

**Title: Detection and Control of Invasive Species
on the Island of Hawaii**

Organization: Big Island Invasive Species Committee

Award(s): \$233,078

Introduction: The Big Island Invasive Species Committee works to identify, detect, eradicate and control the highest risk invasive species likely to impact the environment, economy, or human health on the Island of Hawai'i. Our motto is *Hoala i ka Maka*: Healing the land; Awakening the people. BIISC strives to educate and empower the members of our community to take an active role in preventing and controlling the spread of invasive species that directly or indirectly impact Big Island livelihoods. The Hawaii Invasive Species Council provides consistent and much needed support, ensuring that the highly trained, experienced professionals working at BIISC may continue on our mission. BIISC thanks the Hawaii Invasive Species Council for funding approximately 33% of our operating budget this year.

Achievements in FY13

Deliverable 1: Comprehensive annual report outlining all work conducted and accomplishments under this project: Provided here.

Deliverable 2: Spatial and tabular data submitted for inclusion in the statewide data set on invasive species work: Electronic files documenting all control work are submitted to PBIN on an annual basis.

Deliverable 3: Acres surveyed; Acres Treated: BIISC surveyed 4,699 acres this fiscal year, 1,666 of those acres on foot. BIISC directly treated plants on treated 109.4 acres.

Deliverable 4: Plants or animals controlled: BIISC controlled 11,815 target plants. If Feral Coffee removal is included, BIISC staff controlled over **55,000** individual plants by hand this year. BIISC cleared 11.3 acres of habitat for Coffee Berry Borer, found at densities of several hundred insects per square meter. BIISC staff spent 176 hours responding to Brown Tree Snake reports, sprayed for Coqui 51 times (numbers not recorded), trapped 48 mongooses in endangered waterbird habitat, and conducted surveys establishing the existence of a breeding rabbit colony in Kona.

Deliverable 5: Person hours expended: BIISC staff and volunteers spent more than 7,020 hours in the field surveying for and controlling invasive species.

Deliverable 6: Miles of Roadside Surveyed: BIISC Staff surveyed 125 miles of road during 180 staff hours of survey time. ***Linaria purpurea*, a serious invasive pest in the Southeastern United States, was identified and eradicated this year.** New Plant Records identified included: *Norantea guianensis*, *Parkia speciosa*, *Mimusops elengi*, *Vinca major*, and *Leea indica*.

Deliverable 7: Nurseries or botanical gardens surveyed: BIISC Staff surveyed three "big box" nurseries (Lowe's, Home Depot, K-Mart) to vet methods for FY14 nursery survey project.



New BIISC Manager Springer Kaye with new Big Island partner, the Office of Mauna Kea Management, and weed pull volunteers.

Other Activities in FY13

Progress on Eradication Targets: BIISC has six island-wide eradication target species. During this reporting period, BIISC completed initial control of 100% of survey areas for four of these six species. Pampas Grass has just two remaining known plants, each protected by their landowners. Forty-three percent of the 2700-acre projected survey area for Wax Myrtle has been surveyed and controlled.

New Management: BIISC welcomed new Manager Springer Kaye, formerly the Invasive Plants Project Leader for Pohakuloa Training Area. Ms. Kaye implemented a restructuring plan to double the ratio of field to office staff at BIISC, and laid the groundwork for a professional Public Relations contract for BIISC. Embracing the BIISC motto: *Hoala i ka maka*, Ms. Kaye seeks to engage and empower communities to take the lead in invasive species control in their neighborhood communities.

Policy initiatives: BIISC Executive Committee members gave a presentation on albizia to the Big Island Caucus of the state legislature, with 100% attendance. Follow-up included the first Albizia Stakeholder's Meeting in Hilo with over 40 in attendance, and HISC support for an albizia demonstration project in the Puna district, leading to two submitted bills, and unprecedented state, county, and private cooperation.

Next Generation: With the assistance of HISC and private funds, BIISC supported two PIPES interns, a summer HYCC intern, and hosted two HYCC teams this summer. Youth ventured into pristine lowland rainforest (found nowhere else in the state) to eradicate miconia, upland mesic forest in search of Cotoneaster, and conducted ant and wekiu bug surveys at the summit of Mauna Kea.

Additional Information

Protecting the Biggest Island: The Big Island is larger than all of the other islands combined. It is home to more than 70% of the state's Strategic Forest Reserves, and more than half the State Important Agricultural Lands. To achieve operating efficiency, BIISC needs to base 5-person field teams in Hilo, Ka'u/South Kona, and Kohala. Expansion to this capacity could be accomplished with the vehicles on hand, and an additional \$202,000 for salary and supplies for each new team for a total of \$404,000 per year. If facilities could be obtained from the College of Tropical Agriculture and Human Resources in Waimea and Captain Cook, the expansion could be accomplished for approximately \$380,000. The ratio of staff to acreage of land will still be significantly less than that found in any other county.

The next Miconia: The most cost effective way to eliminate an invasive species is to catch it before it becomes widespread, which is why the invasive species focus on early detection targets. When our most injurious invasive species are already widespread, however, the community wants to know why we do not focus our energies on the problems they can see. Though time-consuming, BIISC has a renewed focus on training community groups in invasive species identification, management, and advocacy.

Contact Information :

For more information, please contact:

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Jason Flemming, who joined BIISC in 2005, ventures onto a`a flows to assist DOFAW with Gorse Control.