



## Plants

### Haha

*Cyanea kolekoleensis*

#### SPECIES STATUS:

Genetic Safety Net Species

Hawai'i Natural Heritage Ranking - Critically Imperiled (G1)

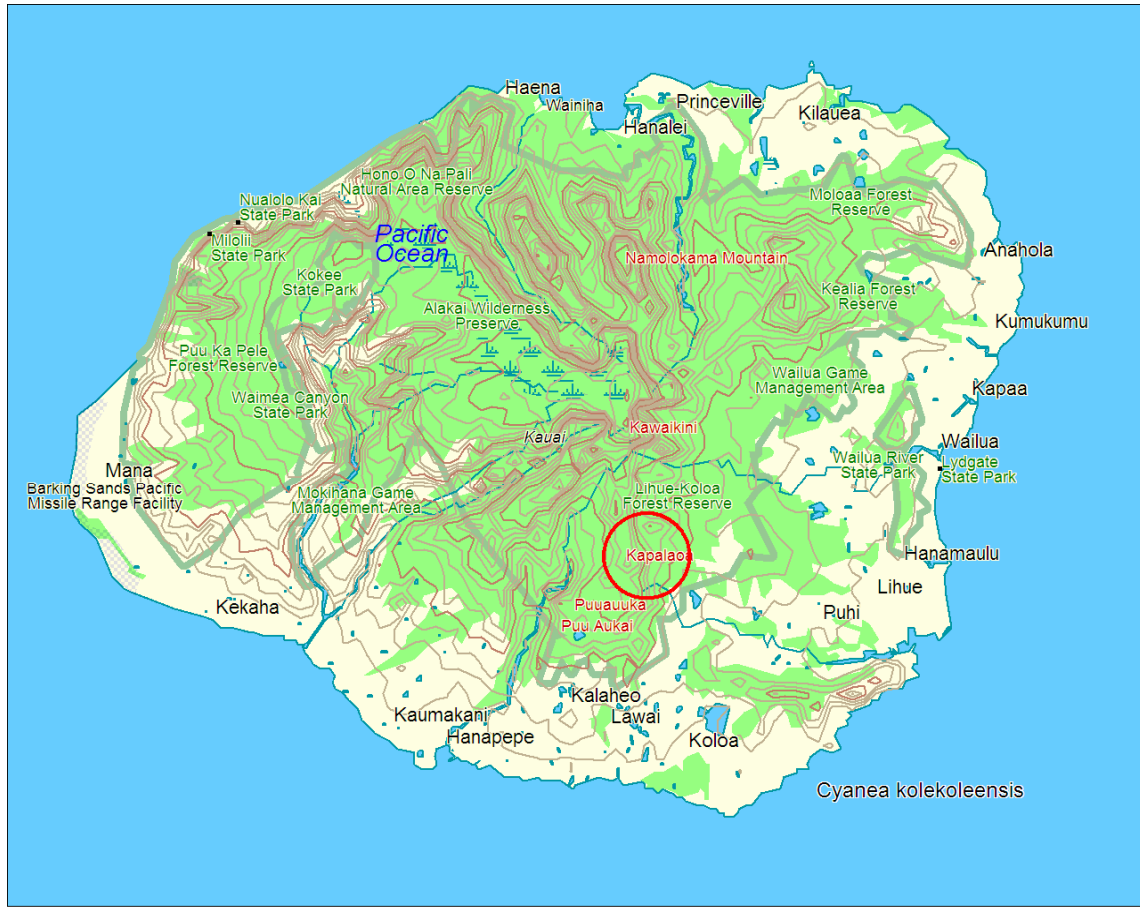
Endemism – Kaua'i

**SPECIES INFORMATION:** *Cyanea kolekoleensis*, a member of the bellflower family (Campanulaceae), is an unbranched shrub 1.5-1.9 m tall. Flowers are white and purple striped. Leaves dark, semi-glossy green above with whitish-green midrib, below silvery, whitish-green with yellow-green midrib. Inflorescence pendulous, fruit erect.

**DISTRIBUTION:** Wahiawa Mountains, Kaua'i.

**ABUNDANCE:** Perhaps 1 to 3 plants, but not observed since 1996.

**LOCATION AND CONDITION OF KEY HABITAT:** Lihue-Koloa Forest Reserve, in the Wahiawa Mts., near Kapalaoa Peak, in gulches, at 2,440 ft elevation, in *Metrosideros-Cheirodendron* lowland wet forest. Associated native species include *Cheirodendron*, *Broussaisia*, *Machaerina angustifolia*, *Dubautia laxa*, *Tetraplasandra* spp., *Embelia*, *Myrsine*, *Scaevola*, *Psychotria*, *Labordia waialeale*, *Syzygium sanwoicensis*, *Sadleria*, *Dubautia imbricata*, and *Perrottetia*. Alien species recorded in the area include *Rubus rosifolius* and *Psidium cattleianum*.



3-D TopoQuad Copyright © 1999 DeLorme Varmouth, ME 04096 1 mi Scale 1 : 250,000 Detail 8-6 Datum: WGS84

### THREATS:

- Competition from alien plant species;
- Pigs;
- Landslides.

**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. 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:**

Carr, G. 2005. Hawaiian Native Plant Genera, University of Hawaii Botany Department, [http://www.botany.hawaii.edu/faculty/carr/images/cya\\_kol\\_675.jpg](http://www.botany.hawaii.edu/faculty/carr/images/cya_kol_675.jpg).

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

NTBG. 1988. NTBG Herbarium Database sheet # 001656, Flynn 3229; Specimen collected on 12/7/1988.

NTBG, 1996. Perlman, Steve; Field Data Booklet #30, SP 15606. Unpublished data.