

Plants

Na'ena'e

Dubautia pauciflorula

SPECIES STATUS:

Federally Listed as Endangered

Genetic Safety Net Species

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

Endemism – Kaua'i

Critical Habitat - Designated



SPECIES INFORMATION: *Dubautia pauciflorula* is a member of the sunflower family (Asteraceae) and is a somewhat sprawling to erect shrub up to about 10 ft (3 m) tall. The leaves are clustered toward the ends of the branches, oppositely arranged, narrow, widening toward the tip, 3 to 8 in (8 to 21 cm) long, and up to 1.3 in (3.2 cm) wide. There are 50 to 500 heads in an open inflorescence 3 to 12 in (8 to 30 cm) long and 2 to 12 in (6 to 30 cm) wide; each head comprises 2 to 4 florets. The florets are yellow, while the stems and bracts of the heads are often purple. The fruits are small dry seeds, about 0.1 in (0.3 cm) long. The specific name denotes the fact that this species has the smallest number of florets per head of any of the Hawaiian members of its tribe.

DISTRIBUTION: Wahiawa Mountains, on a ridge just above a tributary of the Wahiawa Stream; Kealia Forest Reserve, along ridge leading to Pohakupili.

ABUNDANCE: The initial discovery, a population of about 30 plants, has since been augmented by the discovery of two additional populations in the same general area: a population of about three plants on the Mt. Kahili ridge that forms the eastern boundary of the Wahiawa drainage basin, and a small population along the east fork of the Wahiawa Stream. An additional population of unknown size has been documented from the Kealia Forest Reserve.

LOCATION AND CONDITION OF KEY HABITAT: The Wahiawa area is roughly triangular in shape with Kapalaoa, Mt. Kahili, and Puuauuka forming the three corners. It is about 1,200 acres (485 hectares) in size. The elevation ranges from about 2,000 to 3,300 ft (610 to 1,000 m). The area lies on an east facing ridge near an unnamed fork of Wahiawa Stream. The Kealia Forest Reserve encompasses stunted mesic forests and Dicranopteris covered slopes.

THREATS:

- Potential extinction from stochastic events due to small number of remaining individuals;
- Habitat degradation and competition by invading exotic plants;
- Feral pigs.

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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US Fish and Wildlife Service. 1991. Final Listing, Endangered ETWP; Determination of Endangered Status for Five Plants from the Wahiawa Drainage Basin; Federal Register, Vol 56, No. 183, (20-Sep-91), 56 FR 47695 47700, 7 pp.

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