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Plants

Lysimachia lydgatei

SPECIES STATUS:

Federally Listed as Endangered

Genetic Safety Net Species

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

Endemism - Maui

Critical Habitat - Designated

SPECIES INFORMATION: *Lysimachia lydgatei* of the primrose family (Primulaceae) is a sprawling, branched shrub with stems from 3 to 4 ft (1 to 1.3 m) long. Older stems are smooth, but young ones have a dense covering of rust-colored hairs. The leathery, elliptic leaves, 1.9 to 2.8 in (49 to 70 mm) long by 0.6 to 0.9 in (14 to 22 mm) wide, are densely covered with rust-colored hairs. Flowers are arranged singly in the leaf axils. Entire flowers have not been seen, and fruits are capsules about 0.2 in (6 mm) long. This species is distinguished from others in the genus by the dense hairs on both the upper and lower surfaces of mature leaves.

DISTRIBUTION: *Lysimachia lydgatei* is only known from two West Maui collections: a historical collection from a gulch behind Lahaina, and a recent collection from the Lihau section of the West Maui Natural Area Reserve on State owned land.

ABUNDANCE: The Lihau population of several individuals measures just a few feet across.

LOCATION AND CONDITION OF KEY HABITAT: *Lysimachia lydgatei* typically grows on the sides of steep ridges in 'ōhi'a dominated lowland mesic shrubland at an elevation of about 3,600 ft. Associated vegetation includes a'ali'i, 'ohelo, pukiawe, and ferns such as *Dicranopteris* (uluhe).

THREATS:

- Small number of remaining individuals;
- Competition with alien plants;
- Fire.

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. 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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