



Warren L. Wagner, © Smithsonian, 2005

Plants

Haha

Cyanea lobata

SPECIES STATUS:

Federally Listed as Endangered

Genetic Safety Net Species

Hawai'i Natural Heritage Ranking -

Critically Imperiled (G1)

Endemism – Lana'i, Maui, Island of Hawai'i

Critical Habitat - Designated

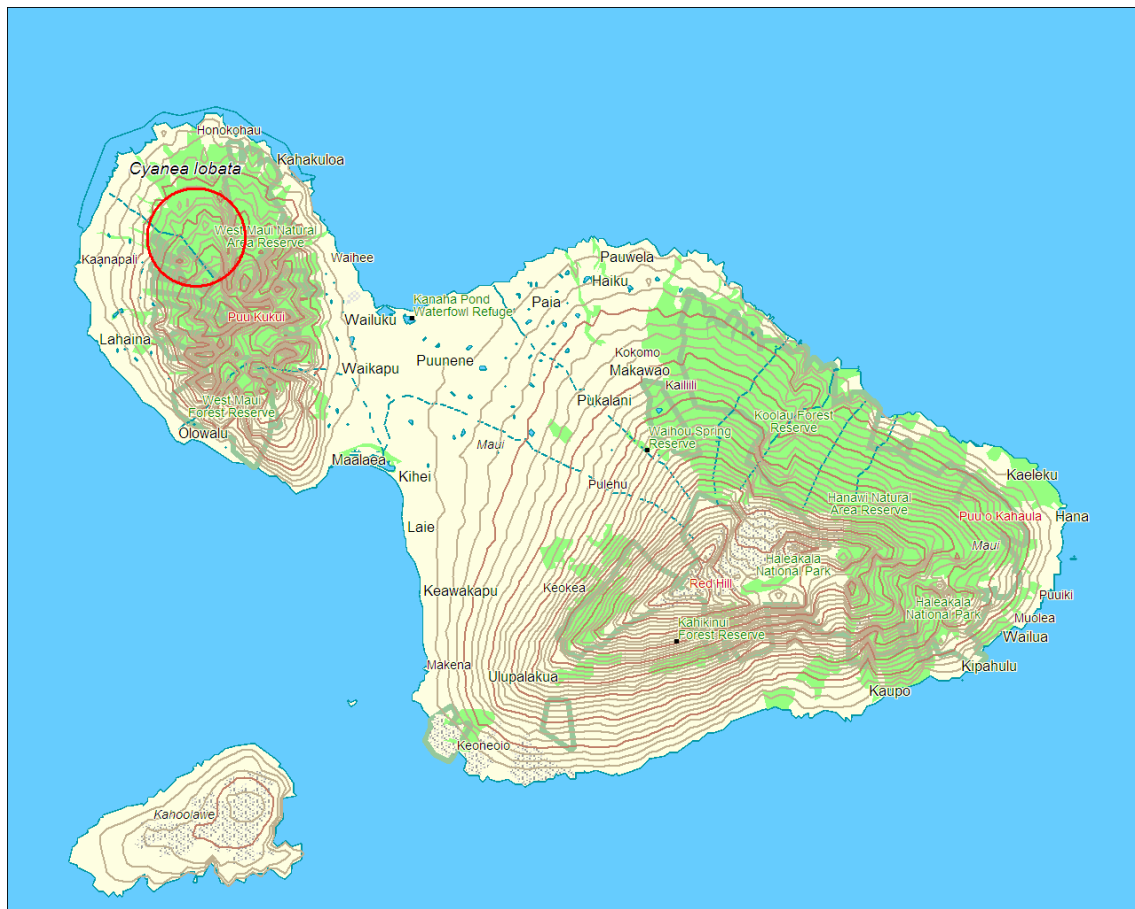
SPECIES INFORMATION: *Cyanea lobata*, a member of the bellflower family, is a shrub with few branches 4.3 to 7.5 ft (1.3 to 2.3 m) tall that may be smooth or occasionally rough due to small projections on the stems and lower leaf surfaces. Leaves are 12 to 20 in (30 to 50 cm) long and 4 to 6 in (10 to 15 cm) wide, with 12 to 25 irregular lobes on each side of the leaf. Flowers, clustered in groups of 5 to 12, have greenish white or purplish petals fused into a curved tube 2.4 to 2.8 in (60 to 70 mm) long and 0.2 to 0.4 in (5 to 11 mm) wide. Berries are yellow and spherical. This species is distinguished from other species of *Cyanea* by the size of the flower and the irregularly lobed leaves with petioles. This species was rediscovered at Waikapu valley in 1982. On Lana'i a single individual was discovered at Puualii in 1919; it was still alive in 1934. This individual was propagated and the young plants were set out at Lana'ihale at Waikeakua, Lana'i and on O'ahu.

DISTRIBUTION: Historically, *Cyanea lobata* was known from Lāna'i and scattered locations throughout West Maui from Honokohau to Wailuku Valley.

ABUNDANCE: Within the past 15 years, this taxon was only found in Waikapu Valley on West Maui on privately owned land. In 1990 that population of one to four individuals was destroyed by a landslide following heavy rains. In 2004, the following was recorded from West Maui: 1 plant at Kalaunui, 1 adult at Honokohau, and 4 adults/2 immature at Mahinahina.

LOCATION AND CONDITION OF KEY HABITAT: Locations as described above, which are under private ownership, except for one occurrence within the West Maui NAR. *Cyanea lobata* typically grows on steep stream banks in mesic lowland forests and *Metrosideros- Dicranopteris linearis* wet forest at an elevation of 1,800 to 3,600 ft (550 to 900 m). Associated species include *Psychotria*, *Broussaisia*, *Cheirodendron*, *Antidesma*, *Sadleria*, *Cibotium*, *Clermontia kakeana*, *Cyrtandra*, *Freycinetia*, and *Diplazium sandwichianum* and

Touchardia latifolia. Alien species that are found in this habitat include *Rubus argutus*, *Tibouchina herbacea*, and others.



3-D TopoQuads Copyright © 1999 DeLorme Yarmouth, ME 04096 1 mi Scale: 1 : 350,000 Detail: 8.5 Datum: WGS84

THREATS:

- Feral pigs;
- Competition from alien plant species;
- Stochastic extinction due to small number of individuals;
- Loss of reproductive vigor due to small population size.

CONSERVATION ACTIONS: The goals of conservation actions are to not only protect current populations, but to also establish further populations to reduce the risk of extinction. The USFWS has developed a recovery plan details specific tasks needed to recover this species. In addition to common statewide and island conservation actions, specific actions include:

- Survey historic 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:

- Survey for populations 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:

Hawai`i Natural Heritage Program. 2005. Hawaii Natural Heritage Program Search, <http://www.hinhp.org/printpage.asp?spp=PDMALOH0A0>.

NTBG. 2005. Perlman, Steve. Field Data Booklet #50, SP 19421, 19426, and 19431. Unpublished data.

USFWS. 1992. Final Listing, Endangered ETWP; Determination of Endangered of Threatened Status for 15 Plants from the Island of Maui, Hawaii; Federal Register, Vol. 57, No. 95, (15-MAY-92), 57 FR 20772-20788, 7 pp.

Wagner, W.L., Herbst, D.R., and 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.

Wagner, W. L., D. R. Herbst, and D. H. Lorence. 2005-. Flora of the Hawaiian Islands website. <http://ravenel.si.edu/botany/pacificislandbiodiversity/hawaiianflora/index.htm> [August 2005].