



Plants

Lobelia monostachya

Federally Listed as Endangered
Genetic Safety Net Species
IUCN Red List Ranking – CR D
Hawai'i Natural Heritage Ranking – Critically Imperiled
Endemism – O'ahu
Critical Habitat - Designated

SPECIES INFORMATION: *Lobelia monostachya*, a short-lived perennial member of the bellflower family (Campanulaceae), is a prostrate woody shrub with stems 15 to 25 cm (6 to 10 in) long. The magenta flowers are borne on terminal unbranched inflorescences. The species is distinguished from others in the genus by its narrow, linear leaves without stalks and its short magenta flowers. This species has been observed in flower in May and June.

DISTRIBUTION: Southern Ko'olau Mountains of O'ahu.

ABUNDANCE: One population consisting of 8 plants is known.

LOCATION AND CONDITION OF KEY HABITAT: *Lobelia monostachya* occurs on steep, sparsely vegetated cliffs in mesic shrubland between 44 - 614 m (144 - 2,014 ft) elevations. The habitat of *Lobelia monostachya* is being encroached upon and degraded by molasses grass and Christmas berry. Associated native plant species include *Artemisia australis*, *Carex meyenii*, *Eragrostis* sp., and *Psilotum nudum*.

THREATS:

- Habitat degradation by feral pigs;
- Fruit predation by rats;
- 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. 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 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:

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