Primarily summarizing 2013 and highlighting updates since last meeting through the end of July. No mention of low priority species.

OISC Target Plant Species

Priority Target Species

- Miconia calvescens
- Chromolaena odorata
- Cortaderia species
- Delaria odorata
- Parkinsonia aculeata
- Pennisetum setaceum
- Piper aduncum
- Rubus discolor
- Tibouchina urvilleana

Rapid Response Species

- Cissus repens
- Melinus nerviglumis
- Nassella tenuissima
- Pennisetum villosum
- Senna artemisiodes
- Suriana maritima

OISC has 9 high priority plant species targeted for eradication and 6 species that are in the monitoring stage of eradication or rapid response species. There are 3 pest target species: Coqui frog, Little fire ant and Naio thrips.

OISC's top target species relative to work effort are miconia, chromolaena odorata, and little fire ant.

2013 Miconia Status
(January through July)

	Acres Completed	Acres Target Goal	Acres Remaining
Ground (200/mo)	1425	1400	2098
Aerial (200/mo)	1056	1400	841*
Road	616	n/a	n/a

* 2886 acres aerial initial buffer to survey

Miconia treated since January 2013
1 mature, 935 immature

- With current staffing levels, OISC is unable to survey the required ground survey acreage, so work efforts are focused within a 450m buffer of a historical mature plant location
    - 99% of immature plants are found is within 400m of a mature plant so this is the justification for the 450m prioritization
    - there are approximately ~900 acres left in this 450m buffer survey area
- There is roughly ~ 300 acres of “rollover acreage” in the ground buffer that was not completed last year in the ground buffer primarily areas around Kapalama Ridge/Nuuanu
- It is projected that the crew will be able to survey around 1,000 acres for the remainder of the year
    - 200 ac/mo is a realistic average of acres per month with a crew that varies between 5-7 people
- Roads are a rainy day project so no target projection and conducted every 2 years.

Updates and higlights since April:

Senator Gabbard went up in the air with OISC staff and was taken to Miconia in Manoa, waterfalls of the Pali Hwy and landed at the Paomoho cabin. It was a very successful trip.

The dense Luaalaea miconia population in Manoa was finally sprayed! The return flight to check on control efforts noted that only 3 plants were missed.

Checked out plant on manoa middle trail. Remnant of plant found that was reported by others. There goes our survey buffer.

The field crew has noted that this summer has been extremely, insanely wet. Please note photo on the bottom right as evidence…

Upcoming

Working collaboratively with KMWP to conduct ground surveys for Miconia in Heeia. Lara is creating an updated right of entry with KS, so that this and many other surveys can move forward.

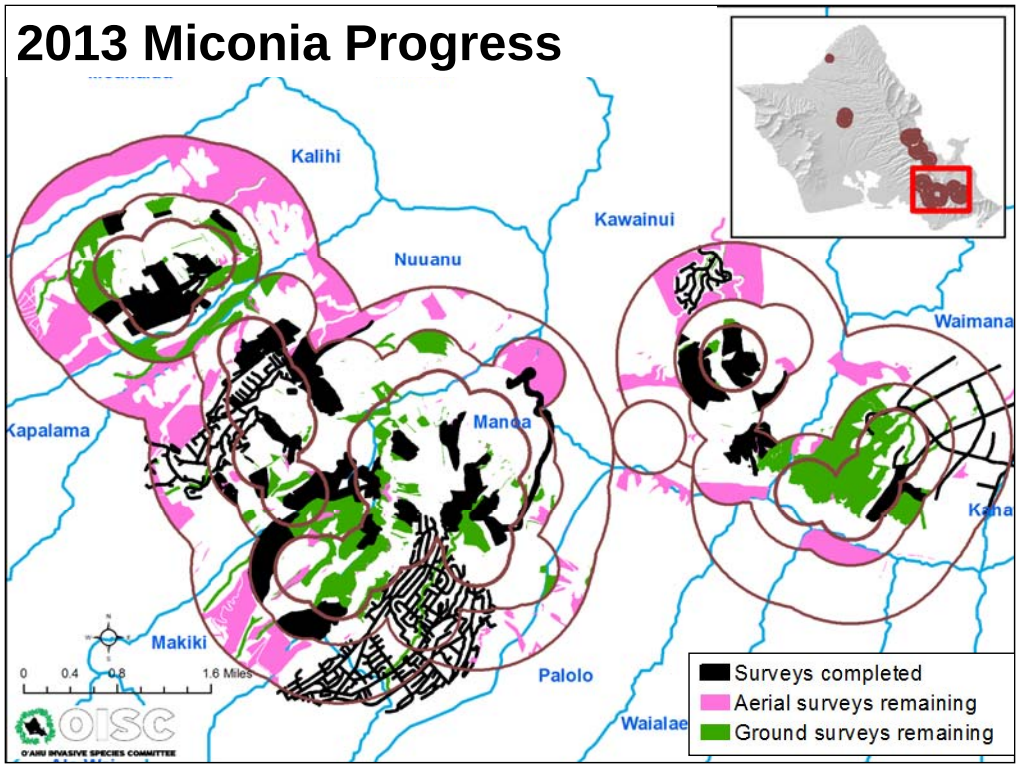
WPPG aerials need to be scheduled and then the weather needs to corporate: Aerial surveys for miconia:--500 acres in Haiku/Ahuimanu Valley

OISC will be working with Dr. Leary to use HBT to control the Luaalaea population

Pending BWS lands access (MOU in process)

Obtaining an AmeriCorp intern may help complete rollover survey acres

OISC needs a separate field crew to conduct aerial surveys and a significant increase in funding to support this crew and operations.



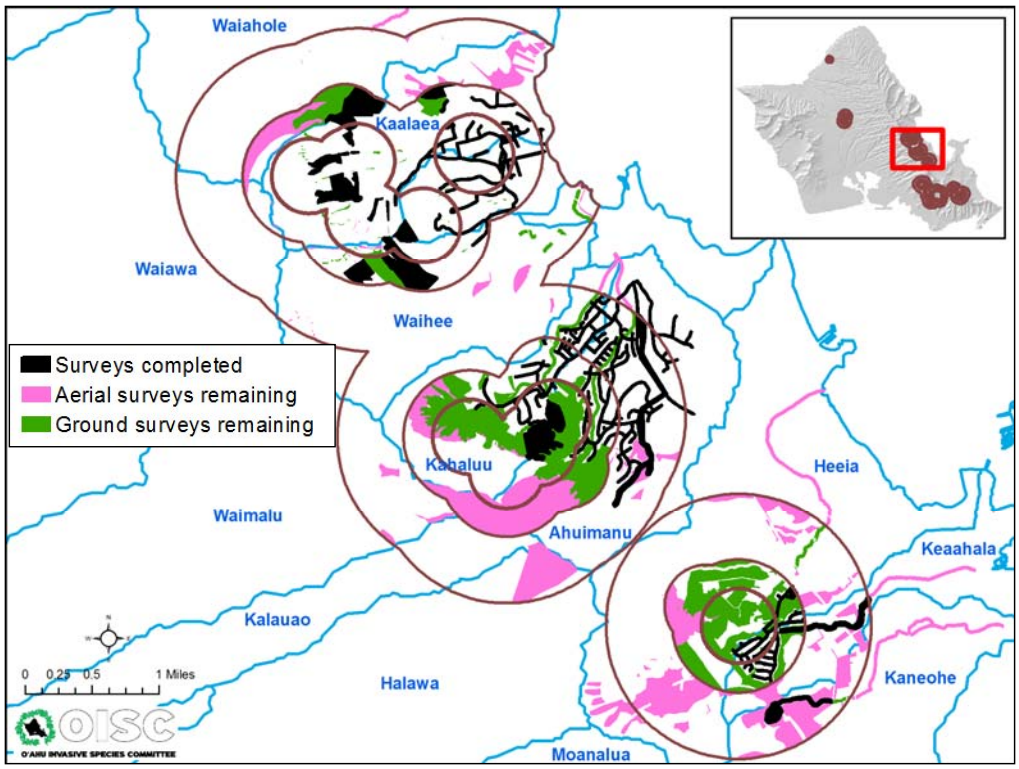
This is a map of OISC miconia survey areas from Kalihi to Waimanalo.

•The brown lines represent either the 450m, 800m, 1600m survey buffers.

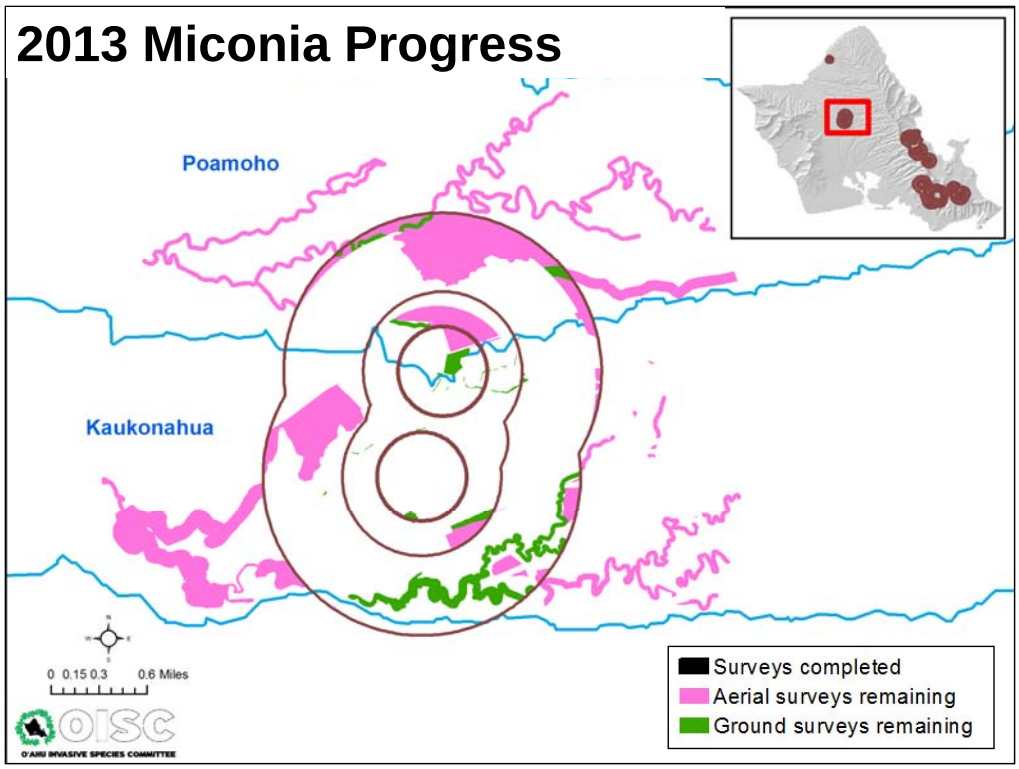
•The black patches are surveys already conducted this year and green are the ground survey areas that need to be conducted.

•The pink are aerial surveys that need to be conducted this year.

•Progress to date… 450m cleared mostly in Kalihi, Nuuanu, and Kawainui. Pending BWS in Mānoa.

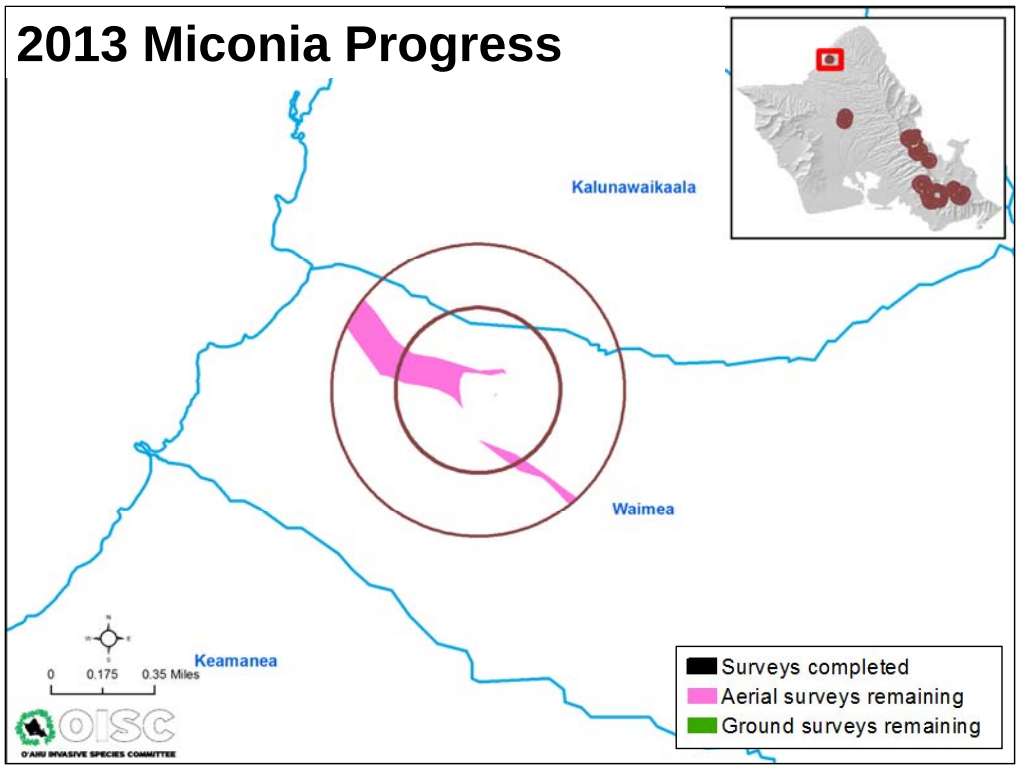


- These are miconia survey areas from Kaalaea to Heeia.
- Progress to date Kaalaea done in 450m.
- Heeia waiting until KMWP was available to do joint surveys which started this week.
- Aerials WPPG joint with corsel in Heeia areas also waiting until corsel was flowering.

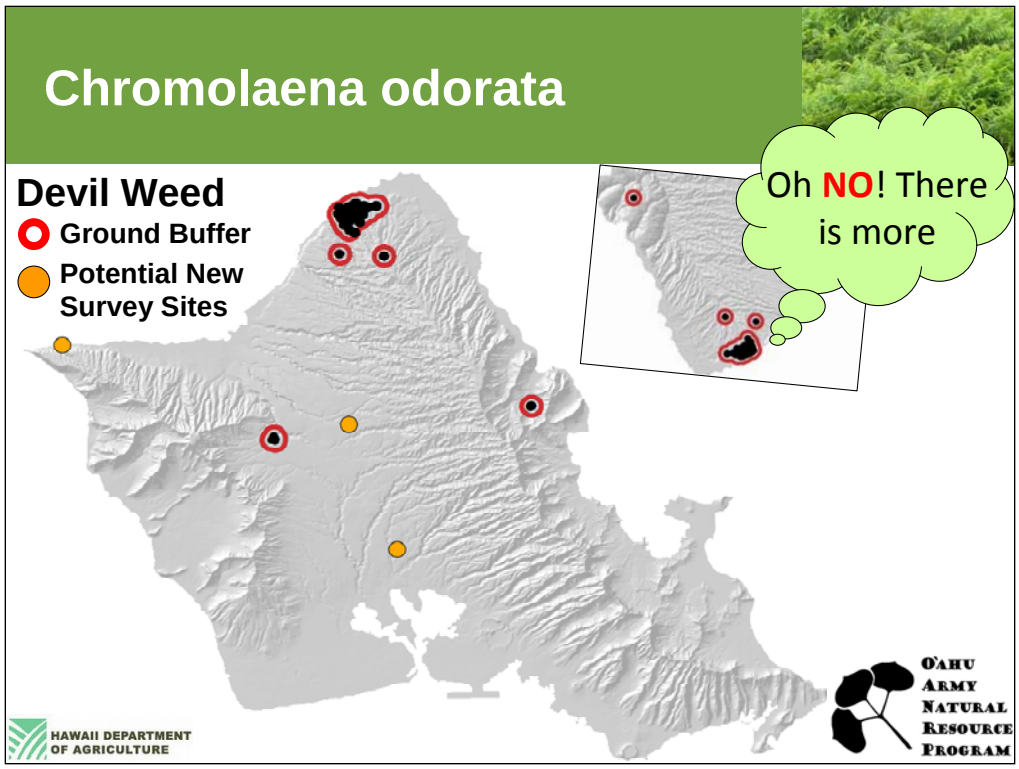


•Wahiawa.

•Pink aerial surveys, green ground surveys.



- This is Waimea botanical gardens.
- Pink aerial surveys.

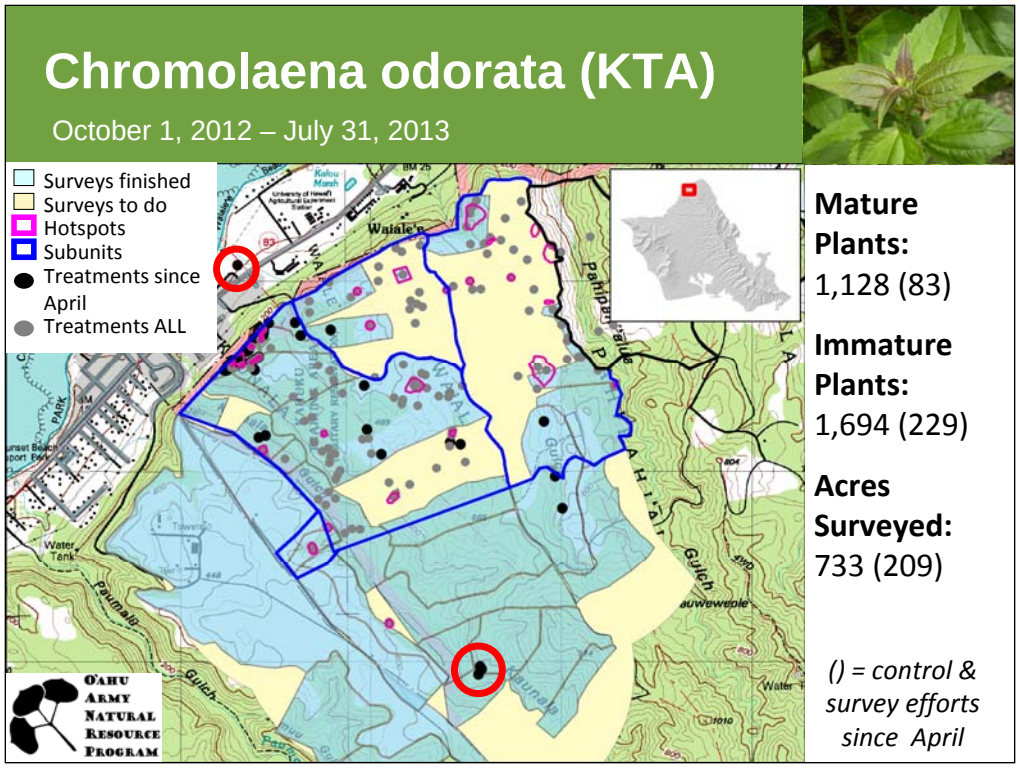


•Since the last meeting, OANRP discovered a new location at Schofield Barracks west range.

•The Orange points are high risk sites that OISC is proposing to survey in 2014: Kaena point, Helemano, Mililani Memorial Park. These areas are highly utilized by the motocross community and are in close proximity to highly sensitive natural areas.

•Creating a COWG Chrodo Working group with a meeting Thursday Aug 29th.

•The crew was able to visit the Kahana valley Chrodo location found by Joel Lau and Mashari Waite in January of this year. They treated 26 immature plants but were unable to complete the 200m scour and funding to complete this survey is pending.

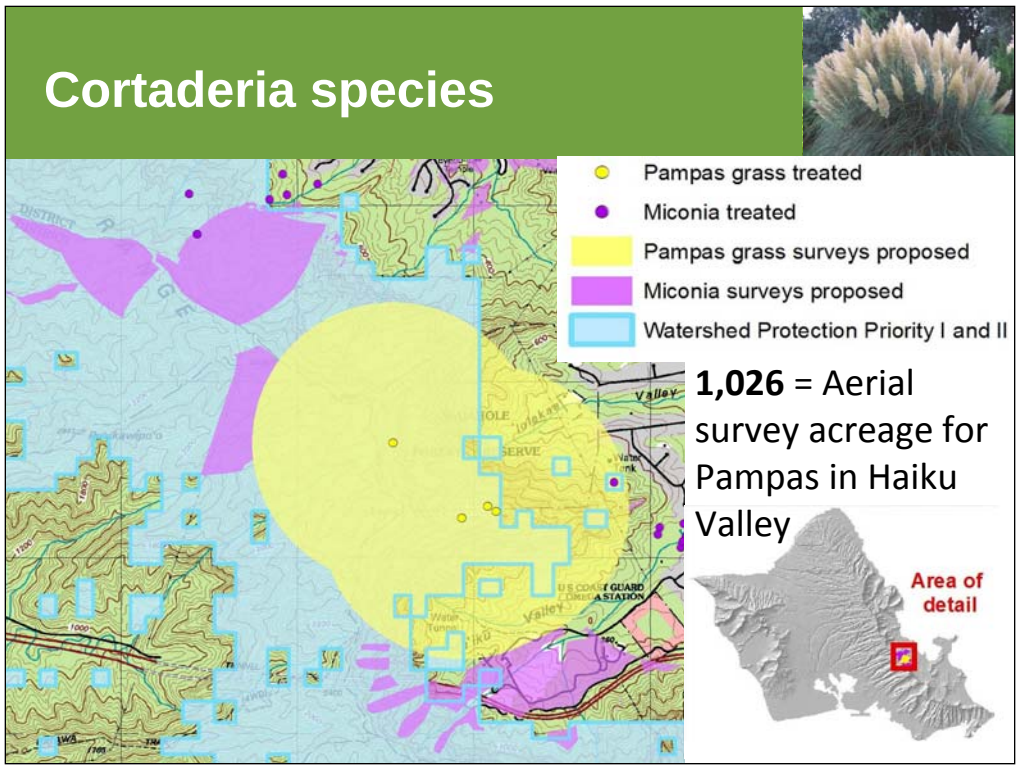


•This map highlights work completed since Oct as that is the contract time frame. Control efforts completed since the last OISC meeting are in parenthesis.

•Though private lands are displayed on this map, these are KTA work efforts. It should be noted that when we started this project survey efforts were not expected to reach so far outside the core area. OISC and OANRP are working on a strategy for next year.

•OANRP is loaning OISC a power sprayer to use in hotspots and may assist in some aerial sprays to speed up the control work. DOFAW has also offered power sprayer support and we are hoping to convert an old Coqui sprayer into a Chrodo killer.

•On the top left portion of this map, you will note the red circle around a point outside of KTA. This is at Velzy land and was found by the OISC field supervisor on his off time. The OED team immediately conducted intial road surveys of surrounding neighborhood and no other plants were found. 6/7/2013 record.

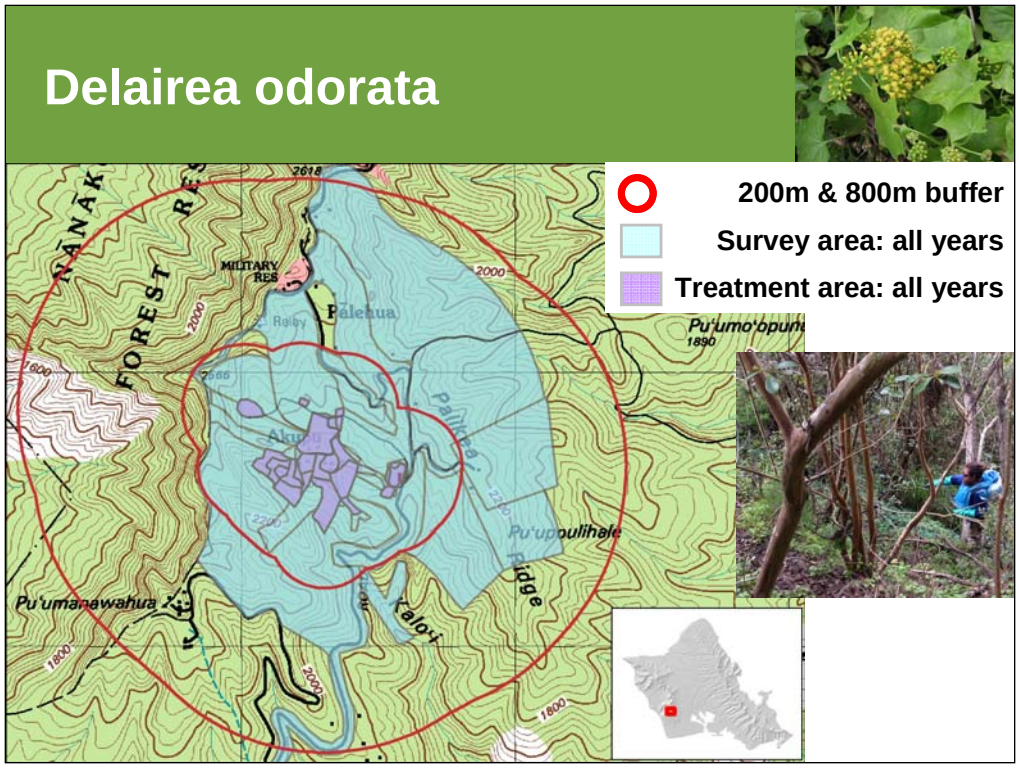


•Current survey locations are in Kapolei, Koolina, Kipapa, and Haiku.

•Checked on Royal Kunia Golf Course, no resprouting

WPPG grant going to start doing aerials around the ridge non-cultivated points since they will be flowering: Aerial surveys for pampas grass in Haiku Valley—1,026 acres

Aerial surveys for miconia:--500 acres in Haiku/Ahuimanu Valley



Delairea is only known in the southern region of the Waianae Mountain range and the infestation site is 14 acres.

This species is treated twice a year. The field has conducted 7 days of control efforts so far and will return in September.

•Day trip to check on herbicide plot trials

- Results: all with herbicide had a complete kill of plants.

•But our previous treatment had a lot of regrowth and we used 2% round up, 3% G4 and 5% crop oil

•Next trip in September

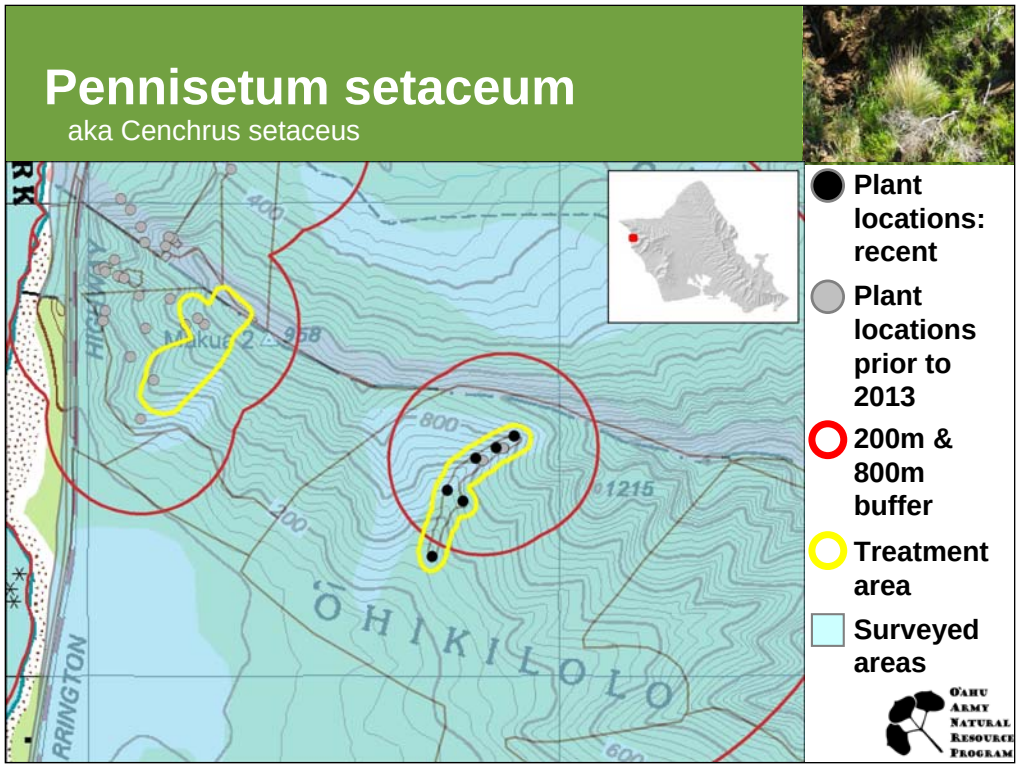
Test Plots

Plot 1: 0.5%Round Up + 0.5%G4 + 10% Crop Oil + H20 (500mL)

Plot 2: 2%Round Up + 3%G4 + 5% Crop Oil + H20 (500mL)

Plot 3: 5%Round Up + 5%G4 + 10% Crop Oil + H20 (500mL)

Plot 4: 10% Crop Oil + H20 (500mL)



Fountain grass in the Waianae's

•Conducted a joint survey with OANRP Ohikilolo and determined that this will be an area that OISC will need to revisit every 3 months. The Makai population had: 10 mature, 5 immature; Mauka 38 mature (131 imm)

•We feel confident about the boundaries of the Mauka control subunit but need to revisit the makai area to determine the correct subunits. We will continue to need OANRP support to eradicate this population.

Other Fountain grass control work:

•Pali Highway: 42 plants were controlled. This number is a little high, but missed previous survey

•KTA: Found some during Chrodo work and notified OARNP

•Fountain gras is continuing to spread throughout Southern Oahu

Airport (FYI. As with all this, some not necessary to mention at OISC meeting ,but to give you context)

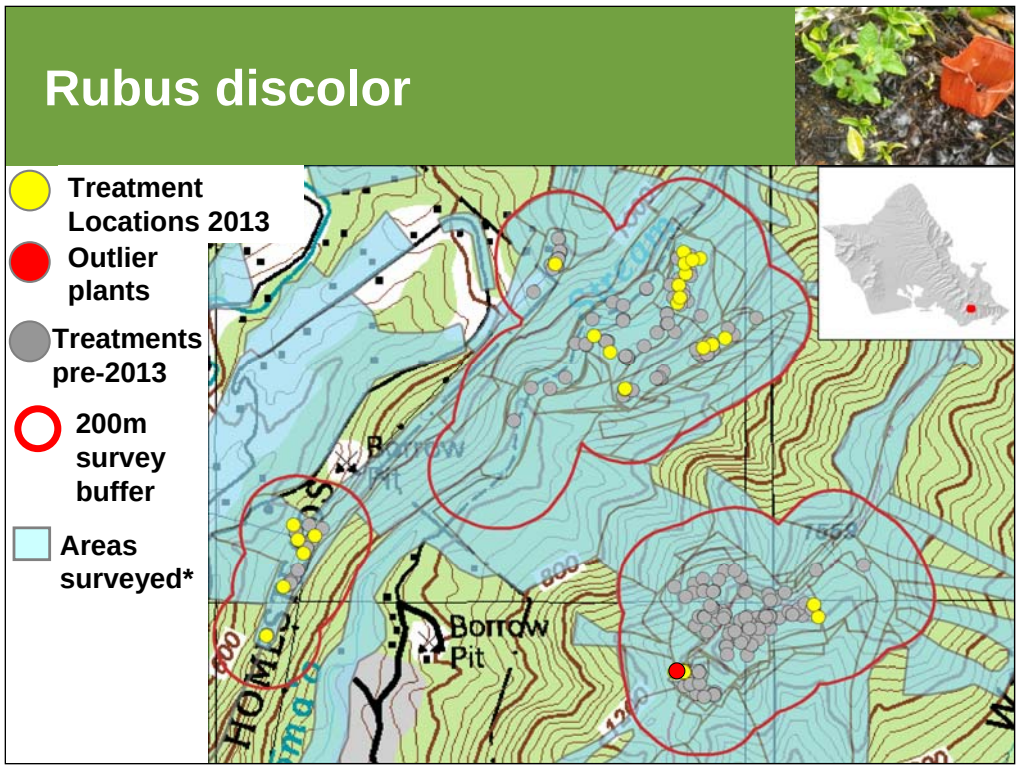
* Airport staff conducts control of this species and reports the number to Jean. (stopping this. Airport staff has not had the time to keep this as one of their duties.)

Piper aduncum

•One trip to Waimea to survey a portion of the 200m buffer still remaining. Still more to do and next visits are in September.

•LAURENT? Is the one Piper on the island or have your crews controlled it?

•OED found two separate plant locations in Waimea while conducting the botanical garden surveys. 2 of the plants were mature and one was over 7 meters in height.



There are 3 population clusters of Rubus discolor in the back of Palolo valley. With this map, the light blue indicates all survey efforts over time.

Mauumae

•Decreasing trend. Currently holding at less than 20 plants found per 6 month visit for the past few years.

•Three of four subunits had ZERO plants found. This will eventually lead longer survey intervals. Stay tuned! All immature plants for the past couple of years.

•Red dot: 7 immature plants found outside of typical survey area, but along trail. 200+m scour had no other plants in area.

Waiomao

•All immature plants for past couple of years and a decreasing trend for the population. There were around a 100 plants treated on recent visits.

La'i

•Have not visited since last meeting

•The picture at the top right shows a Himalayan blackberry plant in potting soil with a plastic pot next to it. Grrr….

Tibouchina urvilleana

3 locations on Oahu, 2 in close proximity to each other on Round top drive

- Tantalus: 3953 Roundtop Drive. Last visit 1 plant. Previous visit on 20120523 1 plant was found and treated.
- Tantalus: 4005 Roundtop Drive. Could not get access last visit. Previous visit 20120523 no plants were found.
- Tantalus: Manoa Cliffs: last visit 72 plants. Previous visit on 20120508 1,528 plants were treated.
- Next visit for all 11/2013

OISC Staff & Volunteers

•Just hired on Chris Frohlich as a permanent field tech. He was a temp hire for 6 months this past year! Glad to have him!!!!

•Ariel Imoto – Summer UH PEPS intern just finished her term.

Gigapan Project – reviewed 1365 images, 5 with chrodo, 10 possible

LFA surveys

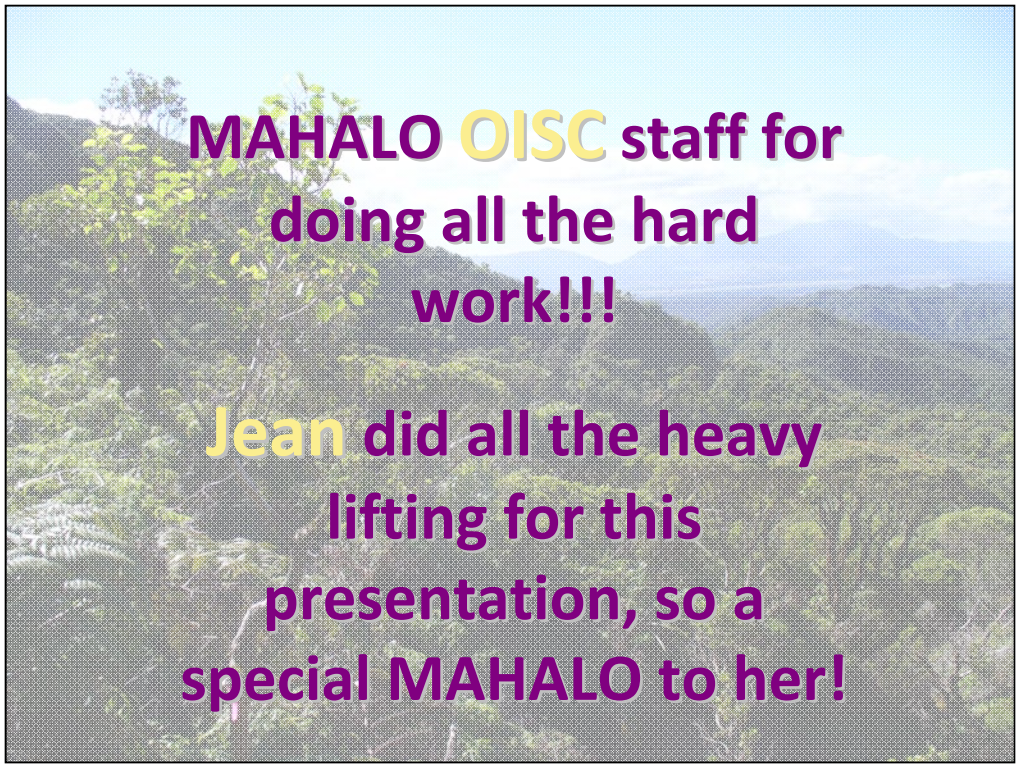
Volunteer outreach surveys

Miconia surveys

•A woman who works at Hui Ku Maoli Ola, Moani is volunteering for OISC in exchange for GIS experience. She has been a great help with data entry and is expanding her experience in GIS by working on a few exploratory GIS projects for us.

•Pat Chee has agreed to review some of the imagery we have from Resource Mapping imagery that DLNR has shared with us in the past.

•Elite volunteers: 3 trips: 5 immature miconia; 32 acres; 84 hours


MAHALO OISC staff for doing all the hard work!!!
Jean did all the heavy lifting for this presentation, so a special MAHALO to her!

BREAK

HDOA Partnership Species

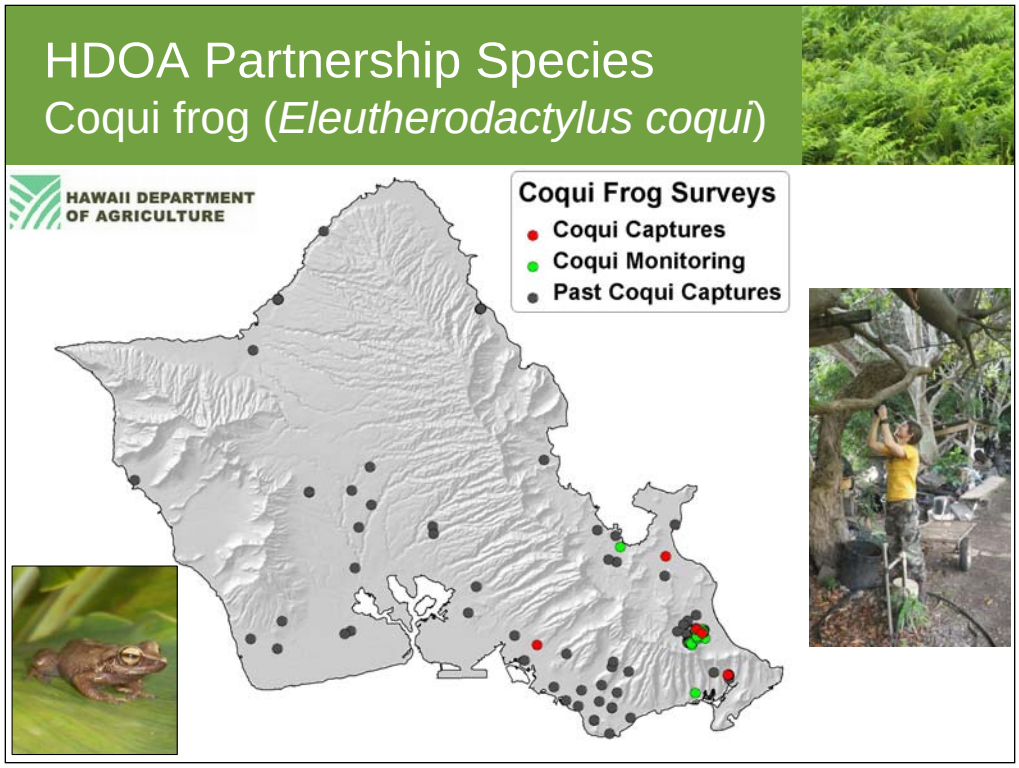
Little fire ant (*Wasmannia auropunctata*)

•Total of 60 surveys in 2013 and a total of 77.6 acres surveyed with an average of 1.3 acres per survey.

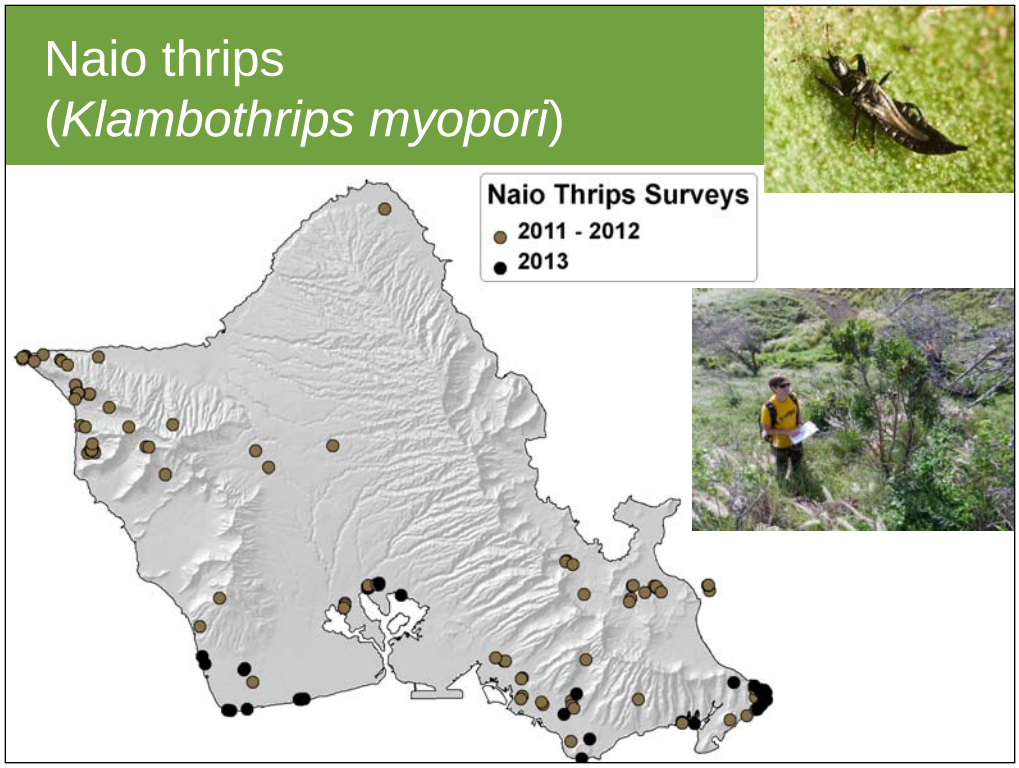
•We will continue surveying parks, golf courses, farmers markets, Navy sites, and begin to survey roads.

•Setup an information table to discuss LFA at the Hawaii Veterinary Medical Association Conference. Cas Vanderwoude giving a presentation there as well.

•At the end of August I will be attending an LFA workshop on the Big Island.



- The red points signify the coqui frogs that were captured
- The green points show the monitoring areas
- 30 monitoring events and 6 coqui frogs captured so far this year
- We will continue to monitor trouble areas and non-trouble areas



•In May I met with Cynthia King and Rob Hauff to discuss moving forward on the EDRR plan for myoporum thrips. Still working on the plan but it has gotten some major improvements.

•Surveyed new locations for naio: Barbers Point/Kalaeloa area, Koolina, Diamond Head.

•Found 10 sites with naio and ~200 plants.

•I went to Big Island to gain training on finding myoporum thrips and the damage they cause to naio.

BREAK

Funding

$1.4 million* = Eradication of Miconia*

- $814,000: FY13 total projected need
- $822,026: FY13 amount secured
- $850,000: FY14 total projected need
- $646,268: FY14 funding secured
- $235,000: FY14 proposals in review
- $203,732: FY14 projected shortfall
- **$753,732:** FY14 projected shortfall to reach eradication goals*

•$1.4 million = total funding need to successfully eradicate Miconia and other OISC target species on Oahu.

•As of January 2013, the required survey area by ground is 12,142 acres and by helicopter is 14,366 acres for a total of 26,508 acres within the 111,407-acre Ko'olau Mountain range. This means we need to survey 4,047 acres by ground and 4,789 acres by air every 3 years for at least 2 or 3 cycles. We are currently on track to survey half of the survey acres we need to in order to successfully eradicate this species on Oahu.