**Hawaii Invasive Species Council quarterly Report Fy15**

**January 2016**

**Proposal Title:** KUPU internship with Kaneohe Bay Reef Restoration Project

**Content area:** Control

**Applicant: Current PI:** Brian Neilson, DAR Biologist, brian.j.neilson@hawaii.gov

 **Previous:** Frazer McGilvray, DAR Administrator

 DLNR, Division of Aquatic Resources

**Updates**: The original project proposal was amended due to only receiving one Americorp KUPU intern. Therefore $13,000 was re-allocated towards hiring two 8-week KUPU summer interns, travel to neighboring islands to expand aquatic invasive species management, and the purchase of algae control equipment and supplies.

**Measures of Effectiveness**:

* Measure 1: Skills gained by working with field teams

A KUPU-Americorp intern (Amber Meadows) was hired. She gained a variety of skills working on the field team including: the operation of algae control equipment, boat operation, coral and algae identification, coral reef monitoring, GIS mapping, data entry, and team building skills.

* Measure 2: Activities accomplished that would otherwise not have been completed without the help of intern

Amber is operating at the technician level and serves as a regular field team member. This allows for more invasive algae to be removed and more acres of restored reef. Amber has assisted the team in removing 1.3acres of algae totaling 21,435 pounds and outplanting over 59,824 biocontrol sea urchins.

* Measure 3: Progress of independent research project

Amber completed an independent project to reduce reef damage in Kaneohe Bay due to boat groundings. This is an effort to protect the large investment made towards controlling invasive algae and restoring coral reefs in Kaneohe from further damage cause by boat groundings. She completed a draft navigation map of the bay to distribute to boaters including outreach material on invasive algae.

* Measure 4: Outer Islands Aquatic Invasive Species Management

Trips to Hawaii Island (Hilo), Kauai, and Molokai were carried out. These trips have been highly beneficial in terms of connecting with local managers and community members to discuss aquatic invasive species issues and develop future collaborations. The following accomplishments were made possible by the HISC funding.

* + Met with DAR, RCUH staff, and a UH graduate student in Hilo. Was presented information on invasive fish catch data and invasive California grass. Agreed to collaborate in regards to managing invasive mullet and California grass in the Wailoa River. Also learned about recent UH graduate research involving native algae outplanting and incorporating that into invasive algae control. Working with Hilo DAR staff on a California Grass control plan. Also put them in touch with a reproductive fish biologist to collect reproductive data on invasive mullet in order to evaluate peak spawning times and locations.
	+ Collaborated with DAR Hilo on producing an outreach brochure identifying the invasive mullet and native mullet species.
	+ Met with Kauai Invasive Species Council. Discussed collaborating on Kauai strategic plan in regards to aquatic invasive species.
	+ Conducted follow-up surveys at Prince Kuhio Beach Park, Kauai to investigate report of invasive algae Avrainvillea amadelpha. No specimens were found.
	+ Met with Hawaiian charter schools teacher to discuss involving students in a small invasive algae control project in Kapaa. Two invasive algae species were identified at the site and students may engage in removing the invasive algae in an effort to transition the area back to native algae species.
	+ Colaborated with OHA, TNC, and other partners to control gorilla ogo (*Gracilaria salicornia*) on the south shore of Molokai. Along with Molokai community members, we mapped over 30 miles of invasive algae along the south Molokai shoreline. We also attended the Molokai Earth Day Event and a invasive algae workshop to conduct outreach regarding the invasive algae and recruit community support for the project. We are currently working with OHA and the Molokai community to create an invasive algae control plan.
* Measure 5: Hire two 8-week KUPU Interns
	+ Two KUPU interns were hired for the summer to work in the sea urchin hatchery.
* Measure 6: Equipment and Supplies
	+ A trash pump and accessories was purchased for algae removal.

**Project Deliverables:**

* Deliverable 1: Quarterly report (Accomplished)
* Deliverable 2: Final report of accomplishments made over 12 months with the addition of KUPU interns, interisland invasive algae management, equipment and supplies (Accomplished).