



Plants

Alani

Melicope haupuensis

SPECIES STATUS:

Federally Listed as Endangered

Genetic Safety Net Species

IUCN Red List Ranking – Critically Endangered (CR B1+2c, C2b)

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

Endemism – Kaua'i

Critical Habitat - Designated

SPECIES INFORMATION: This member of the citrus family (Rutaceae) forms trees up to 8 m tall. The opposite, oval leaves are 2 to 5.1 inches long and 1 to 2 inches wide. Flowers are borne 5-7 in axillary inflorescences. The flowers of this species grow in clusters of five to seven.

DISTRIBUTION: Originally known only from the type locality on the north side of Haupu, on Kaua'i. The species has now been found in Waimea Canyon. The first subpopulation no longer exists and at the second site there are 2 trees 1.6 km apart.

ABUNDANCE: Currently 2 plants are known.

LOCATION AND CONDITION OF KEY HABITAT: This species is found in *Metrosideros* dominated lowland mesic forests. The known plants are located on State land. Habitat degradation due to feral goats and invasion of invasive alien plant species is a serious concern for this species.

THREATS:

- Feral goats;
- Competition from alien plants;
- Many species of *Melicope* are threatened by the black twig borer;
- Stochastic extinction due to the few individuals is also a serious concern.

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:

Carr, G. 2005. Hawaiian Native Plant Genera, University of Hawaii Botany Department, <http://www.botany.hawaii.edu/faculty/carr/images>.

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