

1. RESTORATION SUMMARY

Restoration Status Update June 1, 2021-November 30, 2021

Kanaloa kahoowawensis Working Group



Kanaloa kahoowawensis with two clones from branch cuttings

The *Kanaloa kahoowawensis* Working Group consists of members from the KIRC, Lyon Arboretum Micro propagation Lab, Plant Extinction Prevention Project, DLNR/DOFAW, Maui Nui Botanical Garden (MNBG), National Tropical Botanical Garden (NTBG), and the Olinda Rare Plant Facility (ORPF).

Currently there are 20 plants in total consisting of the parent plant propagated from seed in 2008, two clones from cuttings propagated in 2016 and 17 seedlings propagated this year from the parent plant. All the seedlings have been moved to the Olinda Rare Plant Facility while the parent and clones remain at Ho'olawa Farms in Haiku, Maui.

There is a grant proposal submitted to the Hawaii Tourism Authority to build 20 new 4x4 planter boxes for the new seedlings. These planters will eventually be distributed between Kahanu

Farms maintained by NTBG, ORPF, and MNBG. In addition, monies are being pursued to purchase hurricane shelters for each site.



Kanaloa kahoolawensis seedlings in one-gallon pots

Pacific Birds Habitat Joint Venture Project

A new project entitled “Soil Enrichment Trials in Degraded Coastal and Wetland Sites on Kaho‘olawe” started on September 1st, 2021. This project is funded through Ducks Unlimited and USFWS. The one-year project aims to develop techniques that improve the soil health on Kaho‘olawe. The KIRC has partnered with Ūkiu Farms on Maui to provide biochar and soil amendments. Biochar is a carbon rich material that is inoculated with microbes to “supercharge” the hardpan soil on Kaho‘olawe. Soil will be analyzed at the beginning and at the end of the project through a laboratory to monitor success.

To date 18 plots have been set up in the Kamōhio Watershed, Lua ‘O Kealialalo, and Keanakeiki. Ten plots at each site have been inoculated with the biochar product, inoculated wood chips and a layer of gravel to keep the chips from blowing away. Plants will go in the

experimental plots as well as the control sites in a few months. Soil will be tested for fertility and native plants will be monitored for growth.



Top: Biochar and wood chips inoculated with microbe rich “vermicompost tea.” Bottom: Biochar planter boxes at Lua ‘O Kealialalo.



Volunteers from the Ka Ipu Kukui group creating the biochar planter boxes at Keanakeiki.

DOH 5

The State of Hawaii, Department of Health (DOH) grant received a 4 month no-cost extension to September 30, 2022. A Kaho‘olawe Island Reserve Specialist II (Meghan Dunn) was hired on October 1, 2021 and is contributing to the DOH grant as well as logistics and operations on Maui. She has a one-year appointment to September 29, 2022.

From June 1, 2021 to November 30, 2021, there were 53 volunteers out planting 2000 native grasses shrubs and trees as well as installing 11 (of 20) check dams in the project site.

Initial baseline photo points were acquired in June 2021 along with five supplemental photographs to illustrate before and after images of the operation and maintenance changes in the project site.



Volunteers planting native plants in the Hakioawa Watershed.