Title: O'ahu Island Invasive Species Detection & Control
Organization: O'ahu Invasive Specie Committee
Award: $313,926

Introduction: The O‘ahu Invasive Species Committee (OISC) is a voluntary partnership of private, governmental and non-profit organizations, and individuals united to prevent new invasive species infestations on the island of O‘ahu, to eradicate incipient species, and to stop established species from spreading. OISC helps protect a wide range of environments by targeting selected invasive species for island-wide or localized eradication. In FY2014, OISC's total funding need was $1.05 million. OISC secured 110% of this need. HISC funding comprised 33% of OISC's budget funding and the remainder was leveraged with private, federal and other state sources.

Achievements in FY14

Deliverable 1: Survey 1500 acres for Miconia.

OISC’s primary priority target species is miconia (*Miconia calvescens*) because of the severe consequences that an established population would have on the watershed health of the island. Miconia forms dense, monotypic stands in Hawaiian forests. Its rapid growth and large leaf habit create a closed forest canopy that would reduce native and non-invasive plant regeneration. OISC's field crew surveyed 5,384 acres and removed 5 mature and 392 immature miconia trees from the southern Ko‘olau Range, preventing this species from expanding into O‘ahu’s watersheds.

A dense stand of mature miconia trees in Kaalaea

Deliverable 2: Survey Ha‘ikū Valley for Pampas grass.

OISC has been working with property owners to systematically remove pampas grass from the urban and residential areas. OISC’s work in this area proved to be essential after pampas grass was seen naturalized in Kīpapa and Ha‘ikū Valley. OISC controlled these naturalized populations and conducted delimiting surveys to ensure there were no other mature plants in the vicinity. OISC conducted surveys over 678 acres and found no plants in Ha‘ikū Valley.

Deliverable 3: Survey 52 acres in Palolo Valley for Himalayan blackberry.

Himalayan blackberry (*Rubus discolor*) is a thorny vine that blocks access to trails and recreation areas, clogs streams and displaces native plants. The infestation area is in the transition zone between disturbed and mostly native forest. OISC’s work here protects the native forests at the summit of the Ko‘olau Mountain Range. OISC surveyed 63 acres in Pālolo Valley and removed 496 plants.

Deliverable 4: Control 14.5-acre infestation of Cape Ivy.

Cape ivy (*Delairea odorata*) climbs over most other vegetation, forming a solid cover that blocks light and smothers other vegetation. There are two known locations of Cape ivy on Oahu – Palehua and Tantalus. Surveys and treatment were conducted over 58 acres.

Deliverable 5: Survey 50 acres for Spiked Pepper.

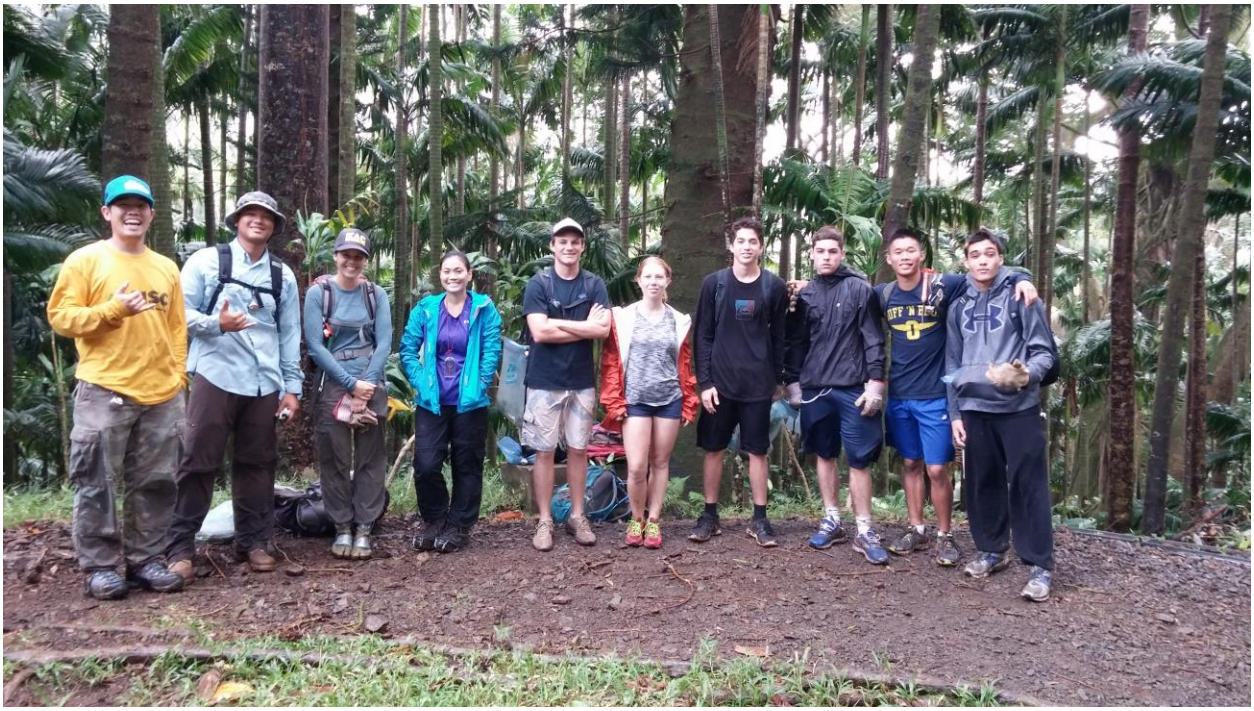
In partnership with Waimea Botanical Garden and Lyon Arboretum, OISC conducted surveys for and control of Spiked pepper (*Piper aduncum*). OISC conducted surveys over the 95 acres of the botanical gardens’ grounds to control plants that have spread from the original displays.

Deliverable 6: Collaborate with HDOA to conduct survey and control of Coqui frog. Work with nurseries to implement best management practices to reduce Coqui frog.
OISC's pest response technician assisted the lead agency for Coqui frog control, the Hawaii Department of Agriculture (HDOA), to control 4 coqui frogs on O'ahu. OISC has been unable to work with nurseries to implement BMP's to reduce coqui frog because HDOA is the lead agency for this species and therefore better suited to complete this project.

Deliverable 10: Conduct early detection surveys for Little Fire Ant in high priority areas.
Little fire ants (LFA) are a new stinging ant that infest yards, homes, farms and forests. In December 2013, LFA were discovered in hapuu logs sold at nurseries and garden shops on Oahu and Maui. A multi-agency response was launched to survey potential LFA locations and treat all known infestations. OISC conducts weekly detection surveys across the island. OISC conducted 78 surveys over 129 acres and assisted with 14 infestation treatments.

Deliverable 11: Respond to new species as appropriate
The coconut rhinoceros beetle (*Oryctes rhinoceros*) is a large beetle that is a major pest of palms. OISC assist the Hawaii Department of Agriculture with monitoring, and conducted 178 surveys over 18,327 acres for this invasive beetle over the past year.

Deliverable 12: Build support for invasive species work in the communities where OISC field crews operate through work with landowners and community groups:
Working with landowners is a continuing outreach activity that involves securing permission for field crews to access, survey for and remove miconia or other target invasive species from a private property or area, requiring one-on-one communication with landowners and community groups. In FY 2014, the outreach specialist engaged 259 landowners in invasive species control that involved 759 contacts with these landowners by phone, email and/or letter. Ninety-nine percent of all landowners contacted agreed to allow access to their property for invasive species control.



In 2014, OISC's volunteer program engaged 91 volunteers who contributed 416 volunteer hours to remove 4,986 individual plants of two highly invasive species found only at Lyon Arboretum that could damage O'ahu's watershed forests.

Deliverable 13: Operate the OISC volunteer program in partnership with Lyon Arboretum:
OISC's volunteer program is a partnership with Lyon Arboretum that leads volunteers to remove three harmful invasive plant species from Lyon's plant collections, (*Ardisia virens* and *Stromanthe tonckat*). The volunteer program raises awareness about and garners support for invasive species issues by involving the public in hands-on efforts to remove incipient invasive species and gives them an opportunity to experience the success of their work as plant numbers decline over time. In FY 2014, OISC's volunteer program engaged 91 volunteers who contributed 416 volunteer hours to remove 4,986 individual plants of the two targeted invasive plant species. Efforts will continue until these species can be declared eradicated.

Deliverable 14: Assist with the implementation of a statewide public outreach event for National Invasive Species Awareness Week in 2014:
OISC's outreach specialist collaborated with other members of the HISC Public Outreach Working Group to develop, market and implement a week-long, state-wide event coinciding with the inaugural Hawai'i Invasive Species Awareness Week.

Deliverable 15: Present information about invasive species to public and private organizations and at community and public events:
OISC delivered a total 17 presentations and 29 event participations that reached approximately 9,600 people from a wide variety of audiences across Oahu. Audiences included members of the public, legislators, landscape and agriculture industry professionals, teachers and students (elementary to college level), neighborhood board and community members, and staff of the Hawaii Department of Transportation. Events included the UH CTAHR Oahu Agriculture and Environmental Awareness Day, Agriculture Awareness Day at the State Capitol, the Science Alive event at Bishop Museum, and career days at various schools in Waianae.

Deliverable 16: Conducted outreach through traditional and social media:
The OISC outreach specialist wrote three articles that were published in traditional print: "Stay Away Little Fire Ant" featured in GREEN magazine in October reaching 390 readers, "This Ain't Your Grandapas Ant" featured in the Sierra Club's Malama i ka Honua Newsletter in March reaching 4,000 readers and "The state of devil weed in Hawaii" article in the international newsletter, Chromolaena odorata Newsletter, which waswritten to give the background, current status, and future needs and plans regarding the devil weed infestation in Hawaii. OISC maintains a Facebook page to update members of the public about OISC's activities and invasive species issues. In FY 2014, OISC's outreach specialist made 329 posts on OISC's Facebook page, the number of "likes" on the page increased by 182 to reach 717, and the page had an average weekly reach of 125 people. OISC expanded its social media presence by creating accounts on Twitter, Instagram and Vimeo (#oahuisc).

Additional Information
To make the most of limited resources, OISC focuses its activities where there is the greatest return for the effort invested, working to stop invasive species before they become established. OISC's partners and steering committee choose those species that have the potential to disrupt vital ecosystem services, threaten Hawai'i`s food sustainability or severely degrade the quality of life on O'ahu. In 2014, OISC continued to stop the spread of an erosion-promoting tree, performed early detection for little fire ant and coqui frog, and controlled a rangeland weed that is toxic to livestock, humans and other plants.

Contact Information

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