



Natalia Tangalin © NTBG

Hawai'i Natural Heritage Ranking - Critically Imperiled (G1)  
Endemism – Kaua'i and Ni'i'hau  
Critical Habitat - Designated

## Plants

# Lau'ehu

*Panicum niihauense*

### SPECIES STATUS:

Federally Listed as Endangered

Genetic Safety Net Species

**SPECIES INFORMATION:** *Panicum niihauense*, a member of the grass family, is a perennial bunchgrass with unbranched culms 50 to 125 cm (20 to 49 in) long. The leaf blades are flat, 15 to 35 cm (6 to 14 in) long and 0.7 to 1.9 cm (0.3 to 0.7 in) wide. The panicles (loosely branched inflorescences) are 13 to 35 cm (5 to 14 in) long. The panicle branches lie close to the main stem of the inflorescence (not spreading outward), and the spikelets are borne densely along the inflorescence branches. The spikelets, which contain two flowers, are 2.6 to 3.2 mm (0.1 in.) long.

**DISTRIBUTION:** Currently only survives on Kaua'i, but was also known historically from Ni'i'hau.

**ABUNDANCE:** Currently 21-23 plants observed.

**LOCATION AND CONDITION OF KEY HABITAT:** Dry coastal habitats. Calcareous sand dunes and rocky knolls. The last known population is located on State owned land at Polihale State Park.

### THREATS:

- Alien plants (*Leucaena leucocephala*, *Prosopis pallida*);
- Off-road vehicles.

**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. 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>.

International Union for Conservation of Nature and Natural Resources, 2004, IUCN Red List of Threatened Species: Data Base Search, <http://www.redlist.org/search/search-basic.html>.

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