



Plants

Hau kuahiwi

Hibiscadelphus distans

SPECIES STATUS:

Federally Listed as Endangered

Genetic Safety Net Species

D. R. Herbst © Smithsonian Inst., 2005 IUCN Red List Ranking – Critically Endangered (CR D)

Hawai'i Natural Heritage Ranking - Critically Imperiled

Endemism – Kaua'i

SPECIES INFORMATION: A shrub or small tree up to 5 m tall with heart shaped leaves and smooth bark. Its flowers are approximately 2.5 centimeters (1 inch) long and are greenish yellow, turning maroon with age. The genus is endemic to the Hawaiian Islands, and the species is endemic to Kaua'i.

DISTRIBUTION: Koaie canyon, Kaua'i.

ABUNDANCE: Currently 106 individuals known. It is estimated that fewer than 200 exist in the wild.

LOCATION AND CONDITION OF KEY HABITAT: Dry forests and shrublands on bluffs and cliff ledges. The habitat of *Hibiscadelphus distans* is subject to disturbance from several sources. Large herds of feral goats browse within the canyon and have destroyed surrounding vegetation. Goats may also dislodge stones from the ledges above the species, potentially damaging the trees, destroying seedlings and increasing erosion of the friable soil. The presence of large goat herds is a result from specific game-management practices aimed at maintaining high goat population levels for hunting. Today, much of the habitat has been taken over by non-native alien species, crowding out most of the native plant species.

THREATS:

- Browsing by feral goats;
- Fire;
- Competition with alien plant species;
- Landslides and rockfall.

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>.

US Fish and Wildlife Service. 1986. Final Listing, Endangered ETWP; Determination of End. Status for *Hibiscadelphus distans* (Kauai Hau Kauahiwi); Federal Register, Vol. 51, No. 62, (29-APR-86), 51 FR 15903 15906, 4 pp.

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].