

## SUBCHAPTER B—TAKING, POSSESSION, TRANSPORTATION, SALE, PURCHASE, BARTER, EXPORTATION, AND IMPORTA- TION OF WILDLIFE AND PLANTS (CONTINUED)

### PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS (CONTINUED)

#### Subpart I—Interagency Cooperation (Continued)

Sec.

17.99 Critical habitat; plants on the Hawaiian Islands. (Continued)

#### Subpart J—Manatee Protection Areas

- 17.100 Purpose.
- 17.101 Scope.
- 17.102 Definitions.
- 17.103 Establishment of protection areas.
- 17.104 Prohibitions.
- 17.105 Permits and exceptions.
- 17.106 Emergency establishment of protection areas.
- 17.107 Facilitating enforcement.
- 17.108 List of designated manatee protection areas.
- 17.109–17.199 [Reserved]

AUTHORITY: 16 U.S.C. 1361–1407; 1531–1544; and 4201–4245, unless otherwise noted.

SOURCE: 40 FR 44415, Sept. 26, 1975. Redesignated at 85 FR 82388, Dec. 18, 2020, and further redesignated at 87 FR 43447, July 21, 2022.

#### Subpart I—Interagency Cooperation (Continued)

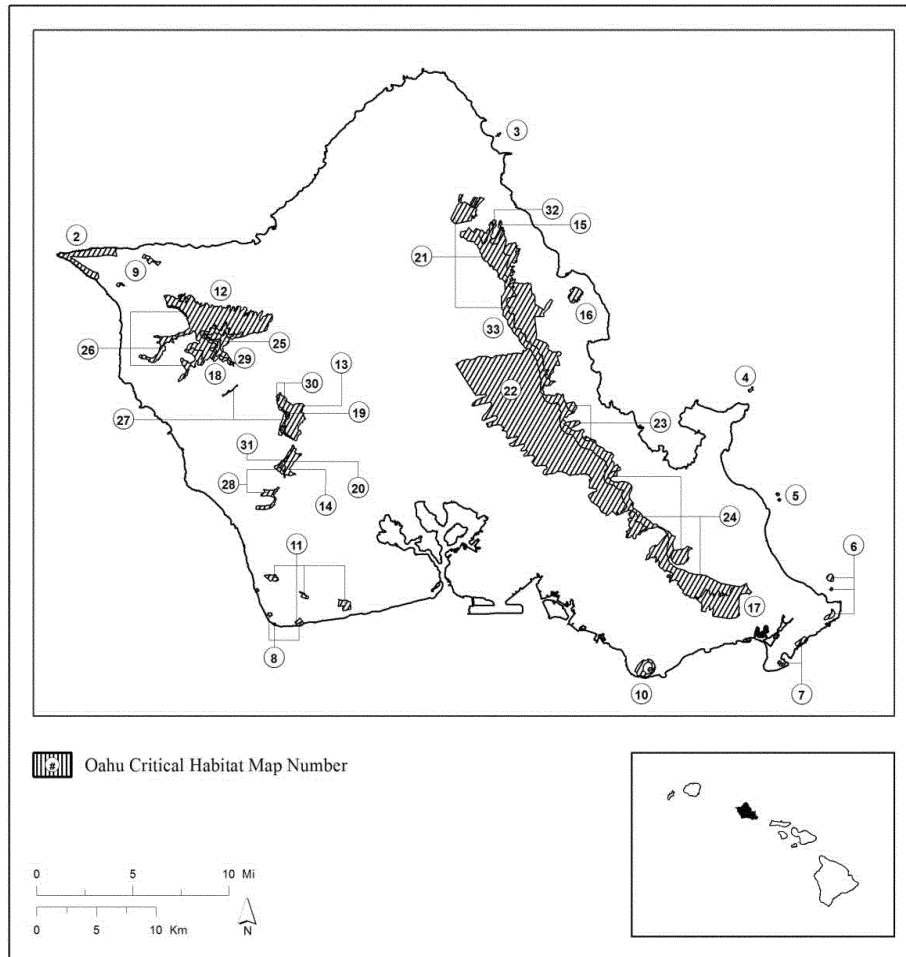
EDITORIAL NOTE: Paragraphs (a)–(h) of §17.99 appear in 50 Part 17, §§17.99(a) to 17.99(h).

#### § 17.99 Critical habitat; plants on the Hawaiian Islands. (Continued)

(i) *Oahu*. Critical habitat units are described below. Maps were created in GIS, with coordinates in UTM Zone 4 with units in meters using North American Datum of 1983 (NAD83). The maps in this entry, as modified by any accompanying regulatory text, establish the boundaries of the critical habitat designation. The coordinates or plot points or both on which each map is based are available to the public at the Service's Internet site, <http://www.fws.gov/pacificislands>; at <http://www.regulations.gov> at Docket No. FWS-R1-ES-2010-0043; and at the field office responsible for the designation. You may obtain field office location information by contacting one of the Service regional offices, the addresses of which are listed at 50 CFR 2.2. Existing manmade features and structures, such as buildings, roads, railroads, airports, runways, other paved areas, lawns, and other urban landscaped areas, existing trails, campgrounds and their immediate surrounding landscaped area, scenic lookouts, remote helicopter landing sites, and existing fences are not included in the critical habitat designation. Federal actions limited to those areas, therefore, would not trigger a consultation under section 7 of the Act unless they may affect the species or physical or biological features in adjacent critical habitat.

(1) Map 1—Index map follows:

**Map 1**  
**Oahu Critical Habitat–Island Index Map**



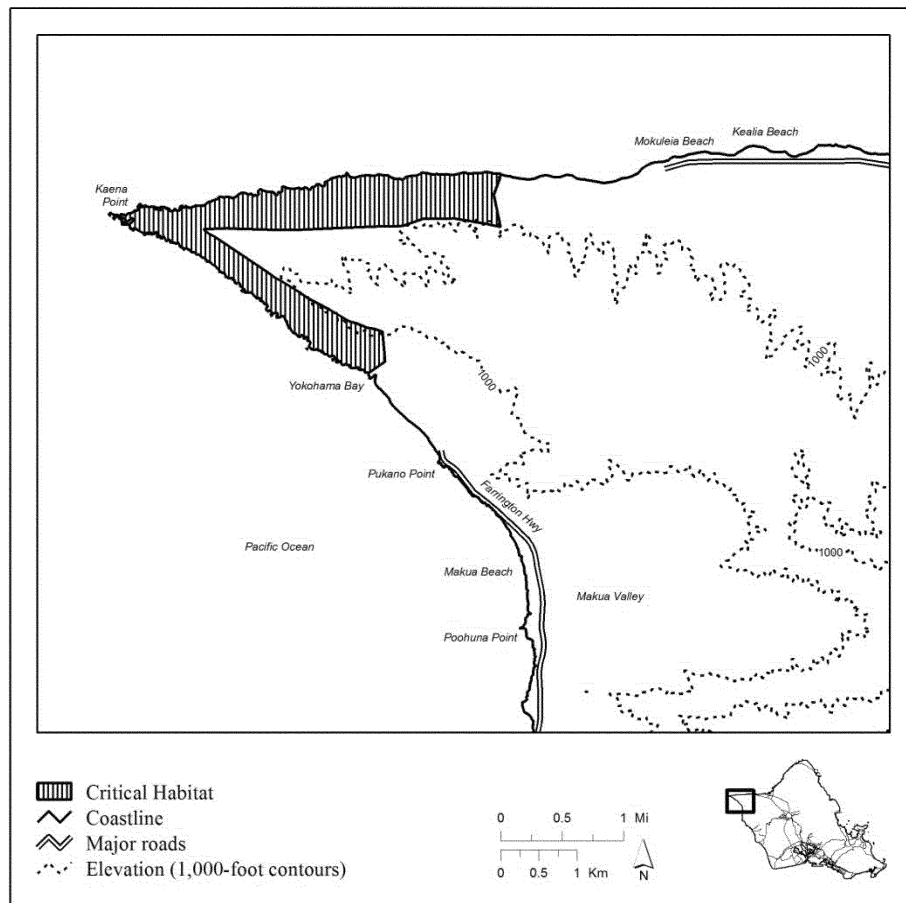
(2) Oahu—Coastal—Unit 1 (958 ac; 388 ha).

(i) This unit is critical habitat for *Achyranthes splendens* var. *rotundata*, *Bidens amplexans*, *Schenkia sebaeoides*,

*Chamaesyce celastroides* var. *kaenana*, *Schiedea kealiae*, *Sesbania tomentosa*, and *Vigna o-wahuensis*.

(ii) Map of Oahu—Coastal—Unit 1 (Map 2) follows:

**Map 2**  
**Oahu—Coastal**  
**Unit 1**



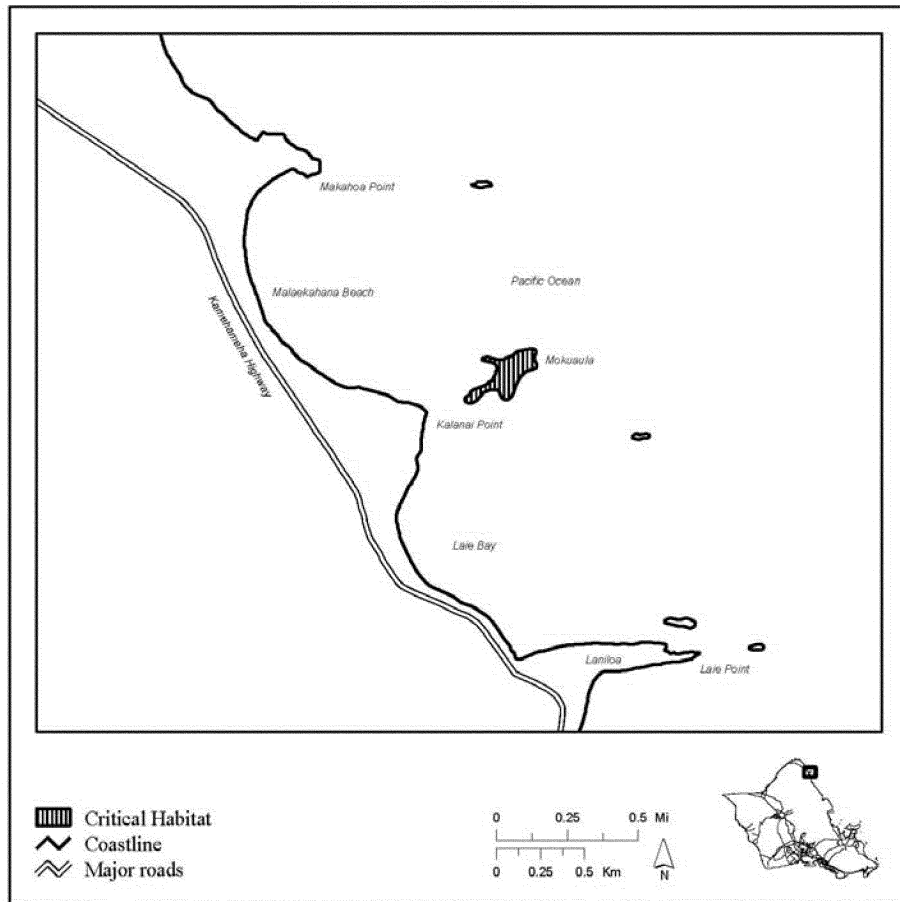
(3) Oahu—Coastal—Unit 2 (12 ac; 5 ha).

(i) This unit is critical habitat for *Schenkia sebaeoides*, *Chamaesyce*

*kuwaleana*, *Sesbania tomentosa*, and *Vigna o-wahuensis*.

(ii) Map of Oahu—Coastal—Unit 2 (Map 3) follows:

**Map 3**  
**Oahu—Coastal**  
**Unit 2**



(4) Oahu—Coastal—Unit 3 (15 ac; 6 ha) and Oahu—Coastal—Unit 4 (3 ac; 1 ha).

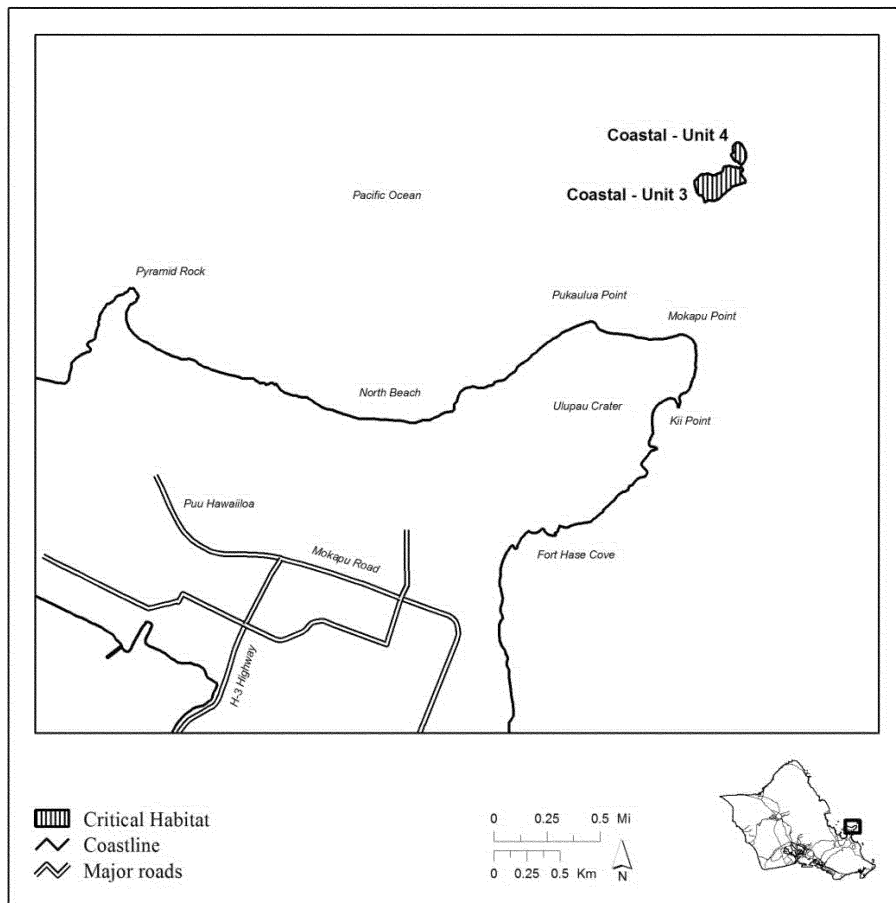
(i) These units are critical habitat for *Schenkia sebaeoides*, *Chamaesyce*

*kuwaleana*, *Sesbania tomentosa*, and *Vigna o-wahuensis*.

(ii) Map of Oahu—Coastal—Unit 3 and Oahu—Coastal—Unit 4 (Map 4) follows:



**Map 4**  
**Oahu—Coastal Ecosystem**  
**Unit 3 and Unit 4**



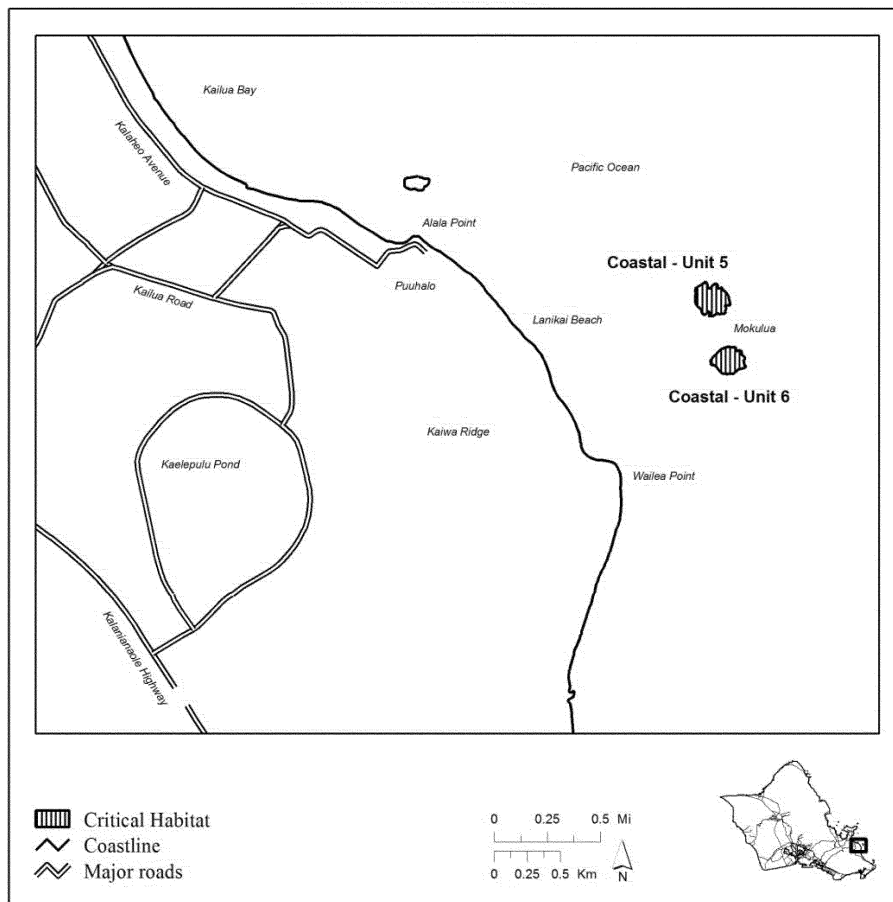
(5) Oahu—Coastal—Unit 5 (12 ac; 5 ha) and Oahu—Coastal—Unit 6 (9 ac; 4 ha).

(i) These units are critical habitat for *Schenkia sebaeoides*, *Chamaesyce*

*kuwaleana*, *Sesbania tomentosa*, and *Vigna o-wahuensis*.

(ii) Map of Oahu—Coastal—Unit 5 and Oahu—Coastal—Unit 6 (Map 5) follows:

**Map 5**  
**Oahu—Coastal**  
**Unit 5 and Unit 6**



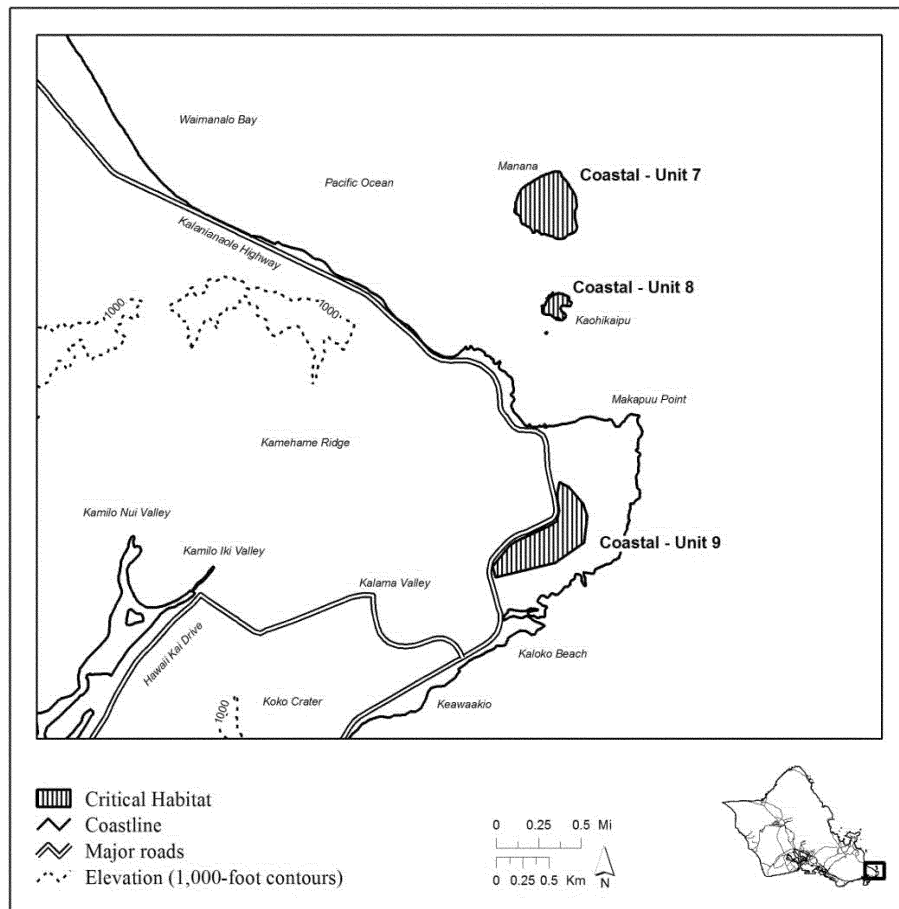
(6) Oahu—Coastal—Unit 7 (67 ac; 27 ha), Oahu—Coastal—Unit 8 (10 ac; 4 ha), and Oahu—Coastal—Unit 9 (80 ac; 33 ha).

(i) These units are critical habitat for, *Schenkia sebaeoides*, *Chamaesyce*

*kuwaleana*, *Sesbania tomentosa*, and *Vigna o-wahuensis*.

(ii) Map of Oahu—Coastal—Unit 7, Oahu—Coastal—Unit 8, and Oahu—Coastal—Unit 9 (Map 6) follows:

**Map 6**  
**Oahu—Coastal**  
**Unit 7, Unit 8 and Unit 9**



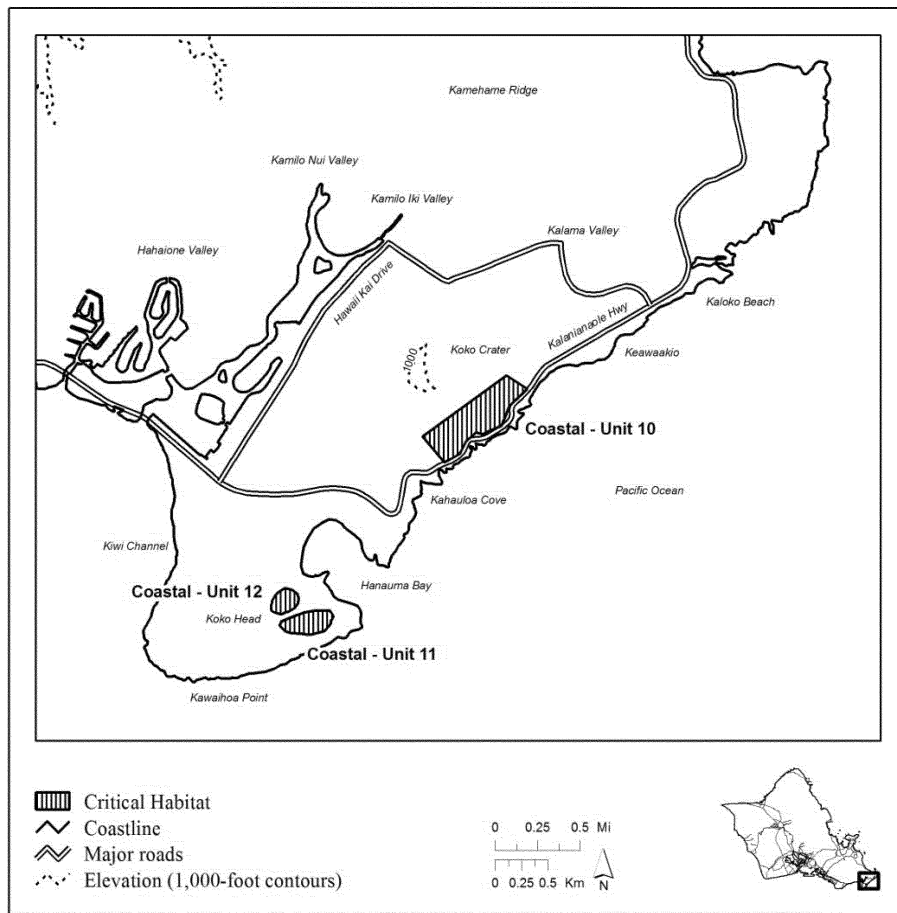
(7) Oahu—Coastal—Unit 10 (74 ac; 30 ha), Oahu—Coastal—Unit 11 (20 ac; 8 ha), and Oahu—Coastal—Unit 12 (11 ac; 5 ha).

(i) Oahu—Coastal—Unit 10 is critical habitat for *Schenkia sebaeoides*, *Chamaesyce kuwaleana*, *Sesbania tomentosa*, and *Vigna o-wahuensis*.

(ii) Oahu—Coastal—Unit 11 and Oahu—Coastal—Unit 12 are critical habitat for *Schenkia sebaeoides*, *Chamaesyce kuwaleana*, *Cyperus trachysanthos*, *Marsilea villosa*, *Sesbania tomentosa*, and *Vigna o-wahuensis*.

(iii) Map of Oahu—Coastal—Unit 10, Oahu—Coastal—Unit 11, and Oahu—Coastal—Unit 12 (Map 7) follows:

**Map 7**  
**Oahu—Coastal**  
**Unit 10, Unit 11 and Unit 12**



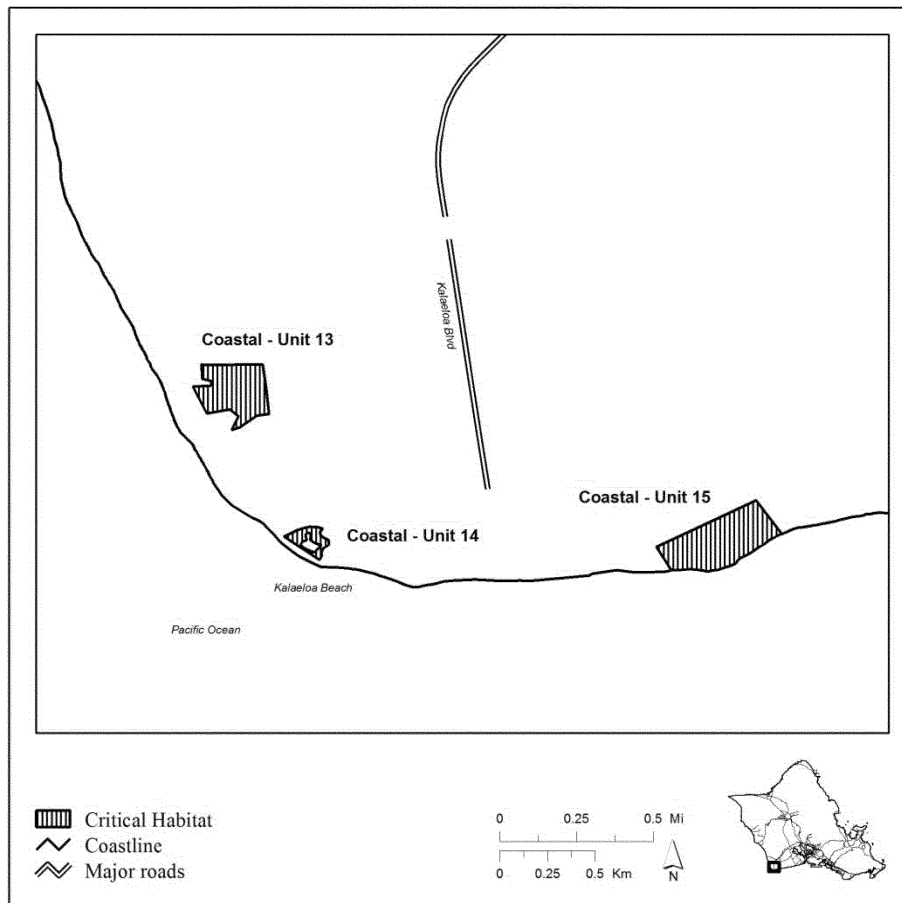
(8) Oahu—Coastal—Unit 13 (23 ac; 10 ha), Oahu—Coastal—Unit 14 (4 ac; 2 ha), and Oahu—Coastal—Unit 15 (33 ac; 13 ha).

(i) These units are critical habitat for *Achyranthes splendens* var. *rotundata*, *Bidens amplexans*, *Schenkia seabaeoides*,

*Chamaesyce celastroides* var. *kaenana*, *Schiedea kealiae*, *Sesbania tomentosa*, and *Vigna o-wahuensis*.

(ii) Map of Oahu—Coastal—Unit 13, Oahu—Coastal—Unit 14, and Oahu—Coastal—Unit 15 (Map 8) follows:

**Map 8**  
**Oahu—Coastal**  
**Unit 13, Unit 14 and Unit 15**



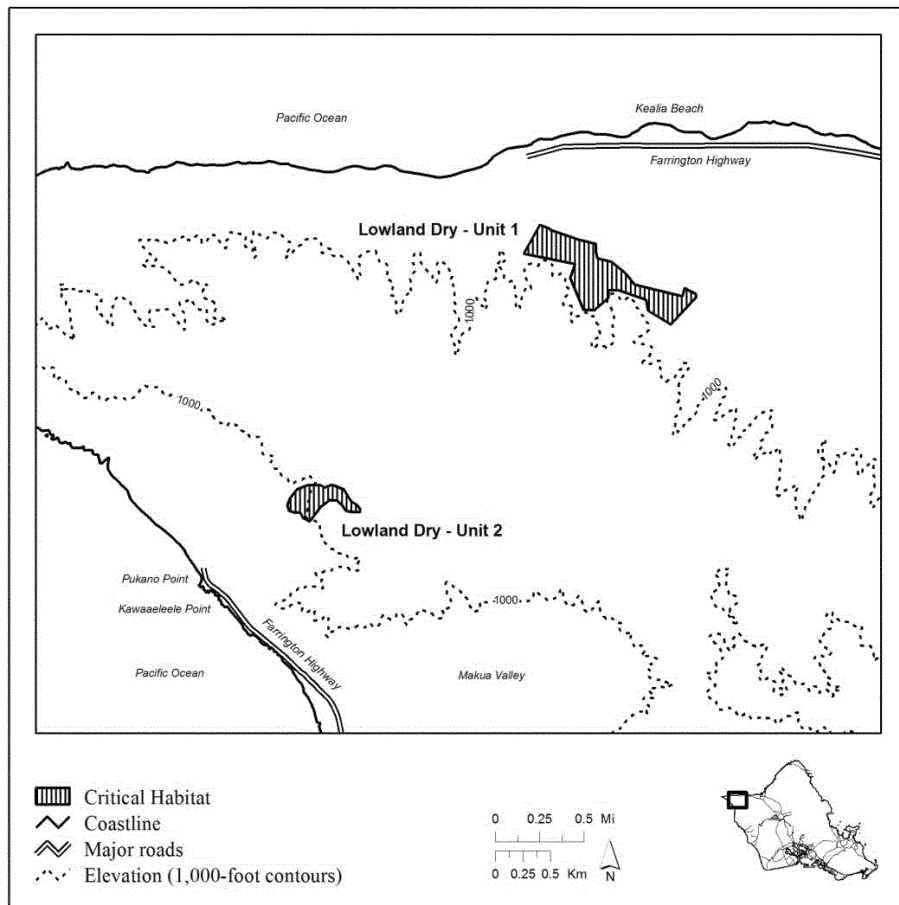
(9) Oahu—Lowland Dry—Unit 1 (102 ac; 41 ha) and Oahu—Lowland Dry—Unit 2 (29 ac; 12).

(i) These units are critical habitat for *Achyranthes splendens* var. *rotundata*, *Bidens amplexans*, *Bonamia menziesii*, *Chamaesyce celastroides* var. *kaenana*, *Dracaena forbesii*, *Euphorbia haeleleana*, *Gouania meyenii*, *Gouania*

*vitifolia*, *Hibiscus brackenridgei*, *Isodendron pyriformis*, *Melanthera tenuifolia*, *Neraudia angulata*, *Nototrichium humile*, *Schiedea hookeri*, *Schiedea kealiae*, and *Spermolepis hawaiiensis*.

(ii) Map of Oahu—Lowland Dry—Unit 1 and Oahu—Lowland Dry—Unit 2 (Map 9) follows:

**Map 9**  
**Oahu—Lowland Dry**  
**Unit 1 and Unit 2**



(10) [Reserved]

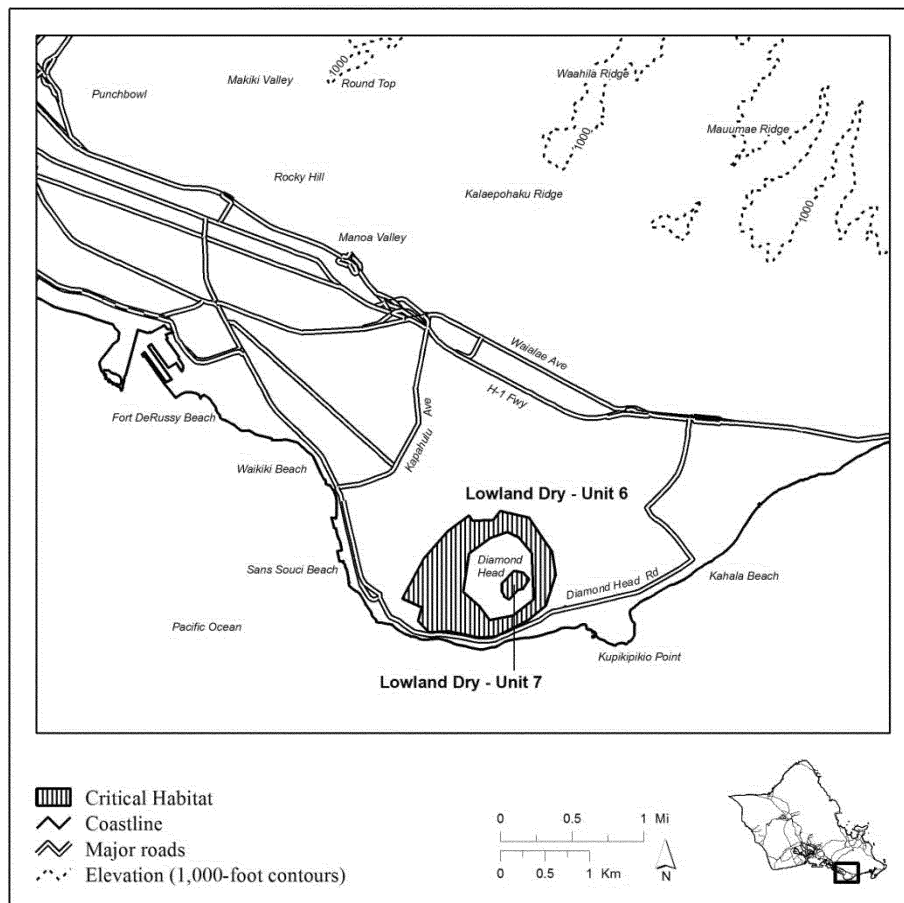
(11) Oahu—Lowland Dry—Unit 6 (287 ac; 116 ha) and Oahu—Lowland Dry—Unit 7 (15 ac; 6 ha).

(i) Oahu—Lowland Dry—Unit 6 is critical habitat for *Doryopteris takeuchii*, *Gouania meyenii*, and *Spermolepis hawaiiensis*.

(ii) Oahu—Lowland Dry—Unit 7 is critical habitat for *Cyperus trachysanthos*, *Doryopteris takeuchii*, *Gouania meyenii*, *Marsilea villosa*, and *Spermolepis hawaiiensis*.

(iii) Map of Oahu—Lowland Dry—Unit 6 and Oahu—Lowland Dry—Unit 7 (Map 10) follows:

**Map 10**  
**Oahu—Lowland Dry**  
**Unit 6 and Unit 7**



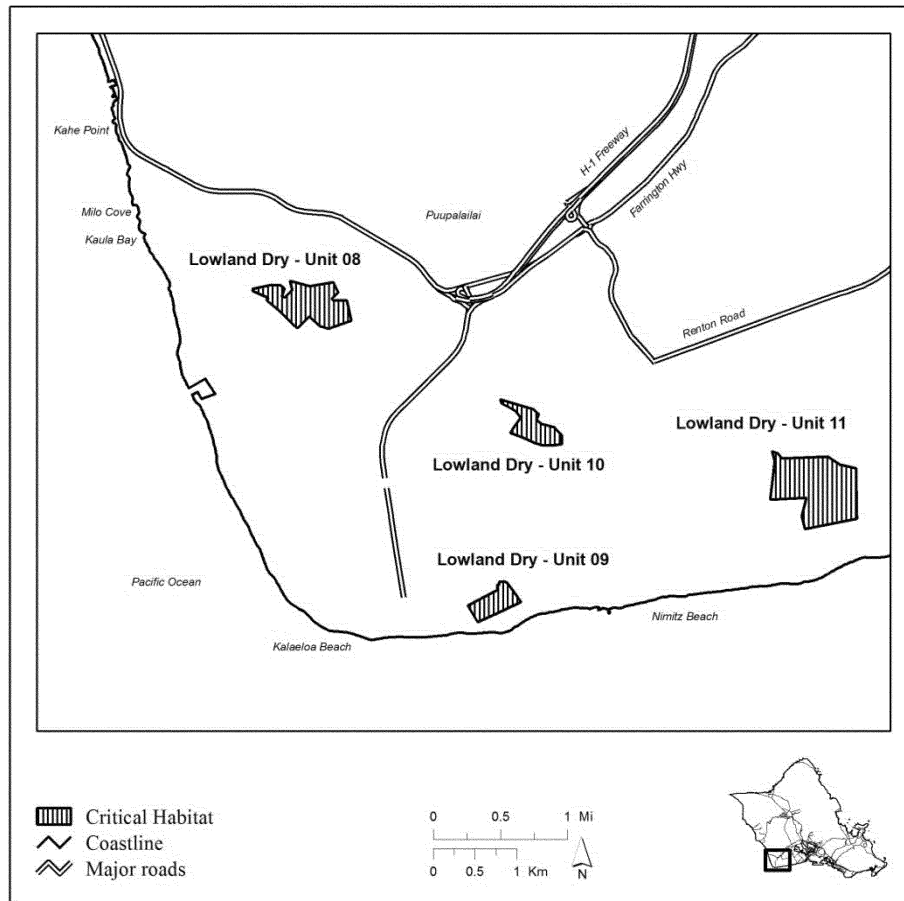
(12) Oahu—Lowland Dry—Unit 8 (99 ac; 40 ha), Oahu—Lowland Dry—Unit 9 (37 ac; 15 ha), Oahu—Lowland Dry—Unit 10 (43 ac; 17 ha), and Oahu—Lowland Dry—Unit 11 (166 ac; 67 ha).

(i) These units are critical habitat for *Achyranthes splendens* var. *rotundata*, *Bidens amplexans*, *Bonamia menziesii*, *Chamaesyce celastroides* var. *kaenana*, *Euphorbia haeleleana*, *Euphorbia skottsbergii* var. *skottsbergii*, *Gouania*

*meyenii*, *Gouania vitifolia*, *Hibiscus brackenridgei*, *Isodendron pyriformis*, *Melanthera tenuifolia*, *Nerandia angulata*, *Nototrichium humile*, *Schiedea hookeri*, *Schiedea kealiae*, and *Spermolepis hawaiiensis*.

(ii) Map of Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11 (Map 11) follows:

**Map 11**  
**Oahu—Lowland Dry**  
**Unit 8, Unit 9, Unit 10 and Unit 11**



(13) Oahu—Lowland Mesic—Unit 1 (4,448 ac; 1,800 ha).

(i) This unit is critical habitat for *Abutilon sandwicense*, *Alectryon macrococcus*, *Asplenium dielfalcatum*, *Bonamia menziesii*, *Cenchrus agrimonioides*, *Chamaesyce celastroides* var. *kaenana*, *Chamaesyce herbstii*, *Colubrina oppositifolia*, *Ctenitis squamigera*, *Cyanea acuminata*, *Cyanea calycina*, *Cyanea grimesiana* ssp. *grimesiana*, *Cyanea grimesiana* ssp. *obatae*, *Cyanea longiflora*, *Cyanea*

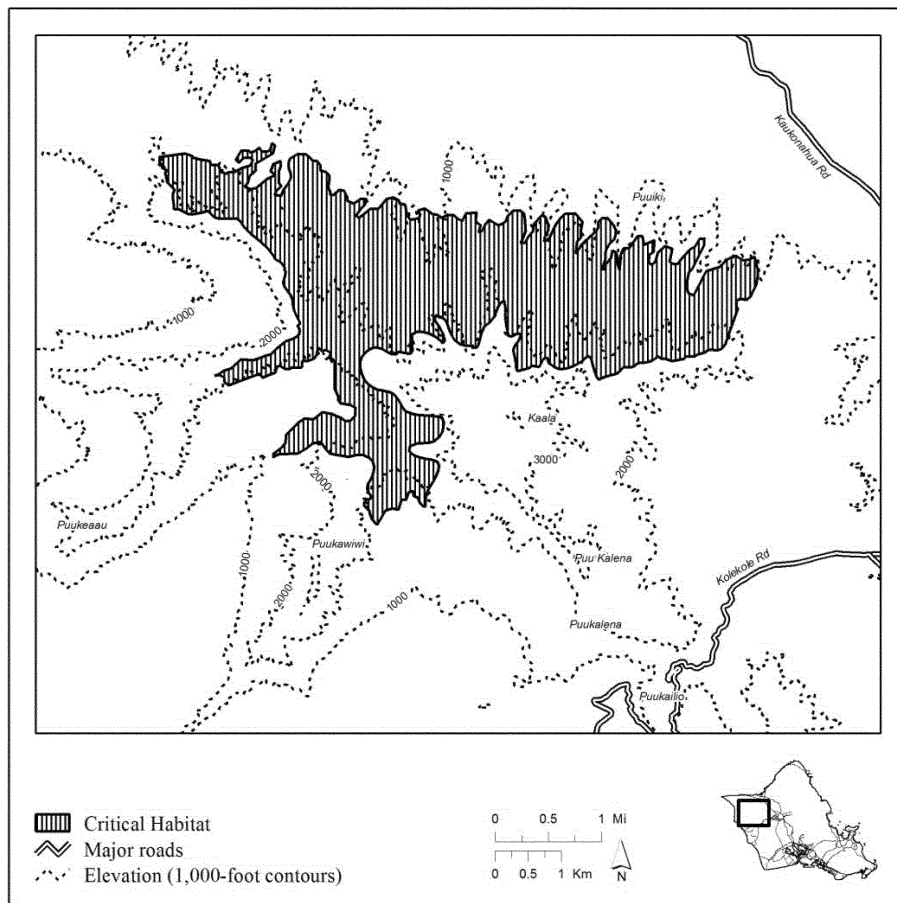
*pinnatifida*, *Cyanea superba*, *Cyperus pennatifolius*, *Cyrtandra dentata*, *Delissea subcordata*, *Diellia unisora*, *Diplazium molokaiense*, *Dracaena forbesii*, *Dubautia herbstobatae*, *Eragrostis fosbergii*, *Eugenia koolauensis*, *Euphorbia haeleleana*, *Flueggea neowawraea*, *Gardenia mannii*, *Gouania meyenii*, *Gouania vitifolia*, *Hesperomannia arborescens*, *Hesperomannia arbuscula*, *Hibiscus brackenridgei*, *Isodendron laurifolium*, *Isodendron longifolium*, *Kadua coriacea*,



*Kadua degeneri*, *Kadua parvula*,  
*Labordia cyrtandrae*, *Lobelia niihauensis*,  
*Melanthera tenuifolia*, *Melicope cornuta*  
 var. *decurrens*, *Melicope makahae*,  
*Melicope pallida*, *Melicope saint-johnii*,  
*Neraudia angulata*, *Nototrichium humile*,  
*Phyllostegia hirsuta*, *Phyllostegia*  
*kaalaensis*, *Phyllostegia mollis*,  
*Phyllostegia parviflora* var. *lydgatei*,  
*Plantago princeps* var. *princeps*,

*Pteralyria macrocarpa*, *Sanicula*  
*mariversa*, *Schiedea hookeri*, *Schiedea*  
*kaalae*, *Schiedea nuttallii*, *Schiedea*  
*obovata*, *Silene perlmanii*, *Solanum*  
*sandwicense*, *Stenogyne kanehoana*,  
*Tetramolopium lepidotum* ssp. *lepidotum*,  
*Urera kaalae*, and *Viola chamissoniana*  
 ssp. *chamissoniana*. Map of Oahu—Low-  
 land Mesic—Unit 1 (Map 12) follows:

**Map 12**  
**Oahu—Lowland Mesic**  
**Unit 1**



§ 17.99

50 CFR Ch. I (10–1–23 Edition)

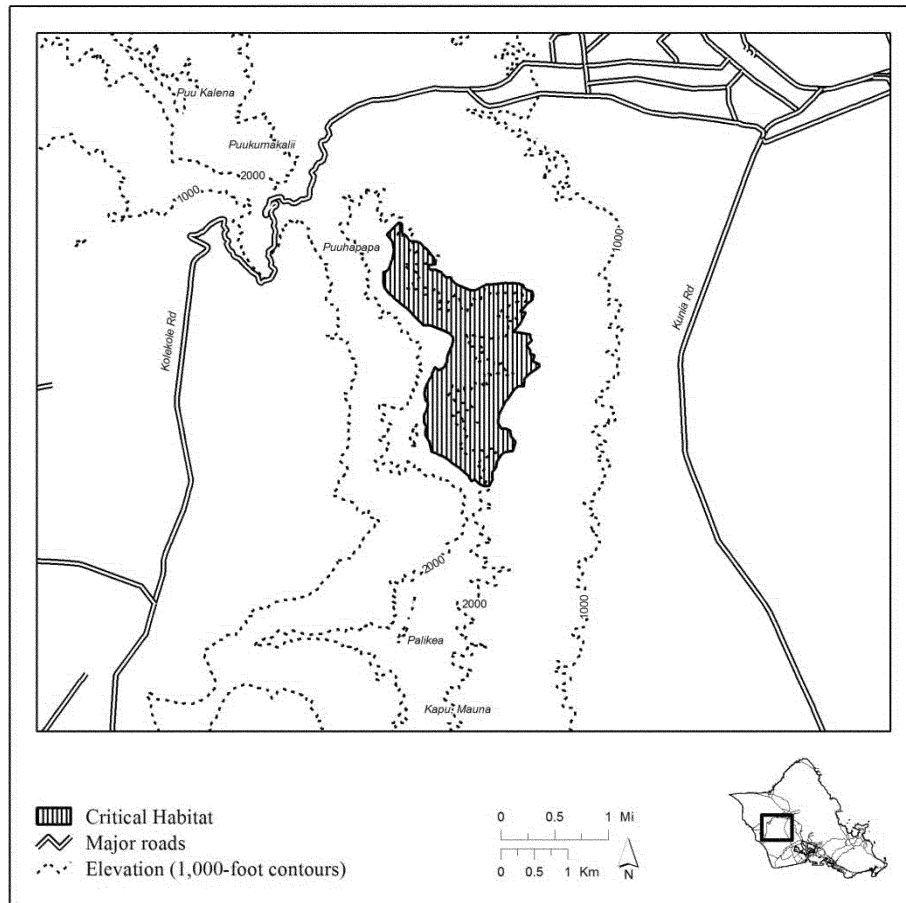
(14) Oahu—Lowland Mesic—Unit 2 (1,063 ac; 430 ha).

(i) This unit is critical habitat for *Abutilon sandwicense*, *Alectryon macrococcus*, *Asplenium dielfalcatum*, *Bonamia menziesii*, *Cenchrus agrimonoides*, *Chamaesyce celastroides* var. *kaenana*, *Chamaesyce herbstii*, *Colubrina oppositifolia*, *Ctenitis squamigera*, *Cyanea acuminata*, *Cyanea calycina*, *Cyanea grimesiana* ssp. *grimesiana*, *Cyanea grimesiana* ssp. *obatae*, *Cyanea longiflora*, *Cyanea pinnatifida*, *Cyanea superba*, *Cyperus pennatifolius*, *Cyrtandra dentata*, *Delissea subcordata*, *Diellia unisora*, *Diplazium molokaiense*, *Dracaena forbesii*, *Dubautia herbstobatae*, *Eragrostis fosbergii*, *Eugenia koolauensis*, *Euphorbia haeleleana*, *Flueggea neowawraea*, *Gardenia mannii*, *Gouania meyenii*, *Gouania vitifolia*, *Hesperomannia arborescens*,

*Hesperomannia arbuscula*, *Hibiscus brackenridgei*, *Isodendron laurifolium*, *Isodendron longifolium*, *Kadua coriacea*, *Kadua degeneri*, *Kadua parvula*, *Labordia cyrtandrae*, *Lobelia niihauensis*, *Melanthera tenuifolia*, *Melicope cornuta* var. *decurrens*, *Melicope makahae*, *Melicope pallida*, *Melicope saint-johnii*, *Neraudia angulata*, *Nototrichium humile*, *Phyllostegia hirsuta*, *Phyllostegia kaalaensis*, *Phyllostegia mollis*, *Phyllostegia parviflora* var. *lydgatei*, *Plantago princeps* var. *princeps*, *Pteralyxia macrocarpa*, *Sanicula mariversa*, *Schiedea hookeri*, *Schiedea kaalae*, *Schiedea nuttallii*, *Schiedea obovata*, *Silene perlmannii*, *Solanum sandwicense*, *Stenogyne kanehoana*, *Tetramolopium lepidotum* ssp. *lepidotum*, *Urera kaalae*, and *Viola chamissoniana* ssp. *chamissoniana*.

(ii) Map of Oahu—Lowland Mesic—Unit 2 (Map 13) follows:

**Map 13**  
**Oahu—Lowland Mesic**  
**Unit 2**



(15) Oahu—Lowland Mesic—Unit 3  
 (353 ac; 143 ha).

(i) This unit is critical habitat for *Abutilon sandwicense*, *Alectryon macrococcus*, *Asplenium dielfalcatum*, *Bonamia menziesii*, *Cenchrus agrimonoides*, *Chamaesyce celastroides* var. *kaenana*, *Chamaesyce herbstii*, *Colubrina oppositifolia*, *Ctenitis squamigera*, *Cyanea acuminata*, *Cyanea calycina*, *Cyanea grimesiana* ssp. *grimesiana*, *Cyanea grimesiana* ssp. *obatae*, *Cyanea longiflora*, *Cyanea*

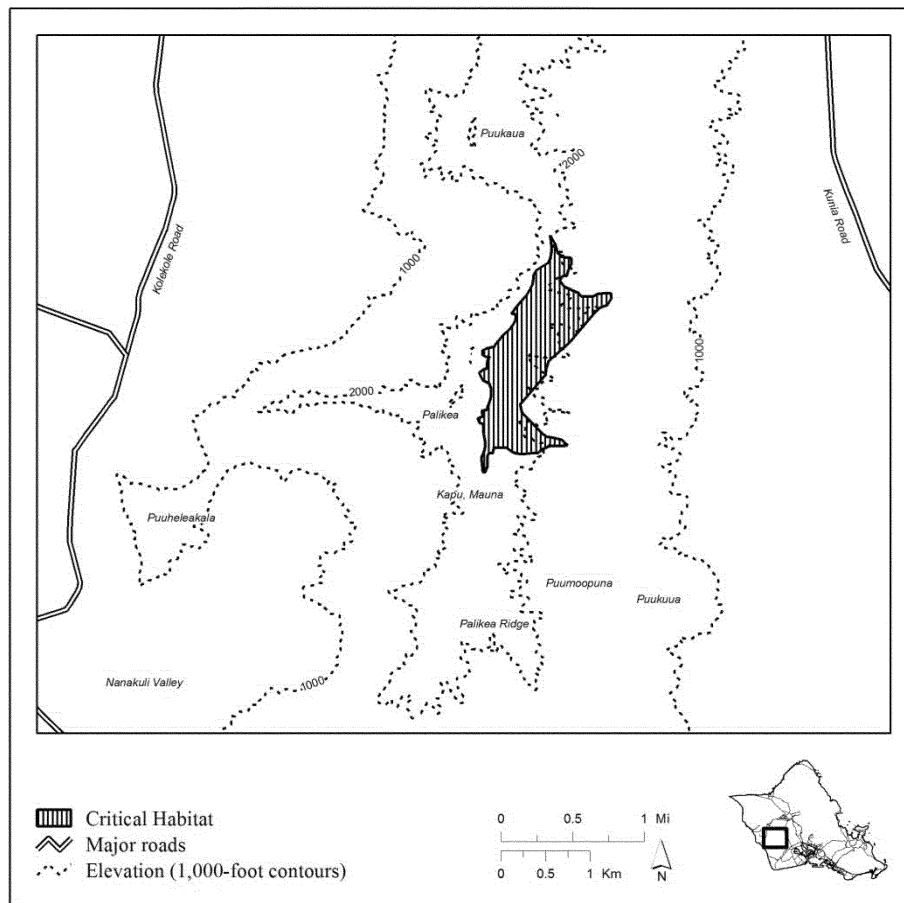
*pinnatifida*, *Cyanea superba*, *Cyperus pennatifidus*, *Cyrtandra dentata*, *Delissea subcordata*, *Diellia unisora*, *Diplazium molokaiense*, *Dracaena forbesii*, *Dubautia herbstobatae*, *Eragrostis fosbergii*, *Eugenia koolauensis*, *Euphorbia haeleeleana*, *Flueggea neowawraea*, *Gardenia mannii*, *Gouania meyenii*, *Gouania vitifolia*, *Hesperomannia arborescens*, *Hesperomannia arbuscula*, *Hibiscus brackenridgei*, *Isodendrion longifolium*, *Kadua coriacea*, *Kadua degeneri*, *Kadua*

*parvula*, *Labordia cyrtandrae*, *Lobelia niihauensis*, *Melastoma tenuifolia*, *Melicope cornuta* var. *decurrens*, *Melicope makahae*, *Melicope pallida*, *Melicope saint-johnii*, *Nerodia angulata*, *Nototrichium humile*, *Phyllostegia hirsuta*, *Phyllostegia kaalaensis*, *Phyllostegia mollis*, *Phyllostegia parviflora* var. *lydgatei*, *Plantago princeps* var. *princeps*, , *Pteralyria*

*macrocarpa*, *Sanicula maritima*, *Schiedea hookeri*, *Schiedea kaalae*, *Schiedea nuttallii*, *Schiedea obovata*, *Silene perlmanni*, *Solanum sandwicense*, *Stenogyne kanehoana*, *Tetramolopium lepidotum* ssp. *lepidotum*, *Urena kaalae*, and *Viola chamissoniana* ssp. *chamissoniana*.

(ii) Map of Oahu—Lowland Mesic—Unit 3 (Map 14) follows:

**Map 14**  
**Oahu—Lowland Mesic**  
**Unit 3**



**U.S. Fish and Wildlife Serv., Interior**

**§ 17.99**

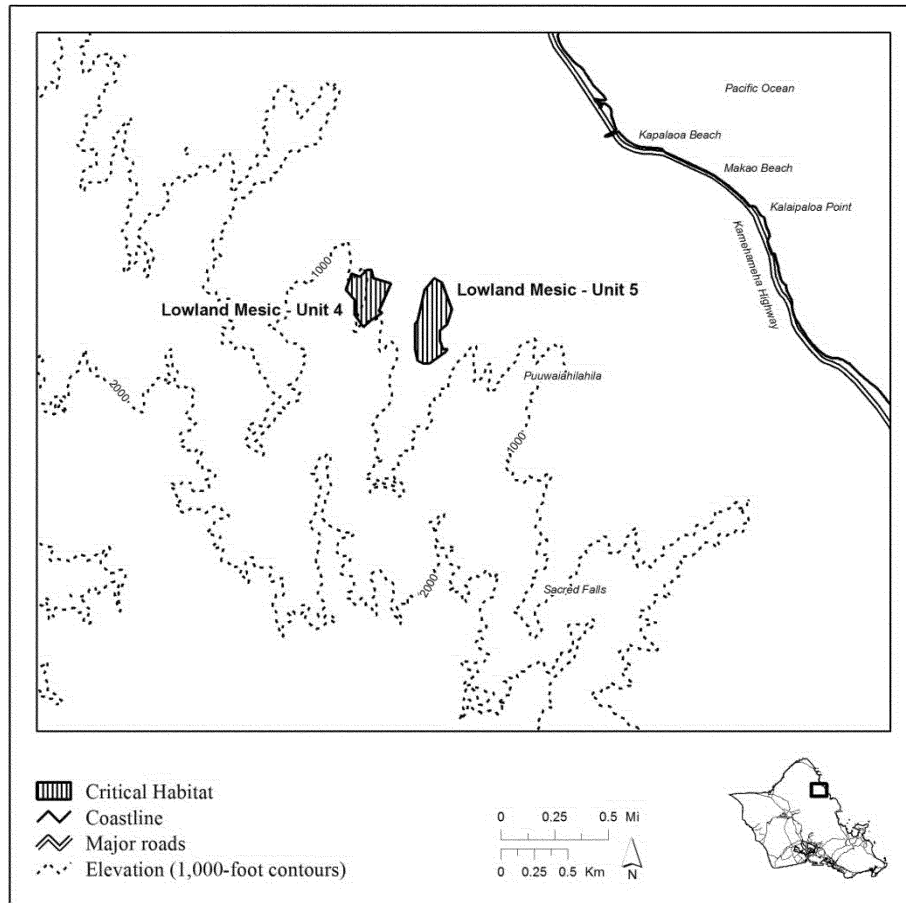
(16) Oahu—Lowland Mesic—Unit 4 (20 ac; 8 ha) and Oahu—Lowland Mesic—Unit 5 (29 ac; 12 ha).

(i) These units are critical habitat for *Alectryon macrococcus*, *Asplenium dielirectum*, *Asplenium dielfalcatum*, *Bonamia menziesii*, *Chamaesyce celastroides* var. *kaenana*, *Ctenitis squamigera*, *Cyanea acuminata*, *Cyanea calycina*, *Cyanea crista*, *Cyanea grimesiana* ssp. *grimesiana*, *Cyanea lanceolata*, *Cyanea longiflora*, *Cyanea truncata*, *Cyrtandra dentata*, *Cyrtandra polyantha*, *Delissea subcordata*, *Dracaena forbesii*, *Eugenia koolauensis*, *Gardenia*

*mannii*, *Hesperomannia arborescens*, *Isodendron laurifolium*, *Isodendron longifolium*, *Kadua coriacea*, *Labordia cyrtandrae*, *Lobelia monostachya*, *Melicope lydgatei*, *Melicope saint-johnii*, *Phyllostegia hirsuta*, *Phyllostegia mollis*, *Phyllostegia parviflora* var. *parviflora*, *Plantago princeps* var. *princeps*, *Pteralyria macrocarpa*, *Schiedea kaalae*, *Schiedea nuttallii*, *Solanum sandwicense*, *Tetraplasandra gymnocarpa*, and *Tetraplasandra lydgatei*.

(ii) Map of Oahu—Lowland Mesic—Unit 4 and Oahu—Lowland Mesic—Unit 5 (Map 15) follows:

**Map 15**  
**Oahu—Lowland Mesic**  
**Unit 4 and Unit 5**



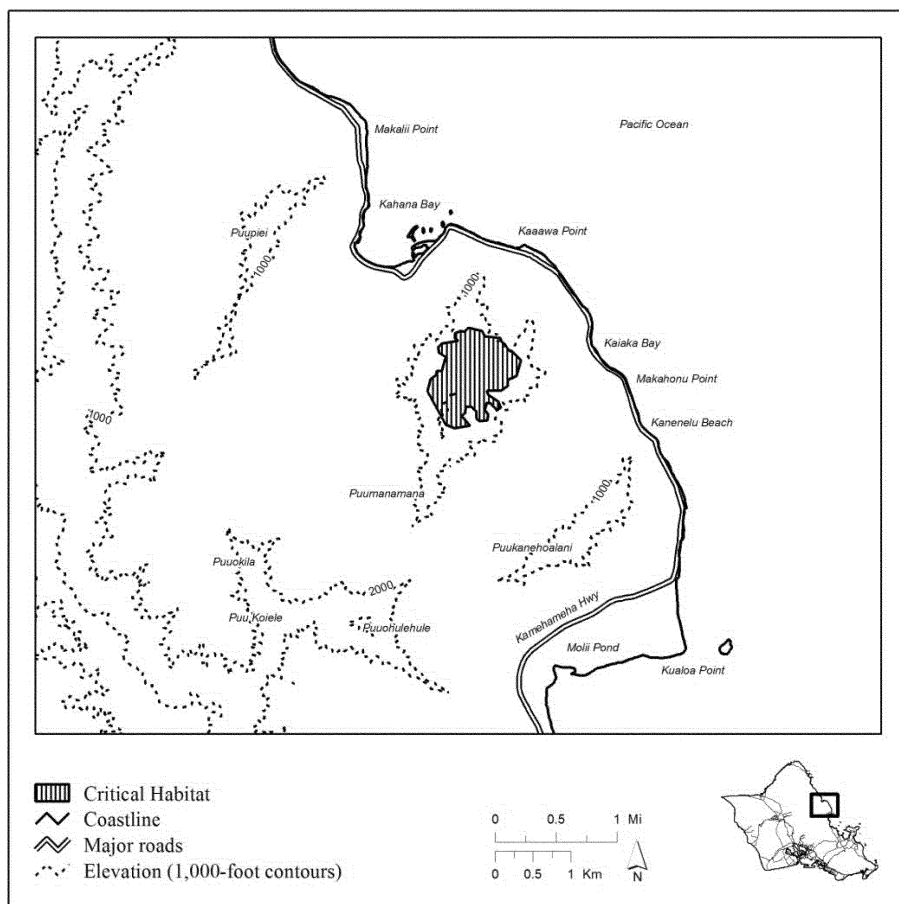
(17) Oahu—Lowland Mesic—Unit 6  
 (247 ac; 100 ha).

(i) This unit is critical habitat for *Alectryon macrococcus*, *Asplenium dielerectum*, *Asplenium dielfalcatum*, *Bonamia menziesii*, *Chamaesyce celastroides* var. *kaenana*, *Ctenitis squamigera*, *Cyanea acuminata*, *Cyanea calycina*, *Cyanea crista*, *Cyanea grimesiana* ssp. *grimesiana*, *Cyanea lanceolata*, *Cyanea longiflora*, *Cyanea truncata*, *Cyrtandra dentata*, *Cyrtandra polyantha*, *Delissea subcordata*, *Dracaena*

*forbesii*, *Eugenia koolauensis*, *Gardenia mannii*, *Hesperomannia arborescens*, *Isodendron laurifolium*, *Isodendron longifolium*, *Kadua coriacea*, *Labordia cyrtandrae*, *Lobelia monostachya*, *Melicope lydgatei*, *Melicope saint-johnii*, *Phyllostegia hirsuta*, *Phyllostegia mollis*, *Phyllostegia parviflora* var. *parviflora*, *Plantago princeps* var. *princeps*, *Pteralyria macrocarpa*, *Schiedea kaalae*, *Schiedea nuttallii*, *Solanum sandwicense*, *Tetraplasandra gymnocarpa*, and *Tetraplasandra lydgatei*.

(ii) Map of Oahu—Lowland Mesic—Unit 6 (Map 16) follows:

**Map 16**  
**Oahu—Lowland Mesic**  
**Unit 6**



(18) Oahu—Lowland Mesic—Unit 7 (1,669 ac; 676 ha).

(i) This unit is critical habitat for *Alectryon macrococcus*, *Asplenium dielarectum*, *Asplenium dielfalcatum*, *Bonamia menziesii*, *Chamaesyce celastroides* var. *kaenana*, *Ctenitis squamigera*, *Cyanea acuminata*, *Cyanea calycina*, *Cyanea crispa*, *Cyanea*

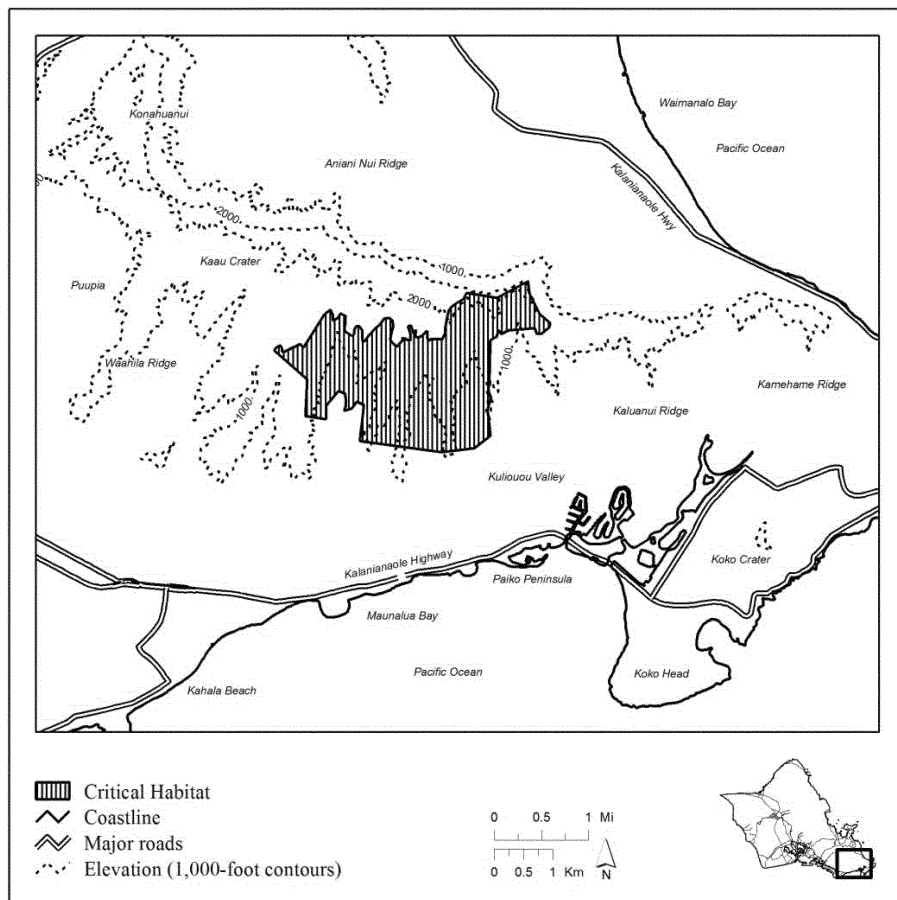
*grimesiana* ssp. *grimesiana*, *Cyanea lanceolata*, *Cyanea longiflora*, *Cyanea truncata*, *Cyrtandra dentata*, *Cyrtandra polyantha*, *Delissea subcordata*, *Dracaena forbesii*, *Eugenia koolauensis*, *Gardenia mannii*, *Hesperomannia arborescens*, *Isodendron laurifolium*, *Isodendron longifolium*, *Kadua coriacea*, *Labordia cyrtandrae*, *Lobelia monostachya*,

*Melicope lydgatei*, *Melicope saint-johnii*,  
*Phyllostegia hirsuta*, *Phyllostegia mollis*,  
*Phyllostegia parviflora* var. *parviflora*,  
*Plantago princeps* var. *princeps*,  
*Pteralyria macrocarpa*, *Schiedea kaalae*,

*Schiedea nuttallii*, *Solanum sandwicense*,  
*Tetraplasandra gymnocarpa*, and  
*Tetraplasandra lydgatei*.

(ii) Map of Oahu—Lowland Mesic—  
 Unit 7 (Map 17) follows:

**Map 17**  
**Oahu—Lowland Mesic**  
**Unit 7**



(19) Oahu—Lowland Wet—Unit 1 (541 ac; 219 ha).

(i) This unit is critical habitat for  
*Cyanea acuminata*, *Cyanea calycina*,  
*Cyanea grimesiana* ssp. *grimesiana*,  
*Cyanea grimesiana* ssp. *obatae*,

*Cyrtandra dentata*, *Diplazium*  
*molokaiense*, *Gardenia mannii*, *Gouania*  
*vitifolia*, *Hesperomannia arbuscula*,  
*Isodendron longifolium*, *Labordia*  
*cyrtandrae*, *Lobelia oahuensis*,  
*Phyllostegia hirsuta*, *Phyllostegia mollis*,



**§ 17.99**

(ii) Map of Oahu—Lowland Wet—Unit 1 (Map 18) follows:

*Cyrtandra dentata*, *Diplazium*  
*molokaiense*, *Gardenia mannii*, *Gouania*  
*vitifolia*, *Hesperomannia arbuscula*,  
*Isodendron longifolium*, *Labordia*  
*cyrtandrae*, *Lobelia oahuensis*,  
*Phyllostegia hirsuta*, *Phyllostegia mollis*,  
*Plantago princeps* var. *princeps*,

*Cyrtandra dentata*, *Diplazium*  
*molokaiense*, *Gardenia mannii*, *Gouania*  
*vitifolia*, *Hesperomannia arbuscula*,  
*Isodendron longifolium*, *Labordia*  
*cyrtandrae*, *Lobelia oahuensis*,  
*Phyllostegia hirsuta*, *Phyllostegia mollis*,  
*Plantago princeps* var. *princeps*,

§ 17.99

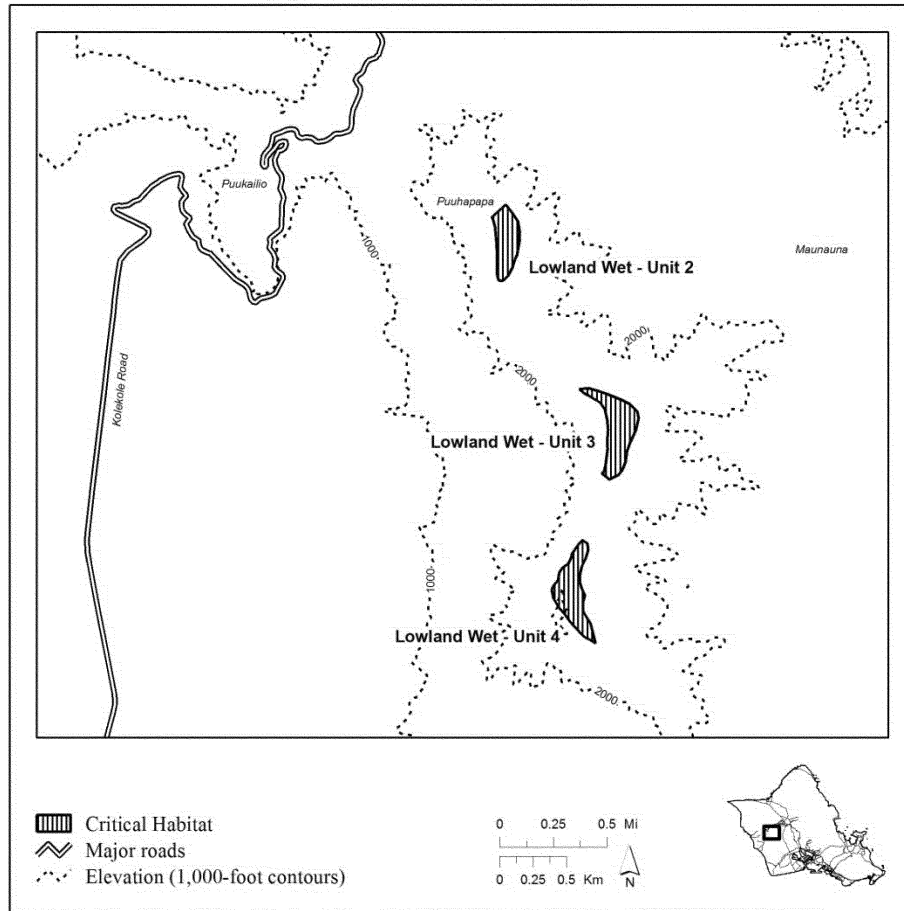
50 CFR Ch. I (10–1–23 Edition)

*Pteralyxia macrocarpa*, *Schiedea hookeri*,  
*Schiedea kaalae*, and *Urera kaalae*.

Oahu—Lowland Wet—Unit 4 (Map 19)  
follows:

(ii) Map of Oahu—Lowland Wet—Unit  
2, Oahu—Lowland Wet—Unit 3, and

**Map 19**  
**Oahu—Lowland Wet**  
**Unit 2, Unit 3 and Unit 4**



(21) Oahu—Lowland Wet—Unit 5 (74  
ac; 30 ha).

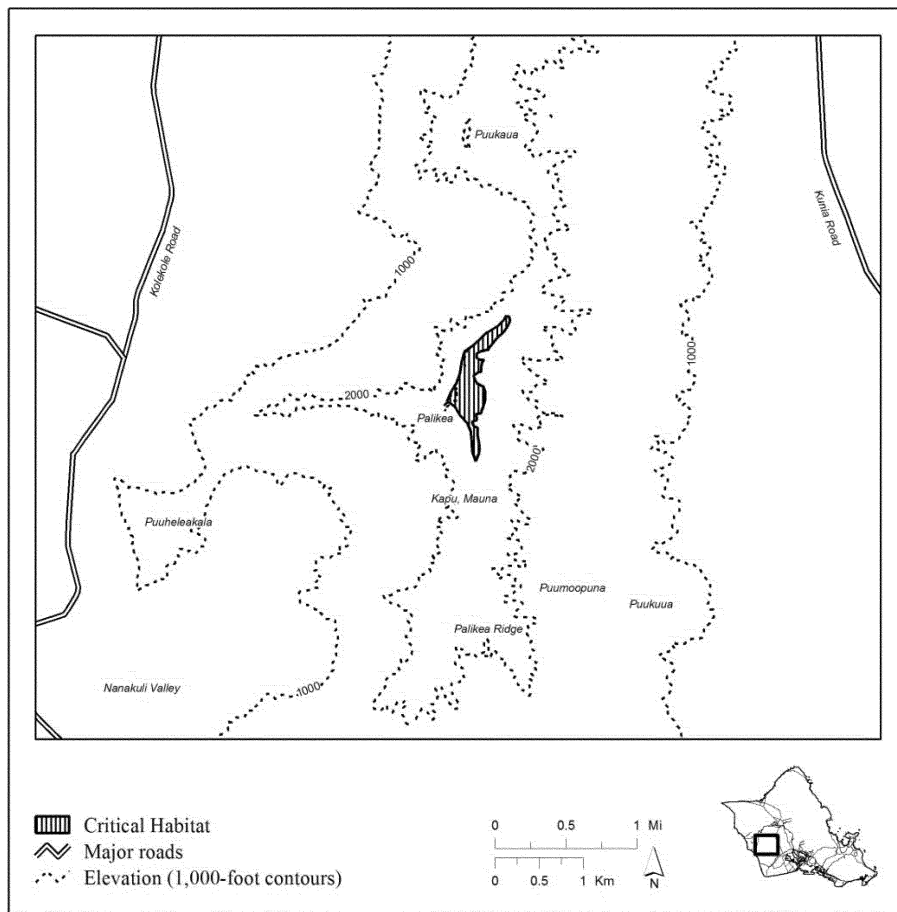
(i) This unit is critical habitat for  
*Cyanea acuminata*, *Cyanea calycina*,  
*Cyanea grimesiana* ssp. *grimesiana*,  
*Cyanea grimesiana* ssp. *obatae*,  
*Cyrtandra dentata*, *Diplazium*

*molokaiense*, *Gardenia mannii*, *Gouania*  
*vitifolia*, *Hesperomannia arbuscula*,  
*Isodendron longifolium*, *Labordia*  
*cyrtandrae*, *Lobelia oahuensis*,  
*Phyllostegia hirsuta*, *Phyllostegia mollis*,  
*Plantago princeps* var. *princeps*,

*Pteralyxia macrocarpa*, *Schiedea hookeri*,  
*Schiedea kaalae*, and *Urera kaalae*.

(ii) Map of Oahu—Lowland Wet—Unit 5 (Map 20) follows:

**Map 20**  
**Oahu—Lowland Wet**  
**Unit 5**



(22) Oahu—Lowland Wet—Unit 6 (790 ac; 320 ha), Oahu—Lowland Wet—Unit 7 (1,787 ac; 723 ha), and Oahu—Lowland Wet—Unit 8 (3,041 ac; 1,231 ha).

(i) These units are critical habitat for *Adenophorus periens*, *Chamaesyce rockii*, *Cyanea acuminata*, *Cyanea calycina*, *Cyanea crispa*, *Cyanea grimesiana* ssp. *grimesiana*, *Cyanea humboldtiana*,

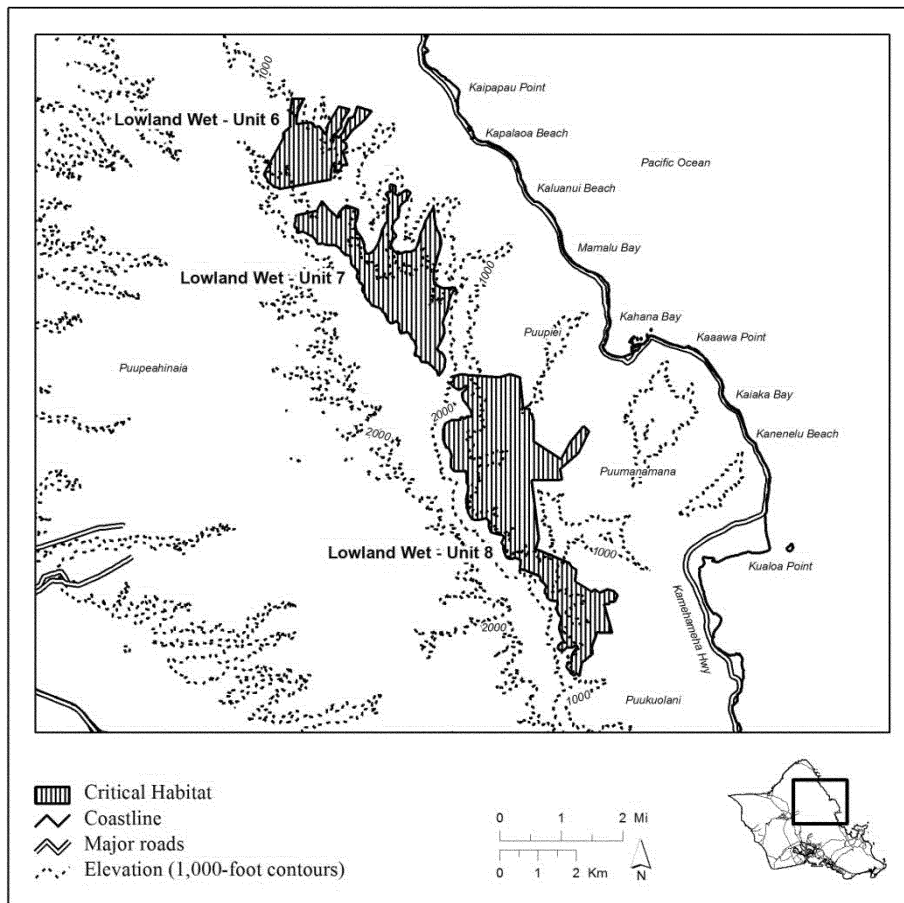
*Cyanea koolauensis*, *Cyanea lanceolata*, *Cyanea purpurellifolia*, *Cyanea st.-johnii*, *Cyanea truncata*, *Cyrtandra dentata*, *Cyrtandra gracilis*, *Cyrtandra kaulantha*, *Cyrtandra polyantha*, *Cyrtandra sessilis*, *Cyrtandra subumbellata*, *Cyrtandra viridiflora*, *Cyrtandra waiolani*, *Gardenia mannii*, *Hesperomannia arborescens*, *Isodendron longifolium*, *Labordia*

*cyrtandrae*, *Lobelia gaudichaudii* ssp. *koolauensis*, *Lobelia oahuensis*, *Melicope cornuta* var. *cornuta*, *Melicope hiiakae*, *Melicope lydgatei*, *Myrsine juddii*, *Phlegmariurus nutans*, *Phyllostegia hirsuta*, *Phyllostegia parviflora* var. *parviflora*, *Plantago princeps* var. *longibracteata*, *Plantago princeps* var. *princeps*, *Platanthera holochila*, , *Psychotria hexandra* var. *oahuensis*,

*Pteralyria macrocarpa*, *Pteris lidgatei*, *Sanicula purpurea*, *Tetraplasandra gymnocarpa*, *Trematolobelia singularis*, *Viola oahuensis*, and *Zanthoxylum oahuense*.

(ii) Map of Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, and Oahu—Lowland Wet—Unit 8 (Map 21) follows:

**Map 21**  
**Oahu—Lowland Wet**  
**Unit 6, Unit 7 and Unit 8**



**U.S. Fish and Wildlife Serv., Interior**

**§ 17.99**

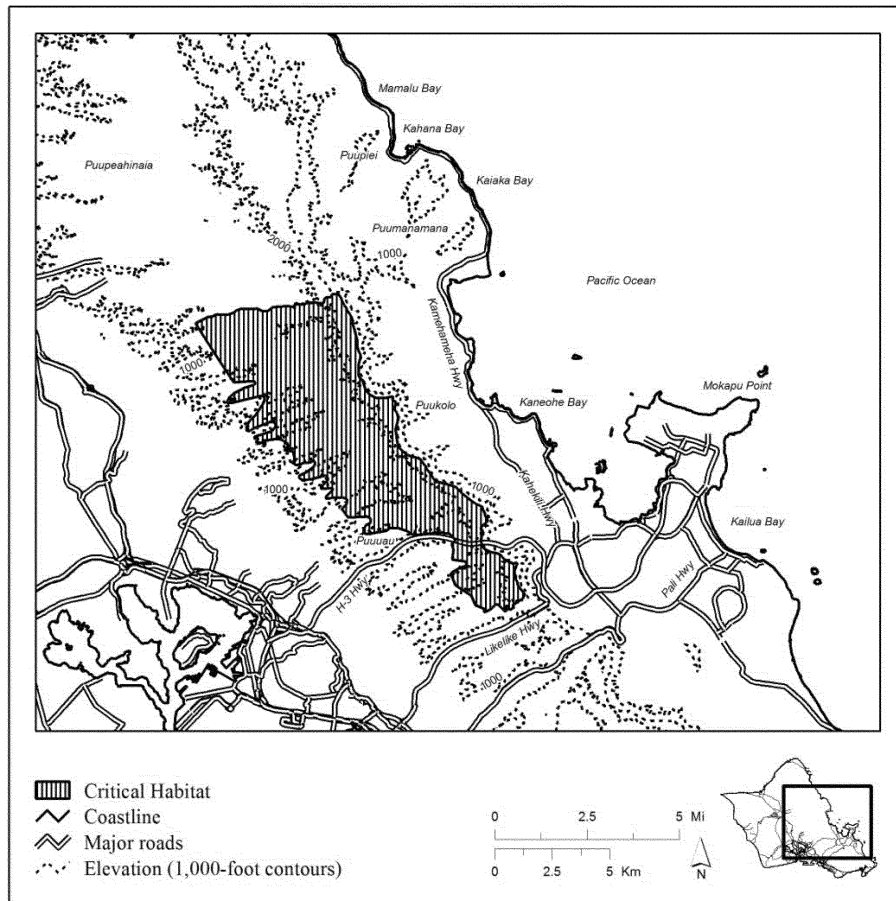
(23) Oahu—Lowland Wet—Unit 9 (15,728 ac; 6,365 ha).

(i) This unit is critical habitat for *Adenophorus periens*, *Chamaesyce rockii*, *Cyanea acuminata*, *Cyanea calycina*, *Cyanea crispa*, *Cyanea grimesiana* ssp. *grimesiana*, *Cyanea humboldtiana*, *Cyanea koolauensis*, *Cyanea lanceolata*, *Cyanea purpurellifolia*, *Cyanea st.-johnii*, *Cyanea truncata*, *Cyrtandra dentata*, *Cyrtandra gracilis*, *Cyrtandra kaulantha*, *Cyrtandra polyantha*, *Cyrtandra sessilis*, *Cyrtandra subumbellata*, *Cyrtandra viridiflora*, *Cyrtandra waiolani*, *Gardenia mannii*, *Hesperomannia arborescens*, *Isodendron longifolium*, *Labordia cyrtandrae*, *Lobelia gaudichaudii* ssp.

*koolauensis*, *Lobelia oahuensis*, *Melicope cornuta* var. *cornuta*, *Melicope hiiakae*, *Melicope lydgatei*, *Myrsine juddii*, *Phlegmariurus nutans*, *Phyllostegia hirsuta*, *Phyllostegia parviflora* var. *parviflora*, *Plantago princeps* var. *longibracteata*, *Plantago princeps* var. *princeps*, *Platanthera holochila*, *Psychotria hexandra* var. *oahuensis*, *Pteralyxia macrocarpa*, *Pteris lidgatei*, *Sanicula purpurea*, *Tetraplasandra gymnocarpa*, *Trematolobelia singularis*, *Viola oahuensis*, and *Zanthoxylum oahuense*.

(ii) Map of Oahu—Lowland Wet—Unit 9 (Map 22) follows:

**Map 22**  
**Oahu—Lowland Wet**  
**Unit 9**



(24) Oahu—Lowland Wet—Unit 10 (124 ac; 50 ha), Oahu—Lowland Wet—Unit 11 (124 ac; 50 ha), and Oahu—Lowland Wet—Unit 12 (53 ac; 21 ha).

(i) These units are critical habitat for *Adenophorus periens*, *Chamaesyce rockii*, *Cyanea acuminata*, *Cyanea calycina*, *Cyanea crista*, *Cyanea grimesiana* ssp. *grimesiana*, *Cyanea humboldtiana*, *Cyanea koolauensis*, *Cyanea lanceolata*, *Cyanea purpurellifolia*, *Cyanea st.-johnii*, *Cyanea truncata*, *Cyrtandra dentata*, *Cyrtandra gracilis*, *Cyrtandra kaulantha*,

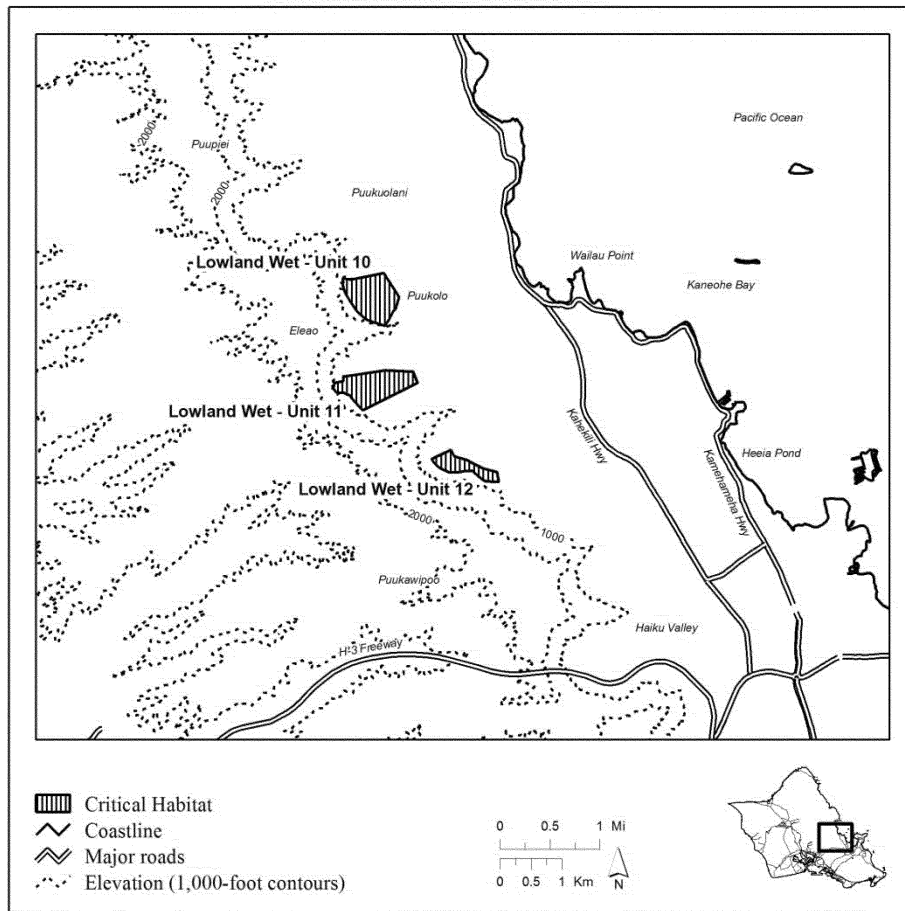
*Cyrtandra polyantha*, *Cyrtandra sessilis*, *Cyrtandra subumbellata*, *Cyrtandra viridiflora*, *Cyrtandra waiolani*, *Gardenia mannii*, *Hesperomannia arborescens*, *Isodendron longifolium*, *Labordia cyrtandrae*, *Lobelia gaudichaudii* ssp. *koolauensis*, *Lobelia oahuensis*, *Melicope cornuta* var. *cornuta*, *Melicope hiiakae*, *Melicope lydgatei*, *Myrsine juddii*, *Phlegmariurus nutans*, *Phyllostegia hirsuta*, *Phyllostegia parviflora* var. *parviflora*, *Plantago princeps* var. *longibracteata*, *Plantago princeps* var.

*princeps*, *Platanthera holochila*,  
*Psychotria hexandra* var. *oahuensis*,  
*Pteralyxia macrocarpa*, *Pteris lidgatei*,  
*Sanicula purpurea*, *Tetraplasandra*  
*gymnocarpa*, *Trematolobelia singularis*,

*Viola oahuensis*, and *Zanthoxylum*  
*oahuense*.

(ii) Map of Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, and Oahu—Lowland Wet—Unit 12 (Map 23) follows:

**Map 23**  
**Oahu—Lowland Wet**  
**Unit 10, Unit 11 and Unit 12**



(25) Oahu—Lowland Wet—Unit 13 (75 ac; 30 ha), Oahu—Lowland Wet—Unit 14 (478 ac; 193 ha), Oahu—Lowland Wet—Unit 15 (407 ac; 165 ha), and Oahu—Lowland Wet—Unit 16 (2,507 ac; 1,014 ha).

(i) These units are critical habitat for *Adenophorus periens*, *Chamaesyce rockii*, *Cyanea acuminata*, *Cyanea calycina*, *Cyanea crispa*, *Cyanea grimesiana* ssp. *grimesiana*, *Cyanea humboldtiana*,

**§ 17.99**

**50 CFR Ch. I (10–1–23 Edition)**

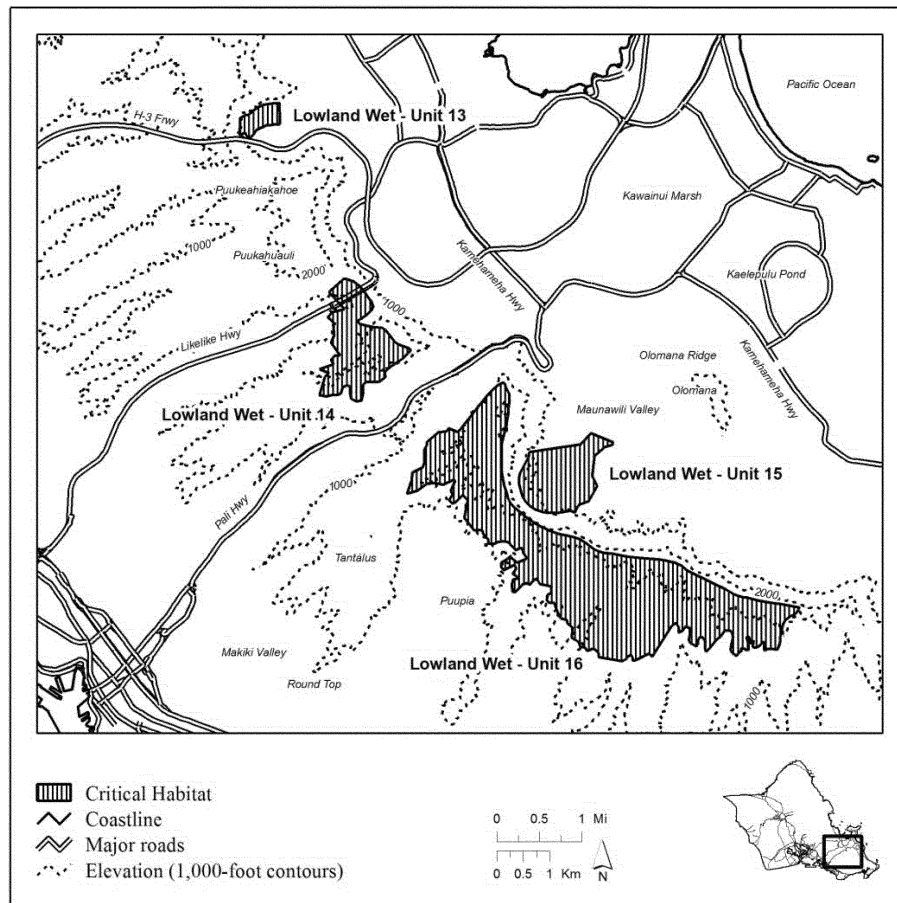
*Cyanea koolauensis*, *Cyanea lanceolata*, *Cyanea purpurellifolia*, *Cyanea st.-johnii*, *Cyanea truncata*, *Cyrtandra dentata*, *Cyrtandra gracilis*, *Cyrtandra kaulantha*, *Cyrtandra polyantha*, *Cyrtandra sessilis*, *Cyrtandra subumbellata*, *Cyrtandra viridiflora*, *Cyrtandra waiolani*, *Gardenia mannii*, *Hesperomannia arborescens*, *Isodendron longifolium*, *Labordia cyrtandrae*, *Lobelia gaudichaudii* ssp. *koolauensis*, *Lobelia oahuensis*, *Melicope cornuta* var. *cornuta*, *Melicope hiiakae*, *Melicope lydgatei*, *Myrsine juddii*, *Phlegmariurus nutans*, *Phyllostegia hirsuta*, *Phyllostegia parviflora* var.

*parviflora*, *Plantago princeps* var. *longibracteata*, *Plantago princeps* var. *princeps*, *Platanthera holochila*, *Psychotria hexandra* var. *oahuensis*, *Pteralyxia macrocarpa*, *Pteris lidgatei*, *Sanicula purpurea*, *Tetraplasandra gymnocarpa*, *Trematolobelia singularis*, *Viola oahuensis*, and *Zanthoxylum oahuense*.

(ii) Map of Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16 (Map 24) follows:



**Map 24**  
**Oahu—Lowland Wet**  
**Unit 13, Unit 14, Unit 15 and Unit 16**



(26) Oahu—Montane Wet—Unit 1 (370 ac; 150 ha).

(i) This unit is critical habitat for *Alectryon macrococcus*, *Cyanea acuminata*, *Cyanea calycina*, *Labordia*

*cyrtandrae*, *Lobelia oahuensis*, *Melicope christophersenii*, *Phyllostegia hirsuta*, and *Schiedea trinervis*.

(ii) Map of Oahu—Montane Wet—Unit 1 (Map 25) follows:

(i) These units are critical habitat for *Abutilon sandwicense*, *Achyranthes splendens* var. *rotundata*, *Alectryon macrococcus*, *Asplenium dielfalcatum*, *Bonamia menziesii*, *Cenchrus agrimonioides*, *Chamaesyce herbstii*, *Chamaesyce kuwaleana*, *Cyanea grimesiana* ssp. *obatae*, *Cyrtandra dentata*, *Diellia unisora*, *Dracaena*

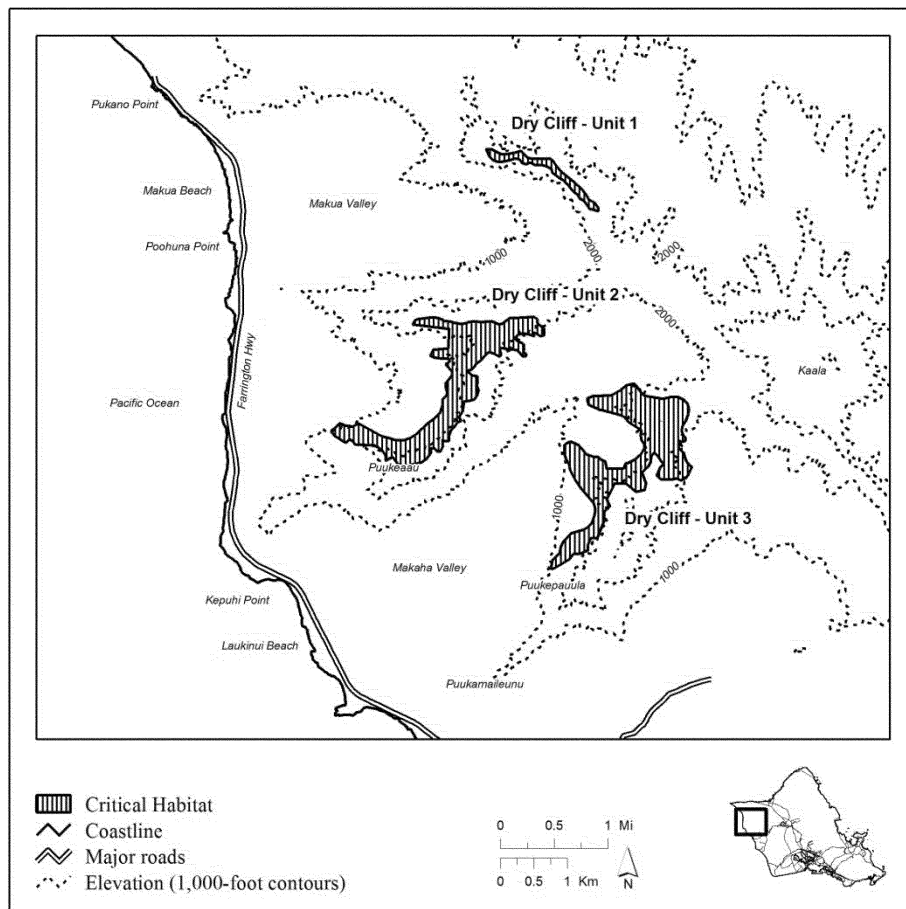
34

*Plantago princeps* var. *princeps*,  
*Pteralyxia macrocarpa*, *Sanicula*  
*mariversa*, *Schiedea hookeri*, *Schiedea*  
*obovata*, *Schiedea trinervis*, *Silene*  
*lanceolata*, *Silene perlmanii*, *Spermolepis*  
*hawaiiensis*, *Tetramolopium filiforme*,

*Tetramolopium lepidotum* ssp. *lepidotum*,  
 and *Viola chamissoniana* ssp.  
*chamissoniana*.

(ii) Map of Oahu—Dry Cliff—Unit 1,  
 Oahu—Dry Cliff—Unit 2, and Oahu—  
 Dry Cliff—Unit 3 (Map 26) follows:

**Map 26**  
**Oahu—Dry Cliff**  
**Unit 1, Unit 2 and Unit 3**



(28) Oahu—Dry Cliff—Unit 4 (24 ac; 10 ha) and Oahu—Dry Cliff—Unit 6 (149 ac; 60 ha).

(i) These units are critical habitat for *Abutilon sandwicense*, *Achyranthes*

*splendens* var. *rotundata*, *Alectryon macrococcus*, *Asplenium dielfalcatum*, *Bonamia menziesii*, *Cenchrus agrimonioides*, *Chamaesyce herbstii*, *Chamaesyce kuwaleana*, *Cyanea*

**§ 17.99**

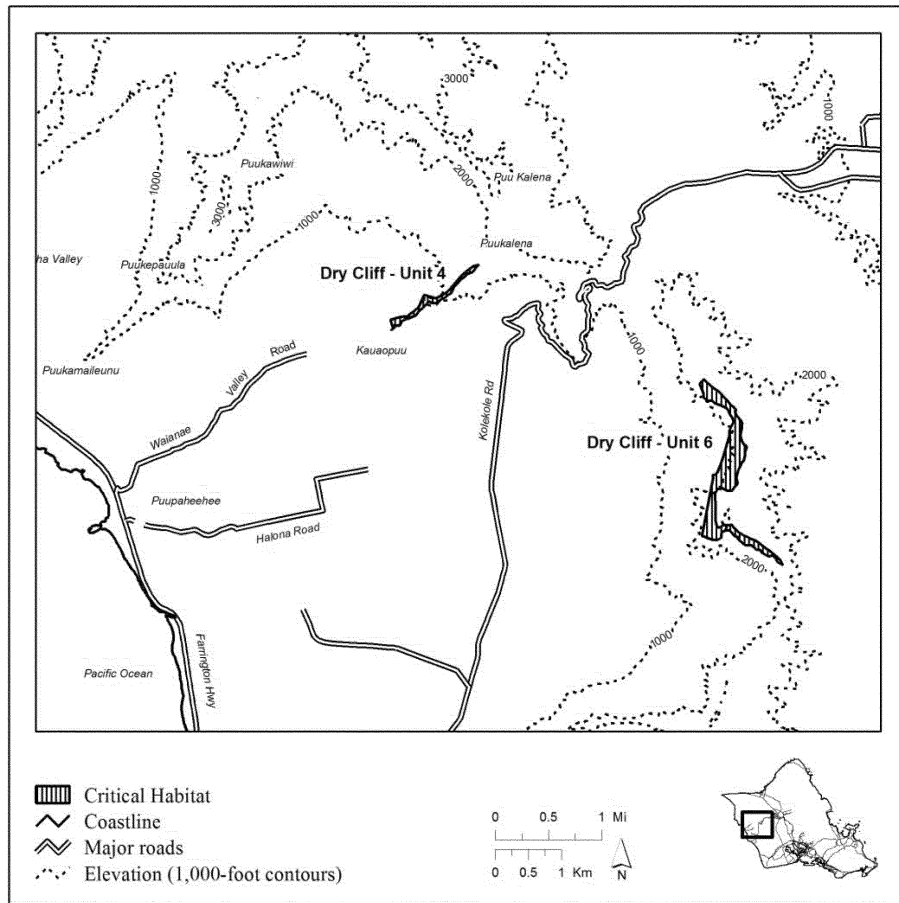
*grimesiana* ssp. *obatae*, *Cyrtandra* *dentata*, *Diellia* *unisora*, *Dracaena* *forbesii*, *Dubautia* *herbstobatae*, *Eragrostis* *fosbergii*, *Flueggea* *neowawraea*, *Gouania* *meyenii*, *Gouania* *vitifolia*, *Isodendron* *laurifolium*, *Isodendron* *pyrifolium*, *Kadua* *degeneri*, *Kadua* *parvula*, *Korthalsella* *degeneri*, *Lepidium* *arbuscula*, *Lipochaeta* *lobata* var. *leptophylla*, *Lobelia* *niihauensis*, *Melanthera* *tenuifolia*, *Melicope* *cornuta* var. *decurrens*, *Melicope* *makahae*, *Melicope* *saint-johnii*, *Neraudia* *angulata*, *Nototrichium* *humile*, *Peucedanum*

**50 CFR Ch. I (10–1–23 Edition)**

*sandwicense*, *Phyllostegia* *kaalaensis*, *Plantago* *princeps* var. *princeps*, *Pteralyxia* *macrocarpa*, *Sanicula* *mariversa*, *Schiedea* *hookeri*, *Schiedea* *obovata*, *Schiedea* *trinervis*, *Silene* *lanceolata*, *Silene* *perlmanii*, *Spermolepis* *hawaiiensis*, *Tetramolopium* *filiforme*, *Tetramolopium* *lepidotum* ssp. *lepidotum*, and *Viola* *chamissoniana* ssp. *chamissoniana*.

(ii) Map of Oahu—Dry Cliff—Unit 4 and Oahu—Dry Cliff—Unit 6 (Map 27) follows:

Map 27  
Oahu—Dry Cliff  
Unit 4 and Unit 6



(29) Oahu—Dry Cliff—Unit 7a (68 ac; 27 ha), Oahu—Dry Cliff—Unit 7b (38 ac; 16 ha), and Oahu—Dry Cliff—Unit 8 (259 ac; 105 ha).

(i) These units are critical habitat for *Abutilon sandwicense*, *Achyranthes splendens* var. *rotundata*, *Alectryon macroccus*, *Asplenium dielfalcatum*, *Bonamia menziesii*, *Cenchrus agrimonioides*, *Chamaesyce herbstii*, *Chamaesyce kuwaleana*, *Cyanea grimesiana* ssp. *obatae*, *Cyrtandra dentata*, *Diellia unisora*, *Dracaena*

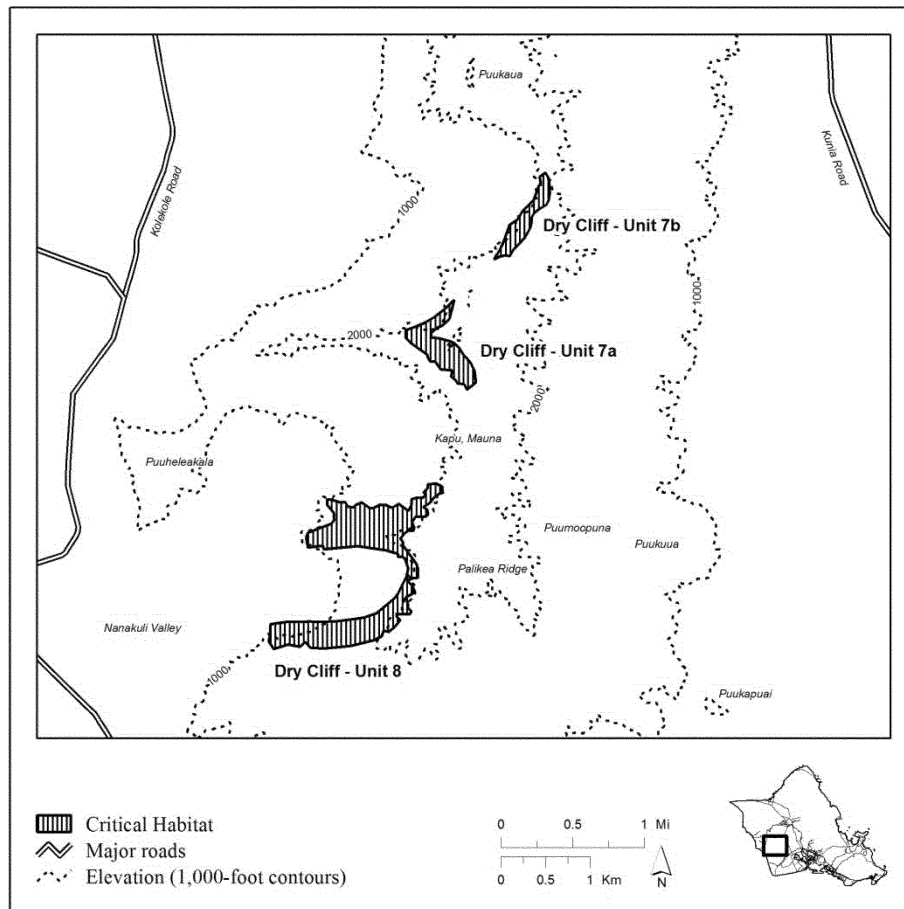
*forbesii*, *Dubautia herbstobatae*, *Eragrostis fosbergii*, *Flueggea neowawraea*, *Gouania meyenii*, *Gouania vitifolia*, *Isodendron laurifolium*, *Isodendron pyrifolium*, *Kadua degeneri*, *Kadua parvula*, *Korthalsella degeneri*, *Lepidium arbuscula*, *Lipochaeta lobata* var. *leptophylla*, *Lobelia niihauensis*, *Melanthera tenuifolia*, *Melicope cornuta* var. *decurrens*, *Melicope makahae*, *Melicope saint-johnii*, *Neraudia angulata*, *Nototrichium humile*, *Peucedanum sandwicense*, *Phyllostegia kaalaensis*,

*Plantago princeps* var. *princeps*,  
*Pteralyxia macrocarpa*, *Sanicula*  
*mariversa*, *Schiedea hookeri*, *Schiedea*  
*obovata*, *Schiedea trinervis*, *Silene*  
*lanceolata*, *Silene perlmanii*, *Spermolepis*  
*hawaiiensis*, *Tetramolopium filiforme*,

*Tetramolopium lepidotum* ssp. *lepidotum*,  
 and *Viola chamissoniana* ssp.  
*chamissoniana*.

(ii) Map of Oahu—Dry Cliff—Unit 7a,  
 Oahu—Dry Cliff—Unit 7b, and Oahu—  
 Dry Cliff—Unit 8 (Map 28) follows:

**Map 28**  
**Oahu—Dry Cliff**  
**Unit 7a, Unit 7b and Unit 8**



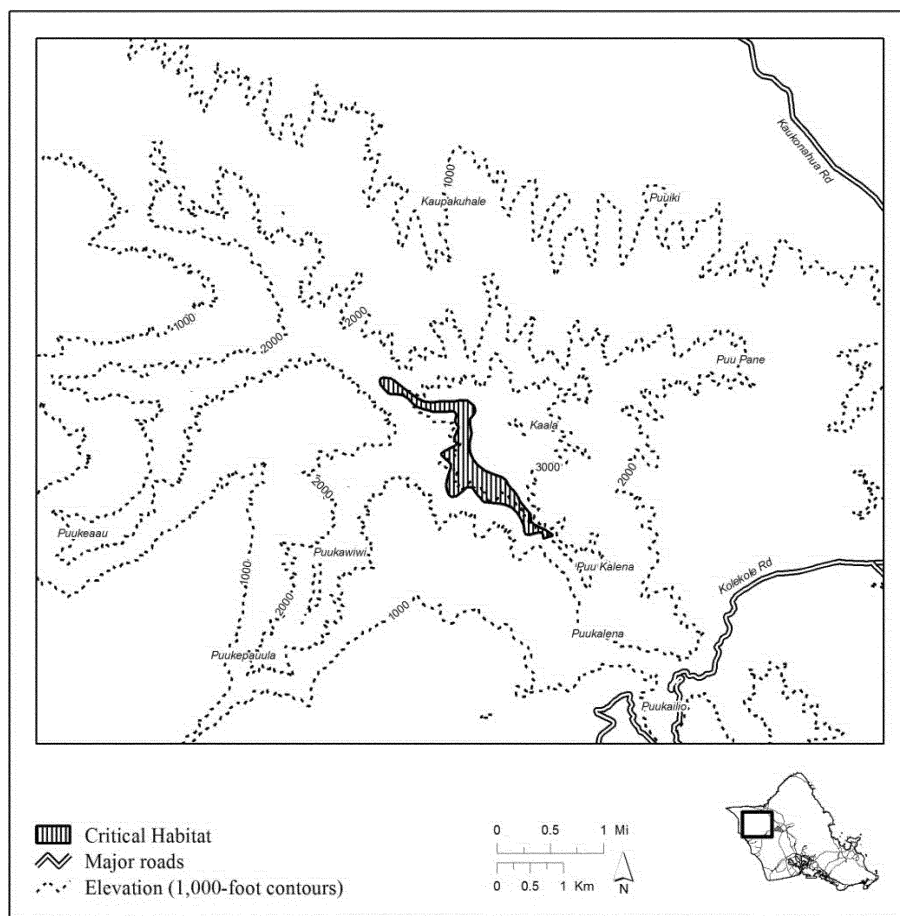
(30) Oahu—Wet Cliff—Unit 1 (235 ac; 95 ha).

(i) This unit is critical habitat for  
*Cyanea acuminata*, *Cyanea calycina*,  
*Labordia cyrtandrae*, *Lobelia oahuensis*,

*Melicope christophersenii*, *Phyllostegia*  
*hirsuta*, *Pteralyxia macrocarpa*, *Schiedea*  
*hookeri*, *Schiedea kaalae*, and *Schiedea*  
*trinervis*.

(ii) Map of Oahu—Wet Cliff—Unit 1  
(Map 29) follows:

**Map 29**  
**Oahu—Wet Cliff**  
**Unit 1**



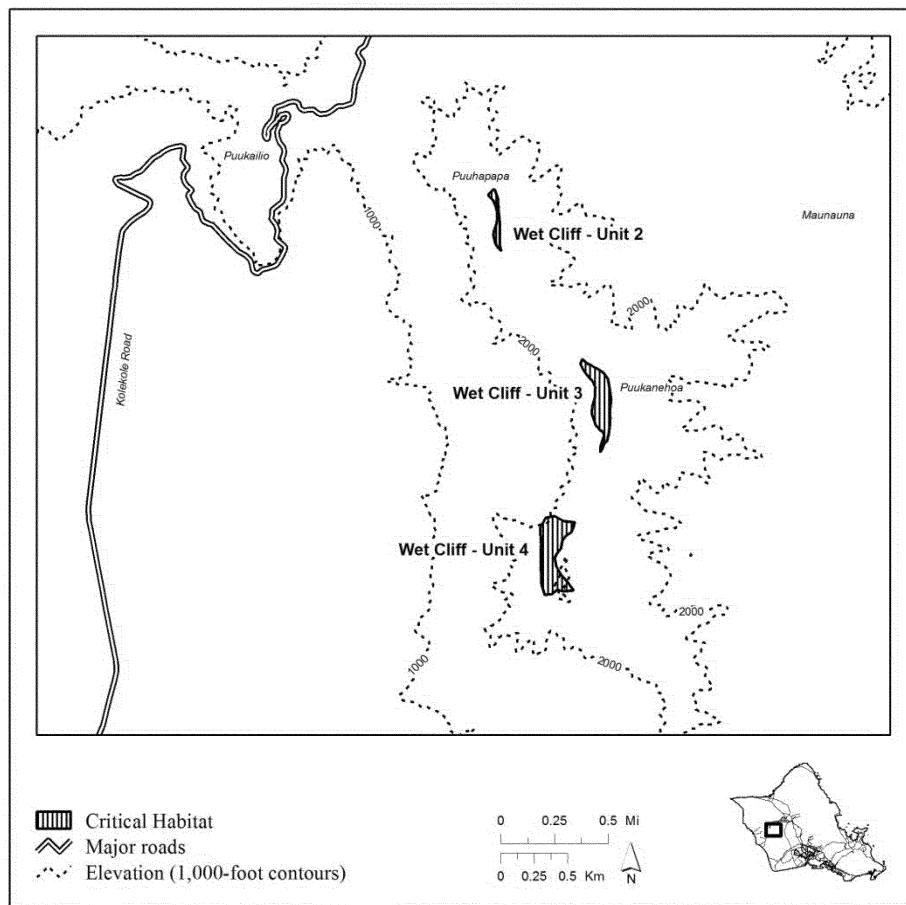
(31) Oahu—Wet Cliff—Unit 2 (3 ac; 1 ha), Oahu—Wet Cliff—Unit 3 (16 ac; 6 ha), and Oahu—Wet Cliff—Unit 4 (23 ac; 9 ha).

(i) These units are critical habitat for *Cyanea acuminata*, *Cyanea calycina*, *Labordia cyrtandrae*, *Lobelia oahuensis*,

*Melicope christophersenii*, *Phyllostegia hirsuta*, *Pteralyxia macrocarpa*, *Schiedea hookeri*, *Schiedea kaalae*, and *Schiedea trinervis*.

(ii) Map of Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, and Oahu—Wet Cliff—Unit 4 (Map 30) follows:

**Map 30**  
**Oahu—Wet Cliff**  
**Unit 2, Unit 3 and Unit 4**



(32) Oahu—Wet Cliff—Unit 5 (31 ac; 13 ha).

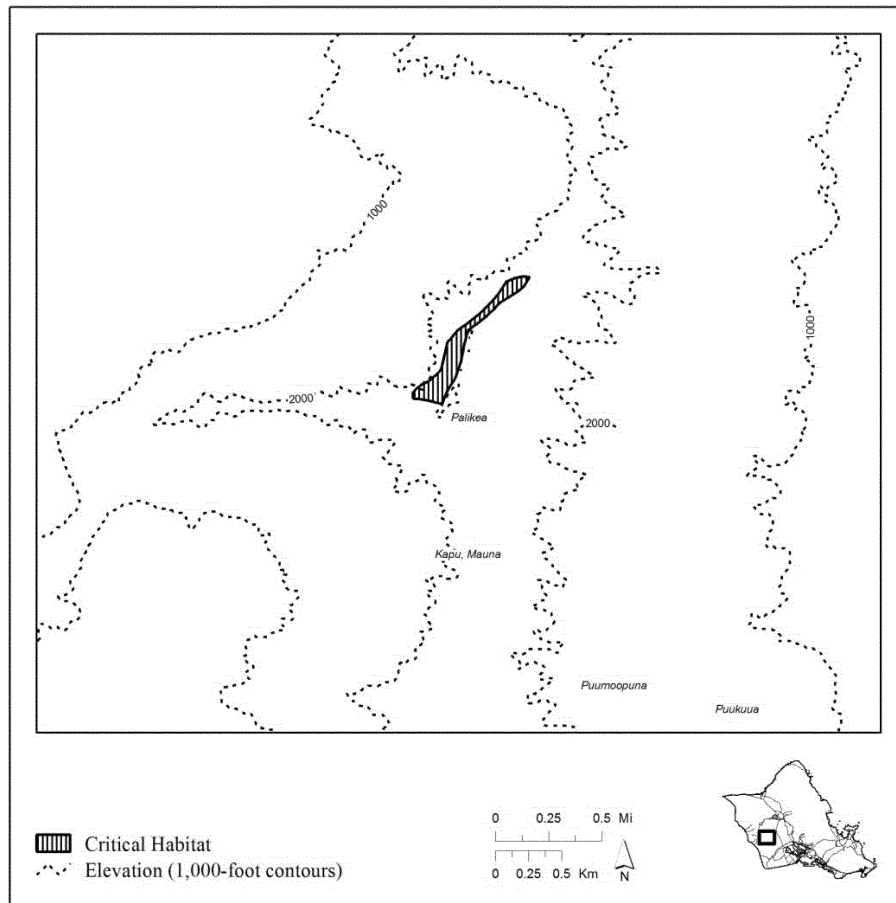
(i) This unit is critical habitat for *Cyanea acuminata*, *Cyanea calycina*, *Labordia cyrtandrae*, *Lobelia oahuensis*, *Melicope christophersenii*, *Phyllostegia*

*hirsuta*, *Pteralyxia macrocarpa*, *Schiedea hookeri*, *Schiedea kaalae*, and *Schiedea trinervis*.

(ii) Map of Oahu—Wet Cliff—Unit 5 (Map 31) follows:



**Map 31**  
**Oahu—Wet Cliff**  
**Unit 5**



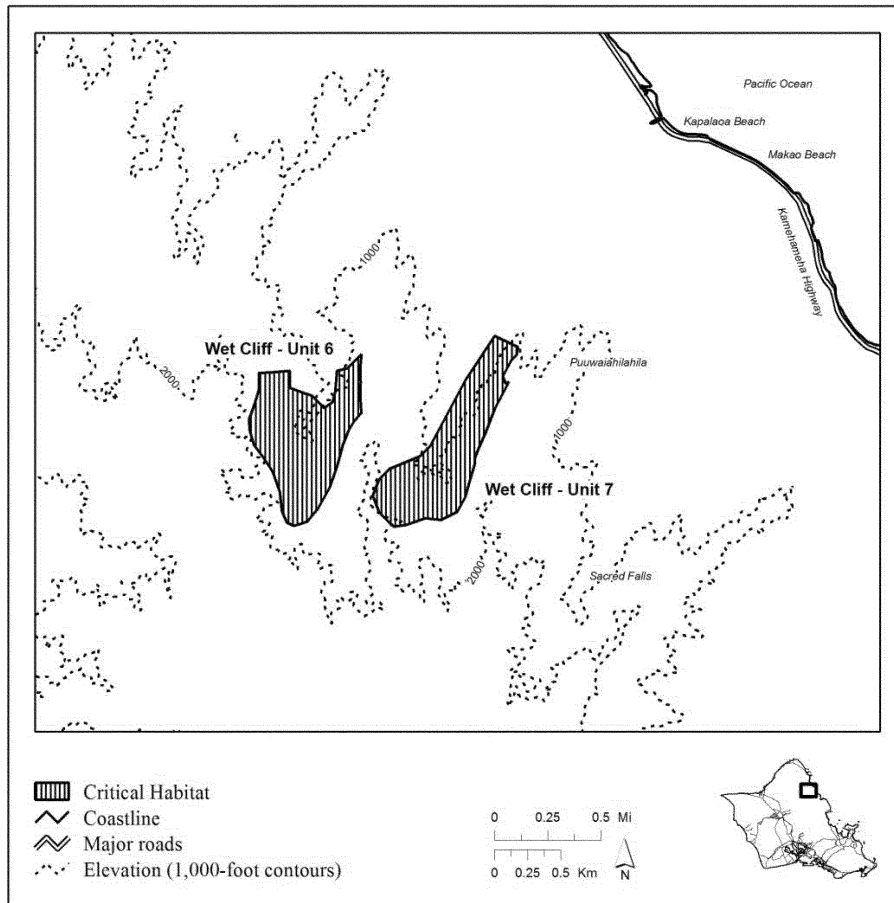
(33) Oahu—Wet Cliff—Unit 6 (151 ac; 61 ha) and Oahu—Wet Cliff—Unit 7 (144 ac; 58 ha).

(i) These units are critical habitat for *Adenophorus periens*, *Chamaesyce deppeana*, *Chamaesyce rockii*, *Cyanea acuminata*, *Cyanea calycina*, *Cyanea crista*, *Cyanea humboldtiana*, *Cyanea purpurellifolia*, *Cyanea st.-johnii*, *Cyanea truncata*, *Cyrtandra kaulantha*, *Cyrtandra sessilis*, *Cyrtandra subumbellata*, *Cyrtandra viridiflora*, *Labordia cyrtandrae*, *Lobelia oahuensis*,

*Lysimachia filifolia*, *Phlegmariurus nutans*, *Phyllostegia hirsuta*, *Phyllostegia parviflora* var. *parviflora*, *Plantago princeps* var. *princeps*, *Psychotria hexandra* var. *oahuensis*, *Pteralyxia macrocarpa*, *Sanicula purpurea*, *Schiedea kaalae*, *Tetraplasandra gymnocarpa*, *Trematolobelia singularis*, and *Viola oahuensis*.

(ii) Map of Oahu—Wet Cliff—Unit 6 and Oahu—Wet Cliff—Unit 7 (Map 32) follows:

**Map 32**  
**Oahu—Wet Cliff**  
**Unit 6 and Unit 7**



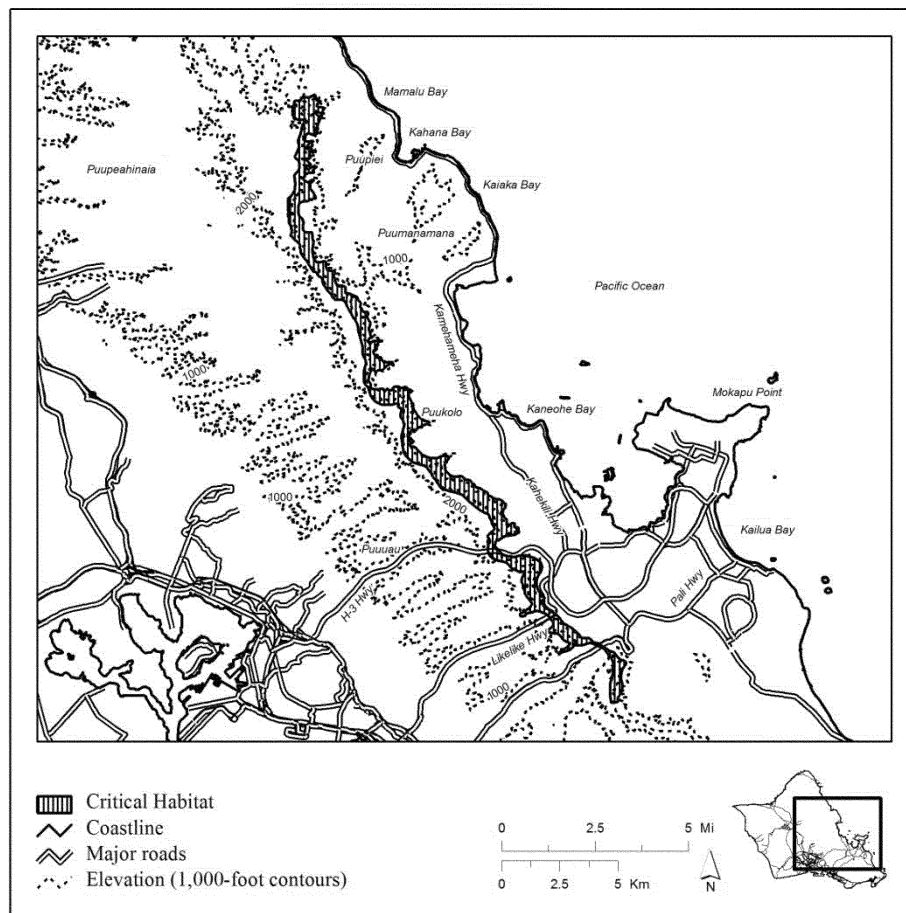
(34) Oahu—Wet Cliff—Unit 8 (4,649 ac; 1,881 ha).

(i) This unit is critical habitat for *Adenophorus periens*, *Chamaesyce deppeana*, *Chamaesyce rockii*, *Cyanea acuminata*, *Cyanea calycina*, *Cyanea crispa*, *Cyanea humboldtiana*, *Cyanea purpurellifolia*, *Cyanea st.-johnii*, *Cyanea truncata*, *Cyrtandra kaulantha*, *Cyrtandra sessilis*, *Cyrtandra subumbellata*, *Cyrtandra viridiflora*, *Labordia cyrtandrae*, *Lobelia oahuensis*,

*Lysimachia filifolia*, *Phlegmariurus nutans*, *Phyllostegia hirsuta*, *Phyllostegia parviflora* var. *parviflora*, *Plantago princeps* var. *princeps*, *Psychotria hexandra* var. *oahuensis*, *Pteralyxia macrocarpa*, *Sanicula purpurea*, *Schiedea kaalae*, *Tetraplasandra gymnocarpa*, *Trematolobelia singularis*, and *Viola oahuensis*.

(ii) Map of Oahu—Wet Cliff—Unit 8 (Map 33) follows:

**Map 33**  
**Oahu—Wet Cliff**  
**Unit 8**



(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU

| Unit name           | Species occupied                                                                                                                                | Species unoccupied                                                                                                                                                                                                                                    |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Oahu—Coastal—Unit 1 | <i>Achyranthes splendens</i> var. <i>rotundata</i> ...<br><i>Chamaesyce celastroides</i> var. <i>kaenana</i><br><i>Sesbania tomentosa</i> ..... | <i>Achyranthes splendens</i> var. <i>rotundata</i><br><i>Bidens amplexans</i><br><i>Schenkia sebaeoides</i><br><i>Chamaesyce celastroides</i> var. <i>kaenana</i><br><i>Schiedea kealiae</i><br><i>Sesbania tomentosa</i><br><i>Vigna o-wahuensis</i> |
| Oahu—Coastal—Unit 2 |                                                                                                                                                 | <i>Schenkia sebaeoides</i><br><i>Chamaesyce kuwaleana</i><br><i>Sesbania tomentosa</i><br><i>Vigna o-wahuensis</i>                                                                                                                                    |
| Oahu—Coastal—Unit 3 |                                                                                                                                                 |                                                                                                                                                                                                                                                       |

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

| Unit name            | Species occupied                                                    | Species unoccupied                                                                                                                                                                                                                                    |
|----------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Oahu—Coastal—Unit 4  |                                                                     | <i>Schenkia sebaeoides</i><br><i>Chamaesyce kuwaleana</i><br><i>Sesbania tomentosa</i><br><i>Vigna o-wahuensis</i>                                                                                                                                    |
| Oahu—Coastal—Unit 5  |                                                                     | <i>Schenkia sebaeoides</i><br><i>Chamaesyce kuwaleana</i><br><i>Sesbania tomentosa</i><br><i>Vigna o-wahuensis</i>                                                                                                                                    |
| Oahu—Coastal—Unit 6  |                                                                     | <i>Schenkia sebaeoides</i><br><i>Chamaesyce kuwaleana</i><br><i>Sesbania tomentosa</i><br><i>Vigna o-wahuensis</i>                                                                                                                                    |
| Oahu—Coastal—Unit 7  |                                                                     | <i>Schenkia sebaeoides</i><br><i>Chamaesyce kuwaleana</i><br><i>Sesbania tomentosa</i><br><i>Vigna o-wahuensis</i>                                                                                                                                    |
| Oahu—Coastal—Unit 8  |                                                                     | <i>Schenkia sebaeoides</i><br><i>Chamaesyce kuwaleana</i><br><i>Sesbania tomentosa</i><br><i>Vigna o-wahuensis</i>                                                                                                                                    |
| Oahu—Coastal—Unit 9  | <i>Sesbania tomentosa</i> .....                                     | <i>Schenkia sebaeoides</i><br><i>Chamaesyce kuwaleana</i><br><i>Sesbania tomentosa</i><br><i>Vigna o-wahuensis</i>                                                                                                                                    |
| Oahu—Coastal—Unit 10 | <i>Cyperus trachysanthos</i> .....<br><i>Marsilea villosa</i> ..... | <i>Schenkia sebaeoides</i><br><i>Chamaesyce kuwaleana</i><br><i>Cyperus trachysanthos</i><br><i>Marsilea villosa</i><br><i>Sesbania tomentosa</i><br><i>Vigna o-wahuensis</i>                                                                         |
| Oahu—Coastal—Unit 11 | <i>Schenkia sebaeoides</i> .....                                    | <i>Schenkia sebaeoides</i><br><i>Chamaesyce kuwaleana</i><br><i>Sesbania tomentosa</i><br><i>Vigna o-wahuensis</i>                                                                                                                                    |
| Oahu—Coastal—Unit 12 | <i>Marsilea villosa</i> .....                                       | <i>Schenkia sebaeoides</i><br><i>Chamaesyce kuwaleana</i><br><i>Cyperus trachysanthos</i><br><i>Marsilea villosa</i><br><i>Sesbania tomentosa</i><br><i>Vigna o-wahuensis</i>                                                                         |
| Oahu—Coastal—Unit 13 | <i>Achyranthes splendens</i> var. <i>rotundata</i> ...              | <i>Schenkia sebaeoides</i><br><i>Chamaesyce kuwaleana</i><br><i>Cyperus trachysanthos</i><br><i>Marsilea villosa</i><br><i>Sesbania tomentosa</i><br><i>Vigna o-wahuensis</i>                                                                         |
| Oahu—Coastal—Unit 14 | <i>Achyranthes splendens</i> var. <i>rotundata</i> ...              | <i>Achyranthes splendens</i> var. <i>rotundata</i><br><i>Bidens amplexans</i><br><i>Schenkia sebaeoides</i><br><i>Chamaesyce celastroides</i> var. <i>kaenana</i><br><i>Schiedea kealiae</i><br><i>Sesbania tomentosa</i><br><i>Vigna o-wahuensis</i> |
| Oahu—Coastal—Unit 15 |                                                                     | <i>Achyranthes splendens</i> var. <i>rotundata</i><br><i>Bidens amplexans</i><br><i>Schenkia sebaeoides</i><br><i>Chamaesyce celastroides</i> var. <i>kaenana</i><br><i>Schiedea kealiae</i><br><i>Sesbania tomentosa</i><br><i>Vigna o-wahuensis</i> |

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

| Unit name                | Species occupied                                                                                 | Species unoccupied                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------------|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Oahu—Lowland Dry—Unit 1  | <i>Achyranthes splendens</i> var. <i>rotundata</i> ...<br>.....<br><i>Bidens amplexens</i> ..... | <i>Achyranthes splendens</i> var. <i>rotundata</i><br><i>Bidens amplexens</i><br><i>Schenkia sebaeoides</i><br><i>Chamaesyce celastroides</i> var. <i>kaenana</i><br><i>Schiedea kealiae</i><br><i>Sesbania tomentosa</i><br><i>Vigna o-wahuensis</i><br><i>Achyranthes splendens</i> var. <i>rotundata</i> .<br><i>Bidens amplexens</i> .<br><i>Bonamia menziesii</i> .<br><i>Chamaesyce celastroides</i> var. <i>kaenana</i> .<br><i>Dracaena forbesii</i> .<br><i>Euphorbia haeleeeleana</i> .<br><i>Gouania meyenii</i> .<br><i>Gouania vitifolia</i> .<br><i>Hibiscus brackenridgei</i> .<br><i>Isodendron pyriformum</i> .<br><i>Melanthera tenuifolia</i> .<br><i>Neraudia angulata</i> .<br><i>Nototrichium humile</i> .<br><i>Schiedea hookeri</i> .<br><i>Schiedea kealiae</i> .<br><i>Spermolepis hawaiiensis</i> .<br><i>Achyranthes splendens</i> var. <i>rotundata</i> .<br><i>Bidens amplexens</i> .<br><i>Bonamia menziesii</i> .<br><i>Chamaesyce celastroides</i> var. <i>kaenana</i> .<br><i>Dracaena forbesii</i> .<br><i>Euphorbia haeleeeleana</i> .<br><i>Gouania meyenii</i> .<br><i>Gouania vitifolia</i> .<br><i>Hibiscus brackenridgei</i> .<br><i>Isodendron pyriformum</i> .<br><i>Melanthera tenuifolia</i> .<br><i>Neraudia angulata</i> .<br><i>Nototrichium humile</i> .<br><i>Schiedea hookeri</i> .<br><i>Schiedea kealiae</i> .<br><i>Spermolepis hawaiiensis</i> . |
| Oahu—Lowland Dry—Unit 2  | <i>Bonamia menziesii</i> .....                                                                   | <i>Bonamia menziesii</i> .<br><i>Chamaesyce celastroides</i> var. <i>kaenana</i> .<br><i>Dracaena forbesii</i> .<br><i>Euphorbia haeleeeleana</i> .<br><i>Gouania meyenii</i> .<br><i>Gouania vitifolia</i> .<br><i>Hibiscus brackenridgei</i> .<br><i>Isodendron pyriformum</i> .<br><i>Melanthera tenuifolia</i> .<br><i>Neraudia angulata</i> .<br><i>Nototrichium humile</i> .<br><i>Schiedea hookeri</i> .<br><i>Schiedea kealiae</i> .<br><i>Spermolepis hawaiiensis</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Oahu—Lowland Dry—Unit 3  | <i>Dracaena forbesii</i> .....                                                                   | <i>Dracaena forbesii</i> .<br><i>Euphorbia haeleeeleana</i> .<br><i>Gouania meyenii</i> .<br><i>Gouania vitifolia</i> .<br><i>Hibiscus brackenridgei</i> .<br><i>Isodendron pyriformum</i> .<br><i>Melanthera tenuifolia</i> .<br><i>Neraudia angulata</i> .<br><i>Nototrichium humile</i> .<br><i>Schiedea hookeri</i> .<br><i>Schiedea kealiae</i> .<br><i>Spermolepis hawaiiensis</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Oahu—Lowland Dry—Unit 4  | <i>Melanthera tenuifolia</i> .....                                                               | <i>Melanthera tenuifolia</i> .<br><i>Neraudia angulata</i> .<br><i>Nototrichium humile</i> .<br><i>Schiedea hookeri</i> .<br><i>Schiedea kealiae</i> .<br><i>Spermolepis hawaiiensis</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Oahu—Lowland Dry—Unit 5  | <i>Nototrichium humile</i> .....                                                                 | <i>Nototrichium humile</i> .<br><i>Schiedea hookeri</i> .<br><i>Schiedea kealiae</i> .<br><i>Spermolepis hawaiiensis</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Oahu—Lowland Dry—Unit 6  | <i>Doryopteris takeuchii</i> .....                                                               | <i>Doryopteris takeuchii</i><br><i>Gouania meyenii</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Oahu—Lowland Dry—Unit 7  | <i>Spermolepis hawaiiensis</i> .....                                                             | <i>Spermolepis hawaiiensis</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Oahu—Lowland Dry—Unit 8  | <i>Cyperus trachysanthos</i> .....                                                               | <i>Cyperus trachysanthos</i><br><i>Doryopteris takeuchii</i><br><i>Gouania meyenii</i><br><i>Marsilea villosa</i><br><i>Spermolepis hawaiiensis</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Oahu—Lowland Dry—Unit 9  | .....                                                                                            | <i>Achyranthes splendens</i> var. <i>rotundata</i> .<br><i>Bidens amplexens</i> .<br><i>Bonamia menziesii</i> .<br><i>Chamaesyce celastroides</i> var. <i>kaenana</i> .<br><i>Euphorbia haeleeeleana</i> .<br><i>Euphorbia skottsbergii</i> var. <i>skottsbergii</i> .<br><i>Gouania meyenii</i> .<br><i>Gouania vitifolia</i> .<br><i>Hibiscus brackenridgei</i> .<br><i>Isodendron pyriformum</i> .<br><i>Melanthera tenuifolia</i> .<br><i>Neraudia angulata</i> .<br><i>Nototrichium humile</i> .<br><i>Schiedea hookeri</i> .<br><i>Schiedea kealiae</i> .<br><i>Spermolepis hawaiiensis</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Oahu—Lowland Dry—Unit 10 | <i>Achyranthes splendens</i> var. <i>rotundata</i> ...                                           | <i>Achyranthes splendens</i> var. <i>rotundata</i> .<br><i>Bidens amplexens</i> .<br><i>Bonamia menziesii</i> .<br><i>Chamaesyce celastroides</i> var. <i>kaenana</i> .<br><i>Euphorbia haeleeeleana</i> .<br><i>Euphorbia skottsbergii</i> var. <i>skottsbergii</i> .<br><i>Gouania meyenii</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

| Unit name                 | Species occupied                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Species unoccupied                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Oahu—Lowland Dry—Unit 10  | .....<br><br><i>Euphorbia skottsbergii</i> var. <i>skottsbergii</i> ..                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <i>Gouania vitifolia</i> .<br><i>Hibiscus brackenridgei</i> .<br><i>Isodendron pyrifolium</i> .<br><i>Melanthera tenuifolia</i> .<br><i>Neraudia angulata</i> .<br><i>Nototrichium humile</i> .<br><i>Schiedea hookeri</i> .<br><i>Schiedea kealiae</i> .<br><i>Spermolepis hawaiiensis</i> .<br><i>Achyranthes splendens</i> var. <i>rotundata</i> .<br><i>Bidens amplexans</i> .<br><i>Bonamia menziesii</i> .<br><i>Chamaesyce celastroides</i> var. <i>kaenana</i> .<br><i>Euphorbia haelealeana</i> .<br><i>Euphorbia skottsbergii</i> var. <i>skottsbergii</i> .<br><i>Gouania meyenii</i> .<br><i>Gouania vitifolia</i> .<br><i>Hibiscus brackenridgei</i> .<br><i>Isodendron pyrifolium</i> .<br><i>Melanthera tenuifolia</i> .<br><i>Neraudia angulata</i> .<br><i>Nototrichium humile</i> .<br><i>Schiedea hookeri</i> .<br><i>Schiedea kealiae</i> .<br><i>Spermolepis hawaiiensis</i> .<br><i>Achyranthes splendens</i> var. <i>rotundata</i> .<br><i>Bidens amplexans</i> .<br><i>Bonamia menziesii</i> .<br><i>Chamaesyce celastroides</i> var. <i>kaenana</i> .<br><i>Euphorbia haelealeana</i> .<br><i>Euphorbia skottsbergii</i> var. <i>skottsbergii</i> . |
| Oahu—Lowland Dry—Unit 11  | .....<br><br><i>Euphorbia skottsbergii</i> var. <i>skottsbergii</i> ..                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <i>Euphorbia skottsbergii</i> var. <i>skottsbergii</i> .<br><i>Gouania meyenii</i> .<br><i>Gouania vitifolia</i> .<br><i>Hibiscus brackenridgei</i> .<br><i>Isodendron pyrifolium</i> .<br><i>Melanthera tenuifolia</i> .<br><i>Neraudia angulata</i> .<br><i>Nototrichium humile</i> .<br><i>Schiedea hookeri</i> .<br><i>Schiedea kealiae</i> .<br><i>Spermolepis hawaiiensis</i> .<br><i>Achyranthes splendens</i> var. <i>rotundata</i> .<br><i>Bidens amplexans</i> .<br><i>Bonamia menziesii</i> .<br><i>Chamaesyce celastroides</i> var. <i>kaenana</i> .<br><i>Euphorbia haelealeana</i> .<br><i>Euphorbia skottsbergii</i> var. <i>skottsbergii</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Oahu—Lowland Mesic—Unit 1 | <i>Abutilon sandwicense</i> .....<br><i>Alectryon macrococcus</i> .....<br><i>Asplenium dielfalcatum</i> .....<br><i>Bonamia menziesii</i> .....<br><i>Cenchrus agrimonoides</i> .....<br><br><i>Chamaesyce herbstii</i> .....<br><i>Colubrina oppositifolia</i> .....<br><i>Ctenitis squamigera</i> .....<br><i>Cyanea acuminata</i> .....<br><i>Cyanea calycina</i> .....<br><i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> .....<br><i>Cyanea grimesiana</i> ssp. <i>obatae</i> .....<br><i>Cyanea longiflora</i> .....<br><br><i>Cyanea superba</i> .....<br><br><i>Cyrtandra dentata</i> .....<br><i>Delissea subcordata</i> .....<br><br><i>Dracaena forbesii</i> .....<br><i>Dubautia herbstobatae</i> .....<br><i>Eragrostis fosbergii</i> .....<br><br><i>Euphorbia haelealeana</i> .....<br><i>Flueggea neowawraea</i> ..... | <i>Abutilon sandwicense</i> .<br><i>Alectryon macrococcus</i> .<br><i>Asplenium dielfalcatum</i> .<br><i>Bonamia menziesii</i> .<br><i>Cenchrus agrimonoides</i> .<br><i>Chamaesyce celastroides</i> var. <i>kaenana</i> .<br><i>Chamaesyce herbstii</i> .<br><i>Colubrina oppositifolia</i> .<br><i>Ctenitis squamigera</i> .<br><i>Cyanea acuminata</i> .<br><i>Cyanea calycina</i> .<br><i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> .<br><i>Cyanea grimesiana</i> ssp. <i>obatae</i> .<br><i>Cyanea longiflora</i> .<br><i>Cyanea pinnatifida</i> .<br><i>Cyanea superba</i> .<br><i>Cyperus pennatifolius</i> .<br><i>Cyrtandra dentata</i> .<br><i>Delissea subcordata</i> .<br><i>Diellia unisora</i> .<br><i>Diplazium molokaiense</i> .<br><i>Dracaena forbesii</i> .<br><i>Dubautia herbstobatae</i> .<br><i>Eragrostis fosbergii</i> .<br><i>Eugenia koolauensis</i> .<br><i>Euphorbia haelealeana</i> .<br><i>Flueggea neowawraea</i> .<br><i>Gardenia mannii</i> .<br><i>Gouania meyenii</i> .<br><i>Gouania vitifolia</i> .<br><i>Hesperomannia arborescens</i> .                                                                                           |

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

| Unit name                 | Species occupied                                     | Species unoccupied                                   |
|---------------------------|------------------------------------------------------|------------------------------------------------------|
| Oahu—Lowland Mesic—Unit 2 | <i>Hesperomannia arbuscula</i> .....                 | <i>Hesperomannia arbuscula</i> .                     |
|                           | <i>Hibiscus brackenridgei</i> .....                  | <i>Hibiscus brackenridgei</i> .                      |
|                           | <i>Isodendron laurifolium</i> .....                  | <i>Isodendron laurifolium</i> .                      |
|                           | <i>Isodendron longifolium</i> .....                  | <i>Isodendron longifolium</i> .                      |
|                           | <i>Kadua degeneri</i> .....                          | <i>Kadua coriacea</i> .                              |
|                           |                                                      | <i>Kadua degeneri</i> .                              |
|                           |                                                      | <i>Kadua parvula</i> .                               |
|                           |                                                      | <i>Labordia cyrtandrae</i> .                         |
|                           | <i>Lobelia niihauensis</i> .....                     | <i>Lobelia niihauensis</i> .                         |
|                           | <i>Melanthera tenuifolia</i> .....                   | <i>Melanthera tenuifolia</i> .                       |
|                           | <i>Melicope cornuta</i> var. <i>decurrens</i> .....  | <i>Melicope cornuta</i> var. <i>decurrens</i> .      |
|                           | <i>Melicope makahae</i> .....                        | <i>Melicope makahae</i> .                            |
|                           | <i>Melicope pallida</i> .....                        | <i>Melicope pallida</i> .                            |
|                           |                                                      | <i>Melicope saint-johnii</i> .                       |
|                           | <i>Neraudia angulata</i> .....                       | <i>Neraudia angulata</i> .                           |
|                           | <i>Nototrichium humile</i> .....                     | <i>Nototrichium humile</i> .                         |
|                           |                                                      | <i>Phyllostegia hirsuta</i> .                        |
|                           | <i>Phyllostegia kaalaensis</i> .....                 | <i>Phyllostegia kaalaensis</i> .                     |
|                           |                                                      | <i>Phyllostegia mollis</i> .                         |
|                           |                                                      | <i>Phyllostegia parviflora</i> .                     |
|                           |                                                      | <i>Plantago princeps</i> .                           |
|                           | <i>Pteralyxia macrocarpa</i> .....                   | <i>Pteralyxia macrocarpa</i> .                       |
|                           |                                                      | <i>Sanicula mariversa</i> .                          |
|                           | <i>Schiedea hookeri</i> .....                        | <i>Schiedea hookeri</i> .                            |
|                           | <i>Schiedea kaalae</i> .....                         | <i>Schiedea kaalae</i> .                             |
|                           | <i>Schiedea nuttallii</i> .....                      | <i>Schiedea nuttallii</i> .                          |
|                           | <i>Schiedea obovata</i> .....                        | <i>Schiedea obovata</i> .                            |
|                           |                                                      | <i>Silene perlmanii</i> .                            |
|                           |                                                      | <i>Solanum sandwicense</i> .                         |
|                           |                                                      | <i>Stenogyne kanehoana</i> .                         |
|                           |                                                      | <i>Tetramolopium lepidotum</i> ssp.                  |
|                           |                                                      | <i>lepidotum</i> .                                   |
|                           |                                                      | <i>Urera kaalae</i> .                                |
|                           | <i>Viola chamissoniana</i> ssp. <i>chamissoniana</i> | <i>Viola chamissoniana</i> ssp.                      |
|                           |                                                      | <i>chamissoniana</i> .                               |
|                           | <i>Abutilon sandwicense</i> .....                    | <i>Abutilon sandwicense</i> .                        |
|                           | <i>Alectryon macrococcus</i> .....                   | <i>Alectryon macrococcus</i> .                       |
|                           | <i>Asplenium dielfalcatum</i> .....                  | <i>Asplenium dielfalcatum</i> .                      |
|                           |                                                      | <i>Bonamia menziesii</i> .                           |
|                           | <i>Cenchrus agrimonioides</i> .....                  | <i>Cenchrus agrimonioides</i> .                      |
|                           |                                                      | <i>Chamaesyce celastroides</i> var. <i>kaenana</i> . |
|                           | <i>Chamaesyce herbstii</i> .....                     | <i>Chamaesyce herbstii</i> .                         |
|                           |                                                      | <i>Colubrina oppositifolia</i> .                     |
|                           |                                                      | <i>Ctenitis squamigera</i> .                         |
|                           | <i>Cyanea calycina</i> .....                         | <i>Cyanea calycina</i> .                             |
|                           |                                                      | <i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> .    |
|                           | <i>Cyanea grimesiana</i> ssp. <i>obatae</i> .....    | <i>Cyanea grimesiana</i> ssp. <i>obatae</i> .        |
|                           |                                                      | <i>Cyanea longiflora</i> .                           |
|                           |                                                      | <i>Cyanea pinnatifida</i> .                          |
|                           |                                                      | <i>Cyanea superba</i> .                              |
|                           |                                                      | <i>Cyperus pennatifolius</i> .                       |
|                           |                                                      | <i>Cyrtandra dentata</i> .                           |
|                           | <i>Delissea subcordata</i> .....                     | <i>Delissea subcordata</i> .                         |
|                           |                                                      | <i>Diellia unisora</i> .                             |
|                           |                                                      | <i>Diplazium molokaiense</i> .                       |
|                           | <i>Dracaena forbesii</i> .....                       | <i>Dracaena forbesii</i> .                           |
|                           |                                                      | <i>Dubautia herbstobatae</i> .                       |
|                           |                                                      | <i>Eragrostis fosbergii</i> .                        |
|                           |                                                      | <i>Eugenia koolauensis</i> .                         |
|                           |                                                      | <i>Euphorbia haeleleana</i> .                        |
|                           |                                                      | <i>Flueggea neowawraea</i> .                         |
|                           | <i>Gardenia mannii</i> .....                         | <i>Gardenia mannii</i> .                             |
|                           |                                                      | <i>Gouania meyenii</i> .                             |
|                           |                                                      | <i>Gouania vitifolia</i> .                           |
|                           |                                                      | <i>Hesperomannia arborescens</i> .                   |
|                           |                                                      | <i>Hesperomannia arbuscula</i> .                     |
|                           |                                                      | <i>Hibiscus brackenridgei</i> .                      |
|                           |                                                      | <i>Isodendron laurifolium</i> .                      |
|                           |                                                      | <i>Isodendron longifolium</i> .                      |
|                           |                                                      | <i>Kadua coriacea</i> .                              |
|                           |                                                      | <i>Kadua degeneri</i> .                              |

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

| Unit name                 | Species occupied                                    | Species unoccupied                                   |
|---------------------------|-----------------------------------------------------|------------------------------------------------------|
| Oahu—Lowland Mesic—Unit 3 |                                                     | <i>Kadua parvula</i> .                               |
|                           |                                                     | <i>Labordia cyrtandrae</i> .                         |
|                           |                                                     | <i>Lobelia niihauensis</i> .                         |
|                           |                                                     | <i>Melanthera tenuifolia</i> .                       |
|                           | <i>Melicope cornuta</i> var. <i>decurrens</i> ..... | <i>Melicope cornuta</i> var. <i>decurrens</i> .      |
|                           |                                                     | <i>Melicope makahae</i> .                            |
|                           |                                                     | <i>Melicope pallida</i> .                            |
|                           |                                                     | <i>Melicope saint-johnii</i> .                       |
|                           |                                                     | <i>Neraudia angulata</i> .                           |
|                           |                                                     | <i>Nototrichium humile</i> .                         |
|                           | <i>Phyllostegia hirsuta</i> .....                   | <i>Phyllostegia hirsuta</i> .                        |
|                           | <i>Phyllostegia kaalaensis</i> .....                | <i>Phyllostegia kaalaensis</i> .                     |
|                           | <i>Phyllostegia mollis</i> .....                    | <i>Phyllostegia mollis</i> .                         |
|                           |                                                     | <i>Phyllostegia parviflora</i> .                     |
|                           |                                                     | <i>Plantago princeps</i> .                           |
|                           | <i>Pteralyxia macrocarpa</i> .....                  | <i>Pteralyxia macrocarpa</i> .                       |
|                           |                                                     | <i>Sanicula mariversa</i> .                          |
|                           | <i>Schiedea hookeri</i> .....                       | <i>Schiedea hookeri</i> .                            |
|                           | <i>Schiedea kaalae</i> .....                        | <i>Schiedea kaalae</i> .                             |
|                           |                                                     | <i>Schiedea nuttallii</i> .                          |
|                           |                                                     | <i>Schiedea obovata</i> .                            |
|                           |                                                     | <i>Silene perlmanii</i> .                            |
|                           | <i>Solanum sandwicense</i> .....                    | <i>Solanum sandwicense</i> .                         |
|                           | <i>Stenogyne kanehoana</i> .....                    | <i>Stenogyne kanehoana</i> .                         |
|                           |                                                     | <i>Tetramolopium lepidotum</i> ssp.                  |
|                           |                                                     | <i>lepidotum</i> .                                   |
|                           | <i>Urera kaalae</i> .....                           | <i>Urera kaalae</i> .                                |
|                           |                                                     | <i>Viola chamissoniana</i> ssp.                      |
|                           |                                                     | <i>chamissoniana</i> .                               |
|                           |                                                     | <i>Abutilon sandwicense</i> .                        |
|                           | <i>Alectryon macrococcus</i> .....                  | <i>Alectryon macrococcus</i> .                       |
|                           | <i>Asplenium dielfalcatum</i> .....                 | <i>Asplenium dielfalcatum</i> .                      |
|                           |                                                     | <i>Bonamia menziesii</i> .                           |
|                           | <i>Cenchrus agrimonioides</i> .....                 | <i>Cenchrus agrimonioides</i> .                      |
|                           |                                                     | <i>Chamaesyce celastroides</i> var. <i>kaenana</i> . |
|                           |                                                     | <i>Chamaesyce herbstii</i> .                         |
|                           |                                                     | <i>Colubrina oppositifolia</i> .                     |
|                           |                                                     | <i>Ctenitis squamigera</i> .                         |
|                           |                                                     | <i>Cyanea acuminata</i> .                            |
|                           |                                                     | <i>Cyanea calycina</i> .                             |
|                           |                                                     | <i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> .    |
|                           |                                                     | <i>Cyanea grimesiana</i> ssp. <i>obatae</i> .        |
|                           |                                                     | <i>Cyanea longiflora</i> .                           |
|                           |                                                     | <i>Cyanea pinnatifida</i> .                          |
|                           |                                                     | <i>Cyanea superba</i> .                              |
|                           |                                                     | <i>Cyperus pennatifolius</i> .                       |
|                           |                                                     | <i>Cyrtandra dentata</i> .                           |
|                           | <i>Delissea subcordata</i> .....                    | <i>Delissea subcordata</i> .                         |
|                           | <i>Diellia unisora</i> .....                        | <i>Diellia unisora</i> .                             |
|                           |                                                     | <i>Diplazium molokaiense</i> .                       |
|                           | <i>Dracaena forbesii</i> .....                      | <i>Dracaena forbesii</i> .                           |
|                           |                                                     | <i>Dubautia herbstobatae</i> .                       |
|                           |                                                     | <i>Eragrostis fosbergii</i> .                        |
|                           |                                                     | <i>Eugenia koolauensis</i> .                         |
|                           |                                                     | <i>Euphorbia haeleeeleana</i> .                      |
|                           |                                                     | <i>Flueggea neowawraea</i> .                         |
|                           |                                                     | <i>Gardenia mannii</i> .                             |
|                           |                                                     | <i>Gouania meyenii</i> .                             |
|                           |                                                     | <i>Gouania vitifolia</i> .                           |
|                           |                                                     | <i>Hesperomannia arborescens</i> .                   |
|                           | <i>Hesperomannia arbuscula</i> .....                | <i>Hesperomannia arbuscula</i> .                     |
|                           |                                                     | <i>Hibiscus brackenridgei</i> .                      |
|                           |                                                     | <i>Isodendron laurifolium</i> .                      |
|                           |                                                     | <i>Isodendron longifolium</i> .                      |
|                           |                                                     | <i>Kadua coriacea</i> .                              |
|                           |                                                     | <i>Kadua degeneri</i> .                              |
|                           |                                                     | <i>Kadua parvula</i> .                               |
|                           |                                                     | <i>Labordia cyrtandrae</i> .                         |
|                           |                                                     | <i>Lobelia niihauensis</i> .                         |
|                           |                                                     | <i>Melanthera tenuifolia</i> .                       |
|                           |                                                     | <i>Melicope cornuta</i> var. <i>decurrens</i> .      |
|                           |                                                     | <i>Melicope makahae</i> .                            |



(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

| Unit name                 | Species occupied                     | Species unoccupied                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------------------------|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Oahu—Lowland Mesic—Unit 4 | <i>Melicope saint-johnii</i> .....   | <i>Melicope pallida</i> .<br><i>Melicope saint-johnii</i> .<br><i>Neraudia angulata</i> .<br><i>Nototrichium humile</i> .<br><i>Phyllostegia hirsuta</i> .<br><i>Phyllostegia kaalaensis</i> .<br><i>Phyllostegia mollis</i> .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                           | <i>Phyllostegia parviflora</i> ..... | <i>Phyllostegia mollis</i> .<br><i>Phyllostegia parviflora</i> .<br><i>Plantago princeps</i> .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Oahu—Lowland Mesic—Unit 5 | <i>Plantago princeps</i> .....       | <i>Pteralyxia macrocarpa</i> .<br><i>Sanicula mariversa</i> .<br><i>Schiedea hookeri</i> .<br><i>Schiedea kaalae</i> .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                           | <i>Pteralyxia macrocarpa</i> .....   | <i>Schiedea nuttallii</i> .<br><i>Schiedea obovata</i> .<br><i>Silene perlmanni</i> .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Oahu—Lowland Mesic—Unit 4 | <i>Schiedea kaalae</i> .....         | <i>Silene perlmanni</i> .<br><i>Solanum sandwicense</i> .<br><i>Stenogyne kanehoana</i> .<br><i>Tetramolopium lepidotum</i> ssp.<br><i>lepidotum</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                           | <i>Silene perlmanni</i> .....        | <i>Urera kaalae</i> .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Oahu—Lowland Mesic—Unit 5 | <i>Urera kaalae</i> .....            | <i>Viola chamissoniana</i> ssp.<br><i>chamissoniana</i> .<br><i>Alectryon macrococcus</i> .<br><i>Asplenium dielarectum</i> .<br><i>Asplenium dielfalcatum</i> .<br><i>Bonamia menziesii</i> .<br><i>Chamaesyce celastroides</i> var. <i>kaenana</i> .<br><i>Ctenitis squamigera</i> .<br><i>Cyanea acuminata</i> .<br><i>Cyanea calycina</i> .<br><i>Cyanea crispa</i> .<br><i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> .<br><i>Cyanea lanceolata</i> .<br><i>Cyanea longiflora</i> .<br><i>Cyanea truncata</i> .<br><i>Cyrtandra dentata</i> .<br><i>Cyrtandra polyantha</i> .<br><i>Delissea subcordata</i> .<br><i>Dracaena forbesii</i> .<br><i>Eugenia koolauensis</i> .<br><i>Gardenia mannii</i> .<br><i>Hesperomannia arborescens</i> .<br><i>Isodendron laurifolium</i> .<br><i>Isodendron longifolium</i> .<br><i>Kadua coriacea</i> .<br><i>Labordia cyrtandrae</i> .<br><i>Lobelia monostachya</i> .<br><i>Melicope lydgatei</i> .<br><i>Melicope saint-johnii</i> .<br><i>Phyllostegia hirsuta</i> .<br><i>Phyllostegia mollis</i> .<br><i>Phyllostegia parviflora</i> .<br><i>Plantago princeps</i> .<br><i>Pteralyxia macrocarpa</i> .<br><i>Schiedea kaalae</i> .<br><i>Schiedea nuttallii</i> .<br><i>Solanum sandwicense</i> .<br><i>Tetraplasandra gymnocarpa</i> .<br><i>Tetraplasandra lydgatei</i> .<br><i>Alectryon macrococcus</i> .<br><i>Asplenium dielarectum</i> .<br><i>Asplenium dielfalcatum</i> .<br><i>Bonamia menziesii</i> .<br><i>Chamaesyce celastroides</i> var. <i>kaenana</i> .<br><i>Ctenitis squamigera</i> .<br><i>Cyanea acuminata</i> .<br><i>Cyanea calycina</i> .<br><i>Cyanea crispa</i> .<br><i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> .<br><i>Cyanea lanceolata</i> .<br><i>Cyanea longiflora</i> . |

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

| Unit name                 | Species occupied                                      | Species unoccupied                                   |
|---------------------------|-------------------------------------------------------|------------------------------------------------------|
| Oahu—Lowland Mesic—Unit 6 |                                                       | <i>Cyanea truncata</i> .                             |
|                           |                                                       | <i>Cyrtandra dentata</i> .                           |
|                           |                                                       | <i>Cyrtandra polyantha</i> .                         |
|                           |                                                       | <i>Delissea subcordata</i> .                         |
|                           |                                                       | <i>Dracaena forbesii</i> .                           |
|                           |                                                       | <i>Eugenia koolauensis</i> .                         |
|                           |                                                       | <i>Gardenia mannii</i> .                             |
|                           |                                                       | <i>Hesperomannia arborescens</i> .                   |
|                           |                                                       | <i>Isodendron laurifolium</i> .                      |
|                           |                                                       | <i>Isodendron longifolium</i> .                      |
|                           |                                                       | <i>Kadua coriacea</i> .                              |
|                           |                                                       | <i>Lobelia cyrtandrae</i> .                          |
|                           |                                                       | <i>Lobelia monostachya</i> .                         |
|                           |                                                       | <i>Melicope lydgatei</i> .                           |
|                           |                                                       | <i>Melicope saint-johnii</i> .                       |
|                           |                                                       | <i>Phyllostegia hirsuta</i> .                        |
|                           |                                                       | <i>Phyllostegia mollis</i> .                         |
|                           |                                                       | <i>Phyllostegia parviflora</i> .                     |
|                           |                                                       | <i>Plantago princeps</i> .                           |
|                           |                                                       | <i>Pteralyxia macrocarpa</i> .                       |
| Oahu—Lowland Mesic—Unit 7 |                                                       | <i>Schiedea kaalae</i> .                             |
|                           |                                                       | <i>Schiedea nuttallii</i> .                          |
|                           |                                                       | <i>Solanum sandwicense</i> .                         |
|                           |                                                       | <i>Tetraplasandra gymnocarpa</i> .                   |
|                           |                                                       | <i>Tetraplasandra lydgatei</i> .                     |
|                           |                                                       | <i>Alectryon macrococcus</i> .                       |
|                           |                                                       | <i>Asplenium dielerectum</i> .                       |
|                           |                                                       | <i>Asplenium dielfalcatum</i> .                      |
|                           |                                                       | <i>Bonamia menziesii</i> .                           |
|                           |                                                       | <i>Chamaesyce celastroides</i> var. <i>kaenana</i> . |
|                           |                                                       | <i>Ctenitis squamigera</i> .                         |
|                           | <i>Cyanea acuminata</i> .....                         | <i>Cyanea acuminata</i> .                            |
|                           |                                                       | <i>Cyanea calycina</i> .                             |
|                           | <i>Cyanea crispa</i> .....                            | <i>Cyanea crispa</i> .                               |
|                           |                                                       | <i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> .    |
|                           |                                                       | <i>Cyanea lanceolata</i> .                           |
|                           |                                                       | <i>Cyanea longiflora</i> .                           |
|                           | <i>Cyanea truncata</i> .....                          | <i>Cyanea truncata</i> .                             |
|                           |                                                       | <i>Cyrtandra dentata</i> .                           |
|                           |                                                       | <i>Cyrtandra polyantha</i> .                         |
| Oahu—Lowland Mesic—Unit 7 |                                                       | <i>Delissea subcordata</i> .                         |
|                           |                                                       | <i>Dracaena forbesii</i> .                           |
|                           |                                                       | <i>Eugenia koolauensis</i> .                         |
|                           | <i>Gardenia mannii</i> .....                          | <i>Gardenia mannii</i> .                             |
|                           |                                                       | <i>Hesperomannia arborescens</i> .                   |
|                           |                                                       | <i>Isodendron laurifolium</i> .                      |
|                           |                                                       | <i>Isodendron longifolium</i> .                      |
|                           |                                                       | <i>Kadua coriacea</i> .                              |
|                           |                                                       | <i>Lobelia cyrtandrae</i> .                          |
|                           |                                                       | <i>Lobelia monostachya</i> .                         |
|                           |                                                       | <i>Melicope lydgatei</i> .                           |
|                           |                                                       | <i>Melicope saint-johnii</i> .                       |
|                           |                                                       | <i>Phyllostegia hirsuta</i> .                        |
|                           |                                                       | <i>Phyllostegia mollis</i> .                         |
|                           |                                                       | <i>Phyllostegia parviflora</i> .                     |
|                           |                                                       | <i>Plantago princeps</i> .                           |
|                           | <i>Pteralyxia macrocarpa</i> .....                    | <i>Pteralyxia macrocarpa</i> .                       |
|                           | <i>Schiedea kaalae</i> .....                          | <i>Schiedea kaalae</i> .                             |
|                           |                                                       | <i>Schiedea nuttallii</i> .                          |
|                           |                                                       | <i>Solanum sandwicense</i> .                         |
| Oahu—Lowland Mesic—Unit 7 |                                                       | <i>Tetraplasandra gymnocarpa</i> .                   |
|                           |                                                       | <i>Tetraplasandra lydgatei</i> .                     |
|                           |                                                       | <i>Alectryon macrococcus</i> .                       |
|                           | <i>Asplenium dielerectum</i> .....                    | <i>Asplenium dielerectum</i> .                       |
|                           |                                                       | <i>Asplenium dielfalcatum</i> .                      |
|                           | <i>Bonamia menziesii</i> .....                        | <i>Bonamia menziesii</i> .                           |
|                           |                                                       | <i>Chamaesyce celastroides</i> var. <i>kaenana</i> . |
|                           |                                                       | <i>Ctenitis squamigera</i> .                         |
|                           | <i>Cyanea acuminata</i> .....                         | <i>Cyanea acuminata</i> .                            |
|                           |                                                       | <i>Cyanea calycina</i> .                             |
|                           |                                                       | <i>Cyanea crispa</i> .                               |
|                           | <i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> ..... | <i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> .    |

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

| Unit name               | Species occupied                     | Species unoccupied                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Oahu—Lowland Wet—Unit 1 | <i>Cyanea lanceolata</i> .....       | <i>Cyanea lanceolata</i> .<br><i>Cyanea longiflora</i> .<br><i>Cyanea truncata</i> .<br><i>Cyrtandra dentata</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                         | <i>Cyrtandra polyantha</i> .....     | <i>Cyrtandra polyantha</i> .<br><i>Delissea subcordata</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                         | <i>Dracaena forbesii</i> .....       | <i>Dracaena forbesii</i> .<br><i>Eugenia koolauensis</i> .<br><i>Gardenia mannii</i> .<br><i>Hesperomannia arborescens</i> .<br><i>Isodendron laurifolium</i> .<br><i>Isodendron longifolium</i> .<br><i>Kadua coriacea</i> .<br><i>Labordia cyrtandrae</i> .                                                                                                                                                                                                                                                                                                                                                                                 |
|                         | <i>Lobelia monostachya</i> .....     | <i>Lobelia monostachya</i> .<br><i>Melicope lydgatei</i> .<br><i>Melicope saint-johnii</i> .<br><i>Phyllostegia hirsuta</i> .<br><i>Phyllostegia mollis</i> .<br><i>Phyllostegia parviflora</i> .<br><i>Plantago princeps</i> .                                                                                                                                                                                                                                                                                                                                                                                                               |
|                         | <i>Pteralyxia macrocarpa</i> .....   | <i>Pteralyxia macrocarpa</i> .<br><i>Schiedea kaalae</i> .<br><i>Schiedea nuttallii</i> .<br><i>Solanum sandwicense</i> .<br><i>Tetraplasandra gymnocarpa</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                         | <i>Tetraplasandra lydgatei</i> ..... | <i>Tetraplasandra lydgatei</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                         |                                      | <i>Cyanea acuminata</i> .<br><i>Cyanea calycina</i> .<br><i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> .<br><i>Cyanea grimesiana</i> ssp. <i>obatae</i> .<br><i>Cyrtandra dentata</i> .<br><i>Diplazium molokaiense</i> .<br><i>Gardenia mannii</i> .<br><i>Gouania vitifolia</i> .<br><i>Hesperomannia arbuscula</i> .<br><i>Isodendron longifolium</i> .<br><i>Labordia cyrtandrae</i> .<br><i>Lobelia oahuensis</i> .<br><i>Phyllostegia hirsuta</i> .<br><i>Phyllostegia mollis</i> .<br><i>Plantago princeps</i> .<br><i>Pteralyxia macrocarpa</i> .                                                                                   |
|                         | <i>Schiedea hookeri</i> .....        | <i>Schiedea hookeri</i> .<br><i>Schiedea kaalae</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                         | <i>Urera kaalae</i> .....            | <i>Urera kaalae</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                         |                                      | <i>Cyanea acuminata</i> .<br><i>Cyanea calycina</i> .<br><i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> .<br><i>Cyanea grimesiana</i> ssp. <i>obatae</i> .<br><i>Cyrtandra dentata</i> .<br><i>Diplazium molokaiense</i> .<br><i>Gardenia mannii</i> .<br><i>Gouania vitifolia</i> .<br><i>Hesperomannia arbuscula</i> .<br><i>Isodendron longifolium</i> .<br><i>Labordia cyrtandrae</i> .<br><i>Lobelia oahuensis</i> .<br><i>Phyllostegia hirsuta</i> .<br><i>Phyllostegia mollis</i> .<br><i>Plantago princeps</i> .<br><i>Pteralyxia macrocarpa</i> .<br><i>Schiedea hookeri</i> .<br><i>Schiedea kaalae</i> .<br><i>Urera kaalae</i> . |
| Oahu—Lowland Wet—Unit 2 |                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Oahu—Lowland Wet—Unit 3 | <i>Phyllostegia hirsuta</i> .....    | <i>Phyllostegia hirsuta</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                         | <i>Phyllostegia mollis</i> .....     | <i>Phyllostegia mollis</i> .<br><i>Plantago princeps</i> .<br><i>Pteralyxia macrocarpa</i> .<br><i>Schiedea hookeri</i> .<br><i>Schiedea kaalae</i> .<br><i>Urera kaalae</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Oahu—Lowland Wet—Unit 3 | <i>Urera kaalae</i> .....            | <i>Cyanea acuminata</i> .<br><i>Cyanea calycina</i> .<br><i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> .<br><i>Cyanea grimesiana</i> ssp. <i>obatae</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

| Unit name               | Species occupied | Species unoccupied                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Oahu—Lowland Wet—Unit 4 |                  | <i>Cyrtandra dentata</i><br><i>Diplazium molokaiense</i><br><i>Gardenia mannii</i><br><i>Gouania vitifolia</i><br><i>Hesperomannia arbuscula</i><br><i>Isodendron longifolium</i><br><i>Labordia cyrtandrae</i><br><i>Lobelia oahuensis</i><br><i>Phyllostegia hirsuta</i> .....<br><i>Phyllostegia mollis</i> .....<br><i>Plantago princeps</i><br><i>Pteralyxia macrocarpa</i><br><i>Schiedea hookeri</i> .....<br><i>Schiedea kaalae</i><br><i>Urera kaalae</i>                                                                                                                                            |
|                         |                  | <i>Cyanea acuminata</i><br><i>Cyanea calycina</i><br><i>Cyanea grimesiana</i> ssp. <i>grimesiana</i><br><i>Cyanea grimesiana</i> ssp. <i>obatae</i><br><i>Cyrtandra dentata</i><br><i>Diplazium molokaiense</i><br><i>Gardenia mannii</i><br><i>Gouania vitifolia</i><br><i>Hesperomannia arbuscula</i><br><i>Isodendron longifolium</i><br><i>Labordia cyrtandrae</i><br><i>Lobelia oahuensis</i><br><i>Phyllostegia hirsuta</i><br><i>Phyllostegia mollis</i> .....<br><i>Plantago princeps</i><br><i>Pteralyxia macrocarpa</i><br><i>Schiedea hookeri</i><br><i>Schiedea kaalae</i><br><i>Urera kaalae</i> |
| Oahu—Lowland Wet—Unit 5 |                  | <i>Cyanea acuminata</i><br><i>Cyanea calycina</i><br><i>Cyanea grimesiana</i> ssp. <i>grimesiana</i><br><i>Cyanea grimesiana</i> ssp. <i>obatae</i><br><i>Cyrtandra dentata</i><br><i>Diplazium molokaiense</i><br><i>Gardenia mannii</i><br><i>Gouania vitifolia</i><br><i>Hesperomannia arbuscula</i> .....<br><i>Isodendron longifolium</i><br><i>Labordia cyrtandrae</i><br><i>Lobelia oahuensis</i><br><i>Phyllostegia hirsuta</i><br><i>Phyllostegia mollis</i><br><i>Plantago princeps</i><br><i>Pteralyxia macrocarpa</i><br><i>Schiedea hookeri</i><br><i>Schiedea kaalae</i><br><i>Urera kaalae</i> |
| Oahu—Lowland Wet—Unit 6 |                  | <i>Cyanea acuminata</i><br><i>Cyanea calycina</i><br><i>Cyanea grimesiana</i> ssp. <i>grimesiana</i><br><i>Cyanea grimesiana</i> ssp. <i>obatae</i><br><i>Cyrtandra dentata</i><br><i>Diplazium molokaiense</i><br><i>Gardenia mannii</i><br><i>Gouania vitifolia</i><br><i>Hesperomannia arbuscula</i> .....<br><i>Isodendron longifolium</i><br><i>Labordia cyrtandrae</i><br><i>Lobelia oahuensis</i><br><i>Phyllostegia hirsuta</i><br><i>Phyllostegia mollis</i><br><i>Plantago princeps</i><br><i>Pteralyxia macrocarpa</i><br><i>Schiedea hookeri</i><br><i>Schiedea kaalae</i><br><i>Urera kaalae</i> |
|                         |                  | <i>Adenophorus periens.</i><br><i>Chamaesyce rockii.</i><br><i>Cyanea acuminata.</i><br><i>Cyanea calycina.</i><br><i>Cyanea crispa.</i><br><i>Cyanea grimesiana</i> ssp. <i>grimesiana.</i><br><i>Cyanea humboldtiana.</i><br><i>Cyanea koolauensis.</i><br><i>Cyanea lanceolata.</i><br><i>Cyanea purpurellifolia.</i><br><i>Cyanea st.-johnii.</i><br><i>Cyanea truncata.</i><br><i>Cyrtandra dentata.</i><br><i>Cyrtandra gracilis.</i><br><i>Cyrtandra kaulantha.</i><br><i>Cyrtandra polyantha.</i><br><i>Cyrtandra sessilis.</i>                                                                       |

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

| Unit name               | Species occupied                                  | Species unoccupied                                    |
|-------------------------|---------------------------------------------------|-------------------------------------------------------|
| Oahu—Lowland Wet—Unit 7 |                                                   | <i>Cyrtandra subumbellata</i> .                       |
|                         |                                                   | <i>Cyrtandra viridiflora</i> .                        |
|                         |                                                   | <i>Cyrtandra waiolani</i> .                           |
|                         |                                                   | <i>Gardenia mannii</i> .                              |
|                         | <i>Hesperomannia arborescens</i> .....            | <i>Hesperomannia arborescens</i> .                    |
|                         |                                                   | <i>Isodendron longifolium</i> .                       |
|                         |                                                   | <i>Labordia cyrtandrae</i> .                          |
|                         |                                                   | <i>Lobelia gaudichaudii</i> ssp. <i>koolauensis</i> . |
|                         |                                                   | <i>Lobelia oahuensis</i> .                            |
|                         |                                                   | <i>Melicope cornuta</i> var. <i>cornuta</i> .         |
|                         |                                                   | <i>Melicope hiiakae</i> .                             |
|                         |                                                   | <i>Melicope lydgatei</i> .                            |
|                         |                                                   | <i>Myrsine juddii</i> .                               |
|                         |                                                   | <i>Phlegmariurus nutans</i> .                         |
|                         |                                                   | <i>Phyllostegia hirsuta</i> .                         |
|                         |                                                   | <i>Phyllostegia parviflora</i> .                      |
|                         |                                                   | <i>Plantago princeps</i> .                            |
|                         |                                                   | <i>Platanthera holochila</i> .                        |
|                         |                                                   | <i>Psychotria hexandra</i> var. <i>oahuensis</i> .    |
|                         |                                                   | <i>Pteralyxia macrocarpa</i> .                        |
|                         |                                                   | <i>Pteris lidgatei</i> .                              |
|                         |                                                   | <i>Sanicula purpurea</i> .                            |
|                         |                                                   | <i>Tetraplasandra gymnocarpa</i> .                    |
|                         |                                                   | <i>Trematolobelia singularis</i> .                    |
|                         |                                                   | <i>Viola oahuensis</i> .                              |
|                         |                                                   | <i>Zanthoxylum oahuense</i> .                         |
|                         |                                                   | <i>Adenophorus periens</i> .                          |
|                         | <i>Chamaesyce rockii</i> .....                    | <i>Chamaesyce rockii</i> .                            |
|                         | <i>Cyanea acuminata</i> .....                     | <i>Cyanea acuminata</i> .                             |
|                         | <i>Cyanea calycina</i> .....                      | <i>Cyanea calycina</i> .                              |
|                         |                                                   | <i>Cyanea crispa</i> .                                |
|                         |                                                   | <i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> .     |
|                         | <i>Cyanea humboldtiana</i> .....                  | <i>Cyanea humboldtiana</i> .                          |
|                         |                                                   | <i>Cyanea koolauensis</i> .                           |
|                         |                                                   | <i>Cyanea lanceolata</i> .                            |
|                         | <i>Cyanea purpurellifolia</i> .....               | <i>Cyanea purpurellifolia</i> .                       |
|                         |                                                   | <i>Cyanea st-johnii</i> .                             |
|                         | <i>Cyanea truncata</i> .....                      | <i>Cyanea truncata</i> .                              |
|                         |                                                   | <i>Cyrtandra dentata</i> .                            |
|                         |                                                   | <i>Cyrtandra gracilis</i> .                           |
|                         |                                                   | <i>Cyrtandra kaulantha</i> .                          |
|                         |                                                   | <i>Cyrtandra polyantha</i> .                          |
|                         |                                                   | <i>Cyrtandra sessilis</i> .                           |
|                         | <i>Cyrtandra viridiflora</i> .....                | <i>Cyrtandra subumbellata</i> .                       |
|                         |                                                   | <i>Cyrtandra viridiflora</i> .                        |
|                         |                                                   | <i>Cyrtandra waiolani</i> .                           |
|                         | <i>Gardenia mannii</i> .....                      | <i>Gardenia mannii</i> .                              |
|                         | <i>Hesperomannia arborescens</i> .....            | <i>Hesperomannia arborescens</i> .                    |
|                         |                                                   | <i>Isodendron longifolium</i> .                       |
|                         |                                                   | <i>Labordia cyrtandrae</i> .                          |
|                         |                                                   | <i>Lobelia gaudichaudii</i> ssp. <i>koolauensis</i> . |
|                         |                                                   | <i>Lobelia oahuensis</i> .                            |
|                         | <i>Melicope cornuta</i> var. <i>cornuta</i> ..... | <i>Melicope cornuta</i> var. <i>cornuta</i> .         |
|                         |                                                   | <i>Melicope hiiakae</i> .                             |
|                         |                                                   | <i>Melicope lydgatei</i> .                            |
|                         | <i>Myrsine juddii</i> .....                       | <i>Myrsine juddii</i> .                               |
|                         | <i>Phlegmariurus nutans</i> .....                 | <i>Phlegmariurus nutans</i> .                         |
|                         | <i>Phyllostegia hirsuta</i> .....                 | <i>Phyllostegia hirsuta</i> .                         |
|                         |                                                   | <i>Phyllostegia parviflora</i> .                      |
|                         |                                                   | <i>Plantago princeps</i> .                            |
|                         |                                                   | <i>Platanthera holochila</i> .                        |
|                         |                                                   | <i>Psychotria hexandra</i> var. <i>oahuensis</i> .    |
|                         | <i>Pteralyxia macrocarpa</i> .....                | <i>Pteralyxia macrocarpa</i> .                        |
|                         | <i>Pteris lidgatei</i> .....                      | <i>Pteris lidgatei</i> .                              |
|                         |                                                   | <i>Sanicula purpurea</i> .                            |
|                         | <i>Tetraplasandra gymnocarpa</i> .....            | <i>Tetraplasandra gymnocarpa</i> .                    |
|                         |                                                   | <i>Trematolobelia singularis</i> .                    |
|                         | <i>Viola oahuensis</i> .....                      | <i>Viola oahuensis</i> .                              |
|                         | <i>Zanthoxylum oahuense</i> .....                 | <i>Zanthoxylum oahuense</i> .                         |
| Oahu—Lowland Wet—Unit 8 |                                                   | <i>Adenophorus periens</i> .                          |
|                         |                                                   | <i>Chamaesyce rockii</i> .                            |
|                         |                                                   | <i>Cyanea acuminata</i> .                             |

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

| Unit name               | Species occupied                                  | Species unoccupied                                    |
|-------------------------|---------------------------------------------------|-------------------------------------------------------|
| Oahu—Lowland Wet—Unit 9 |                                                   | <i>Cyanea calycina</i> .                              |
|                         |                                                   | <i>Cyanea crispa</i> .                                |
|                         |                                                   | <i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> .     |
|                         |                                                   | <i>Cyanea humboldtiana</i> .                          |
|                         |                                                   | <i>Cyanea koolauensis</i> .                           |
|                         |                                                   | <i>Cyanea lanceolata</i> .                            |
|                         |                                                   | <i>Cyanea purpurellifolia</i> .                       |
|                         |                                                   | <i>Cyanea st.-johnii</i> .                            |
|                         |                                                   | <i>Cyanea truncata</i> .                              |
|                         |                                                   | <i>Cyrtandra dentata</i> .                            |
|                         |                                                   | <i>Cyrtandra gracilis</i> .                           |
|                         | <i>Cyrtandra kaulantha</i> .....                  | <i>Cyrtandra kaulantha</i> .                          |
|                         |                                                   | <i>Cyrtandra polyantha</i> .                          |
|                         |                                                   | <i>Cyrtandra sessilis</i> .                           |
|                         |                                                   | <i>Cyrtandra subumbellata</i> .                       |
|                         |                                                   | <i>Cyrtandra viridiflora</i> .                        |
|                         |                                                   | <i>Cyrtandra waiolani</i> .                           |
|                         |                                                   | <i>Gardenia mannii</i> .                              |
|                         |                                                   | <i>Hesperomannia arborescens</i> .                    |
|                         |                                                   | <i>Isodendron longifolium</i> .                       |
|                         |                                                   | <i>Labordia cyrtandrae</i> .                          |
|                         |                                                   | <i>Lobelia gaudichaudii</i> ssp. <i>koolauensis</i> . |
|                         |                                                   | <i>Lobelia oahuensis</i> .                            |
|                         |                                                   | <i>Melicope cornuta</i> var. <i>cornuta</i> .         |
|                         |                                                   | <i>Melicope hiiakae</i> .                             |
|                         |                                                   | <i>Melicope lydgatei</i> .                            |
|                         |                                                   | <i>Myrsine juddii</i> .                               |
|                         |                                                   | <i>Phlegmariurus nutans</i> .                         |
|                         |                                                   | <i>Phyllostegia hirsuta</i> .                         |
|                         |                                                   | <i>Phyllostegia parviflora</i> .                      |
|                         |                                                   | <i>Plantago princeps</i> .                            |
|                         |                                                   | <i>Platanthera holochila</i> .                        |
|                         |                                                   | <i>Psychotria hexandra</i> var. <i>oahuensis</i> .    |
|                         |                                                   | <i>Pteralyxia macrocarpa</i> .                        |
|                         |                                                   | <i>Pteris lydgatei</i> .                              |
|                         |                                                   | <i>Sanicula purpurea</i> .                            |
|                         |                                                   | <i>Tetraplasandra gymnocarpa</i> .                    |
|                         |                                                   | <i>Trematolobelia singularis</i> .                    |
|                         |                                                   | <i>Viola oahuensis</i> .                              |
|                         |                                                   | <i>Zanthoxylum oahuense</i> .                         |
|                         | .....                                             | <i>Adenophorus periens</i> .                          |
|                         | <i>Chamaesyce rockii</i> .....                    | <i>Chamaesyce rockii</i> .                            |
|                         |                                                   | <i>Cyanea acuminata</i> .                             |
|                         | <i>Cyanea calycina</i> .....                      | <i>Cyanea calycina</i> .                              |
|                         |                                                   | <i>Cyanea crispa</i> .                                |
|                         |                                                   | <i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> .     |
|                         | <i>Cyanea humboldtiana</i> .....                  | <i>Cyanea humboldtiana</i> .                          |
|                         | <i>Cyanea koolauensis</i> .....                   | <i>Cyanea koolauensis</i> .                           |
|                         |                                                   | <i>Cyanea lanceolata</i> .                            |
|                         |                                                   | <i>Cyanea purpurellifolia</i> .                       |
|                         | <i>Cyanea st.-johnii</i> .....                    | <i>Cyanea st.-johnii</i> .                            |
|                         |                                                   | <i>Cyanea truncata</i> .                              |
|                         |                                                   | <i>Cyrtandra dentata</i> .                            |
|                         |                                                   | <i>Cyrtandra gracilis</i> .                           |
|                         |                                                   | <i>Cyrtandra kaulantha</i> .                          |
|                         |                                                   | <i>Cyrtandra polyantha</i> .                          |
|                         |                                                   | <i>Cyrtandra sessilis</i> .                           |
|                         |                                                   | <i>Cyrtandra subumbellata</i> .                       |
|                         | <i>Cyrtandra viridiflora</i> .....                | <i>Cyrtandra viridiflora</i> .                        |
|                         |                                                   | <i>Cyrtandra waiolani</i> .                           |
|                         | <i>Gardenia mannii</i> .....                      | <i>Gardenia mannii</i> .                              |
|                         | <i>Hesperomannia arborescens</i> .....            | <i>Hesperomannia arborescens</i> .                    |
|                         |                                                   | <i>Isodendron longifolium</i> .                       |
|                         | <i>Labordia cyrtandrae</i> .....                  | <i>Labordia cyrtandrae</i> .                          |
|                         |                                                   | <i>Lobelia gaudichaudii</i> ssp. <i>koolauensis</i> . |
|                         | <i>Lobelia oahuensis</i> .....                    | <i>Lobelia oahuensis</i> .                            |
|                         | <i>Melicope cornuta</i> var. <i>cornuta</i> ..... | <i>Melicope cornuta</i> var. <i>cornuta</i> .         |
|                         | <i>Melicope hiiakae</i> .....                     | <i>Melicope hiiakae</i> .                             |
|                         | <i>Melicope lydgatei</i> .....                    | <i>Melicope lydgatei</i> .                            |
|                         |                                                   | <i>Myrsine juddii</i> .                               |
|                         |                                                   | <i>Phlegmariurus nutans</i> .                         |
|                         | <i>Phyllostegia hirsuta</i> .....                 | <i>Phyllostegia hirsuta</i> .                         |

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

| Unit name                | Species occupied                       | Species unoccupied                                    |
|--------------------------|----------------------------------------|-------------------------------------------------------|
| Oahu—Lowland Wet—Unit 10 | <i>Phyllostegia parviflora</i> .....   | <i>Phyllostegia parviflora</i> .                      |
|                          | <i>Plantago princeps</i> .....         | <i>Plantago princeps</i> .                            |
| Oahu—Lowland Wet—Unit 11 | <i>Pteris lidgatei</i> .....           | <i>Platanthera holochila</i> .                        |
|                          | <i>Tetraplasandra gymnocarpa</i> ..... | <i>Psychotria hexandra</i> var. <i>oahuensis</i> .    |
| Oahu—Lowland Wet—Unit 11 | <i>Viola oahuensis</i> .....           | <i>Pteralyxia macrocarpa</i> .                        |
|                          | <i>Zanthoxylum oahuense</i> .....      | <i>Pteris lidgatei</i> .                              |
| Oahu—Lowland Wet—Unit 11 | .....                                  | <i>Sanicula purpurea</i> .                            |
|                          | .....                                  | <i>Tetraplasandra gymnocarpa</i> .                    |
| Oahu—Lowland Wet—Unit 11 | .....                                  | <i>Trematolobelia singularis</i> .                    |
|                          | .....                                  | <i>Viola oahuensis</i> .                              |
| Oahu—Lowland Wet—Unit 11 | .....                                  | <i>Zanthoxylum oahuense</i> .                         |
|                          | .....                                  | <i>Adenophorus periens</i> .                          |
| Oahu—Lowland Wet—Unit 11 | .....                                  | <i>Chamaesyce rockii</i> .                            |
|                          | .....                                  | <i>Cyanea acuminata</i> .                             |
| Oahu—Lowland Wet—Unit 11 | .....                                  | <i>Cyanea calycina</i> .                              |
|                          | .....                                  | <i>Cyanea crispa</i> .                                |
| Oahu—Lowland Wet—Unit 11 | .....                                  | <i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> .     |
|                          | .....                                  | <i>Cyanea humboldtiana</i> .                          |
| Oahu—Lowland Wet—Unit 11 | .....                                  | <i>Cyanea koolauensis</i> .                           |
|                          | .....                                  | <i>Cyanea lanceolata</i> .                            |
| Oahu—Lowland Wet—Unit 11 | .....                                  | <i>Cyanea purpurellifolia</i> .                       |
|                          | .....                                  | <i>Cyanea st.-johnii</i> .                            |
| Oahu—Lowland Wet—Unit 11 | .....                                  | <i>Cyanea truncata</i> .                              |
|                          | .....                                  | <i>Cyrtandra dentata</i> .                            |
| Oahu—Lowland Wet—Unit 11 | .....                                  | <i>Cyrtandra gracilis</i> .                           |
|                          | .....                                  | <i>Cyrtandra kaulantha</i> .                          |
| Oahu—Lowland Wet—Unit 11 | .....                                  | <i>Cyrtandra polyantha</i> .                          |
|                          | .....                                  | <i>Cyrtandra sessilis</i> .                           |
| Oahu—Lowland Wet—Unit 11 | .....                                  | <i>Cyrtandra subumbellata</i> .                       |
|                          | .....                                  | <i>Cyrtandra viridiflora</i> .                        |
| Oahu—Lowland Wet—Unit 11 | .....                                  | <i>Cyrtandra waiolani</i> .                           |
|                          | .....                                  | <i>Gardenia mannii</i> .                              |
| Oahu—Lowland Wet—Unit 11 | .....                                  | <i>Hesperomannia arborescens</i> .                    |
|                          | .....                                  | <i>Isodendron longifolium</i> .                       |
| Oahu—Lowland Wet—Unit 11 | .....                                  | <i>Labordia cyrtandrae</i> .                          |
|                          | .....                                  | <i>Lobelia gaudichaudii</i> ssp. <i>koolauensis</i> . |
| Oahu—Lowland Wet—Unit 11 | .....                                  | <i>Lobelia oahuensis</i> .                            |
|                          | .....                                  | <i>Melicope cornuta</i> var. <i>cornuta</i> .         |
| Oahu—Lowland Wet—Unit 11 | .....                                  | <i>Melicope hiiakae</i> .                             |
|                          | .....                                  | <i>Melicope lydgatei</i> .                            |
| Oahu—Lowland Wet—Unit 11 | .....                                  | <i>Myrsine juddii</i> .                               |
|                          | .....                                  | <i>Phlegmarium nutans</i> .                           |
| Oahu—Lowland Wet—Unit 11 | .....                                  | <i>Phyllostegia hirsuta</i> .                         |
|                          | .....                                  | <i>Phyllostegia parviflora</i> .                      |
| Oahu—Lowland Wet—Unit 11 | .....                                  | <i>Plantago princeps</i> .                            |
|                          | .....                                  | <i>Platanthera holochila</i> .                        |
| Oahu—Lowland Wet—Unit 11 | .....                                  | <i>Psychotria hexandra</i> var. <i>oahuensis</i> .    |
|                          | .....                                  | <i>Pteralyxia macrocarpa</i> .                        |
| Oahu—Lowland Wet—Unit 11 | .....                                  | <i>Pteris lidgatei</i> .                              |
|                          | .....                                  | <i>Sanicula purpurea</i> .                            |
| Oahu—Lowland Wet—Unit 11 | .....                                  | <i>Tetraplasandra gymnocarpa</i> .                    |
|                          | .....                                  | <i>Trematolobelia singularis</i> .                    |
| Oahu—Lowland Wet—Unit 11 | .....                                  | <i>Viola oahuensis</i> .                              |
|                          | .....                                  | <i>Zanthoxylum oahuense</i> .                         |
| Oahu—Lowland Wet—Unit 11 | .....                                  | <i>Adenophorus periens</i> .                          |
|                          | .....                                  | <i>Chamaesyce rockii</i> .                            |
| Oahu—Lowland Wet—Unit 11 | .....                                  | <i>Cyanea acuminata</i> .                             |
|                          | .....                                  | <i>Cyanea calycina</i> .                              |
| Oahu—Lowland Wet—Unit 11 | .....                                  | <i>Cyanea crispa</i> .                                |
|                          | .....                                  | <i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> .     |
| Oahu—Lowland Wet—Unit 11 | .....                                  | <i>Cyanea humboldtiana</i> .                          |
|                          | .....                                  | <i>Cyanea koolauensis</i> .                           |
| Oahu—Lowland Wet—Unit 11 | .....                                  | <i>Cyanea lanceolata</i> .                            |
|                          | .....                                  | <i>Cyanea purpurellifolia</i> .                       |
| Oahu—Lowland Wet—Unit 11 | .....                                  | <i>Cyanea st.-johnii</i> .                            |
|                          | .....                                  | <i>Cyanea truncata</i> .                              |
| Oahu—Lowland Wet—Unit 11 | .....                                  | <i>Cyrtandra dentata</i> .                            |
|                          | .....                                  | <i>Cyrtandra gracilis</i> .                           |
| Oahu—Lowland Wet—Unit 11 | .....                                  | <i>Cyrtandra kaulantha</i> .                          |
|                          | .....                                  | <i>Cyrtandra polyantha</i> .                          |
| Oahu—Lowland Wet—Unit 11 | .....                                  | <i>Cyrtandra sessilis</i> .                           |
|                          | .....                                  | <i>Cyrtandra subumbellata</i> .                       |

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

| Unit name                | Species occupied | Species unoccupied                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                          |                  | <i>Cyrtandra viridiflora.</i><br><i>Cyrtandra waiolani.</i><br><i>Gardenia mannii.</i><br><i>Hesperomannia arborescens.</i><br><i>Isodendron longifolium.</i><br><i>Labordia cyrtandrae.</i><br><i>Lobelia gaudichaudii</i> ssp. <i>koolauensis.</i><br><i>Lobelia oahuensis.</i><br><i>Melicope cornuta</i> var. <i>comuta.</i><br><i>Melicope hiiakae.</i><br><i>Melicope lydgatei.</i><br><i>Myrsine juddii.</i><br><i>Phlegmariurus nutans.</i><br><i>Phyllostegia hirsuta.</i><br><i>Phyllostegia parviflora.</i><br><i>Plantago princeps.</i><br><i>Platanthera holochila.</i><br><i>Psychotria hexandra</i> var. <i>oahuensis.</i><br><i>Pteralyxia macrocarpa.</i><br><i>Pteris lidgatei.</i><br><i>Sanicula purpurea.</i><br><i>Tetraplasandra gymnocarpa.</i><br><i>Trematolobelia singularis.</i><br><i>Viola oahuensis.</i><br><i>Zanthoxylum oahuense.</i><br><i>Adenophorus periens.</i><br><i>Chamaesyce rockii.</i><br><i>Cyanea acuminata.</i><br><i>Cyanea calycina.</i><br><i>Cyanea crispa.</i><br><i>Cyanea grimesiana</i> ssp. <i>grimesiana.</i><br><i>Cyanea humboldtiana.</i><br><i>Cyanea koolauensis.</i><br><i>Cyanea lanceolata.</i><br><i>Cyanea purpurellifolia.</i><br><i>Cyanea st.-johnii.</i><br><i>Cyanea truncata.</i><br><i>Cyrtandra dentata.</i><br><i>Cyrtandra gracilis.</i><br><i>Cyrtandra kaulantha.</i><br><i>Cyrtandra polyantha.</i><br><i>Cyrtandra sessilis.</i><br><i>Cyrtandra subumbellata.</i><br><i>Cyrtandra viridiflora.</i><br><i>Cyrtandra waiolani.</i><br><i>Gardenia mannii.</i><br><i>Hesperomannia arborescens.</i><br><i>Isodendron longifolium.</i><br><i>Labordia cyrtandrae.</i><br><i>Lobelia gaudichaudii</i> ssp. <i>koolauensis.</i><br><i>Lobelia oahuensis.</i><br><i>Melicope cornuta</i> var. <i>comuta.</i><br><i>Melicope hiiakae.</i><br><i>Melicope lydgatei.</i><br><i>Myrsine juddii.</i><br><i>Phlegmariurus nutans.</i><br><i>Phyllostegia hirsuta.</i><br><i>Phyllostegia parviflora.</i><br><i>Plantago princeps.</i><br><i>Platanthera holochila.</i><br><i>Psychotria hexandra</i> var. <i>oahuensis.</i><br><i>Pteralyxia macrocarpa.</i><br><i>Pteris lidgatei.</i><br><i>Sanicula purpurea.</i><br><i>Tetraplasandra gymnocarpa.</i><br><i>Trematolobelia singularis.</i><br><i>Viola oahuensis.</i><br><i>Zanthoxylum oahuense.</i><br><i>Adenophorus periens.</i><br><i>Chamaesyce rockii.</i><br><i>Cyanea acuminata.</i><br><i>Cyanea calycina.</i> |
| Oahu—Lowland Wet—Unit 12 | .....            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Oahu—Lowland Wet—Unit 13 | .....            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |



(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

| Unit name                | Species occupied | Species unoccupied                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Oahu—Lowland Wet—Unit 14 |                  | <i>Cyanea crispa</i> .<br><i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> .<br><i>Cyanea humboldtiana</i> .<br><i>Cyanea koolauensis</i> .<br><i>Cyanea lanceolata</i> .<br><i>Cyanea purpurellifolia</i> .<br><i>Cyanea st.-johnii</i> .<br><i>Cyanea truncata</i> .<br><i>Cyrtandra dentata</i> .<br><i>Cyrtandra gracilis</i> .<br><i>Cyrtandra kaulantha</i> .<br><i>Cyrtandra polyantha</i> .<br><i>Cyrtandra sessilis</i> .<br><i>Cyrtandra subumbellata</i> .<br><i>Cyrtandra viridiflora</i> .<br><i>Cyrtandra waiolani</i> .<br><i>Gardenia mannii</i> .<br><i>Hesperomannia arborescens</i> .<br><i>Isodendron longifolium</i> .<br><i>Labordia cyrtandrae</i> .<br><i>Lobelia gaudichaudii</i> ssp. <i>koolauensis</i> .<br><i>Lobelia oahuensis</i> .<br><i>Melicope cornuta</i> var. <i>cornuta</i> .<br><i>Melicope hiiakae</i> .<br><i>Melicope lydgatei</i> .<br><i>Myrsine juddii</i> .<br><i>Phlegmariurus nutans</i> .<br><i>Phyllostegia hirsuta</i> .<br><i>Phyllostegia parviflora</i> .<br><i>Plantago princeps</i> .<br><i>Platanthera holochila</i> .<br><i>Psychotria hexandra</i> var. <i>oahuensis</i> .<br><i>Pteralyxia macrocarpa</i> .<br><i>Pteris lidgatei</i> .<br><i>Sanicula purpurea</i> .<br><i>Tetraplasandra gymnocarpa</i> .<br><i>Trematolobelia singularis</i> .<br><i>Viola oahuensis</i> .<br><i>Zanthoxylum oahuense</i> . |
|                          |                  | <i>Adenophorus periens</i> .<br><i>Chamaesyce rockii</i> .<br><i>Cyanea acuminata</i> .<br><i>Cyanea calycina</i> .<br><i>Cyanea crispa</i> .<br><i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> .<br><i>Cyanea humboldtiana</i> .<br><i>Cyanea koolauensis</i> .<br><i>Cyanea lanceolata</i> .<br><i>Cyanea purpurellifolia</i> .<br><i>Cyanea st.-johnii</i> .<br><i>Cyanea truncata</i> .<br><i>Cyrtandra dentata</i> .<br><i>Cyrtandra gracilis</i> .<br><i>Cyrtandra kaulantha</i> .<br><i>Cyrtandra polyantha</i> .<br><i>Cyrtandra sessilis</i> .<br><i>Cyrtandra subumbellata</i> .<br><i>Cyrtandra viridiflora</i> .<br><i>Cyrtandra waiolani</i> .<br><i>Gardenia mannii</i> .<br><i>Hesperomannia arborescens</i> .<br><i>Isodendron longifolium</i> .<br><i>Labordia cyrtandrae</i> .<br><i>Lobelia gaudichaudii</i> ssp. <i>koolauensis</i> .<br><i>Lobelia oahuensis</i> .<br><i>Melicope cornuta</i> var. <i>cornuta</i> .<br><i>Melicope hiiakae</i> .<br><i>Melicope lydgatei</i> .<br><i>Myrsine juddii</i> .<br><i>Phlegmariurus nutans</i> .<br><i>Phyllostegia hirsuta</i> .<br><i>Phyllostegia parviflora</i> .                                                                                                                                                                                                                                     |
|                          |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                          |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                          |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

| Unit name                | Species occupied | Species unoccupied                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Oahu—Lowland Wet—Unit 15 | .....            | <i>Plantago princeps</i> .<br><i>Platanthera holochila</i> .<br><i>Psychotria hexandra</i> var. <i>oahuensis</i> .<br><i>Pteralyxia macrocarpa</i> .<br><i>Pteris lidgatei</i> .<br><i>Sanicula purpurea</i> .<br><i>Tetraplasandra gymnocarpa</i> .<br><i>Trematolobelia singularis</i> .<br><i>Viola oahuensis</i> .<br><i>Zanthoxylum oahuense</i> .<br><i>Adenophorus periens</i> .<br><i>Chamaesyce rockii</i> .<br><i>Cyanea acuminata</i> .<br><i>Cyanea calycina</i> .<br><i>Cyanea crispa</i> ..... <i>Cyanea crispa</i> .<br><i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> .<br><i>Cyanea humboldtiana</i> .<br><i>Cyanea koolauensis</i> .<br><i>Cyanea lanceolata</i> .<br><i>Cyanea purpurellifolia</i> .<br><i>Cyanea st.-johnii</i> .<br><i>Cyanea truncata</i> .<br><i>Cyrtandra dentata</i> .<br><i>Cyrtandra gracilis</i> .<br><i>Cyrtandra kaulantha</i> .<br><i>Cyrtandra polyantha</i> .<br><i>Cyrtandra sessilis</i> .<br><i>Cyrtandra subumbellata</i> .<br><i>Cyrtandra viridiflora</i> .<br><i>Cyrtandra waiolani</i> .<br><i>Gardenia mannii</i> .<br><i>Hesperomannia arborescens</i> .<br><i>Isodendron longifolium</i> .<br><i>Labordia cyrtandrae</i> .<br><i>Lobelia gaudichaudii</i> ssp. <i>koolauensis</i> .<br><i>Lobelia oahuensis</i> .<br><i>Melicope cornuta</i> var. <i>cornuta</i> .<br><i>Melicope hiiakae</i> .<br><i>Melicope lydgatei</i> .<br><i>Myrsine juddii</i> .<br><i>Phlegmariurus nutans</i> .<br><i>Phyllostegia hirsuta</i> .<br><i>Phyllostegia parviflora</i> .<br><i>Plantago princeps</i> .<br><i>Platanthera holochila</i> .<br><i>Psychotria hexandra</i> var. <i>oahuensis</i> .<br><i>Pteralyxia macrocarpa</i> .<br><i>Pteris lidgatei</i> .<br><i>Sanicula purpurea</i> .<br><i>Tetraplasandra gymnocarpa</i> .<br><i>Trematolobelia singularis</i> .<br><i>Viola oahuensis</i> .<br><i>Zanthoxylum oahuense</i> .<br><i>Adenophorus periens</i> .<br><i>Chamaesyce rockii</i> .<br><i>Cyanea acuminata</i> .<br><i>Cyanea calycina</i> .<br><i>Cyanea crispa</i> ..... <i>Cyanea crispa</i> .<br><i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> .<br><i>Cyanea humboldtiana</i> .<br><i>Cyanea koolauensis</i> .<br><i>Cyanea lanceolata</i> .<br><i>Cyanea purpurellifolia</i> .<br><i>Cyanea st.-johnii</i> ..... <i>Cyanea st.-johnii</i> .<br><i>Cyanea truncata</i> .<br><i>Cyrtandra dentata</i> .<br><i>Cyrtandra gracilis</i> ..... <i>Cyrtandra gracilis</i> .<br><i>Cyrtandra kaulantha</i> .<br><i>Cyrtandra polyantha</i> ..... <i>Cyrtandra polyantha</i> .<br><i>Cyrtandra sessilis</i> ..... <i>Cyrtandra sessilis</i> .<br><i>Cyrtandra subumbellata</i> .<br><i>Cyrtandra viridiflora</i> . |
| Oahu—Lowland Wet—Unit 16 | .....            | <i>Plantago princeps</i> .<br><i>Platanthera holochila</i> .<br><i>Psychotria hexandra</i> var. <i>oahuensis</i> .<br><i>Pteralyxia macrocarpa</i> .<br><i>Pteris lidgatei</i> .<br><i>Sanicula purpurea</i> .<br><i>Tetraplasandra gymnocarpa</i> .<br><i>Trematolobelia singularis</i> .<br><i>Viola oahuensis</i> .<br><i>Zanthoxylum oahuense</i> .<br><i>Adenophorus periens</i> .<br><i>Chamaesyce rockii</i> .<br><i>Cyanea acuminata</i> ..... <i>Cyanea acuminata</i> .<br><i>Cyanea calycina</i> ..... <i>Cyanea calycina</i> .<br><i>Cyanea crispa</i> ..... <i>Cyanea crispa</i> .<br><i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> .<br><i>Cyanea humboldtiana</i> ..... <i>Cyanea humboldtiana</i> .<br><i>Cyanea koolauensis</i> ..... <i>Cyanea koolauensis</i> .<br><i>Cyanea lanceolata</i> ..... <i>Cyanea lanceolata</i> .<br><i>Cyanea purpurellifolia</i> .<br><i>Cyanea st.-johnii</i> ..... <i>Cyanea st.-johnii</i> .<br><i>Cyanea truncata</i> .<br><i>Cyrtandra dentata</i> .<br><i>Cyrtandra gracilis</i> ..... <i>Cyrtandra gracilis</i> .<br><i>Cyrtandra kaulantha</i> .<br><i>Cyrtandra polyantha</i> ..... <i>Cyrtandra polyantha</i> .<br><i>Cyrtandra sessilis</i> ..... <i>Cyrtandra sessilis</i> .<br><i>Cyrtandra subumbellata</i> .<br><i>Cyrtandra viridiflora</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

| Unit name               | Species occupied                                  | Species unoccupied                                    |
|-------------------------|---------------------------------------------------|-------------------------------------------------------|
| Oahu—Montane Wet—Unit 1 | <i>Gardenia mannii</i> .....                      | <i>Cyrtandra waiolani</i> .                           |
|                         | <i>Hesperomannia arborescens</i> .....            | <i>Gardenia mannii</i> .                              |
|                         |                                                   | <i>Hesperomannia arborescens</i> .                    |
|                         |                                                   | <i>Isodendron longifolium</i> .                       |
|                         |                                                   | <i>Labordia cyrtandrae</i> .                          |
|                         |                                                   | <i>Lobelia gaudichaudii</i> ssp. <i>koolauensis</i> . |
|                         |                                                   | <i>Lobelia oahuensis</i> .                            |
|                         |                                                   | <i>Melicope cornuta</i> var. <i>cornuta</i> .....     |
|                         |                                                   | <i>Melicope cornuta</i> var. <i>cornuta</i> .         |
|                         |                                                   | <i>Melicope hiiaekae</i> .                            |
|                         |                                                   | <i>Melicope lydgatei</i> .                            |
|                         |                                                   | <i>Myrsine juddii</i> .                               |
|                         |                                                   | <i>Phlegmariurus nutans</i> .                         |
|                         |                                                   | <i>Phyllostegia hirsuta</i> .                         |
|                         |                                                   | <i>Phyllostegia parviflora</i> .                      |
|                         |                                                   | <i>Plantago princeps</i> .                            |
|                         |                                                   | <i>Platanthera holochila</i> .                        |
|                         |                                                   | <i>Psychotria hexandra</i> var. <i>oahuensis</i> .    |
|                         |                                                   | <i>Pteralyxia macrocarpa</i> .                        |
|                         |                                                   | <i>Pteris lidgatei</i> .                              |
|                         | <i>Sanicula purpurea</i> .....                    | <i>Sanicula purpurea</i> .                            |
|                         | <i>Tetraplasandra gymnocarpa</i> .....            | <i>Tetraplasandra gymnocarpa</i> .                    |
|                         |                                                   | <i>Trematolobelia singularis</i> .                    |
|                         |                                                   | <i>Viola oahuensis</i> .                              |
|                         |                                                   | <i>Zanthoxylum oahuense</i> .                         |
|                         |                                                   | <i>Alectryon macrococcus</i> var.                     |
|                         |                                                   | <i>macrococcus</i>                                    |
|                         | <i>Cyanea acuminata</i> .....                     | <i>Cyanea acuminata</i>                               |
|                         | <i>Cyanea calycina</i> .....                      | <i>Cyanea calycina</i>                                |
|                         | <i>Labordia cyrtandrae</i> .....                  | <i>Labordia cyrtandrae</i>                            |
|                         |                                                   | <i>Lobelia oahuensis</i>                              |
|                         | <i>Melicope christophersenii</i> .....            | <i>Melicope christophersenii</i>                      |
|                         |                                                   | <i>Phyllostegia hirsuta</i>                           |
|                         | <i>Schiedea trinervis</i> .....                   | <i>Schiedea trinervis</i>                             |
|                         |                                                   | <i>Abutilon sandwicense</i> .                         |
|                         |                                                   | <i>Achyranthes splendens</i> var. <i>rotundata</i> .  |
|                         |                                                   | <i>Alectryon macrococcus</i> .                        |
|                         | <i>Alectryon macrococcus</i> .....                | <i>Asplenium dielfalcatum</i> .                       |
|                         |                                                   | <i>Bonamia menziesii</i> .                            |
|                         | <i>Cenchrus agrimonioides</i> .....               | <i>Cenchrus agrimonioides</i> .                       |
|                         | <i>Chamaesyce herbstii</i> .....                  | <i>Chamaesyce herbstii</i> .                          |
|                         |                                                   | <i>Chamaesyce kuwaleana</i> .                         |
|                         | <i>Cyanea grimesiana</i> ssp. <i>obatae</i> ..... | <i>Cyanea grimesiana</i> ssp. <i>obatae</i> .         |
|                         | <i>Cyrtandra dentata</i> .....                    | <i>Cyrtandra dentata</i> .                            |
|                         |                                                   | <i>Diellia unisora</i> .                              |
|                         |                                                   | <i>Dracaena forbesii</i> .                            |
|                         |                                                   | <i>Dubautia herbstobatae</i> .                        |
|                         |                                                   | <i>Eragrostis fosbergii</i> .                         |
|                         |                                                   | <i>Flueggea neowawraea</i> .                          |
|                         |                                                   | <i>Gouania meyenii</i> .                              |
|                         |                                                   | <i>Gouania vitifolia</i> .                            |
|                         |                                                   | <i>Isodendron laurifolium</i> .                       |
|                         |                                                   | <i>Isodendron pyriformis</i> .                        |
|                         | <i>Kadua degeneri</i> .....                       | <i>Kadua degeneri</i> .                               |
|                         |                                                   | <i>Kadua parvula</i> .                                |
|                         |                                                   | <i>Korthalsella degeneri</i> .                        |
|                         |                                                   | <i>Lepidium arbuscula</i> .                           |
|                         |                                                   | <i>Lipochaeta lobata</i> var. <i>leptophylla</i> .    |
|                         |                                                   | <i>Lobelia nilhauensis</i> .                          |
|                         |                                                   | <i>Melanthera tenuifolia</i> .                        |
|                         |                                                   | <i>Melicope cornuta</i> var. <i>decurrens</i> .       |
|                         |                                                   | <i>Melicope makahae</i> .                             |
|                         |                                                   | <i>Melicope saint-johnii</i> .                        |
|                         |                                                   | <i>Neraudia angulata</i> .                            |
|                         |                                                   | <i>Nototrichium humile</i> .                          |
|                         |                                                   | <i>Peucedanum sandwicense</i> .                       |
|                         |                                                   | <i>Phyllostegia kaalaensis</i> .                      |
|                         | <i>Plantago princeps</i> .....                    | <i>Plantago princeps</i> .                            |
|                         |                                                   | <i>Pteralyxia macrocarpa</i> .                        |
|                         |                                                   | <i>Sanicula mariversa</i> .                           |
|                         |                                                   | <i>Schiedea hookeri</i> .                             |
|                         | <i>Schiedea obovata</i> .....                     | <i>Schiedea obovata</i> .                             |
|                         |                                                   |                                                       |

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

| Unit name             | Species occupied                                       | Species unoccupied                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Oahu—Dry Cliff—Unit 2 |                                                        | <i>Schiedea trinervis</i> .<br><i>Silene lanceolata</i> .<br><i>Silene perlmanii</i> .<br><i>Spermolepis hawaiiensis</i> .<br><i>Tetramolopium filiforme</i> .<br><i>Tetramolopium lepidotum</i> ssp. <i>lepidotum</i> .                                                                                                                                                                                                                  |
|                       | <i>Viola chamissoniana</i> ssp. <i>chamissoniana</i> . |                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                       | <i>Abutilon sandwicense</i> .....                      | <i>Abutilon sandwicense</i> .<br><i>Achyranthes splendens</i> var. <i>rotundata</i> .<br><i>Alectryon macrococcus</i> .<br><i>Asplenium dielfalcatum</i> .<br><i>Bonamia menziesii</i> .<br><i>Cenchrus agrimonioides</i> .<br><i>Chamaesyce herbstii</i> .<br><i>Chamaesyce kuwaleana</i> .<br><i>Cyanea grimesiana</i> ssp. <i>obatae</i> .<br><i>Cyrtandra dentata</i> .<br><i>Diellia unisora</i> .<br><i>Dracaena forbesii</i> ..... |
|                       | <i>Alectryon macrococcus</i> .....                     | <i>Dubautia herbstobatae</i> .<br><i>Eragrostis fosbergii</i> .<br><i>Flueggea neowawraea</i> .<br><i>Gouania meyenii</i> .<br><i>Gouania vitifolia</i> .....                                                                                                                                                                                                                                                                             |
|                       |                                                        | <i>Isodendron laurifolium</i> .<br><i>Isodendron pyriforme</i> .<br><i>Kadua degeneri</i> .<br><i>Kadua parvula</i> .....                                                                                                                                                                                                                                                                                                                 |
|                       | <i>Dracaena forbesii</i> .....                         | <i>Korthalsella degeneri</i> .<br><i>Lepidium arbuscula</i> .....                                                                                                                                                                                                                                                                                                                                                                         |
|                       | <i>Dubautia herbstobatae</i> .....                     | <i>Lipochaeta lobata</i> var. <i>leptophylla</i> .<br><i>Lobelia niihauensis</i> .....                                                                                                                                                                                                                                                                                                                                                    |
|                       |                                                        | <i>Lobelia niihauensis</i> .<br><i>Melanthera tenuifolia</i> .....                                                                                                                                                                                                                                                                                                                                                                        |
|                       | <i>Gouania vitifolia</i> .....                         | <i>Melanthera tenuifolia</i> .<br><i>Melicope cornuta</i> var. <i>decurrens</i> .....                                                                                                                                                                                                                                                                                                                                                     |
|                       |                                                        | <i>Melicope cornuta</i> var. <i>decurrens</i> .<br><i>Melicope makahae</i> .....                                                                                                                                                                                                                                                                                                                                                          |
|                       | <i>Kadua parvula</i> .....                             | <i>Melicope makahae</i> .<br><i>Melicope saint-johnii</i> .<br><i>Neraudia angulata</i> .<br><i>Nototrichium humile</i> .....                                                                                                                                                                                                                                                                                                             |
|                       | <i>Lepidium arbuscula</i> .....                        | <i>Nototrichium humile</i> .<br><i>Peucedanum sandwicense</i> .....                                                                                                                                                                                                                                                                                                                                                                       |
|                       | <i>Lobelia niihauensis</i> .....                       | <i>Phyllostegia kaalaensis</i> .<br><i>Plantago princeps</i> .<br><i>Pteralyxia macrocarpa</i> .<br><i>Sanicula mariversa</i> .....                                                                                                                                                                                                                                                                                                       |
|                       | <i>Melanthera tenuifolia</i> .....                     | <i>Sanicula mariversa</i> .<br><i>Schiedea hookeri</i> .....                                                                                                                                                                                                                                                                                                                                                                              |
|                       | <i>Melicope cornuta</i> var. <i>decurrens</i> .....    | <i>Schiedea hookeri</i> .<br><i>Schiedea obovata</i> .<br><i>Schiedea trinervis</i> .<br><i>Silene lanceolata</i> .<br><i>Silene perlmanii</i> .<br><i>Spermolepis hawaiiensis</i> .<br><i>Tetramolopium filiforme</i> .....                                                                                                                                                                                                              |
|                       | <i>Melicope makahae</i> .....                          | <i>Tetramolopium lepidotum</i> ssp. <i>lepidotum</i> .<br><i>Viola chamissoniana</i> ssp. <i>chamissoniana</i> ssp. <i>chamissoniana</i> .                                                                                                                                                                                                                                                                                                |
|                       | <i>Nototrichium humile</i> .....                       |                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                       | <i>Peucedanum sandwicense</i> .....                    | <i>Abutilon sandwicense</i> .<br><i>Achyranthes splendens</i> var. <i>rotundata</i> .<br><i>Alectryon macrococcus</i> .<br><i>Asplenium dielfalcatum</i> .....                                                                                                                                                                                                                                                                            |
|                       |                                                        | <i>Bonamia menziesii</i> .<br><i>Cenchrus agrimonioides</i> .<br><i>Chamaesyce herbstii</i> .<br><i>Chamaesyce kuwaleana</i> .<br><i>Cyanea grimesiana</i> ssp. <i>obatae</i> .<br><i>Cyrtandra dentata</i> .<br><i>Diellia unisora</i> .<br><i>Dracaena forbesii</i> .....                                                                                                                                                               |
|                       | <i>Sanicula mariversa</i> .....                        | <i>Dracaena forbesii</i> .<br><i>Dubautia herbstobatae</i> .....                                                                                                                                                                                                                                                                                                                                                                          |
|                       | <i>Schiedea hookeri</i> .....                          | <i>Dubautia herbstobatae</i> .<br><i>Eragrostis fosbergii</i> .<br><i>Flueggea neowawraea</i> .....                                                                                                                                                                                                                                                                                                                                       |
|                       |                                                        | <i>Flueggea neowawraea</i> .<br><i>Gouania meyenii</i> .....                                                                                                                                                                                                                                                                                                                                                                              |
|                       | <i>Tetramolopium filiforme</i> .....                   | <i>Gouania meyenii</i> .                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                       | <i>Viola chamissoniana</i> ssp. <i>chamissoniana</i>   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                       | <i>Abutilon sandwicense</i> .....                      |                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                       | <i>Alectryon macrococcus</i> .....                     |                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                       | <i>Asplenium dielfalcatum</i> .....                    |                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                       | <i>Bonamia menziesii</i> .....                         |                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Oahu—Dry Cliff—Unit 3 |                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                       |                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                       |                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                       |                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                       |                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                       |                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                       |                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                       |                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                       |                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                       |                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                           |

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

| Unit name             | Species occupied                                           | Species unoccupied                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------|------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Oahu—Dry Cliff—Unit 4 | <i>Isodendron laurifolium</i> .....                        | <i>Gouania vitifolia</i> .<br><i>Isodendron laurifolium</i> .<br><i>Isodendron pyriformum</i> .<br><i>Kadua degeneri</i> .<br><i>Kadua parvula</i> .<br><i>Korthalsella degeneri</i> .<br><i>Lepidium arbuscula</i> .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                       | <i>Korthalsella degeneri</i> .....                         | <i>Lepidium arbuscula</i> .<br><i>Lipochaeta lobata</i> var. <i>leptophylla</i> .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                       | <i>Lepidium arbuscula</i> .....                            | <i>Lipochaeta lobata</i> var. <i>leptophylla</i> .<br><i>Lobelia niihauensis</i> .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                       | <i>Lipochaeta lobata</i> var. <i>leptophylla</i> .....     | <i>Lobelia niihauensis</i> .<br><i>Melanthera tenuifolia</i> .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                       | <i>Lobelia niihauensis</i> .....                           | <i>Melanthera tenuifolia</i> .<br><i>Melicope cornuta</i> var. <i>decurrens</i> .<br><i>Melicope makahae</i> .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                       | <i>Melanthera tenuifolia</i> .....                         | <i>Melicope makahae</i> .<br><i>Melicope saint-johnii</i> .<br><i>Neraudia angulata</i> .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                       | <i>Melicope makahae</i> .....                              | <i>Melicope saint-johnii</i> .<br><i>Neraudia angulata</i> .<br><i>Nototrichium humile</i> .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                       | <i>Neraudia angulata</i> .....                             | <i>Nototrichium humile</i> .<br><i>Peucedanum sandwicense</i> .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                       | <i>Nototrichium humile</i> .....                           | <i>Peucedanum sandwicense</i> .<br><i>Phyllostegia kaalaensis</i> .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                       | <i>Peucedanum sandwicense</i> .....                        | <i>Phyllostegia kaalaensis</i> .<br><i>Plantago princeps</i> .<br><i>Pteralyxia macrocarpa</i> .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                       | <i>Phyllostegia kaalaensis</i> .....                       | <i>Pteralyxia macrocarpa</i> .<br><i>Sanicula mariversa</i> .<br><i>Schiedea hookeri</i> .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                       | <i>Pteralyxia macrocarpa</i> .....                         | <i>Sanicula mariversa</i> .<br><i>Schiedea hookeri</i> .<br><i>Schiedea obovata</i> .<br><i>Schiedea trinervis</i> .<br><i>Silene lanceolata</i> .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                       | <i>Schiedea hookeri</i> .....                              | <i>Schiedea obovata</i> .<br><i>Schiedea trinervis</i> .<br><i>Silene lanceolata</i> .<br><i>Silene perlmanii</i> .<br><i>Spermolepis hawaiiensis</i> .<br><i>Tetramolopium filiforme</i> .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                       | <i>Silene lanceolata</i> .....                             | <i>Silene lanceolata</i> .<br><i>Silene perlmanii</i> .<br><i>Spermolepis hawaiiensis</i> .<br><i>Tetramolopium filiforme</i> .<br><i>Tetramolopium lepidotum</i> ssp.<br><i>Tetramolopium lepidotum</i> .<br><i>Viola chamissoniana</i> ssp. <i>chamissoniana</i> ssp.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                       | <i>Tetramolopium filiforme</i> .....                       | <i>Viola chamissoniana</i> ssp. <i>chamissoniana</i> ssp.<br><i>chamissoniana</i> .<br><i>Abutilon sandwicense</i> .<br><i>Achyranthes splendens</i> var. <i>rotundata</i> .<br><i>Alectryon macrococcus</i> .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                       | <i>Viola chamissoniana</i> ssp. <i>chamissoniana</i> ..... | <i>Alectryon macrococcus</i> .<br><i>Asplenium dielfalcatum</i> .<br><i>Bonamia menziesii</i> .<br><i>Cenchrus agrimonoides</i> .<br><i>Chamaesyce herbstii</i> .<br><i>Chamaesyce kuwaleana</i> .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                       | .....                                                      | <i>Chamaesyce kuwaleana</i> .<br><i>Cyanea grimesiana</i> ssp. <i>obatae</i> .<br><i>Cyrtandra dentata</i> .<br><i>Diellia unisora</i> .<br><i>Dracaena forbesii</i> .<br><i>Dubautia herbstobatae</i> .<br><i>Eragrostis fosbergii</i> .<br><i>Flueggea neowawraea</i> .<br><i>Gouania meyenii</i> .<br><i>Gouania vitifolia</i> .<br><i>Isodendron laurifolium</i> .<br><i>Isodendron pyriformum</i> .<br><i>Kadua degeneri</i> .<br><i>Kadua parvula</i> .<br><i>Korthalsella degeneri</i> .<br><i>Lepidium arbuscula</i> .<br><i>Lipochaeta lobata</i> var. <i>leptophylla</i> .<br><i>Lobelia niihauensis</i> .<br><i>Melanthera tenuifolia</i> .<br><i>Melicope cornuta</i> var. <i>decurrens</i> .<br><i>Melicope makahae</i> .<br><i>Melicope saint-johnii</i> .<br><i>Neraudia angulata</i> .<br><i>Nototrichium humile</i> .<br><i>Peucedanum sandwicense</i> .<br><i>Phyllostegia kaalaensis</i> .<br><i>Plantago princeps</i> .<br><i>Pteralyxia macrocarpa</i> .<br><i>Sanicula mariversa</i> .<br><i>Schiedea hookeri</i> .<br><i>Schiedea obovata</i> .<br><i>Schiedea trinervis</i> .<br><i>Silene lanceolata</i> .<br><i>Silene perlmanii</i> .                                                                                                                                                                                                                                                               |
|                       | <i>Alectryon macrococcus</i> .....                         | <i>Abutilon sandwicense</i> .<br><i>Achyranthes splendens</i> var. <i>rotundata</i> .<br><i>Alectryon macrococcus</i> .<br><i>Asplenium dielfalcatum</i> .<br><i>Bonamia menziesii</i> .<br><i>Cenchrus agrimonoides</i> .<br><i>Chamaesyce herbstii</i> .<br><i>Chamaesyce kuwaleana</i> .<br><i>Cyanea grimesiana</i> ssp. <i>obatae</i> .<br><i>Cyrtandra dentata</i> .<br><i>Diellia unisora</i> .<br><i>Dracaena forbesii</i> .<br><i>Dubautia herbstobatae</i> .<br><i>Eragrostis fosbergii</i> .<br><i>Flueggea neowawraea</i> .<br><i>Gouania meyenii</i> .<br><i>Gouania vitifolia</i> .<br><i>Isodendron laurifolium</i> .<br><i>Isodendron pyriformum</i> .<br><i>Kadua degeneri</i> .<br><i>Kadua parvula</i> .<br><i>Korthalsella degeneri</i> .<br><i>Lepidium arbuscula</i> .<br><i>Lipochaeta lobata</i> var. <i>leptophylla</i> .<br><i>Lobelia niihauensis</i> .<br><i>Melanthera tenuifolia</i> .<br><i>Melicope cornuta</i> var. <i>decurrens</i> .<br><i>Melicope makahae</i> .<br><i>Melicope saint-johnii</i> .<br><i>Neraudia angulata</i> .<br><i>Nototrichium humile</i> .<br><i>Peucedanum sandwicense</i> .<br><i>Phyllostegia kaalaensis</i> .<br><i>Plantago princeps</i> .<br><i>Pteralyxia macrocarpa</i> .<br><i>Sanicula mariversa</i> .<br><i>Schiedea hookeri</i> .<br><i>Schiedea obovata</i> .<br><i>Schiedea trinervis</i> .<br><i>Silene lanceolata</i> .<br><i>Silene perlmanii</i> . |
|                       | <i>Chamaesyce kuwaleana</i> .....                          | <i>Abutilon sandwicense</i> .<br><i>Achyranthes splendens</i> var. <i>rotundata</i> .<br><i>Alectryon macrococcus</i> .<br><i>Asplenium dielfalcatum</i> .<br><i>Bonamia menziesii</i> .<br><i>Cenchrus agrimonoides</i> .<br><i>Chamaesyce herbstii</i> .<br><i>Chamaesyce kuwaleana</i> .<br><i>Cyanea grimesiana</i> ssp. <i>obatae</i> .<br><i>Cyrtandra dentata</i> .<br><i>Diellia unisora</i> .<br><i>Dracaena forbesii</i> .<br><i>Dubautia herbstobatae</i> .<br><i>Eragrostis fosbergii</i> .<br><i>Flueggea neowawraea</i> .<br><i>Gouania meyenii</i> .<br><i>Gouania vitifolia</i> .<br><i>Isodendron laurifolium</i> .<br><i>Isodendron pyriformum</i> .<br><i>Kadua degeneri</i> .<br><i>Kadua parvula</i> .<br><i>Korthalsella degeneri</i> .<br><i>Lepidium arbuscula</i> .<br><i>Lipochaeta lobata</i> var. <i>leptophylla</i> .<br><i>Lobelia niihauensis</i> .<br><i>Melanthera tenuifolia</i> .<br><i>Melicope cornuta</i> var. <i>decurrens</i> .<br><i>Melicope makahae</i> .<br><i>Melicope saint-johnii</i> .<br><i>Neraudia angulata</i> .<br><i>Nototrichium humile</i> .<br><i>Peucedanum sandwicense</i> .<br><i>Phyllostegia kaalaensis</i> .<br><i>Plantago princeps</i> .<br><i>Pteralyxia macrocarpa</i> .<br><i>Sanicula mariversa</i> .<br><i>Schiedea hookeri</i> .<br><i>Schiedea obovata</i> .<br><i>Schiedea trinervis</i> .<br><i>Silene lanceolata</i> .<br><i>Silene perlmanii</i> . |

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

| Unit name              | Species occupied                                     | Species unoccupied                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------|------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Oahu—Dry Cliff—Unit 6  | <i>Spermolepis hawaiiensis</i> .....                 | <i>Spermolepis hawaiiensis</i> .<br><i>Tetramolopium filiforme</i> .<br><i>Tetramolopium lepidotum</i> ssp.<br><i>lepidotum</i> .<br><i>Viola chamissoniana</i> ssp.<br><i>chamissoniana</i> .<br><i>Abutilon sandwicense</i> .<br><i>Achyranthes splendens</i> var. <i>rotundata</i> .<br><i>Alectryon macrococcus</i> .<br><i>Asplenium dielfalcatum</i> .<br><i>Bonamia menziesii</i> .<br><i>Cenchrus agrimonioides</i> .<br><i>Chamaesyce herbstii</i> .<br><i>Chamaesyce kuwaleana</i> .<br><i>Cyanea grimesiana</i> ssp. <i>obatae</i> .<br><i>Cyrtandra dentata</i> .<br><i>Diellia unisora</i> .<br><i>Dracaena forbesii</i> .....                              |
|                        | <i>Cenchrus agrimonioides</i> .....                  | <i>Dracaena forbesii</i> .<br><i>Dubautia herbstobatae</i> .<br><i>Eragrostis fosbergii</i> .<br><i>Flueggea neowawraea</i> .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                        | <i>Diellia unisora</i> .....                         | <i>Flueggea neowawraea</i> .<br><i>Gouania meyenii</i> .<br><i>Gouania vitifolia</i> .<br><i>Isodendron laurifolium</i> .<br><i>Isodendron pyriformum</i> .<br><i>Kadua degeneri</i> .<br><i>Kadua parvula</i> .<br><i>Korthalsella degeneri</i> .<br><i>Lepidium arbuscula</i> .....                                                                                                                                                                                                                                                                                                                                                                                    |
|                        | <i>Dracaena forbesii</i> .....                       | <i>Lepidium arbuscula</i> .<br><i>Lipochaeta lobata</i> var. <i>leptophylla</i> .<br><i>Lobelia niihauensis</i> .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                        | <i>Flueggea neowawraea</i> .....                     | <i>Lobelia niihauensis</i> .<br><i>Melanthera tenuifolia</i> .<br><i>Melicope cornuta</i> var. <i>decurrens</i> .<br><i>Melicope makahae</i> .<br><i>Melicope saint-johnii</i> .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                        | <i>Lepidium arbuscula</i> .....                      | <i>Melicope saint-johnii</i> .<br><i>Neraudia angulata</i> .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                        | <i>Lobelia niihauensis</i> .....                     | <i>Neraudia angulata</i> .<br><i>Nototrichium humile</i> .<br><i>Peucedanum sandwicense</i> .<br><i>Phyllostegia kaalaensis</i> .<br><i>Plantago princeps</i> .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                        | <i>Melicope saint-johnii</i> .....                   | <i>Plantago princeps</i> .<br><i>Pteralyxia macrocarpa</i> .<br><i>Sanicula mariversa</i> .<br><i>Schiedea hookeri</i> .<br><i>Schiedea obovata</i> .<br><i>Schiedea trinervis</i> .<br><i>Silene lanceolata</i> .<br><i>Silene perlmanni</i> .....                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                        | <i>Neraudia angulata</i> .....                       | <i>Silene perlmanni</i> .<br><i>Spermolepis hawaiiensis</i> .<br><i>Tetramolopium filiforme</i> .<br><i>Tetramolopium lepidotum</i> ssp.<br><i>lepidotum</i> .<br><i>Viola chamissoniana</i> ssp.<br><i>chamissoniana</i> .<br><i>Abutilon sandwicense</i> .<br><i>Achyranthes splendens</i> var. <i>rotundata</i> .<br><i>Alectryon macrococcus</i> .<br><i>Asplenium dielfalcatum</i> .<br><i>Bonamia menziesii</i> .<br><i>Cenchrus agrimonioides</i> .<br><i>Chamaesyce herbstii</i> .<br><i>Chamaesyce kuwaleana</i> .<br><i>Cyanea grimesiana</i> ssp. <i>obatae</i> .<br><i>Cyrtandra dentata</i> .<br><i>Diellia unisora</i> .<br><i>Dracaena forbesii</i> ..... |
|                        | <i>Plantago princeps</i> .....                       | <i>Dracaena forbesii</i> .<br><i>Dubautia herbstobatae</i> .<br><i>Eragrostis fosbergii</i> .<br><i>Flueggea neowawraea</i> .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                        | <i>Silene perlmanni</i> .....                        | <i>Flueggea neowawraea</i> .<br><i>Gouania meyenii</i> .<br><i>Gouania vitifolia</i> .<br><i>Isodendron laurifolium</i> .<br><i>Isodendron pyriformum</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                        | <i>Tetramolopium lepidotum</i> ssp. <i>lepidotum</i> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                        |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                        |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                        |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                        |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                        |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                        |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                        |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                        |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                        |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Oahu—Dry Cliff—Unit 7a | <i>Dracaena forbesii</i> .....                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                        | <i>Flueggea neowawraea</i> .....                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

| Unit name              | Species occupied                                           | Species unoccupied                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------|------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Oahu—Dry Cliff—Unit 7b | <i>Kadua parvula</i> .....                                 | <i>Kadua degeneri</i> .<br><i>Kadua parvula</i> .<br><i>Korthalsella degeneri</i> .<br><i>Lepidium arbuscula</i> .<br><i>Lipochaeta lobata</i> var. <i>leptophylla</i> .<br><i>Lobelia niihauensis</i> .<br><i>Melanthera tenuifolia</i> .<br><i>Melicope cornuta</i> var. <i>decurrens</i> .<br><i>Melicope makahae</i> .<br><i>Melicope saint-johnii</i> .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                        | <i>Melicope cornuta</i> var. <i>decurrens</i> .....        | <i>Melicope cornuta</i> var. <i>decurrens</i> .<br><i>Melicope makahae</i> .<br><i>Melicope saint-johnii</i> .<br><i>Neraudia angulata</i> .<br><i>Nototrichium humile</i> .<br><i>Peucedanum sandwicense</i> .<br><i>Phyllostegia kaalaensis</i> .<br><i>Plantago princeps</i> .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                        | <i>Plantago princeps</i> .....                             | <i>Plantago princeps</i> .<br><i>Pteralyxia macrocarpa</i> .<br><i>Sanicula mariversa</i> .<br><i>Schiedea hookeri</i> .<br><i>Schiedea obovata</i> .<br><i>Schiedea trinervis</i> .<br><i>Silene lanceolata</i> .<br><i>Silene perlmanii</i> .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                        | <i>Silene perlmanii</i> .....                              | <i>Silene perlmanii</i> .<br><i>Spermolepis hawaiiensis</i> .<br><i>Tetramolopium filiforme</i> .<br><i>Tetramolopium lepidotum</i> ssp.<br><i>lepidotum</i> .<br><i>Viola chamissoniana</i> ssp. <i>chamissoniana</i> ssp.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                        | <i>Viola chamissoniana</i> ssp. <i>chamissoniana</i> ..... | <i>Viola chamissoniana</i> ssp. <i>chamissoniana</i> .<br><i>Abutilon sandwicense</i> .<br><i>Achyranthes splendens</i> var. <i>rotundata</i> .<br><i>Alectryon macrococcus</i> .<br><i>Asplenium dielfalcatum</i> .<br><i>Bonamia menziesii</i> .<br><i>Cenchrus agrimonioides</i> .<br><i>Chamaesyce herbstii</i> .<br><i>Chamaesyce kuwaleana</i> .<br><i>Cyanea grimesiana</i> ssp. <i>obatae</i> .<br><i>Cyrtandra dentata</i> .<br><i>Diellia unisora</i> .<br><i>Dracaena forbesii</i> .<br><i>Dubautia herbstobatae</i> .<br><i>Eragrostis fosbergii</i> .<br><i>Flueggea neowawraea</i> .<br><i>Gouania meyenii</i> .<br><i>Gouania vitifolia</i> .<br><i>Isodendron laurifolium</i> .<br><i>Isodendron pyriformum</i> .<br><i>Kadua degeneri</i> .<br><i>Kadua parvula</i> .<br><i>Korthalsella degeneri</i> .<br><i>Lepidium arbuscula</i> .<br><i>Lipochaeta lobata</i> var. <i>leptophylla</i> .<br><i>Lobelia niihauensis</i> .<br><i>Melanthera tenuifolia</i> .<br><i>Melicope cornuta</i> var. <i>decurrens</i> .<br><i>Melicope makahae</i> .<br><i>Melicope saint-johnii</i> .<br><i>Neraudia angulata</i> .<br><i>Nototrichium humile</i> .<br><i>Peucedanum sandwicense</i> .<br><i>Phyllostegia kaalaensis</i> .<br><i>Plantago princeps</i> .<br><i>Pteralyxia macrocarpa</i> .<br><i>Sanicula mariversa</i> .<br><i>Schiedea hookeri</i> .<br><i>Schiedea obovata</i> .<br><i>Schiedea trinervis</i> .<br><i>Silene lanceolata</i> .<br><i>Silene perlmanii</i> .<br><i>Spermolepis hawaiiensis</i> .<br><i>Tetramolopium filiforme</i> .<br><i>Tetramolopium lepidotum</i> ssp.<br><i>lepidotum</i> . |

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

| Unit name             | Species occupied                                                                                                                                                                                                                                                        | Species unoccupied                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Oahu—Dry Cliff—Unit 8 | <i>Abutilon sandwicense</i> .....<br><br><i>Bonamia menziesii</i> .....<br><br><i>Dracaena forbesii</i> .....<br><br><i>Flueggea neowawraea</i> .....<br><br><i>Lobelia niihauensis</i> .....<br><br><i>Neraudia angulata</i> .....<br><i>Nototrichium humile</i> ..... | <i>Viola chamissoniana</i> ssp. <i>chamissoniana</i> .<br><i>Abutilon sandwicense</i> .<br><i>Achyranthes splendens</i> var. <i>rotundata</i> .<br><i>Alectryon macrococcus</i> .<br><i>Asplenium dielfalcatum</i> .<br><i>Bonamia menziesii</i> .<br><i>Cenchrus agrimonioides</i> .<br><i>Chamaesyce herbstii</i> .<br><i>Chamaesyce kuwaleana</i> .<br><i>Cyanea grimesiana</i> ssp. <i>obatae</i> .<br><i>Cyrtandra dentata</i> .<br><i>Diellia unisora</i> .<br><i>Dracaena forbesii</i> .<br><i>Dubautia herbstobatae</i> .<br><i>Eragrostis fosbergii</i> .<br><i>Flueggea neowawraea</i> .<br><i>Gouania meyenii</i> .<br><i>Gouania vitifolia</i> .<br><i>Isodendron laurifolium</i> .<br><i>Isodendron pyrifolium</i> .<br><i>Kadua degeneri</i> .<br><i>Kadua parvula</i> .<br><i>Korthalsella degeneri</i> .<br><i>Lepidium arbuscula</i> .<br><i>Lipochaeta lobata</i> var. <i>leptophylla</i> .<br><i>Lobelia niihauensis</i> .<br><i>Melanthera tenuifolia</i> .<br><i>Melicope cornuta</i> var. <i>decurrens</i> .<br><i>Melicope makahae</i> .<br><i>Melicope saint-johnii</i> .<br><i>Neraudia angulata</i> .<br><i>Nototrichium humile</i> .<br><i>Peucedanum sandwicense</i> .<br><i>Phyllostegia kaalaensis</i> .<br><i>Plantago princeps</i> .<br><i>Pteralyxia macrocarpa</i> .<br><i>Sanicula mariversa</i> .<br><i>Schiedea hookeri</i> .<br><i>Schiedea obovata</i> .<br><i>Schiedea trinervis</i> .<br><i>Silene lanceolata</i> .<br><i>Silene perlmanii</i> .<br><i>Spermolepis hawaiiensis</i> .<br><i>Tetramolopium filiforme</i> .<br><i>Tetramolopium lepidotum</i> ssp. <i>lepidotum</i> .<br><i>Viola chamissoniana</i> ssp. <i>chamissoniana</i> . |
| Oahu—Wet Cliff—Unit 1 | <i>Cyanea calycina</i> .....<br><br><i>Melicope christophersenii</i> .....<br><br><i>Schiedea trinervis</i> .....                                                                                                                                                       | <i>Cyanea acuminata</i><br><i>Cyanea calycina</i><br><i>Labordia cyrtandrae</i><br><i>Lobelia oahuensis</i><br><i>Melicope christophersenii</i><br><i>Phyllostegia hirsuta</i><br><i>Pteralyxia macrocarpa</i><br><i>Schiedea hookeri</i><br><i>Schiedea kaalae</i><br><i>Schiedea trinervis</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Oahu—Wet Cliff—Unit 2 | <i>Cyanea calycina</i> .....<br><br><i>Melicope christophersenii</i> .....                                                                                                                                                                                              | <i>Cyanea acuminata</i><br><i>Cyanea calycina</i><br><i>Labordia cyrtandrae</i><br><i>Lobelia oahuensis</i><br><i>Melicope christophersenii</i><br><i>Phyllostegia hirsuta</i><br><i>Pteralyxia macrocarpa</i><br><i>Schiedea hookeri</i><br><i>Schiedea kaalae</i><br><i>Schiedea trinervis</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Oahu—Wet Cliff—Unit 3 |                                                                                                                                                                                                                                                                         | <i>Cyanea acuminata</i><br><i>Cyanea calycina</i><br><i>Labordia cyrtandrae</i><br><i>Lobelia oahuensis</i><br><i>Melicope christophersenii</i><br><i>Phyllostegia hirsuta</i><br><i>Pteralyxia macrocarpa</i><br><i>Schiedea hookeri</i><br><i>Schiedea kaalae</i><br><i>Schiedea trinervis</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |



(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

| Unit name             | Species occupied                                                                                                                                                 | Species unoccupied                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Oahu—Wet Cliff—Unit 4 |                                                                                                                                                                  | <i>Cyanea acuminata</i><br><i>Cyanea calycina</i><br><i>Labordia cyrtandrae</i><br><i>Lobelia oahuensis</i><br><i>Melicope christophersenii</i><br><i>Phyllostegia hirsuta</i><br><i>Pteralyxia macrocarpa</i><br><i>Schiedea hookeri</i><br><i>Schiedea kaalae</i><br><i>Schiedea trinervis</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Oahu—Wet Cliff—Unit 5 | <i>Phyllostegia hirsuta</i> .....<br><i>Schiedea hookeri</i> .....                                                                                               | <i>Cyanea acuminata</i><br><i>Cyanea calycina</i><br><i>Labordia cyrtandrae</i><br><i>Lobelia oahuensis</i><br><i>Melicope christophersenii</i><br><i>Phyllostegia hirsuta</i><br><i>Pteralyxia macrocarpa</i><br><i>Schiedea hookeri</i><br><i>Schiedea kaalae</i><br><i>Schiedea trinervis</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Oahu—Wet Cliff—Unit 6 | .....<br><i>Cyanea crispa</i> .....<br>.....<br><i>Phlegmariurus nutans</i> .....<br>.....<br><i>Pteralyxia macrocarpa</i> .....<br><i>Schiedea kaalae</i> ..... | <i>Cyanea acuminata</i><br><i>Cyanea calycina</i><br><i>Labordia cyrtandrae</i><br><i>Lobelia oahuensis</i><br><i>Melicope christophersenii</i><br><i>Phyllostegia hirsuta</i><br><i>Pteralyxia macrocarpa</i><br><i>Schiedea hookeri</i><br><i>Schiedea kaalae</i><br><i>Schiedea trinervis</i><br><i>Adenophorus periens.</i><br><i>Chamaesyce deppeana.</i><br><i>Chamaesyce rockii.</i><br><i>Cyanea acuminata.</i><br><i>Cyanea calycina.</i><br><i>Cyanea crispa.</i><br><i>Cyanea humboldtiana.</i><br><i>Cyanea purpurellifolia.</i><br><i>Cyanea st.-johnii.</i><br><i>Cyanea truncata.</i><br><i>Cyrtandra kaulantha.</i><br><i>Cyrtandra sessilis.</i><br><i>Cyrtandra subumbellata.</i><br><i>Cyrtandra viridiflora.</i><br><i>Labordia cyrtandrae.</i><br><i>Lobelia oahuensis.</i><br><i>Lysimachia filifolia.</i><br><i>Phlegmariurus nutans.</i><br><i>Phyllostegia hirsuta.</i><br><i>Phyllostegia parviflora.</i><br><i>Plantago princeps.</i><br><i>Psychotria hexandra</i> var. <i>oahuensis.</i><br><i>Pteralyxia macrocarpa.</i><br><i>Sanicula purpurea.</i><br><i>Schiedea kaalae.</i><br><i>Tetraplasandra gymnocarpa.</i><br><i>Trematolobelia singularis.</i><br><i>Viola oahuensis.</i> |
| Oahu—Wet Cliff—Unit 7 | .....<br>.....<br><i>Cyanea crispa</i> .....                                                                                                                     | <i>Adenophorus periens.</i><br><i>Chamaesyce deppeana.</i><br><i>Chamaesyce rockii.</i><br><i>Cyanea acuminata.</i><br><i>Cyanea calycina.</i><br><i>Cyanea crispa.</i><br><i>Cyanea humboldtiana.</i><br><i>Cyanea purpurellifolia.</i><br><i>Cyanea st.-johnii.</i><br><i>Cyanea truncata.</i><br><i>Cyrtandra kaulantha.</i><br><i>Cyrtandra sessilis.</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

| Unit name             | Species occupied                                       | Species unoccupied                                 |
|-----------------------|--------------------------------------------------------|----------------------------------------------------|
| Oahu—Wet Cliff—Unit 8 |                                                        | <i>Cyrtandra subumbellata</i> .                    |
|                       |                                                        | <i>Cyrtandra viridiflora</i> .                     |
|                       |                                                        | <i>Labordia cyrtandrae</i> .                       |
|                       |                                                        | <i>Lobelia oahuensis</i> .                         |
|                       |                                                        | <i>Lysimachia filifolia</i> .                      |
|                       |                                                        | <i>Phlegmariurus nutans</i> .                      |
|                       |                                                        | <i>Phyllostegia hirsuta</i> .                      |
|                       |                                                        | <i>Phyllostegia parviflora</i> .                   |
|                       |                                                        | <i>Plantago princeps</i> .                         |
|                       | <i>Psychotria hexandra</i> var. <i>oahuensis</i> ..... | <i>Psychotria hexandra</i> var. <i>oahuensis</i> . |
|                       |                                                        | <i>Pteralyxia macrocarpa</i> .                     |
|                       |                                                        | <i>Sanicula purpurea</i> .                         |
|                       | <i>Schiedea kaalae</i> .....                           | <i>Schiedea kaalae</i> .                           |
|                       |                                                        | <i>Tetraplasandra gymnocarpa</i> .                 |
|                       |                                                        | <i>Trematolobelia singularis</i> .                 |
|                       |                                                        | <i>Viola oahuensis</i> .                           |
|                       |                                                        | <i>Adenophorus periens</i> .                       |
|                       |                                                        | <i>Chamaesyce deppeana</i> .                       |
|                       |                                                        | <i>Chamaesyce rockii</i> .                         |
|                       | <i>Cyanea acuminata</i> .....                          | <i>Cyanea acuminata</i> .                          |
|                       | <i>Cyanea calycina</i> .....                           | <i>Cyanea calycina</i> .                           |
|                       |                                                        | <i>Cyanea crispa</i> .                             |
|                       | <i>Cyanea humboldtiana</i> .....                       | <i>Cyanea humboldtiana</i> .                       |
|                       | <i>Cyanea purpurellifolia</i> .....                    | <i>Cyanea purpurellifolia</i> .                    |
|                       | <i>Cyanea st.-johnii</i> .....                         | <i>Cyanea st.-johnii</i> .                         |
|                       |                                                        | <i>Cyanea truncata</i> .                           |
|                       | <i>Cyrtandra kaulantha</i> .....                       | <i>Cyrtandra kaulantha</i> .                       |
|                       | <i>Cyrtandra sessilis</i> .....                        | <i>Cyrtandra sessilis</i> .                        |
|                       | <i>Cyrtandra subumbellata</i> .....                    | <i>Cyrtandra subumbellata</i> .                    |
|                       | <i>Cyrtandra viridiflora</i> .....                     | <i>Cyrtandra viridiflora</i> .                     |
|                       | <i>Labordia cyrtandrae</i> .....                       | <i>Labordia cyrtandrae</i> .                       |
|                       | <i>Lobelia oahuensis</i> .....                         | <i>Lobelia oahuensis</i> .                         |
|                       | <i>Lysimachia filifolia</i> .....                      | <i>Lysimachia filifolia</i> .                      |
|                       | <i>Phlegmariurus nutans</i> .....                      | <i>Phlegmariurus nutans</i> .                      |
|                       | <i>Phyllostegia hirsuta</i> .....                      | <i>Phyllostegia hirsuta</i> .                      |
|                       | <i>Phyllostegia parviflora</i> .....                   | <i>Phyllostegia parviflora</i> .                   |
|                       | <i>Plantago princeps</i> .....                         | <i>Plantago princeps</i> .                         |
|                       |                                                        | <i>Psychotria hexandra</i> var. <i>oahuensis</i> . |
|                       | <i>Pteralyxia macrocarpa</i> .....                     | <i>Pteralyxia macrocarpa</i> .                     |
|                       | <i>Sanicula purpurea</i> .....                         | <i>Sanicula purpurea</i> .                         |
|                       |                                                        | <i>Schiedea kaalae</i> .                           |
|                       | <i>Tetraplasandra gymnocarpa</i> .....                 | <i>Tetraplasandra gymnocarpa</i> .                 |
|                       | <i>Trematolobelia singularis</i> .....                 | <i>Trematolobelia singularis</i> .                 |
|                       | <i>Viola oahuensis</i> .....                           | <i>Viola oahuensis</i> .                           |

(j) *Plants on Oahu; Constituent elements*—(1) *Flowering plants*.

#### FAMILY AMARANTHACEAE

*Achyranthes splendens* var. *rotundata*  
(round-leaved chaff flower)

Oahu—Coastal—Unit 1, Oahu—Coastal—Unit 13, Oahu—Coastal—Unit 14, Oahu—Coastal—Unit 15, Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, Oahu—Lowland Dry—Unit 11, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit

7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Achyranthes splendens* var. *rotundata* on Oahu.

(i) In units Oahu—Coastal—Unit 1, Oahu—Coastal—Unit 13, Oahu—Coastal—Unit 14, and Oahu—Coastal—Unit 15, the physical and biological features of critical habitat are:

(A) Elevation: Less than 980 ft (300 m).

(B) Annual precipitation: Less than 20 in (50 cm).

(C) Substrate: Well-drained, calcareous, talus slopes; weathered clay soils; ephemeral pools; mudflats.

(D) Canopy: *Hibiscus*, *Myoporum*, *Santalum*, *Scaevola*.

U.S. Fish and Wildlife Serv., Interior

§ 17.99

(E) Subcanopy: *Gossypium*, *Sida*, *Vitex*.

(F) Understory: *Eragrostis*, *Jacquemontia*, *Lyceum*, *Nama*, *Sesuvium*, *Sporobolus*, *Vigna*.

(ii) In Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Less than 50 in (130 cm).

(C) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(D) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(E) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(F) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Plumbago*, *Sicyos*, *Sida*, *Waltheria*.

(iii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

*Nototrichium humile* (KULUI)

Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, Oahu—Lowland Dry—Unit 11, Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a,

Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Nototrichium humile* on Oahu.

(i) In units Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Less than 50 in (130 cm).

(C) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(D) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(E) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(F) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Plumbago*, *Sicyos*, *Sida*, *Waltheria*.

(ii) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(iii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

§ 17.99

50 CFR Ch. I (10–1–23 Edition)

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

FAMILY APIACEAE

*Peucedanum sandwicense* (MAKOU)

Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Peucedanum sandwicense* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Unrestricted.

(ii) Annual precipitation: Less than 75 in (190 cm).

(iii) Substrate: Greater than 65 degree slope, rocky talus.

(iv) Canopy: None.

(v) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(vi) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

*Sanicula mariversa* (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Sanicula mariversa* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

*Sanicula purpurea* (NCN)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Sanicula purpurea* on Oahu.

(i) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

**U.S. Fish and Wildlife Serv., Interior**

**§ 17.99**

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(ii) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava, bogs.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Ferns, Bryophytes, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

*Spermolepis hawaiiensis* (NCN)

Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 6, Oahu—Lowland Dry—Unit 7, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, Oahu—Lowland Dry—Unit 11, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Spermolepis hawaiiensis* on Oahu.

(i) In units Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 6, Oahu—Lowland Dry—Unit 7, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, the physical or biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Less than 50 in (130 cm).

(C) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(D) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(E) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(F) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Plumbago*, *Sicyos*, *Sida*, *Waltheria*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

**FAMILY APOCYNACEAE**

*Pteralyxia macrocarpa* (KAULU)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, Oahu—Dry Cliff—Unit 8, Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, Oahu—Wet Cliff—Unit 5, Oahu—Wet

Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Pteralyxia macrocarpa* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psychotria*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(iii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4,

Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

(iv) In units Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, Oahu—Wet Cliff—Unit 5, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaesia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Ferns, Bryophytes, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

#### FAMILY ARALIACEAE

##### *Tetraplasandra gymnocarpa* (OHE OHE)

Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Tetraplasandra gymnocarpa* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and

Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(iii) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Ferns, Bryophytes, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

#### *Tetraplasandra lydgatei* (NCN)

Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Tetraplasandra lydgatei* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: 50 to 75 in (130 to 190 cm).

(iii) Substrate: Shallow soils, little to no herbaceous layer.

(iv) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(v) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(vi) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

#### FAMILY ASPARAGACEAE

##### *Dracaena forbesii* (HALA PEPE)

Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Dracaena forbesii* on Oahu.

(i) In units Oahu—Lowland Dry—Unit 1 and Oahu—Lowland Dry—Unit 2, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Less than 50 in (130 cm).

(C) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(D) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(E) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(F) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Plumbago*, *Sicyos*, *Sida*, *Waltheria*.

(ii) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(iii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

#### FAMILY ASTERACEAE

##### *Bidens amplexans* (KOOKOOLAU)

Oahu—Coastal—Unit 1, Oahu—Coastal—Unit 13, Oahu—Coastal—Unit 14, Oahu—Coastal—Unit 15, Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, identified in the

legal descriptions in paragraph (i) of this section, constitute critical habitat for *Bidens amplexans* on Oahu.

(i) In units Oahu—Coastal—Unit 1, Oahu—Coastal—Unit 13, Oahu—Coastal—Unit 14, and Oahu—Coastal—Unit 15, the physical and biological features of critical habitat are:

(A) Elevation: Less than 980 ft (300 m).

(B) Annual precipitation: Less than 20 in (50 cm).

(C) Substrate: Well-drained, calcareous, talus slopes; weathered clay soils; ephemeral pools; mudflats.

(D) Canopy: *Hibiscus*, *Myoporum*, *Santalum*, *Scaevola*.

(E) Subcanopy: *Gossypium*, *Sida*, *Vitex*.

(F) Understory: *Eragrostis*, *Jacquemontia*, *Lyceum*, *Nama*, *Sesuvium*, *Sporobolus*, *Vigna*.

(ii) In units Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Less than 50 in (130 cm).

(C) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(D) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(E) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(F) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Plumbago*, *Sicyos*, *Sida*, *Waltheria*.

##### *Dubautia herbstobatae* (NAENAE)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Dubautia herbstobatae* on Oahu.



U.S. Fish and Wildlife Serv., Interior

§ 17.99

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

*Hesperomannia arborescens* (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Hesperomannia arborescens* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

*Hesperomannia arbuscula* (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, and Oahu—Lowland Wet—Unit 5, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Hesperomannia arbuscula* on Oahu.

§ 17.99

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, and Oahu—Lowland Wet—Unit 5, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

*Lipochaeta lobata* var. *leptophylla*  
(NEHE)

Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Lipochaeta lobata* var. *leptophylla* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Unrestricted.

(ii) Annual precipitation: Less than 75 in (190 cm).

(iii) Substrate: Greater than 65 degree slope, rocky talus.

(iv) Canopy: None.

50 CFR Ch. I (10–1–23 Edition)

(v) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(vi) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

*Melanthera tenuifolia* (NEHE)

Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, Oahu—Lowland Dry—Unit 11, Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Melanthera tenuifolia* on Oahu.

(i) In units Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Less than 50 in (130 cm).

(C) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(D) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(E) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(F) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Plumbago*, *Sicyos*, *Sida*, *Waltheria*.

(ii) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(iii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

#### *Tetramolopium filiforme* (NCN)

Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Tetramolopium filiforme* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Unrestricted.

(ii) Annual precipitation: Less than 75 in (190 cm).

(iii) Substrate: Greater than 65 degree slope, rocky talus.

(iv) Canopy: None.

(v) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(vi) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

#### *Tetramolopium lepidotum* ssp. *lepidotum* (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section,

constitute critical habitat for *Tetramolopium lepidotum* ssp. *lepidotum* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

#### FAMILY BRASSICACEAE

##### *Lepidium arbuscula* (ANAUNAU)

Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Lepidium arbuscula* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Unrestricted.

(ii) Annual precipitation: Less than 75 in (190 cm).

(iii) Substrate: Greater than 65 degree slope, rocky talus.

(iv) Canopy: None.

(v) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(vi) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

#### FAMILY CAMPANULACEAE

##### *Cyanea acuminata* (HAHA)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Montane Wet—Unit 1, Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, Oahu—Wet Cliff—Unit 5, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyanea acuminata* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(iii) In unit Oahu—Montane Wet—Unit 1, the physical and biological features of critical habitat are:

(A) Elevation: 3,300 to 6,600 ft (1,000 to 2,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Well-developed soils, montane bogs.

(D) Canopy: *Acacia*, *Charpentiera*, *Cheirodendron*, *Metrosideros*.

(E) Subcanopy: *Broussaia*, *Cibotium*, *Eurya*, *Ilex*, *Myrsine*.

(F) Understory: Ferns, *Carex*, *Coprosma*, *Leptecophylla*, *Oreobolus*, *Rhynchospora*, *Vaccinium*.

(iv) In units Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, Oahu—Wet Cliff—Unit 5, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*,  
*Cheirodendron*, *Leptecophylla*,  
*Metrosideros*.

(F) Understory: Ferns, Bryophytes,  
*Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

*Cyanea calycina* (HAHA)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Montane Wet—Unit 1, Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, Oahu—Wet Cliff—Unit 5, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyanea calycina* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*,  
*Metrosideros*, *Myrsine*, *Pouteria*,  
*Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*,  
*Leptecophylla*, *Melanthera*, *Osteomeles*,  
*Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*,  
*Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*,  
*Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*,  
*Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*,  
*Dicranopteris*, *Diplazium*, *Machaerina*,  
*Microlepia*.

(iii) In unit Oahu—Montane Wet—Unit 1, the physical and biological features of critical habitat are:

(A) Elevation: 3,300 to 6,600 ft (1,000 to 2,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Well-developed soils, montane bogs.

(D) Canopy: *Acacia*, *Charpentiera*,  
*Cheirodendron*, *Metrosideros*.

(E) Subcanopy: *Broussaisia*, *Cibotium*,  
*Eurya*, *Ilex*, *Myrsine*.

(F) Understory: Ferns, *Carex*,  
*Coprosma*, *Leptecophylla*, *Oreobolus*,  
*Rhynchospora*, *Vaccinium*.

(iv) In units Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, Oahu—Wet Cliff—Unit 5, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

§ 17.99

50 CFR Ch. I (10–1–23 Edition)

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*,  
*Cheirodendron*, *Leptecophylla*,  
*Metrosideros*.

(F) Understory: Bryophytes, Ferns,  
*Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

*Cyanea crispa* (NCN)

Oahu—Lowland Mesic—Unit 4,  
Oahu—Lowland Mesic—Unit 5, Oahu—  
Lowland Mesic—Unit 6, Oahu—Low-  
land Mesic—Unit 7, Oahu—Lowland  
Wet—Unit 6, Oahu—Lowland Wet—  
Unit 7, Oahu—Lowland Wet—Unit 8,  
Oahu—Lowland Wet—Unit 9, Oahu—  
Lowland Wet—Unit 10, Oahu—Lowland  
Wet—Unit 11, Oahu—Lowland Wet—  
Unit 12, Oahu—Lowland Wet—Unit 13,  
Oahu—Lowland Wet—Unit 14, Oahu—  
Lowland Wet—Unit 15, Oahu—Lowland  
Wet—Unit 16, Oahu—Wet Cliff—Unit 6,  
Oahu—Wet Cliff—Unit 7, and Oahu—  
Wet Cliff—Unit 8, identified in the  
legal descriptions in paragraph (i) of  
this section, constitute critical habitat  
for *Cyanea crispa* on Oahu.

(i) In units Oahu—Lowland Mesic—  
Unit 4, Oahu—Lowland Mesic—Unit 5,  
Oahu—Lowland Mesic—Unit 6, and  
Oahu—Lowland Mesic—Unit 7, the  
physical and biological features of crit-  
ical habitat are:

(A) Elevation: Less than 3,300 ft (1,000  
m).

(B) Annual precipitation: 50 to 75 in  
(130 to 190 cm).

(C) Substrate: Shallow soils, little to  
no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*,  
*Metrosideros*, *Myrsine*, *Pouteria*,  
*Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*,  
*Leptecophylla*, *Melanthera*, *Osteomeles*,  
*Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*,  
*Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—  
Unit 6, Oahu—Lowland Wet—Unit 7,  
Oahu—Lowland Wet—Unit 8, Oahu—  
Lowland Wet—Unit 9, Oahu—Lowland  
Wet—Unit 10, Oahu—Lowland Wet—  
Unit 11, Oahu—Lowland Wet—Unit 12,  
Oahu—Lowland Wet—Unit 13, Oahu—  
Lowland Wet—Unit 14, Oahu—Lowland  
Wet—Unit 15, and Oahu—Lowland

Wet—Unit 16, the physical and biologi-  
cal features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000  
m).

(B) Annual precipitation: Greater  
than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep,  
well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*,  
*Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*,  
*Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*,  
*Dicranopteris*, *Diplazium*, *Machaerina*,  
*Microlepia*.

(iii) In units Oahu—Wet Cliff—Unit 6,  
Oahu—Wet Cliff—Unit 7, and Oahu—  
Wet Cliff—Unit 8, the physical and bio-  
logical features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater  
than 75 in (190 cm).

(C) Substrate: Greater than 65 degree  
slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*,  
*Cheirodendron*, *Leptecophylla*,  
*Metrosideros*.

(F) Understory: Bryophytes, Ferns,  
*Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

*Cyanea grimesiana* ssp. *grimesiana*  
(HAHA)

Oahu—Lowland Mesic—Unit 1,  
Oahu—Lowland Mesic—Unit 2, Oahu—  
Lowland Mesic—Unit 3, Oahu—Low-  
land Mesic—Unit 4, Oahu—Lowland  
Mesic—Unit 5, Oahu—Lowland Mesic—  
Unit 6, Oahu—Lowland Mesic—Unit 7,  
Oahu—Lowland Wet—Unit 1, Oahu—  
Lowland Wet—Unit 2, Oahu—Lowland  
Wet—Unit 3, Oahu—Lowland Wet—  
Unit 4, Oahu—Lowland Wet—Unit 5,  
Oahu—Lowland Wet—Unit 6, Oahu—  
Lowland Wet—Unit 7, Oahu—Lowland  
Wet—Unit 8, Oahu—Lowland Wet—  
Unit 9, Oahu—Lowland Wet—Unit 10,  
Oahu—Lowland Wet—Unit 11, Oahu—  
Lowland Wet—Unit 12, Oahu—Lowland  
Wet—Unit 13, Oahu—Lowland Wet—  
Unit 14, Oahu—Lowland Wet—Unit 15,  
and Oahu—Lowland Wet—Unit 16, iden-  
tified in the legal descriptions in para-  
graph (i) of this section, constitute  
critical habitat for *Cyanea grimesiana*  
ssp. *grimesiana* on Oahu.

(i) In units Oahu—Lowland Mesic—  
Unit 1, Oahu—Lowland Mesic—Unit 2,  
Oahu—Lowland Mesic—Unit 3, Oahu—

U.S. Fish and Wildlife Serv., Interior

§ 17.99

Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

*Cyanea grimesiana* ssp. *obatae* (HAHA)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—

Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyanea grimesiana* ssp. *obatae* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, and Oahu—Lowland Wet—Unit 5, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(iii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

§ 17.99

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

*Cyanea humboldtiana* (HAHA)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyanea humboldtiana* on Oahu.

(i) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(ii) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheiodendron*, *Leptocophylla*, *Metrosideros*.

50 CFR Ch. I (10–1–23 Edition)

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

*Cyanea koolauensis* (HAHA)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyanea koolauensis* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: Greater than 75 in (190 cm).

(iii) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(iv) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(v) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(vi) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

*Cyanea lanceolata* (HAHA)

Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyanea lanceolata* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).



(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepta*.

#### *Cyanea longiflora* (HAHA)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyanea longiflora* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: 50 to 75 in (130 to 190 cm).

(iii) Substrate: Shallow soils, little to no herbaceous layer.

(iv) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(v) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(vi) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

#### *Cyanea pinnatifida* (HAHA)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyanea pinnatifida* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: 50 to 75 in (130 to 190 cm).

(iii) Substrate: Shallow soils, little to no herbaceous layer.

(iv) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(v) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(vi) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

#### *Cyanea purpurellifolia* (HAHA)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyanea purpurellifolia* on Oahu.

(i) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

§ 17.99

50 CFR Ch. I (10–1–23 Edition)

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(ii) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical or biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

*Cyanea st.-johnii* (HAHA)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyanea st.-johnii* on Oahu.

(i) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(ii) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

*Cyanea superba* (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyanea superba* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: 50 to 75 in (130 to 190 cm).

(iii) Substrate: Shallow soils, little to no herbaceous layer.

(iv) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(v) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthra*, *Osteomeles*, *Pleomele*, *Psydrax*.

(vi) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

*Cyanea truncata* (HAHA)

Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8,

Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyanea truncata* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(iii) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—

Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: *Bryophytes*, *Ferns*, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

#### *Delissea subcordata* (OHA)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Delissea subcordata* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: 50 to 75 in (130 to 190 cm).

(iii) Substrate: Shallow soils, little to no herbaceous layer.

(iv) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(v) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(vi) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

#### *Lobelia gaudichaudii* ssp. *koolauensis* (NCN)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Lobelia gaudichaudii* ssp. *koolauensis* on Oahu. Within these units, the physical and biological features of critical habitat are:

§ 17.99

- (i) Elevation: Less than 3,300 ft (1,000 m).
- (ii) Annual precipitation: Greater than 75 in (190 cm).
- (iii) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.
- (iv) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.
- (v) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.
- (vi) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepta*.

*Lobelia monostachya* (NCN)

Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Lobelia monostachya* on Oahu. Within these units, the physical and biological features of critical habitat are:

- (i) Elevation: Less than 3,300 ft (1,000 m).
- (ii) Annual precipitation: 50 to 75 in (130 to 190 cm).
- (iii) Substrate: Shallow soils, little to no herbaceous layer.
- (iv) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.
- (v) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.
- (vi) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

*Lobelia niihauensis* (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Lobelia niihauensis* on Oahu.

- (i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

50 CFR Ch. I (10–1–23 Edition)

- (A) Elevation: Less than 3,300 ft (1,000 m).
- (B) Annual precipitation: 50 to 75 in (130 to 190 cm).
- (C) Substrate: Shallow soils, little to no herbaceous layer.
- (D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.
- (E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Psydrax*, *Pleomele*.
- (F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.
- (ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:
  - (A) Elevation: Unrestricted.
  - (B) Annual precipitation: Less than 75 in (190 cm).
  - (C) Substrate: Greater than 65 degree slope, rocky talus.
  - (D) Canopy: None.
  - (E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.
  - (F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

*Lobelia oahuensis* (NCN)

Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Montane Wet—Unit 1, Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, Oahu—Wet Cliff—Unit 5, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Lobelia oahuensis* on Oahu.

- (i) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2,

U.S. Fish and Wildlife Serv., Interior

§ 17.99

Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(ii) In unit Oahu—Montane Wet—Unit 1, the physical and biological features of critical habitat are:

(A) Elevation: 3,300 to 6,600 ft (1,000 to 2,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Well-developed soils, montane bogs.

(D) Canopy: *Acacia*, *Charpentiera*, *Cheirodendron*, *Metrosideros*.

(E) Subcanopy: *Broussaisia*, *Cibotium*, *Eurya*, *Ilex*, *Myrsine*.

(F) Understory: *Ferns*, *Carex*, *Coprosma*, *Leptecophylla*, *Oreobolus*, *Rhynchospora*, *Vaccinium*.

(iii) In units Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, Oahu—Wet Cliff—Unit 5, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: *Bryophytes*, *Ferns*, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

*Trematolobelia singularis* (NCN)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Trematolobelia singularis* on Oahu.

(i) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(ii) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical or biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: *Bryophytes*, *Ferns*, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

## FAMILY CARYOPHYLLACEAE

*Schiedea hookeri* (NCN)

Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, Oahu—Lowland Dry—Unit 11, Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, Oahu—Dry Cliff—Unit 8, Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, and Oahu—Wet Cliff—Unit 5, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Schiedea hookeri* on Oahu.

(i) In units Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Less than 50 in (130 cm).

(C) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(D) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(E) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(F) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Sicyos*.

(ii) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(iii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, and Oahu—Lowland Wet—Unit 5, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(iv) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

(v) In units Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, and Oahu—Wet Cliff—Unit 5, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

U.S. Fish and Wildlife Serv., Interior

§ 17.99

(E) Subcanopy: *Broussaisia*,  
*Cheirodendron*, *Leptecophylla*,  
*Metrosideros*.

(F) Understory: Bryophytes, Ferns,  
*Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

*Schiedea kaalae* (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, Oahu—Wet Cliff—Unit 5, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Schiedea kaalae* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, and Oahu—Lowland Wet—Unit 5, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(iii) In units Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, Oahu—Wet Cliff—Unit 5, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

*Schiedea kealiae* (MAOLIOLI)

Oahu—Coastal—Unit 1, Oahu—Coastal—Unit 13, Oahu—Coastal—Unit 14, Oahu—Coastal—Unit 15, Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Schiedea kealiae* on Oahu.

(i) In unit Oahu—Coastal—Unit 1, Oahu—Coastal—Unit 13, Oahu—Coastal—Unit 14, and Oahu—Coastal—Unit 15, the physical and biological features of critical habitat are:

(A) Elevation: Less than 980 ft (300 m).

(B) Annual precipitation: Less than 20 in (50 cm).

(C) Substrate: Well-drained, calcareous, talus slopes; weathered clay soils; ephemeral pools; mudflats.

(D) Canopy: *Hibiscus*, *Myoporum*, *Santalum*, *Scaevola*.

(E) Subcanopy: *Gossypium*, *Sida*, *Vitex*.

§ 17.99

50 CFR Ch. I (10–1–23 Edition)

(F) Understory: *Eragrostis*, *Jacquemontia*, *Lyceum*, *Nama*, *Sesuvium*, *Sporobolus*, *Vigna*.

(ii) In units Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Less than 50 in (130 cm).

(C) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(D) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(E) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(F) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Plumbago*, *Sicyos*, *Sida*, *Waltheria*.

*Schiedea nuttallii* (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Schiedea nuttallii* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: 50 to 75 in (130 to 190 cm).

(iii) Substrate: Shallow soils, little to no herbaceous layer.

(iv) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(v) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(vi) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

*Schiedea obovata* (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry

Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Schiedea obovata* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

*Schiedea trinervis* (NCN)

Oahu—Montane Wet—Unit 1, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, Oahu—Dry Cliff—Unit 8, Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, and Oahu—Wet Cliff—Unit 5, identified in the legal descriptions in paragraph



U.S. Fish and Wildlife Serv., Interior

§ 17.99

(i) of this section, constitute critical habitat for *Schiedea trinervis* on Oahu.

(i) In unit Oahu—Montane Wet—Unit 1, the physical and biological features of critical habitat are:

(A) Elevation: 3,300 to 6,600 ft (1,000 to 2,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Well-developed soils, montane bogs.

(D) Canopy: *Acacia*, *Charpentiera*, *Cheirodendron*, *Metrosideros*.

(E) Subcanopy: *Broussaisia*, *Cibotium*, *Eurya*, *Ilex*, *Myrsine*.

(F) Understory: Ferns, *Carex*, *Coprosma*, *Leptecophylla*, *Oreobolus*, *Rhynchospora*, *Vaccinium*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

(iii) In units Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, and Oahu—Wet Cliff—Unit 5, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

*Silene lanceolata* (NCN)

Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a,

Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Silene lanceolata* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Unrestricted.

(ii) Annual precipitation: Less than 75 in (190 cm).

(iii) Substrate: Greater than 65 degree slope, rocky talus.

(iv) Canopy: None.

(v) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(vi) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

*Silene perlmannii* (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Silene perlmannii* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical or biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freyinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

§ 17.99

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

FAMILY CONVULVULACEAE

*Bonamia menziesii* (NCN)

Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, Oahu—Lowland Dry—Unit 11, Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Bonamia menziesii* on Oahu.

(i) In units Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Less than 50 in (130 cm).

(C) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(D) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(E) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(F) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Plumbago*, *Sicyos*, *Sida*, *Waltheria*.

(ii) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—

50 CFR Ch. I (10–1–23 Edition)

Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(iii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

FAMILY CYPERACEAE

*Cyperus pennatiformis* (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyperus pennatiformis* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: 50 to 75 in (130 to 190 cm).

(iii) Substrate: Shallow soils, little to no herbaceous layer.

(iv) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(v) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(vi) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

*Cyperus trachysanthos* (PUUKAA)

Oahu—Coastal—Unit 9, Oahu—Coastal—Unit 11, Oahu—Coastal—Unit 12, and Oahu—Lowland Dry—Unit 7, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyperus trachysanthos* on Oahu.

(i) In units Oahu—Coastal—Unit 9, Oahu—Coastal—Unit 11, and Oahu—Coastal—Unit 12, the physical and biological features of critical habitat are:

(A) Elevation: Less than 980 ft (300 m).

(B) Annual precipitation: Less than 20 in (50 cm).

(C) Substrate: Well-drained, calcareous, talus slopes; weathered clay soils; seasonal wetlands; mudflats.

(D) Canopy: *Hibiscus*, *Myoporum*, *Santalum*, *Scaevola*.

(E) Subcanopy: *Gossypium*, *Sida*, *Vitex*.

(F) Understory: *Eragrostis*, *Jacquemontia*, *Lyceum*, *Nama*, *Sesuvium*, *Sporobolus*, *Vigna*.

(ii) In unit Oahu—Lowland Dry—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Less than 50 in (130 cm).

(C) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava, seasonal wetlands.

(D) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(E) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(F) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Plumbago*, *Sicyos*, *Sida*, *Waltheria*.

FAMILY EUPHORBIACEAE

*Chamaesyce celastroides* var. *kaenana*  
(AKOKO)

Oahu—Coastal—Unit 1, Oahu—Coastal—Unit 13, Oahu—Coastal—Unit 14, Oahu—Coastal—Unit 15, Oahu—Low-

land Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, Oahu—Lowland Dry—Unit 11, Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Chamaesyce celastroides* var. *kaenana* on Oahu.

(i) In units Oahu—Coastal—Unit 1, Oahu—Coastal—Unit 13, Oahu—Coastal—Unit 14, and Oahu—Coastal—Unit 15, the physical and biological features of critical habitat are:

(A) Elevation: Less than 980 ft (300 m).

(B) Annual precipitation: Less than 20 in (50 cm).

(C) Substrate: Well-drained, calcareous, talus slopes; weathered clay soils; ephemeral pools; mudflats.

(D) Canopy: *Hibiscus*, *Myoporum*, *Santalum*, *Scaevola*.

(E) Subcanopy: *Gossypium*, *Sida*, *Vitex*.

(F) Understory: *Eragrostis*, *Jacquemontia*, *Lyceum*, *Nama*, *Sesuvium*, *Sporobolus*, *Vigna*.

(ii) In units Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Less than 50 in (130 cm).

(C) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(D) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(E) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(F) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Plumbago*, *Sicyos*, *Sida*, *Waltheria*.

(iii) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2,

§ 17.99

Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

*Chamaesyce deppeana* (AKOKO)

Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Chamaesyce deppeana* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Unrestricted.

(ii) Annual precipitation: Greater than 75 in (190 cm).

(iii) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(iv) Canopy: None.

(v) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(vi) Understory: *Bryophytes*, *Ferns*, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

*Chamaesyce herbstii* (AKOKO)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Chamaesyce herbstii* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the

50 CFR Ch. I (10–1–23 Edition)

physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

*Chamaesyce kuwaleana* (AKOKO)

Oahu—Coastal—Unit 2, Oahu—Coastal—Unit 3, Oahu—Coastal—Unit 4, Oahu—Coastal—Unit 5, Oahu—Coastal—Unit 6, Oahu—Coastal—Unit 7, Oahu—Coastal—Unit 8, Oahu—Coastal—Unit 9, Oahu—Coastal—Unit 10, Oahu—Coastal—Unit 11, Oahu—Coastal—Unit 12, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Chamaesyce kuwaleana* on Oahu.

(i) In units Oahu—Coastal—Unit 2, Oahu—Coastal—Unit 3, Oahu—Coastal—Unit 4, Oahu—Coastal—Unit 5, Oahu—Coastal—Unit 6, Oahu—Coastal—Unit 7, Oahu—Coastal—Unit 8,

U.S. Fish and Wildlife Serv., Interior

§ 17.99

Oahu—Coastal—Unit 9, Oahu—Coastal—Unit 10, Oahu—Coastal—Unit 11, and Oahu—Coastal—Unit 12, the physical and biological features of critical habitat are:

(A) Elevation: Less than 980 ft (300 m).

(B) Annual precipitation: Less than 20 in (50 cm).

(C) Substrate: Well-drained, calcareous, talus slopes; weathered clay soils; ephemeral pools; mudflats.

(D) Canopy: *Hibiscus*, *Myoporum*, *Santalum*, *Scaevola*.

(E) Subcanopy: *Gossypium*, *Sida*, *Vitex*.

(F) Understory: *Eragrostis*, *Jacquemontia*, *Lyceum*, *Nama*, *Sesuvium*, *Sporobolus*, *Vigna*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

*Chamaesyce rockii* (AKOKO)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Chamaesyce rockii* on Oahu.

(i) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—

Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(ii) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

*Euphorbia haeleeleana* (AKOKO)

Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, Oahu—Lowland Dry—Unit 11, Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Euphorbia haeleeleana* on Oahu.

(i) In units Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Less than 50 in (130 cm).

(C) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(D) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(E) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(F) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Plumbago*, *Sicyos*, *Sida*, *Waltheria*.

(ii) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

*Euphorbia skottsbergii* var. *skottsbergii*  
(AKOKO)

Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Euphorbia skottsbergii* var. *skottsbergii* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: Less than 50 in (130 cm).

(iii) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(iv) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(v) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(vi) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*,

*Peperomia*, *Plumbago*, *Sicyos*, *Sida*, *Waltheria*.

(vii) Coral outcrop substrate.

*Flueggea neowawraea* (MEHAMEHAME)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Flueggea neowawraea* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

U.S. Fish and Wildlife Serv., Interior

§ 17.99

FAMILY FABACEAE

*Sesbania tomentosa* (OHAI)

Oahu—Coastal—Unit 1, Oahu—Coastal—Unit 2, Oahu—Coastal—Unit 3, Oahu—Coastal—Unit 4, Oahu—Coastal—Unit 5, Oahu—Coastal—Unit 6, Oahu—Coastal—Unit 7, Oahu—Coastal—Unit 8, Oahu—Coastal—Unit 9, Oahu—Coastal—Unit 10, Oahu—Coastal—Unit 11, Oahu—Coastal—Unit 12, Oahu—Coastal—Unit 13, Oahu—Coastal—Unit 14, and Oahu—Coastal—Unit 15, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Sesbania tomentosa* on Oahu. Within these units, the physical and biological features of critical habitat are:

- (i) Elevation: Less than 980 ft (300 m).
- (ii) Annual precipitation: Less than 20 in (50 cm).
- (iii) Substrate: Well-drained, calcareous, talus slopes; weathered clay soils; ephemeral pools; mudflats.
- (iv) Canopy: *Hibiscus*, *Myoporum*, *Santalum*, *Scaevola*.
- (v) Subcanopy: *Gossypium*, *Sida*, *Vitex*.
- (vi) Understory: *Eragrostis*, *Jacquemontia*, *Lyceum*, *Nama*, *Sesuvium*, *Sporobolus*, *Vigna*.

*Vigna o-wahuensis* (NCN)

Oahu—Coastal—Unit 1, Oahu—Coastal—Unit 2, Oahu—Coastal—Unit 3, Oahu—Coastal—Unit 4, Oahu—Coastal—Unit 5, Oahu—Coastal—Unit 6, Oahu—Coastal—Unit 7, Oahu—Coastal—Unit 8, Oahu—Coastal—Unit 9, Oahu—Coastal—Unit 10, Oahu—Coastal—Unit 11, Oahu—Coastal—Unit 12, Oahu—Coastal—Unit 13, Oahu—Coastal—Unit 14, and Oahu—Coastal—Unit 15, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Vigna o-wahuensis* on Oahu. Within these units, the physical and biological features of critical habitat are:

- (i) Elevation: Less than 980 ft (300 m).
- (ii) Annual precipitation: Less than 20 in (50 cm).
- (iii) Substrate: Well-drained, calcareous, talus slopes; weathered clay soils; ephemeral pools; mudflats.
- (iv) Canopy: *Hibiscus*, *Myoporum*, *Santalum*, *Scaevola*.
- (v) Subcanopy: *Gossypium*, *Sida*, *Vitex*.

- (vi) Understory: *Eragrostis*, *Jacquemontia*, *Lyceum*, *Nama*, *Sesuvium*, *Sporobolus*, *Vigna*.

FAMILY GENTIANACEAE

*Schenkia sebaeoides* (AWIWI)

Oahu—Coastal—Unit 1, Oahu—Coastal—Unit 2, Oahu—Coastal—Unit 3, Oahu—Coastal—Unit 4, Oahu—Coastal—Unit 5, Oahu—Coastal—Unit 6, Oahu—Coastal—Unit 7, Oahu—Coastal—Unit 8, Oahu—Coastal—Unit 9, Oahu—Coastal—Unit 10, Oahu—Coastal—Unit 11, Oahu—Coastal—Unit 12, Oahu—Coastal—Unit 13, Oahu—Coastal—Unit 14, and Oahu—Coastal—Unit 15, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Schenkia sebaeoides* on Oahu. Within these units, the physical and biological features of critical habitat are:

- (i) Elevation: Less than 980 ft (300 m).
- (ii) Annual precipitation: Less than 20 in (50 cm).
- (iii) Substrate: Well-drained, calcareous, talus slopes; weathered clay soils; ephemeral pools; mudflats.
- (iv) Canopy: *Hibiscus*, *Myoporum*, *Santalum*, *Scaevola*.
- (v) Subcanopy: *Gossypium*, *Sida*, *Vitex*.
- (vi) Understory: *Eragrostis*, *Jacquemontia*, *Lyceum*, *Nama*, *Sesuvium*, *Sporobolus*, *Vigna*.

FAMILY GESNERIACEAE

*Cyrtandra dentata* (HAIWALE)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—

Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyrtandra dentata* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(iii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

#### *Cyrtandra gracilis* (HAIWALE)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyrtandra gracilis* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: Greater than 75 in (190 cm).

(iii) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(iv) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(v) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(vi) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

#### *Cyrtandra kaulantha* (HAIWALE)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—



U.S. Fish and Wildlife Serv., Interior

§ 17.99

Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyrtandra kaulantha* on Oahu.

(i) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(ii) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaesia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

*Cyrtandra polyantha* (HAIWALE)

Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Low-

land Wet—Unit 16, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyrtandra polyantha* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

*Cyrtandra sessilis* (HAIWALE)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—

§ 17.99

50 CFR Ch. I (10–1–23 Edition)

Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyrtandra sessilis* Oahu.

(i) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils, lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(ii) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

*Cyrtandra subumbellata* (HAIWALE)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in

paragraph (i) of this section, constitute critical habitat for *Cyrtandra subumbellata* on Oahu.

(i) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(ii) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

*Cyrtandra viridiflora* (HAIWALE)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyrtandra viridiflora* on Oahu.

(i) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(ii) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

#### *Cyrtandra waiolani* (HAIWALE)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyrtandra waiolani* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: Greater than 75 in (190 cm).

(iii) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(iv) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(v) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(vi) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

#### FAMILY LAMIACEAE

##### *Phyllostegia hirsuta* (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Montane Wet—Unit 1, Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, Oahu—Wet Cliff—Unit 5, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Phyllostegia hirsuta* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

§ 17.99

50 CFR Ch. I (10–1–23 Edition)

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(iii) In unit Oahu—Montane Wet—Unit 1, the physical and biological features of critical habitat are:

(A) Elevation: 3,300 to 6,600 ft (1,000 to 2,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Well-developed soils, montane bogs.

(D) Canopy: *Acacia*, *Charpentiera*, *Cheirodendron*, *Metrosideros*.

(E) Subcanopy: *Broussaisia*, *Cibotium*, *Eurya*, *Ilex*, *Myrsine*.

(F) Understory: Ferns, *Carex*, *Coprosma*, *Leptecophylla*, *Oreobolus*, *Rhynchospora*, *Vaccinium*.

(iv) In units Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, Oahu—Wet Cliff—Unit 5, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the phys-

ical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

*Phyllostegia kaalaensis* (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Phyllostegia kaalaensis* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

U.S. Fish and Wildlife Serv., Interior

§ 17.99

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

*Phyllostegia mollis* (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, and Oahu—Lowland Wet—Unit 5, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Phyllostegia mollis* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, and Oahu—Lowland Wet—Unit 5, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

*Phyllostegia parviflora* (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Phyllostegia parviflora* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat for *Phyllostegia parviflora* var. *lydgatei* are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat for *Phyllostegia parviflora* var. *parviflora* are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

§ 17.99

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthra*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(iii) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat for *Phyllostegia parviflora* var. *parviflora* are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(iv) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat for *Phyllostegia parviflora* var. *parviflora* are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

*Stenogyne kanehoana* (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Stenogyne*

50 CFR Ch. I (10–1–23 Edition)

*kanehoana* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: 50 to 75 in (130 to 190 cm).

(iii) Substrate: Shallow soils, little to no herbaceous layer.

(iv) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(v) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthra*, *Osteomeles*, *Pleomele*, *Psydrax*.

(vi) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

FAMILY LOGANIACEAE

*Labordia cyrtandrae* (KAMAKAHALA)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Montane Wet—Unit 1, Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, Oahu—Wet Cliff—Unit 5, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Labordia cyrtandrae* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

U.S. Fish and Wildlife Serv., Interior

§ 17.99

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(iii) In unit Oahu—Montane Wet—Unit 1, the physical and biological features of critical habitat are:

(A) Elevation: 3,300 to 6,600 ft (1,000 to 2,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Well-developed soils, montane bogs.

(D) Canopy: *Acacia*, *Charpentiera*, *Cheirodendron*, *Metrosideros*.

(E) Subcanopy: *Broussaisia*, *Cibotium*, *Eurya*, *Ilex*, *Myrsine*.

(F) Understory: Ferns, *Carex*, *Coprosma*, *Leptecophylla*, *Oreobolus*, *Rhynchospora*, *Vaccinium*.

(iv) In units Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, Oahu—Wet Cliff—Unit 5, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

FAMILY MALVACEAE

*Abutilon sandwicense* (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Abutilon sandwicense* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit

§ 17.99

7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

- (A) Elevation: Unrestricted.
- (B) Annual precipitation: Less than 75 in (190 cm).
- (C) Substrate: Greater than 65 degree slope, rocky talus.
- (D) Canopy: None.
- (E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.
- (F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

*Hibiscus brackenridgei* (MAO HAU HELE)

Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, Oahu—Lowland Dry—Unit 11, Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Hibiscus brackenridgei* var. *mokuleianus* and *Hibiscus brackenridgei* var. *molokaiana* on Oahu.

(i) In units Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, the physical and biological features of critical habitat for *Hibiscus brackenridgei* var. *mokuleianus* and *Hibiscus brackenridgei* var. *molokaiana* are:

- (A) Elevation: Less than 3,300 ft (1,000 m).
- (B) Annual precipitation: Less than 50 in (130 cm).
- (C) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.
- (D) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.
- (E) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.
- (F) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Plumbago*, *Sicyos*, *Sida*, *Waltheria*.

(ii) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat for *Hibiscus brackenridgei*

50 CFR Ch. I (10–1–23 Edition)

var. *mokuleianus* and *Hibiscus brackenridgei* var. *molokaiana* are:

- (A) Elevation: Less than 3,300 ft (1,000 m).
- (B) Annual precipitation: 50 to 75 in (130 to 190 cm).
- (C) Substrate: Shallow soils, little to no herbaceous layer.
- (D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.
- (E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.
- (F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

FAMILY MYRSINACEAE

*Myrsine juddii* (KOLEA)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Myrsine juddii* on Oahu. Within these units, the physical and biological features of critical habitat are:

- (i) Elevation: Less than 3,300 ft (1,000 m).
- (ii) Annual precipitation: Greater than 75 in (190 cm).
- (iii) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.
- (iv) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.
- (v) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.
- (vi) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

FAMILY MYRTACEAE

*Eugenia koolauensis* (NIOI)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—



Unit 7, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Eugenia koolauensis* on Oahu. Within these units, the physical and biological features of critical habitat are:

- (i) Elevation: Less than 3,300 ft (1,000 m).
- (ii) Annual precipitation: 50 to 75 in (130 to 190 cm).
- (iii) Substrate: Shallow soils, little to no herbaceous layer.
- (iv) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.
- (v) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.
- (vi) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

#### FAMILY ORCHIDACEAE

##### *Platanthera holochila* (NCN)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Platanthera holochila* on Oahu. Within these units, the physical and biological features of critical habitat are:

- (i) Elevation: Less than 3,300 ft (1,000 m).
- (ii) Annual precipitation: Greater than 75 in (190 cm).
- (iii) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs and bog hummocks.
- (iv) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.
- (v) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.
- (vi) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

#### FAMILY PLANTAGINACEAE

##### *Plantago princeps* (LAUKAHI KUAHIWI)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, Oahu—Dry Cliff—Unit 8, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Plantago princeps* on Oahu.

- (i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat for *Plantago princeps* var. *princeps* are:

- (A) Elevation: Less than 3,300 ft (1,000 m).
- (B) Annual precipitation: 50 to 75 in (130 to 190 cm).
- (C) Substrate: Shallow soils, little to no herbaceous layer.
- (D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.
- (E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.
- (F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.
- (ii) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7,

Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat for *Plantago princeps* var. *longibracteata* are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(iii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat for *Plantago princeps* var. *princeps* are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(iv) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the

physical and biological features of critical habitat for *Plantago princeps* var. *princeps* are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

(v) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat for *Plantago princeps* var. *princeps* are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

#### FAMILY POACEAE

##### *Cenchrus agrimonioides* (KAMANOMANO)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cenchrus agrimonioides* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

*Eragrostis fosbergii* (FOSBERG'S LOVE GRASS)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Eragrostis fosbergii* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

FAMILY PRIMULACEAE

*Lysimachia filifolia* (NCN)

Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Lysimachia filifolia* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Unrestricted.

(ii) Annual precipitation: Greater than 75 in (190 cm).

(iii) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(iv) Canopy: None.

(v) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(vi) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

FAMILY RHAMNACEAE

*Colubrina oppositifolia* (KAUILA)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Colubrina oppositifolia* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

§ 17.99

50 CFR Ch. I (10–1–23 Edition)

(ii) Annual precipitation: 50 to 75 in (130 to 190 cm).

(iii) Substrate: Shallow soils, little to no herbaceous layer.

(iv) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(v) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(vi) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

*Gouania meyenii* (NCN)

Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, Oahu—Lowland Dry—Unit 11, Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Gouania meyenii* on Oahu.

(i) In units Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 6, Oahu—Lowland Dry—Unit 7, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Less than 50 in (130 cm).

(C) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(D) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(E) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(F) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Sicyos*.

(ii) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2,

and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(iii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

*Gouania vitifolia* (NCN)

Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, Oahu—Lowland Dry—Unit 11, Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Gouania vitifolia* on Oahu.

(i) In units Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—

Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Less than 50 in (130 cm).

(C) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(D) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(E) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(F) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Sicyos*.

(ii) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(iii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, and Oahu—Lowland Wet—Unit 5, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(iv) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

#### FAMILY RUBIACEAE

##### *Gardenia mannii* (NANU)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Gardenia mannii* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

§ 17.99

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

*Kadua coriacea* (KIOELE)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Kadua coriacea* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: 50 to 75 in (130 to 190 cm).

(iii) Substrate: Shallow soils, little to no herbaceous layer.

(iv) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

50 CFR Ch. I (10–1–23 Edition)

(v) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(vi) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

*Kadua degeneri* (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Kadua degeneri* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

*Kadua parvula* (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Kadua parvula* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

*Psychotria hexandra* var. *oahuensis*  
(KOPIKO)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—

Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Psychotria hexandra* var. *oahuensis* on Oahu.

(i) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(ii) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: *Bryophytes*, *Ferns*, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

## FAMILY RUTACEAE

*Melicope christophersenii* (ALANI)

Oahu—Montane Wet—Unit 1, Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, and Oahu—Wet

§ 17.99

50 CFR Ch. I (10–1–23 Edition)

Cliff—Unit 5, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Melicope christophersenii* on Oahu.

(i) In unit Oahu—Montane Wet—Unit 1, the physical and biological features of critical habitat are:

(A) Elevation: 3,300 to 6,600 ft (1,000 to 2,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Well-developed soils, montane bogs.

(D) Canopy: *Acacia*, *Charpentiera*, *Cheirodendron*, *Metrosideros*.

(E) Subcanopy: *Broussaisia*, *Cibotium*, *Eurya*, *Ilex*, *Myrsine*.

(F) Understory: Ferns, *Carex*, *Coprosma*, *Leptecophylla*, *Oreobolus*, *Rhynchospora*, *Vaccinium*.

(ii) In unit Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, and Oahu—Wet Cliff—Unit 5, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

*Melicope hiiakae* (ALANI)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Melicope hiiakae* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: Greater than 75 in (190 cm).

(iii) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(iv) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(v) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(vi) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

*Melicope cornuta* var. *cornuta* (NCN)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Melicope cornuta* var. *cornuta* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: Greater than 75 in (190 cm).

(iii) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(iv) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(v) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(vi) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

*Melicope lydgatei* (ALANI)

Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Melicope lydgatei* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5,



Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

#### *Melicope makahae* (ALANI)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Melicope makahae* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—

Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

#### *Melicope pallida* (ALANI)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Melicope pallida* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: 50 to 75 in (130 to 190 cm).

(iii) Substrate: Shallow soils, little to no herbaceous layer.

(iv) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(v) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(vi) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

*Melicope saint-johnii* (ALANI)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Melicope saint-johnii* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

*Melicope cornuta* var. *decurrens* (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Melicope cornuta* var. *decurrens* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

*Zanthoxylum oahuense* (AE)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland

U.S. Fish and Wildlife Serv., Interior

§ 17.99

Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Zanthoxylum oahuense* on Oahu. Within these units, the physical and biological features of critical habitat are:

- (i) Elevation: Less than 3,300 ft (1,000 m).
- (ii) Annual precipitation: Greater than 75 in (190 cm).
- (iii) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.
- (iv) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.
- (v) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.
- (vi) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

FAMILY SAPINDACEAE

*Alectryon macrococcus* (MAHOE)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Montane Wet—Unit 1, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Alectryon macrococcus* var. *macrococcus* on Oahu.

- (i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

- (A) Elevation: Less than 3,300 ft (1,000 m).
- (B) Annual precipitation: 50 to 75 in (130 to 190 cm).
- (C) Substrate: Shallow soils, little to no herbaceous layer.

- (D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

- (E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

- (F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

- (ii) In unit Oahu—Montane Wet—Unit 1, the physical and biological features of critical habitat are:

- (A) Elevation: 3,300 to 6,600 ft (1,000 to 2,000 m).

- (B) Annual precipitation: Greater than 75 in (190 cm).

- (C) Substrate: Well-developed soils, montane bogs.

- (D) Canopy: *Acacia*, *Charpentiera*, *Cheirodendron*, *Metrosideros*.

- (E) Subcanopy: *Broussaia*, *Cibotium*, *Eurya*, *Ilex*, *Myrsine*.

- (F) Understory: Ferns, *Carex*, *Coprosma*, *Leptecophylla*, *Oreobolus*, *Rhynchospora*, *Vaccinium*.

- (iii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

- (A) Elevation: Unrestricted.
- (B) Annual precipitation: Less than 75 in (190 cm).
- (C) Substrate: Greater than 65 degree slope, rocky talus.
- (D) Canopy: None.
- (E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.
- (F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

FAMILY SOLANACEAE

*Solanum sandwicense* (POPOLO, AIAKEAKUA)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Solanum sandwicense* on Oahu. Within these units, the physical and biological features of critical habitat are:

- (i) Elevation: Less than 3,300 ft (1,000 m).
- (ii) Annual precipitation: 50 to 75 in (130 to 190 cm).
- (iii) Substrate: Shallow soils, little to no herbaceous layer.
- (iv) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.
- (v) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.
- (vi) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

FAMILY URTICACEAE

*Neraudia angulata* (NCN)

Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, Oahu—Lowland Dry—Unit 11, Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Neraudia angulata* on Oahu.

(i) In units Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, the physical and biological features of critical habitat for *Neraudia angulata* var. *angulata* and *Neraudia angulata* var. *dentata* are:

- (A) Elevation: Less than 3,300 ft (1,000 m).
- (B) Annual precipitation: Less than 50 in (130 cm).
- (C) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.
- (D) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.
- (E) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.
- (F) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Sicyos*.

(ii) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat for *Neraudia angulata* var. *angulata* and *Neraudia angulata* var. *dentata* are:

- (A) Elevation: Less than 3,300 ft (1,000 m).
- (B) Annual precipitation: 50 to 75 in (130 to 190 cm).
- (C) Substrate: Shallow soils, little to no herbaceous layer.
- (D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.
- (E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.
- (F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(iii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat for *Neraudia angulata* var. *angulata* and *Neraudia angulata* var. *dentata* are:

- (A) Elevation: Unrestricted.
- (B) Annual precipitation: Less than 75 in (190 cm).
- (C) Substrate: Greater than 65 degree slope, rocky talus.
- (D) Canopy: None.
- (E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.
- (F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

*Urera kaalae* (OPUHE)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, and Oahu—Lowland Wet—Unit 5, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Urera kaalae* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, and Oahu—Lowland Wet—Unit 5, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

#### FAMILY VIOLACEAE

##### *Isodendron laurifolium* (AUPAKA)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Isodendron laurifolium* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland

Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

##### *Isodendron longifolium* (AUPAKA)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Isodendron longifolium* on Oahu.

§ 17.99

50 CFR Ch. I (10–1–23 Edition)

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

*Isodendron pyrifolium* (WAHINE NOHO KULA)

Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, Oahu—Lowland Dry—Unit 11, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2,

Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Isodendron pyrifolium* on Oahu.

(i) In units Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Less than 50 in (130 cm).

(C) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(D) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(E) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(F) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Sicyos*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

*Viola chamissoniana* ssp. *chamissoniana* (PAMAKANI)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—

U.S. Fish and Wildlife Serv., Interior

§ 17.99

Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Viola chamissoniana* ssp. *chamissoniana* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

*Viola oahuensis* (NCN)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Viola oahuensis* on Oahu.

(i) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(ii) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

FAMILY VISCACEAE

*Korthalsella degeneri* (HULUMOA)

Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Korthalsella degeneri* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Unrestricted.

(ii) Annual precipitation: Less than 75 in (190 cm).

(iii) Substrate: Greater than 65 degree slope, rocky talus.

§ 17.99

50 CFR Ch. I (10–1–23 Edition)

- (iv) Canopy: None.
- (v) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.
- (vi) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.
- (vii) Host plants *Sapindus oahuensis* and *Nestigis sandwicensis*.

(2) *Ferns and allies.*

FAMILY ADIANTACEAE

*Pteris lidgatei* (NCN)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Pteris lidgatei* on Oahu. Within these units, the physical and biological features of critical habitat are:

- (i) Elevation: Less than 3,300 ft (1,000 m).
- (ii) Annual precipitation: Greater than 75 in (190 cm).
- (iii) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.
- (iv) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.
- (v) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.
- (vi) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

FAMILY ASPLENIACEAE

*Ctenitis squamigera* (PAUOA)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Ctenitis squamigera* on Oahu. Within these units, the physical and biological features of critical habitat are:

- (i) Elevation: Less than 3,300 ft (1,000 m).

- (ii) Annual precipitation: 50 to 75 in (130 to 190 cm).

- (iii) Substrate: Shallow soils, little to no herbaceous layer.

- (iv) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

- (v) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

- (vi) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

*Asplenium dielirectum* (NCN)

Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Asplenium dielirectum* on Oahu. Within these units, the physical and biological features of critical habitat are:

- (i) Elevation: Less than 3,300 ft (1,000 m).

- (ii) Annual precipitation: 50 to 75 in (130 to 190 cm).

- (iii) Substrate: Shallow soils, little to no herbaceous layer.

- (iv) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

- (v) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

- (vi) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

*Asplenium dielfalcatum* (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Asplenium dielfalcatum* on Oahu.

- (i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—



U.S. Fish and Wildlife Serv., Interior

§ 17.99

Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

*Diellia unisora* (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Diellia unisora* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7a, Oahu—Dry Cliff—Unit 7b, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

*Diplazium molokaiense* (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, and Oahu—Lowland Wet—Unit 5, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Diplazium molokaiense* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, and Oahu—Lowland Wet—Unit 5, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

#### FAMILY GRAMMITIDACEAE

##### *Adenophorus periens* (PALAI LAU)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Adenophorus periens* on Oahu.

(i) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(ii) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

#### FAMILY LYCOPODIACEAE

##### *Phlegmariurus nutans* (WAWAEIOLE)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Phlegmariurus nutans* on Oahu.

(i) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(ii) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaesia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: *Bryophytes*, *Ferns*, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

#### FAMILY MARSILEACEAE

##### *Marsilea villosa* (IHI IHI)

Oahu—Coastal—Unit 9, Oahu—Coastal—Unit 11, Oahu—Coastal—Unit 12, and Oahu—Lowland Dry—Unit 7, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Marsilea villosa* on Oahu.

(i) In units Oahu—Coastal—Unit 9, Oahu—Coastal—Unit 11, and Oahu—Coastal—Unit 12, the physical and biological features of critical habitat are:

(A) Elevation: Less than 980 ft (300 m).

(B) Annual precipitation: Less than 20 in (50 cm).

(C) Substrate: Well-drained, calcareous, talus slopes; weathered clay soils; seasonal wetlands; mudflats.

(D) Canopy: *Hibiscus*, *Myoporum*, *Santalum*, *Scaevola*.

(E) Subcanopy: *Gossypium*, *Sida*, *Vitex*.

(F) Understory: *Eragrostis*, *Jacquemontia*, *Lyceum*, *Nama*, *Sesuvium*, *Sporobolus*, *Vigna*.

(ii) In unit Oahu—Lowland Dry—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Less than 50 in (130 cm).

(C) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava, seasonal wetlands.

(D) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(E) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(F) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Sicyos*.

#### FAMILY PTERIDACEAE

##### *Doryopteris takeuchii* (NCN)

Oahu—Lowland Dry—Unit 6 and Oahu—Lowland Dry—Unit 7, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Doryopteris takeuchii* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: Less than 50 in (130 cm).

(iii) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(iv) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(v) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(vi) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Sicyos*.

(k) *Maps and critical habitat unit descriptions for the island of Hawaii, HI.* Critical habitat units are described below. Coordinates are in UTM Zone 4 with units in meters using North American Datum of 1983 (NAD83). The following map shows the general locations of the critical habitat units designated on the island of Hawaii. Existing manmade features and structures, such as buildings, roads, railroads, airports, runways, utility facilities and infrastructure and their designated and maintained rights-of-way, other paved areas, lawns, and other urban landscaped areas are not included in the critical habitat designation. Federal actions limited to those areas,

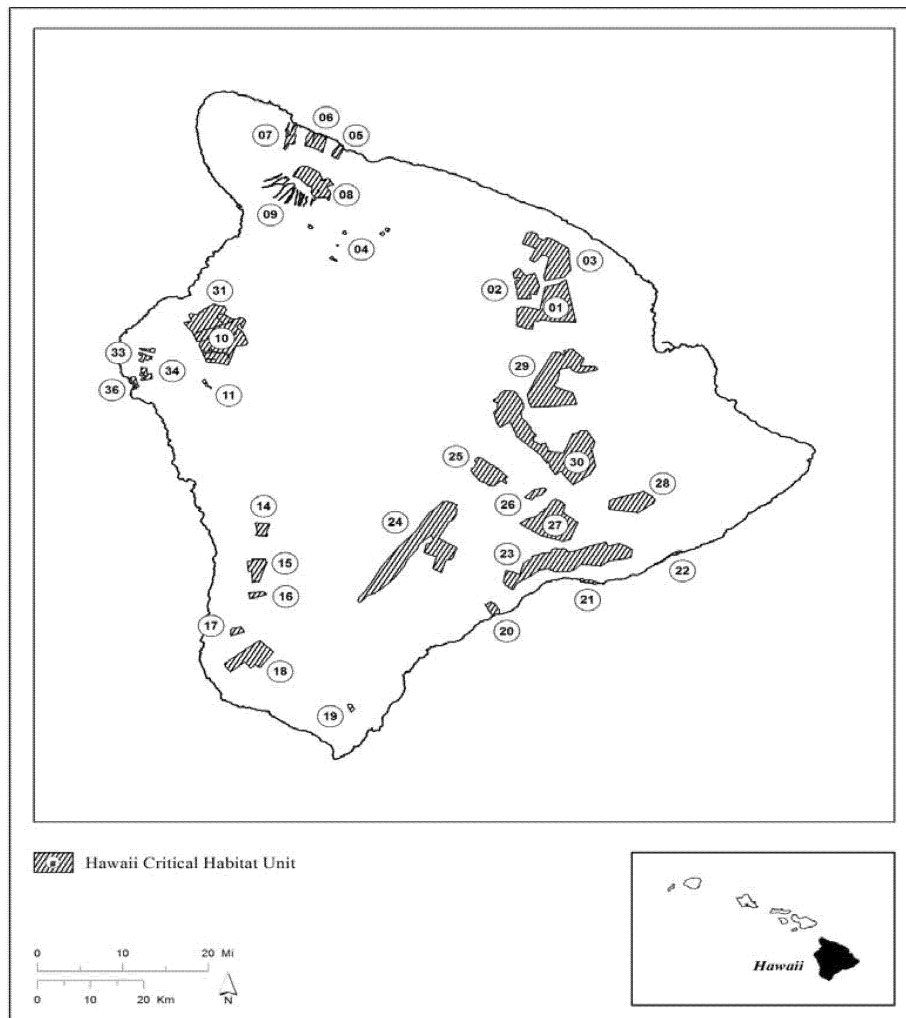
therefore, would not trigger a consultation under section 7 of the Act unless they may affect the species or physical

or biological features in adjacent critical habitat.

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

## Map 1

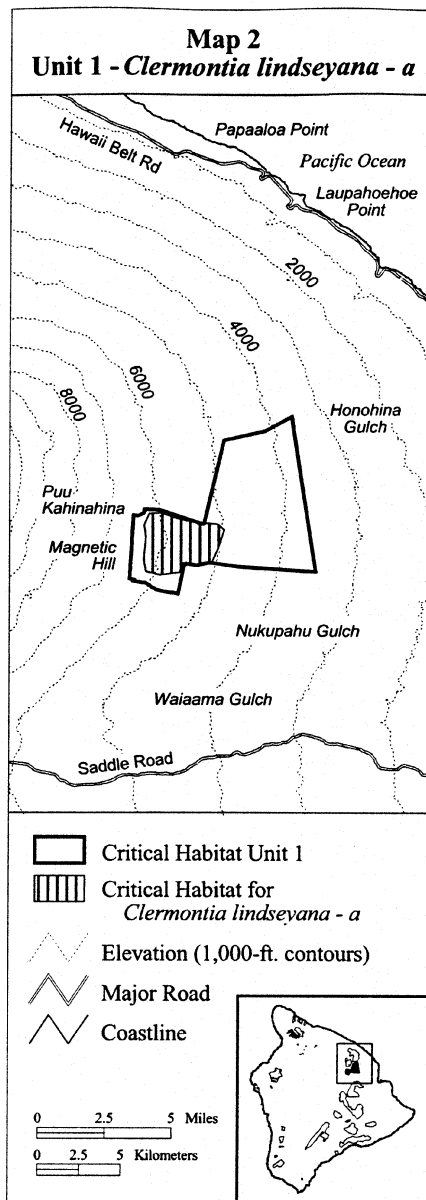
### Hawaii Critical Habitat–Island Index Map



(2) Hawaii 1—*Clermontia lindseyana*—a  
(1,337 ha, 3,303 ac)

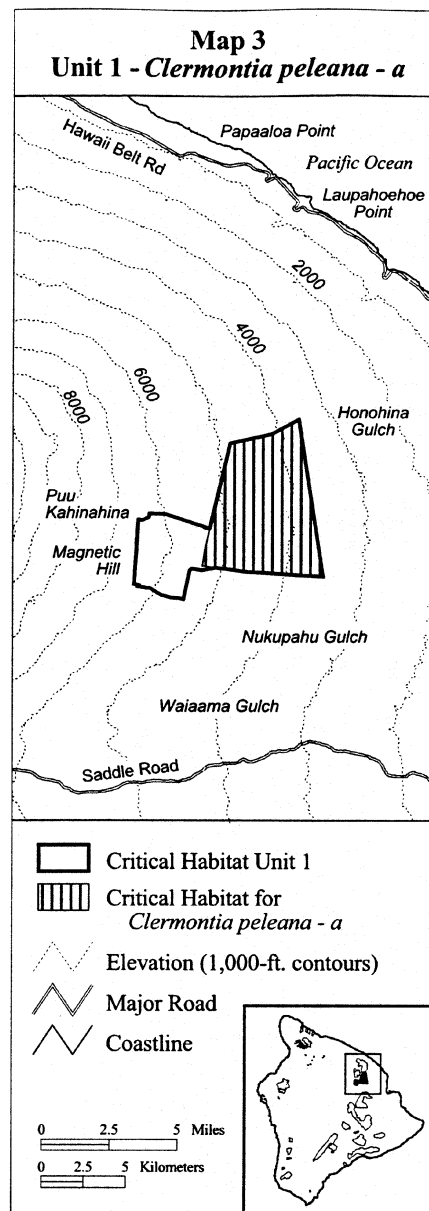
(ii) Map 2 follows:

(i) [Reserved]



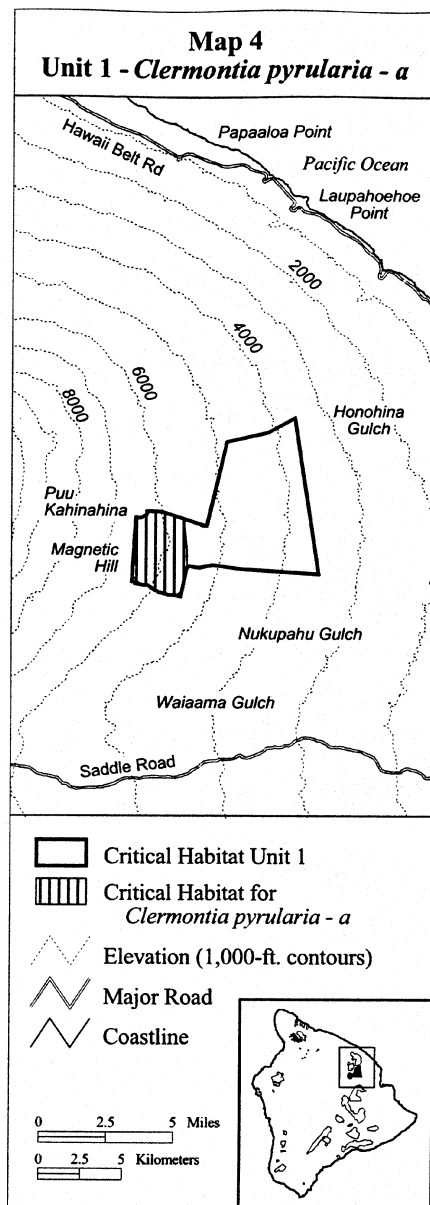
(3) Hawaii 1—*Clermontia peleana*—a  
(4,704 ha, 11,624 ac)

- (i) [Reserved]  
(ii) Map 3 follows:



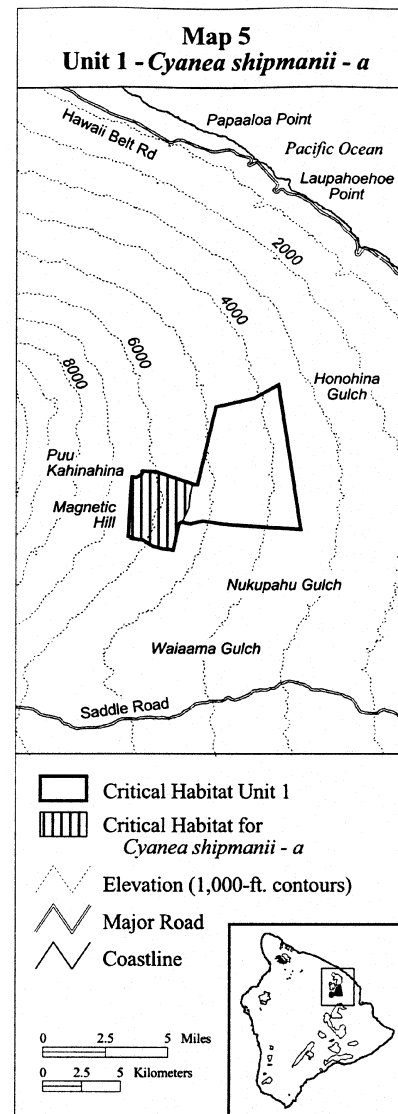
(4) Hawaii 1—*Clermontia pyralaria*—a  
(1,378 ha, 3,405 ac)

- (i) [Reserved]  
(ii) Map 4 follows:



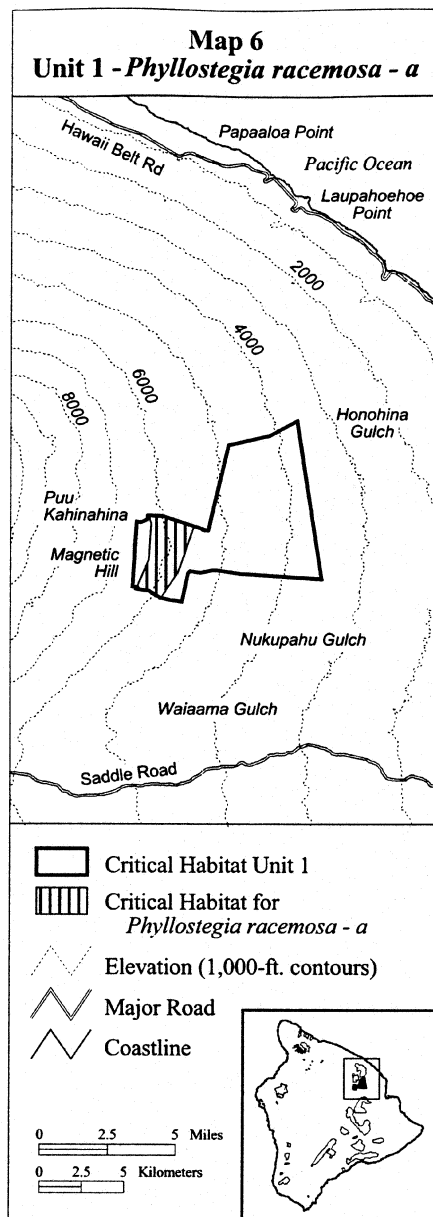
(5) Hawaii 1—*Cyanea shipmanii*—a (1,577 ha, 3,898 ac)

- (i) [Reserved]
- (ii) Map 5 follows:



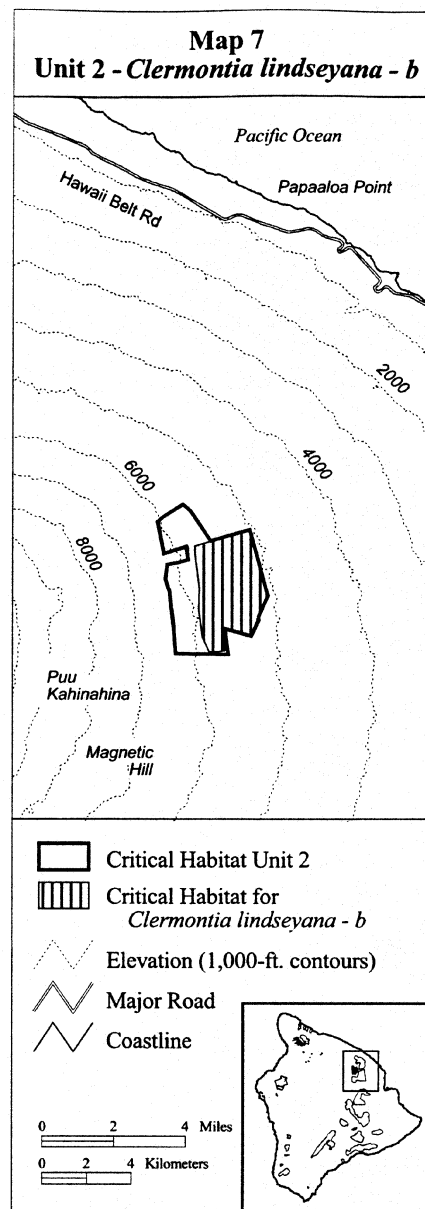
(6) Hawaii 1—*Phyllostegia racemosa*—a (938 ha, 2,317 ac)

- (i) [Reserved]
- (ii) Map 6 follows:



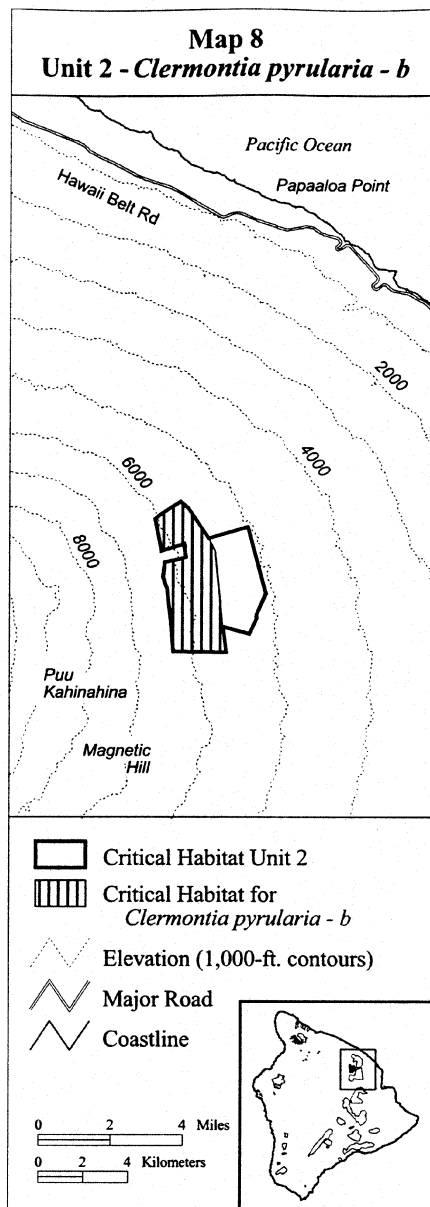
(7) Hawaii 2—*Clermontia lindseyana*—b  
(1,262 ha, 3,119 ac)

- (i) [Reserved]  
(ii) Map 7 follows:



(8) Hawaii 2—*Clermontia pyramidalis*—b  
(1,383 ha, 3,418 ac)

- (i) [Reserved]  
(ii) Map 8 follows:



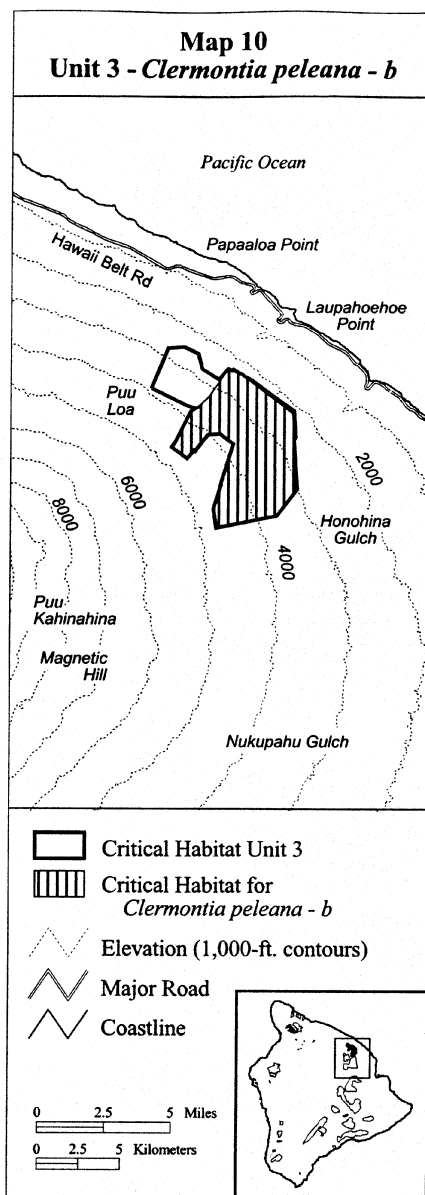
(9) Hawaii 2—*Phyllostegia racemosa*—b  
(1,683 ha, 4,158 ac)

- (i) [Reserved]  
(ii) Map 9 follows:

(10) Hawaii 3—*Clermontia peleana*—b  
(4,098 ha, 10,126 ac)

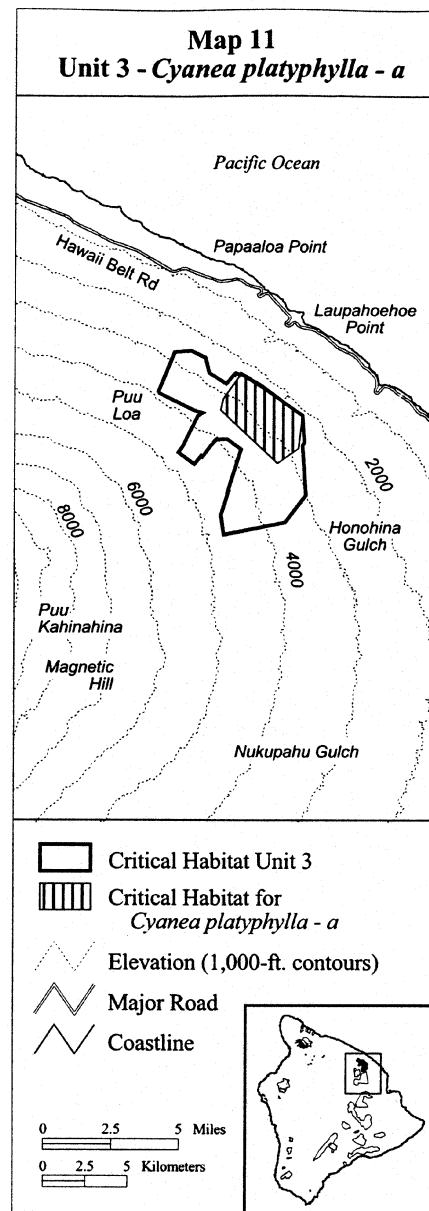
- (i) [Reserved]  
(ii) Map 10 follows:





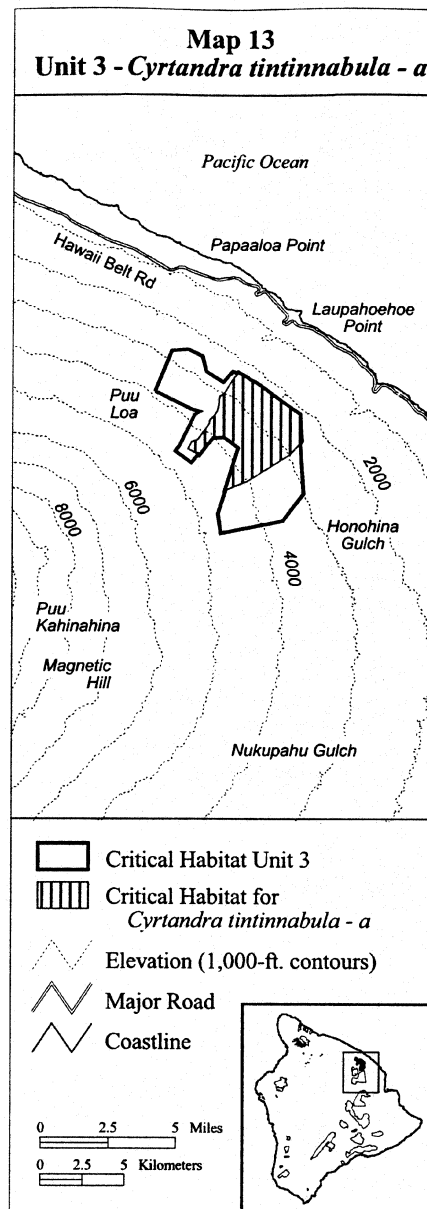
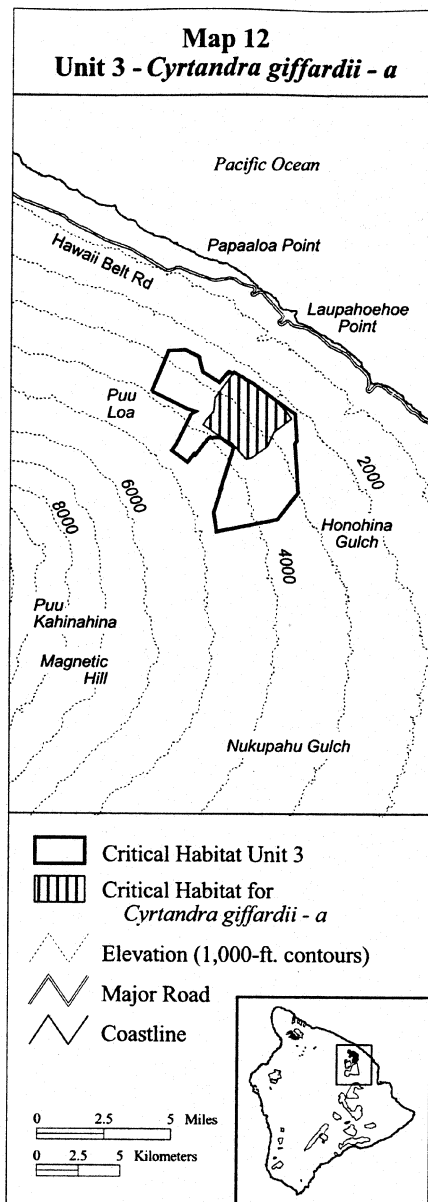
(11) Hawaii 3—*Cyanea platyphylla*—a  
(1,403 ha, 3,467 ac)

- (i) [Reserved]  
(ii) Map 11 follows:



(12) Hawaii 3—*Cyrtandra giffardii*—a  
(1,510 ha, 3,731 ac)

- (i) [Reserved]  
(ii) Map 12 follows:

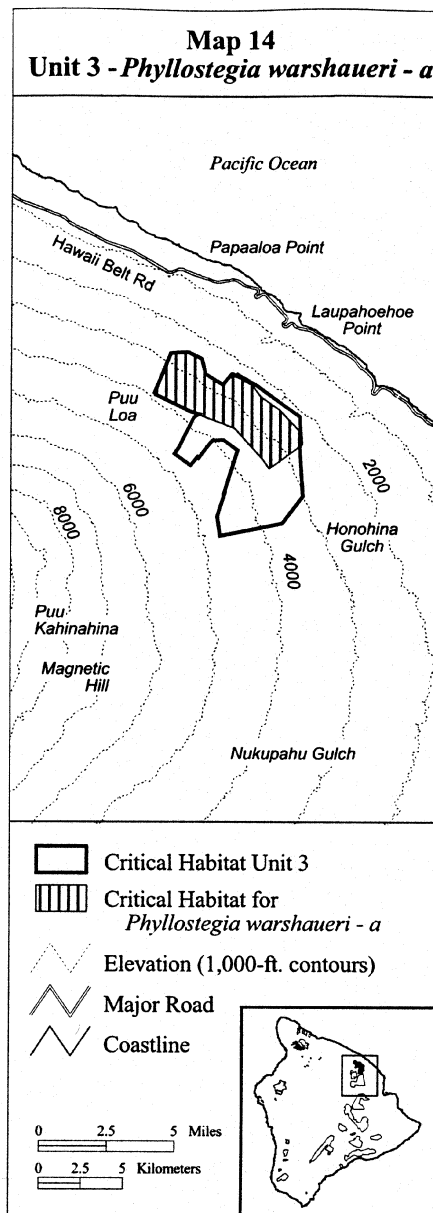


(13) Hawaii 3—*Cyrtandra tintinnabula*—a  
(2,322 ha, 5,738 ac)

- (i) [Reserved]  
(ii) Map 13 follows:

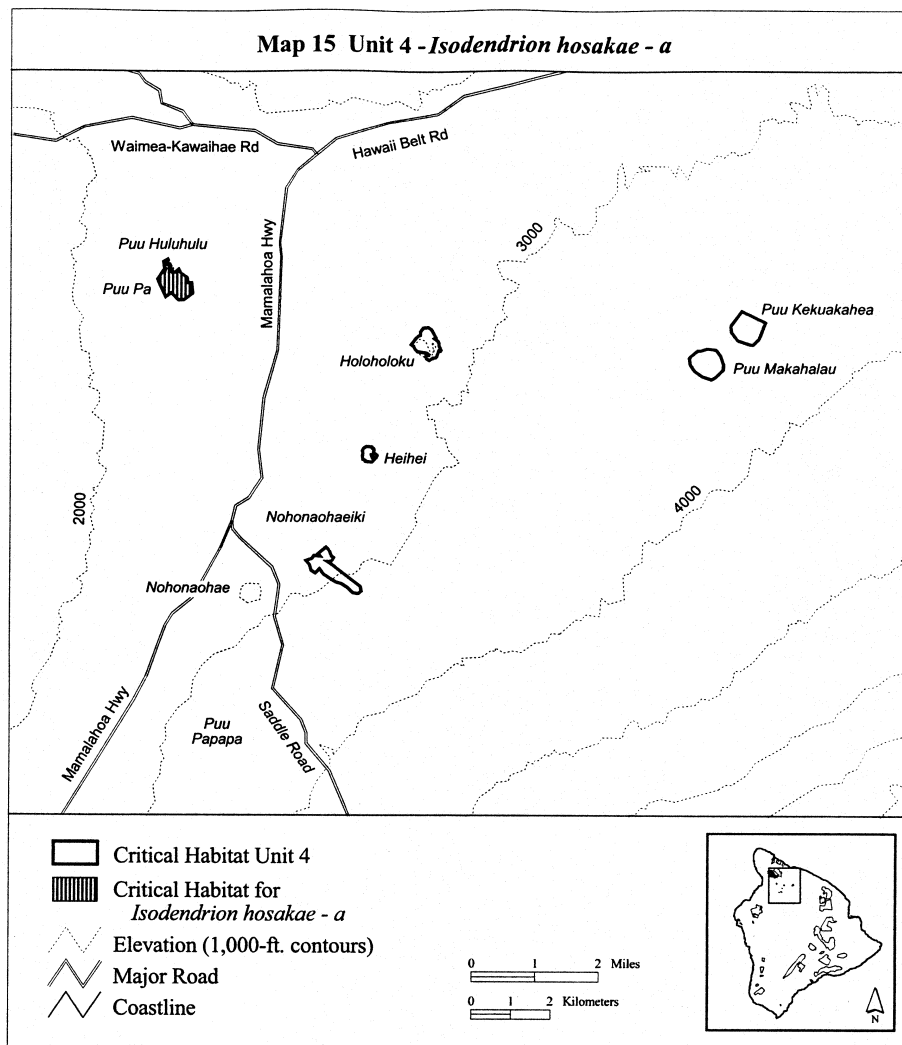
(14) Hawaii 3—*Phyllostegia warshaueri*—  
a (2,471 ha, 6,105 ac)

- (i) [Reserved]  
(ii) Map 14 follows:



(15) Hawaii 4—*Isodendron hosakae*—a  
(49 ha, 121 ac)

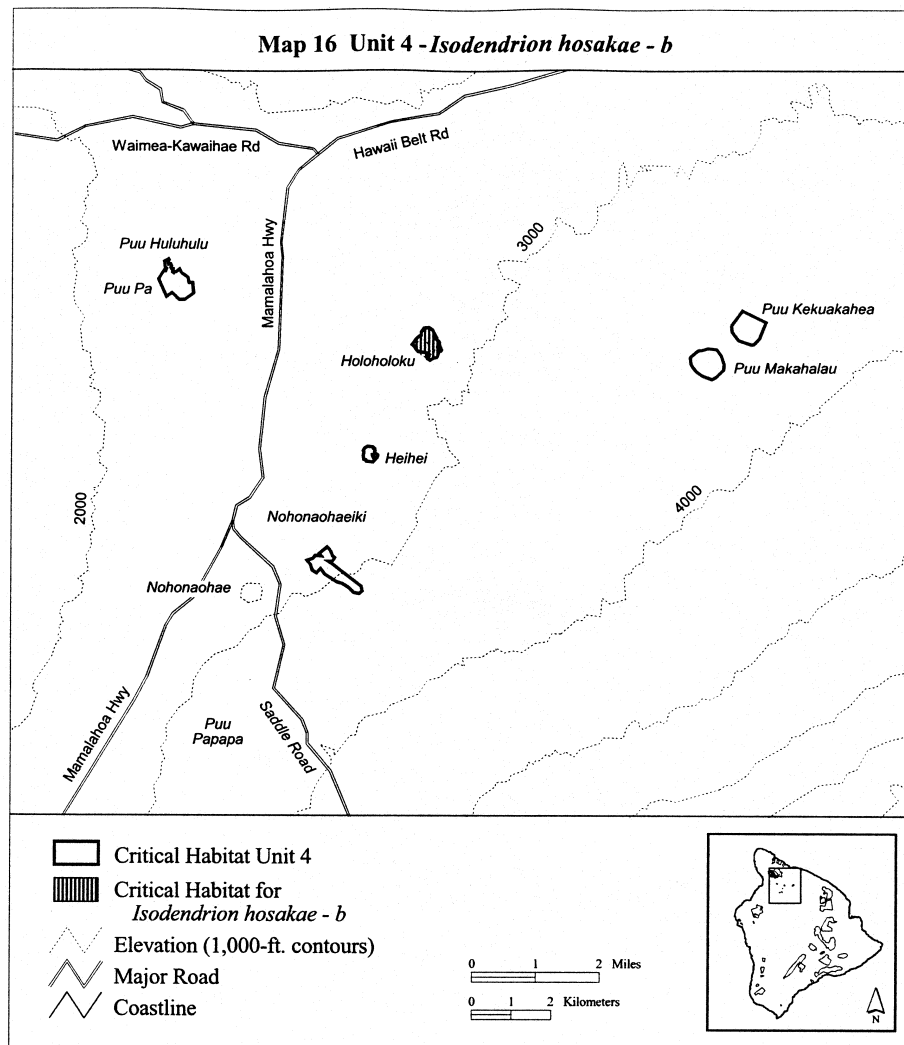
- (i) [Reserved]
- (ii) Map 15 follows:



(16) Hawaii 4—*Isodendron hosakae*—b  
(35 ha, 87 ac)

(ii) Map 16 follows:

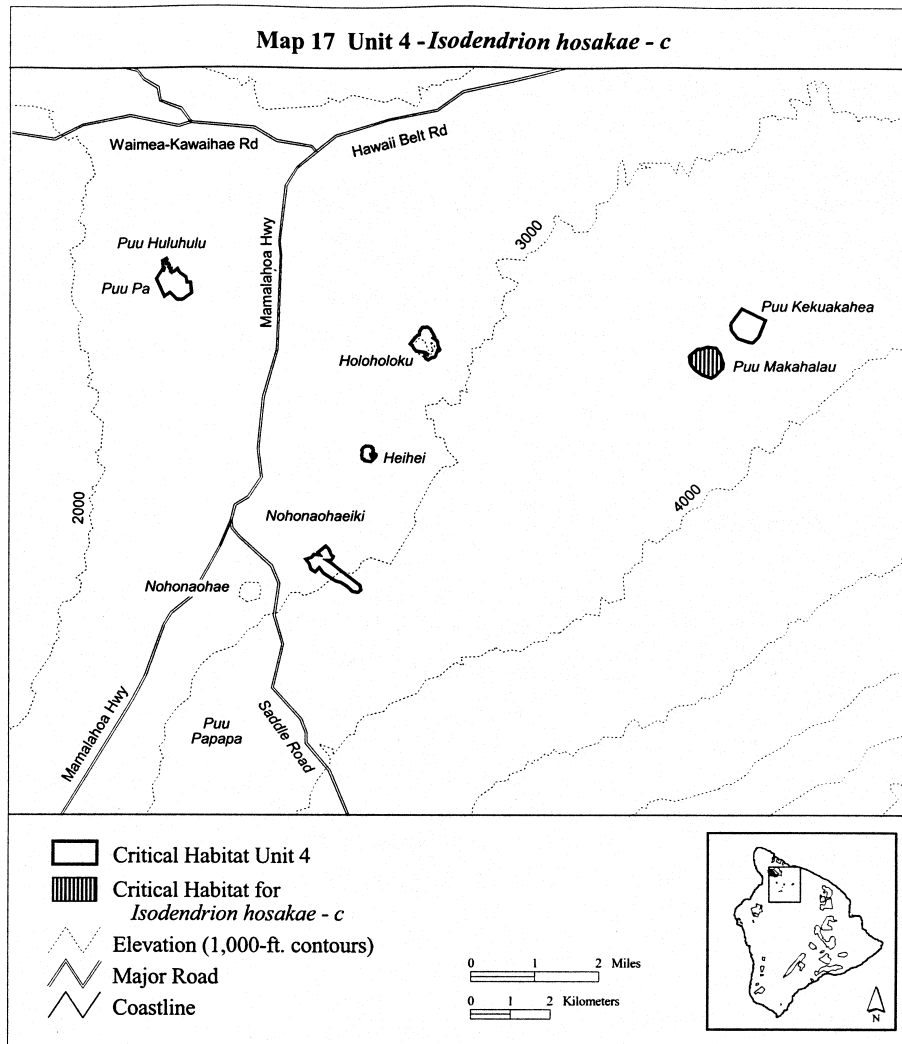
(i) [Reserved]



(17) Hawaii 4—*Isodendrion hosakae*—c  
(49 ha, 121 ac)

(ii) Map 17 follows:

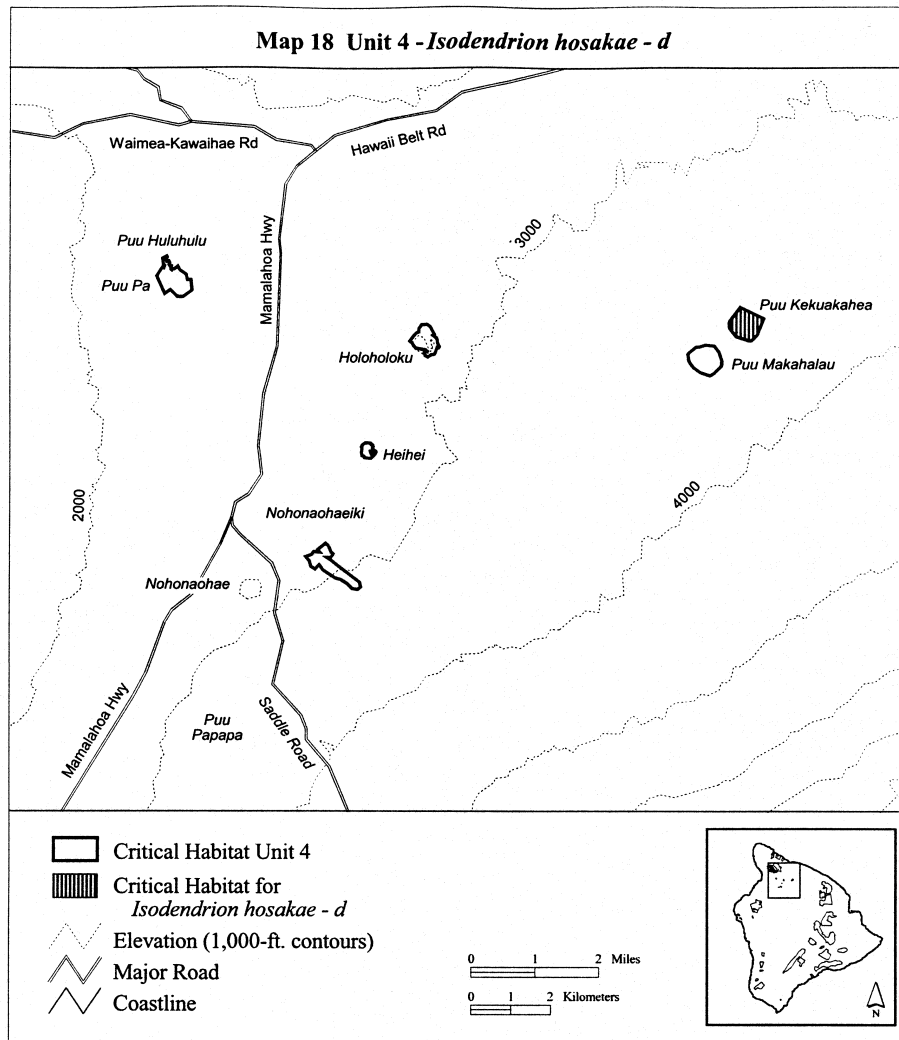
(i) [Reserved]



(18) Hawaii 4—*Isodendrion hosakae*—d  
(49 ha, 121 ac)

(ii) Map 18 follows:

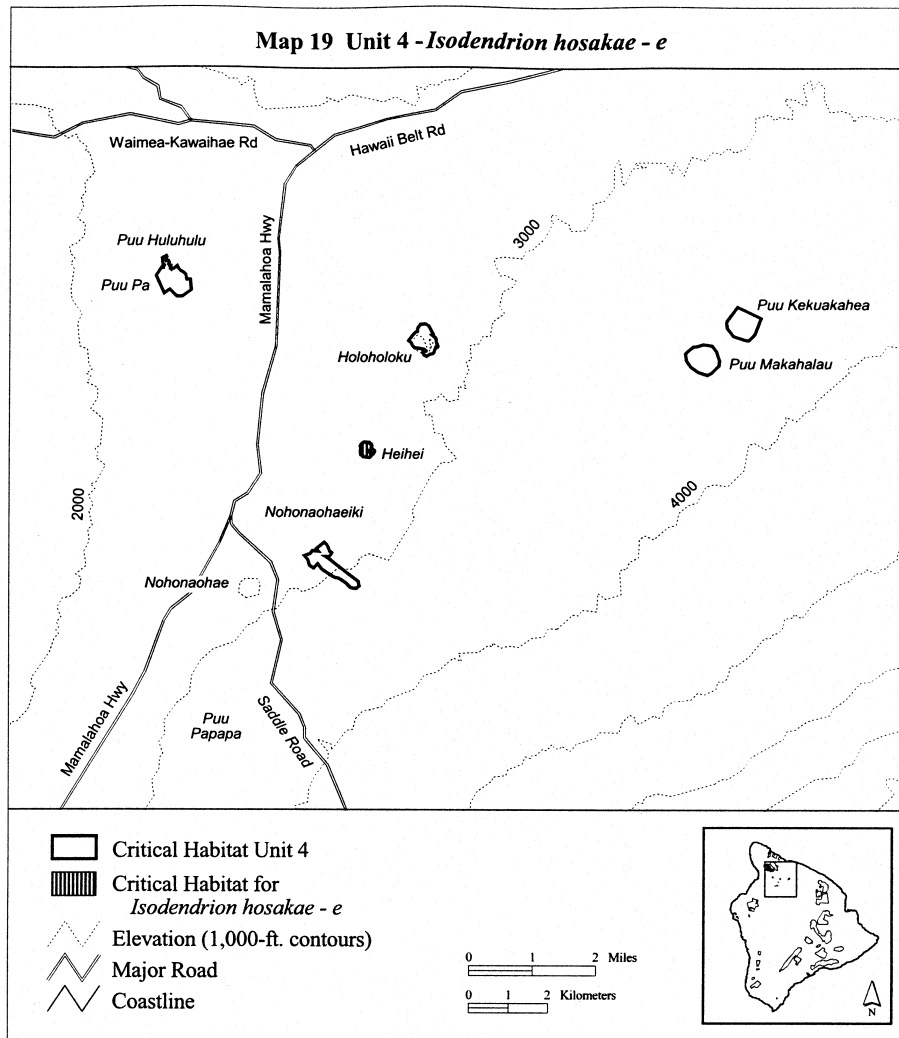
(i) [Reserved]



(19) Hawaii 4—*Isodendron hosakae*—e  
(11 ha, 26 ac)

(ii) Map 19 follows:

(i) [Reserved]

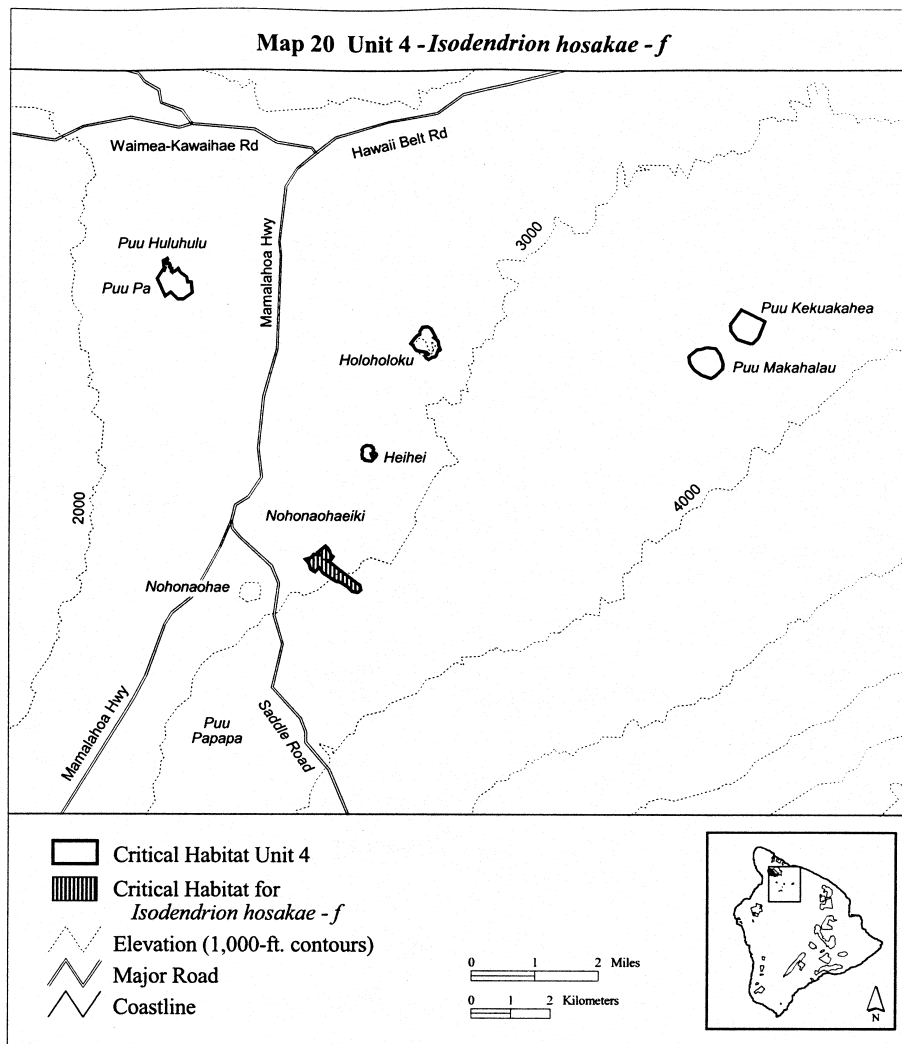


(20) Hawaii 4—*Isodendron hosakae*—f (51 ha, 127 ac)

(ii) Map 20 follows:

(i) [Reserved]

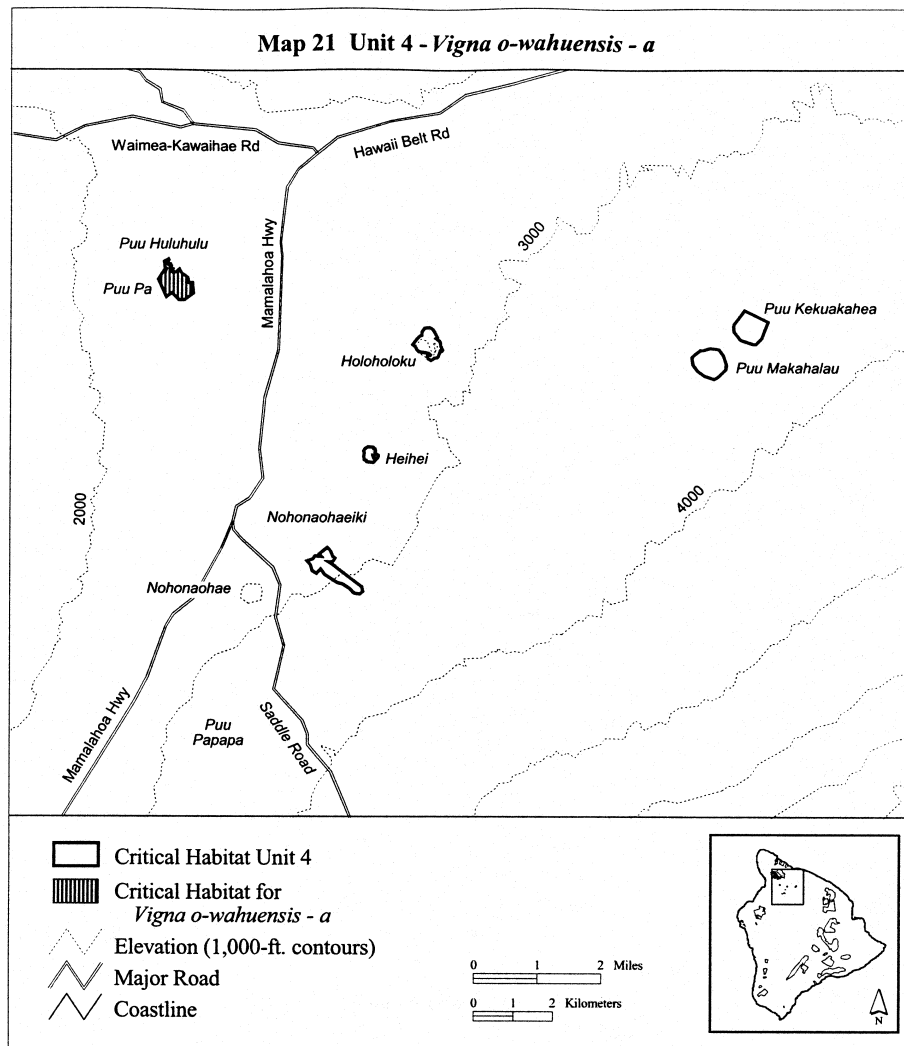




(21) Hawaii 4—*Vigna o-wahuensis*—a (49 ha, 121 ac)

(ii) Map 21 follows:

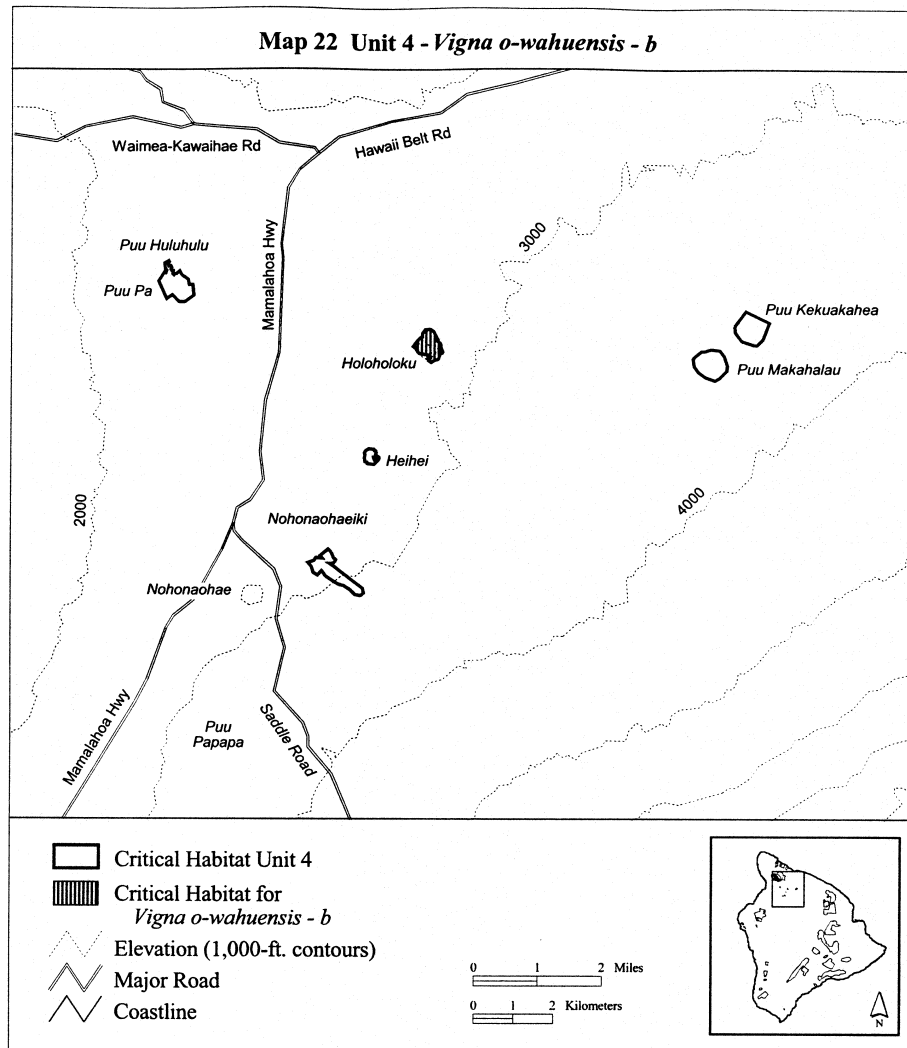
(i) [Reserved]



(22) Hawaii 4—*Vigna o-wahuensis*—b (35 ha, 87 ac)

(ii) Map 22 follows:

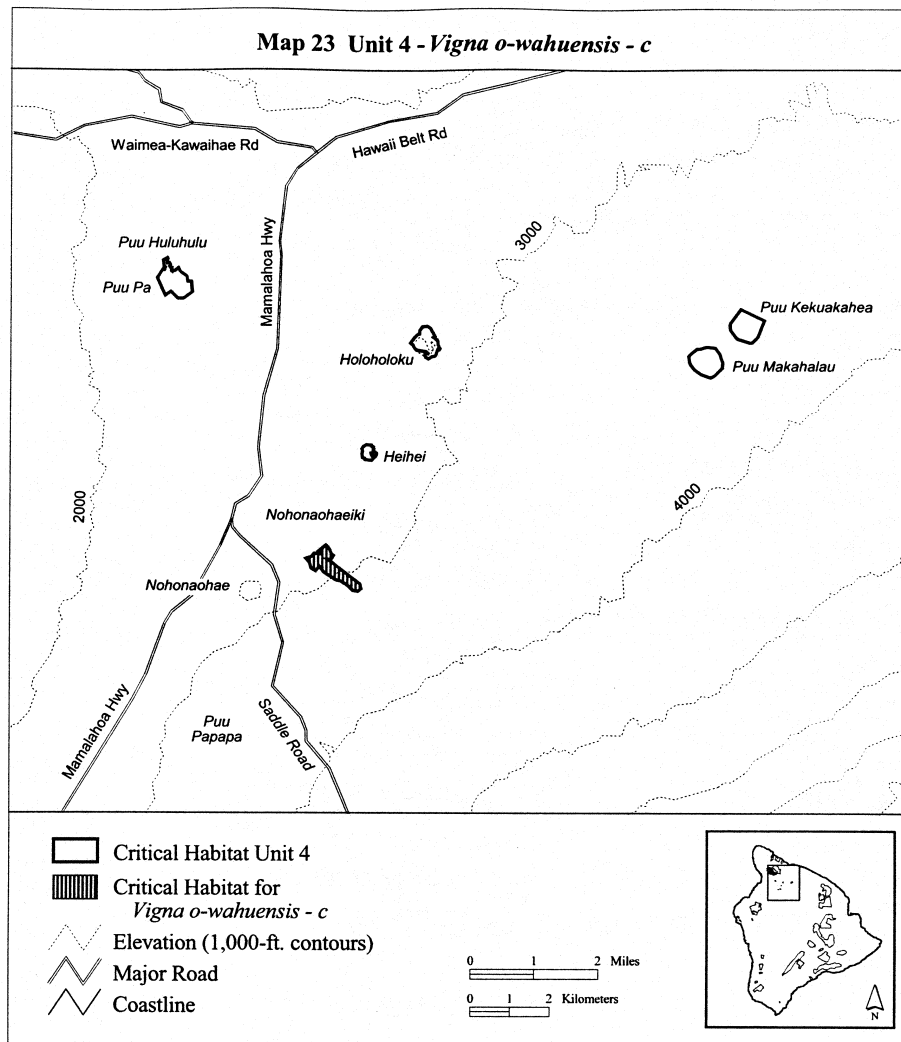
(i) [Reserved]



(23) Hawaii 4—*Vigna o-wahuensis*—c (51 ha, 127 ac)

(ii) Map 23 follows:

(i) [Reserved]

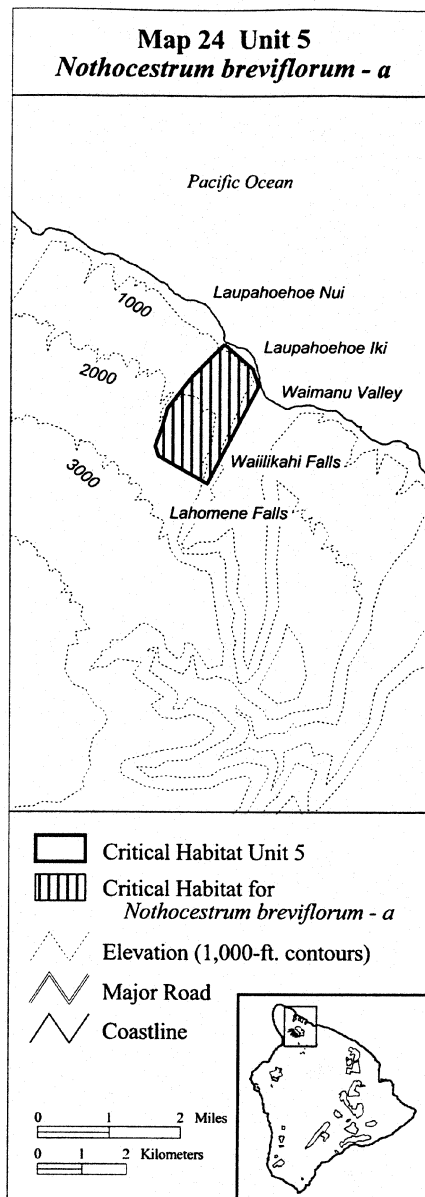


U.S. Fish and Wildlife Serv., Interior

§ 17.99

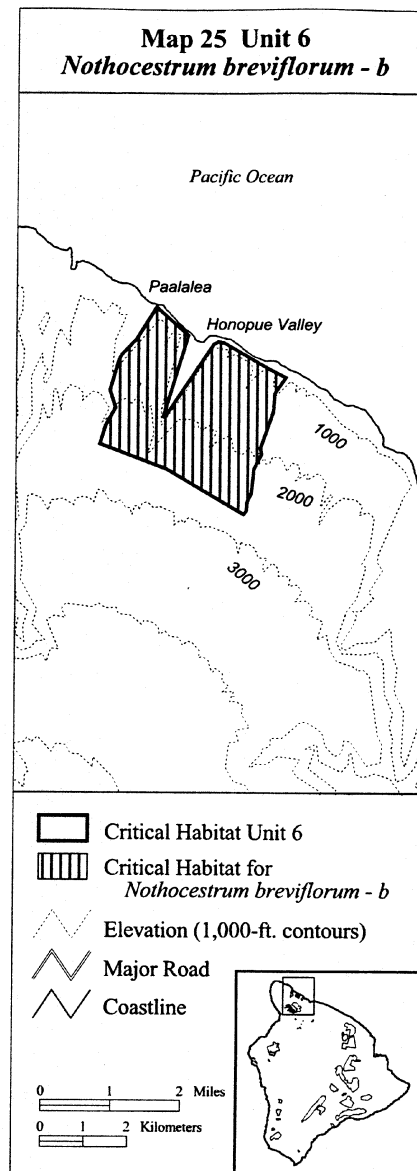
(24) Hawaii 5—*Nothocestrum breviflorum*—a (403 ha, 995 ac)

- (i) [Reserved]  
(ii) Map 24 follows:



(25) Hawaii 6—*Nothocestrum breviflorum*—b (1,113 ha, 2,750 ac)

- (i) [Reserved]  
(ii) Map 25 follows:

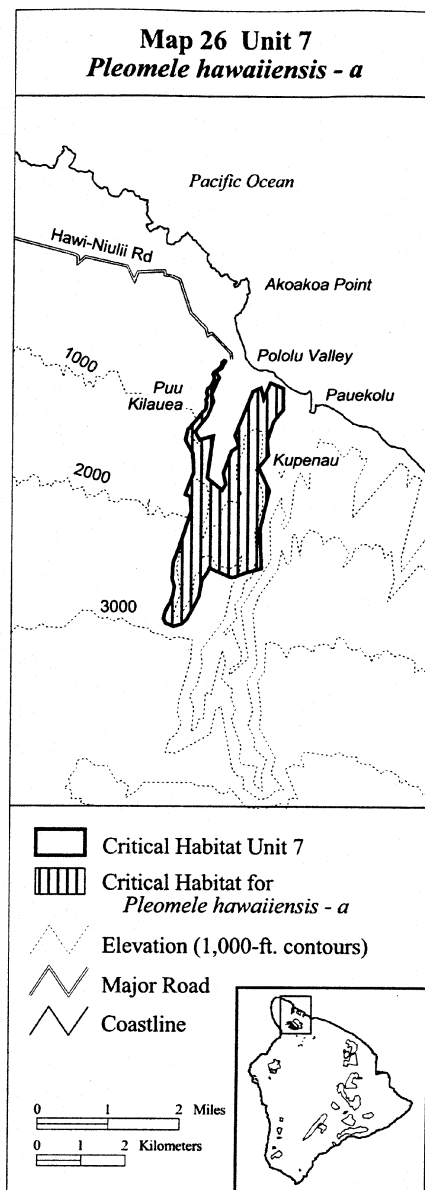


§ 17.99

(26) Hawaii 7—*Dracaena konaensis*—a  
(677 ha, 1,673 ac)

(i) [Reserved]

(ii) Note: The reference to “Hawaii 7—*Pleomele hawaiiensis*—a” on the map is equivalent to “Hawaii 7—*Dracaena konaensis*—a”. Map 26 follows:

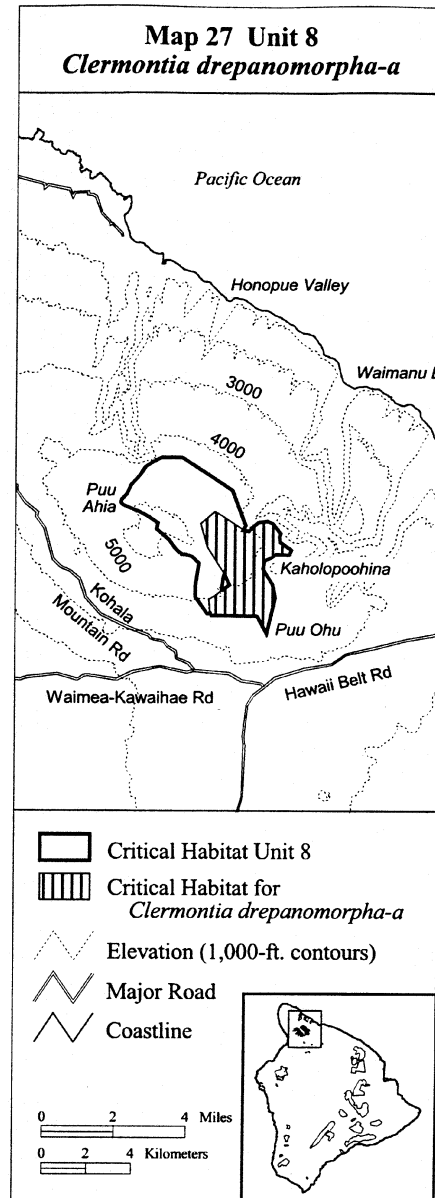


50 CFR Ch. I (10–1–23 Edition)

(27) Hawaii 8—*Clermontia drepanomorpha*—a (1,906 ha, 4,709 ac)

(i) [Reserved]

(ii) Map 27 follows:



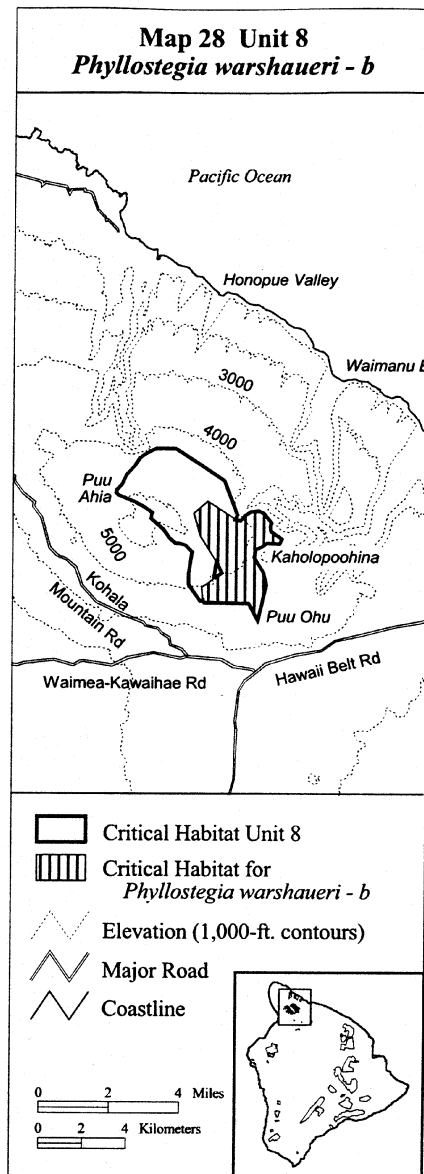
U.S. Fish and Wildlife Serv., Interior

§ 17.99

(28) Hawaii 8—*Phyllostegia warshaueri*—  
b (1,177 ha, 2,908 ac)

(i) [Reserved]

(ii) Map 28 follows:

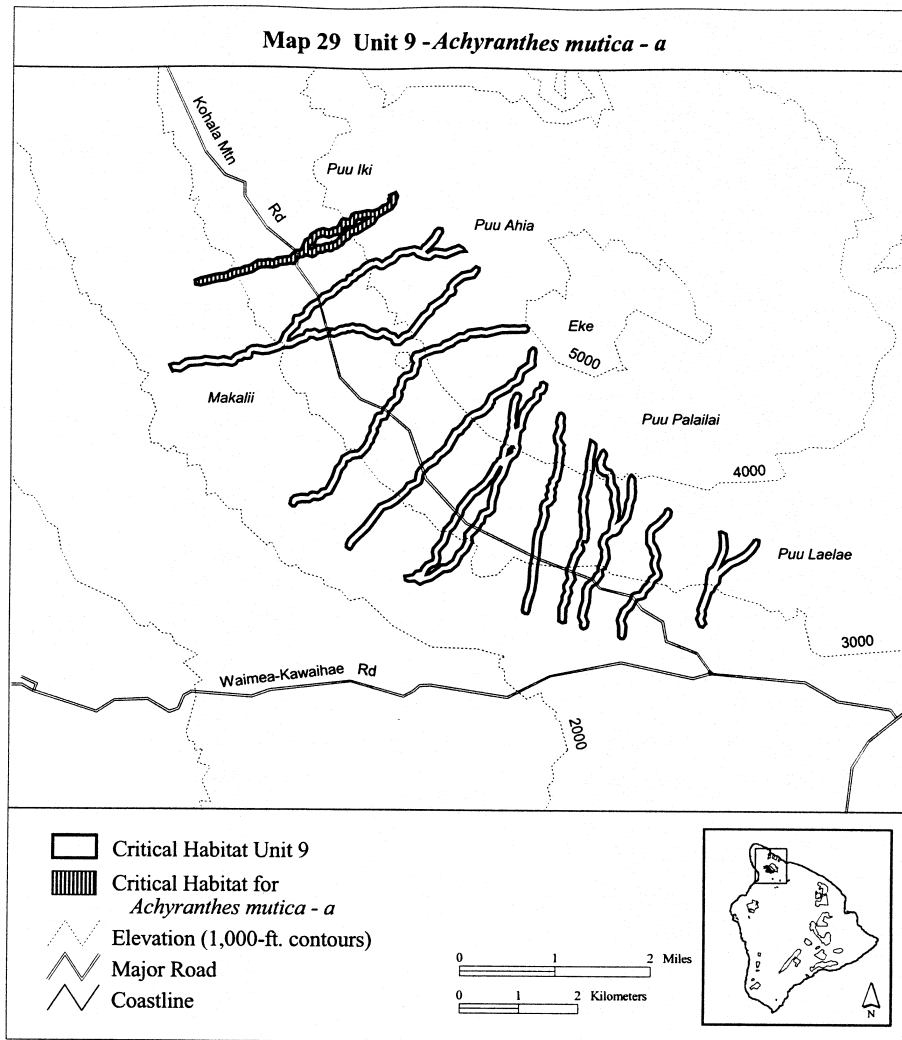


(29) Hawaii 9—*Achyranthes mutica*—a (63  
ha, 157 ac)

(i) [Reserved]

(ii) Excluding one area bounded by the following 31 points (8 ha, 19 ac): Start at 211235, 2224062; 211172, 2224016; 211129, 2224012; 211093, 2223986; 211042, 2223992; 210945, 2223954; 210872, 2223952; 210792, 2223885; 210751, 2223908; 210770, 2223960; 210841, 2223994; 210870, 2224063; 210928, 2224102; 210992, 2224116; 211080, 2224094; 211174, 2224135; 211293, 2224156; 211335, 2224196; 211345, 2224253; 211373, 2224282; 211439, 2224272; 211501, 2224297; 211562, 2224404; 211619, 2224407; 211657, 2224425; 211731, 2224441; 211766, 2224436; 211506, 2224267; 211403, 2224240; 211340, 2224159; 211274, 2224128; return to starting point.

(iii) Map 29 follows:



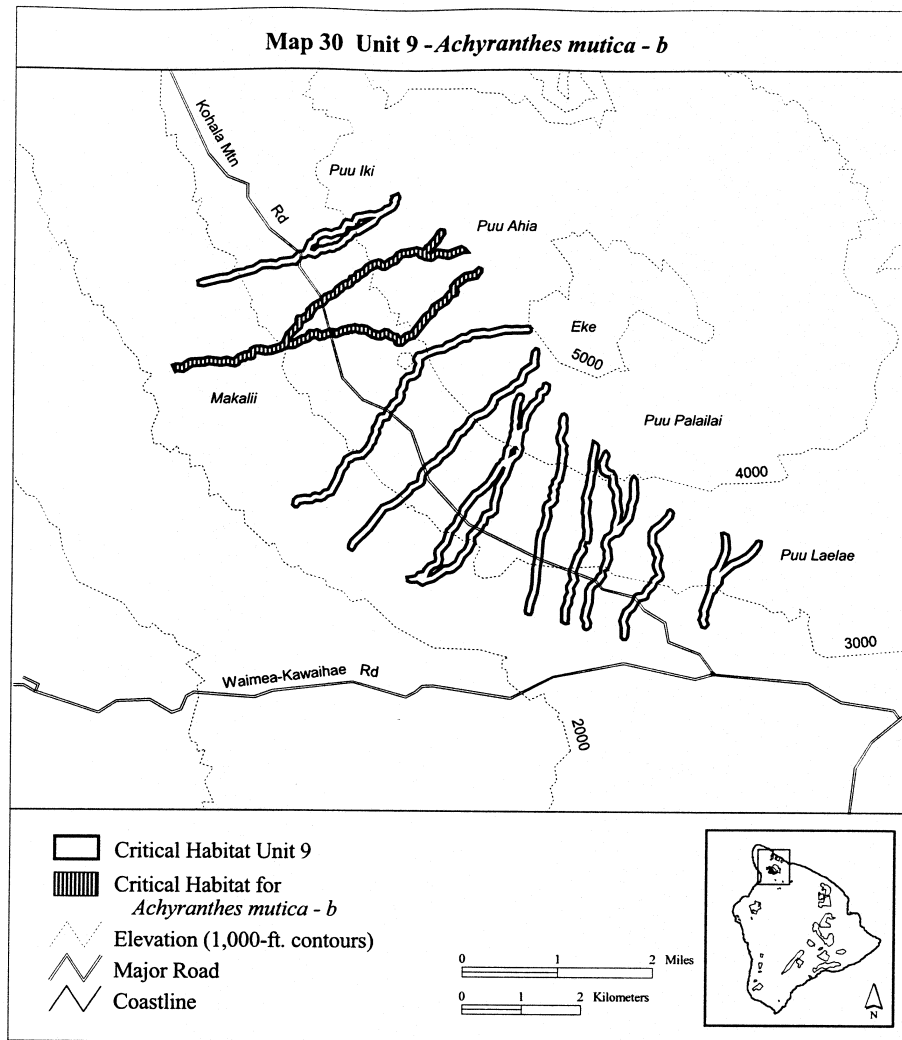
(30) Hawaii 9—*Achyranthes mutica*—b  
(124 ha, 306 ac)

- (i) [Reserved]
- (ii) Excluding one area bounded by the following five points (<1 ha, <1 ac):

Start at 211099, 2222496; 211109, 2222499;  
211114, 2222499; 211118, 2222497; 211103,  
2222479; return to starting point.

(iii) Map 30 follows:

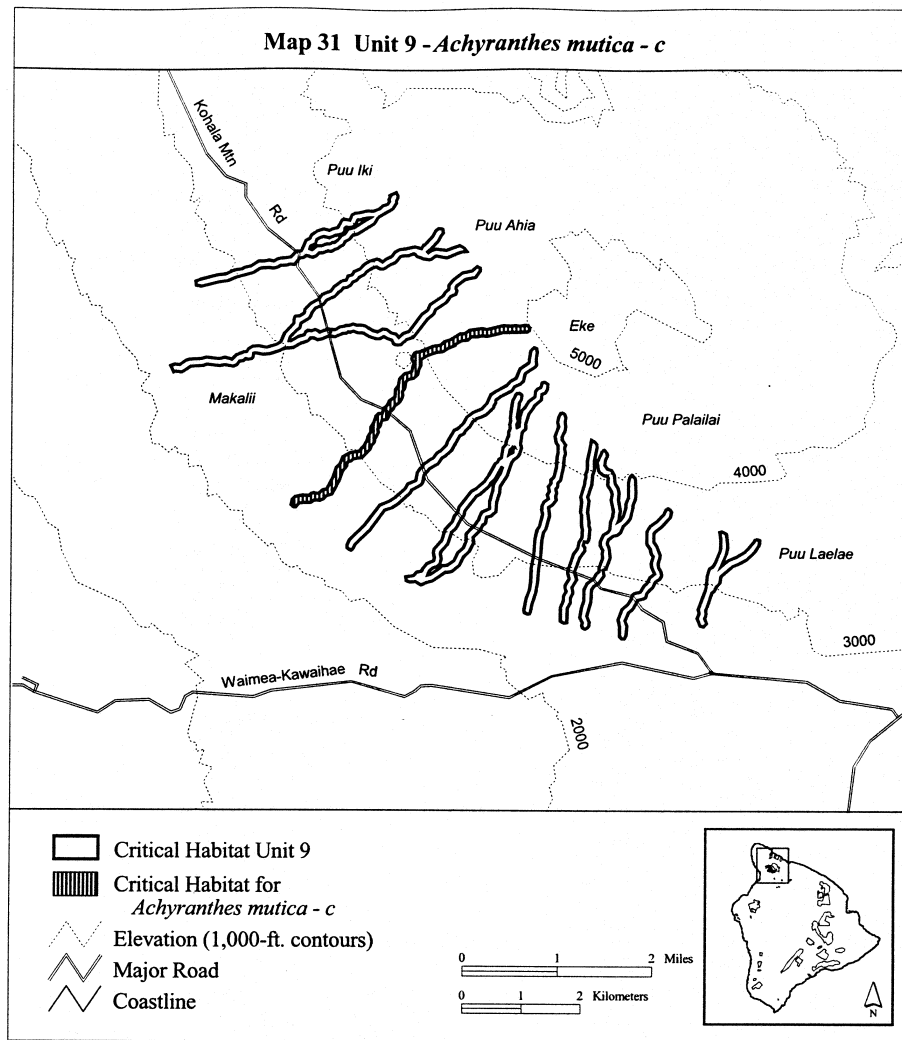




(31) Hawaii 9—*Achyranthes mutica*—c (67  
ha, 166 ac)

(ii) Map 31 follows:

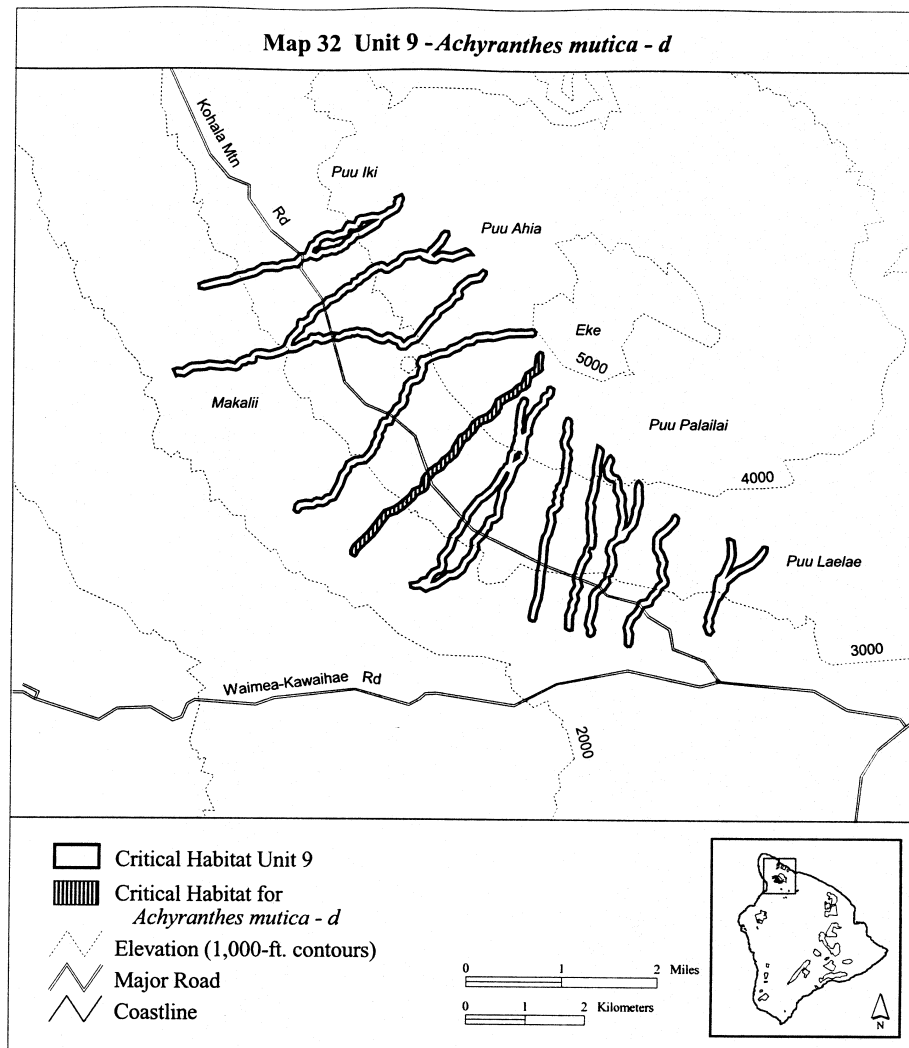
(i) [Reserved]



(32) Hawaii 9—*Achyranthes mutica*—d (58 ha, 143 ac)

(ii) Map 32 follows:

(i) [Reserved]



(33) Hawaii 9—*Achyranthes mutica*—e (96 ha, 238 ac)

(i) [Reserved]

(ii) Excluding two areas:

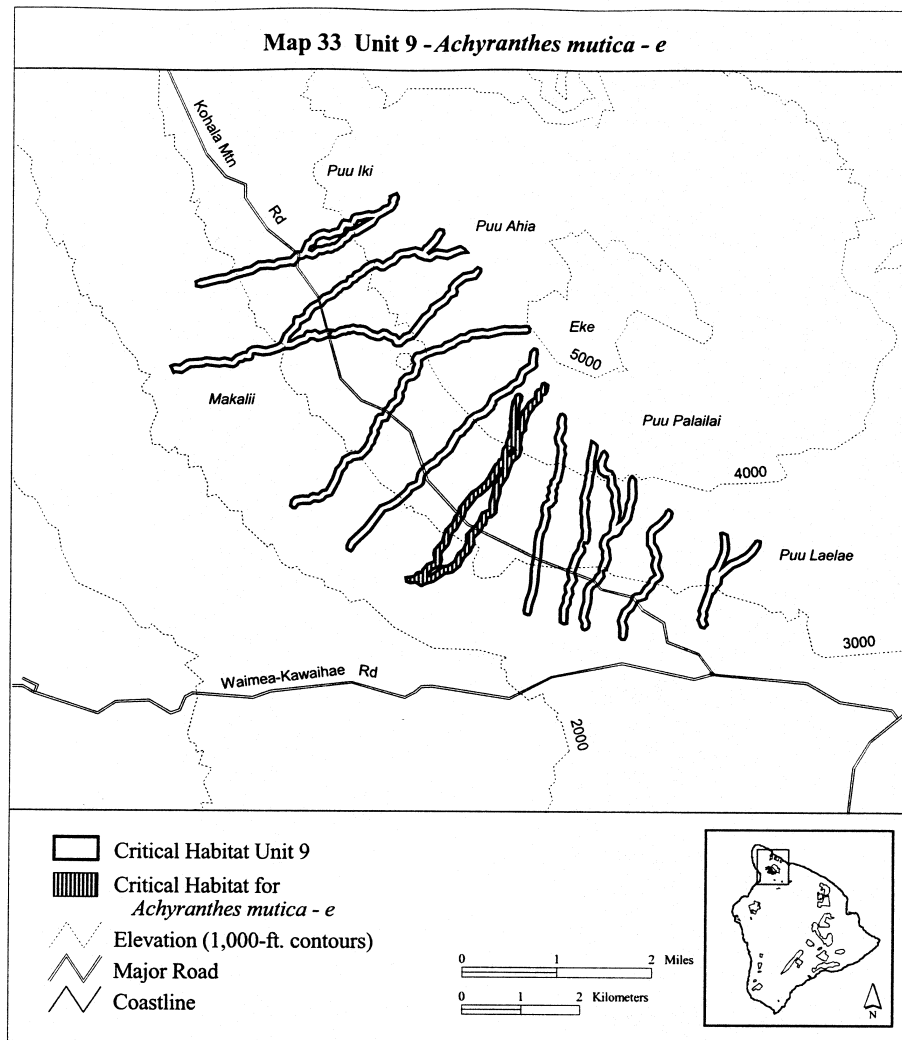
(A) Bounded by the following seven points (1 ha, 1 ac): Start at 214223, 2220569; 214237, 2220545; 214219, 2220515; 214216, 2220461; 214146, 2220412; 214161, 2220500; 214199, 2220523; return to starting point.

(B) Bounded by the following 42 points (38 ha, 94 ac): Start at 214049, 2220213; 214008, 2220110; 213892, 2219916; 213877, 2219786; 213826, 2219614; 213823, 2219491; 213696, 2219433; 213663, 2219365; 213649, 2219307; 213619, 2219275; 213591, 2219218; 213434, 2219056; 213440, 2218923; 213385, 2218816; 213302, 2218748; 213232, 2218602; 213126, 2218523; 213033, 2218514; 212998, 2218479; 212834, 2218368; 212794, 2218356; 212809, 2218402; 212825, 2218431; 212855, 2218461; 212888, 2218485; 212953,

§ 17.99

50 CFR Ch. I (10–1–23 Edition)

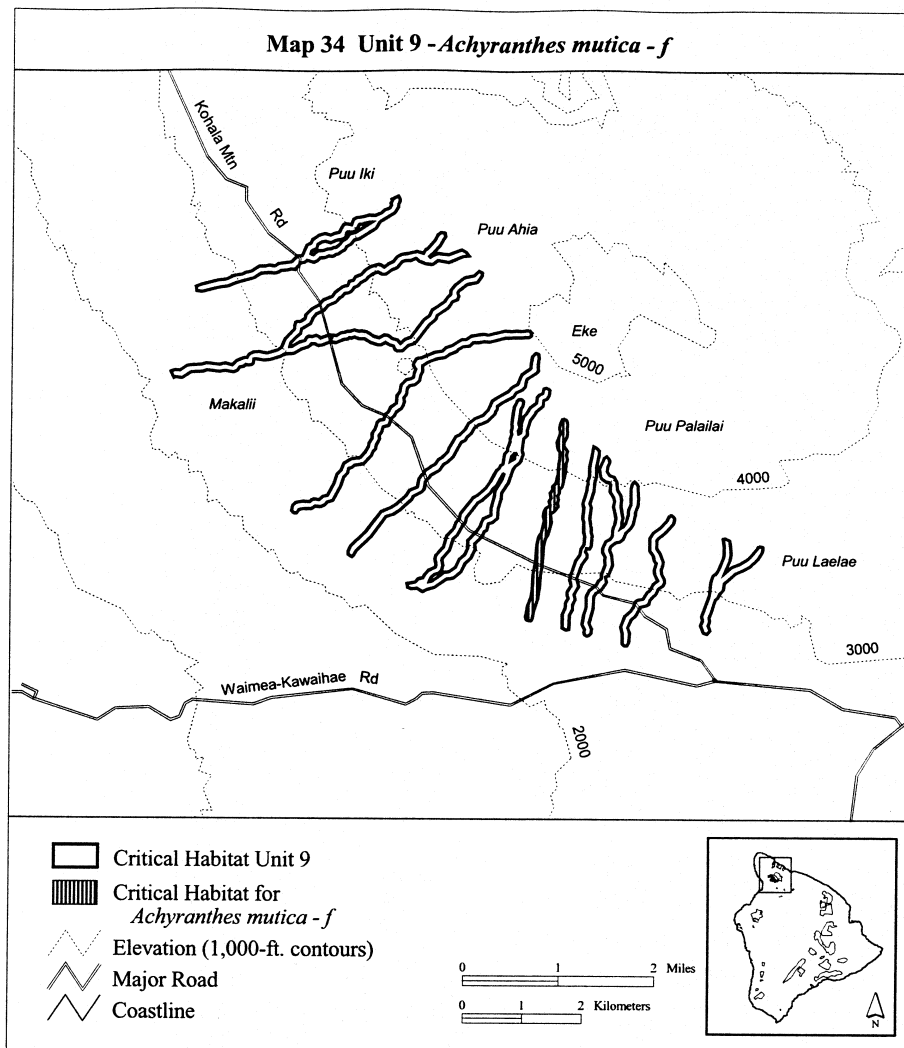
2218499; 212996, 2218545; 213022, 2218636; 213820, 2219870; 213852, 2219933; 213913,  
 213007, 2218725; 213013, 2218754; 213131, 2219992; 214024, 2220195; return to start-  
 2218887; 213194, 2219087; 213261, 2219149; ing point.  
 213346, 2219306; 213394, 2219361; 213412, (iii) Map 33 follows:  
 2219449; 213602, 2219700; 213668, 2219734;



(34) Hawaii 9—*Achyranthes mutica*—f (43  
 ha, 105 ac)

(ii) Map 34 follows:

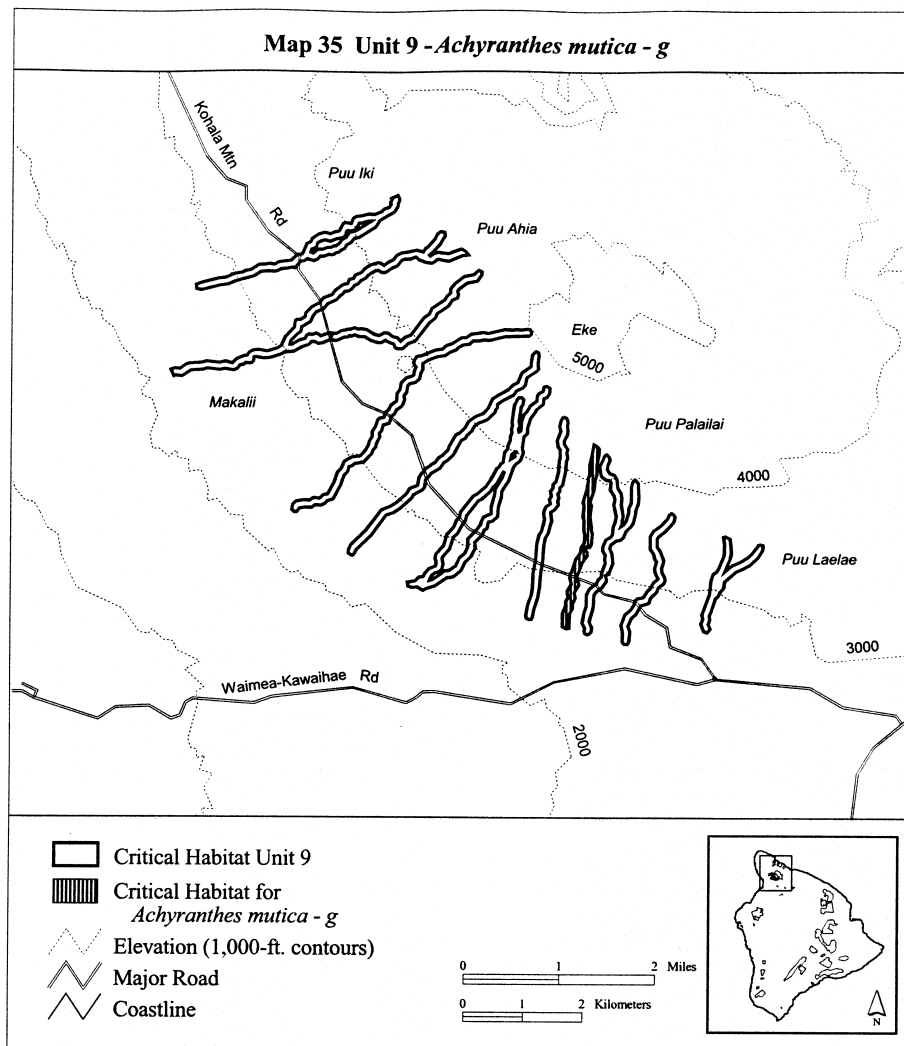
(i) [Reserved]



(35) Hawaii 9—*Achyranthes mutica*—g (37  
ha, 92 ac)

(ii) Map 35 follows:

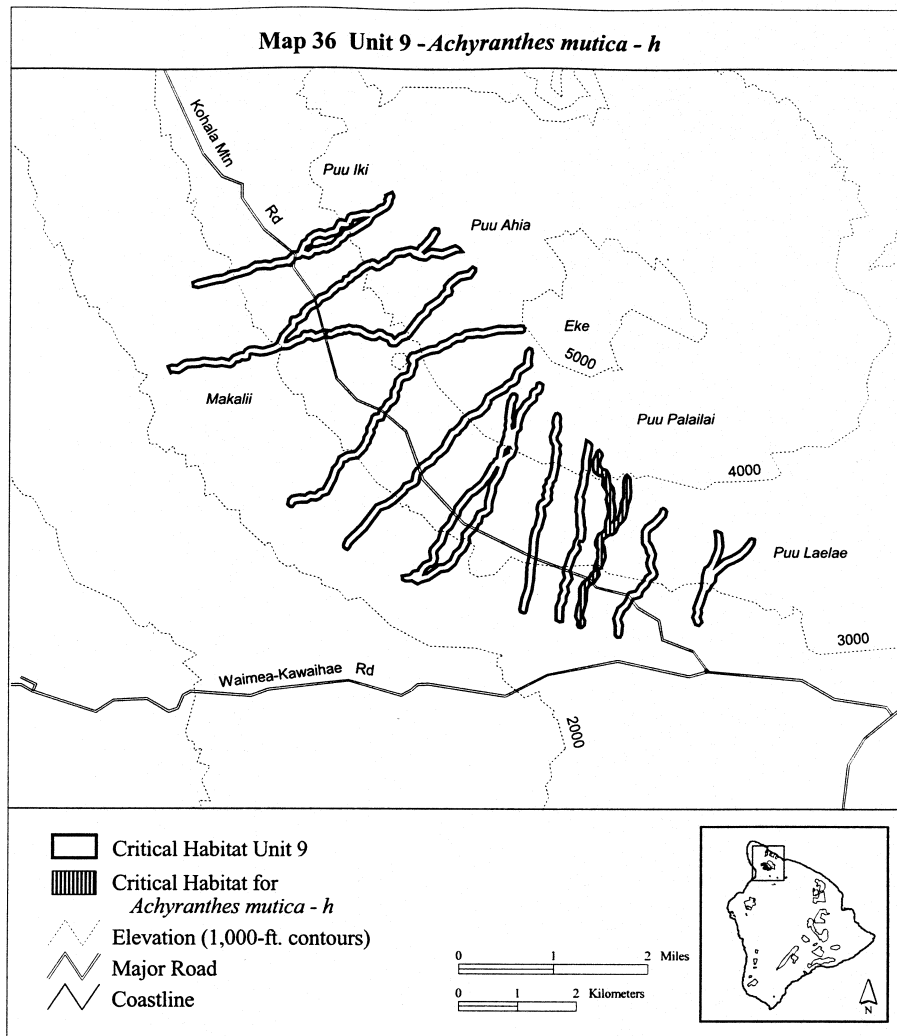
(i) [Reserved]



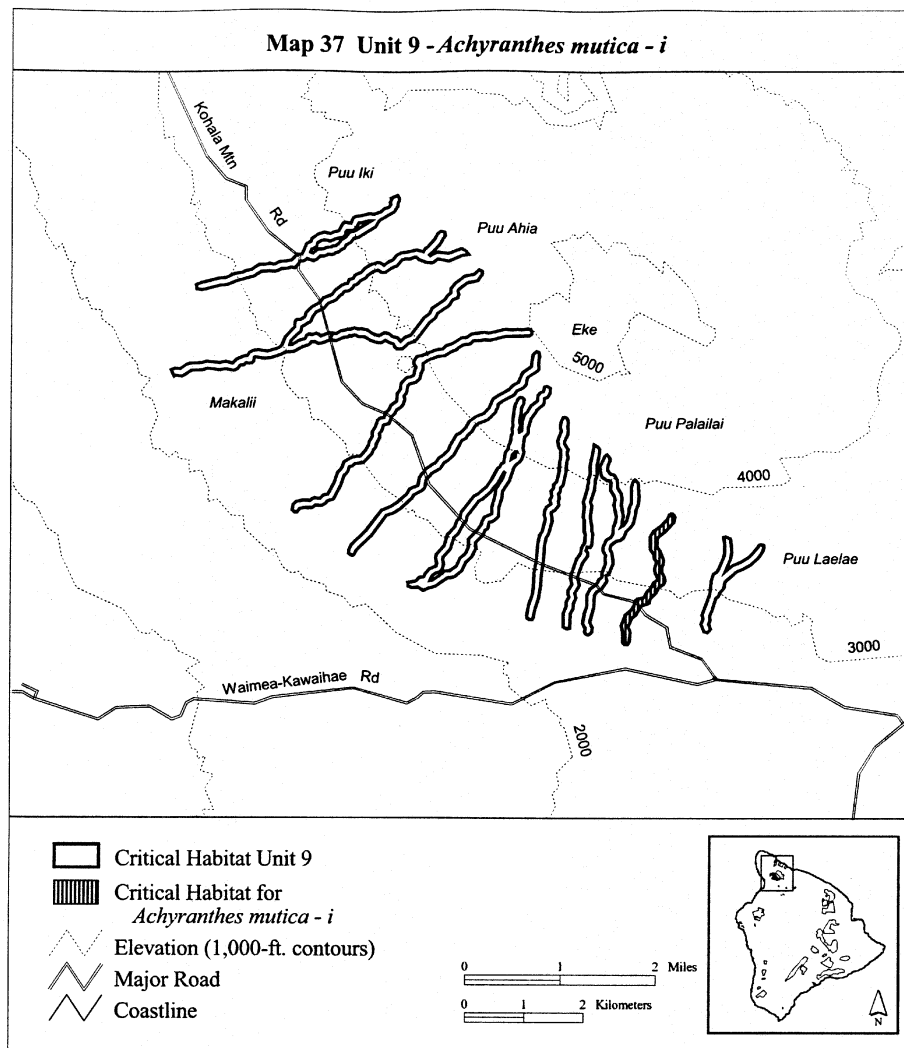
(36) Hawaii 9—*Achyranthes mutica*—h  
(51 ha, 127 ac)

(ii) Map 36 follows:

(i) [Reserved]



- (37) Hawaii 9—*Achyranthes mutica*—i (31 ha, 76 ac) (ii) Map 37 follows:
- (i) [Reserved]

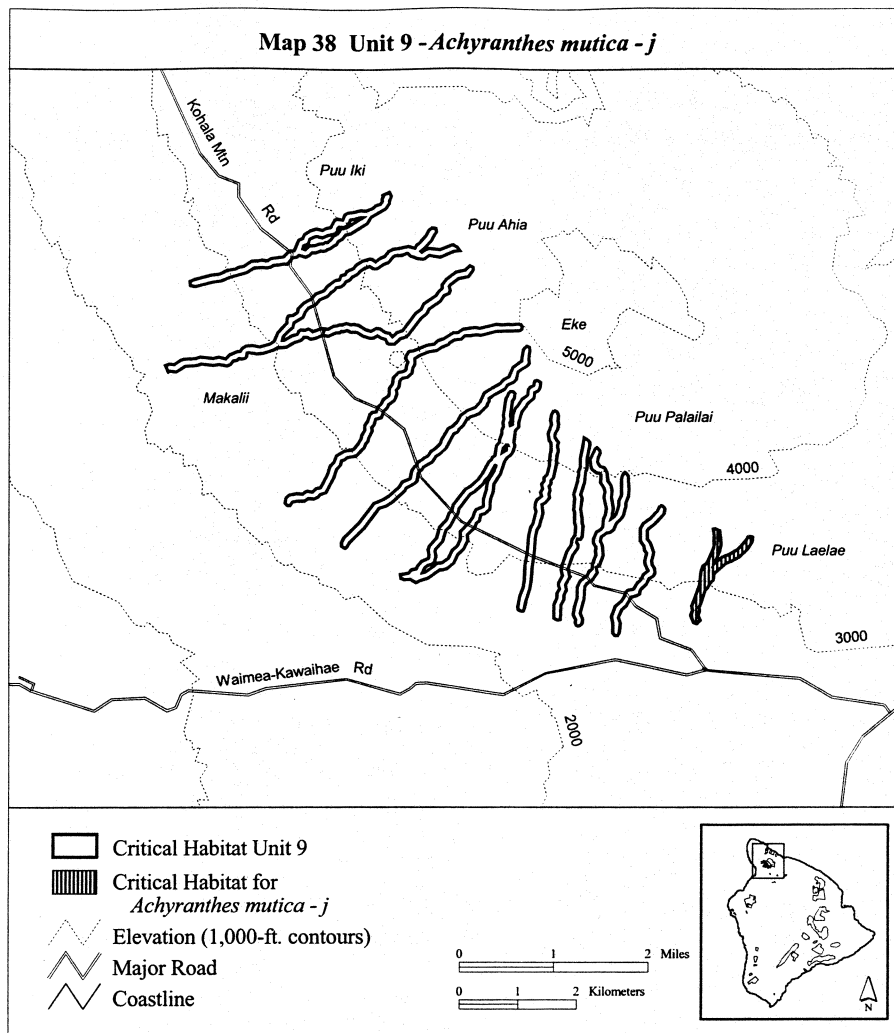


(38) Hawaii 9—*Achyranthes mutica*—j (33 ha, 81 ac)

(ii) Map 38 follows:

(i) [Reserved]



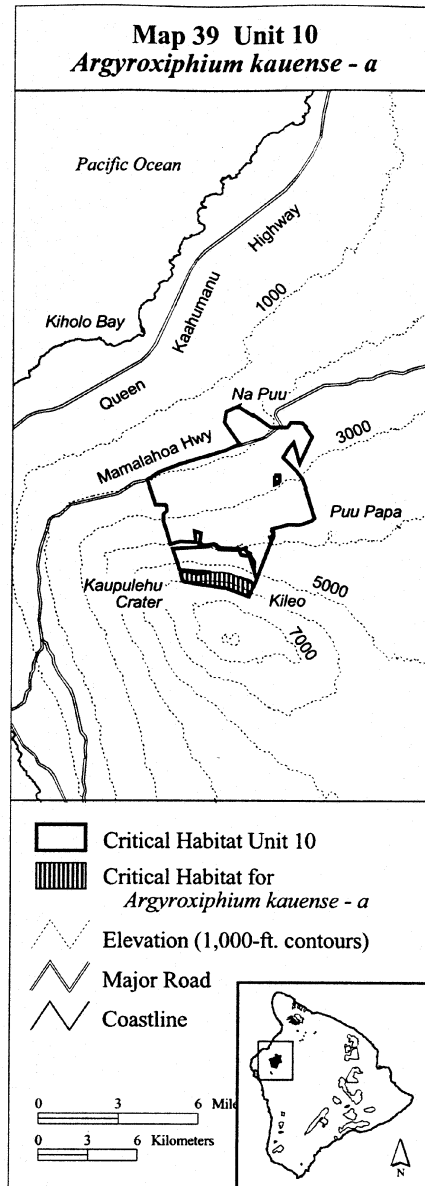


§ 17.99

(39) Hawaii 10—*Argyroxiphium kauense*—  
a (349 ha, 861 ac)

(i) [Reserved]

(ii) Map 39 follows:



50 CFR Ch. I (10–1–23 Edition)

(40) Hawaii 10—*Bidens micrantha* ssp. *ctenophylla*—a (1,179 ha; 2,914 ac).

(i) This unit is also critical habitat for Hawaii 10—*Isodendron pyrifolium*—a and Hawaii 10—*Mezoneuron kawaiense*—a (see paragraphs (k)(46) and (47), respectively, of this section).

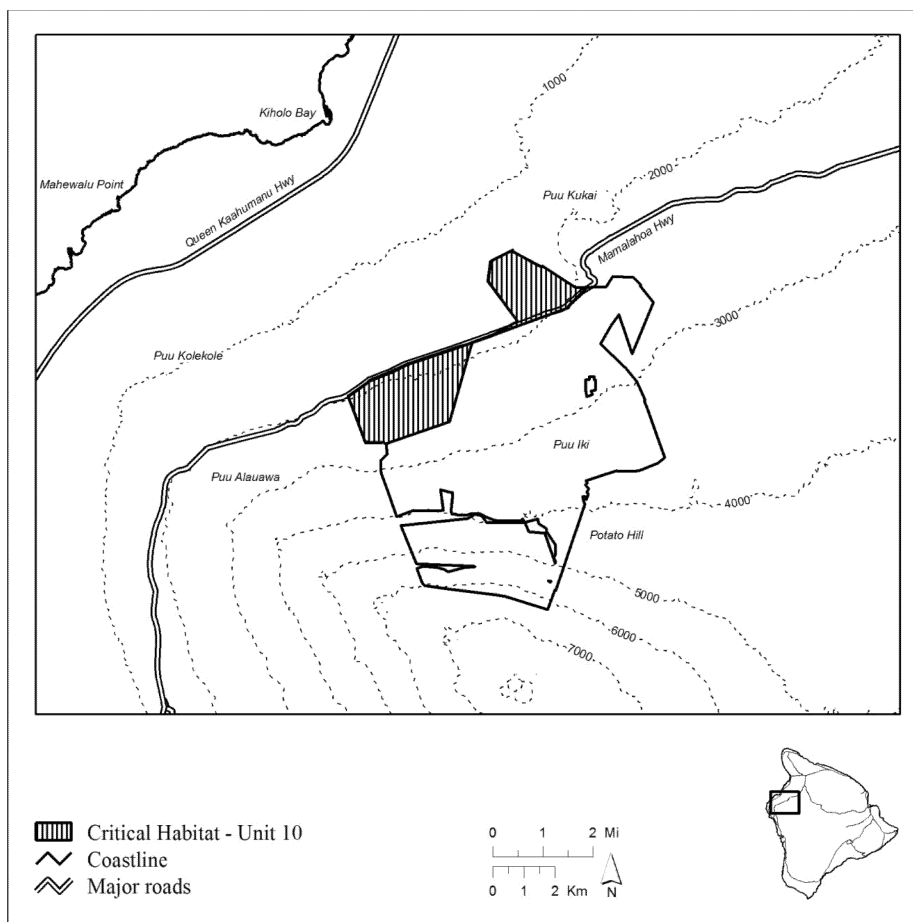
(ii) Map 39a follows:

MAP 39a

Hawaii 10–*Bidens micrantha* ssp. *ctenophylla*–a, Hawaii 10–*Isodendrion pyrifolium*–a,

Hawaii 10–*Mezoneuron kavaense*–a

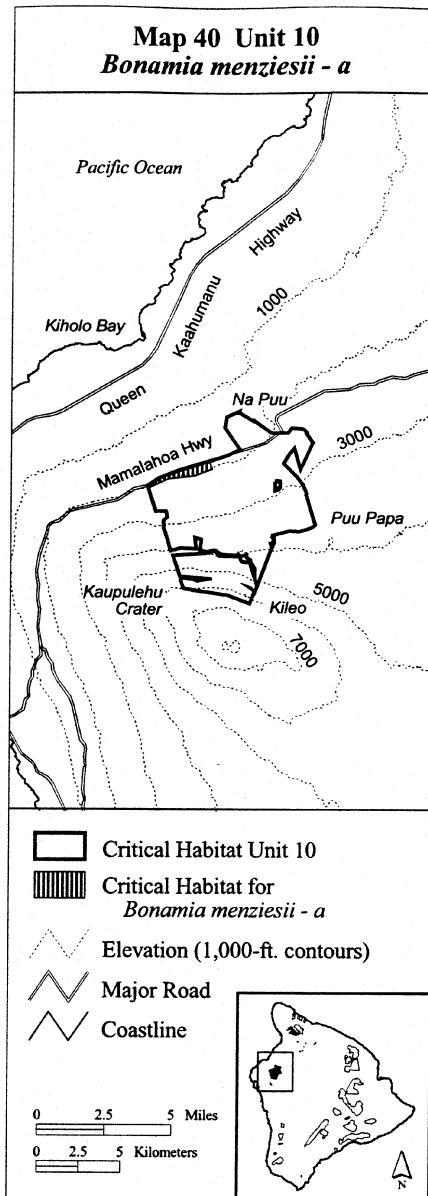
Lowland Dry



§ 17.99

(41) Hawaii 10—*Bonamia menziesii*—a  
(163 ha, 402 ac)

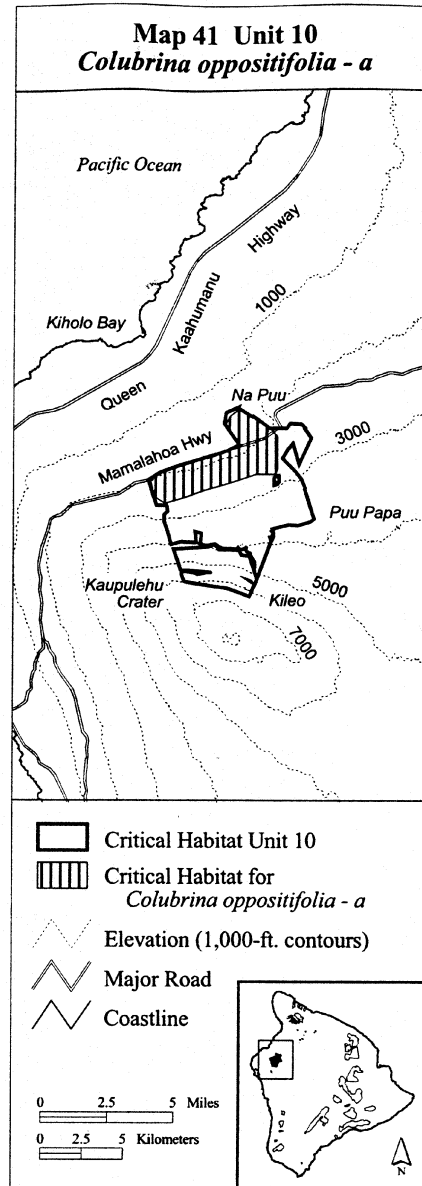
- (i) [Reserved]  
(ii) Map 40 follows:



50 CFR Ch. I (10–1–23 Edition)

(42) Hawaii 10—*Colubrina oppositifolia*—  
a (1,918 ha, 4,740 ac)

- (i) [Reserved]  
(ii) Map 41 follows:

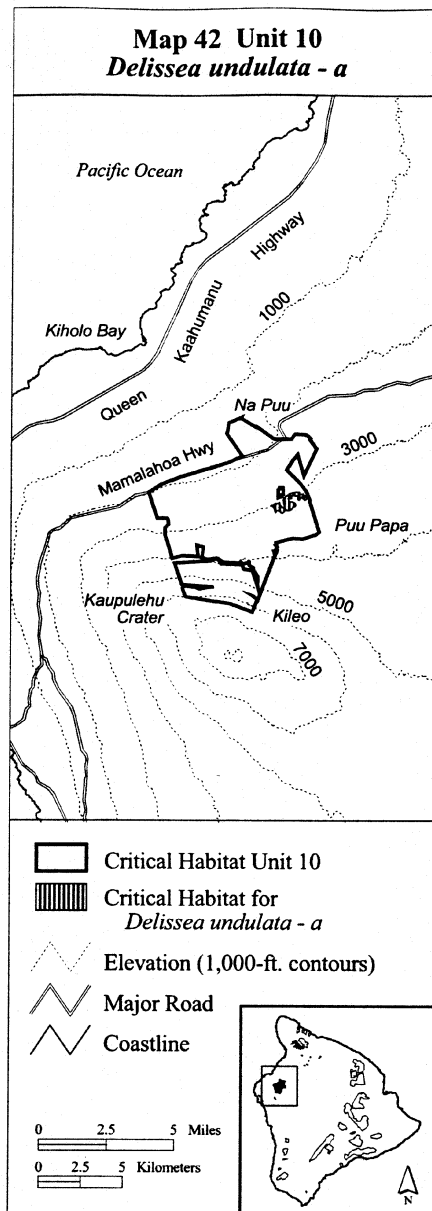


U.S. Fish and Wildlife Serv., Interior

§ 17.99

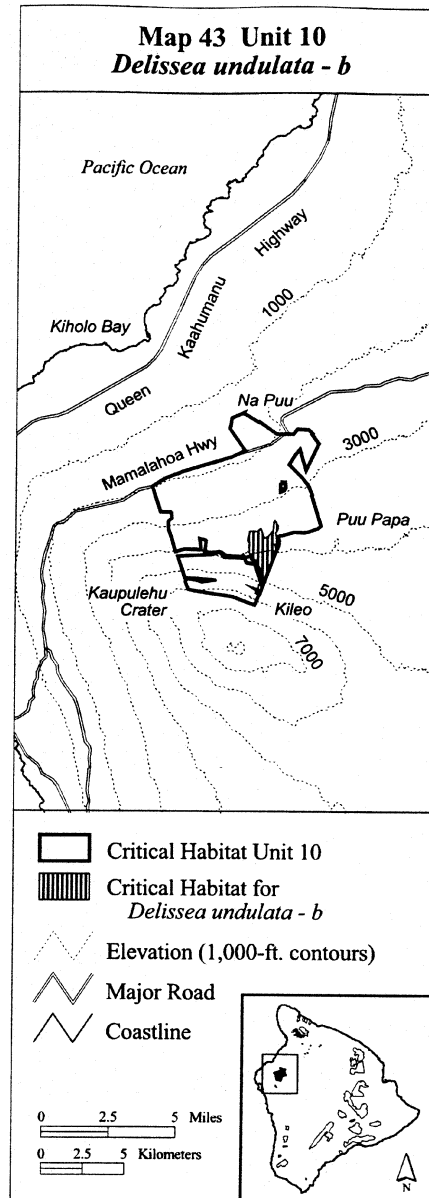
(43) Hawaii 10—*Delissea undulata*—a (92 ha, 227 ac)

- (i) [Reserved]  
(ii) Map 42 follows:



(44) Hawaii 10—*Delissea undulata*—b (379 ha, 938 ac)

- (i) [Reserved]  
(ii) Map 43 follows:

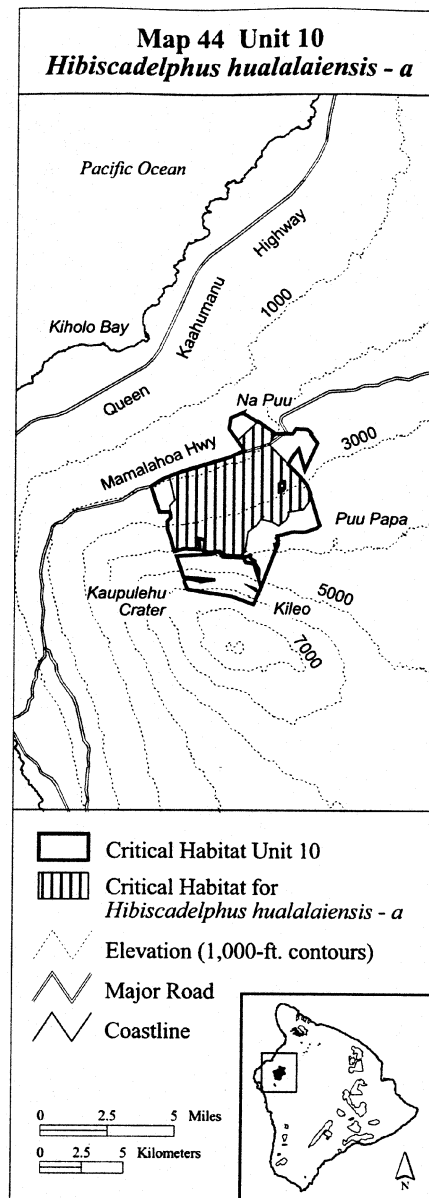


(45) Hawaii 10—*Hibiscadelphus hualalaiensis*—a (3,979 ha, 9,831 ac)

(i) [Reserved]

(ii) Excluding one area bounded by the following 12 points (15 ha, 38 ac): Start at 202034, 2189562; 202141, 2189566; 202153, 2189649; 202308, 2189645; 202298, 2189564; 202339, 2189548; 202329, 2189219; 202193, 2189187; 202230, 2189088; 202042, 2189024; 202020, 2189151; 202024, 2189554; return to starting point.

(iii) Map 44 follows:



(46) Hawaii 10—*Isodendron pyrifolium*—a (1,179 ha; 2,914 ac). See paragraph (k)(40)(ii) of this section for the map of this unit.

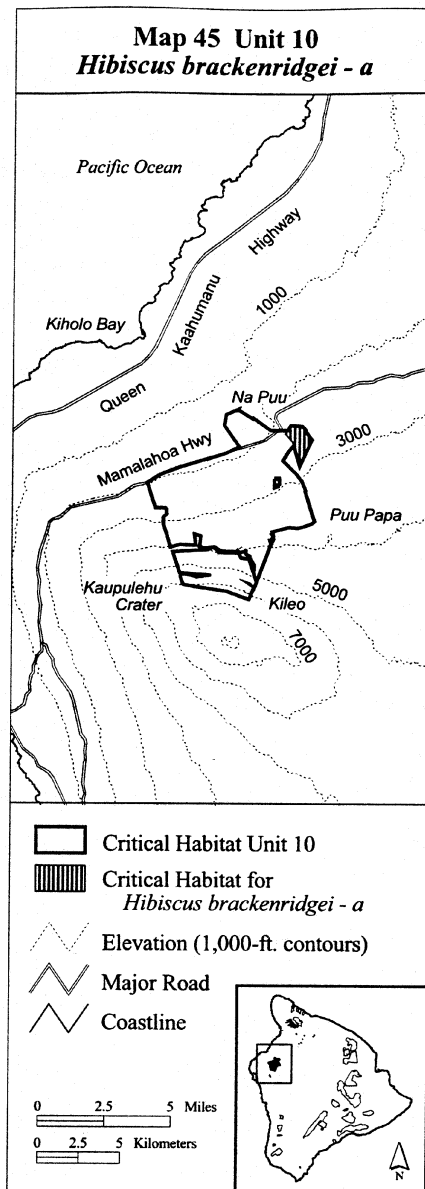
(47) Hawaii 10—*Mezoneuron kavaense*—a (1,179 ha; 2,914 ac). See paragraph (k)(40)(ii) of this section for the map of this unit.

U.S. Fish and Wildlife Serv., Interior

§ 17.99

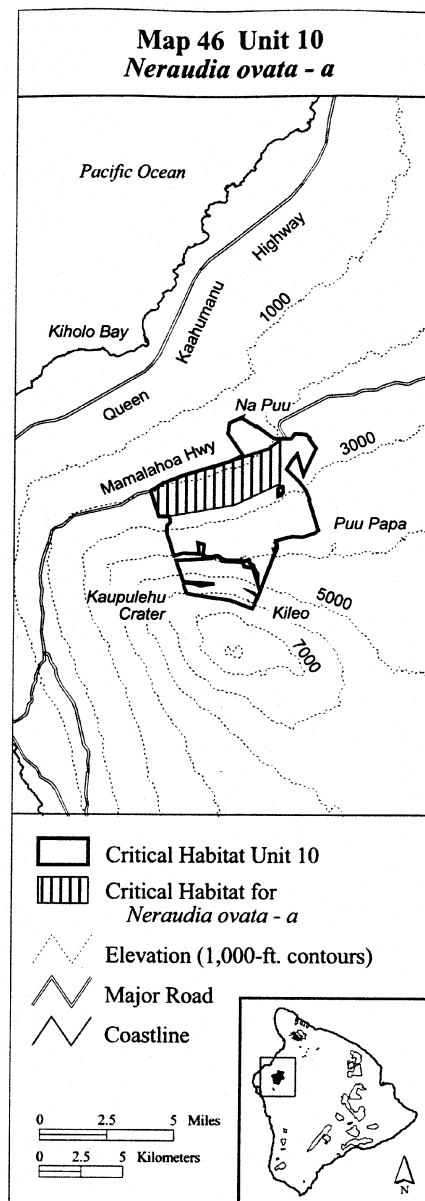
(48) Hawaii 10—*Hibiscus brackenridgei*—a  
(196 ha, 485 ac)

- (i) [Reserved]  
(ii) Map 45 follows:



(49) Hawaii 10—*Neraudia ovata*—a (1,859  
ha, 4,593 ac)

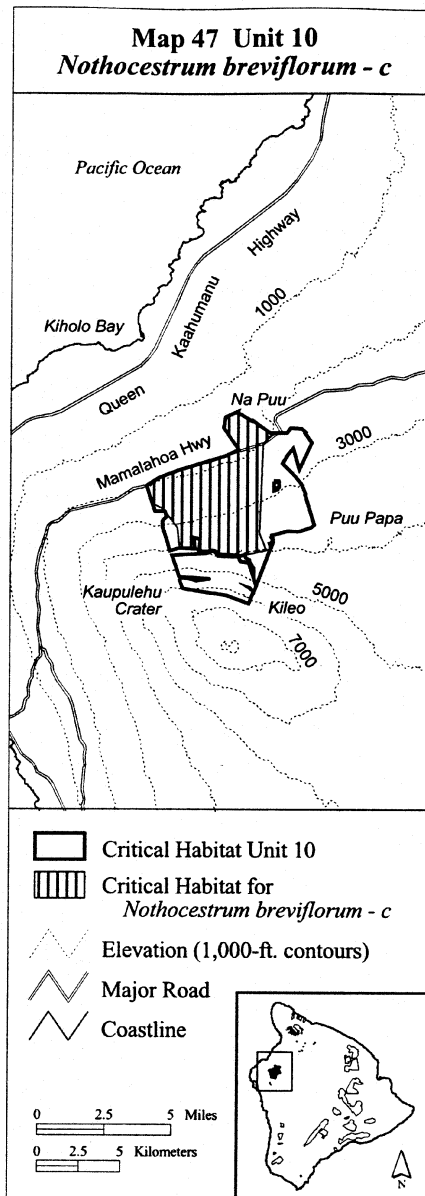
- (i) [Reserved]  
(ii) Map 46 follows:



§ 17.99

(50) Hawaii 10—*Nothocestrum breviflorum*—c (3,627 ha, 8,964 ac)

- (i) [Reserved]
- (ii) Map 47 follows:

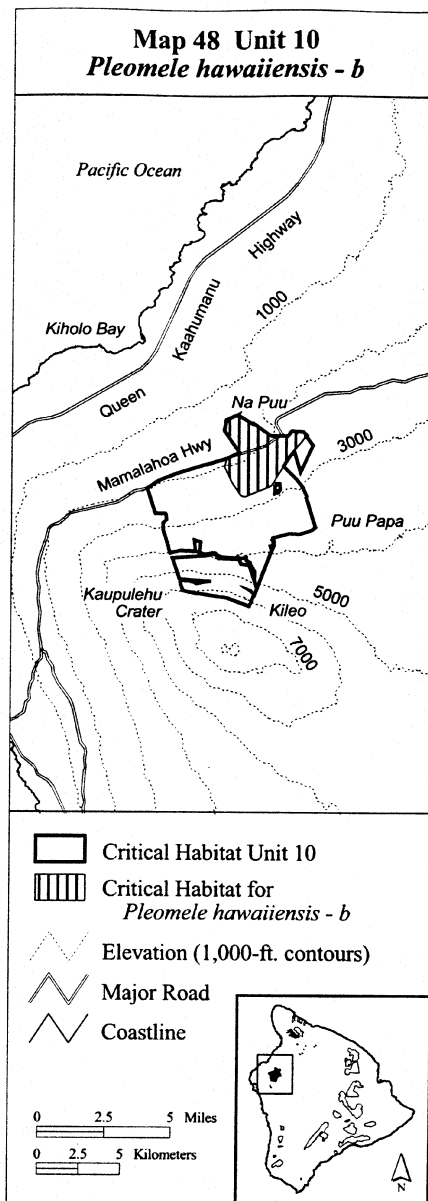


50 CFR Ch. I (10–1–23 Edition)

(51) Hawaii 10—*Dracaena konaensis*—b (1,338 ha, 3,306 ac)

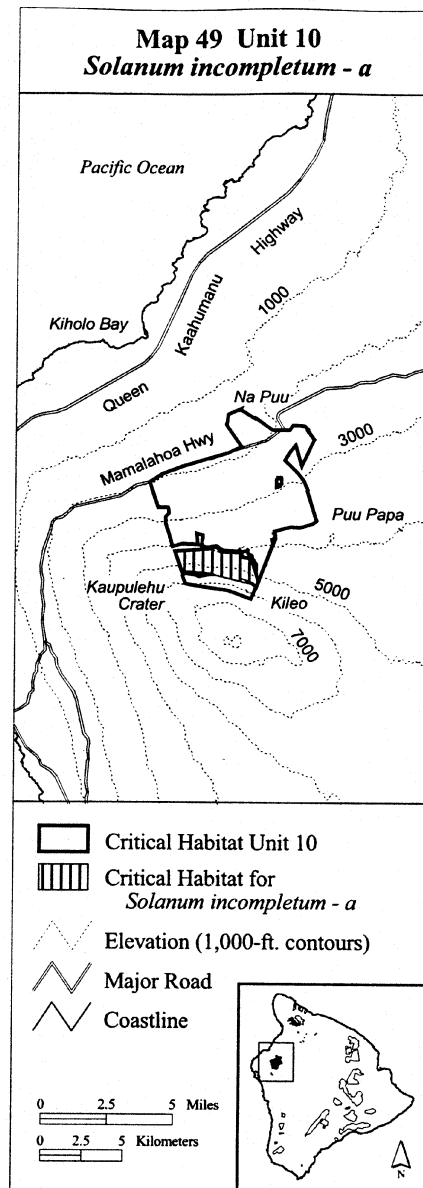
- (i) [Reserved]
- (ii) *Note:* The reference to “Hawaii 10—*Pleomele hawaiiensis*—b” on the map is equivalent to “Hawaii 10—*Dracaena konaensis*—b”. Map 48 follows:





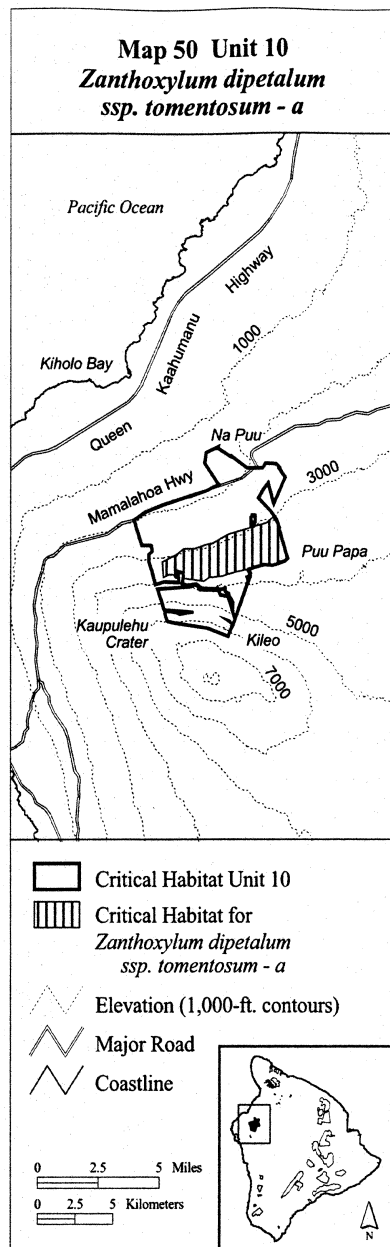
(52) Hawaii 10—*Solanum incompletum*—a  
(705 ha, 1,741 ac)

- (i) [Reserved]  
(ii) Map 49 follows:



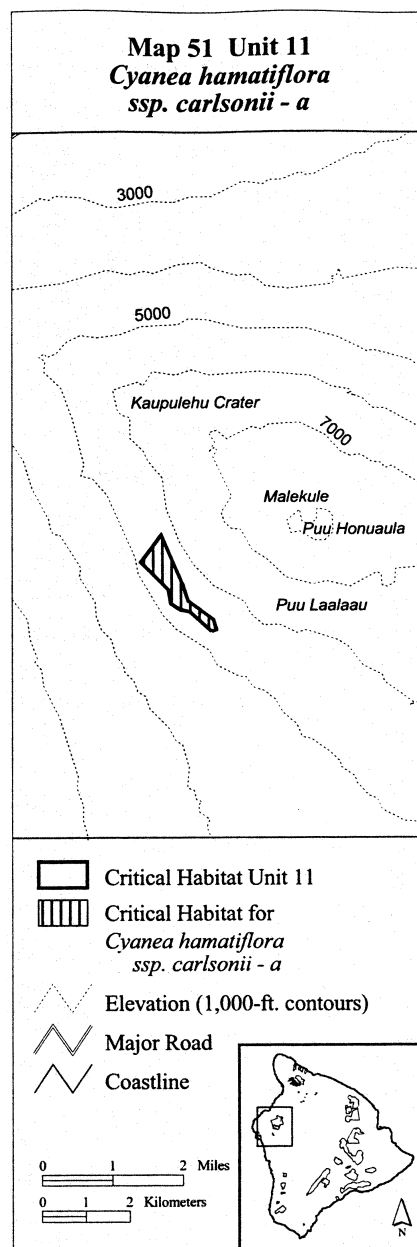
(53) Hawaii 10—*Zanthoxylum dipetalum*  
ssp. *tomentosum*—a (1,685 ha, 4,164 ac)

- (i) [Reserved]  
(ii) Map 50 follows:



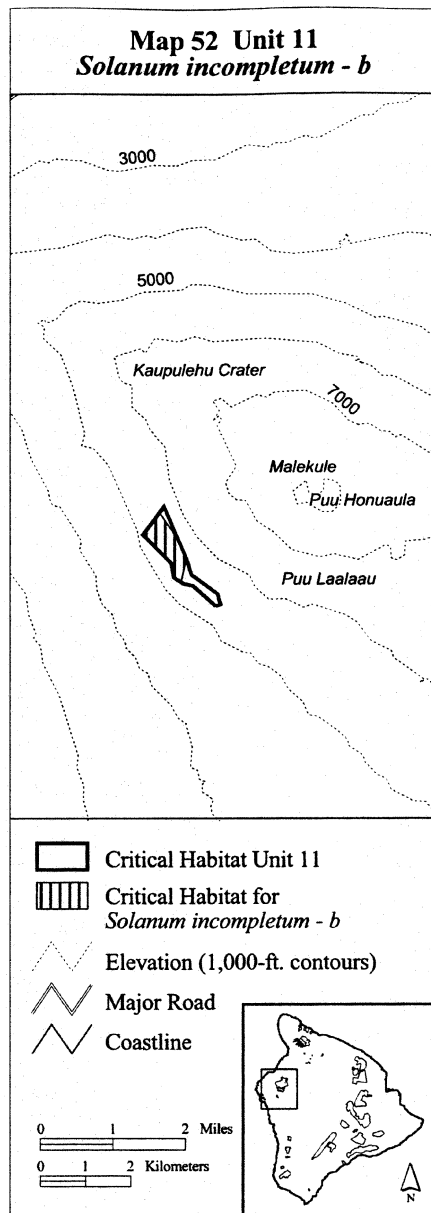
(54) Hawaii 11—*Cyanea hamatiflora* *ssp. carlsonii*—a (92 ha, 227 ac)

- (i) [Reserved]  
(ii) Map 51 follows:



(55) Hawaii 11—*Solanum incompletum*—b (57 ha, 141 ac)

- (i) [Reserved]  
(ii) Map 52 follows:

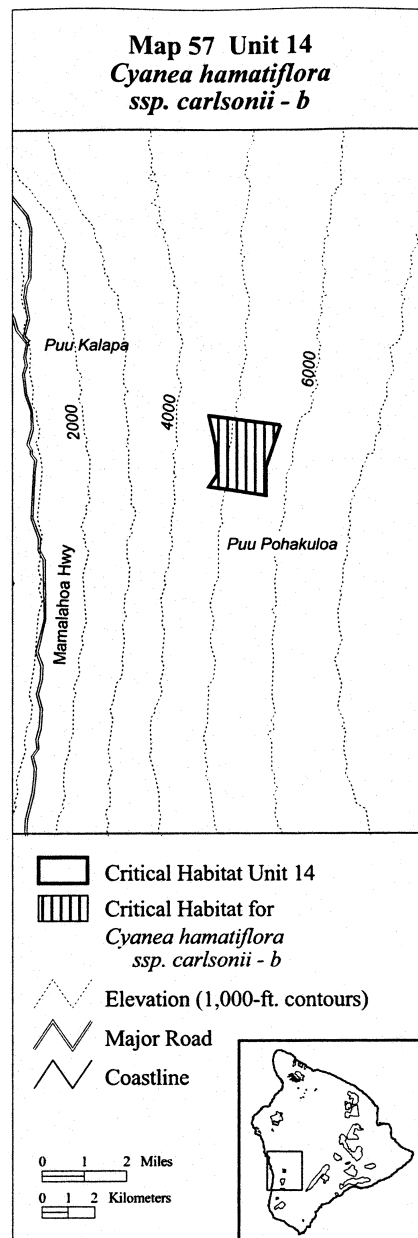


(56) [Reserved]

(57) Hawaii 14—*Cyanea hamatiflora* ssp. *carlsonii*—b (597 ha, 1,475 ac)

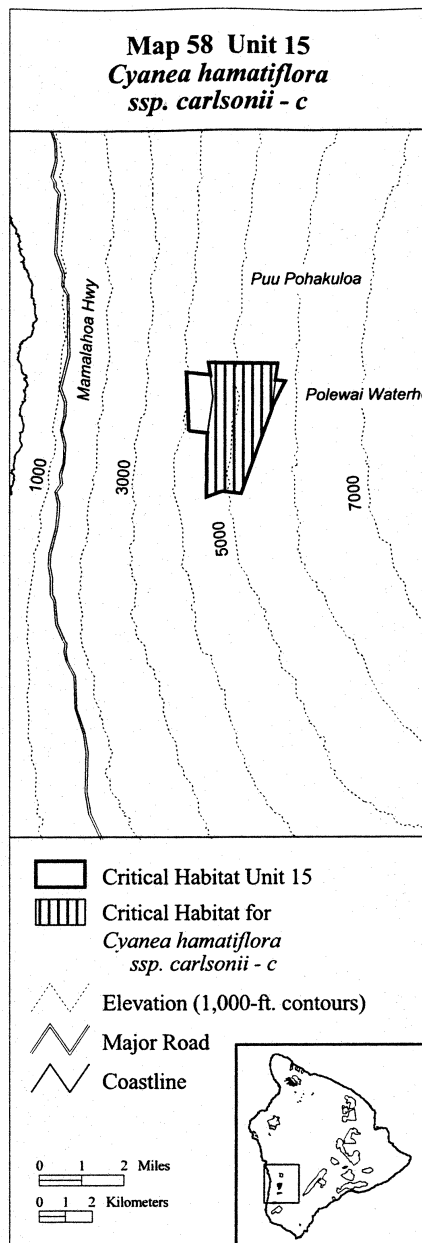
(i) [Reserved]

(ii) Map 57 follows:

(58) Hawaii 15—*Cyanea hamatiflora* ssp. *carlsonii*—c (1,045 ha, 2,583 ac)

(i) [Reserved]

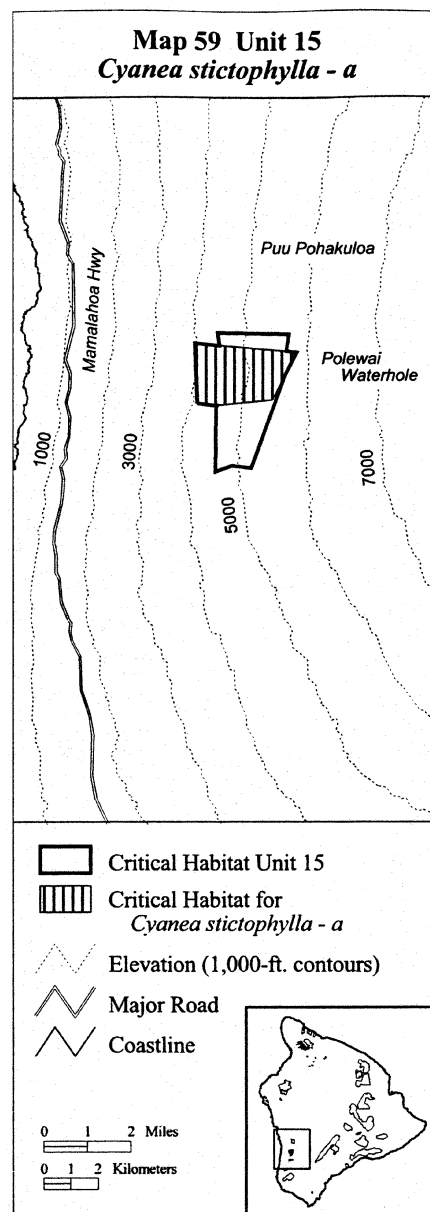
(ii) Map 58 follows:



(59) Hawaii 15—*Cyanea stictophylla*—a  
(685 ha, 1,693 ac)

(i) [Reserved]

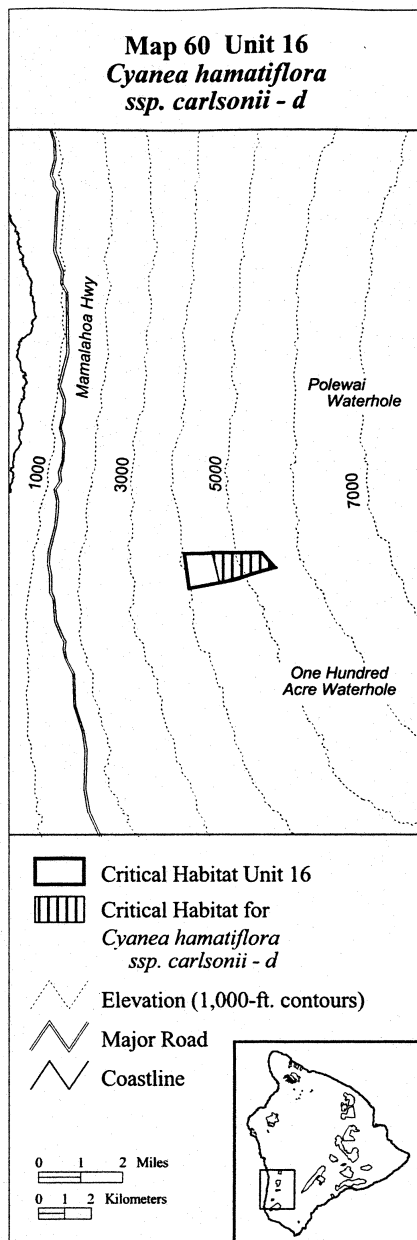
(ii) Map 59 follows:



(60) Hawaii 16—*Cyanea hamatiflora* *ssp. carlsonii*—d (186 ha, 459 ac)

(i) [Reserved]

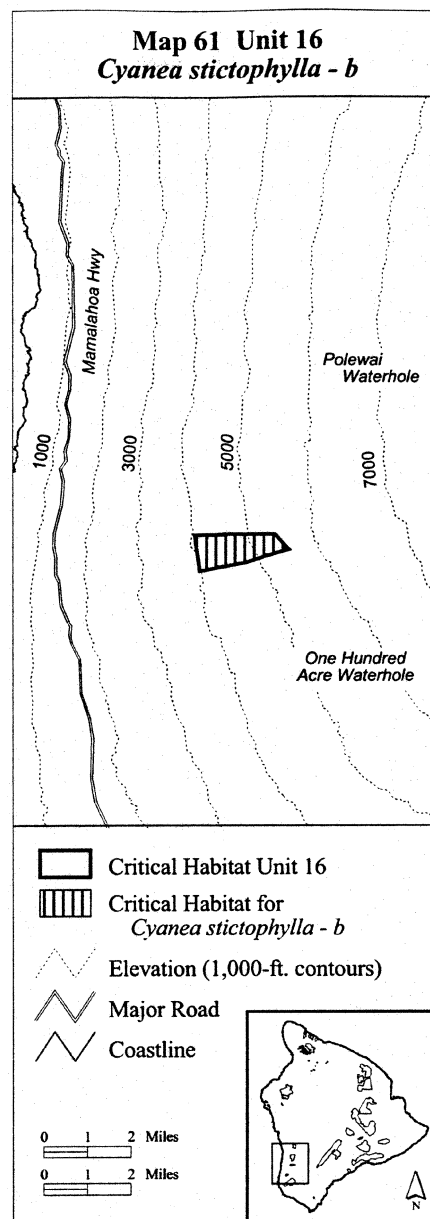
(ii) Map 60 follows:



(61) Hawaii 16—*Cyanea stictophylla*—b  
(327 ha, 809 ac)

(i) [Reserved]

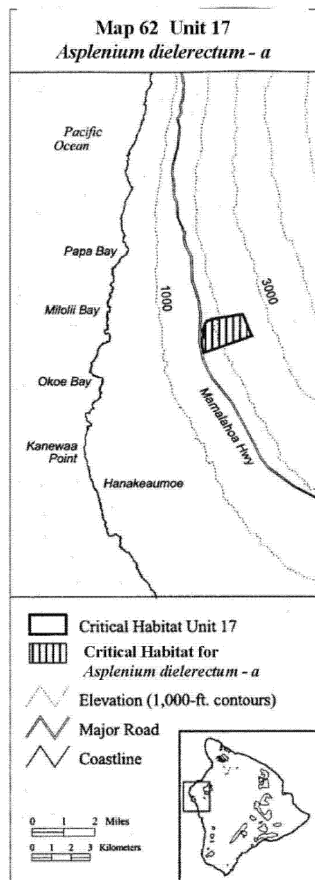
(ii) Map 61 follows:



(62) Hawaii 17—*Asplenium dielerectum*—a  
(329 ha, 814 ac)

(i) [Reserved]

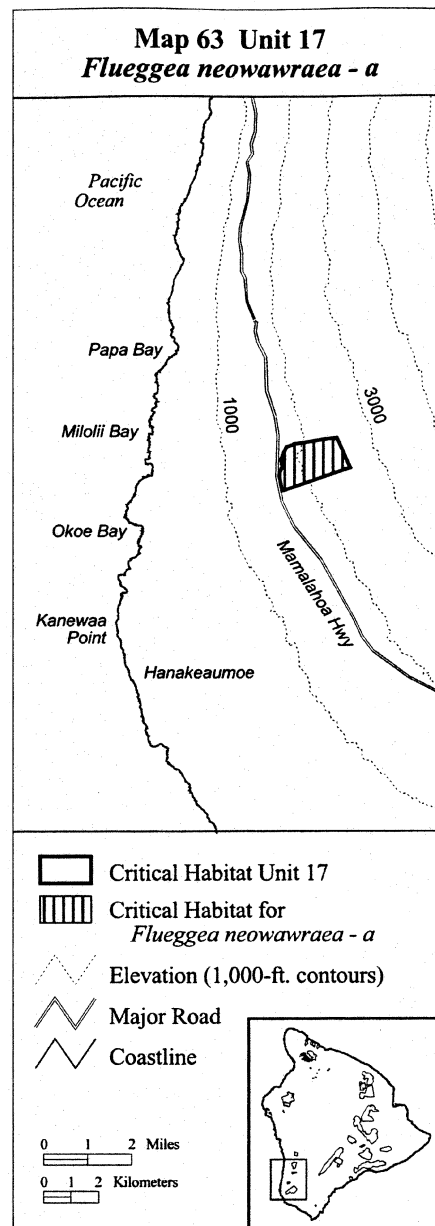
(ii) Map 62 follows:



(63) Hawaii 17—*Flueggea neowawraea*—a  
(327 ha, 807 ac)

(i) [Reserved]

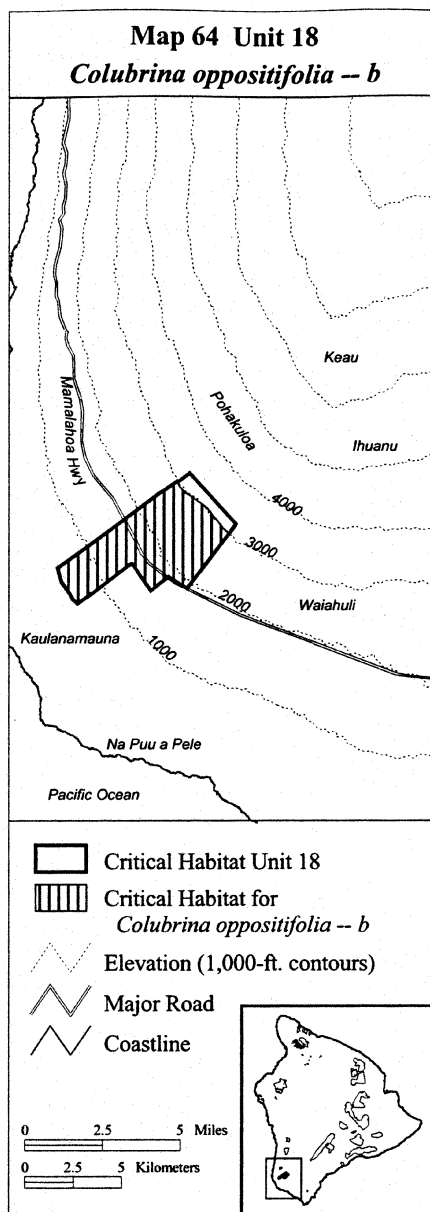
(ii) Map 63 follows:



(64) Hawaii 18—*Colubrina oppositifolia*—  
b (2,717 ha, 6,713 ac)

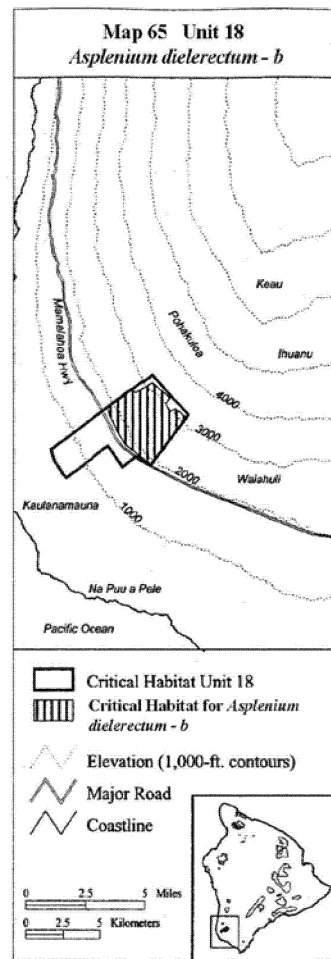
(i) [Reserved]

(ii) Map 64 follows:



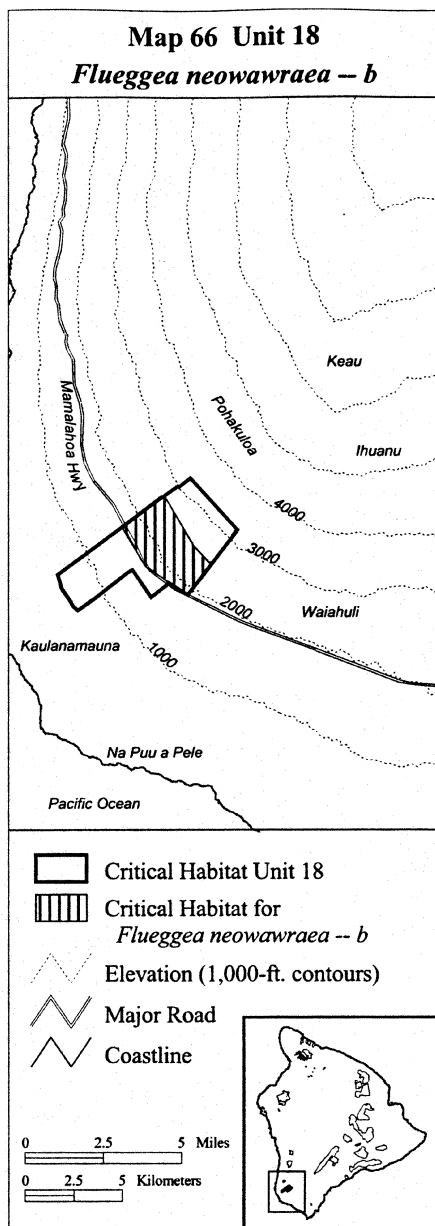
(65) Hawaii 18—*Asplenium dielirectum*—b  
(1,615 ha, 3,992 ac)

- (i) [Reserved]  
(ii) Map 65 follows:



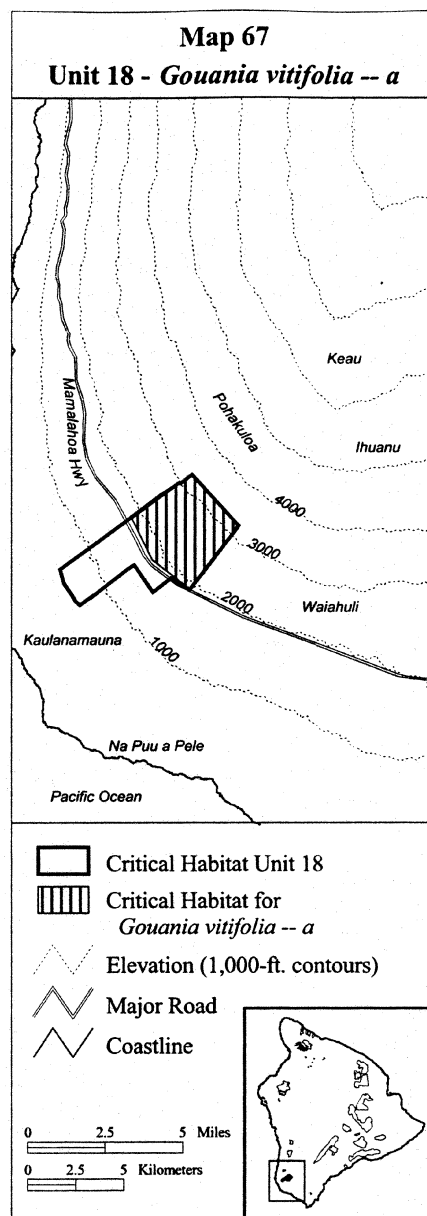
(66) Hawaii 18—*Flueggea neowawraea*—b  
(1,148 ha, 2,838 ac)

- (i) [Reserved]  
(ii) Map 66 follows:



(67) Hawaii 18—*Gouania vitifolia*—a  
(1,785 ha, 4,412 ac)

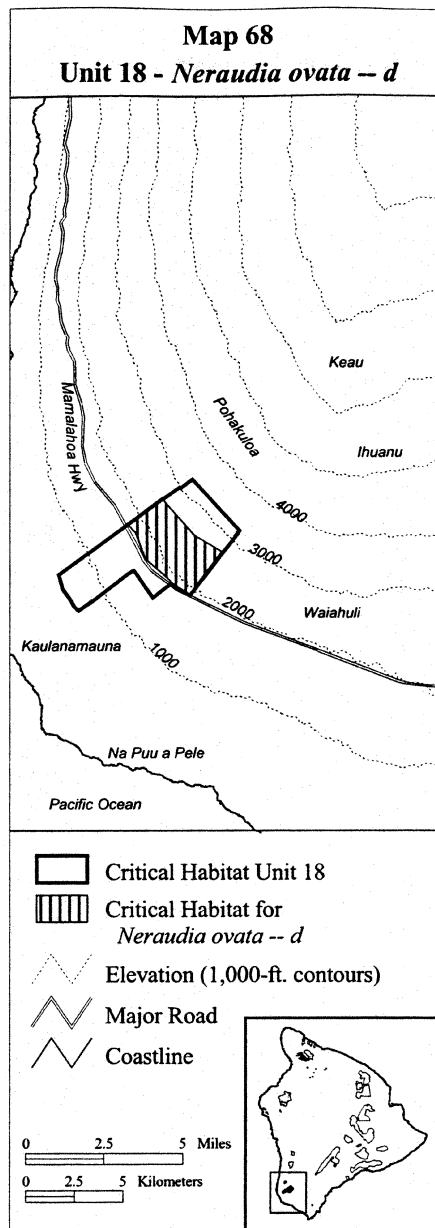
- (i) [Reserved]  
(ii) Map 67 follows:



(68) Hawaii 18—*Neraudia ovata*—d (1,134  
ha, 2,801 ac)

- (i) [Reserved]  
(ii) Map 68 follows:



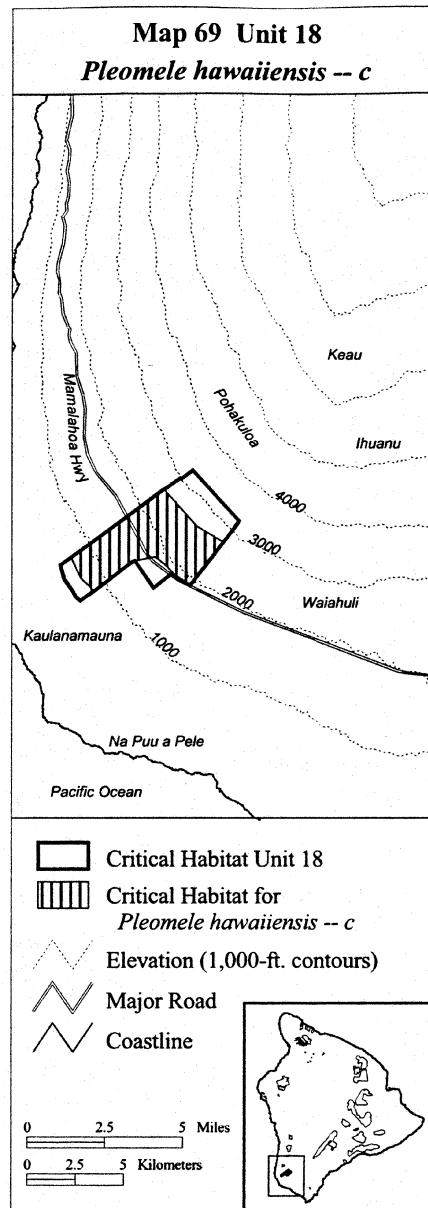


(69) Hawaii 18—*Dracaena konaensis*—c (1,997 ha, 4,934 ac)

(i) [Reserved]

(ii) Note: The reference to “Hawaii 18—*Pleomele hawaiiensis*—c” on the map

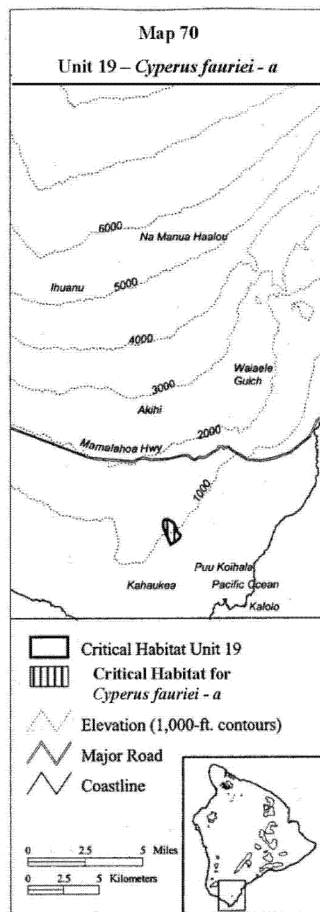
is equivalent to “Hawaii 18—*Dracaena konaensis*—c”. Map 69 follows:



(70) Hawaii 19—*Cyperus fauriei*—a (127 ha, 313 ac)

(i) [Reserved]

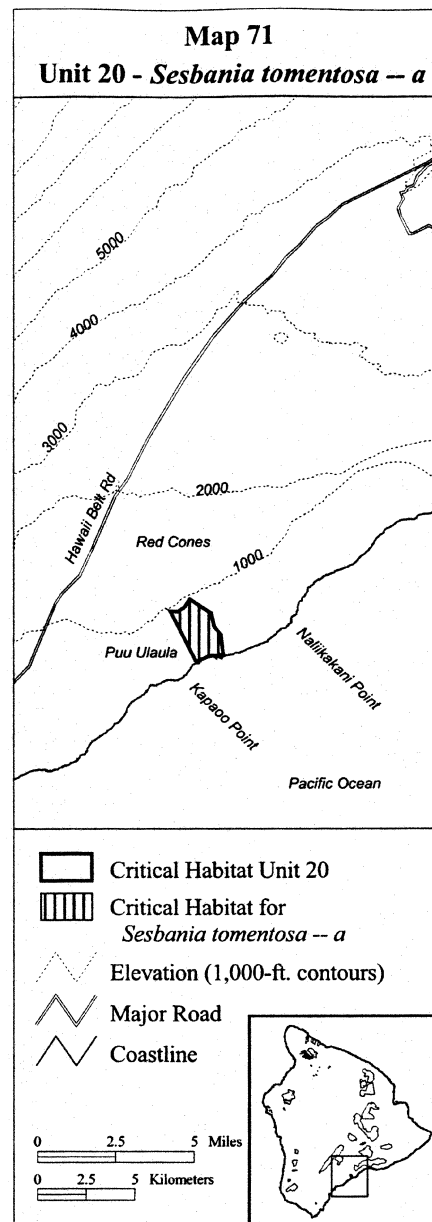
(ii) Map 70 follows:



(71) Hawaii 20—*Sesbania tomentosa*—a  
(486 ha, 1,201 ac)

(i) [Reserved]

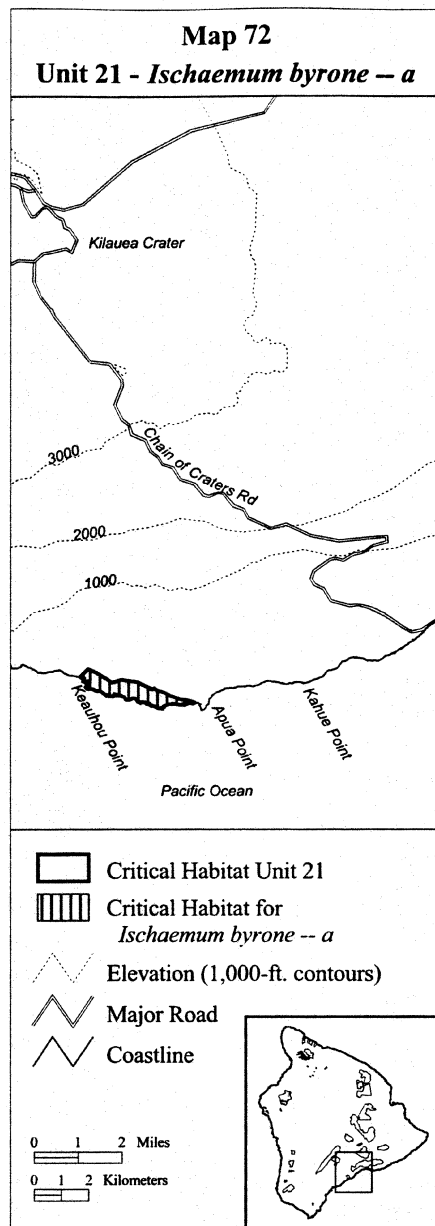
(ii) Map 71 follows:



(72) Hawaii 21—*Ischaemum byrone*—a  
(206 ha, 510 ac)

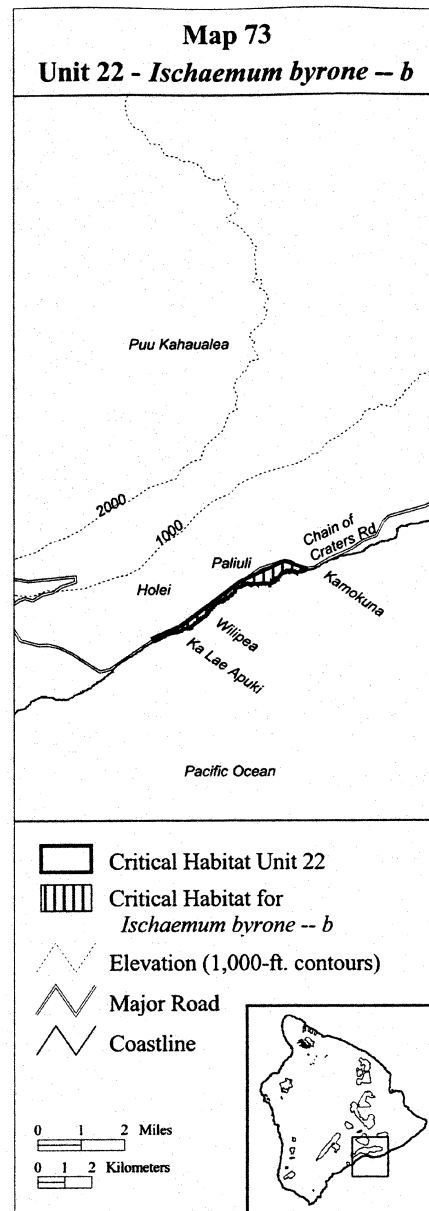
(i) [Reserved]

(ii) Map 72 follows:



(73) Hawaii 22—*Ischaemum byrone*—b  
(159 ha, 393 ac)

- (i) [Reserved]  
(ii) Map 73 follows:



(74) Hawaii 23—*Dracaena konaensis*—d  
(8,943 ha, 22,097 ac)

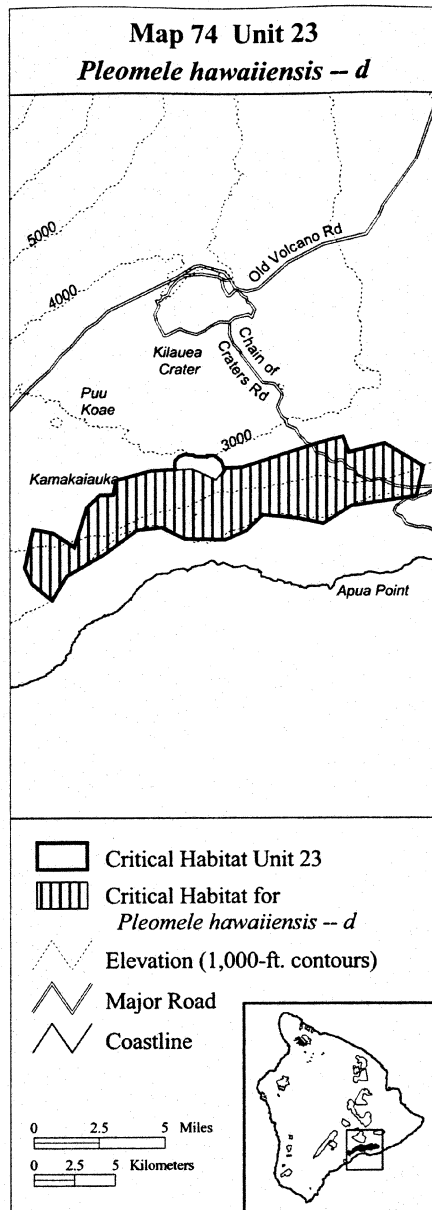
- (i) [Reserved]  
(ii) Note: The reference to “Hawaii 23—*Pleomele hawaiiensis*—d” on the map

§ 17.99

50 CFR Ch. I (10–1–23 Edition)

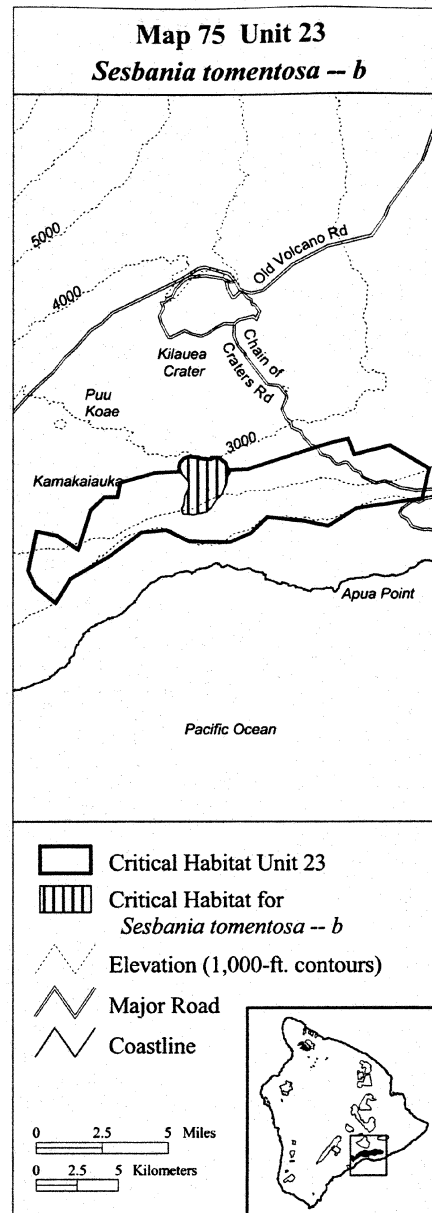
is equivalent to “Hawaii 23—*Dracaena konaensis*—d”. Map 74 follows:

(ii) Map 75 follows:



(75) Hawaii 23—*Sesbania tomentosa*—b  
(803 ha, 1,984 ac)

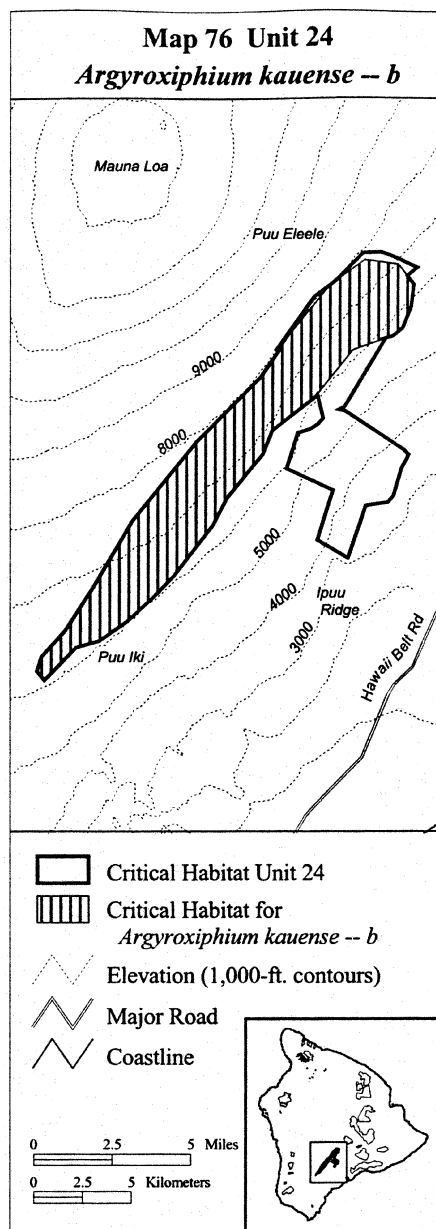
(i) [Reserved]



(76) Hawaii 24—*Argyroxiphium kauense*—  
b (7,795 ha, 19,261 ac)

(i) [Reserved]

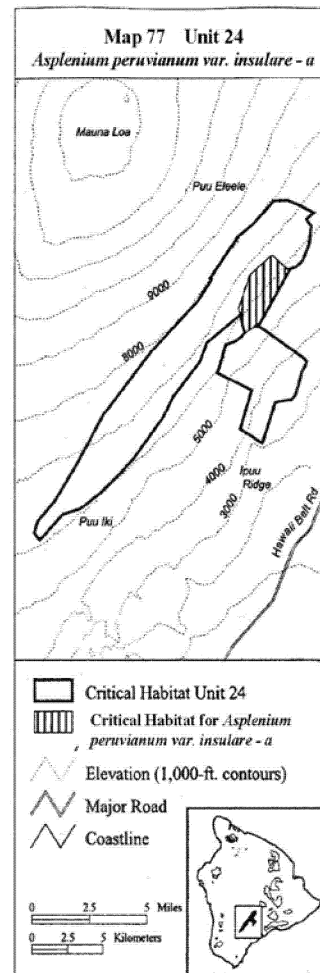
(ii) Map 76 follows:



(77) Hawaii 24— *Asplenium peruvianum* var. *insulare*—a (907 ha, 2,241 ac)

(i) [Reserved]

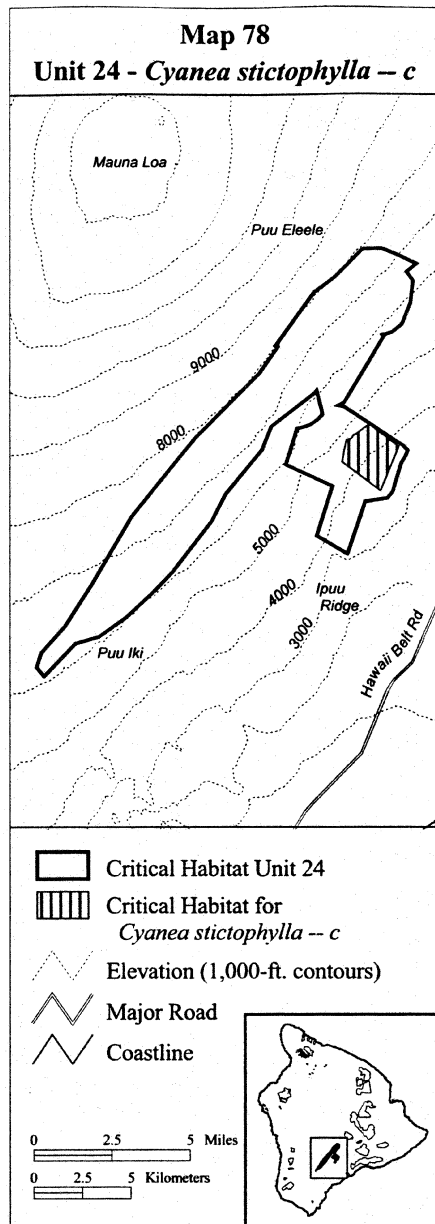
(ii) Map 77 follows:



(78) Hawaii 24— *Cyanea stictophylla*—c (584 ha, 1,443 ac)

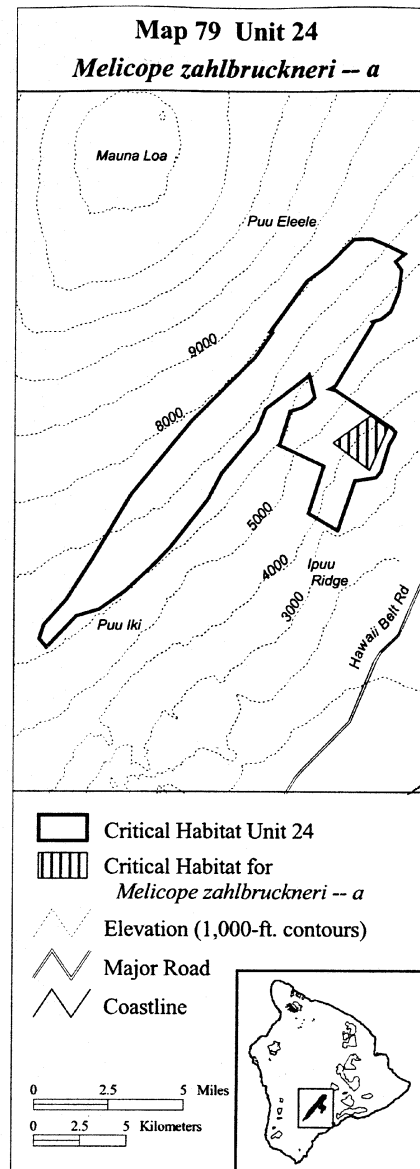
(i) [Reserved]

(ii) Map 78 follows:



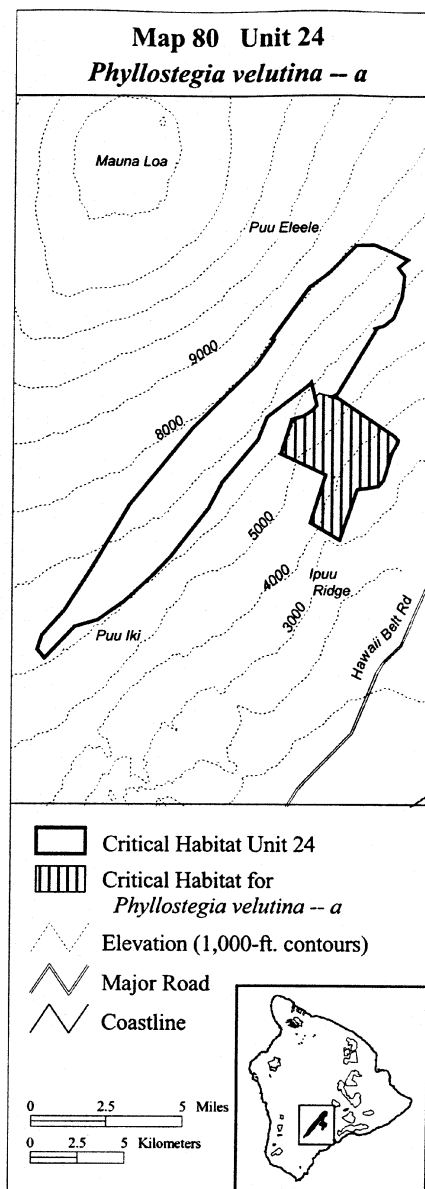
(79) Hawaii 24—*Melicope zahlbruckneri*—a (434 ha, 1,072 ac)

- (i) [Reserved]
- (ii) Map 79 follows:



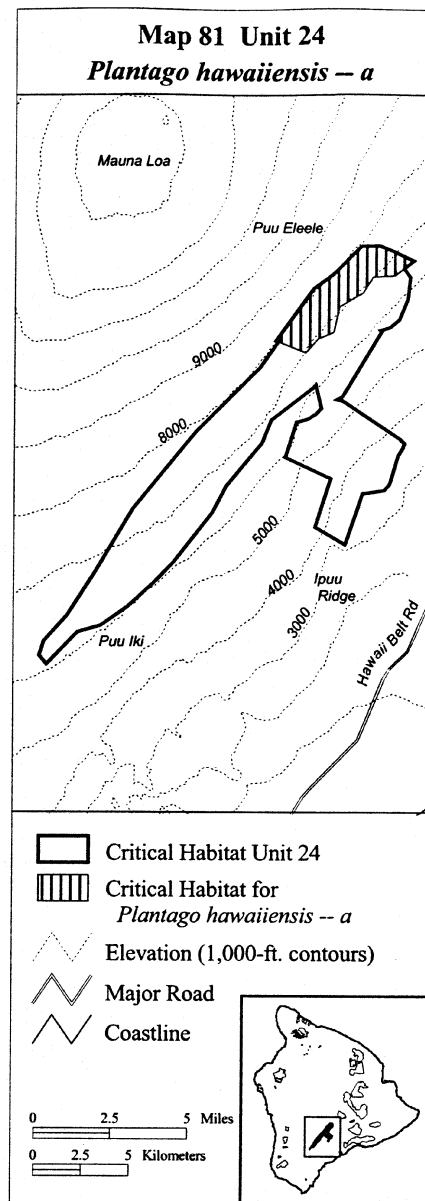
(80) Hawaii 24—*Phyllostegia velutina*—a (2,466 ha, 6,093 ac)

- (i) [Reserved]
- (ii) Map 80 follows:



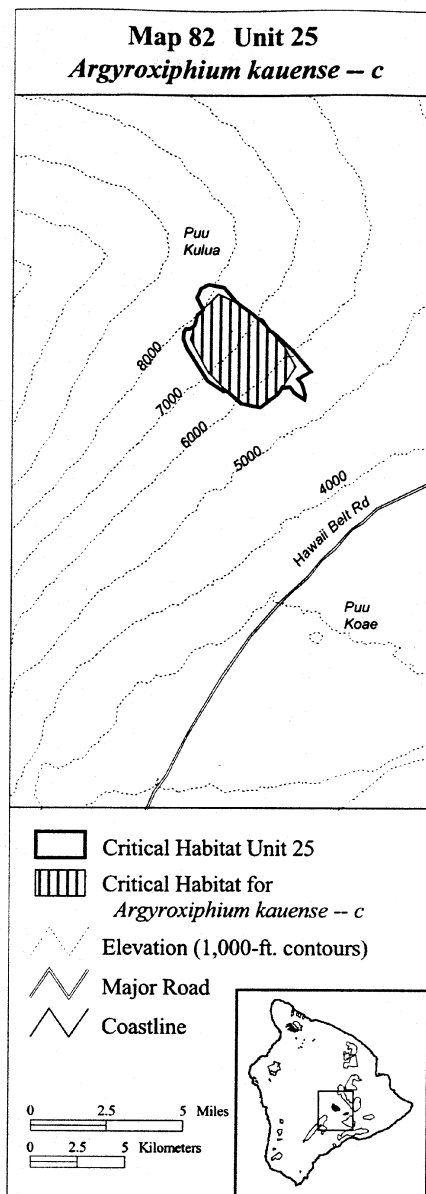
(81) Hawaii 24—*Plantago hawaiiensis*—a  
(1,348 ha, 3,330 ac)

- (i) [Reserved]  
(ii) Map 81 follows:



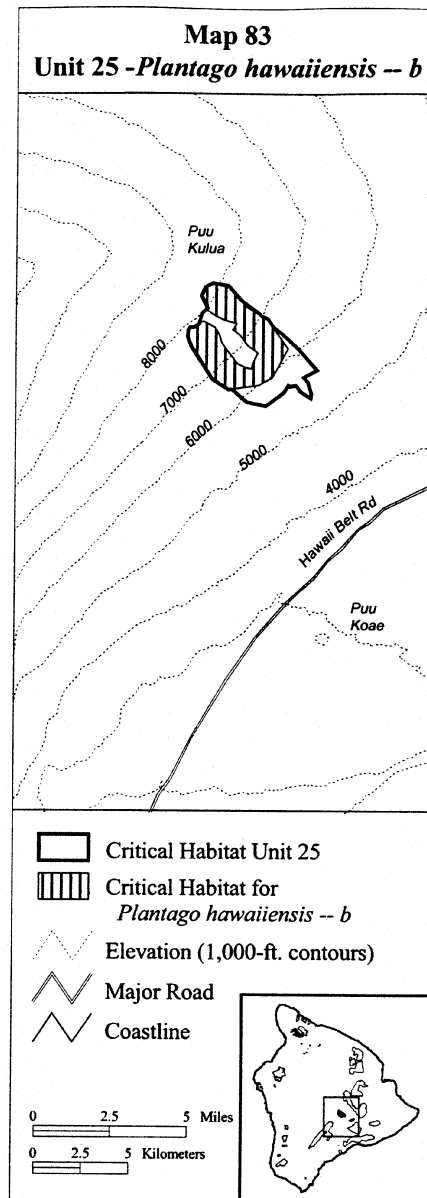
(82) Hawaii 25—*Argyroxiphium kauense*—  
c (2,006 ha, 4,957 ac)

- (i) [Reserved]  
(ii) Map 82 follows:



(83) Hawaii 25—*Plantago hawaiiensis*—b  
(1,522 ha, 3,762 ac)

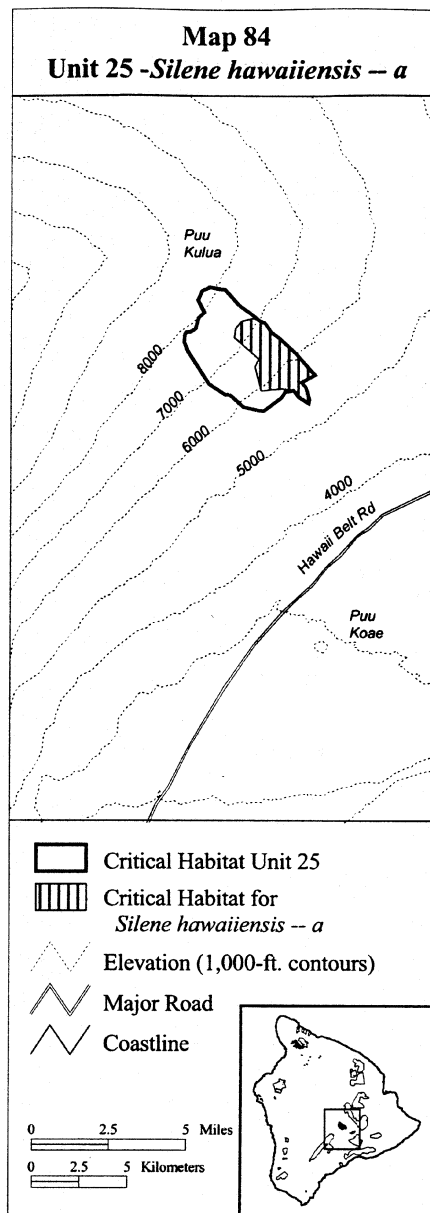
- (i) [Reserved]  
(ii) Map 83 follows:



(84) Hawaii 25—*Silene hawaiiensis*—a  
(854 ha, 2,110 ac)

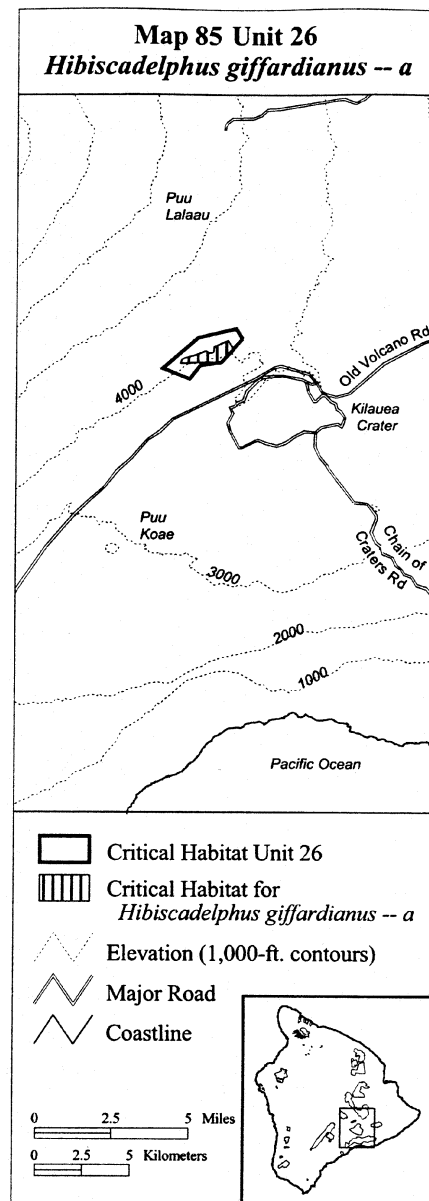
- (i) [Reserved]  
(ii) Map 84 follows:





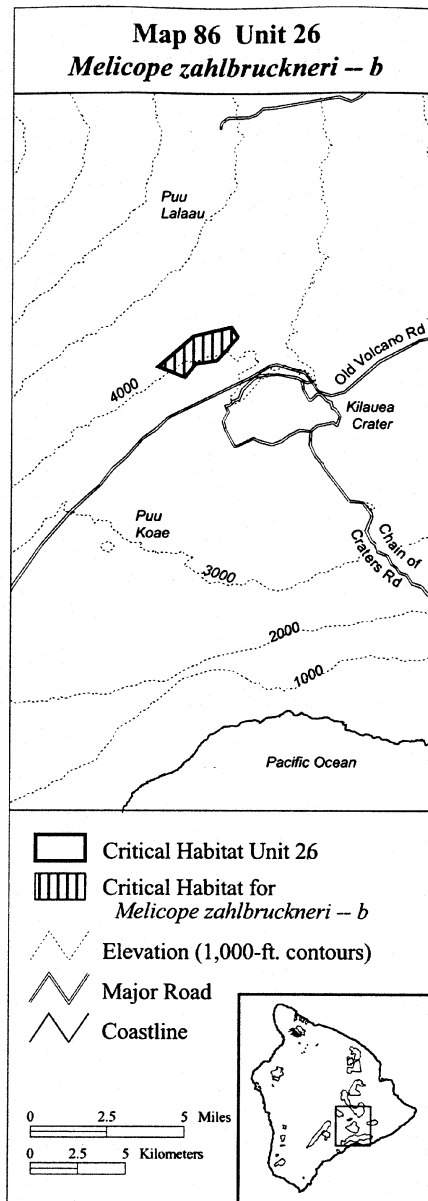
(85) Hawaii 26—*Hibiscadelphus giffardianus*—a (149 ha, 367 ac)

- (i) [Reserved]  
(ii) Map 85 follows:



(86) Hawaii 26—*Melicope zahlbruckneri*—b (495 ha, 1,224 ac)

- (i) [Reserved]  
(ii) Map 86 follows:

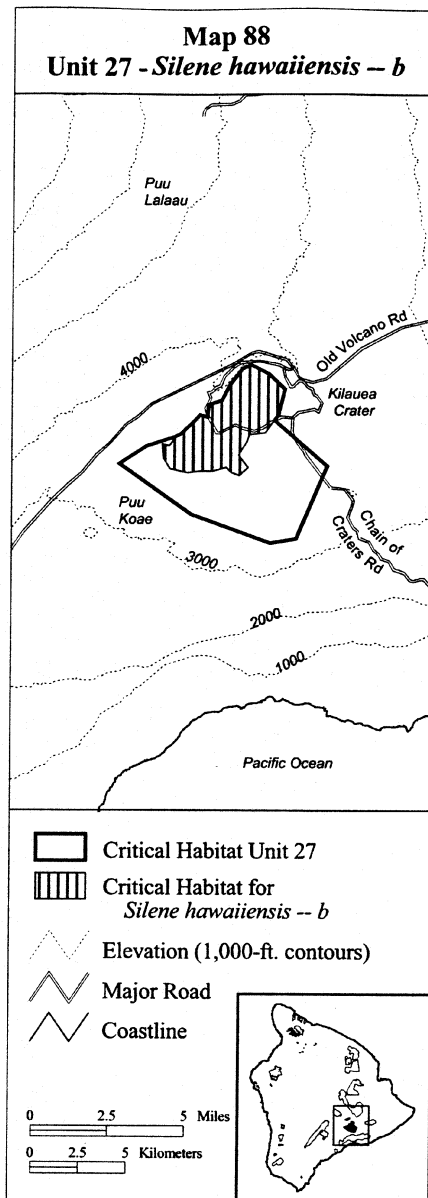


(87) Hawaii 27—*Portulaca sclerocarpa*—a  
(4,390 ha, 10,848 ac)

- (i) [Reserved]  
(ii) Map 87 follows:

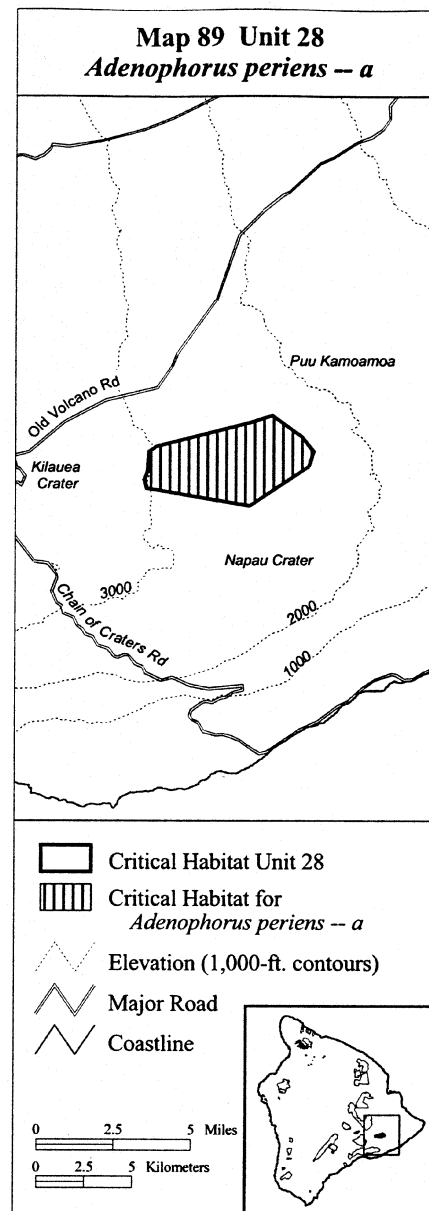
(88) Hawaii 27—*Silene hawaiiensis*—b  
(1,942 ha, 4,798 ac)

- (i) [Reserved]  
(ii) Map 88 follows:



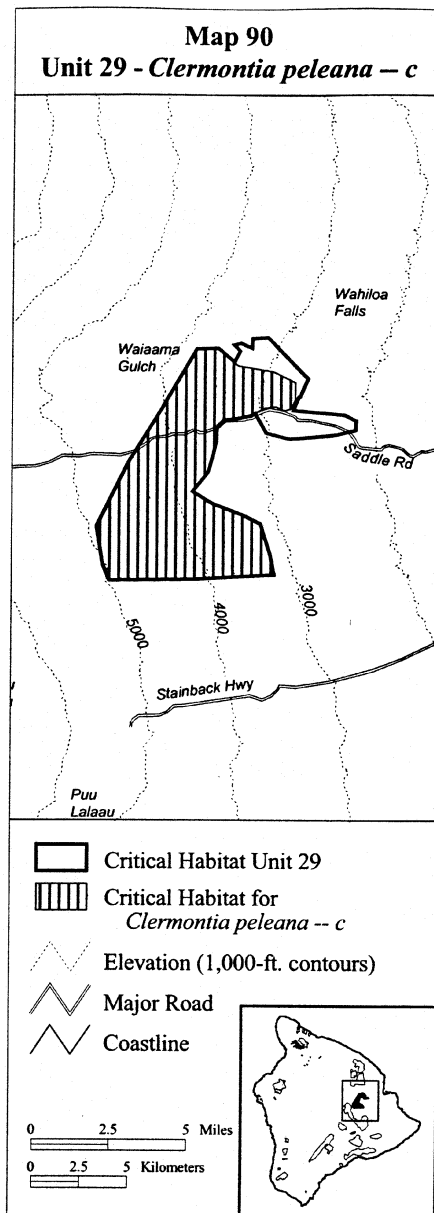
(89) Hawaii 28—*Adenophorus periens*—a  
(2,733 ha, 6,754 ac)

- (i) [Reserved]  
(ii) Map 89 follows:



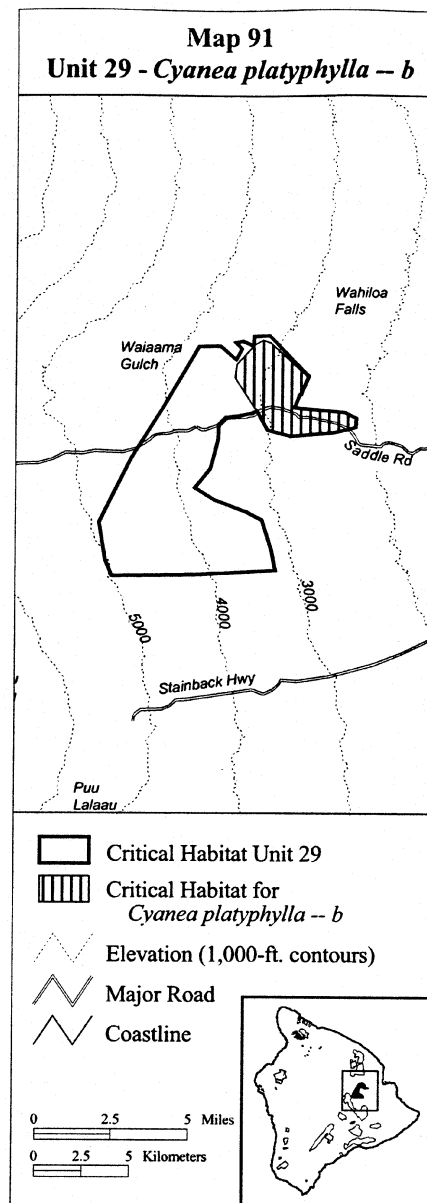
(90) Hawaii 29—*Clermontia peleana*—c  
(6,845 ha, 16,914 ac)

- (i) [Reserved]  
(ii) Map 90 follows:



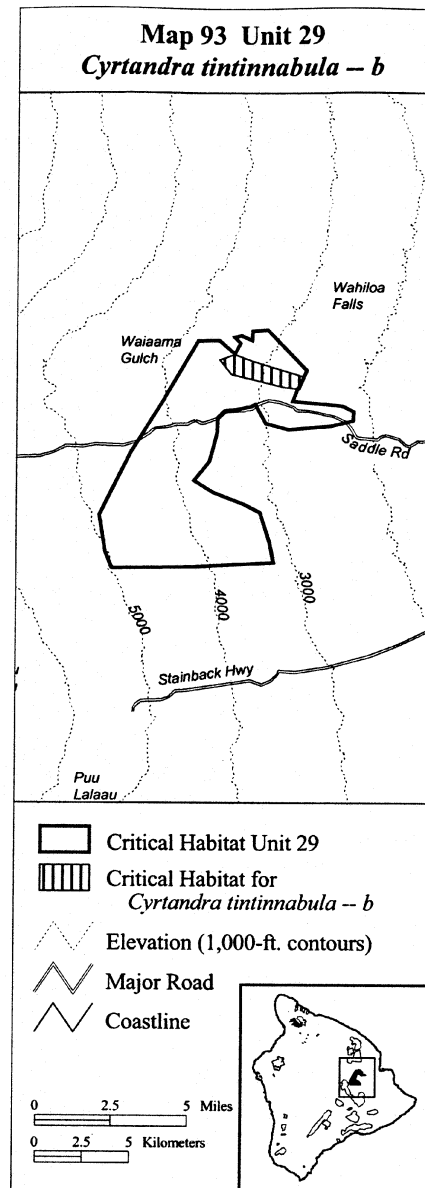
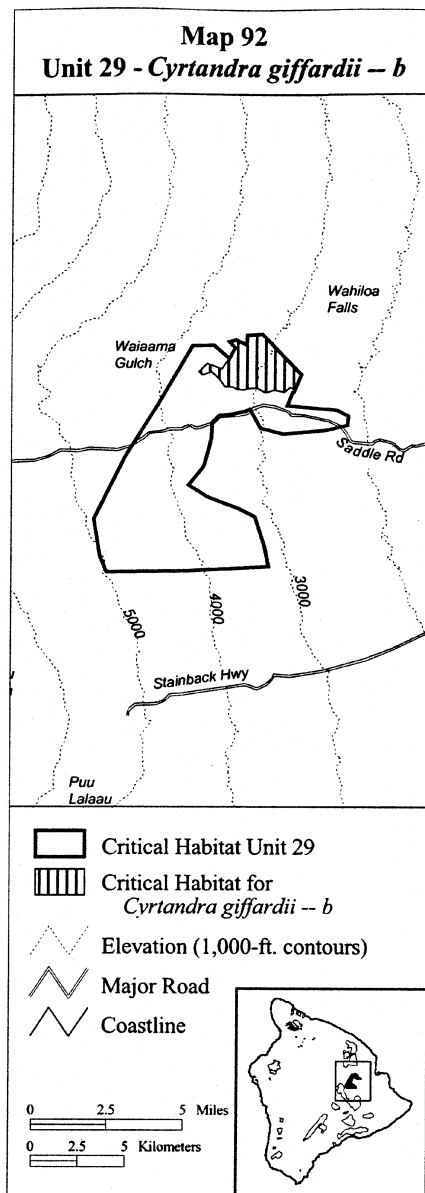
(91) Hawaii 29—*Cyanea platyphylla*—b  
(1,524 ha, 3,767 ac)

- (i) [Reserved]  
(ii) Map 91 follows:



(92) Hawaii 29—*Cyrtandra giffardii*—b  
(938 ha, 2,319 ac)

- (i) [Reserved]  
(ii) Map 92 follows:

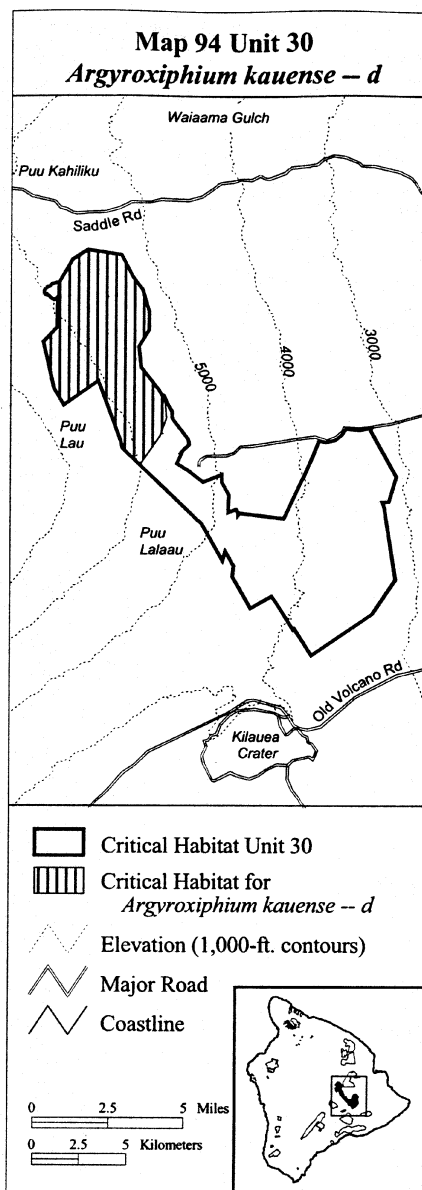


(93) Hawaii 29—*Cyrtandra tintinnabula*—  
b (378 ha, 934 ac)

- (i) [Reserved]  
(ii) Map 93 follows:

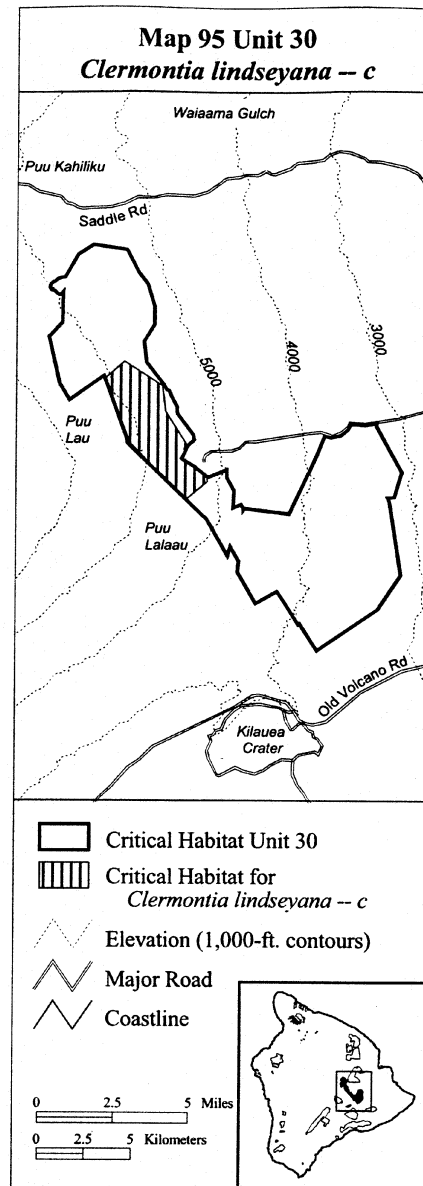
(94) Hawaii 30—*Argyroxiphium kauense*—  
d (4,281 ha, 10,578 ac)

- (i) [Reserved]  
(ii) Map 94 follows:



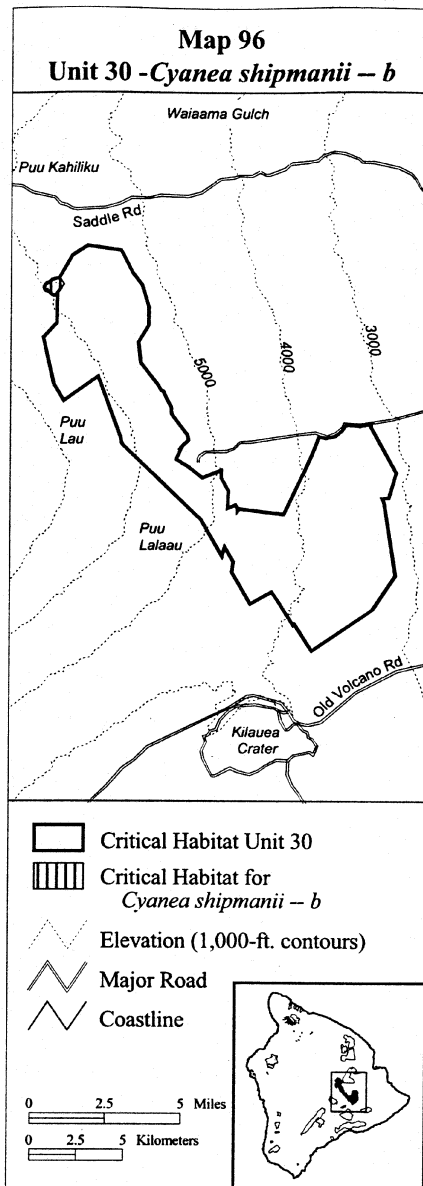
(95) Hawaii 30—*Clermontia lindseyana*—c  
(1,634 ha, 4,037 ac)

- (i) [Reserved]  
(ii) Map 95 follows:



(96) Hawaii 30—*Cyanea shipmanii*—b (62  
ha, 152 ac)

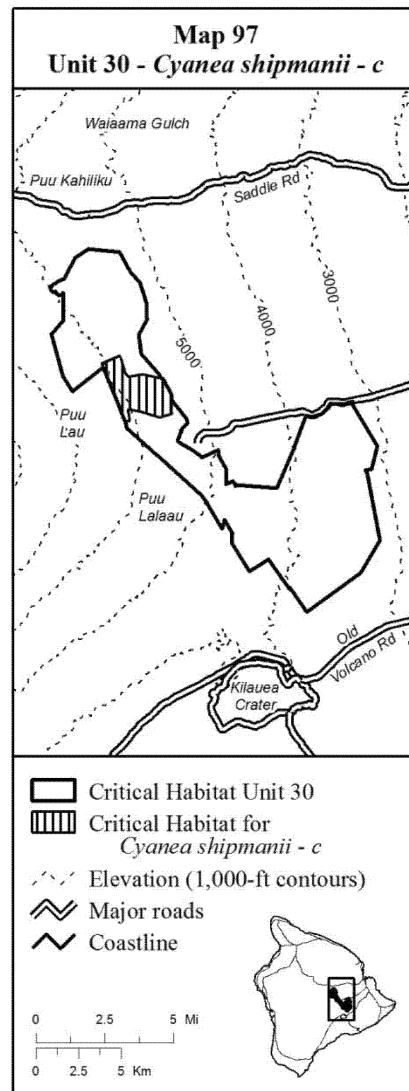
- (i) [Reserved]  
(ii) Map 96 follows:



(97) Hawaii 30—*Cyanea shipmanii*—c (825 ha, 2,038 ac)

(i) [Reserved]

(ii) *Note:* Map 97 follows:



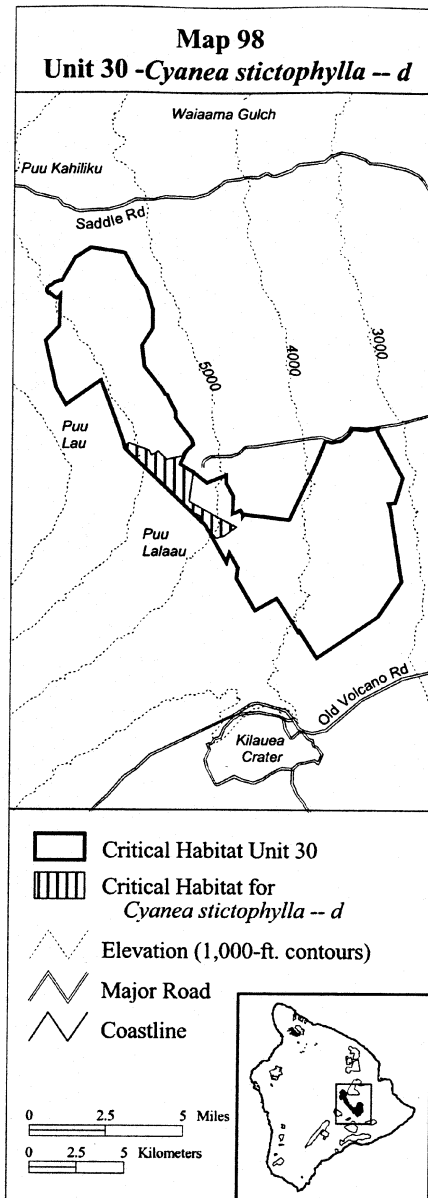


U.S. Fish and Wildlife Serv., Interior

§ 17.99

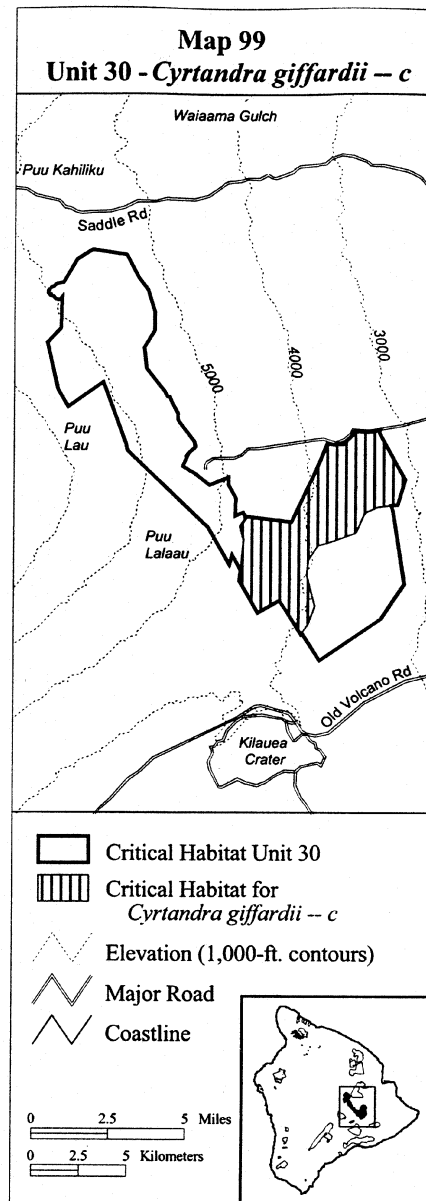
(98) Hawaii 30—*Cyanea stictophylla*—d  
(623 ha, 1,539 ac)

- (i) [Reserved]  
(ii) Map 98 follows:



(99) Hawaii 30—*Cyrtandra giffardii*—c  
(3,872 ha, 9,567 ac)

- (i) [Reserved]  
(ii) Map 99 follows:



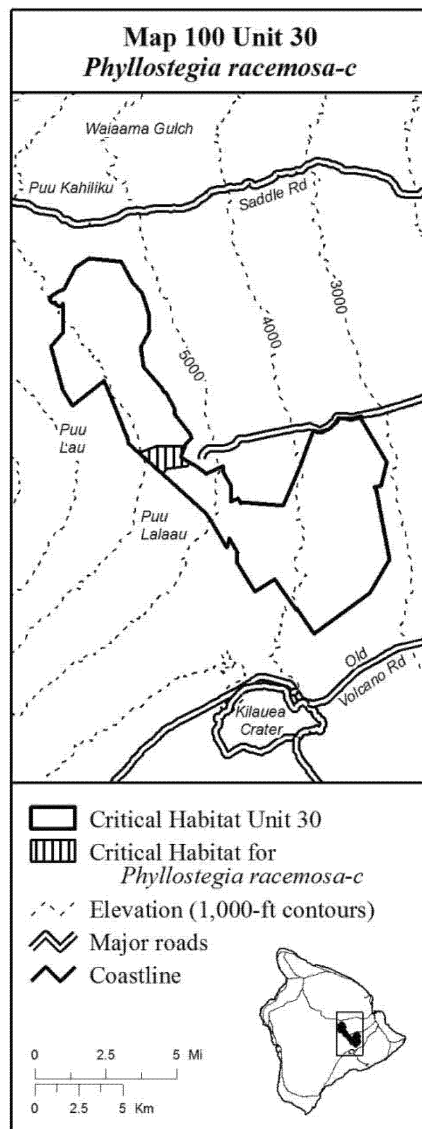
§ 17.99

50 CFR Ch. I (10–1–23 Edition)

(100) Hawaii 30—*Phyllostegia racemosa*—  
c (267 ha, 659 ac).

(ii) Note: Map 100 follows:

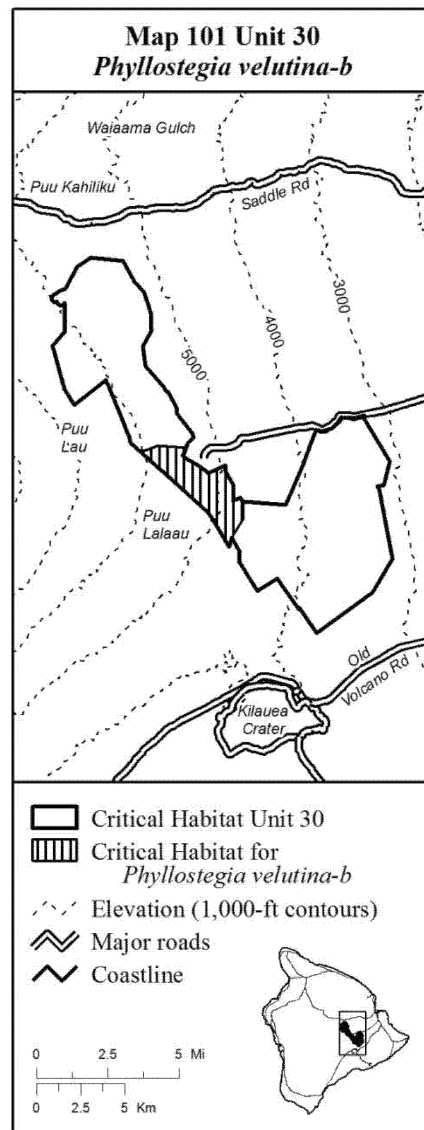
(i) [Reserved]



(101) Hawaii 30—*Phyllostegia velutina*—b  
(1,180 ha, 2,916 ac).

(ii) Note: Map 101 follows:

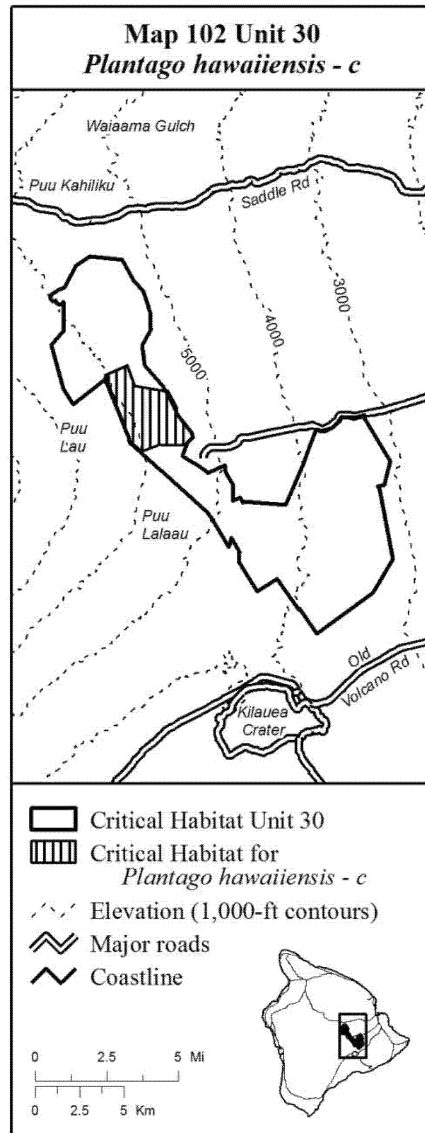
(i) [Reserved]



(102) Hawaii 30—*Plantago hawaiiensis*—c  
(1,219 ha, 3,012 ac).

(ii) Note: Map 102 follows:

(i) [Reserved]



U.S. Fish and Wildlife Serv., Interior

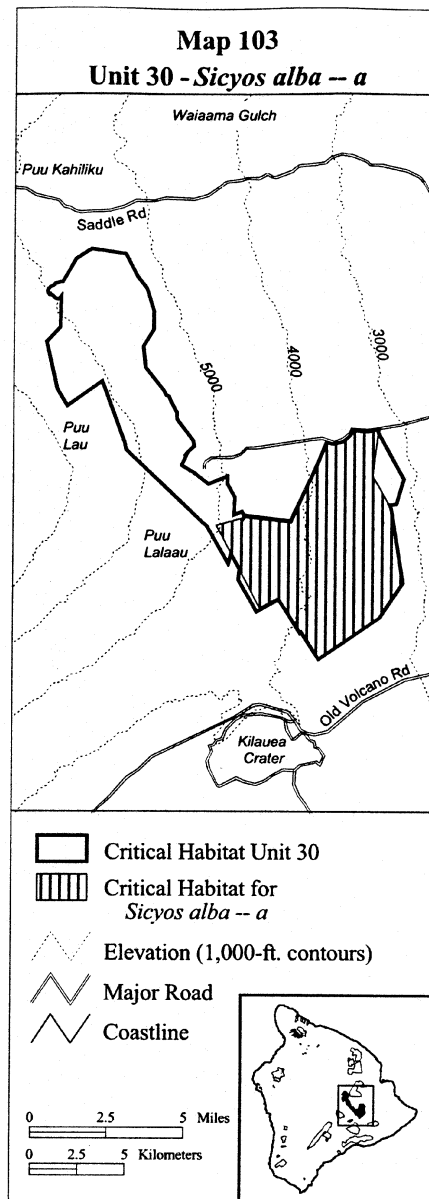
§ 17.99

(103) Hawaii 30—*Sicyos alba*—a (6,266 ha,  
15,483 ac)

- (i) [Reserved]
- (ii) Map 103 follows:

(104) Hawaii 31—*Bidens micrantha* ssp.  
*ctenophylla*—b (2,860 ha; 7,066 ac).

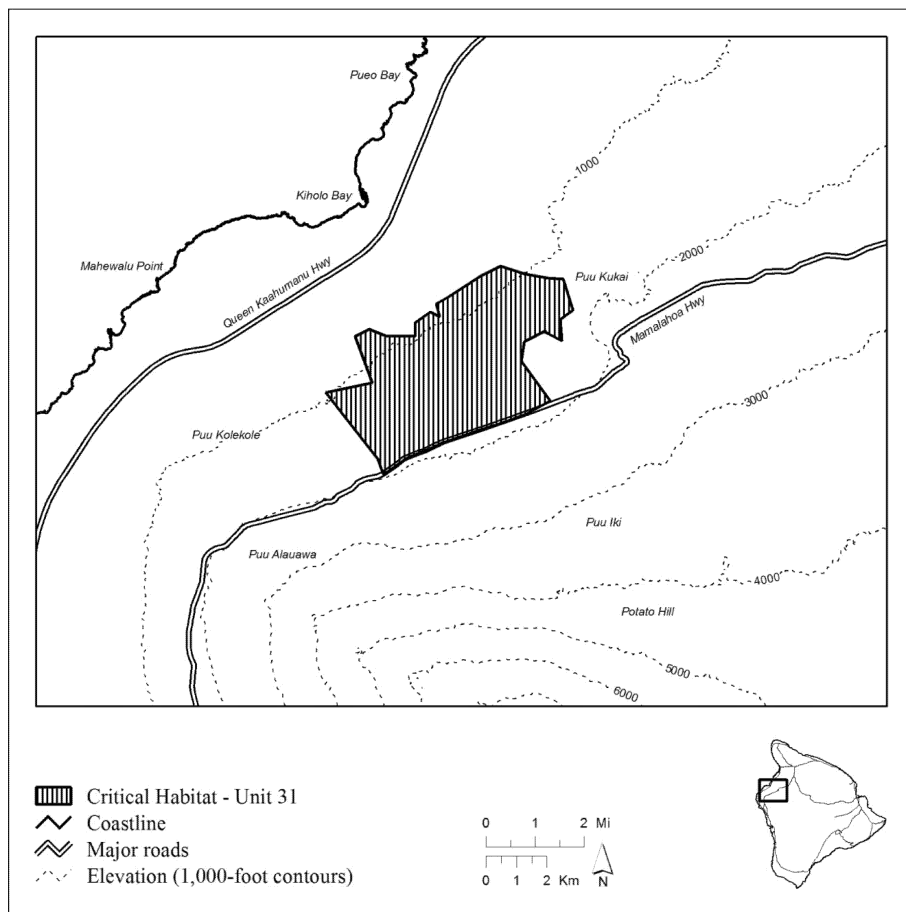
- (i) This unit is also critical habitat  
for Hawaii 31—*Isodendron pyriform*—b  
and Hawaii 31—*Mezoneuron kawaiense*—  
b (see paragraphs (k)(105) and (106), re-  
spectively, of this section).
- (ii) Note: Map 104 follows:



## Map 104

Hawaii 31—*Bidens micrantha* ssp. *ctenophylla*—b, Hawaii 31—*Isodendron pyrifolium*—b,Hawaii 31—*Mezoneuron kavaense*—b

## Lowland Dry



(105) Hawaii 31—*Isodendron pyrifolium*—b (2,860 ha; 7,066 ac). See paragraph (k)(104)(ii) of this section for the map of this unit.

(106) Hawaii 31—*Mezoneuron kavaense*—b (2,860 ha; 7,066 ac). See paragraph (k)(104)(ii) of this section for the map of this unit.

(107) Hawaii 33—*Bidens micrantha* ssp. *ctenophylla*—d (400 ha; 989 ac).

(i) This unit is also critical habitat for Hawaii 33—*Isodendron pyrifolium*—d and Hawaii 33—*Mezoneuron kavaense*—d (see paragraphs (k)(108) and (109), respectively, of this section).

(ii) *Note:* Map 105 follows:

## Map 105

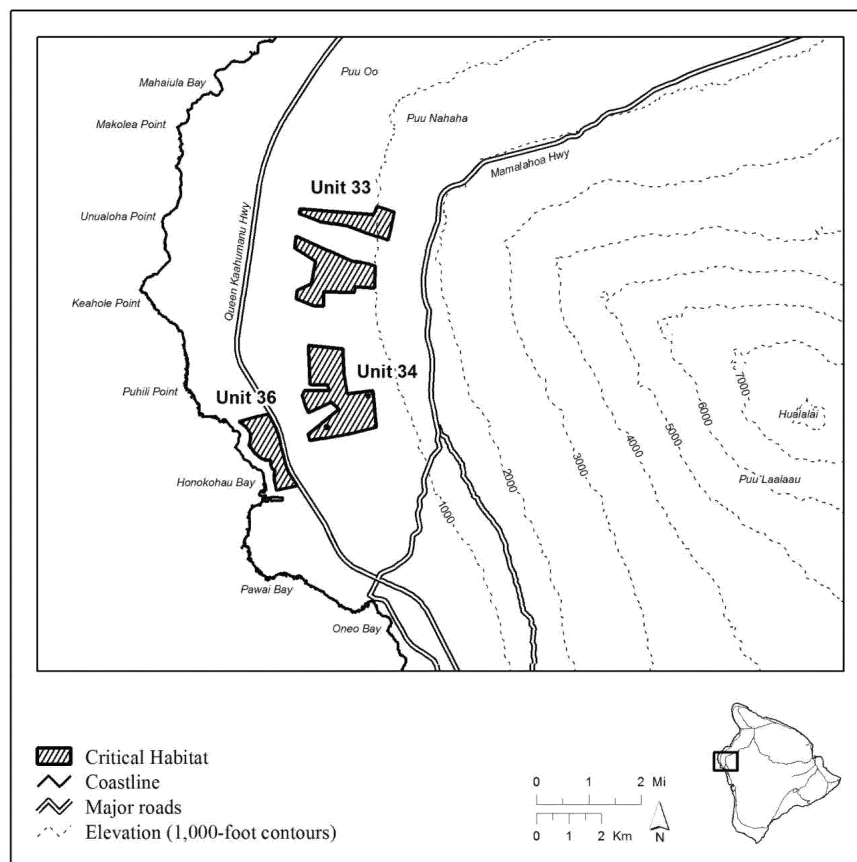
Hawaii 33—*Bidens micrantha* ssp. *ctenophylla*—d, Hawaii 33—*Isodendron pyrifolium*—d,

Hawaii 33—*Mezoneuron kavaense*—d; Hawaii 34—*Bidens micrantha* ssp. *ctenophylla*—e,

Hawaii 34—*Isodendron pyrifolium*—e, Hawaii 34—*Mezoneuron kavaense*—e;

Hawaii 36—*Bidens micrantha* ssp. *ctenophylla*—g, Hawaii 36—*Isodendron pyrifolium*—g

## Lowland Dry



(108) Hawaii 33—*Isodendron pyrifolium*—d (400 ha; 989 ac). See paragraph (k)(107)(ii) of this section for the map of this unit.

(109) Hawaii 33—*Mezoneuron kavaense*—d (400 ha; 989 ac). See paragraph (k)(107)(ii) of this section for the map of this unit.

(110) Hawaii 34—*Bidens micrantha* ssp. *ctenophylla*—e (371 ha; 917 ac).

(i) This unit is also critical habitat for Hawaii 34—*Isodendron pyriform*—e and Hawaii 34—*Mezoneuron kavaense*—e (see paragraphs (k)(111) and (112), respectively, of this section).

(ii) See paragraph (k)(107)(ii) of this section for the map of this unit.

(111) Hawaii 34—*Isodendron pyriform*—e (371 ha; 917 ac). See paragraph (k)(107)(ii) of this section for the map of this unit.

(112) Hawaii 34—*Mezoneuron kavaense*—e (371 ha; 917 ac). See para-

graph (k)(107)(ii) of this section for the map of this unit.

(113) Hawaii 36—*Bidens micrantha* ssp. *ctenophylla*—g (163 ha; 402 ac).

(i) This unit is also critical habitat for Hawaii 36—*Isodendron pyriform*—g (see paragraph (k)(114) of this section).

(ii) See paragraph (k)(107)(ii) of this section for the map of this unit.

(114) Hawaii 36—*Isodendron pyriform*—g (163 ha; 402 ac). See paragraph (k)(107)(ii) of this section for the map of this unit.

(115) Table of Protected Species Within Each Critical Habitat Unit for the Island of Hawaii.

| Unit name                                                     | Species occupied                      | Species unoccupied                                |
|---------------------------------------------------------------|---------------------------------------|---------------------------------------------------|
| Hawaii 1— <i>Clermontia lindseyana</i> —a                     | <i>Clermontia lindseyana</i> .....    | <i>Clermontia lindseyana</i> .                    |
| Hawaii 1— <i>Clermontia peleana</i> —a ....                   | <i>Clermontia peleana</i> .....       | <i>Clermontia peleana</i> .                       |
| Hawaii 1— <i>Clermontia pyralaria</i> —a ....                 | .....                                 | <i>Clermontia pyralaria</i> .                     |
| Hawaii 1— <i>Cyanea shipmanii</i> —a .....                    | <i>Cyanea shipmanii</i> .....         | <i>Cyanea shipmanii</i> .                         |
| Hawaii 1— <i>Phyllostegia racemosa</i> —a                     | <i>Phyllostegia racemosa</i> .....    | <i>Phyllostegia racemosa</i> .                    |
| Hawaii 2— <i>Clermontia lindseyana</i> —b                     | <i>Clermontia lindseyana</i> .....    | <i>Clermontia lindseyana</i> .                    |
| Hawaii 2— <i>Clermontia pyralaria</i> —b ....                 | <i>Clermontia pyralaria</i> .....     | <i>Clermontia pyralaria</i> .                     |
| Hawaii 2— <i>Phyllostegia racemosa</i> —b                     | <i>Phyllostegia racemosa</i> .....    | <i>Phyllostegia racemosa</i> .                    |
| Hawaii 3— <i>Clermontia peleana</i> —b ....                   | <i>Clermontia peleana</i> .....       | <i>Clermontia peleana</i> .                       |
| Hawaii 3— <i>Cyanea platyphylla</i> —a ....                   | <i>Cyanea platyphylla</i> .....       | <i>Cyanea platyphylla</i> .                       |
| Hawaii 3— <i>Cyrtandra giffardii</i> —a .....                 | <i>Cyrtandra giffardii</i> .....      | <i>Cyrtandra giffardii</i> .                      |
| Hawaii 3— <i>Cyrtandra tintinnabula</i> —a                    | <i>Cyrtandra tintinnabula</i> .....   | <i>Cyrtandra tintinnabula</i> .                   |
| Hawaii 3— <i>Phyllostegia warshaueri</i> —a                   | <i>Phyllostegia warshaueri</i> .....  | <i>Phyllostegia warshaueri</i> .                  |
| Hawaii 4— <i>Isodendron hosakae</i> —a ...                    | .....                                 | <i>Isodendron hosakae</i> .                       |
| Hawaii 4— <i>Isodendron hosakae</i> —b ...                    | .....                                 | <i>Isodendron hosakae</i> .                       |
| Hawaii 4— <i>Isodendron hosakae</i> —c ...                    | .....                                 | <i>Isodendron hosakae</i> .                       |
| Hawaii 4— <i>Isodendron hosakae</i> —d ...                    | .....                                 | <i>Isodendron hosakae</i> .                       |
| Hawaii 4— <i>Isodendron hosakae</i> —e ...                    | .....                                 | <i>Isodendron hosakae</i> .                       |
| Hawaii 4— <i>Isodendron hosakae</i> —f ...                    | <i>Isodendron hosakae</i> .....       | <i>Isodendron hosakae</i> .                       |
| Hawaii 4— <i>Vigna o-wahuensis</i> —a ....                    | .....                                 | <i>Vigna o-wahuensis</i> .                        |
| Hawaii 4— <i>Vigna o-wahuensis</i> —b ....                    | .....                                 | <i>Vigna o-wahuensis</i> .                        |
| Hawaii 4— <i>Vigna o-wahuensis</i> —c ....                    | .....                                 | <i>Vigna o-wahuensis</i> .                        |
| Hawaii 5— <i>Nothocestrum breviflorum</i> —a                  | .....                                 | <i>Nothocestrum breviflorum</i> .                 |
| Hawaii 6— <i>Nothocestrum breviflorum</i> —b                  | <i>Nothocestrum breviflorum</i> ..... | <i>Nothocestrum breviflorum</i> .                 |
| Hawaii 7— <i>Dracaena konaensis</i> —a ....                   | <i>Dracaena konaensis</i> .....       | <i>Dracaena konaensis</i> .                       |
| Hawaii 8— <i>Clermontia drepanomorpha</i> —a                  | <i>Clermontia drepanomorpha</i> ....  | <i>Clermontia drepanomorpha</i> .                 |
| Hawaii 8— <i>Phyllostegia warshaueri</i> —b                   | <i>Phyllostegia warshaueri</i> .....  | <i>Phyllostegia warshaueri</i> .                  |
| Hawaii 9— <i>Achyranthes mutica</i> —a ....                   | .....                                 | <i>Achyranthes mutica</i> .                       |
| Hawaii 9— <i>Achyranthes mutica</i> —b ....                   | <i>Achyranthes mutica</i> .....       | <i>Achyranthes mutica</i> .                       |
| Hawaii 9— <i>Achyranthes mutica</i> —c ....                   | .....                                 | <i>Achyranthes mutica</i> .                       |
| Hawaii 9— <i>Achyranthes mutica</i> —d ....                   | .....                                 | <i>Achyranthes mutica</i> .                       |
| Hawaii 9— <i>Achyranthes mutica</i> —e ....                   | .....                                 | <i>Achyranthes mutica</i> .                       |
| Hawaii 9— <i>Achyranthes mutica</i> —f ....                   | .....                                 | <i>Achyranthes mutica</i> .                       |
| Hawaii 9— <i>Achyranthes mutica</i> —g ....                   | .....                                 | <i>Achyranthes mutica</i> .                       |
| Hawaii 9— <i>Achyranthes mutica</i> —h ....                   | .....                                 | <i>Achyranthes mutica</i> .                       |
| Hawaii 9— <i>Achyranthes mutica</i> —i ....                   | .....                                 | <i>Achyranthes mutica</i> .                       |
| Hawaii 9— <i>Achyranthes mutica</i> —j ....                   | .....                                 | <i>Achyranthes mutica</i> .                       |
| Hawaii 10— <i>Argyroxiphium kauense</i> —a                    | .....                                 | <i>Argyroxiphium kauense</i> .                    |
| Hawaii 10— <i>Bidens micrantha</i> ssp. <i>ctenophylla</i> —a | .....                                 | <i>Bidens micrantha</i> ssp. <i>ctenophylla</i> . |
| Hawaii 10— <i>Bonamia menziesii</i> —a ....                   | .....                                 | <i>Bonamia menziesii</i> .                        |
| Hawaii 10— <i>Colubrina oppositifolia</i> —a                  | <i>Colubrina oppositifolia</i> .....  | <i>Colubrina oppositifolia</i> .                  |
| Hawaii 10— <i>Delissea undulata</i> —a ....                   | .....                                 | <i>Delissea undulata</i> .                        |
| Hawaii 10— <i>Delissea undulata</i> —b ....                   | <i>Delissea undulata</i> .....        | <i>Delissea undulata</i> .                        |
| Hawaii 10— <i>Dracaena konaensis</i> —b ..                    | <i>Dracaena konaensis</i> .....       | <i>Dracaena konaensis</i> .                       |
| Hawaii 10— <i>Hibiscadelphus hualalaiensis</i> —a             | <i>Hibiscadelphus hualalaiensis</i>   | <i>Hibiscadelphus hualalaiensis</i> .             |
| Hawaii 10— <i>Hibiscus brackenridgei</i> —a                   | <i>Hibiscus brackenridgei</i> .....   | <i>Hibiscus brackenridgei</i> .                   |



## U.S. Fish and Wildlife Serv., Interior

\$ 17.99

| Unit name                                                          | Species occupied                                          | Species unoccupied                                    |
|--------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------|
| Hawaii 10— <i>Isodendron pyriform</i> —a                           | .....                                                     | <i>Isodendron pyriform</i> .                          |
| Hawaii 10— <i>Mezoneuron kavaense</i> —a                           | <i>Mezoneuron kavaense</i> .....                          | <i>Mezoneuron kavaense</i> .                          |
| Hawaii 10— <i>Neraudia ovata</i> —a .....                          | .....                                                     | <i>Neraudia ovata</i> .                               |
| Hawaii 10— <i>Nothocestrum breviflorum</i> —c.                     | <i>Nothocestrum breviflorum</i> .....                     | <i>Nothocestrum breviflorum</i> .                     |
| Hawaii 10— <i>Solanum incompletum</i> —a                           | .....                                                     | <i>Solanum incompletum</i> .                          |
| Hawaii 10— <i>Zanthoxylum dipetalum</i> ssp. <i>tomentosum</i> —a. | <i>Zanthoxylum dipetalum</i> ssp. <i>tomentosum</i> ..... | <i>Zanthoxylum dipetalum</i> ssp. <i>tomentosum</i> . |
| Hawaii 11— <i>Cyanea hamatiflora</i> ssp. <i>carlsonii</i> —a.     | <i>Cyanea hamatiflora</i> ssp. <i>carlsonii</i> .....     | <i>Cyanea hamatiflora</i> ssp. <i>carlsonii</i> .     |
| Hawaii 11— <i>Solanum incompletum</i> —b                           | .....                                                     | <i>Solanum incompletum</i> .                          |
| Hawaii 14— <i>Cyanea hamatiflora</i> ssp. <i>carlsonii</i> —b.     | .....                                                     | <i>Cyanea hamatiflora</i> ssp. <i>carlsonii</i> .     |
| Hawaii 15— <i>Cyanea hamatiflora</i> ssp. <i>carlsonii</i> —c.     | .....                                                     | <i>Cyanea hamatiflora</i> ssp. <i>carlsonii</i> .     |
| Hawaii 15— <i>Cyanea stictophylla</i> —a ..                        | <i>Cyanea stictophylla</i> .....                          | <i>Cyanea stictophylla</i> .                          |
| Hawaii 16— <i>Cyanea hamatiflora</i> ssp. <i>carlsonii</i> —d.     | <i>Cyanea hamatiflora</i> ssp. <i>carlsonii</i> .....     | <i>Cyanea hamatiflora</i> ssp. <i>carlsonii</i> .     |
| Hawaii 16— <i>Cyanea stictophylla</i> —b ..                        | <i>Cyanea stictophylla</i> .....                          | <i>Cyanea stictophylla</i> .                          |
| Hawaii 17— <i>Asplenium dielerectum</i> —a.                        | <i>Asplenium dielerectum</i> .....                        | <i>Asplenium dielerectum</i> .                        |
| Hawaii 17— <i>Flueggea neowawraea</i> —a.                          | <i>Flueggea neowawraea</i> .....                          | <i>Flueggea neowawraea</i> .                          |
| Hawaii 18— <i>Asplenium dielerectum</i> —b.                        | <i>Asplenium dielerectum</i> .....                        | <i>Asplenium dielerectum</i> .                        |
| Hawaii 18— <i>Colubrina oppositifolia</i> —b                       | <i>Colubrina oppositifolia</i> .....                      | <i>Colubrina oppositifolia</i> .                      |
| Hawaii 18— <i>Dracaena konaensis</i> —c ..                         | <i>Dracaena konaensis</i> .....                           | <i>Dracaena konaensis</i> .                           |
| Hawaii 18— <i>Flueggea neowawraea</i> —b.                          | <i>Flueggea neowawraea</i> .....                          | <i>Flueggea neowawraea</i> .                          |
| Hawaii 18— <i>Gouania vitifolia</i> —a .....                       | <i>Gouania vitifolia</i> .....                            | <i>Gouania vitifolia</i> .                            |
| Hawaii 18— <i>Neraudia ovata</i> —d .....                          | <i>Neraudia ovata</i> .....                               | <i>Neraudia ovata</i> .                               |
| Hawaii 19— <i>Mariscus fauriei</i> —a .....                        | <i>Mariscus fauriei</i> .....                             | <i>Mariscus fauriei</i> .                             |
| Hawaii 20— <i>Sesbania tomentosa</i> —a ..                         | <i>Sesbania tomentosa</i> .....                           | <i>Sesbania tomentosa</i> .                           |
| Hawaii 21— <i>Ischaemum byrone</i> —a .....                        | <i>Ischaemum byrone</i> .....                             | <i>Ischaemum byrone</i> .                             |
| Hawaii 22— <i>Ischaemum byrone</i> —b .....                        | <i>Ischaemum byrone</i> .....                             | <i>Ischaemum byrone</i> .                             |
| Hawaii 23— <i>Dracaena konaensis</i> —d ..                         | <i>Dracaena konaensis</i> .....                           | <i>Dracaena konaensis</i> .                           |
| Hawaii 23— <i>Sesbania tomentosa</i> —b ..                         | <i>Sesbania tomentosa</i> .....                           | <i>Sesbania tomentosa</i> .                           |
| Hawaii 24— <i>Argyroxiphium kauense</i> —b.                        | <i>Argyroxiphium kauense</i> .....                        | <i>Argyroxiphium kauense</i> .                        |
| Hawaii 24— <i>Asplenium fragile</i> var. <i>insulare</i> —a.       | <i>Asplenium fragile</i> var. <i>insulare</i> .....       | <i>Asplenium fragile</i> var. <i>insulare</i> .       |
| Hawaii 24— <i>Cyanea stictophylla</i> —c ..                        | .....                                                     | <i>Cyanea stictophylla</i> .                          |
| Hawaii 24— <i>Melicope zahlbruckneri</i> —a.                       | .....                                                     | <i>Melicope zahlbruckneri</i> .                       |
| Hawaii 24— <i>Phyllostegia velutina</i> —a ..                      | <i>Phyllostegia velutina</i> .....                        | <i>Phyllostegia velutina</i> .                        |
| Hawaii 24— <i>Plantago hawaiiensis</i> —a                          | <i>Plantago hawaiiensis</i> .....                         | <i>Plantago hawaiiensis</i> .                         |
| Hawaii 25— <i>Argyroxiphium kauense</i> —c.                        | <i>Argyroxiphium kauense</i> .....                        | <i>Argyroxiphium kauense</i> .                        |
| Hawaii 25— <i>Plantago hawaiiensis</i> —b                          | <i>Plantago hawaiiensis</i> .....                         | <i>Plantago hawaiiensis</i> .                         |
| Hawaii 25— <i>Silene hawaiiensis</i> —a .....                      | <i>Silene hawaiiensis</i> .....                           | <i>Silene hawaiiensis</i> .                           |
| Hawaii 26— <i>Hibiscadelphus giffardianus</i> —a.                  | <i>Hibiscadelphus giffardianus</i> ..                     | <i>Hibiscadelphus giffardianus</i> .                  |
| Hawaii 26— <i>Melicope zahlbruckneri</i> —b.                       | <i>Melicope zahlbruckneri</i> .....                       | <i>Melicope zahlbruckneri</i> .                       |
| Hawaii 27— <i>Portulaca sclerocarpa</i> —a                         | <i>Portulaca sclerocarpa</i> .....                        | <i>Portulaca sclerocarpa</i> .                        |
| Hawaii 27— <i>Silene hawaiiensis</i> —b .....                      | <i>Silene hawaiiensis</i> .....                           | <i>Silene hawaiiensis</i> .                           |
| Hawaii 28— <i>Adenophorus perians</i> —a                           | <i>Adenophorus perians</i> .....                          | <i>Adenophorus perians</i> .                          |
| Hawaii 29— <i>Clermontia peleana</i> —c ..                         | <i>Clermontia peleana</i> .....                           | <i>Clermontia peleana</i> .                           |
| Hawaii 29— <i>Cyanea platyphylla</i> —b .....                      | <i>Cyanea platyphylla</i> .....                           | <i>Cyanea platyphylla</i> .                           |
| Hawaii 29— <i>Cyrtandra giffardii</i> —b .....                     | .....                                                     | <i>Cyrtandra giffardii</i> .                          |
| Hawaii 29— <i>Cyrtandra tintinnabula</i> —b                        | <i>Cyrtandra tintinnabula</i> .....                       | <i>Cyrtandra tintinnabula</i> .                       |
| Hawaii 30— <i>Argyroxiphium kauense</i> —d.                        | <i>Argyroxiphium kauense</i> .....                        | <i>Argyroxiphium kauense</i> .                        |
| Hawaii 30— <i>Clermontia lindseyana</i> —c                         | <i>Clermontia lindseyana</i> .....                        | <i>Clermontia lindseyana</i> .                        |
| Hawaii 30— <i>Cyanea shipmanii</i> —b .....                        | <i>Cyanea shipmanii</i> .....                             | <i>Cyanea shipmanii</i> .                             |
| Hawaii 30— <i>Cyanea shipmanii</i> —c .....                        | .....                                                     | <i>Cyanea shipmanii</i> .                             |
| Hawaii 30— <i>Cyanea stictophylla</i> —d ..                        | .....                                                     | <i>Cyanea stictophylla</i> .                          |
| Hawaii 30— <i>Cyrtandra giffardii</i> —c .....                     | <i>Cyrtandra giffardii</i> .....                          | <i>Cyrtandra giffardii</i> .                          |
| Hawaii 30— <i>Phyllostegia racemosa</i> —c                         | <i>Phyllostegia racemosa</i> .....                        | <i>Phyllostegia racemosa</i> .                        |
| Hawaii 30— <i>Phyllostegia velutina</i> —b ..                      | <i>Phyllostegia velutina</i> .....                        | <i>Phyllostegia velutina</i> .                        |
| Hawaii 30— <i>Plantago hawaiiensis</i> —c ..                       | <i>Plantago hawaiiensis</i> .....                         | <i>Plantago hawaiiensis</i> .                         |
| Hawaii 30— <i>Sicyos alba</i> —a .....                             | <i>Sicyos alba</i> .....                                  | <i>Sicyos alba</i> .                                  |
| Hawaii 31— <i>Bidens micrantha</i> ssp. <i>ctenophylla</i> —b.     | .....                                                     | <i>Bidens micrantha</i> ssp. <i>ctenophylla</i> .     |

| Unit name                                                      | Species occupied                                  | Species unoccupied                                |
|----------------------------------------------------------------|---------------------------------------------------|---------------------------------------------------|
| Hawaii 31— <i>Isodendron pyriform</i> —b                       | .....                                             | <i>Isodendron pyriform</i> .                      |
| Hawaii 31— <i>Mezoneuron kavaense</i> —b.                      | <i>Mezoneuron kavaense</i> .....                  | <i>Mezoneuron kavaense</i> .                      |
| Hawaii 33— <i>Bidens micrantha</i> ssp. <i>ctenophylla</i> —d. | .....                                             | <i>Bidens micrantha</i> ssp. <i>ctenophylla</i> . |
| Hawaii 33— <i>Isodendron pyriform</i> —d                       | .....                                             | <i>Isodendron pyriform</i> .                      |
| Hawaii 33— <i>Mezoneuron kavaense</i> —d.                      | .....                                             | <i>Mezoneuron kavaense</i> .                      |
| Hawaii 34— <i>Bidens micrantha</i> ssp. <i>ctenophylla</i> —e. | .....                                             | <i>Bidens micrantha</i> ssp. <i>ctenophylla</i> . |
| Hawaii 34— <i>Isodendron pyriform</i> —e                       | .....                                             | <i>Isodendron pyriform</i> .                      |
| Hawaii 34— <i>Mezoneuron kavaense</i> —e.                      | .....                                             | <i>Mezoneuron kavaense</i> .                      |
| Hawaii 36— <i>Bidens micrantha</i> ssp. <i>ctenophylla</i> —g. | <i>Bidens micrantha</i> ssp. <i>ctenophylla</i> . | <i>Bidens micrantha</i> ssp. <i>ctenophylla</i> . |
| Hawaii 36— <i>Isodendron pyriform</i> —g.                      | .....                                             | <i>Isodendron pyriform</i> .                      |

(116) Critical habitat unit descriptions and maps, and a description of primary constituent elements, for Family Malvaceae: *Kokia drynariodes* on the island of Hawaii is provided in 50 CFR 17.96(a).

(1) *Plants on the island of Hawaii; Constituent elements*—(1) *Flowering plants*.

FAMILY AMARANTHACEAE: ***Achyranthes mutica*** (NCN)

Hawaii 9—*Achyranthes mutica*—a, Hawaii 9—*Achyranthes mutica*—b, Hawaii 9—*Achyranthes mutica*—c, Hawaii 9—*Achyranthes mutica*—d, Hawaii 9—*Achyranthes mutica*—e, Hawaii 9—*Achyranthes mutica*—f, Hawaii 9—*Achyranthes mutica*—g, Hawaii 9—*Achyranthes mutica*—h, Hawaii 9—*Achyranthes mutica*—i, Hawaii 9—*Achyranthes mutica*—j, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Achyranthes mutica* on Hawaii. Within these units, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

(i) *Acacia koa* lowland dry forest, primarily in gulches but also in remnant stands of forest, and containing one or more of the following associated native plant species: *Dodonaea viscosa*, *Erythrina sandwicensis*, *Metrosideros polymorpha*, *Myoporum sandwicense*, *Osteomeles anthyllidifolia*, *Nestegis sandwicensis*, *Santalum ellipticum*, or *Sophora chrysophylla*; and

(ii) Elevations between 646 and 1,509 m (2,120 and 4,949 ft).

FAMILY ASTERACEAE: ***Argyroxiphium kauense*** (MAUNA LOA SILVERSWORD)

Hawaii 10—*Argyroxiphium kauense*—a, Hawaii 24—*Argyroxiphium kauense*—b, Hawaii 25—*Argyroxiphium kauense*—c, and Hawaii 30—*Argyroxiphium kauense*—d, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Argyroxiphium kauense* on Hawaii. Within these units, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

(i) Moist, open forest; subalpine mesic shrubland; bogs; and weathered, old pahoehoe (smooth) or aa (rough) lava with well-developed pockets of soil, and containing one or more of the following associated native plant species: *Asplenium peruvianum* var. *insulare*, *Carex alligata*, *Carex* sp., *Coprosma ernodeoides*, *Coprosma montana*, *Deschampsia nubigena*, *Dodonaea viscosa*, *Dubautia ciliolata*, *Gahnia gahniiformis*, *Geranium cuneatum*, *Leptecophylla tameiameia*, *Metrosideros polymorpha*, *Plantago hawaiiensis*, *Rhynchospora chinensis*, *Silene hawaiiensis*, or *Vaccinium reticulatum*; and

(ii) Elevations between 1,583 and 2,246 m (5,193 and 8,024 ft).

FAMILY ASTERACEAE: *Bidens micrantha* ssp. *ctenophylla* (KOOKOOLAU)

Hawaii 10—*Bidens micrantha* ssp. *ctenophylla*—a, Hawaii 31—*Bidens micrantha* ssp. *ctenophylla*—b, Hawaii 33—*Bidens micrantha* ssp. *ctenophylla*—d, Hawaii 34—*Bidens micrantha* ssp. *ctenophylla*—e, and Hawaii 36—*Bidens micrantha* ssp. *ctenophylla*—g, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Bidens micrantha* ssp. *ctenophylla* on Hawaii Island. In units Hawaii 10—*Bidens micrantha* ssp. *ctenophylla*—a, Hawaii 31—*Bidens micrantha* ssp. *ctenophylla*—b, Hawaii 33—*Bidens micrantha* ssp. *ctenophylla*—d, Hawaii 34—*Bidens micrantha* ssp. *ctenophylla*—e, and Hawaii 36—*Bidens micrantha* ssp. *ctenophylla*—g, the physical and biological features of critical habitat are:

- (i) Elevation: Less than 3,300 ft (1,000 m).
- (ii) Annual precipitation: Less than 50 in (130 cm).
- (iii) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.
- (iv) Canopy: *Diospyros*, *Erythrina*, *Metrosideros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.
- (v) Subcanopy: *Chamaesyce*, *Dodonaea*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.
- (vi) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Capparis*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Sicyos*.

FAMILY CAMPANULACEAE: *Clermontia drepanomorpha* (OHA WAI)

Hawaii 8—*Clermontia drepanomorpha*—a, identified in the legal description in paragraph (k) of this section, constitutes critical habitat for *Clermontia drepanomorpha* on Hawaii. Within this unit, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

- (i) *Metrosideros polymorpha*, *Cheirodendron trigynum*, and *Cibotium glaucum* dominated montane wet forests, containing one or more of the following native plant species: *Astelia menziesiana*, *Carex alligata*, *Coprosma* sp., *Cyanea pilosa*, *Leptecophylla*

*tameiameiae*, *Melicope clusiifolia*, and *Rubus hawaiiensis*, or sphagnum moss; and

- (ii) Elevations between 1,106 and 1,676 m (3,627 and 5,459 ft).

FAMILY CAMPANULACEAE: *Clermontia lindseyana* (OHA WAI)

Hawaii 1—*Clermontia lindseyana*—a, Hawaii 2—*Clermontia lindseyana*—b, and Hawaii 30—*Clermontia lindseyana*—c, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Clermontia lindseyana* on Hawaii. Within these units, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

- (i) Slightly open forest cover in wet and mesic *Metrosideros polymorpha*-*Acacia koa* forest, *M. polymorpha* forest, and mixed montane mesic *M. polymorpha*-*Acacia koa* forest and containing one or more of the following associated native plant species: *Athyrium* sp., *Cheirodendron trigynum*, *Coprosma* sp., *Leptecophylla tameiameiae*, *Peperomia* sp., or *Rubus hawaiiensis*; and
- (ii) Elevations between 1,495 and 1,953 m (4,906 and 6,407 ft).

FAMILY CAMPANULACEAE: *Clermontia peleana* (OHA WAI)

Hawaii 1—*Clermontia peleana*—a, Hawaii 3—*Clermontia peleana*—b, and Hawaii 29—*Clermontia peleana*—c, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Clermontia peleana* on Hawaii. Within these units, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

- (i) Montane, wet *Metrosideros-Cibotium* forest containing one or more of the following associated native plant species: *Cheirodendron trigynum*, *Cibotium chamissoi*, *Cibotium menziesii*, *Clermontia hawaiiensis*, *Coprosma pubens*, *Cyrtandra platyphylla*, *Ilex anomala*, or *Sadleria* spp.; and
- (ii) Elevations between 663 and 1,622 m (2,175 and 5,321 ft).

FAMILY CAMPANULACEAE: ***Clermontia pyrularia*** (OHA WAI)

Hawaii 1—*Clermontia pyrularia*—a and Hawaii 2—*Clermontia pyrularia*—b, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Clermontia pyrularia* on Hawaii. Within these units, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

(i) Wet and mesic montane forest dominated by *Acacia koa* or *Metrosideros polymorpha*, and subalpine dry forest dominated by *M. polymorpha*, and containing one or more of the following associated native plant species: *Coprosma* sp., *Dryopteris wallichiana*, *Hedyotis* sp., or *Rubus hawaiiensis*; and

(ii) Elevations between 1,652 and 2,026 m (5,416 to 6,646 ft).

FAMILY CAMPANULACEAE: ***Cyanea hamatiflora*** SSP. ***carlsonii*** (HAHA)

Hawaii 11—*Cyanea hamatiflora* ssp. *carlsonii*—a, Hawaii 14—*Cyanea hamatiflora* ssp. *carlsonii*—b, Hawaii 15—*Cyanea hamatiflora* ssp. *carlsonii*—c, and Hawaii 16—*Cyanea hamatiflora* ssp. *carlsonii*—d, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Cyanea hamatiflora* ssp. *carlsonii* on Hawaii. Within these units, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

(i) Mesic montane forest dominated by *Acacia koa* or *Metrosideros polymorpha*, and containing one or more of the following associated native plant species: *Athyrium* sp., *Cibotium* spp., *Clermontia clermontioides*, *Coprosma* sp., *Dryopteris* sp., *Hedyotis* sp., *Ilex anomala*, *Myoporum sandwicense*, or *Sophora chrysophylla*; and

(ii) Elevations between 1,366 and 1,755 m (4,482 and 5,759 ft).

FAMILY CAMPANULACEAE: ***Cyanea platyphylla*** (AKUAKU)

Hawaii 3—*Cyanea platyphylla*—a and Hawaii 29—*Cyanea platyphylla*—b, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Cyanea platyphylla*

on Hawaii. Within these units, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

(i) *Metrosideros polymorpha*—*Acacia koa* lowland and montane wet forests, containing one or more of the following associated native plant species: *Antidesma platyphyllum*, *Cibotium* sp., *Clermontia* spp., *Coprosma* sp., *Cyrtandra* spp., *Hedyotis* sp., *Perrottetia sandwicensis*, *Psychotria hawaiiensis*, or *Scaevola* spp.; and

(ii) Elevations between 615 and 1,082 m (2,017 and 3,551 ft).

FAMILY CAMPANULACEAE: ***Cyanea shipmanii*** (HAHA)

Hawaii 1—*Cyanea shipmanii*—a, Hawaii 30—*Cyanea shipmanii*—b, and Hawaii 30—*Cyanea shipmanii*—c, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Cyanea shipmanii* on Hawaii. Within these units, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

(i) Montane mesic forest dominated by *Acacia koa*—*Metrosideros polymorpha* and containing one or more of the following associated native plant species: *Cheirodendron trigynum*, *Ilex anomala*, or *Myrsine lessertiana*; and

(ii) Elevations between 1,629 and 2,025 m (5,345 and 6,645 ft).

FAMILY CAMPANULACEAE: ***Cyanea stictophylla*** (HAHA)

Hawaii 15—*Cyanea stictophylla*—a, Hawaii 16—*Cyanea stictophylla*—b, Hawaii 24—*Cyanea stictophylla*—c, and Hawaii 30—*Cyanea stictophylla*—d, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Cyanea stictophylla* on Hawaii. Within these units, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

(i) *Acacia koa* or wet *Metrosideros polymorpha* forests, containing one or more of the following associated native plant species: *Cibotium* sp., *Melicope* spp., or *Urera glabra*; and

(ii) Between elevations of 1,056 and 1,917 m (3,466 and 6,288 ft).

FAMILY CAMPANULACEAE: *Delissea undulata* (NCN)

Hawaii 10—*Delissea undulata*—a and Hawaii 10—*Delissea undulata*—b, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Delissea undulata* on Hawaii. Within these units, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

(i) Dry cinder cones and open *Metrosideros polymorpha* and *Sophora chrysophylla* forest, and containing one or more of the following associated native plant species: *Acacia koa*, *Diospyros sandwicensis*, *Dodonaea viscosa*, *Nothocestrum breviflorum*, *Psychotria* spp., *Santalum paniculatum*, or *Sophora chrysophylla*; and

(ii) Elevations between 893 to 1,734 m (2,928 to 5,690 ft).

FAMILY CARYOPHYLLACEAE: *Silene hawaiiensis* (NCN)

Hawaii 25—*Silene hawaiiensis*—a and Hawaii 27—*Silene hawaiiensis*—b, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Silene hawaiiensis* on Hawaii. Within these units, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

(i) Weathered lava or variously aged lava flows and cinder substrates in montane and subalpine dry shrubland containing one or more of the following associated native plant species: *Dodonaea viscosa*, *Leptecophylla tameiameia*, *Metrosideros polymorpha*, *Rumex giganteus*, *Sophora chrysophylla*, or *Vaccinium reticulatum*; and

(ii) Elevations between 1,022 and 2,413 m (3,352 and 7,915 ft).

FAMILY CONVULVACEAE: *Bonamia menziesii* (NCN)

Hawaii 10—*Bonamia menziesii*—a, identified in the legal description in paragraph (k) of this section, constitutes critical habitat for *Bonamia menziesii* on Hawaii. Within this unit,

the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

(i) Dry forest, containing one or more of the following associated native plant species: *Argemone glauca*, *Canavalia hawaiiensis*, *Chenopodium oahuense*, *Diospyros sandwicensis*, *Dodonaea viscosa*, *Erythrina sandwicensis*, *Metrosideros polymorpha*, *Myrsine lanaiensis*, *Nototrichium sandwicense*, *Osteomeles anthyllidifolia*, *Peperomia blanda* var. *floribunda*, *Pouteria sandwicensis*, *Psilotum nudum*, *Santalum paniculatum*, *Sapindus saponaria*, *Senna gaudichaudii*, *Sida fallax*, *Sophora chrysophylla*, or *Xylosma hawaiiense*; and

(ii) Elevations between 492 and 697 m (1,614 and 2,285 ft).

FAMILY CUCURBITACEAE: *Sicyos alba* (ANUNU)

Hawaii 30—*Sicyos alba*—a, identified in the legal description in paragraph (k) of this section, constitutes critical habitat for *Sicyos alba* on Hawaii. Within this unit, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

(i) *Metrosideros polymorpha*-*Cibotium glaucum* dominated montane wet forests, containing one or more of the following associated native plant species: *Astelia menziesiana*, *Athyrium microphyllum* and other ferns, *Broussaisia arguta*, *Cheirodendron trigynum*, *Coprosma* sp., *Cyanea tritomantha*, *Cyrtandra lysiosepala*, *Perrottetia sandwicensis*, *Platydesma spathulata*, *Pritchardia beccariana*, *Psychotria* sp., or *Stenogyne* sp.; and

(ii) Elevations between 966 and 1,546 m (3,170 and 5,072 ft).

FAMILY CYPERACEAE: *Cyperaceae fauriei* (NCN)

Hawaii 19—*Cyperus fauriei*—a, identified in the legal description in paragraph (k) of this section, constitutes critical habitat for *Mariscus fauriei* on Hawaii. Within this unit, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

- (i) *Diospyros sandwicensis*–*Metrosideros polymorpha*–*Sapindus saponaria* dominated lowland dry forests, often on a lava substrate, and containing one or more of the following associated native plant species: *Myoporum sandwicense*, *Osteomeles anthyllidifolia*, *Peperomia blanda* var. *floribunda*, *Psydrax odorata*, *Rauvolfia sandwicensis*, or *Sophora chrysophylla*; and
- (ii) Elevations between 278 and 342 m (913 and 1,123 ft).

FAMILY EUPHORBIACEAE: ***Flueggea neowawraea*** (MEHAMEHAME)

Hawaii 17—*Flueggea neowawraea*—a and Hawaii 18—*Flueggea neowawraea*—b, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Flueggea neowawraea* on Hawaii. Within these units, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

- (i) Mesic *Metrosideros polymorpha* forest, containing one or more of the following associated native plant species: *Antidesma platyphyllum*, *Antidesma pulvinatum*, *Diospyros sandwicensis*, *Nephrolepis* spp., *Nestegis sandwicensis*, *Pipturus albidus*, *Pisonia* spp., *Pittosporum hosmeri*, *Psychotria hawaiiensis*, or *Psydrax odorata*; and
- (ii) Elevations between 499 and 818 m (1,637 and 2,684 ft).

FAMILY FABACEAE: ***Mezoneuron kavaense*** (UHIUHI)

Hawaii 10—*Mezoneuron kavaense*—a, Hawaii 31—*Mezoneuron kavaense*—b, Hawaii 33—*Mezoneuron kavaense*—d, and Hawaii 34—*Mezoneuron kavaense*—e, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Mezoneuron kavaense* on Hawaii Island. In units Hawaii 10—*Mezoneuron kavaense*—a, Hawaii 31—*Mezoneuron kavaense*—b, Hawaii 33—*Mezoneuron kavaense*—d, and Hawaii 34—*Mezoneuron kavaense*—e, the physical and biological features of critical habitat are:

- (i) Elevation: Less than 3,300 ft (1,000 m).
- (ii) Annual precipitation: Less than 50 in (130 cm).

(iii) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(iv) Canopy: *Diospyros*, *Erythrina*, *Metrosideros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(v) Subcanopy: *Chamaesyce*, *Dodonaea*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(vi) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Capparis*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Sicyos*.

FAMILY FABACEAE: ***Sesbania tomentosa*** (OHAI)

Hawaii 20—*Sesbania tomentosa*—a and Hawaii 23—*Sesbania tomentosa*—b, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Sesbania tomentosa* on Hawaii. Within these units, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

(i) Open, dry *Metrosideros polymorpha* forest with mixed native grasses, *Scaevola taccada* coastal dry shrubland on windswept slopes, and weathered basaltic slopes, and containing one or more of the following associated native plant species: *Dodonaea viscosa*, *Fimbristylis hawaiiensis*, *Ipomoea pes-caprae*, *Jacquemontia ovalifolia* ssp. *sandwicensis*, *Leptecophylla tameiameia*, *Melanthera integrifolia*, *Myoporum sandwicense*, *Sida fallax*, *Sporobolus virginicus*, or *Waltheria indica*; and

(ii) Elevations between sea level and 922 m (0 and 3,025 ft).

FAMILY FABACEAE: ***Vigna o-wahuensis*** (NCN)

Hawaii 4—*Vigna o-wahuensis*—a, Hawaii 4—*Vigna o-wahuensis*—b, and Hawaii 4—*Vigna o-wahuensis*—c, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Vigna o-wahuensis* on Hawaii. Within these units, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

(i) *Dodonaea viscosa* lowland dry shrubland, containing one or more of the following associated native plant species: *Chenopodium oahuense*, *Dodonaea viscosa*, *Osteomeles*

*anthyllidifolia*, *Sida fallax*, or *Wikstroemia* sp.; and

(ii) Elevations between 717 and 993 m (2,352 and 3,259 ft).

FAMILY GESNERIACEAE: *Cyrtandra giffardii* (HAIWALE)

Hawaii 3—*Cyrtandra giffardii*—a, Hawaii 29—*Cyrtandra giffardii*—b, and Hawaii 30—*Cyrtandra giffardii*—c, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Cyrtandra giffardii* on Hawaii. Within these units, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

(i) Wet montane forest dominated by *Cibotium* sp. or *Metrosideros polymorpha*, and *Metrosideros polymorpha*-*Acacia koa* lowland wet forests, and containing one or more of the following associated native plant species: *Astelia menziesiana*, *Diplazium sandwichianum*, *Hedyotis terminalis*, *Perrottetia sandwicensis*, or other species of *Cyrtandra*; and

(ii) Between elevations of 654 and 1,440 m (2,146 and 4,723 ft).

FAMILY GESNERIACEAE: *Cyrtandra tintinnabula* (HAIWALE)

Hawaii 3—*Cyrtandra tintinnabula*—a and Hawaii 29—*Cyrtandra tintinnabula*—b, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Cyrtandra tintinnabula* on Hawaii. Within these units, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

(i) Lowland wet forest dominated by dense *Acacia koa*, *Metrosideros polymorpha*, and *Cibotium* spp. and containing one or more of the following associated native plant species: *Cyrtandra* spp. or *Hedyotis* spp.; and

(ii) Between elevations 641 and 1,391 m (2,102 and 4,565 ft).

FAMILY LAMIACEAE: *Phyllostegia racemosa* (KIPONAPONA)

Hawaii 1—*Phyllostegia racemosa*—a, Hawaii 2—*Phyllostegia racemosa*—b, and Hawaii 30—*Phyllostegia racemosa*—c, identified in the legal descriptions in

paragraph (k) of this section, constitute critical habitat for *Phyllostegia racemosa* on Hawaii. Within these units, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

(i) Tree trunks in *Acacia koa*, *Metrosideros polymorpha*, and *Cibotium* sp. dominated montane mesic or wet forests and containing one or more of the following associated native plant species: *Dryopteris wallichiana*, *Rubus hawaiiensis*, or *Vaccinium calycinum*; and

(ii) Elevations between 1,371 and 1,935 m (4,498 and 6,349 ft).

FAMILY LAMIACEAE: *Phyllostegia velutina* (NCN)

Hawaii 24—*Phyllostegia velutina*—a and Hawaii 30—*Phyllostegia velutina*—b, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Phyllostegia velutina* on Hawaii. Within these units, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

(i) *Metrosideros polymorpha*-*Acacia koa* dominated montane mesic and wet forests containing one or more of the following native plant species: *Athyrium microphyllum* and other native wet forest terrestrial ferns, *Cheirodendron trigynum*, *Cibotium* spp., *Coprosma* sp., *Dryopteris wallichiana*, *Ilex anomala*, *Myrsine lessertiana*, *Pipturus albidus*, *Rubus hawaiiensis*, or *Vaccinium calycinum*; and

(ii) Elevations between 966 and 1,881 m (3,168 and 6,170 ft).

FAMILY LAMIACEAE: *Phyllostegia warshaueri* (NCN)

Hawaii 3—*Phyllostegia warshaueri*—a and Hawaii 8—*Phyllostegia warshaueri*—b, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Phyllostegia warshaueri* on Hawaii. Within these units, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

(i) *Metrosideros polymorpha* and *Cibotium* montane and lowland wet forest, in which *Acacia koa* or

*Cheirodendron trigynum* may co-dominate, and containing one or more of the following associated native plant species: *Antidesma platyphyllum*, *Athyrium sandwicensis*, *Broussaia arguta*, *Clermontia parviflora*, *Coprosma* sp., *Cyanea pilosa*, *Cyanea* spp., *Hedyotis* sp., *Machaerina angustifolia*, *Pipturus albidus*, *Psychotria hawaiiensis*, or *Sadleria pallida*; and

(ii) Elevations between 681 and 1,411 m (2,234 and 4,629 ft).

FAMILY LILIACEAE: *DRACAENA KONAENSIS* (HALA PEPE)

Hawaii 7—*Dracaena konaensis*—a, Hawaii 10—*Dracaena konaensis*—b, Hawaii 18—*Dracaena konaensis*—c, and Hawaii 23—*Dracaena konaensis*—d, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Dracaena konaensis* on Hawaii. Within these units, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

(i) Open aa lava in diverse lowland dry forests and *Metrosideros-Diospyros* lowland dry forest, and containing one or more of the following associated native plant species: *Bidens micrantha* ssp. *ctenophylla*, *Bobea timonioides*, *Caesalpinia kavaensis*, *Cocculus trilobus*, *Colubrina oppositifolia*, *Diospyros sandwicensis*, *Dodonaea viscosa*, *Erythrina sandwicensis*, *Kokia drynarioides*, *Metrosideros polymorpha*, *Myoporum sandwicense*, *Neraudia ovata*, *Nestegis sandwicensis*, *Nothoestrum breviflorum*, *Nototrichium sandwicense*, *Osteomeles anthyllidifolia*, *Psydrax odorata*, *Reynoldsia sandwicensis*, *Santalum paniculatum*, *Sida fallax*, or *Sophora chrysophylla*; and

(ii) Elevations between 86 and 892 m (281 and 2,925 ft).

FAMILY MALVACEAE: *Hibiscadelphus giffardianus* (HAU KUAHIWI)

Hawaii 26—*Hibiscadelphus giffardianus*—a, identified in the legal description in paragraph (k) of this section, constitutes critical habitat for *Hibiscadelphus giffardianus* on Hawaii. Within this unit, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

ited to, the habitat components provided by:

(i) Mixed montane mesic forest containing one or more of the following native plant species: *Acacia koa*, *Coprosma rhynchocarpa*, *Dodonaea viscosa*, *Melicope* spp., *Metrosideros polymorpha*, *Myoporum sandwicense*, *Nestegis sandwicensis*, *Pipturus albidus*, *Psychotria* sp., or *Sapindus saponaria*; and

(ii) Elevations between 1,193 and 1,274 m (3,914 and 4,181 ft).

FAMILY MALVACEAE: *Hibiscadelphus hualalaiensis* (HAU KUAHIWI)

Hawaii 10—*Hibiscadelphus hualalaiensis*—a, identified in the legal description in paragraph (k) of this section, constitutes critical habitat for *Hibiscadelphus hualalaiensis* on Hawaii. Within this unit, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

(i) Dry-mesic to dry *Metrosideros* forest on rocky substrate in deep soils and containing one or more of the following native plant species: *Acacia koa*, *Coprosma rhynchocarpa*, *Dodonaea viscosa*, *Melicope* spp., *Metrosideros polymorpha*, *Myoporum sandwicense*, *Nestegis sandwicensis*, *Pipturus albidus*, *Psychotria* sp., or *Sapindus saponaria*; and

(ii) Between elevations 512 and 1,223 m (1,679 and 4,012 ft).

FAMILY MALVACEAE: *Hibiscus brackenridgei* (MAO HAU HELE)

Hawaii 10—*Hibiscus brackenridgei*—a, identified in the legal description in paragraph (k) of this section, constitutes critical habitat for *Hibiscus brackenridgei* on Hawaii. Within this unit, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

(i) *Acacia koa* lowland mesic forest containing one or more of the following native plants species: *Reynoldsia sandwicensis* or *Sida fallax*; and

(ii) Elevations between 649 and 847 (2,130 and 2,779 ft).



FAMILY PLANTAGINACEAE: *Plantago hawaiiensis* (LAUKAHI KUAHIWI)

Hawaii 24—*Plantago hawaiiensis*—a, Hawaii 25—*Plantago hawaiiensis*—b, and Hawaii 30—*Plantago hawaiiensis*—c, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Plantago hawaiiensis* on Hawaii. Within these units, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

(i) Montane wet sedge land (often in damp cracks of pahoehoe lava) with mixed sedges and grasses, montane mesic forest, dry subalpine woodland, or *Metrosideros polymorpha* and native shrub, and containing one or more of the following associated native plant species: *Acacia koa*, *Coprosma ernodeoides*, *Coprosma montana*, *Dodonaea viscosa*, *Leptecophylla tameiameia*, *Metrosideros polymorpha*, or *Vaccinium reticulatum*; and

(ii) Elevations between 1,584 and 2,513 m (5,198 and 8,243 ft).

FAMILY POACEAE: *Ischaemum byrone* (HILO ISCHAEMUM)

Hawaii 21—*Ischaemum byrone*—a and Hawaii 22—*Ischaemum byrone*—b, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Ischaemum byrone* on Hawaii. Within these units, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

(i) Coastal wet to dry shrubland, near the ocean, rocks or pahoehoe lava in cracks and holes, and containing one or more of the following associated native plant species: *Fimbristylis cymosa*, or *Scaevola taccada*; and

(ii) Elevations between sea level and 28 m (0 and 91 ft).

FAMILY PORTULACACEAE: *Portulaca sclerocarpa* (POE)

Hawaii 27—*Portulaca sclerocarpa*—a, identified in the legal description in paragraph (k) of this section, constitutes critical habitat for *Portulaca sclerocarpa* on Hawaii. Within this unit, the currently known primary constituent elements of critical habitat

include, but are not limited to, the habitat components provided by:

(i) Weathered Mauna Kea soils, cinder cones, or geologically young lavas, in montane dry shrubland, often on bare cinder, near steam vents, or in open *Metrosideros polymorpha* dominated woodlands, and containing one or more of the following associated native plant species: *Dodonaea viscosa*, *Melanthera venosa*, or *Sophora chrysophylla*; and

(ii) Elevations between 941 and 1,634 m (3,087 to 5,360 ft).

FAMILY RHAMNACEAE: *Colubrina oppositifolia* (KAUILA)

Hawaii 10—*Colubrina oppositifolia*—a and Hawaii 18—*Colubrina oppositifolia*—b, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Colubrina oppositifolia* on Hawaii. Within these units, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

(i) Lowland dry and mesic forests dominated by *Diospyros sandwicensis* or *Metrosideros polymorpha* and containing one or more of the following associated native plant species: *Bobea timonioides*, *Erythrina sandwicensis*, *Leptecophylla tameiameia*, *Nestegis sandwicensis*, *Nothocestrum breviflorum*, *Nototrichium sandwicense*, *Peperomia* sp., *Pleomele hawaiiensis*, *Psydrax odorata*, *Rauvolfia sandwicensis*, *Reynoldsia sandwicensis*, or *Sophora chrysophylla*; and

(ii) Elevations between 177 and 927 m (580 and 3,042 ft).

FAMILY RHAMNACEAE: *Gouania vitifolia* (NCN)

Hawaii 18—*Gouania vitifolia*—a, identified in the legal description in paragraph (k) of this section, constitutes critical habitat for *Gouania vitifolia* on Hawaii. Within this unit, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

(i) Dry, rocky ridges and slopes in dry shrubland or dry to mesic *Nestegis-Metrosideros* forests on old substrate kipuka and containing one or more of the following associated native plant species: *Nephrolepis* spp., *Nestegis*

§ 17.99

*sandwicensis*, *Pipturus albidus*, *Wikstroemia phillyreifolia*, or *W. sandwicensis*; and

(ii) Elevations between 536 and 1,020 m (1,757 and 3,346 ft).

FAMILY RUBIACEAE: ***Melicope zahlbruckneri*** (ALANI)

Hawaii 24—*Melicope zahlbruckneri*—a and Hawaii 26—*Melicope zahlbruckneri*—b, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Melicope zahlbruckneri* on Hawaii. Within these units, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

(i) *Acacia koa*-*Metrosideros polymorpha* dominated montane mesic forest containing one or more of the following associated native plant species: *Coprosma rhynchocarpa*, *Melicope* spp., *Myoporum sandwicense*, *Nestegis sandwicensis*, *Pipturus albidus*, *Pisonia brunoniana*, *Psychotria hawaiiensis*, *Sapindus saponaria*, or *Zanthoxylum dipetalum*; and

(ii) Elevations between 1,060 and 1,336 m (3,476 and 4,383 ft).

FAMILY RUTACEAE: ***Zanthoxylum dipetalum*** VAR. ***tomentosum*** (AE)

Hawaii 10—*Zanthoxylum dipetalum* ssp. *tomentosum*—a, identified in the legal description in paragraph (k) of this section, constitutes critical habitat for *Zanthoxylum dipetalum* var. *tomentosum* on Hawaii. Within this unit, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

(i) *Metrosideros polymorpha* dominated montane mesic forest, often on aa lava, and containing one or more of the following associated native plant species: *Diospyros sandwicensis*, *Myrsine* sp., *Pouteria sandwicensis*, *Psychotria* sp., *Reynoldsia sandwicensis*, *Santalum paniculatum*, or *Sophora chrysophylla*; and

(ii) Elevations between 874 and 1,208 m (2,867 and 3,964 ft).

50 CFR Ch. I (10–1–23 Edition)

FAMILY SOLANACEAE: ***Nothocestrum breviflorum*** (AIEA)

Hawaii 5—*Nothocestrum breviflorum*—a, Hawaii 6—*Nothocestrum breviflorum*—b, and Hawaii 10—*Nothocestrum breviflorum*—c, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Nothocestrum breviflorum* on Hawaii. Within these units, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

(i) Lowland dry forest, montane dry forest, or montane mesic forest dominated by *Acacia koa*, *Diospyros sandwicensis*, or *Metrosideros polymorpha* on aa lava substrates, and containing one or more of the following associated native plant species: *Bidens micrantha* ssp. *ctenophylla*, *Caesalpinia kawaiensis*, *Colubrina oppositifolia*, *Delissea undulata*, *Dodonaea viscosa*, *Erythrina sandwicensis*, *Hibiscadelphus hualalaiensis*, *Kokia drynarioides*, *Myoporum sandwicense*, *Osteomeles anthyllidifolia*, *Psydrax odorata*, *Reynoldsia sandwicensis*, *Santalum ellipticum*, *Santalum paniculatum*, or *Sophora chrysophylla*; and

(ii) Elevations between 45 and 1,236 m (146 and 4,055 ft).

FAMILY SOLANACEAE: ***Solanum incompletum*** (POPOLO KU MAI)

Hawaii 10—*Solanum incompletum*—a and Hawaii 11—*Solanum incompletum*—b, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Solanum incompletum* on Hawaii. Within these units, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

(i) Dry to mesic forest, diverse mesic forest, or subalpine forest, and containing one or more of the following associated native plant species: *Myoporum sandwicense*, *Myrsine lanaiensis*, or *Sophora chrysophylla*; and

(ii) Elevations between 1,185 and 2,169 m (3,887 and 7,115 ft).

FAMILY URTICACEAE: *Neraudia ovata*  
(NCN)

Hawaii 10—*Neraudia ovata*—a and Hawaii 18—*Neraudia ovata*—d, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Neraudia ovata* on Hawaii. Within these units, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

(i) Open *Metrosideros polymorpha-Sophora chrysophylla* dominated lowlands, montane dry forests, or *Metrosideros*-shrub woodland, and containing one or more of the following associated native plant species: *Bidens micrantha* ssp. *ctenophylla*, *Capparis sandwichiana*, *Cocculus orbiculatus*, *Fimbristylis hawaiiensis*, *Myoporum sandwicense*, *Myrsine lanaiensis*, *Myrsine lessertiana*, *Nothocestrum breviflorum*, *Pleomele hawaiiensis*, or *Reynoldsia sandwicensis*; and

(ii) Elevations between 28 and 1,526 m (93 to 5,005 ft).

FAMILY VIOLACEAE: *Isodendron hosakae* (AUPAKA)

Hawaii 4—*Isodendron hosakae*—a, Hawaii 4—*Isodendron hosakae*—b, Hawaii 4—*Isodendron hosakae*—c, Hawaii 4—*Isodendron hosakae*—d, Hawaii 4—*Isodendron hosakae*—e, and Hawaii 4—*Isodendron hosakae*—f, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Isodendron hosakae* on Hawaii. Within these units, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

(i) Cinder cones with montane dry shrubland and containing one or more of the following associated native plant species: *Bidens menziesii*, *Dodonaea viscosa*, *Dubautia linearis*, *Leptecophylla tameiameia*, *Melanthera venosa*, *Osteomeles anthyllidifolia*, *Santalum ellipticum*, *Sophora chrysophylla*, or *Wikstroemia pulcherrima*; and

(ii) Elevations between 717 and 1,242 m (2,352 and 4,074 ft).

FAMILY VIOLACEAE: *Isodendron pyrifolium* (WAHINE NOHO KULA)

Hawaii 10—*Isodendron pyrifolium*—a, Hawaii 31—*Isodendron pyrifolium*—b, Hawaii 33—*Isodendron pyrifolium*—d, Hawaii 34—*Isodendron pyrifolium*—e, and Hawaii 36—*Isodendron pyrifolium*—g, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Isodendron pyrifolium* on Hawaii Island. In units Hawaii 10—*Isodendron pyrifolium*—a, Hawaii 31—*Isodendron pyrifolium*—b, Hawaii 33—*Isodendron pyrifolium*—d, Hawaii 34—*Isodendron pyrifolium*—e, and Hawaii 36—*Isodendron pyrifolium*—g, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: Less than 50 in (130 cm).

(iii) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(iv) Canopy: *Diospyros*, *Erythrina*, *Metrosideros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(v) Subcanopy: *Chamaesyce*, *Dodonaea*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(vi) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Capparis*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Sicyos*.

(2) Fern and allies.

FAMILY ASPLENIACEAE: *Asplenium peruvianum* VAR. *insulare* (NCN)

Hawaii 24—*Asplenium peruvianum* var. *insulare*—a, identified in the legal description in paragraph (k) of this section, constitutes critical habitat for *Asplenium peruvianum* var. *insulare* on Hawaii. Within this unit, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

(i) *Metrosideros polymorpha* dry montane forest; *Dodonaea viscosa* dry montane shrubland; *Myoporum sandwicense-Sophora chrysophylla* dry montane forest; *Metrosideros polymorpha-Acacia koa* forest; or sub-alpine dry forest and shrubland with large, moist lava tubes (3.05 to 4.6 m (10 to 15 ft) in diameter), pits, deep cracks, and lava tree molds that have at least

## § 17.100

a moderate soil or ash accumulation or that are at the interface between younger aa lava flows and much older pahoehoe lava or ash deposits with a fairly consistent microhabitat (areas that are moist and dark); and containing one or more of the following associated native plant species: *Leptecophylla tameiameia*, *Phyllostegia ambigua*, *Vaccinium reticulatum*, mosses, or liverworts; and

(ii) Elevations between 1,313 and 2,194 m (4,306 and 7,198 ft).

### FAMILY ASPLENIACEAE: *Asplenium dielerectum* (NCN)

Hawaii 17—*Asplenium dielerectum*—a and Hawaii 18—*Asplenium dielerectum*—b, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Asplenium dielerectum* on Hawaii. Within these units, the currently known primary constituent elements of critical habitat include, but are not limited to, the habitat components provided by:

(i) *Metrosideros polymorpha*—*Nestegis sandwicensis* lowland mesic forest containing one or more of the following associated native plant species: *Antidesma platyphyllum*, *A. pulvinatum*, *Diospyros sandwicensis*, *Microlepia* sp., *Nephrolepis* spp. *Nestegis sandwicensis*, *Psydrax odorata*, *Wikstroemia phillyreifolia*, or *Wikstroemia sandwicensis*; and

(ii) Elevations between 510 and 981 m (1,672 and 3,217 ft).

### FAMILY GRAMMITIDACEAE: *Adenophorus periens* (PALAI LAU)

Hawaii 28—*Adenophorus periens*—a, identified in the legal description in paragraph (k) of this section, constitutes critical habitat for *Adenophorus periens* on Hawaii. Within this unit, the currently known primary constituent elements of critical habitat include but are not limited to, the habitat components provided by:

(i) Epiphytic on *Metrosideros polymorpha* or *Ilex anomala*, or possibly other native tree trunks, in *Metrosideros polymorpha*—*Cibotium glaucum* lowland wet forest containing one or more of the following associated native plant species: *Broussasia arguta*, *Cheiodendron trigynum*, *Cyanea* sp., *Cyrtandra* sp., *Dicranopteris linearis*,

## 50 CFR Ch. I (10–1–23 Edition)

*Freycinetia arborea*, *Hedyotis terminalis*, *Labordia hirtella*, *Machaerina angustifolia*, *Psychotria hawaiiensis*, or *Psychotria* sp.; and

(ii) Elevations between 675 and 921 m (2,215 and 3,021 ft).

[68 FR 9241, Feb. 27, 2003, as amended at 68 FR 13055, Mar. 18, 2003; 68 FR 26038, May 14, 2003; 68 FR 28072, May 22, 2003; 68 FR 36080, June 17, 2003; 68 FR 39704, July 2, 2003; 77 FR 57767, Sept. 18, 2012; 83 FR 42424, Aug. 21, 2018. Redesignated at 85 FR 82388, Dec. 18, 2020; 88 FR 7147, Feb. 2, 2023]

## Subpart J—Manatee Protection Areas

SOURCE: 44 FR 60964, Oct. 22, 1979. Redesignated at 85 FR 82388, Dec. 18, 2020.

### § 17.100 Purpose.

This subpart provides a means for establishing manatee protection areas without waters under the jurisdiction of the United States, including coastal waters adjacent to and inland waters within the several States, within which certain waterborne activities will be restricted or prohibited for the purpose of preventing the taking of manatees.

### § 17.101 Scope.

This subpart applies to the West Indian manatee (*Trichechus manatus*), also known as the Florida manatee and as the sea cow. The provisions of this subpart are in addition to, and not in lieu of, other regulations contained in this chapter I which may require a permit or prescribe additional restrictions on the importation, exportation, transportation, or taking of wildlife, and the regulations contained in title 33, CFR, which regulate the use of navigable waters.

### § 17.102 Definitions.

In addition to definitions contained in the Acts, part 10 of this subchapter, and § 17.3 of this part, and unless the context otherwise requires, in this subpart:

*Acts* means the Endangered Species Act of 1973, as amended (87 Stat. 884, 16 U.S.C. 1531–1543) and the Marine Mammal Protection Act of 1972, as amended (86 Stat. 1027, 16 U.S.C. 1361–1407);

*Authorized officer* means any commissioned, warrant, or petty officer of the