



## Plants

### *Gouania vitifolia*

#### SPECIES STATUS:

Federally Listed as Endangered

Genetic Safety Net Species

IUCN Red List Ranking- CR C2a(i); D

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

Endemism – O'ahu, Maui, Island of Hawai'i

Critical Habitat - Designated

**SPECIES INFORMATION:** A member of the buckthorn family (Rhamnaceae), *Gouania vitifolia* is a climbing shrub or woody vine with tendrils. The leaves are papery with moderate to dense soft hairs covering both sides. The leaves are elliptic to broadly oval, with toothed margins are 1 to 3 inches long. The tiny flowers are white.

**DISTRIBUTION:** Wai'anae Mountains, O'ahu, west Maui, and Ka'u district, Island of Hawai'i.

**ABUNDANCE:** Currently, only five individuals are known.

**LOCATION AND CONDITION OF KEY HABITAT:** Dry to mesic forest, in gulches. The habitat has been highly degraded, naturalized with strawberry guava, kukui and Christmas berry.

#### THREATS:

- Habitat degradation by feral pigs;
- Fruit predation by rats;
- Competition from alien plant species;
- Stochastic extinction;
- Reduced reproductive vigor due to the small number of remaining individuals.
- 

**CONSERVATION ACTIONS:** The goals of conservation actions are not only to protect current populations, but also to establish new populations to reduce the risk of extinction. 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:**

- Survey for populations and distribution in known and likely habitats;
- Monitor exclosure fences for damage and inside exclosures for signs of ungulate ingress;
- 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., Hawaiian Native Plant Genera, University of Hawaii Botany Department, <http://www.botany.hawaii.edu/faculty/carr/images>.

Hawai'i Natural Heritage Program, 2005. Hawaii Natural Heritage Program Search, <http://www.hinhp.org/trackedspecies.asp?taxa=P&usesa=>.

International Union for Conservation of Nature and Natural Resources, 2004, IUCN Red List of Threatened Species: Data Base Search, <http://www.redlist.org/search/search-basic.html>.

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].