Plants

No Photo Available

Phyllostegia brevidens

SPECIES STATUS:
Genetic Safety Net Species
Hawai'i Natural Heritage Ranking - Critically Imperiled (G1)
Endemism – Island of Hawai'i

SPECIES INFORMATION: Probably scandent subshrubs; stems glabrate. Leaves ovate elliptic to elliptic obovate, ca. 7-13 cm long, 2.5-5.3 cm wide, glabrous to very sparsely strigillose, margins dentate serrate, apex acuminate, base broadly cuneate, petioles ca. 1.5-2.3 cm long. Flowers 14-20 per verticillaster, in open, unbranched, racemose inflorescences to ca. 10-15 cm long, pedicels 10-16 mm long on a common peduncle 1-2 mm long, bracts ca. 20-60 mm long, very sparsely strigillose; calyx obconical, 4 - 6 mm long, sparsely strigillose along nerves, also minutely glandular dotted, the teeth nearly obsolete, apex merely sinuate to broadly deltate, 1-1.8 mm long, apex rounded; corolla white, tube ca. 8-12 mm long, upper lip ca. 6 mm long, lower lip ca. 10 mm long. Nutlets ca. 6 mm long. *Phyllostegia brevidens* is extremely close to *P. ambigua* and differs essentially only in the characters given in the key.

DISTRIBUTION: Known from only 2 collections, both made prior to 1871, from Hilo, Hawai'i, and the type from forest of Mauna Kea at 915 m.

ABUNDANCE: Currently unknown, last collected in 1871.

LOCATION AND CONDITION OF KEY HABITAT: Wet forests.

THREATS:

- Competition with introduced invasive plant species;
- Damage by feral ungulates.

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:

- 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:

Hawai'i Natural Heritage Program. 2005. Hawaii Natural Heritage Program Search, http://www.hinhp.org.

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., 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].

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.