

U.S. FISH AND WILDLIFE SERVICE - SPOTLIGHT SPECIES ACTION PLAN

Common Name: `Oha wai

Scientific Name: *Clermontia peleana*

Lead Region: Region 1

Lead Field Office: Pacific Islands Fish and Wildlife Office

Species Information:

Status: Endangered

Recovery Priority Number or Listing Priority Number: 5

Recovery Plan or Candidate Assessment Form: U.S. Fish and Wildlife Service. 1996. Big Island plant cluster recovery plan. U.S. Fish and Wildlife Service, Portland, Oregon. 202+ pages.

Most Recent 5-year Review: January 18, 2008

Other: U.S. Fish and Wildlife Service. 2003. Endangered and threatened wildlife and plants; final designation and nondesignation of critical habitat for 46 plant species from the island of Hawaii, Hawaii. Federal Register 68:39623-39672.

Threats: The primary threats are habitat degradation by introduced ungulates (Factor A), competition with invasive introduced plant species (Factor E), predation of fruits by rodents (Factor C), predation of seedlings by slugs (Factor C), and mosquitoes as vectors of alien diseases of native avian pollinators and dispersers (Factor E), lava flows (Factor E), and fires (Factor E).

Target: The target for this species is to maintain the current status as improving.

Measure: Increase the number of reintroduced populations and the total population size. The target number of reintroduced seedlings at the end of the five-year period is 5,000 to 6,000 individuals across at least six protected populations, with survivorship averaging at least 50 to 60 percent across the sites.

Actions:

1. Seedlings for reintroduction will be generated through a managed breeding program following strict genetic protocols. The parties responsible for this action are the Plant Extinction Prevention Program, the University of Hawaii Center for Conservation and Research Training's Volcano Rare Plant Facility, and the non-profit Hawaiian Silversword Foundation. This will address recovery actions #13, maintain genetic stock *ex situ*; #32, propagate material for augmentation; and #4, create new populations. This action will partially address all listing factors and threats impacting this species and will continue over all five years.
2. Reintroduce the seedlings into six protected sites. The parties responsible for coordinating this action are the Plant Extinction Prevention Program, Hawaiian Silversword Foundation, and Volcano Rare Plant Facility, working collaboratively with the, Hawaii Volcanoes National Park, Hakalau National Wildlife Refuge, Hawaii Natural Area Reserves System,

Hawaii Division of Forestry and Wildlife, Three Mountain Alliance, and private landowners. This will address recovery actions #41: select new population sites and obtain long-term protection of sites; #43: transplant selected material; and #44: maintain, monitor and evaluate new populations. This action will partially address all listing factors and threats impacting this species and will continue over all five years.

3. Control invasive introduced plant species within the protected sites. The parties responsible for coordinating this action are the Plant Extinction Prevention Program and Hawaiian Silversword Foundation, working collaboratively with Hawaii Volcanoes National Park, Hakalau National Wildlife Refuge, Hawaii Natural Area Reserves System, Hawaii Division of Forestry and Wildlife, Three Mountain Alliance, and private landowners. This action will partially address recovery action #122, manage threats, addressing invasive introduced plant species impacting this species (Factor E) and will continue over all five years.

Estimated costs of the actions: Estimated costs of the actions are approximately \$100,000 per year for the five-year period, of which half would be provided by USFWS.

Role of other agencies: USFWS provides funding to the Hawaiian Silversword Foundation and the Volcano Rare Plant Facility, and functions as technical advisor to this project. As stated above, the recovery actions will be implemented by the Volcano Rare Plant Facility, the Plant Extinction Prevention Program, and the Hawaiian Silversword Foundation, working collaboratively with Hawaii Volcanoes National Park, Hakalau Forest National Wildlife Refuge, Hawaii Natural Area Reserves System, Hawaii Division of Forestry and Wildlife, Three Mountain Alliance, and private landowners. The cooperation of the other agencies is critical for the conservation of the species. The Volcano Rare Plant Facility and the Hakalau Forest National Wildlife Refuge nursery are the only facilities storing the remaining live material of the species. The continued cooperation of the landowners, allowing reintroduction and threat management, is critical for the preservation of the species.

Role of other ESA programs: Section 6 grants contribute funds to implement the actions necessary for the success of the species, including funding to the Volcano Rare Plant Facility.

Role of other FWS programs: As stated above, Hakalau Forest National Wildlife Refuge will participate in the recovery actions.

Additional funding analysis: The actions described above cannot be undertaken nor the stated target reached without the estimated funding from the Service and outside sources described above. If additional funding was approved, additional sites for reintroduction would be identified and protected (with fencing), and new reintroduced populations would be established, thereby increasing the total numbers of *Clermontia peleana* individuals and populations. The additional actions would be implemented by the Volcano Rare Plant Facility, the Plant Extinction Prevention Program, and the Hawaiian Silversword Foundation, working collaboratively with Hawaii Volcanoes National Park, Hakalau Forest National Wildlife Refuge, Hawaii Natural Area Reserves System, Hawaii Division of Forestry and Wildlife, Three Mountain Alliance, and private landowners. The estimated costs of fencing additional reintroduction sites and establishing additional reintroduced populations would be about \$50,000 to \$100,000 per year, depending on the size and number of areas fenced.