



N. Tangalin, NTBG

## Plants

### *Schiedea spergulina* var. *leiopoda*

#### SPECIES STATUS:

Federally Listed as Endangered

Genetic Safety Net Species

Hawai'i Natural Heritage Ranking - Subspecies Critically

Imperiled (G2T1)

Endemism – Kaua'i

Critical Habitat - Designated

**SPECIES INFORMATION:** *Schiedea spergulina* var. *leiopoda*, a member of the pink family (Caryophyllaceae), is a 10 to 60 cm tall subshrub. The opposite leaves are very narrow, usually 3 to 6.5 cm long and 1.4 mm wide. The flowers are unisexual, with male and female flowers occurring on different plants. The flowers form in clusters of three. There are 5 green sepals which are usually tinged with purple.

**DISTRIBUTION:** Historically, *Schiedea spergulina* var. *leiopoda* was found on a ridge on the east side of Hanapepe on Kaua'i.

**ABUNDANCE:** There are 50 to 100 known individuals in Lawai Valley.

**LOCATION AND CONDITION OF KEY HABITAT:** This taxon is typically found on bare rocky outcrops or sparsely vegetated portions of rocky cliff faces or cliff bases in diverse lowland mesic forests at elevations between 180 and 800 m. *S. spergulina* var. *leiopoda* is found on privately owned land in Lawai Valley on Kaua'i.

#### THREATS:

- Competition with alien plant taxa such as haole koa, lantana and Mauritius hemp;
- Damaged and destroyed by rock slides;
- Stochastic extinction and reduced reproductive vigor due to the small number of existing 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. A USFWS recovery plan 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:**

Hawai'i Natural Heritage Program, 2005. Hawaii Natural Heritage Program Search, <http://www.hinhp.org/trackedspecies.asp?taxa=P&usesa=>.

USFWS. 1994. Final Listing, Endangered ETWP; Determination of Endangered or Threatened Status for 24 Plants From the Island of Kauai, HI. (5-FEB-94), 59 FR 9304 9329, 26pp.

Wagner, W.L., Herbst, D.R., and Sohmer, S.H., 1999. Manual of the Flowering Plants of Hawai'i-- Revised Edition. Honolulu, HI: University of Hawaii Press and Bishop Museum Press. 1853p.

Wagner, W. L., D. R. Herbst, and D. H. Lorence. 2005. Flora of the Hawaiian Islands website. <http://ravenel.si.edu/botany/pacificislandbiodiversity/hawaiianflora/index.htm> [August, 2005].