



NTBG, 2005

Plants

Ha'iwale

Cyrtandra hematos

SPECIES STATUS:

Genetic Safety Net Species

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

Endemism – Moloka'i

SPECIES INFORMATION: Shrubs 0.3 - 1.5(2) m tall; stems few branched. Leaves in whorls of 3 - 4 per node, often closely spaced, borne on upper 5 - 8 nodes, those at a node subequal, symmetrical or nearly so, chartaceous, elliptic, 9 - 15 cm long, 2.5 - 4 cm wide, upper surface sparsely bullate hirsute, lower surface sparsely appressed pilose, essentially only on principal veins, sometimes a few hairs scattered over surface, margins serrate, apex acuminate, base cuneate, petioles 1.5 - 6.5 cm long. Flowers solitary, arising in the leaf axils or occasionally along stems, glabrate or sparsely appressed pilose, peduncles 8 - 10 mm long, pedicels 8 - 22 mm long, bracts oblong to elliptic, 8 - 10 mm long, caducous; calyx nearly actinomorphic, possibly green, 8 - 9 mm long, cleft to base, the lobes oblong to narrowly lanceolate, glabrate to very sparsely appressed pilose, glabrous within, apex acute; corolla white, tube narrowly funnelform, ca. 18 mm long, lobes not measured; ovary glabrous; style glabrous. Berries ovoid, ca. 1.2 cm long (immature). Seeds unknown.

DISTRIBUTION: Oloku'i Plateau, Kawela, and Kahuoahu Valley, eastern Moloka'i.

ABUNDANCE: Unknown, but probably less than 1,000 plants.

LOCATION AND CONDITION OF KEY HABITAT: Wet forest, 1,030 - 1,150 m elevations.

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:

- 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> [August 2005].

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.