



Hesperomannia arbuscula



Achatinella mustelina
Kāhuli tree snail



Solanum incompletum



Alectryon macrococcus
fruit



Rhyncogonus stellaris



Hibiscus brackenridgei
Ma'o Hau Hele



Nesothen sandvicensis
Nēnē goose



Flueggea neowaraea
Mēhamehame

HAWAII'S RARE NATURAL RESOURCES

Protection of the abundant endangered plants and animals found on Army training lands is the primary goal of the Army Natural Resource Program.

"...Army personnel at all levels must ensure that they carry out mission requirements in harmony with the requirements of the Endangered Species Act."

~Army Regulation 200-3

THE ARMY NATURAL RESOURCE PROGRAM ACTIONS ARE GUIDED BY MULTI-SPECIES MANAGEMENT PLANS, DEVELOPED WITH THE HELP OF EXPERT STATE AND FEDERAL BIOLOGISTS.



Many of Hawai'i's native ecosystems are found *nowhere else in the world*; almost **80%** of the endangered plants and animals living in these fragile ecosystems are found on Army Training lands.

MĀLAMA 'ĀINA HELP PROTECT THE LAND

Volunteers have logged hundreds of hours helping to protect Hawai'i's natural resources on Army land.

For volunteer opportunities with the O'ahu Army Natural Resource Program, please contact one of our Environmental Outreach Specialists at: (808)656-7641

To visit the interpretive garden and plant nursery at the Pōhakuloa Training Area Natural Resource Program on the Big Island, please call for an appointment: (808) 969-1966



US ARMY GARRISON HAWAII NATURAL RESOURCE PROGRAM



DID YOU KNOW?

The U.S. Army spends over \$10 million per year protecting more than 100 species of endangered plants and animals in Hawai'i.

The U.S. Army employs more than 80 technically-trained civilian and contracted field biologists in their Natural Resource Program in Hawai'i.

THREATS TO HAWAII'S NATURAL RESOURCES



Fountain grass

► Invasive, non-native plants (weeds) aggressively

compete for nutrients, water, and sunlight with native plants.



Strawberry guava



Polynesian rat

► Introduced, non-native predators such as rats, feral cats, and Indian mongooses eat native birds, bird eggs, plants, seeds, and snails.

► Feral pigs, goats, and sheep feed on and uproot native plants, and spread weed seeds.

Pig wallows can become mosquito breeding grounds, and mosquitoes spread disease to native forest birds.



Feral pig wallow

► The introduced Rosy Wolf Snail (*Euglandina rosea*) preys on native Kāhuli tree snails.



Rosy Wolf Snail



Wailua fire, August 2007

► Wildfires destroy native forests and create open areas where invasive weeds quickly become established.

ARMY NATURAL RESOURCE PROTECTION ACTIONS

Endangered plant species are monitored to track their health, collect seeds for propagation, and to control threats.

ARMY NATURAL RESOURCE STAFF CURRENTLY MONITOR MORE THAN 500 ENDANGERED PLANT POPULATIONS IN HAWAII.

Endangered plants grown from seed or cuttings are cared for in Army Natural Resource Program plant nurseries until they can be planted back into the wild.

Natural resource staff rappel to access and monitor cliff-dwelling rare plants.

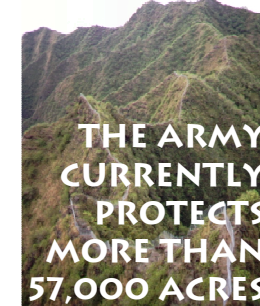


Chemical weed control



Manual weed control

THE ARMY SPENDS MORE THAN 3,000 PEOPLE-HOURS CONTROLLING WEEDS ON MORE THAN 55,200 ACRES OF LAND EACH YEAR.



THE ARMY CURRENTLY PROTECTS MORE THAN 57,000 ACRES OF NATIVE HABITAT WITH FENCES.

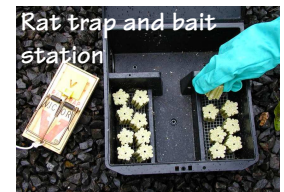
Feral pigs and goats are managed by fence construction and hunting.



Kāhuli - endangered O'ahu tree snails.

Native bird and snail management entails surveying, monitoring, and controlling predators.

Predator control for these endangered animals includes setting up bait stations and traps for rats.



Rat trap and bait station