Volcano Rare Plant Facility

## Hawai‘i’s Rare Plant Partnerships

The successful recovery of Hawai‘i’s critically endangered plants relies on the strength of the partnerships forged through shared goals. It is through collaborative relationships that the PEP Program can collect plant material and address threats in natural habitats while a network of rare plant propagation and storage facilities can manage the collected material for safekeeping. Partnering facilities include: four mid-elevation rare plant nurseries (at Volcano on Hawai‘i Island, Pahole on O‘ahu, Kōke‘e on Kaua‘i, and Olinda on Maui); botanical gardens (e.g., the National Tropical Botanical Garden); the University of Hawai‘i Lyon Arboretum Micropropagation and Seed Conservation Laboratories; and other nurseries and labs in Hawai‘i, the mainland United States, and across the globe.

Hand-pollination of Mauna Kea silverword (*Argyroxiphium sandwicense* subsp. *sandwicense*) on Hawaii Island to increase seed production.

## PEPP Highlights

- Implements recovery actions for over 135 PEP species each year
- Rediscovery of more than a dozen species thought to be extinct
- Discovery of more than ten species new to science
- Outplanted thousands of PEP species back into the wild
- Collaboration with > 100 agencies, land owners and individuals
- Preserved the genetic material of over 90% of PEP species

Brighamia insignis

## Contact Infomation

Plant Extinction Prevention Program
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Cyanea stictophylla

# Plant Extinction Prevention Program

## Saving Hawai‘i’s Rarest Plants

# The PEP Program

The Plant Extinction Prevention Program (PEPP) is a statewide conservation program committed to saving Hawai‘i’s rarest native plants from extinction. To address the needs of the most imperiled species, PEPP focuses its efforts on species that have fewer than 50 remaining wild individuals, coined "PEP species”. Today, PEPP manages 238 PEP species on all the main Hawaiian Islands, most of which are federally and state-listed Endangered Species.

We are a team of dedicated botanists and conservationists that implement recovery actions for these species through our five PEPP objectives (see facing page). By collaborating with our conservation partners and committed landowners that have a shared interest in protecting Hawai‘i’s dwindling plant diversity, we are able to protect species across their entire distributional range; a novel approach to dire circumstances.

The PEP Program began in 2003 as the brainchild of the Hawai‘i Rare Plant Restoration Group (HRPRG), a Specialist Group of the International Union for Conservation of Nature (IUCN), with a mission to halt and reverse the staggering pace of one plant species extinction per year that Hawai‘i had experienced in recent decades. The HRPRG is a consortium of over 60 conservation organizations, resource management agencies, and public and private landowners and individuals. Today, the PEP Program spans across the state in five island programs with each team member committed to preserving our rich native flora with the belief that if we don’t take action now, we risk the permanent loss of our plant diversity that makes Hawai‘i truly unique.

The PEP Program is a project of the Pacific Cooperative Studies Unit of the University of Hawai‘i at Mānoa and is funded through State and Federal grants and private donations.

# The Five PEPP Objectives

## 1. Collect:

Preserving genetic diversity is vital to ensure the survival of a PEP species. PEPP collects propagules (e.g., seeds, spores, cuttings) and transfers them to partner rare plant facilities for safe keeping in seed storage, tissue culture, and nurseries.

## 2. Monitor:

Routine visits to wild and reintroduced individuals allow PEPP staff to assess population health and identify potential and imminent threats so they can be addressed immediately.

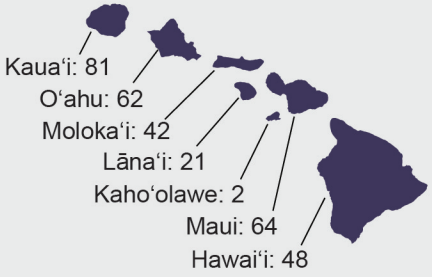
## 3. Survey:

The discovery of additional founders can greatly increase a PEP species’ chances of recovery. Through surveys, we have discovered plants of many PEP species as well as several species thought to be extinct or new to science.

## 4. Protect:

Hawai‘i’s rare plants are under constant threat from invasive weeds, rats, slugs, and feral animals such as pigs and goats. PEPP staff employs a variety of measures to address these threats.

## 5. Outplant:

Nursery grown plants of known genetic lineage are put back into the wild to establish new populations or bolster existing populations. Outplantings are often done with partner programs and with help from public volunteers.

### Numbers of PEP Species