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IUCN Red List Ranking – Critically Endangered (CR D)
Hawai'i Natural Heritage Ranking - Critically Imperiled (G1)
Endemism – O'ahu
Critical Habitat - Designated

Plants

Opuhe

Urera kaalae

SPECIES STATUS:

Federally Listed as Endangered

Genetic Safety Net Species

SPECIES INFORMATION: *Urera kaalae*, a long-lived perennial member of the nettle family (Urticaceae), is a small tree or shrub 3 to 7 m (10 to 23 ft) tall. This species can be distinguished from the other Hawaiian species of the genus by its heart-shaped leaves.

DISTRIBUTION: Found in the central to southern parts of the Wai'anae Mountains on O'ahu.

ABUNDANCE: The nine remaining subpopulations comprise approximately 40 plants.

LOCATION AND CONDITION OF KEY HABITAT: *Urera kaalae* typically grows on slopes and in gulches in diverse mesic forest at elevations of 439 to 1,074 m (1,440 to 3,523 ft). The last 12 known occurrences are found on both state and privately owned land. Associated native species include *Alyxia oliviformis*, *Antidesma platyphyllum*, *Asplenium kaulfusii*, *Athyrium* sp., *Canavalia* sp., *Charpentiera* sp., *Chamaesyce* sp., *Claoxylon sandwicense*, *Diospyros hillebrandii*, *Doryopteris* sp., *Freycinetia arborea*, *Hedyotis acuminata*, *Hibiscus* sp., *Nestegis sandwicensis*, *Pipturus albidus*, *Pleomele* sp., *Pouteria sandwicensis*, *Psychotria* sp., *Senna gaudichaudii* (kolomona), *Streblus pendulinus*, *Urera glabra*, and *Xylosma hawaiiense*.

THREATS:

- Habitat degradation by feral pigs;
- 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:

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>.

Hawai'i Natural Heritage Program, 2005. Hawaii Natural Heritage Program Search, <http://www.hinhp.org/printpage.asp?spp=PDMAL0H0A0>.

Wagner, W.L.; Herbst, D.R.; 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].