Puʻu Makaʻaala NAR

What is a NAR?

Natural Area Reserves (NAR) are designated and managed to protect unique natural and cultural resources for current and future generations. The Natural Area Reserves Program on the island of Hawaiʻi manages 8 reserves encompassing nearly 95,000 acres. Of these 95,000 acres, currently only 12,000 acres are protected with fencing (12%).

Puʻu Makaʻaala NAR

Puʻu Makaʻaala NAR is 18,730 acres in size and was established in 1981 to protect unique native rainforest. Long-Term management of this forested watershed provides multiple benefits including protection of the island's water resources, undeveloped open spaces, and culturally significant areas. The reserve provides habitat for rare native plants and animals preserving the biodiversity of Hawaiʻi for current and future generations.

The addition of 6,600 acres of the Kulani property to the NAR was completed in 2010. Koa and ʻōhiʻa forests in this area have populations of three critically endangered forest birds and numerous rare plants.

The Need for ACTION

Over the past 200 years half of Hawaiʻi’s forests have been lost.

Hawaiʻi’s forests are especially vulnerable to damage from feral ungulates (hooved animals like pigs, goats, sheep, and deer) because the forests evolved in the absence of these non-native animals. Ungulates are widespread across the state and degrade forests by trampling, uprooting, and eating native plants.

Fencing has proven to be the most cost-effective and long-term method to reduce the threats of ungulates in remote forest areas.

The management plan proposes protection of portions of the NAR through fencing and ungulate removal in four watershed units of 4,800 acres.

Fenced areas are open to the public; fencing is just excluding the animals from the area. Gates and walk-overs will allow people to access these areas.

Photo by: Jack Jeffrey
Puʻu Makaʻala NAR

Proposed Management Actions:

- Protect native forests and watersheds from feral ungulates by maintaining existing fences, constructing new fences, and removing ungulates from within fenced management units which includes public hunting in the initial phases.
- Remove invasive weeds.
- Restore habitat and populations of rare and endangered plants and animals including restoring ʻĀlala to the wild.
- Reduce the threat of fire.
- Monitor natural resources to measure the success of management.
- Provide public access, outreach and education through development of trails, service trips, and educational programs.
- Collaborate with partners to support mission and goals.

Hunting Puʻu Makaʻala

- DOFAW manages over 600,000 acres of public hunting area on the Island of Hawaii (Forest Reserve, Game Management Area and NAR). Approximately only 16% of the above 600,000 acres of DOFAW managed hunting area is designated as NAR.
- Immediately adjacent to Puʻu Maka'ala NAR in the Hilo-Waiakea vicinity there are over 230,000 acres of contiguous designated public hunting area.
- Public hunting will be used for the first stage of animal removal in fenced areas.

Perpetuating Culture

The forests and mountain landscape, the native species, and intangible components therein, are a part of a sacred Hawaiian Landscape. Culturally important plants such as ʻōhiʻa, maile, and palapalai are more abundant in protected areas.

Uakuahine, Kulilikaua, and Kūkaʻōhiʻalaka

Protectors of this realm

In Hawaiian culture each part of nature from the stars in the sky, to the winds, clouds, rains, growth of the forest and life therein, and everything in the ocean is believed to be alive. Indeed, every form of nature was a body-form of some god or lesser deity. In Puʻu Makaʻala, we find that Kūkaʻōhiʻalaka is a defied guardian of the ʻōhiʻa growth of ʻŌlaʻa; Uakuahine is the body form of a goddess of the rains in ʻŌlaʻa; and Kulilikaua is the god of the thick mists that envelop the forest of the upper Puna, Waiākea, and Keauhou lands.

Tradition tells us that the gods and goddesses of these forest lands were very protective of them. In olden times, travel through them was accompanied by prayer and care. Traditions tell us that many a careless traveler, or collector of resources, found themselves lost in a maze of overgrowth and dense mists as a result of disrespectful and careless actions.

Taken from: He Moʻolelo ʻĀina: A cultural study of the Puʻu Makaʻala Natural Area Reserve, Districts of Hilo and Puna, Island of Hawaiʻi, (Maly & Maly, 2004)

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