



Warren L. Wagner ©Smithsonian., 2005

Plants

Ha'iwale

Cyrtandra kaulantha

SPECIES STATUS:

Federally Listed as Candidate

Genetic Safety Net Species

IUCN Red List Ranking – Critically Endangered (CR D)

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

Endemism – O'ahu

SPECIES INFORMATION: *Cyrtandra kaulantha*, a member of the African violet family (Gesneriaceae), is a shrub. Several stems usually arising from a horizontal stem, these erect, 1 - 3 m long, unbranched or occasionally with short lateral branches that have 2 or 4 leaves to 10 - 17 cm long, both erect and horizontal stems producing adventitious roots. Leaves opposite, decussate, clustered on upper 3 - 6 nodes, those at a node slightly unequal, symmetrical, fleshy, drying thin and chartaceous, oblanceolate to elliptic oblanceolate, 30 - 60 cm long, 12 - 24 cm wide, upper surface sparsely pilose along veins and with a few scattered hairs over surface, lower surface with veins slightly raised, sparsely appressed short pilose, becoming moderately so toward and on veins, these hairs darker brown and slightly longer than surface hairs, margins serrulate, apex acuminate, base long attenuate, sessile. Flowers 7 - 30 in dense compound cymes arising on lower 1/3 of erect stems, but usually at base, also on horizontal stems or even on adventitious roots, moderately appressed dark brown pilose throughout, peduncles 2 - 6 mm long, pedicels 3 - 11 mm long, bracts slightly asymmetrical, elliptic lanceolate to lanceolate, 6 - 20 mm long, deciduous; calyx zygomorphic, short fusiform in bud, beak 2 - 3 mm long, 16 - 23 mm long in anthesis, deciduous after anthesis, tube 12 - 15 mm long, sparsely appressed brown pilose, moderately so within, the lobes separating, upper ones 9 - 11 mm long, lower ones 8 - 9 mm long; corolla white, tube narrowly funnellform, curved, 17 - 22 mm long, ca. 4 mm in diameter medially, glabrous externally, puberulent within, upper lobes broadly ovate to suborbicular, 4 - 6 mm long, 6 - 8 mm wide, lateral lobes broadly elliptic ovate, 7 - 11 mm long, ca. 8 - 10 mm wide; ovary glabrous, after anthesis sparsely glandular puberulent; style 12 - 16 mm long. Berries (immature) ovoid ellipsoid to oblong ellipsoid, 1.4 - 1.8 cm long. Seeds (immature) 0.3 - 0.5 mm long. This species needs to be analyzed to determine if it is truly a species derived via hybridization or the individuals assigned to it are recent hybrids formed many times.

DISTRIBUTION: Endemic to the Ko'olau mountains, Wai'ahole Ditch Trail, windward O'ahu.

ABUNDANCE: Only 10-15 plants reported, but may be more common than that.

LOCATION AND CONDITION OF KEY HABITAT: In gulch bottoms, in the shady understory of mesic forests. Found in streambeds and on talus slopes, 240 - 320 m elevations.

THREATS:

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

CONSERVATION ACTIONS: The goals of conservation actions are to not only protect current populations, but 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 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:

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