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Plants

Hibiscus clayi

SPECIES STATUS:

Federally Listed as Endangered

Genetic Safety Net Species

IUCN Red List Ranking – Critically Endangered (CR D)

Hawai'i Natural Heritage Ranking – G1

Endemism – Kaua'i

Critical Habitat - Designated

SPECIES INFORMATION: *Hibiscus clayi*, a member of the mallow family (Malvaceae), is a shrub or tree 13 to 26 ft (4 to 8 m) tall with stems bearing sparse hairs at the branch tips. The oval or elliptical leaves are usually 1 to 3 in (3 to 7 cm) long and 0.6 to 1.4 in (15 to 35 mm) wide and have a hairless upper surface and slightly hairy lower surface. The leaf margins are entire or toothed toward the apex. The flowers are borne singly near the ends of the branches. The flaring petals are dark red, 1.8 to 2.4 in (45 to 60 mm) long, and 0.4 to 0.7 in (10 to 18 mm) wide. The green tubular or urn-shaped calyx is usually 0.6 to 1 in (15 to 25 mm) long with five or six shorter bracts beneath. The fruits are pale brown capsules, 0.5 to 0.6 in (12 to 14 mm) long, containing about 10 oval, brownish-black seeds about 0.16 in (4 mm) long. This species is distinguished from other native Hawaiian members of the genus by the lengths of the calyx, calyx lobes, and capsule, and by the margins of the leaves.

DISTRIBUTION: *Hibiscus clayi* is known from scattered locations on private and State land on the island of Kaua'i. These include the Koke'e region on the western side of the island; Moloa'a Valley to the north; Nounou Mountain in Wailua to the east; and as far south as Haiku near Hali'i Stream.

ABUNDANCE: At this time, only the Nounou Mountains population, with four trees, is known to still exist. It is unclear whether the one individual from the Koke'e region was a cultivated plant.

LOCATION AND CONDITION OF KEY HABITAT: This lowland dry forest species generally grows on slopes at an elevation of 750 to 1,150 ft (230 to 350 m). Associated taxa include Java plum, koa, kukui, and ti.

THREATS:

- Competition with alien plant taxa;
- Close proximity of most of the plants to a hiking trail makes them prone to disturbance;

- Pigs;
- Small total number of existing individuals poses a threat of stochastic extinction end/or reduced reproductive vigor.

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. The USFWS has developed a recovery plan that details specific tasks needed to recover this species. 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:

- 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:

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