



## Plants

### *Silene lanceolata*

#### **SPECIES STATUS:**

Federally Listed as Endangered  
Genetic Safety Net Species

Hawai'i Natural Heritage Ranking - Critically Imperiled (G1)  
Endemism – Kaua'i, O'ahu, Moloka'i, Lana'i, Island of Hawai'i  
Critical Habitat - Designated

**SPECIES INFORMATION:** A subshrub with erect to ascending stems 1.5-5 dm long. Flowers are white. Genus widely distributed in north temperate regions, especially Mediterranean region.

**DISTRIBUTION:** Moloka'i, O'ahu, and Hawai'i; historically also known from Kaua'i and Lana'i. Eight occurrences at Pohakuloa training area, one occurrence at Makua military reservation.

**ABUNDANCE:** The total number for the species is under 235 individuals.

**LOCATION AND CONDITION OF KEY HABITAT:** Dry and moist forests and shrublands. On O'ahu: steep slopes and cliffs. On Moloka'i: ridges and gulch slopes. On Hawai'i: old lava flows and ash deposits. This species is found on private and federally owned land. The populations on the island of Hawai'i grow in two dry habitat types: shrubland dominated by dense *Myoporum sandwicense* (naio), *Sophora chrysophylla* (mamane), and pukiawe with 'a'ali'i, pilo, and *Pennisetum setaceum* (fountain grass); and on 'a'a lava in a former *Chamaesyce olowaluana* (akoko) forest now converted to fountain grass grassland with 'a'ali'i, mamane, naio, and *Chenopodium oahuense* (aheahea). On Moloka'i, this species grows on cliff faces and ledges of gullies in dry to mesic shrubland at an elevation of about 2,600 ft (800 m).

#### **THREATS:**

- Habitat destruction feral ungulates;
- Wildfires resulting from military maneuvers;
- Competition with alien plant species, especially fountain grass.

**CONSERVATION ACTIONS:** The goals of conservation actions are to not only protect current populations, but to also establish new populations to reduce the risk of extinction. A USFWS recovery plan details specific tasks needed to recover this species.

In addition to common statewide and island conservation actions, specific actions include:

- Survey historical range for surviving populations;
- Establish secure *ex-situ* stocks with complete representation of remaining individuals;
- Augment wild population and establish new populations in safe harbors.

**MONITORING:**

- Continue surveys of population and distribution in known and likely habitats;
- Monitor plants for insect damage and plant diseases.

**RESEARCH PRIORITIES:**

- Develop proper horticultural protocols and pest management;
- Survey *ex-situ* holdings and conduct molecular fingerprinting;
- Conduct pollination biology and seed dispersal studies;
- Map genetic diversity in the surviving populations to guide future re-introduction and augmentation efforts.

**References:**

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United States Fish and Wildlife Service. 1992. Final rule: Endangered and Threatened Wildlife and Plants; Determination of Endangered or Threatened Status for 16 Plants from the Island of Molokai, Hawaii; Federal Register, (10/08/92), 57 FR 46325.

Wagner, W.L.; Herbst, D.R.; Sohmer, S.H., 1999. Manual of the Flowering Plants of Hawai'i-- Revised Edition. Honolulu, HI: University of Hawaii Press and Bishop Museum Press. 1853p.