native species; and taking actions that pose a risk of fire;

(2) Construction activities by the U.S. Department of Interior (U.S. Fish and Wildlife Service);

(3) Research activities funded by the U.S. Department of Interior (U.S. Fish and Wildlife Service) or National Oceanic and Atmospheric Administration (National Marine Sanctuaries Program, National Marine Fisheries Service); and

(4) Activities not mentioned above funded or authorized by the Department of Interior (U.S. Geological Survey, National Park Service), Department of Commerce (National Oceanic and Atmospheric Administration), Western Pacific Regional Fisheries Council, or any other Federal agency.

If you have questions regarding whether specific activities will constitute adverse modification of critical habitat, contact the Field Supervisor, Pacific Islands Office (see **ADDRESSES** section). Requests for copies of the regulations on listed wildlife and plants and inquiries about prohibitions and permits may be addressed to the U.S. Fish and Wildlife Service, Division of Endangered Species, 911 N.E. 11th Avenue, Portland, OR 97232 (telephone 503/231–2063; facsimile 503/231–6243).

Economic and Other Relevant Impacts Analysis

Section 4(b)(2) of the Act requires us to designate critical habitat on the basis of the best scientific and commercial information available and to consider the economic and other relevant impacts of designating a particular area as critical habitat. We may exclude areas from critical habitat upon a determination that the benefits of such exclusions outweigh the benefits of specifying such areas as critical habitat. We cannot exclude such areas from critical habitat when such exclusion will result in the extinction of the species concerned. We will conduct an analysis of the economic impacts of designating these areas as critical habitat prior to a final determination. When completed, we will announce the availability of the draft economic analysis with a notice in the **Federal Register**, and we will open a public comment period on the draft economic analysis and proposed rule at that time.

We will utilize the final economic analysis, and take into consideration all comments, and information regarding economic or other impacts submitted during the public comment period and any public hearings, if requested, to make final critical habitat designations. We may exclude areas from critical habitat upon a determination that the benefits of such exclusions outweigh the benefits of specifying such areas as part of critical habitat; however, we cannot exclude areas from critical habitat when such exclusion will result in the extinction of the species.

Public Comments Solicited

It is our intent that any final action resulting from this proposal be as accurate and as effective as possible. Therefore, we solicit comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, or any other interested party concerning this proposed rule.

We invite comments from the public that provide information on whether lands within proposed critical habitat are currently being managed to address conservation needs of these listed plants. As stated earlier in this proposed rule, if we receive information that any of the areas proposed as critical habitat are adequately managed, we may delete such areas from the final rule, because they would not meet the definition in section 3(5)(A)(i) of the Act.

We are soliciting comments in this proposed rule on whether current land management plans or practices applied within the areas proposed as critical habitat adequately address the threats to these listed species.

In addition, we are seeking comments on the following:

(1) The reasons why critical habitat for any of these species is prudent or not prudent as provided by section 4 of the Act and 50 CFR 424.12(a)(1), including whether the benefits of designation would outweigh any threats to these species due to designation;

(2) The reasons why any particular area should or should not be designated as critical habitat for any of these species, as critical habitat is defined by section 3 of the Act (16 U.S.C. 1532 (5));

(3) Specific information on the amount and distribution of habitat for *Amaranthus brownii, Cenchrus agrimonioides, Mariscus pennatiformis, Pritchardia remota, Schiedea verticillata,* and *Sesbania tomentosa;* and what habitat is essential to the conservation of the species and why;

(4) Land use practices and current or planned activities in the subject areas and their possible impacts on proposed critical habitat;

(5) Any economic or other impacts resulting from the proposed designations of critical habitat, including any impacts on small entities or families; and

(6) Economic and other potential values associated with designating critical habitat for the above plant species such as those derived from non-consumptive uses (*e.g.,* hiking, camping, and birding).

If you wish to comment, you may submit your comments and materials concerning this proposal by any one of several methods (*see* **ADDRESSES**). Our practice is to make comments, including names and home addresses of respondents, available for public review during regular business hours. Individual respondents may request that we withhold their home address, which we will honor to the extent allowable by law. There also may be circumstances in which we would withhold a respondent's identity, as allowable by law. If you wish us to withhold your name and/or address, you must state this request prominently at the beginning of your comment. However, we will not consider anonymous comments. To the extent consistent with applicable law, we will make all submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, available for public inspection in their entirety. Comments and materials received will be available for public inspection, by appointment, during normal business hours at our Pacific Islands Office.

Peer Review

In accordance with our policy published on July 1, 1994 (59 FR 34270), we will seek the expert opinions of at least three appropriate and independent specialists regarding this proposed rule. The purpose of such review is to ensure listing and critical habitat decisions are based on scientifically sound data, assumptions, and analyses. We will send copies of this proposed rule to these peer reviewers immediately following publication in the **Federal Register**. We will invite the peer reviewers to comment, during the public comment period, on the specific assumptions and conclusions regarding the proposed designations of critical habitat.

We will consider all comments and data received during the 60-day comment period on this proposed rule during preparation of a final rulemaking. Accordingly, the final decision may differ from this proposal.

Clarity of the Rule

Executive Order 12866 requires each agency to write regulations and notices that are easy to understand. We invite your comments on how to make this proposed rule easier to understand including answers to questions such as the following: (1) Are the requirements in the proposed rule clearly stated? (2) Does the proposed rule contain technical language or jargon that interferes with the clarity? (3) Does the format of the proposed rule (grouping and order of sections, use of headings, paragraphing, etc.) aid or reduce its clarity? (4) Is the description of the proposed rule in the ''Supplementary Information'' section of the preamble helpful in understanding the document? (5) What else could we do to make the proposed rule easier to understand?

Send a copy of any comments that concern how we could make this notice easier to understand to: Office of Regulatory Affairs, Department of the Interior, Room 7229, 1849 C Street, NW, Washington, DC 20240.

Taxonomic Changes

At the time we listed *Mariscus pennatiformis* we followed the taxonomic treatments in Wagner *et al.* (1990), the widely used and accepted *Manual of the Flowering Plants of Hawaii.* Subsequent to the final listing we became aware of new taxonomic treatments for this species. Due to the court-ordered deadlines we are required to publish this proposal to designate critical habitat on the Northwestern Hawaiian Islands before we can prepare and publish a notice of taxonomic changes for this species. We plan to publish a taxonomic change notice for this species after we have published the final critical habitat designations on the Northwestern Hawaiian Islands. At that time we will evaluate the critical habitat designations on the Northwestern Hawaiian Islands for this species in light of any changes that may result from taxonomic changes in each species current and historical range and primary constituent elements.

Required Determinations

Regulatory Planning and Review

In accordance with Executive Order 12866, this document is a significant rule and was reviewed by the Office of Management and Budget (OMB) in accordance with the four criteria discussed below. We are preparing a draft analysis of this proposed action, which will be available for public comment, to determine the economic consequences of designating the specific areas as critical habitat. The availability of the draft economic analysis will be announced in the **Federal Register** so that it is available for public review and comments.

a. While we will prepare an economic analysis to assist us in considering whether areas should be excluded pursuant to section 4 of the Act, we do not believe this rule will have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or

safety, or state or local governments or communities. Therefore, we do not believe a cost benefit and economic analysis pursuant to Executive Order 12866 is required.

Under the Act, critical habitat may not be adversely modified by a Federal agency action; critical habitat does not impose any restrictions on non-Federal persons unless they are conducting activities funded or otherwise sponsored, authorized, or permitted by a Federal agency.

Section 7 requires Federal agencies to ensure that they do not jeopardize the continued existence of these species. Based upon our experience with these species and their needs, we conclude that most Federal or Federally-authorized actions that could potentially cause an adverse modification of the proposed critical habitat would currently be considered as ''jeopardy'' under the Act in areas occupied by the species. Designation of critical habitat in areas that are not known to be occupied by any of these five species also is highly unlikely to have a significant economic affect because all of the lands proposed as critical habitat are federally owned and managed as part of the Service's national wildlife refuge system. Economic uses on a national wildlife refuge are limited by the National Wildlife Refuge System Administration Act, 16 U.S.C. 668dd, to activities that are compatible with the purposes of the refuge. We are not aware of any commercial activities occurring on the refuge. Taken with the remove location and inaccessibility of these islands, we believe there will be a few economic impacts resulting from this designation. In addition, each of the 3 units contains occupied habitat for one or more species.

b. We do not believe this rule would create inconsistencies with other agencies' actions. As discussed above, Federal agencies have been required to ensure that their actions not jeopardize the continued existence of *Amaranthus brownii, Mariscus pennatiformis, Pritchardia remota, Schiedea verticillata,* and *Sesbania tomentosa* since their listing between 1994 and 1996. For the reasons discussed above, the prohibition against adverse modification of critical habitat would not be expected to impose any significant additional restrictions to those that currently exist in the proposed critical habitat on currently occupied lands. However, we will evaluate any impact of designating areas where section 7 consultations would not have occurred but for the critical habitat designation through our economic analysis.

c. We do not believe this proposed rule, if made final, would materially affect entitlements, grants, user fees, loan programs, or the rights and obligations of their recipients. Federal agencies are currently required to ensure that their activities do not jeopardize the continued existence of a listed species, and, as discussed above, we do not anticipate that the adverse modification prohibition, resulting from critical habitat designation, will have any significant incremental effects in areas of occupied habitat. However, in those limited cases where activities occur on designated critical habitat where one or more of these five plant species are not found at the time of the action, section 7 consultation may be necessary for actions funded, authorized, or carried out by Federal agencies. Designation of critical habitat in areas that are not known to be occupied by any of these five species will also not likely result in a significant increased regulatory burden because the Service already reviews proposed projects on refuge lands to ensure compatibility with refuge purposes. We will evaluate any additional impacts as part of an economic analysis.

d. OMB has determined that this rule may raise novel legal or policy issues, and as a result, this rule has undergone OMB review.

Regulatory Flexibility Act (5 U.S.C. 601 et seq.)

Under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*, as amended by the Small Business Regulatory Enforcement Act (SBREFA) of 1996), whenever an agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (i.e., small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the agency certifies the rule will not have a significant economic impact on a substantial number of small entities. SBREFA amended the Regulatory Flexibility Act (RFA) to require Federal agencies to provide a statement of the factual basis for certifying that rule will not have a significant economic effect on a substantial number of small entities. SBREFA also amended the RFA to require a certification statement. In today's rule, we are certifying that the rule will not have a significant effect on a substantial number of small entities. The following discussion explains our rationale.

According to the Small Business Administration, small entities include small organizations, such as independent non-profit organizations, and small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents, as well as small businesses. Small businesses include manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than $5 million in annual sales, general and heavy construction businesses with less than $27.5 million in annual business, special trade contractors doing less than $11.5 million in annual business, and agricultural businesses with annual sales less than $750,000. To determine if potential economic impacts to these small entities are significant, we consider the types of activities that might trigger regulatory impacts under this rule as well as the types of project modifications that may result. In general, the term significant economic impact is meant to apply to a typical small business firm's business operations.

To determine if the rule would affect a substantial number of small entities, we consider the number of small entities affected within particular types of economic activities (*e.g.,* housing development, grazing, oil and gas production, timber harvesting, etc.). We apply the ''substantial number'' test individually to each industry to determine if certification is appropriate. In estimating the numbers of small entities potentially affected, we also consider whether their activities have any Federal involvement; some kinds of activities are unlikely to have any Federal involvement and so will not be affected by critical habitat designation.

Designation of critical habitat only affects activities conducted, funded, or permitted by Federal agencies; non-Federal activities are not affected by the designation. In areas where the species is present, Federal agencies are already required to consult with us under section 7 of the Act on activities that they fund, permit, or implement that may affect *Amaranthus brownii, Mariscus pennatiformis, Pritchardia remota, Schiedea verticillata,* and *Sesbania tomentosa.* If these critical habitat designations are finalized, Federal agencies must also consult with us if their activities may affect designated critical habitat. However, in areas where the species is present, we do not believe this will result in any

additional regulatory burden on Federal agencies or their applicants because consultation would already be required due to the presence of the listed species, and the duty to avoid adverse modification of critical habitat would not trigger additional regulatory impacts beyond the duty to avoid jeopardizing the species.

Even if the duty to avoid adverse modification does not trigger additional regulatory impacts in areas where the species is present, designation of critical habitat could result in an additional economic burden on small entities due to the requirement to reinitiate consultation for ongoing Federal activities. However, since these five plant species were listed (between 1994 and 1996), there have been no formal or informal consultations conducted involving these five plant species in NWHI. The NWR system is not a small entity. Therefore, the requirement to reinitiate consultations for ongoing projects will not affect a substantial number of small entities on any of the Northwestern Hawaiian Islands.

In areas where the species is clearly not present, designation of critical habitat could trigger additional review of Federal activities under section 7 of the Act, that would otherwise not be required. However, only one of the three units (Nihoa) being proposed for designation includes habitat for a species that is not verified to occur there (*Amaranthus brownii*), and three of the species are known to occur there. In addition, while activities within the HINWR may occur within the proposed critical habitat areas for these five plants and therefore have Federal involvement, most of the activities involve natural resources management that is beneficial to the six plants, and therefore would require only informal consultation or reinitiation of already completed consultations for on-going projects. As mentioned above, we have not conducted formal or informal consultations under section 7 involving any of the species. As result, we can not easily identify future consultations that may be due to the listings of the species or the increment of additional consultations that may be required by this critical habitat designation. Therefore, for the purposes of this review and certification under the Regulatory Flexibility Act, we are assuming that any future consultations in the area proposed as critical habitat will be due to the critical habitat designations.

In the NWHI, all of the designations are on Federal land. All of the land within the critical habitat units will have limited suitability for development, land uses, and activities because of remote locations and lack of access. Also, all of this land is within a National Wildlife Refuge (NWR) where Federal laws and/or policies severely limit development and most activities. We are not aware of any commercial activities occurring on these islands. Therefore, we conclude that the proposed rule would not affect a substantial number of small entities.

Even where the requirements of section 7 might apply due to critical habitat designation, based on our experience with section 7 consultations for all listed species, virtually all projects-including those that, in their initial proposed form, would result in jeopardy or adverse modification determinations under section 7 consultations-can be implemented successfully with, at most, the adoption of reasonable and prudent alternatives. These measures must be economically feasible and within the scope of authority of the Federal agency involved in the consultation.

As required under section 4(b)(2) of the Act, we will conduct an analysis of the potential economic impacts of this proposed critical habitat designation, and will make that analysis available for public review and comment before finalizing these designations. In the absence of this economic analysis, we believe that the designations would have modest economic impacts because all of the land within the critical habitat units has limited suitability for development, land uses, and activities because of remote locations and lack of access. In addition, these lands are within a National Wildlife Refuge where Federal laws and/or policies severely limit development and activities. The proposed critical habitat designations are expected to cause little or no increase in the number of section 7 consultations; few, if any, increases in costs associated with consultations; and few, if any delays in, or modifications to planned projects, land uses and activities.

In summary, we have considered whether this proposed rule would result in a significant economic effect on a substantial number of small entitites. It would not affect a substantial number of small entities. None of the lands proposed as critical habitat are on state or private lands. All of the land proposed as critical habitat are Federal lands within the National Wildlife Refuge system. The most likely future section 7 consultation resulting from this rule would be for intra-Service consultations on natural resource management activities, species-specific surveys and research projects. These consultations would not likely affect a substantial number of small entities because the managing agency, the Service, is not a small entity. Therefore we are certifying that the proposed designation of critical habitat for the following species: *Amaranthus brownii, Mariscus pennatiformis, Pritchardia remota, Schiedea verticillata,* and *Sesbania tomentosa* will not have a significant economic impact on a substantial number of small entities, and an initial regulatory flexibility analysis is not required. However, should the economic analysis of this rule indicate otherwise, or should landownership change in the NWHI, we will revisit this determination.

Executive Order 13211

On May 18, 2001, the President issued Executive Order 13211, on regulations that significantly affect energy supply, distribution, and use. Executive Order 13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions. Although this rule is a significant regulatory action under Executive Order 12866, it is not expected to significantly affect energy supplies, distribution, or use. Therefore, this action is not a significant energy action and no Statement of Energy Effects is required.

Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.):

a. We believe this rule, as proposed, will not ''significantly or uniquely'' affect small governments. A Small Government Agency Plan is not required. Small governments will not be affected unless they propose an action requiring Federal funds, permits or other authorizations. Any such activities will require that the Federal agency ensure that the action will not adversely modify or destroy designated critical habitat. However, as discussed above, these actions are currently subject to equivalent restrictions through the listing protections of the species, and no further restrictions are anticipated to result from critical habitat designation of occupied areas. In our economic analysis, we will evaluate any impact of designating areas where section 7 consultations would not have occurred but for the critical habitat designation.

b. This rule, as proposed, will not produce a Federal mandate on State or local governments or the private sector of $100 million or greater in any year, that is, it is not a ''significant regulatory action'' under the Unfunded Mandates Reform Act. The designation of critical

habitat imposes no obligations on State or local governments.

Takings

In accordance with Executive Order 12630 (''Government Actions and Interference with Constitutionally Protected Private Property Rights''), we have analyzed the potential takings implications of designating critical habitat for the five species on three islands or atolls (Nihoa, Necker, and Laysan) within the Northwestern Hawaiian Islands. The takings implications assessment concludes that this proposed rule does not pose significant takings implications. Once the economic analysis is completed for this proposed rule, we will review and revise this preliminary assessment as warranted.

Federalism

In accordance with Executive Order 13132, the rule does not have significant Federalism effects. A Federalism assessment is not required. In keeping with Department of Interior policy, we requested information from appropriate State agencies in Hawaii. The designation of critical habitat in areas currently occupied by these species imposes no additional restrictions to those currently in place and, therefore, has little incremental impact on State and local governments and their activities. The designations may have some benefit to these governments in that the areas essential to the conservation of these species are more clearly defined, and the primary constituent elements of the habitat necessary to the survival of the species are specifically identified. While this definition and identification does not alter where and what federally sponsored activities may occur, it may assist these local governments in long range planning rather than waiting for case-by-case section 7 consultations to occur.

Civil Justice Reform

In accordance with Executive Order 12988, the Office of the Solicitor has determined that this rule does not unduly burden the judicial system and does meet the requirements of sections 3(a) and 3(b)(2) of the Order. We are proposing to designate critical habitat in accordance with the provisions of the Endangered Species Act. The rule uses standard property descriptions and identifies the primary constituent elements within the designated areas to assist the public in understanding the habitat needs of *Amaranthus brownii, Mariscus pennatiformis, Pritchardia remota, Schiedea verticillata,* and *Sesbania tomentosa.*

Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)

This rule does not contain any information collection requirements for which Office of Management and Budget (OMB) approval under the Paperwork Reduction Act is required. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number.

National Environmental Policy Act

We have determined we do not need to prepare an Environmental Assessment and/or an Environmental Impact Statement as defined by the National Environmental Policy Act of 1969 in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act, as amended. We published a notice outlining our reason for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This proposed determination does not constitute a major Federal action significantly affecting the quality of the human environment.

Government-to-Government Relationship With Tribes

In accordance with the President's memorandum of April 29, 1994, ''Government-to-Government Relations with Native American Tribal Governments'' (59 FR 22951), Executive Order 13175 and 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. We have determined that there are no Tribal lands essential for the conservation of *Amaranthus brownii, Mariscus pennatiformis, Pritchardia remota, Schiedea verticillata,* and *Sesbania tomentosa* because Tribal lands do not occur on the three islands or atolls (Nihoa, Necker, and Laysan) within the Northwestern Hawaiian Islands. Therefore, designation of critical habitat for these five species has not been proposed on Tribal lands.

References Cited

A complete list of all references cited in this proposed rule is available upon request from the Pacific Islands Office (*see* **ADDRESSES** section).

Authors

The primary authors of this notice are Christa Russell, Michelle Stephens, Marigold Zoll, and Gregory Koob (*see* **ADDRESSES** section).

List of Subjects in 50 CFR Part 17

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

Proposed Regulation Promulgation

Accordingly, we propose to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations 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. In § 17.12(h) revise the entries for *Amaranthus brownii, Mariscus pennatiformis, Pritchardia remota, Schiedea verticillata,* and *Sesbania tomentosa* under ''FLOWERING PLANTS'' to read as follows:

§ 17.12 Endangered and threatened plants.

* * * * *

(h) * * *

Species		Historic range	Family name	Status	When listed	Critical habitat	Special rules
Scientific name	Common name						
FLOWERING PLANTS							
*	*	*	*	*	*		*
Amaranthus brownii	None	U.S.A. (HI)	Amaranthaceae	E	587	17.96(a)	NA
*	*	*	*	*	*		*
Mariscus pennatiformis.	None	U.S.A. (HI)	Cyperaceae	E	559	17.96(a)	NA

Species		Historic range	Family name	Status	When listed	Critical habitat	Special rules
Scientific name	Common name						
*	*	*	*	*	*		*
Pritchardia remota ..	Loulu	U.S.A. (HI)	Arecaceae	E	587	17.96(a)	NA
*	*	*	*	*	*		*
Schiedea verticilla ..	None	U.S.A. (HI)	Caryophyllaceae	E	587	17.96(a)	NA
*	*	*	*	*	*		*
Sesbania tomentosa	Ohai	U.S.A. (HI)	Fabaceae	E	559	17.96(a)	NA
*	*	*	*	*	*		*

3. Section 17.96, as proposed to be amended at 65 FR 66865 (November 7, 2000), 65 FR 79192 (December 18, 2000), 65 FR 82086 (December 27, 2000), 65 FR 83193 (December 29, 2000), 67 FR 4072 (January 28, 2002), 67 FR 9806 (March 4, 2002), 67 FR 15856 (April 3, 2002), and 67 FR 16492 (April 5, 2002) is proposed to be further amended as follows:

a. Add paragraph (a)(1)(i)(G) (paragraph (a)(1)(i) introductory text is republished); and

b. Amend paragraph (a)(1)(ii)(A) by adding the entries set forth below.

§ 17.96 Critical habitat—plants.

(a) * * *

(1) * * *

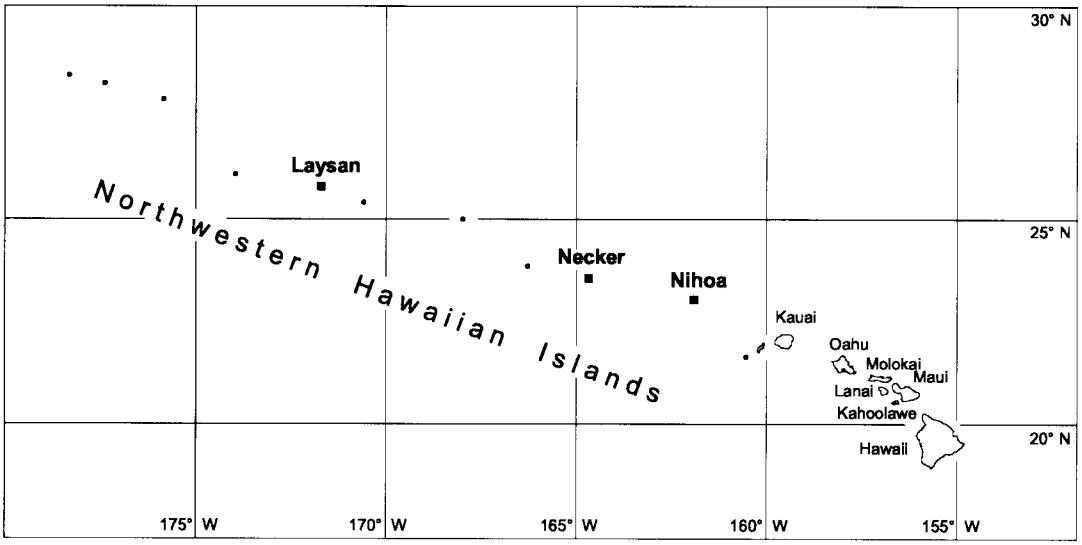
(i) *Maps and critical habitat unit descriptions.* The following sections contain the legal descriptions of the critical habitat units designated for each of the Hawaiian Islands. Existing manmade features and structures within the boundaries of the mapped unit, such as buildings, roads, aqueducts, railroads, telecommunications equipment, telemetry antennas, radars, missile launch sites, arboreta and gardens, heiau (indigenous places of worship or shrines), airports, other paved areas, lawns, and other rural residential landscaped areas do not contain one or more of the primary constituent elements described for each species in paragraphs (a)(1)(ii)(A) and (a)(1)(ii)(B) of this section and are not included in the critical habitat designation.

* * * * *

(G) *Northwestern Hawaiian Islands.* Critical habitat areas are described below. Coordinates are in WGS84 datum. The following map shows the general locations of the five critical habitat units designated for the islands of Laysan, Nihoa, and Necker.

(*1*) **Note:** Map 1—Index map follows:

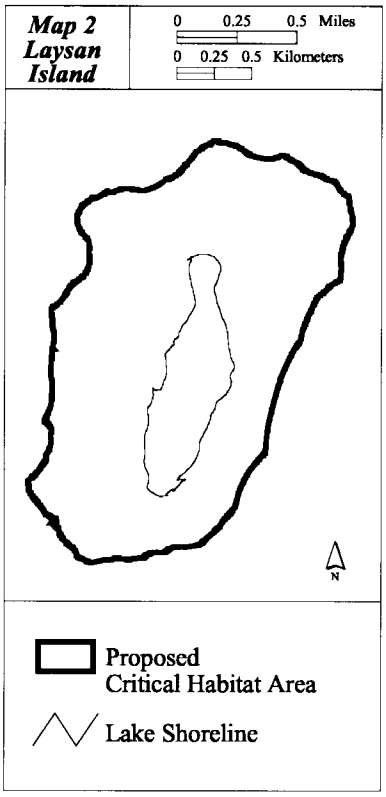
Map 1 - General Locations of Units for Five Species of Plants
Islands of Laysan, Necker, and Nihoa



(*2*) Critical Habitat Nihoa Island—entire island (approximately 69 ha; 171 ac).

(*i*) Nihoa Island is located between 23°3′ N. and 23°4′ N. and between 161°54′ W. and 161°56′ W.

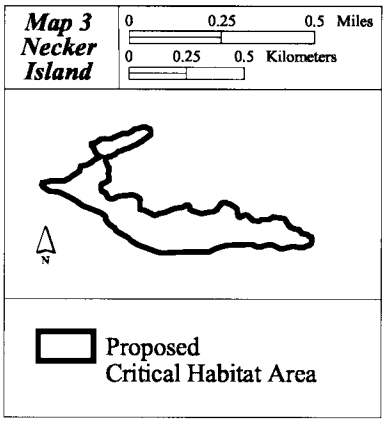
(*ii*) **Note:** Map 2 follows:



(*3*) Critical Habitat Necker Island—entire island (approximately 18 ha; 46 ac).

(*i*) Necker Island is located between 23°34′ N. and 23°35′ N. and between 164°41′ W. and 164°43′ W.

(*ii*) **Note:** Map 3 follows:



(*4*) Critical Habitat Laysan Island—entire island (approximately 411 ha; 1,015 ac).

(*i*) Laysan Island is located between 25°45′ N. and 25°47′ N. and between 171°43′ W. and 171°45′ W.

(*ii*) **Note:** Map 4 follows:

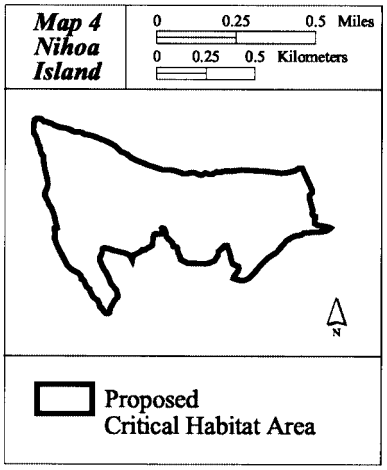


TABLE (a)(1)(i)(G).—PROTECTED SPECIES IN THE NORTHWESTERN HAWAIIAN ISLANDS (NWHI)

Island	Species
Laysan	*Mariscus pennatiformis, Pritchardia remota.*
Necker	*Sesbania tomentosa.*
Nihoa	*Amaranthus brownii, Pritchardia remota, Schiedea verticillata, Sesbania tomentosa.*

(ii) *Hawaiian plants*—constituent elements.

(A) Flowering plants.

Family Amaranthaceae: *Amaranthus brownii* (no common name).

Nihoa Island. Nihoa Island, identified in the legal descriptions in paragraph (a)(1)(i)(G) of this section constitutes critical habitat for *Amaranthus brownii.* On this island the currently known primary constituent elements of critical habitat for *Amaranthus brownii* are habitat components that provide:

(*1*) Shallow soil in fully exposed locations on rocky outcrops and containing one or more of the following associated native plant species: *Schiedea verticillata, Chenopodium oahuense, Ipomoea pes-caprae* ssp. *brasiliensis, Ipomoea indica, Scaevola sericea, Sida fallax, Solanum nelsonii, Sicyos pachycarpus, Eragrostis variabilis,* or *Panicum torridum;* and

(*2*) Elevations between 30 and 242 m (100 and 800 ft).

Family Arecaceae: *Pritchardia remota* (loulu).

Laysan and Nihoa Islands. Laysan and Nihoa islands, identified in the legal descriptions in paragraph (a)(1)(i)(G) of this section constitutes critical habitat for *Pritchardia remota.* On these islands the currently known primary constituent elements of critical habitat for *Pritchardia remota* are habitat components that provide:

(*1*) *Pritchardia remota* coastal forest community containing one or more of the following associated native plant species: *Chenopodium oahuense, Sesbania tomentosa, Solanum nelsonii,* or *Sida fallax;* and

(*2*) From 15 to 151 m (50 to 500 ft) in elevation.

Family Caryophyllaceae: *Schiedea verticillata* (no common name).

Nihoa Island. Nihoa Island, identified in the legal descriptions in paragraph (a)(1)(i)(G) of this section constitutes critical habitat for *Schiedea verticillata.* On this island the currently known primary constituent elements of critical habitat for *Schiedea verticillata* are habitat components that provide:

(*1*) Rocky scree, soil pockets and cracks on coastal cliff faces and in *Pritchardia remota* coastal mesic forest and containing one or more of the following associated native plant species: *Tribulus cistoides, Eragrostis*

variabilis, Rumex albescens, or *lichens;* and

(*2*) Elevations between 30 and 242 m (100 and 800 ft).

Family Cyperaceae: *Mariscus pennatiformis* (no common name).

Laysan Island. Laysan Island, identified in the legal description in paragraph (a)(1)(i)(G) of this section constitutes critical habitat for *Mariscus pennatiformis.* On this island the currently known primary constituent elements of critical habitat for *Mariscus pennatiformis* are habitat components that provide:

(*1*) Coastal sandy substrate containing one or more of the following associated native plant species: *Cyperus laevigatus, Eragrostis variabilis,* or *Ipomoea* sp.; and

(*2*) Elevation of 5 m (16 ft).

Family Fabaceae: *Sesbania tomentosa* (ohai).

Nihoa and Necker Islands. Nihoa and Necker islands, identified in the legal descriptions in paragraph (a)(1)(i)(G) of this section constitute critical habitat for *Sesbania tomentosa.* On these islands, the currently known primary constituent elements of critical habitat for *Sesbania tomentosa* are habitat components that provide:

(*1*) Shallow soil on sandy beaches and dunes in *Chenopodium oahuense* coastal dry shrubland and containing one or more of the following associated native plant species: *Sida fallax, Scaevola sericea, Solanum nelsonii,* or *Pritchardia remota;* and

(*2*) Elevations between sea level and 84 m (0 and 276 ft).

Dated: April 30, 2002.

Craig Manson,

Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 02–11225 Filed 5–13–02; 8:45 am]

BILLING CODE 4310–55–P