

dry cliffs with the associated native plant species *Chamaesyce celastroides* (akoko), *Cuscuta sandwichiana* (kaunaoa), *Dodonaea viscosa*, *Heteropogon contortus*, *Myoporum sandwicense*, *Nama sandwicensis* (hinahina kahakai), *Scaevola sericea* (naupaka kahakai), *Sida fallax*, *Sporobolus virginicus* (akiaki), *Vitex rotundifolia* (kolokolo kahakai), or *Waltheria indica* (uhaloa) (HINHP Database 2000; Service 1999; K. Wood, pers. comm., 2001).

The primary threats to *Sesbania tomentosa* on Lanai included habitat degradation caused by competition with various nonnative plant species; lack of adequate pollination; seed predation by rats, mice (*Mus musculus*) and, potentially, nonnative insects; and fire (Service 1999; 59 FR 56333).

Silene lanceolata (NCN)

Silene lanceolata, a member of the pink family (Caryophyllaceae), is an upright, short-lived perennial plant with stems 15 to 51 cm (6 to 20 in) long, which are woody at the base. The flowers are white with deeply lobed, clawed petals. This species is distinguished from *S. alexandri* by its smaller flowers and capsules and its stamens, which are shorter than the sepals (Wagner *et al.*, 1999).

Little is known about the life history of *Silene lanceolata*. Its flowering cycles, pollination vectors, seed dispersal agents, longevity, specific environmental requirements, and limiting factors are unknown (Service 1996b; 57 FR 46325).

The historical range of *Silene lanceolata* includes five Hawaiian Islands: Kauai, Oahu, Molokai, Lanai, and Hawaii. *Silene lanceolata* is presently extant on the islands of Molokai, Oahu, and Hawaii. It was last observed on Lanai in 1930 (GDSI 2000; Service 1996b; 57 FR 46325).

Nothing is known of the preferred habitat of or native plant species associated with *Silene lanceolata* on the island of Lanai (Service 1996b).

Nothing is known of the threats to *Silene lanceolata* on the island of Lanai (Service 1996b).

Solanum incompletum (popolo ku mai)

Solanum incompletum, a short-lived perennial member of the nightshade family (Solanaceae), is a woody shrub. Its stems and lower leaf surfaces are covered with prominent reddish prickles or sometimes with yellow fuzzy hairs on young plant parts and lower leaf surfaces. This species differs from other native members of the genus by being generally prickly and having loosely clustered white flowers, curved

anthers about 2 mm (0.08 in) long, and berries 1 to 2 cm (0.4 to 0.8 in) in diameter (Symon 1999).

Little is known about the life history of *Solanum incompletum*. Its flowering cycles, pollination vectors, seed dispersal agents, longevity, specific environmental requirements, and limiting factors are unknown (Service 1999; 59 FR 56333).

Historically, *Solanum incompletum* was known on Lanai, Maui, and the island of Hawaii. According to David Symon (1999), the known distribution of *Solanum incompletum* also extended to the islands of Kauai and Molokai. Currently, *Solanum incompletum* is only known from the island of Hawaii. It was last seen on Lanai in 1925 (HINHP Database 2000; Service 1999).

On Lanai, *Solanum incompletum* occurred on broad, gently sloping ridges in dry, *Dodonaea viscosa* shrubland, at elevations between 151 and 372 m (495 and 1,220 ft) with one or more of the following associated native plant species: *Heteropogon contortus*, *Lipochaeta* or *Melanthera* spp., or *Wikstroemia oahuensis* (Service 1999; J. Lau, pers. comm., 2001).

On Lanai, the threats to *Solanum incompletum* included habitat destruction by goats and pigs (more recently axis deer) and competition with various nonnative plants (Service 1999).

Spermolepis hawaiiensis (NCN)

Spermolepis hawaiiensis, a member of the parsley family (Apiaceae), is a slender annual herb with few branches. Its leaves are dissected into narrow, lance-shaped divisions. *Spermolepis hawaiiensis* is the only member of the genus native to Hawaii. It is distinguished from other native members of the family by being a non-succulent annual with an umbrella-shaped inflorescence (Constance and Affolter 1999).

Little is known about the life history of *Spermolepis hawaiiensis*. Reproductive cycles, longevity, specific environmental requirements, and limiting factors are unknown (Service 1999).

Historically, *Spermolepis hawaiiensis* was known from Kauai, Oahu, Lanai, and the island of Hawaii. Based on recent collections, it is now known to be extant on those four islands, Molokai, and Maui. On Lanai, this species is known from three occurrences of 570 to 620 individuals on privately owned land in the southern edge of Kapoho Gulch, Kamiki Ridge, and approximately 274 m (900 ft) downslope of Puu Manu (HINHP Database 2000; Service 1999; 59 FR 56333; R. Hobdy, pers. comm., 2000).

Spermolepis hawaiiensis is known from gulch slopes and ridge tops in dry forests dominated by *Diospyros sandwichensis* or shrublands dominated by *Dodonaea viscosa* at elevations between 402 and 711 m (1,319 and 2,332 ft). Associated native plant species include *Nesoluma polynesianum*, *Nestegis sandwicensis*, *Psydrax odorata*, or *Rauvolfia sandwicensis* (HINHP Database 2000; Service 1999; R. Hobdy, pers. comm., 2000; J. Lau, pers. comm., 2001).

The primary threats to *Spermolepis hawaiiensis* on Lanai are habitat degradation by axis deer, competition with various nonnative plants, such as *Lantana camara*; and erosion, landslides, and rockslides due to natural weathering, which result in the death of individual plants as well as habitat destruction (Service 1999; 59 FR 56333; R. Hobdy, pers. comm., 2000).

Tetramolopium lepidotum ssp. *lepidotum* (NCN)

Tetramolopium lepidotum ssp. *lepidotum*, a member of the aster family (Asteraceae), is an erect shrub 12 to 36 cm (4.7 to 14 in) tall, branching near the ends of the stems. The leaves are lance-shaped and wider at the leaf tip. This species can be distinguished from the other extant species on Oahu by its hermaphroditic disk flowers and its inflorescence of six to 12 heads (Lowrey 1999).

Tetramolopium lepidotum ssp. *lepidotum* is a short-lived perennial that has been observed producing flowers and fruit from April through July. No further information is available on reproductive cycles, longevity, specific environmental requirements, or limiting factors (Service 1998b; 56 FR 55770).

Historically, *Tetramolopium lepidotum* ssp. *lepidotum* was known from Oahu and Lanai. It currently occurs only on Oahu. It was last seen on Lanai in 1928 (Environmental Division of the Army Database 2001; GDSI 2000; HINHP Database 2000; Service 1998b; 56 FR 55770).

Nothing is known of the preferred habitat of or native plant species associated with *Tetramolopium lepidotum* ssp. *lepidotum* on the island of Lanai (Service 1998b).

Nothing is known of the threats to *Tetramolopium lepidotum* ssp. *lepidotum* on the island of Lanai (Service 1998b).

Tetramolopium remyi (NCN)

Tetramolopium remyi, a short-lived perennial member of the sunflower family (Asteraceae), is a many branched, decumbent or occasionally erect shrub up to about 38 cm (15 in) tall. The