

**O'AHU INVASIVE SPECIES COMMITTEE
2006 STRATEGY WORKSHOP**

Thursday, November 16, 2006
9 AM – 3 PM

Ho'omaluhia Botanical Garden
46-680 Luluku Road, Kaneohe, O'ahu, Hawaii 96744

MEETING AGENDA

- I. Call to order, welcome, and introductions
- II. Updates and announcements
 - A. Chair rotation
 - B. Miconia awards
- III. 2007 outlook
- IV. Prioritization of target species
 - A. OISC target species
 - B. Early detection project/rapid response species
 - C. Animal target species
 - D. Other
- V. OISC outreach program
- VI. Final comments, wrap-up

MEETING MINUTES

I. Call to order, welcome, and introductions

OISC Coordinator Ryan Smith called the meeting to order and went briefly over the agenda. Attendees gave their names and affiliations.

II. Updates and announcements

- A. Chair rotation. Amy Tsuyenoshi is the outgoing chair. Joby Rohrer and Jane Beachy will be cochairs. Chris Dacus will be Deputy Chair.
- B. Miconia awards: No recent mature trees were found, but there were some solid sightings: Jeremy found one from the air in Nuuanu, and Susie found 2 immature trees on her first flight, with no prior spotting training on Maui. Thus awarded miconia certificate and gift certificate for Bubbies ice cream.

III. Outlook for 2007

- A. Staffing and general funding. Ryan went over the staffing (handout) and stated that for 2007 there will probably be three coqui temps again. We received a grant from HTA that will provide some funding for a new field leader and probably another staff member.

We would also like to beef up the volunteer program, which has been the second Saturday of every month. We would like to consider ways to empower communities to take on certain projects, and increase public awareness, perhaps projects OISC wouldn't tackle.

We'll be looking more at early detection and how that program will work with the field crew. Also implementing the management plan, cleaning up historical data and solidifying our planning and scheduling process.

Ryan went over handouts on the number of hours spent on each species, where we are vs. where we expected to be at this time point for each target species. Handouts were the "2006 summary of species" and the "2007 summary of projections," of last year's accomplishments, beginning 10/05.

For next year, one goal is the unified baseyard. Being split has been cumbersome. We have raw land located, we might be able to do something, but our projection is very speculative, we're estimating \$140,000 needed for that site.

Handout: 2007 target species, total need vs. available resources.

Ryan explained that we devote enough resources to meet 100% of the need for all species except miconia, then use everything that's left on miconia. What is shown on the handout will go up if we do receive the HTA grant. We're proposing we can do all the work necessary for the other species to work toward eradicating them in 2007. We could come pretty close on miconia if we hire a couple more field staff.

IV. Prioritization of target species

A. OISC Target Species

1. *Miconia calvescens*

Ryan went over the miconia handout and showed maps of the buffer zones: high priority where seeds are expected due to proximity to plants (within 800 meters), and lower priority (between 800 meters and 1 mile from known plants), for aerial survey.

Ryan asked the group how important very detailed projections are for the purposes of the strategy meeting. It was agreed that it's enough to be able to see what miconia and the other species take in terms of resources.

The group discussed survey of all the acreage that isn't in OISC's priority miconia survey area. In the past there have been discussions about looking randomly in this 92% of suitable habitat, gathering information from everyone doing natural resource work on O'ahu.

Ryan: If we had confidence that some areas are being covered well enough, we could prioritize the other areas, where people don't go. For 2007 I'm proposing we have a miconia working group meeting to explore the best way to look at that 90% of area.

Kapua: You might schedule some transects, working with others. We've developed an ID card.

Joby: If Joe hadn't been flying with Hawaiian Electric and known . . . there are certain areas where the plants do seem to pop up that are not within a 1-mile radius. We could prioritize areas where old nurseries are, where people are walking.

Ryan: Alex and Danielle are looking at nurseries. We also have an idea of good vs. poor habitat in residential areas. There is a lot of area in the 1-mile buffer that is good habitat but we can't fly there, I'm not sure how to attack that. The lots are two acres and below. Above that we consider wildland.

We use satellite imagery to assess habitat. The effectiveness of outreach alone depends on who gets the mail and what they do with it.

Currently we resurvey every three years to stay ahead of the life cycle. It might be good to look at the protocol for residences in a miconia working group. As we enter a state of maintenance we need to figure out the best way to spend our resources.

Joby: How did you do based on the goals for last year? It's at 75% of where you expected to be?

Ryan: Right. We did lose some hours due to staff turnover. For next year, we think we can do the last third of the remaining initial wildland acres and probably the same with the residences. It looks pretty promising. That also includes the areas that need to be resurveyed within three years. If it's getting down to the wire, we prioritize acres that have had plants in the past. We don't know if we need to keep going back to areas that never had plants.

Guy R. asked if OISC had ever done seed bank surveys looking at the soil. Ryan said not much of this has been done. Joby mentioned some past discussions of using preemergent in areas where seeds keep coming up. Kapua pointed out that herbicide won't help where miconia seeds are carried away, such as by birds, or where seeds move away down a gulch.

Joby: How do you deal with ensuring the quality of search, with the turnover in crew?

Ryan: We have staff trained on Maui for aerals so they can get the search image. For ground, we take new people on the first days right to where we know we'll find plants. We make sure there's overlap with senior staff for training new people. It seems to be working pretty well.

Ryan went over a miconia handout, a summary of populations over time. In 2006, OISC removed 6 mature trees and 450 immatures.

Action item: Ryan will schedule a miconia working group meeting.

2. Blackberry, *Rubus* spp.

There are only two known populations on the island: Ma'umae and La'e Ridge, both in Palolo. They are very persistent in recruitment. Jane has suggested hand digging some of the root nodes. We may be able to do that now that populations are getting smaller.

The handout shows a decline in populations; there are not many more matures, but it's still there every time we go.

Kapua asked if OISC has tried Escort. Katy said not yet but we will.

Joby: The Ag guys are available to come out and look for products to use to kill certain plants, Mike Matsugawa with DOA Pesticides Branch.

Ryan: This is a difficult thing to detect. It takes a lot of time to scour that same 800-meter buffer—it's based on birds just like miconia—so we're prioritizing 100 meters and especially exposed ridges, etc. If this works we probably won't need to reevaluate.

The core infestation is probably 20 acres, where plants are consistently found. We find about 100–150 plants every time.

Joby: You may need to keep expanding the buffer if you keep finding plants.

There was a discussion of how the 800-meter buffer was arrived at. We have found only one researcher studying bulbuls, from Japan, but according to others we spoke to, like Eric VanderWerf, bulbuls have a very short gut retention time.

Kapua pointed out that they go very fast soaring down off the summit, covering a long distance in a short time.

Ryan: We try to walk the streams for 1 mile. Looking at the highest probability ones with GIS and doing concentric buffers, 100% were within 800 meters, 90–95% are within 500 meters. We'll look at it again. I'm not sure what we attributed those plants behind your house to. Joby: The only other ones with an unknown source were off the Maunawili Ditch Trail.

Kapua: You could draw a line from there over the summit to Manoa, if bulbuls are going over. I wonder if we could bring samples to Cliff Morden.

Ryan: He wasn't satisfied with our last samples.

Micah: Could another group help with blackberry?

Ryan: We don't want to give it to someone else since we think we can eradicate it, but we might look at using some Boy Scouts to help dig up roots or something. Our OISC trained staff should look at it every year and make sure nothing was missed.

Action item:

- **Katy will contact Mike Matsugawa with DOA about blackberry.**

- OISC staff will research the possibility and interest for *Miconia* genetic fingerprinting looking at whether different populations are related.
- Blackberry management: change from 800m survey to 100m scour around all plants and re-evaluate depending on what is found.

3. Beardgrass, *Schizachyrium condensatum*

Ryan: There are two populations at Halawa (from contaminated construction equipment from the highway building) and Ahuimanu. Now we've found a third population above that on the Pali, on steep ridges, far below the summit itself. We've been doing systematic control work, mostly hand-pulling, some herbicide, depending on the site. We are seeing the population structure change, but there is continuous recruitment. It is a wind-dispersed grass so it is hard to figure out buffering. We look within Halawa Valley on foot, using spotting scopes, and hope to do one or two aeriels this year. If the habitat of a residence is suitable, we visit, and will recheck annually.

Micah asked about surveying the ridge between the Pali and Halawa where the habitat is suitable for beardgrass.

Katy and Ryan said that OISC would like to move away from visiting H-3 every month, but if we did that now the plants would mature.

There was a discussion of possible alternatives for dealing with the various populations, and how critical it is to control, what the habitat for the plant is on O'ahu versus Kauai and the Big Island. Kapua suggested the best approach might be containment. Ryan said on the Big Island it is growing with Guinea grass. Kapua pointed out that on Kauai beardgrass is dominating.

Alex talked about the difficulties of pinning down the taxonomy and suggested that the Big Island beardgrass is different from the Ahuimanu and Kauai specimens.

Ryan said OISC is leaning toward continuing the same work with the older populations and spending more time researching the best approach for the palis. He will talk with some people doing ginger sprays in difficult areas. The only way we would be able to reduce the present treatment would be if the areas on Halawa got relandscaped.

In Ahuimanu, there are some access problems. Beardgrass is not on the noxious weed list. Most people kokua, but there will always be a few who do not respond. It was suggested that a community group might be helpful.

There was a discussion of level of effort, the goal being to reduce labor over time. Regarding making more of a push now, Katy asked what then would happen to miconia? If we add more crew members maybe it is doable.

Landscaping and shading it out might help. Chris said he met with Rick Barboza about some koa plantings.

Ryan: Anything that would help shade it out. We've thought about tarping it in that area off the access road. I'm not sure if that would be worth our while. I'd like to talk with you further about that.

Action item:

- Ryan will investigate whether work on ginger sprays (aka steep treatment areas) is relevant to SchiCon.
- Ryan and Chris will talk more about landscaping possibilities.

4. Fountain grass, *Pennisetum setaceum*

Ryan said that there is a lot of fountain grass in the Koolaus and barely any in the Waianae Range. We're trying to eradicate it in the Waianaes, and contain it in the Koolaus.

In the Waianaes it is naturalized in two areas, Lualualei (ridge between Lualualei and Waianae valleys) and Ka'ala learning center (near a heiau; it was introduced thinking it was pili grass). Everywhere else it has been more or less wiped out. We have done some intensive surveys with Army Environmental, and found no range extension. There are a couple more areas we'd like to survey, some of the recent fire sites. BWS has been through the Waianae Kai trail. It seems like a maintenance situation.

Kapua: There are two places on Army land, a single plant at Makua and some at Dillingham Airfield that aren't on your handout. Dillingham was less than ten plants, but we survey it every year because of the type of habitat.

Ryan: I consider that the Koolaus because it is on the other side. Would you guys be willing to help us out with some surveys over there?

Joby: It wasn't identified as a survey priority initially. We figured it probably came from a military truck, similar to the Schofield find. Maybe we should go every year or other year. The habitat in the Waianaes is huge.

Ryan: We have scheduled three days a year, with four people, looking at where Joel Lau found those plants, and for this year looking at the burn sites.

Ryan went over OISC's activity at the Koolau sites, working with HDOA. We go once per quarter. For Diamond Head and Lanikai we have thought about going once a year to clear it off the trails and minimize hitchhiking seeds to new spots, but we have not done it as planned. Diamond Head has reverted to Parks Dept., the National Guard never had control. I don't know how worthwhile an annual push off the trail would help.

Joby: There is a significant risk of spread. You see it all over the road, spreading around Koolina. The road corridors, getting it off the Pali would be useful, and minimizing the risk from hikers. At Diamond Head it is mostly tourists. Is it worth it to get other hikers who might go onto other trails?

Ryan: Maybe we should try to eradicate the ones right on the roads.

There was a discussion of signage and a boot scrub at Lanikai. In the past there have been only temporary signs.

There is a contractor working where rocks could fall and damage residences and cars at Diamond Head, a joint C&C project for rockfall mitigation. They may be moving seeds. This is an issue for CGAPS.

Chris pointed out that there are not yet construction specifications for invasive species. We're [DOT is?] just writing some for certain places. In other states and nationally, no one has figured out a methodology for signage or moving earth. There is a little about minimal disturbance of soil, that's about it.

Kapua: For Stryker road construction on Drum Road, a seed company got a contract to stabilize the cut slopes. I reviewed it just before they finished. One of the species was a variety of kikuyu grass. It's pretty frightening that it's readily available out there, a readily seeding special variety. The old ones are vegetative. Another company has the supply contract with the State. Maybe CGAPS or someone should pursue looking at their stuff.

Maybe there can be something in the guidelines. They always use common names, which makes it really hard to figure out what they're using. If DOT staff had quality control, that would be really good.

Action item:

- Ryan will touch base with Joby on their surveys in the Dillingham areas and potential for OISC to assist, and ask for quarterly updates.
- Ryan will talk to Christy about guidelines for moving earth and working with seed suppliers for the State.
- Katy will look into working along roads, signage, Lanikai bootwash.

- Shift fountain grass control priority in the Ko'olau range to high traffic areas drawing from work slated for other satellite areas.

5. Pampas grass, *Cortaderia* spp.

Ryan: All known sites on the island are ornamentals. We don't think we have *C. jubata*, which is on the noxious weed list. We will hopefully get all the plants identified by Alex and Danielle. Rachel contacts landowners and schedules visits. We're replacing most of it with other plants, sugar cane and some other things. If we get a landowner who doesn't want to deal with it, we'll work with you guys. *C. jubata* is dioecious. *C. selloana*, when both male and female are present, it can be very problematic.

Kapua: We have one golf course with it, I think if I forward your email to the manager we can get it removed. He didn't want to remove it if there wasn't any proof it was doing any harm, and it's not on the list. We're not sure he has it, but we'll get a point for it and follow up.

Ryan: We'd be happy to deal with the green waste. This is on Alex and Danielle's species list. We're sure there's more out there. We haven't been doing any surveys around the plants because they're presumed to be sterile or nonreproductive. If we do find *C. jubata* on the island, we'd do that.

Danielle: We need the base, inflorescence, look at the pluming, how high the inflorescence is above the leaves. If you don't have that, or it's not flowering, there's no chance. If you can look at the flowers with a microscope, we can ID it with Derral. *C. jubata* is a lot less attractive, it's not going to be planted as much.

Action item:

- Ryan will email Kapua about the invasiveness of *C. selloana* in relation to the golf course plant.
- Rachel will contact CTAHR master gardeners about cooperating to get more kokua from nurseries on pampas grass.

6. Smokebush, *Buddleja* spp.

This is almost entirely maintenance, one in Wahiawa and one near Schofield that need ground survey. We use an 800m ground buffer, searched residences, coupled with miconia and Tibouchina. If we don't find anything more it will go to target species to monitor.

ONGA has agreed not to sell it. We were finding more *Buddleji davidii*.

Alex: It is in the nursery trade. There is someone selling an orange one called "butterfly bush," we don't know what it is.

Becky: Crown flower is also called butterfly bush.

Ryan: We're working to get all our targets on the noxious weed list.

B. Early detection project (rapid response species)

Ryan gave some background: In July of this year, Alex and Danielle started this collaborative project with Bishop Museum. I hope this will become a permanent part of OISC's capacity for the invasives work done on the island. They're trying to get an idea of what's here now, and do surveys to detect new things coming in. They're looking at the green trade, high-risk areas that don't receive regulation: swap meets, ag experimental sites, botanical gardens, project sites...In later years they will do roadside survey. They have been working on methodology, plant ID's, learning what has been done, how to assess risk. When they find and map something, how does OISC decide whether to take it on?

Others are trying to do similar projects on other islands. Some of this work carries over. When someone submits anything to be identified, the information is passed on to others on all islands, trying to alleviate the bottleneck.

Danielle: We're trying to prioritize what to go after once it's found. This is based on the New Zealand model, doing control at an early stage. They go through six steps to decide whether a species can and should be eradicated. This helps prioritize species that are a greater threat for conservation.

The steps are: initial assessment; WRA (Shahin does this); "effect on system" score; calculated weediness score (WRA score) and weediness group; assess practicality of control; derive priority ranking.

Danielle went through each of the steps and what it entails.

Joby: How does the system deal with unanswered questions?

Shahin explained the process; there may be some unanswered questions. Sometimes they go through more than one screening. About 85% of species go through successfully.

Chris: When the HEPEP [Hawaii Exotic Plant Evaluation Protocol Committee] is ready, will that supersede the WRA?

Shahin: By the time it reaches that stage it's too late for very early control. Sometimes there's so little known about a species it's really alarming. There is much that is undocumented about many species, even basic things like the dispersal mechanism.

Ryan: There is a network that is monitored by people like Alex and Danielle, Forest and Kim. If we get stuck on something or it gets a low score but we're still suspicious, we can send it out to those people to try to get more information.

Guy: I saw Curt Daehler talking about this recently, enforcement related to NEPA. If you can show that invasive species are related to loss of water quality, there's a potential for lawsuits. Do you have water quality in the threat index? Or beneficial properties? Like jobs for people who might control plants and get a use from them to reduce the plants, like strawberry guava and *Widelia*. Does economic profit help?

Danielle: The drawback is that once you create a market, it's hard to say "stop."

Micah: It's hard to make people understand these could be problems, before they become a problem. How are you going to address that if someone is making money off it?

Danielle: Fortunately that's Rachel's position. If it's not obvious or easily explainable, we do have data from other places we can use.

Micah: Can you make the information available to that person, where they can see the threat for themselves?

Ryan: There is some work going out outside OISC. Part of this screening process is also to provide "evidence" that it's a problem. Some things get elevated to the point where we're going to the nurseries to ask them not to sell, etc. We're trying to get beyond just saying "it's a weed" but not having any good reasons to give to people why they shouldn't sell it.

One of the things we're working on is how to get more kokua from nurseries.

Micah: CTAHR's master gardeners educate the larger public, maybe key people in those communities would have some ideas, they might be good to get involved. Are you going to have a priority methodology for where you work?

Danielle: We will have to do that. O'ahu has many roads. We haven't developed the priority for roadside surveys yet.

Ryan: We've tossed around the idea that it would be nice to try for an island snapshot by borders of natural areas, also high-risk areas like Wahiawa. We're going to be sending out our species list for your comment. We want it to be a transparent, flexible program.

Danielle: We're getting near the end of the nursery surveys. We haven't done any road surveys yet.

Ryan: The first year of funding was startup and hot spots. We identified categories of hot spots and are doing assessment of each of those. Year two would be roadsides. It's grant driven. How year two runs depends unfortunately on who funds it.

Chris: We have data on how many cars are passing mileposts, if understanding traffic would help. Plus or minus 100 cars/hour. Within the nursery trade, there are three gripes about WRA: One, it's done by species and genus, but a lot of the plants they're sensitive about are varieties and cultivars, which are very variable. They'd like it not be lumped so high, since some cultivars are very fragile.

Shahin: You can do WRA at the cultivar level. If the difference is say, flower color, it won't change the rating. Unless it's a variety that doesn't seed or has some other characteristic that allows screening, it won't help. It has to be significantly different.

Chris: Nursery people see this from their effort to propagate. If it's very hard, but the plant has a rating of 26, they get skeptical. Two, it's hard for them to agree with some things that are very widespread, like strawberry guava. They don't know what difference it's going to make. Three, supply and demand. Australian tree fern. The demand is still there, so the supply has just shifted from reputable places to smaller, import/export type businesses that are harder to track.

Alex: Maybe there's a way to promote those nurseries that are responsible.

Rachel: Maybe address the demand side. Work with big-box stores. Wal-Mart and Home Depot have agreed to not sell. It will take a while, but eventually demand should be low.

Alex: On lack of specificity, like evaluating cultivars, we can look at that. The first step is looking at whether we expect it to be weedy. If it has no reproductive parts, we wouldn't bother with it.

Chris: Australian tree fern is a fast-growing plant, there's no good alternative yet. Nurseries want plants that are unique, where there's no good substitute. Right now there are 17 plants where the industry has cultivars they want to use. Some are not weedy, they feel. Others are but they want to keep using them. Orange-eye butterfly bush (*Buddleja davidii*). I gave a list to Christy and Ryan. Lantana is on the list, the purple one.

We are trying to be responsible but are trying to address it in a way that's good for everyone. We're starting to go through public forums within the industry starting next month, and planning to implement a recommendation list in May. It's going to keep changing, but now it's got 168 plants on it. There are six different recommendations for whether to plant. For 120 of them we've already said "don't plant it." There are only 20 we said still plant. A lot of grasses, probably most are not controversial. About 28 plants will be evaluated further to determine what to do. It's being emailed to all the landscape architects in the state. We will publicize this on the LICH [Landscape Industry Council of Hawaii] web site in December. We will have a meeting on each island for the landscape industry to comment and provide concrete input. It will be implemented in May at the statewide conference—half a day on how to implement this.

Chris: With this coming from the industry, it's more exciting and easy to talk about, versus the conservation community bringing it. We're looking for a way to deal with controversial ones; one idea is a sunset date. Having the ownership of the problem within the industry, it may be more doable.

Joby: There is a regional component, like kikuyu grass. On O'ahu we care a lot about that, but it's already on other islands.

Action item:

- Ryan will talk with Alex and Danielle about CTAHR's master gardeners, is there something here that would be useful for Early Detection?
- Ryan will obtain traffic data from Chris Dacus.

Rapid response:

We'll need time budgets for species found by the early detection project, plus these species on the handout. These should take a minimal amount of effort to eradicate. There are often things we want to look at the feasibility of addressing, like *Salvinia*. So we budgeted in some time for that assessment.

These species we recently found, hiptage we won't eradicate O'ahu-wide, it's been in Mokuleia, Talbert found it in 2000, we're just doing resurvey. It may be sterile or something, but it sends up vegetative shoots.

Kapua: There's another one. We saw it from the car, we're not sure but we think that's what it is. Stan Syler could show you where it is, in the middle of a pineapple field, south of [Pu'ukala?] in Kunia, in a gulch.

Action item: Kapua will ask Stan if he can remove the hiptage plant.

Tibouchina herbacea and blackberry were found from landscaping. We're looking at a 100-m buffer.

Joby: Both of those are really bad on the Big Island, it's worth going after them. Do you know where they came from?

Ryan: Maybe hapu'u.

Joby: Maybe look at the depot areas for H3. If blackberry got established in the Koolaus, it would be really bad.

Kapua: *Rubus* might need a higher elevation. If it was at Ka'ala I'd be really worried. If it drops out at a certain elevation on the Big Island, it would be interesting.

Action item:

- Katy will look into H3 construction sites, where hapu'u might have been brought.
- Katy/Ryan will look at the elevation limits for *Rubus ellipticus* on the Big Island.

Ryan: The *Tibouchina herbacea* was one random sighting, but follow-ups haven't turned up anything. Joel's not sure that's what it was. *Tetrastigma pubinerve*, there are two populations that seem to be contained. We're pretty much done with the Koko Head one, still hitting Likelike. We may do one aerial.

False awa is opportunistic, DOA is working on it, we're helping with a smattering of sites on the island. Alex and Danielle will be looking for that.

Kapua: Do you know of the site at WCC by the greenhouse?

Action item: Katy will follow up on false awa at WCC and ask them to kill it.

Kapua: Do you know the one at Kaalaea, right on the road before Temple Valley Shopping Center?

Joby: For these opportunistic locations, it might be good to systematically survey other natural resource managers. There are a lot of people out there, they've all got some plants they wonder about. We should ask these guys what's on O'ahu they think we should go and kill.

Ryan: Christine did a little bit of that, asking what people know about certain plants. This stuff comes up randomly.

Action item: Ryan will start a list of people who could help with their field knowledge.

Kapua: Can you update us on Wahiawa? *Tibouchina* and *Rhodomyrtus*?

Ryan gave an update of some plants located and/or cleared at Wahiawa. There is one *Tibouchina* at Laniloa Place we can't get permission to remove.

Handout: Target species to monitor. Fireweed, fire tree, glory bush. Populations are controlled and take minimal time to monitor.

The question on these is how long do we monitor for? The literature says 1.5 times the life of the seed bank. For some plants that would be a very long time.

Micah: We can check anything in the areas where we go.

Ryan: There are forestry plantings of firetree, very few plantings in a very large area, There's not much we can realistically do to follow up. It is one of the outreach targets.

C. Animal target species

1. Coqui

Ryan: We spend a lot of time thinking about how to manage coqui. There is a working group that meets fairly regularly, we're open to input if more people want to get involved. It looks like HDOA is going to officially list coqui as a pest. I think they're on board with helping with more enforcement. That has been one of the biggest stumbling blocks with this uncooperative nursery owner. We had a dedicated crew at Wahiawa, drenched all the known areas and spot drenched areas where new calls were heard. We got 30 frogs. We plan to do it again next year, systematic drenches where this year's frogs were heard. There were some frogs found in the stream area that runs into Lake Wilson.

Kapua said she knew of a someone heard coqui at a nursery that needs to be checked out.

Action item: Kapua will email the phone number of Ken, from a nursery that definitely had coqui.

2. Other vertebrates

Ryan: We are trying to respond rapidly to any new vertebrate sightings, in collaboration with HDOA. We have worked on Tokay gecko, Standing's day gecko, and lovebirds. We got all but one Tokay gecko, we know there

was a nest. Those eggs didn't hatch, but we can't get on the property any more, and HDOA has no authority. Unless we can lure it off the property, we won't be able to get it. We want to do more surveys in Manoa and do more outreach in that area, hopefully it's not more established than we think.

We're trying lovebirds, all the ones on O'ahu were captured except for one population at Wilhelmina Rise. The homeowner is going to maintain the trap while Brian is on vacation. We don't have any OISC staff time dedicated to this.

Invertebrates: We'd like to make sure a few things don't get established on O'ahu. We are working with DOA on outreach: nettle caterpillar, LFA, both established on the Big Island. This might help us with the nurseries as they won't want these either. We're also looking at RIFA. We don't need to spend much time on these, unless something is found.

We have a contract with DOH, a \$6,000 pilot contract to pick up dead birds to be screened for WNV, we'll see how it works out.

V. OISC outreach program, Rachel Neville

Rachel went over a handout of the outreach goals:

- Increase awareness about invasive species problems
- Raise the name recognition of OISC
- Educate the public to ID target species
- Gain access to private property for field crew

Rachel: In 2006, we had an educational display booth at many events. Some weren't really worth it, others were small but really active, like Ulu Po Heiau. More than 1,000 people stopped to talk at these events. Miconia is used as an example in the display, also the coqui terrarium, and a snake in a jar. If you hear of an activity, let me know.

We got a coqui press release out this year and several papers printed something. Also we had one TV appearance.

We also present to community groups and schools, they often call about career day. I talk about conservation careers as well as the target species. I've talked about WRA with the Nursery Association, Malama O Manoa, and weed of the month at the Hawaii Botanical Society.

We're also raising our profile with city government; I have talked for 10 minutes with seven of the nine City Council members.

Ryan: All the other counties are significant supporters of the ISCs.

Rachel: We have a brochure, info sheets on certain species, a quarterly newsletter, pest alert flyers. HISC last year had outreach money and we got these miconia ID cards.

The newsletter is for people like the City Council, it shows acreage surveyed and accomplishments. Anyone who wants to contribute cartoons or articles, let me know.

There was a public service announcement that ran on KSSK in May and June. The pest hotline didn't get a significant uptick. People tend to research online, and see our 286 number at the CTAHR site.

Rachel explained how she responds to a coqui report.

There are a few people who have refused to give access for control of invasives, but most people say okay. DOA has been helpful with this. The strategy for 2007 is to continue with events, probably different ones than last year, and presentations. New directions will be trying to get more volunteers, maybe not even with target species, just get people out there, groups that feel good about controlling something. Manuka on Waimano Ridge Trail maybe.

One potential concern is liability. You have to have an approved volunteer for RCUH, with a waiver form. We're not sure how to do it for groups.

Ryan: The good thing is that it helps get people involved, maybe address widespread species.

Rachel: We're going to start giving presentations with the species ID cards, printed on waterproof paper. Groups like DOCARE, other people that get out in the field.

Ants: We'll do outreach, HDOA will do control and advice. The bites will probably be the only way to ID them. We decided to do this because of our trip to the Big Island. We were given a presentation about them that was really scary. If they get established where seabirds are nesting, that'll be the end of the birds.

Joby: Is this a DOA priority?

Ryan: I think Neil has an interest in doing a lot more surveys. We're keeping them aware of what we're doing and asking them to do the same for us.

Chris: On landscaping, there are golf course design firms you can call, like Belt Collins, that's all they do. There's probably another one. You could contact them about the landscaping.

Ryan: The Superferry people met with us. They agreed to help us with outreach, put warning posters up. We're hoping they'll pay for brochures and stuff. I'm on the advisory committee for this island. They sound very proactive but there is minimal regulation that could be enforced. They're doing more now than they're forced to do, which is a good sign. The people at the table did not include DOA or DOT, the two major players. Hopefully they'll be at the next meeting. We're being encouraged to weigh in, so if you have any issues you want me to raise, let me know.

VI. The meeting was adjourned.

Attendees

Shahin Ansari, Lyon Arboretum
Derek Arakaki, HDOA
Becky Azama, HDOA
Chris Dacus, HDOT
Danielle Frohlich, OED
Jean Fujikawa, OISC
Rob Hauff, DOFAW
Mary Ikagawa, OISC
Susannah Iott, OISC
Kapua Kawelo, Army Environmental
Alex Lau, OED
Zach Luechauer, OISC
Katy Metzler, OISC
Guy Ragosta, KMWP
Joby Rohrer, Army Environmental
Micah Ryder, KMWP
Ryan Smith, Coordinator, OISC
Christian Sousa, OISC
Jeremy Spencer, OISC
Amy Tsuneyoshi, HBWS
Christine Volinski, MCBH

Abbreviations

DOFAW, Division of Forestry &
Wildlife, State of Hawaii
HBWS, Honolulu Board of Water
Supply
HDOA, Hawai'i Department
of Agriculture
HDOT, Hawaii Department of
Transportation
KMWP, Koolau Mountains
Watershed Partnership
MCBH, Marine Corps Base Hawai'i
OED, O'ahu Early Detection
OISC, O'ahu Invasive Species
Committee