

# OISC Committee Meeting April 24, 2013

Ho'omaluhia Botanical Gardens  
45-680 Luluku Road  
Kaneohe, HI 96744

## **Attendance:**

Julia Parish (OISC), Lance Bookless (MCBH), Joshua Fisher (USFWS), Bernice Fielding (Lyon Arboretum), Arthur Javier (HI-ARNG ENN), Rob Hauff (DOFAW), Lanky Morrill (DOFAW), Laurent Pool (Waimea Valley), Aaron Works (OISC), Josh Atwood (HISC), Lara Reynolds (OISC), Danielle Frohlich (OED), Amy Tsuneyoshi (BWS), Greg Koob (NRCS), David Smith (DOFAW), Amanda Hardman (DOFAW), Gabrielle Schuerger (DOFAW), Julia Lee (OANRP), Jane Beachy (OANRP), Tom Raa (Volunteer), Lynette Williams, Jean Fujikawa (OISC), Alisa Kimura (OISC)

## **Welcome and Introductions:**

Julia opened the meeting at 9:12am; all attendees introduced themselves. Julia thanked everyone for taking the drive out to the Windward side and the OISC staff for assistance in preparing for today's meeting.

## **OISC Target Species Update (Julia):**

Update will include work conducted in 2012 and what OISC is working on this year. Julia encouraged the group to interrupt with questions or comments to facilitate a discussion with hopes to learn from the exchange.

### Target Species List:

Julia reviewed the 9 high priority plant species, 6 rapid response or educational target plant species and 3 target non-plant pest response species. The majority of OISC resources is spent on the control of miconia, Siam weed, Himalayan blackberry, fountain grass, coqui frog and little fire ant.

### Brief Update on Rapid Response Species:

- *Cissus repens* in Waianae and Makaha Valleys; surveys are conducted bi-annually.
- *Melinis* and *Nassella* species controlled in Kahala and monitoring scheduled every 6 months.
- *Pennisetum villosum* detected in Kahala, Aiea and community garden in Diamond Head. Control and monitoring in Aiea and Kahala are bi-annual. The plot manager at Diamond Head Community Garden refuses to allow OISC to remove.
- *Senna* disappeared and is no longer on the property.
- *Suriana* removal is pending permission; several plants were detected in Kailua.

### Overview of Miconia for Last Year:

OISC Field Crew found and treated 5 mature in Kalihi, Makiki, and Manoa. Two of the 5 were treated aerially with ball sprayer.

*Discussion:*

Clarification on definition of “rolled over acres” (noted on the powerpoint chart) was requested. Julia explained that these are acres not done last year and therefore are added to acres to be completed this year; similar to “roll over” cell phone minutes

Miconia Strategy for 2013:

Minimum of 10 days ground survey and at least one aerial survey scheduled each month. Aerial surveys are scheduled every available Friday in the hopes that at least one flight will occur (schedule and weather permitting) in a month. Miconia surveys should take about 50% of all available OISC field crew time. The 2013 ground survey acre goal was originally 300 acres per month and 200 acres per month aerially.

Julia reviewed details of miconia survey area maps for:

- Kalihi to Waimanalo – Areas completed this year and areas which are left to survey (both resurvey or initial survey) including rollover area. Clarification was requested and received to confirm that the map conveys that the majority left to conduct is aerial and also pointed out that the majority of the ground survey left to be completed is in the 450 meter buffer.
- Kaalaea to Heeia – 2013 is a tough year for rollover surveys because these areas are steep, wet and hard to access terrain which is why they’ve been rolled over. Kaalaea surveys have been pretty productive, but there’s a lot of ground to cover in Ahuimanu.
- Wahiawa – There is still some initial ground surveys left to complete in the 450 meter buffer area.

*Discussion:*

Conversation revolved around the question of whether any of the plants found in the last year were from the Wahiawa area. Not in the last year, but a keiki was found by a botanical garden employee recently and they are still finding miconia even now when the miconia was introduced to the garden in 1961, with the last mature plant found about 14 years ago. A question was raised whether the garden has been consistently finding them over the years and not saying anything, or all of a sudden they’re starting to sprout; it is curious because we hadn’t heard of any activity until now and ‘why’ would be a good question to ask. Jane posited that a personnel change there may have something to do with it and perhaps the garden was previously not reporting. Danielle mentioned that the plants found were not mature but a couple of years old. She was also able to provide the group with details of the circumstance in which one of the plants was found; which was in an area with heleconia that has similar purple leaves which is why it had probably been bypassed on more than a few occasions. Therefore, regularly conducted surveys of garden grounds is the strategy for finding them. Surveys are currently only within the garden boundaries, but the possibility of going farther out may need to be explored depending on resources available and as priorities shift.

- Waimea Botanical Gardens – Remaining surveys in this area will need to be done aerially. Additionally, OED and OISC field crew are conducting surveys for piper and a few other species and with Laurent (Waimea Biologist) hiking throughout the forest on the lookout for miconia, there are many eyes and ears on the ground on a consistent basis at this location.

*Discussion:*

Danielle mentioned an interesting point about surveying botanical gardens is, while looking for a target species, finding plants that are spreading around that aren’t on our target list, and

when assessed for weediness, should be on the list. OED are finding species that will eventually make it onto the list so, if can, should start controlling those now.

Julia: Ground survey acre goal for 2013 is currently 300 acres a month with 7 field crew in mind surveying for miconia at least 10 days a month. Monthly acreage goal for aerial surveys is set at 200 acres. At four months into the year, reassessment of the OISC survey goals must be considered. The field crew will prioritize surveys that fall in the 450-meter survey buffer with rollover from last year to be completed first. There are 2,807 acres of initial aerial surveys to chip away at in addition to the 1,099 (on the presented powerpoint chart). 1,109 acres to be surveyed this year in the 450 meter buffer and 440 acres of rollover which totals 1,549 high priority survey acres left for this year. The current average from January to April is 200 acres per month with the field crew fluctuating between 5 to 7 members. 200 acres per month is more feasible with current field crew size and capacity, by prioritizing on the 450-meter buffer areas we will be able to survey around 1,700 acres for the year.

A big challenge that the crew is facing is scheduling aerial surveys. It has been extremely difficult to be confined to just Fridays. Since other organizations work 4 “tens” Monday through Thursday they are able to schedule their flights on those days. The one week per month that we camp at the Kahuku Training Area for Chromalaena work eliminates that Friday because we’re doing 4 “tens” that week. The remaining available three Fridays are very few to work with due to bad weather and holidays to work around. It has been really difficult to conduct even one aerial survey a month. We now have the funding but no time or scheduling capacity to do the surveys which is a big need for us, because we not only have to do aerial surveys for miconia but also pampas grass.

#### Chromalaena odorata:

Original infestation area of Chromalaena is found adjacent to a motorcross track in Kahuku. OANRP and Na Ala Hele have been working with the Hawaii Motorcross association and hope to get a wash station there. Plan to use a big race event at the end of June as an avenue to reach out to this community to keep their eyes peeled for Chromolaena in other parts of the island. In January, a large Chromolaena plant was in Kahana Valley at the end of a foot trail. The OISC field crew gained permission to conduct surveys in the state park and will be conducting a 200 meter buffer scour around the plant location on May 15th. There is currently no indication how this species could have been introduced to Kahana Valley but is potentially pretty scary because of the distance between Kahana and Kahuku.

#### *Discussion:*

Lanky asked to be part of the crew going to Kahana Valley on May 15<sup>th</sup> and will contact Taylor Marsh (OISC) to coordinate.

When asked whether there has there been some tapering off of the population from the core in terms of spread, Jane responded that although the surveys have not been in the core because of the large size, it is definitely the densest and nothing that they’ve seen anywhere else even approaches that. So it seems to be the epicenter. Although they have found other hot spots that are really dense, but significantly smaller in numbers.

Julia reviewed the map of the area where OISC is conducting work. At the next meeting, will be able to provide a full picture of the extent of the population. Currently averaging 160 hours a month (4 field crew x 40 hours) and by September 30, are projected to hit all subunits once and buffer areas in KTA and be able to treat all hotspots twice.

Completed 90% of the original priority survey areas (initial survey areas) but the area has expanded since we found more plants. The buffer also goes into adjacent private land which Lara is working to secure permissions for access. Many of the areas left to survey (this year) were surveyed a year ago before the contract with OISC was started.

The group discussed treatment with boom sprayer and herbicide mix that was used. As well as whether bare ground will result after the treatment and what would be good replacements.

#### Cortaderia species:

All pampas grass removed since 2005 have been identified as Corsel. Three Corsel plants were found near the Kipapa trailhead in Waikele watershed and there is no indication how the plants arrived to the area. In the fall of 2010, five mature pampas grass plants were found in the Heeia watershed and Waiahole Forest Reserve.

Current survey locations for pampas grass are in Kapolei, Koolina, Kipapa, Haiku and Nuuanu.

- Kapolei golf course has only given permission to trim and collect the seed heads and have not confirmed which species of Cortaderia is located in Kapolei.
- Koolina still refuses to allow for removal and replacement of the pampas grass there.

#### *Discussion:*

Previous outreach efforts had seemed to be hopeful that they would replace the pampas grass, but things have since become less positive and stalled. They had previously agreed to remove and replace, but have changed their minds.

- At Royal Kunia, the field crew is checking for new recruits on the golf course and along roadsides.
- The crew needs to conduct another survey of the Kipapa population to ensure control efforts were effective.
- Lara gained permission to remove the Nuuanu plant, which turns out to be at least 2 plants in pots in a private yard. The owner also mentioned that there were potentially more pampas grass near Queen Emma's Summer Palace; which turned out to be sugar cane.
- The Haiku plants will most likely need to be treated with an aerial spray but it's surrounded by native plants. Currently there are four known locations in Haiku Valley. This population and the Kipapa location are disconcerting because the introduction pathway is unclear but they are not being cultivated because of the remote location or seed train.

OISC needs to conduct 1,026 acres of aerial surveys for pampas grass this year. Julia reiterated the need to find a way to schedule aerals during the week. We have the money for these pampas surveys, but we won't be able to spend it if we can only schedule flights on Fridays. Jane suggested that Julia contact their people who do HeliOps to see what they say and work with them to see what can be done. Julia mentioned that the funding has been secured, but we keep getting pushed back due to weather.

Delairea odorata (Cape Ivy):

Delairea is only known on Oahu in the southern region of the Waianae Mountain range. The original management plan scheduled a four day camping trip bi-annually to conduct control and surveys. This year, the field has conducted 6 days of Delairea control and surveys, has treated over 14 acres and still needs to return to finish treatment testing. The original population site estimate was 11 acres.

Survey treatment areas are related in acres because the growth habit of this species makes it impossible to perform individual plant counts like other target species. Conducting herbicide trials in four 1 meter<sup>2</sup> plots. The previous herbicide mix seemed to be burning off the leaves, but not affecting the rhizomes and we need a systemic effect. The crew also discovered that crop oil was gunking up the backpack sprayers so hope to reduce the amount of crop oil needed in mix.

*Discussion:*

The group suggested other possible herbicide mixtures to consider including elimination of the crop oil for the sake of the backpack sprayers. Rob suggested contacting James Leary (CTAHR) as a resource. Since Mauna Kea targets Delairea, Rob Stevens was also suggested as a resource for mixture ideas as he has been reporting kills. Julia remarked that the area is really small and we definitely need to be successful since it is directly adjacent to important native habitat.

Pennisetum setaceum (Fountain Grass):

Julia reviewed OISC's survey and control efforts of Fountain grass in several areas.

- Pali Highway – bi-annual surveys using 2% Round Up, foliar application. This location requires a DOCARE officer escort. On recent visits, the crew found <10 immature plants and on the most recent visit only one was spotted, but it was rainy so they were not able to treat it.
- Kaala Learning Center – survey schedule is every 6 months and crew is due to return in August. There has been nothing since 2008; however, need to continue to check for few more years.
- Kauaopuu Ridge – surveyed the area in February and will return in August. It has been 6+ years with no plants found; however, will check for a few more years because of a fire in 2012.
- Makua –
  - On private property, the crew has found 5 mature and 12 immature outliers and 6 mature and 9 immature adjacent to KTA. In KTA, they have found and treated 363+ mature and 60+ immature and most likely more by now.
  - Scheduled to survey and treat every 3 months.
  - Currently do not have permission for herbicide use on private property which poses some difficult challenges. Julia hopes that OANRP and Lara will be able to win-over the property manager through education and dogged diligence. Despite all of the information Lara has provided to the property manager he is still very skeptical about our ability to control and monitor this species and about the use of herbicides in general. The specifics of his concerns are not quite clear and, additionally, he is not on site, so he may be truly unaware of the threat of fountain grass and the extreme nature of the landscape in this area. The OANRP team with repelling experts will be assisting the crew on May 6<sup>th</sup> to assess manual control feasibility for this property.

- Airport – the airport staff conducts control and surveys of this species and reports the number to Jean.

*Discussion:*

Lanky asked if there are any fountain grass monitoring efforts in Keolu Hills and into Bellows since every year they monitor theirs and find a lot. Julia replied that OISC used to have volunteer trips there, but because there's so much, we don't control in that area anymore. Josh F. mentioned that the goal back then was to keep it off of the trail so hikers weren't picking it up and the strategy continues to be to keep it out of the Waianaes; which is why the crew is on the Pali corridor, Julia added.

Jane offered to provide Lara with data on a couple of fountain grass sites that they were able to eradicate to possibly provide to the reluctant property manager to show the decline. It may be helpful to give to the land owner to show that this method can actually work. Lara agreed that it would be very valuable to show him that our efforts are validated; perhaps can be the next step after the manual. Julia expressed her hopes that on May 6<sup>th</sup> the Army crew will be able to rappel down and manually remove these species and be done with it.

Piper aduncum:

Biannual surveys for Piper aduncum are conducted at Lyon Arboretum and Waimea Valley; can be manually removed when small, but larger plants are treated using the cut stump method using 20% G4 and crop oil. Three Lyon plant locations were surveyed in March and 29 immature plants were controlled. Last check of Waimea found 2 immature and Waimea is assisting with control and monitoring efforts; initial survey buffers have not been fully scoured.

Rubus discolor:

Three population clusters of Rubus discolor in the back of Palolo valley.

- Mauumae – shows a decreasing trend; down to under 20 immature during control efforts conducted in December of last year
- Waiomao – decreasing trend from several hundred plants to 82 immature in January. This site could benefit from pre-emergent but it's on BWS land and we don't currently have permission to use herbicide.
- Lai Road –
  - Survey gap between December 2010 to July 2012 because of access issues. In July 2012, 12 mature and 241 immature plants were treated.
  - Field crew was finally able to schedule a retreatment on April 22<sup>nd</sup> (Earth Day). The crew manually removed 504 immature plants and also found evidence of outplanting taking place in this area.

*Discussion:*

Josh requested confirmation that the plants were manually removed because (he thought) HECO comes and sprays that whole area. Julia confirmed that the plants were manually removed because there are property owners that do not want herbicide used although, where the plants are, is only a small slice of land.

Lanky requested confirmation of when Julia said “outplanting”. Julia affirmed and provided the group with a summary of the current situation:

The crew can only survey this area with DOCARE escorts due to the extremely volatile nature of a resident in the area. The crew has been trying to schedule a DOCARE officer to accompany them since January and were finally able to go out on April 22<sup>nd</sup>. The Palolo resident has been documented stating that he has been outplanting this species in the Palolo area and has been seen with plants in the back of his truck in previous years. He is most likely cultivating Rubus in his yard but OISC have been unable to survey his yard because he has refused permission. He is extremely aggressive and threatening and both Rachel and Julia have contacted PCSU to alert them of this individual. Josh F. stated that the individual’s original justification, back in the day, was that he wanted to prevent hikers from using the side trail.

Danielle shared about another rubus that’s been seen in cultivation; was actually at Koolau Farmers and, thanks to a tip, there was an outreach to Koolau Farmers and they took it off their inventory. Danielle put the group on alert that if anyone sees any rubus, even though it’s not on the noxious weed list, they are extremely hard to remove once they get established and we don’t want any here. Potentially a landowner could be planting it “legally” that he bought in a local nursery but it is not a good idea to have introduced Rubus species in Hawaii.

Coqui Frog:

According to HDOA data there have been five confirmed Coqui on Oahu since January – 2 were on interisland barges, one was on a cargo plane, one at a home in Alewa heights and one at a Waimanalo home. OISC assisted HDOA with the detection of the Waimanalo frog. Since 2008, OISC has partnered with HDOA in capturing 154 Coqui frogs. There are potentially more than 154, but we don’t know since OISC has access to Coqui data only when we have assisted with HDOA.

Little Fire Ant

In partnership with HDOA, OISC conducts LFA surveys at golf courses, C&C parks, community gardens, landscape projects, large florists, and Navy sites. In the past two years, OISC has conducted 97 little fire ant surveys at high-risk sites. Since December 2012, 25 surveys have been conducted over 24 acres. There is a large scale landscaping project taking place at the International Market in Waikiki that we hope to survey for LFA. HDOA is hoping to secure permission to survey rental car companies and OISC will assist with detection efforts. This is a species that really needs a task force.

*Discussion:*

Rob asked whether OISC was involved with the surveys at Aulani and whether any were found. Aaron answered that OISC was there in cooperation with HDOA and none were found; however

we weren't actually able to survey on Aulani property. We were allowed to survey their remote nursery area that they were doing some construction on. We were also allowed to do the beach front since it's public versus private property. It was the second survey although Aaron was not part of the first one and we will do them annually.

Naio thrips (*Klambothrips myopori*):

Aaron provided information on current work on thrips. Reviewed map indicating points that he received from DOFAW and Army and OISC which he checks annually because that is all the time that he is able to schedule.

*Discussion:*

Aaron is also putting together a document regarding the cooperating agencies and thrips detection to help answer the question of how often we should be checking. Rob remarked that he liked Rachel's suggestion of someone adopting the Naio as a project and would do the points; that way it can be reported. Currently Aaron checks 23 sites, but since they are the lowest priority of target species he checks, it's on the bottom of the list. Aaron asked if anyone knew who is checking the Pearl Harbor natural wildlife reserve (between Campbell Industrial Park and White Plains). He recently spoke with Cynthia who was checking there for another type of insect, but not Naio; Rob offered to check. Since it's Fish & Wildlife managed land, Aaron wasn't sure who he should be contacting; Rob suggested Dave Ellison as a good one to start with. Jane mentioned that there have been restoration efforts there in the past and it was finding Naio. Aaron suggested that it would be good to get new sites to look at and Rob offered to provide some sites that to consider.

*Action:*

Aaron will send current list to Rob & Lanky to add possible new sites.

Volunteer Trips:

Lara Reynolds led five volunteer trips since October of last year that assist Lyon Arboretum to remove potentially invasive plants. Held on the second Saturday of the month, they have been highlighted on Oiwi TV and KITV. Volunteers contributed over 570 work hours to control invasive plant species in Manoa.

OISC field crew supervisor, Taylor Marsh, leads elite miconia volunteer trips periodically throughout the year. This year there have been two elite trips that resulted in controlling 5 immature miconia, 64 hours of work that covered 24 acres.

Julia summarized the outreach efforts performed and presentations offered so far this year including: an informational legislative briefing at the state capitol, a presentation on invasive species information at Neighborhood Board meetings across the island, participation in career days at Wai'anae High School and Kamehameha Schools. The OISC outreach specialist, Lara also gave presentations to high school and university level students about OISC's work and target species and hosted informational booths at Agriculture Awareness Day, Hawaii Invasive Species Awareness Week events, Bishop Museum's Science Alive event and the Landscape Industry Council of Hawaii conference.

The group recessed for a break at 10:20 a.m.

Meeting reconvened at 10:33 a.m.

**Reptile and Amphibian Establishment Risk Assessment (Aaron):**

Aaron Works, OISC Pest Response Technician, provided a summary of the background, methodology and findings of his assessment.

OISC 2013 Vertebrate Early Detection Action Plan -

- Compile list of exotic species commonly sold as pets
- Assess establishment risk in Hawaii of a potential introduction
- Ponder methods to detect presence/absence and control

In Hawaii 41.3% of reptile and amphibian introductions have been caused by the pet trade or intentional release. Kraus (2009) Database of Introductions was main source for compiling list of successful introductions elsewhere via pet trade and successful and unsuccessful introductions in Hawaii.

Assessment of establishment risk involved prioritizing and assessing risk using Bomford et al's (2008) Reptile and Amphibian Model. Climatch was used to assess climate data between species native range and Hawaii. Of the 118 species assessed, 31 were species already established in Hawaii. The remaining 87 species not established in Hawaii, were given risk rankings of extreme, serious, moderate or low. In Hawaii, 94% of all successful introductions have been in the extreme and serious risk rankings. 55 species fell in the extreme and serious categories and, if given a chance, could likely establish successfully.

Possible next steps include:

- Create early detection program
- Create manual for information and education outreach
- Create an early detection program and methods for presence/absence & control
- Create a manual for informational and educational outreach

*Discussion:*

Danielle asked Aaron if he has gone to pet stores or pet trade shows; she sees it similar to surveying nurseries because, if a species is popular in nurseries, then it is usually popular in cultivation. Aaron responded that he has been going to pet stores in his free time to see what's out there. Speculated that the more common are sold or bought and shipped via the internet; reptiles being the most easy to ship. Danielle mentioned that she "stalks" seed trade sites to find out which species are requested the most; sometimes the weird species are things that collectors want.

Lara offered that educating the public to be responsible pet owners and pet stores; framing the information in a positive way -- rather than "this is bad", "this is what would be better".

Danielle asked Aaron whether he used Climatch data to assess for colder climate since Hawaii has a wide range of micro climates. Aaron said Central America matched best in terms of

moisture and temperature; salamanders like colder climates, but didn't score that high and salamanders are allowed to be here. Jane asked Aaron if he has plans to present to a wider conservation gathering at some point. Aaron said not at present; a CGAPS meeting was suggested as a possible venue. Aaron will look into that.

### **Lyon Arboretum's Sustainable Urban Garden (Bernice Fielding):**

Bernice provided some background on the project and the progress thus far since she was hired to spearhead the creation of the sustainable urban garden to enhance the community's education on sustainable practices in their yards. The design phase is completed and Bernice presented an overview of the multitude of features to be included in the garden and how the elements plan to be installed. Areas such as: a dwarf koa and ohia forest, large rain garden with native plants and tree ferns, full functioning food garden with harvest to be donated to the Hawaii Food Bank, gardening area for persons with disabilities, lei and medicinal gardens. Bernice shared that the project plans to upcycle much of the existing material from the site and utilize old tires, old horse feed troughs, bamboo troughs for the water catchment system and other sustainable practices. The whole point of the endeavor is the educational side and want to create a "wow" factor like a really high-end resort and be something that people can aspire to.

#### *Discussion:*

Lanky asked whether the "sustainability" aspect has to do with the plants being grown or for the homeowner being able to maintain it on their own. Bernice confirmed that they are trying to convey that sustainability is not just about using native plants so a big part is on the education of right plant, right mix, proper spacing, what plants can go into which areas, etc. For example, in the medicinal gardens, some are invasive so there will be educational pamphlets about why they chose what they chose and why they could use some of the other things. Josh F. asked for clarification of the exact location of this site because when the existing buildings get torn down and hauled away, we would like to be careful that there aren't any miconia seeds. Bernice affirmed that the area has been basically stripped and nothing is growing there now.

Rob mentioned that they have a native garden that has been planted rather haphazardly and recently received a grant to re-do the area and asked he they could enlist the services of Bernice to assist with the re-design. Rob will contact Bernice for more information.

Amy asked Bernice to clarify where the property boundary is on the bottom edge (of the map presented). Bernice said that on that side, the slope to the boundary becomes too steep so they have left it for now. Depending on funding and manpower they plan to keep continuing to plant native plants down the slope to push it as far down to the boundary as they can to mitigate invasives and weedy stuffs. At the moment they do not plan to take down any trees; time and budget constraints don't allow.

Danielle remarked that the project sounds very exciting and Bernice shared that with her background in sustainable horticulture is really excited to do this in Hawaii on such a large scale rather than small pieces in different areas. She is hoping to incorporate everything on site, for example, utilizing the gravel that they take up and putting them into pillars for native orchids and air plants.

Lara commented that since this area is a miconia hot spot, there is concern and want to make sure that no soil is moving and equipment use will be handled correctly. Bernice affirmed that nothing will be moving they are working with the existing grade; soil will remain on site and she is aware of decontamination protocol for equipment.

Lance asked whether they have considered a soil sterilant or something to kill any seeds, just to be safe, since going to be moving soil around and watering, there will be a chance for seeds to sprout. Bernice said that they have pulled all the hono hono grass and the area has been sprayed with Round Up twice. They have not sprayed with a pre-emergent, but nothing has sprouted since either of the Round Up sprays. She is reluctant to treat the soil simply for the sake of being safe; they want to be smart about it. If there is miconia data that they can review, they can be better educated when making their decisions. If OISC is able to provide information on where miconia seeds have been found and where they are in relation to the site, it will make a big difference in what they decide to do and how they will proceed. Jean will provide points of previous miconia to Bernice.

### **Steering Committee Guidelines:**

Julia added this additional topic to the agenda at Josh F.'s suggestion. Josh F. recommended going over the Steering Committee Guidelines, which was originally brought up at the August meeting last year. Julia provided draft copies as the document has not yet been approved and asked for additional feedback on the document.

### *Discussion:*

Josh F. reviewed that Rachel had started the process of formalizing the document and he wasn't sure where exactly it had been left off. He stated that he thought everyone had probably agreed on most of it and was just the matter of finalizing it. Julia agreed that it was at the stage of being accepted. Josh F. said that he felt that the concept was clear and that the document could be basically agreed upon. Jane mentioned that the last emails that she saw had a document with a lot of tracked changes on it and believes that was the majority of the discussion; so as long as those changes have been incorporated then we should be ready to proceed.

Julia will re-send the document to the Committee to review and will put it on the August meeting agenda for discussion and approval.

Josh A. expressed concerns regarding the obligations outlined and establishing a method for chairperson selection; so when Josh F. finishes his term we're working down a list to see who is willing to be the chairperson. Julia mentioned that in the other committees they serve in rotation but not required for OISC. Josh A. wanted to make sure that it's not a rotation system here, because of the two obligations; if it's rotating and if it gets to a person who hasn't been engaged or doesn't want to be chair that may be an issue. He wanted to ensure that the subject is still open to discussion.

Laurent asked if there was any thought about asking botanical gardens to sit on the Steering Committee since botanical gardens are a source of weed introduction. Josh F. said that the Committee is certainly open to that and would like to see HDOA represented as well. He felt that the Committee should probably reach out to organizations and agencies to become involved

because the list was a brief overview, there should definitely be inclusion of more. Jane recalled that it was framed as a start and the question was posed of “Who else should be here?” The idea was to have each member (organization) commit to having a representative and setting out the obligations so that people would know what they’re getting into.

*Actions:*

Julia will send the document out so it can be finalized and approved at the next meeting in August.

**Miconia Management Plan (Julia):**

Julia presented the management plan developed by Rachel which was inspired by OANRP’s Chromolaena management plan. It is 24-page document that is currently in draft phase and Julia would like to send it out to the Steering Committee for review by the end of June.

The highlights of the plan defines the impacts miconia would have on Oahu’s ecosystems, reviews the history of miconia on Oahu and serves as an easily accessible and sharable document that anyone can reference. It is how we have been operating for the past ten years in regards to miconia so much of the information is already known to the group.

The plan defines benchmark successes for OISC. These include:

By 2022, there will have been no mature trees found for six consecutive years over the entire search buffer (this is three, 3-year survey cycles from 2013).

By 2022, the number of immature miconia trees over 2 meters tall will have declined by 50% island wide and in each survey area where OISC surveys for this species.

Island-wide, the number of mature trees has declined since 2002 from a high of 40, to 5 in 2012. It is disappointing that OISC has not yet been able to complete a three-year survey cycle without finding a mature tree; however this is not an indication of failure. If the number of mature trees was equal to or higher than the number is 2002, the OISC program would clearly not be working. However, since the numbers of mature trees have been drastically reduced, the program is on the right track, and may need slight adjustments to achieve the desired benchmark of zero mature trees over six years by 2022.

Julia also shared Rachel’s lessons learned from 10 years of Miconia work:

- Early removal of all cultivated plants is a crucial step in the eradication process.
- Significant funding up front to ensure that delimitation can be completed relatively quickly.
- Property access is an integral part of any eradication program; need to repeatedly survey and treat plants.
- A rigorous data collection program is imperative to ensure that surveyors are surveying the correct areas and to measure progress towards long-term goals.
- Consistent funding is extremely important; there must be a consistent core of funding for long-term eradication projects.

**Funding and Budget Updates and Challenges (Julia):**

OISC's total budget need for 2013 is \$853,133 which equates to a projected shortfall of ~\$35,000 for the year. OISC has secured \$165,795 in additional funding since January 2013 thanks to Mary & Rachel's hard work before they left the program.

There will only be one AmeriCorps intern hired (instead of 2) at a cost of \$13,000. Julia mentioned that she is a big believer in the AmeriCorps Internship Program as 5 of the current OISC employees were originally hired through this program, including herself.

This projected shortfall does not include the projected indirect rate increases proposed by UH and RCUH. If all indirect rate increases occur, OISC will incur, at minimum, an additional \$17,000.

We now have funding going through Tri Isle Resource and Development, non-profit on Maui. Previously we were not required to pay an RCUH indirect fee for any grants that went from Tri Isle to PCSU. The accounts will now incur indirect fees by RCUH, PCSU and Tri Isle, which was unexpected and not budgeted.

We currently have \$2,400 from Honolulu Botanical Gardens there which will not be charged any fees due to its small size. We also recently received \$60,000 from the Hawaii Tourism Authority and it's at Tri Isle now. As Tri-Isle was in the process of setting up the account with PCSU, they found out that they will now be assessed the the 6% RCUH indirect fee where it was waived previously.

*Discussion:*

Danielle asked whether we will be required to pay that overhead this year. Josh A. replied that the project descriptions and grant agreements that are already established should not be affected because they can't retroactively assess the new indirect rate. It would be for grants agreed upon after July 1<sup>st</sup>. Julia clarified that the \$853,000 projection does not include the potential increase in fees of \$17,000. Josh A. asked Julia, besides HTA, what other what other grants are left to be signed for this year. Julia replied that we are awaiting the Special Land Development Fund for \$60,000 and BWS for \$20,000. Josh A. said that the \$60,000 should be signed prior to July 1<sup>st</sup> and suggested that Julia alert funders, if they don't already know, that we would like to receive funds before July 1<sup>st</sup>. Danielle asked if the increase is happening for sure. Julia replied that only the RCUH assessment to Tri Isle is for sure right now unless we can change RCUH's mind and Maui is taking the lead on fighting that fight. The proposed RCUH-UH fee increase that Dr. Duffy sent the email about is not a sure thing and you can send emails to the UH administration opposing the increase. Julia is currently preparing one grant proposal and next month a decision will be made, but she is bracing for the increase rather than not.

The increase in the indirect costs would render certain organizations ineligible for certain grants because there is a cap for some funders and they can't fund projects if the indirect is over a certain percentage rate. A question was raised whether there is an opportunity for PCSU to waive it or UH to waive it if funding agencies say we don't pay overhead rates over a certain amount.

Julia replied that is what Dr. Duffy and others are working on, and in the past it has happened, but at the moment they are saying “no”. But things are still unknown.

Julia reiterated that we are in a lot better position than we were in December and that she is really grateful to the people who were at OISC before her to make sure that we make it through to the end of the year and to everyone for their support and help in the funding situation.

Dave said that he heard that Invasive Species Council will get \$750,000 and asked whether it was true. Josh A. affirmed that it’s somewhat true, but it’s still to be finalized by May 2<sup>nd</sup>; Invasive Species Council may get \$750,000 in general funds each year for the next 2 years. When HISC first started, they were getting a mixture of general funds which the Legislature approved as an RCUH line item and special funds from the NARF. That continued from 2005 to 2009, but when the economy fell apart HISC stopped receiving general funds. So HISC put in a request for \$2,000,000 which was adjusted down to \$1,800,000 and then down to \$750,000 by the Legislature. So even though HISC doesn’t get what was requested, it reestablishes the relationship that the Legislature should be approving general funds for invasive species projects. So hopefully that \$750,000 will supplement what HISC will get from the NARF. But that amount of money is up in the air now, because the bill that would designate HISC as the beneficiary of the NARF funds died this year. So HISC will probably continue to get funds discretionarily from DOFAW from the NARF, but it’s not a guarantee because they have a new administrator and a lot of projects that want that money. So we’ll just have to wait until mid June to see what we end up getting.

Dave asked for clarification that HISC still has the potential of receiving \$2,000,000 from special funds. Josh A. replied that last year HISC received \$1,800,000 from special funds -- \$1,400,000 from NARF and \$400,000 from Legacy Lands, but that was a temporary authorization from Legacy Lands and HISC won’t be getting that this coming year. So if everything stays the same, with regards to the NARF, HISC would get \$1,400,000 and \$750,000 from general funds. So, although the conveyance tax revenues have been high this year, the Legislature wants to reduce the funding ceiling on the NARF overall which would make it difficult, but that decision is not final yet either, so we will have to wait and see. It could be really good year or really bad year for NARF funds and changes on a daily basis.

Dave asked Josh A. if he knew what happened with the eliminated inspector positions with HDOA. Josh A. replied that they were vacant positions that were on the books for years that weren’t being filled because there was no money to restore them and because they weren’t filled the Legislature decided to cut them. So it doesn’t result in staffing changes this year compared to last year, but it affects their capacity to hire. Dave asked whether those were the positions that were eliminated a couple of years ago during the economic down turn. Rob answered that there were some Maui positions that were federally funded that got transferred over to the state and those might be included. Dave postulated that a decrease in inspector positions has caused an increase in coqui detections. Rob said that 45 positions were lost in the RIF and 10 were restored by Gov. Abercrombie last year.

### **Partner Updates and Public Comments or Questions**

Laurent asked if anyone knew of a site or body of information that has been compiled for recipes for weeds and what's the best thing to use for certain weeds. Since their organization is pretty young and they don't have a lot of funds to do testing and hoped that the group would be able to provide some resources so their efforts are targeted. Rob asked if Laurent meant recipes for cooking invasive species or killing them which generated a collective chuckle from the group. Killing them, Laurent confirmed. The general consensus recommendation was a soft-covered book titled "Weeds and Herbicide Application in Hawaii" which is available on line; has general, common information and is a standard publication that's put together for invasive species. Danielle suggested that, for botanical garden type stuff, it may be better for Laurent to talk to James Leary because he has more general knowledge about what would work on a certain type of plant or tree. The book is good for more common pasture and roadside weeds. Jane mentioned that there is a CTAHR publication for herbicide chemistries for particular plant types. OANRP doesn't do botanical garden stuff, but they kill a lot of weeds so she offered for Laurent to send her an email to see if OANRP has come across something like what Laurent is trying to kill.

The meeting was adjourned at 11:38 a.m.