

**O'ahu Invasive Species Committee Strategy and Prioritization Meeting**  
**November 13, 2007**  
**9:00-12:30**  
**HDOA Plant Quarantine Conference Room**  
**1849 Auiki Street, Honolulu**

**Meeting notes**

I. Welcome and introductions.

Rachel Neville called the meeting to order and attendees introduced themselves.

II. Announcements

Rachel announced the purpose of the meeting, to set our priorities for 2008 and discuss the strategy for miconia.

Every year we choose a new chair. Chris Dacus of DOT is officially the new chair. He has already helped us a lot. If there's anyone who would like to be our chair in 2009, let Rachel know.

OISC just received notice from Hawaii Tourism Authority that our grant application was successful. They will provide \$65,000 for FY08 funding for miconia control. KMWP's affiliate nonprofit, OOKI, will act as fiscal sponsor.

New field leaders: OISC now has enough staff for two field teams, which will be headed up by new field leaders Susie and Christian.

NARS has hired some more people and originally planned to put them in an office trailer located at Waimano. However, since OISC would like to have a united baseyard, it was suggested that OISC staff could give up the Waimano building space to NARS and take the office trailer instead. DOFAW is working with us to find a piece of land for it, possibly Makiki or we may all move to another site such as Kawainui Marsh. Stay tuned.

We found *Senecio madagascariensis* at the Hydromulch site at Castle. It was suggested that we survey all Hydromulch areas. Chris says most of the roadsides are Hydromulched, so that falls within Alex and Danielle's roadside surveys.

The miconia that was aerially sprayed is dead.

III. Current status, January – September 2007. Acres, species hours, and percentages.

Rachel went over some slides showing the acres, species hours, and percentages of time spent on each species. Note that volunteers aren't doing miconia now, since they get bored not finding anything. We try to take them to project sites where there are also native plants.

- A. Miconia. There was an email sent around earlier about the giant miconia. We counted 123 flowering panicles. This find pushes the ground buffer out by about 500 acres. It was right on the edge of the aerial buffer. We're pretty sure this is the source tree for the immatures we were finding, but where did this one come from? It was found behind the golf course, so maybe it was somehow brought in connection with that. The Luana Hills Golf Course was really accommodating in helping us get it.
- B. Himalayan blackberry: We are doing 100m scour, and 800m in good habitat. The more the crew looks, the more they find. We are also having trouble figuring out how to control it. Escort doesn't work that well. We want to try a different cocktail and surfactant.

Rob: We've been working on this species since OISC started. Are there trial records that need to be reviewed?

Micah said that Olaa Kilauea Partnership, Tanya Rubenstein, has something that works. He saw some that was at least a year old and completely dead. Chris Buddenhagen said they used to use picloram. Katy says they're still finding 150 plants or so, and more in a new area as well, outside the core population. We are still working on the 100m scour, but it is almost done. During a volunteer outing, we met the person that planted it, and he was not happy that we were taking it out. We are getting it before it fruits, less than 10 out of 100 had fruit. At first there was a lot of fruit.

- C. Bush beardgrass. During miconia surveys the crew found a range extension into the neighborhood off Ahuimanu Road in Kahalu'u. It has jumped the ridge, Chun's Ridge. And there's the pali population. I hope this is not all a repeat of older discussions, but it might be a good time to make a decision. It is in the neighborhood, in people's yards.

#### IV. Coqui frog status—no frogs!

Rachel showed Brian's slides and discussed the temp hire program, they were great this year as every year. The slides showed which sections were drenched and which were spot sprayed.

This year surveys and sprays at Wahiawa concentrated on areas where frogs were observed calling. The crew drenched section 2. They had intended to do it twice, but didn't hear any frogs calling, so only drenched section 2 and focused on nursery surveys. HDOA gave us a list of nurseries that received shipments from the Big Island so we focused on those nurseries.

Section 4: In 2006, spring rains washed frogs into section 4 and along the waterway that leads to Lake Wilson. We drenched section 4 twice, and also hit spots along the streambed where frogs had been heard in 2006. This was the only known naturalized population on the island. The Coqui Frog Working Group says if you don't hear a frog for a whole year, you can consider that population eradicated. We're saving that word for an islandwide eradication, but we are going to do a press release about interagency teamwork and what you can do if you get the funding in time. The problem is that there will be constant reintroductions. Plants are supposed to be treated before they leave the Big Island but there

are always frogs that get through the treatment. They also come in cars, one came in a boat from Hilo. We get a constant stream of calls to report frogs but a lot of them turn out to be greenhouse frogs. Last year section 3 was bulldozed. There have been no frogs since 2005.

OISC wants to thank HDOA, DLNR, Army, and the Directorate of Public Works for working with us on eliminating this naturalized population. Quarantine is really important.

Results of Coqui Frog Working Group meeting:

It was decided to experiment with some recording devices to monitor nurseries. Kauai did this and it has been pretty successful. We still plan to monitor Wahiawa but so far are not planning to treat there next year. For nurseries we want to get there as soon as a container arrives, since DOA says lots of the plants are sold before they get to the nursery. If we can get there the night the container arrives, we can hopefully get to any frogs. Last year the legislature gave every island money for coqui except Oahu, so we want to change that. The hot water treatments are still being developed, Bill Durston is doing that. It is not clear whether Hilo has any of these set up or not. So hot water treatment is in the works but not ready yet. Jane: The main thing seems to be working out the legal stuff, so contaminated plants can get shipped back, or there are some repercussions for ignoring the problem.

Other vertebrates:

We are still working on legal issues with Tokay gecko. Mindy asked if OISC could do the Madagascar day gecko, but OISC needs more research. We will report at the next meeting. This was discussed at some point in the beginning of 2007, but I'm not sure what the result was. Mindy also requested we do the Newtown Estates parrot population. This is something that would probably have to be contracted out, so that will need to be researched. We will put this on the agenda for the next meeting.

Other vertebrates: We have been doing some work with Tokay gecko, which is big enough to eat bird eggs, and it bites. The neighborhood supports getting it out of there. We're working on the legal aspect, since it is at someone's house.

Action item: Research on Madagascar day gecko.

Action item: Rachel will put Newtown Estate parrots on the next meeting agenda.

## V. Early Detection program update, Danielle Frohlich

OED has been operating for over a year now. We have moved from nursery surveys to roadside surveys. We estimate that we have done about 400 miles of roads so far, out of thousands. We need to refine the target amount. We are averaging about 100 miles a month, and want to scale that up. We are focusing on one town/area at a time. We just did Kaneohe. It is effective to break it up into little chunks. We found, surprisingly, *Imperata cylindrica*, the seventh worst invasive in the world. It was planted about 20 years ago in someone's yard. It doesn't flower, it's a cultivar. Cultivars are covered by the noxious weed statute for Hawaii, though Oregon and Washington allow cultivars; however, they are known to revert to being reproductive. It is popular in Japanese gardens.

We also found kudzu, *Pueraria montana v. lobata*. This is very bad, it's the vine that ate the south. We have found two naturalized and one cultivated location, on a trellis.

We have also found naturalizing bo tree, *Ficus religiosa*. It might have come from a rumored tree at Hoomaluhia. There may be one at Lyon Arboretum. It is a popular tree and we should expect to see more of it.

Action item: Explore outreach and control options for *Ficus* spp.

The North-South Road preconstruction surveys are done, few noxious weeds were located. Any brought in are to be controlled by contractors.

Micah: How do you decide which roads to do first? Danielle: We're working with the weather. We're trying to do wetter areas before the wet season hits. We'll do every public road, not BWS access roads for now.

Rachel: The strategy is that if something has been found that is a threat, OISC will go in and control it and do 100m scour. If more is found, go to 800m in good habitat. Once the actual control starts it is going to be an ongoing process.

Another job we're doing is identifying the Bishop Herbarium's backlog from other islands. Kim and Forest Starr have sent us a lot of stuff that we're about half way through. Hank Oppenheimer also sends samples. There are a few new records, a few offshore islets have new things that are on larger islands but people haven't been offshore much.

Lance Bookless: During fountain grass surveys at MCBH we found a tree with thorns and milky sap. Alex: It might be bully tree.

We're focusing on roadside surveys, still doing nurseries. We found a new *Medinilla* at one nursery, he didn't know what it was. Also a target of ours that he had is *Rosa multiflora*, he's experimenting with new colors. Another nursery is very organized, using pesticides.

New records: We have published some of the 27 new naturalized/island records located or identified by OED in Bishop Museum Occasional Papers.

We have 600 hours so far allocated to rapid response.

Jane: Are you doing dirt road surveys? Other land users we should be looking at besides military and BWS? That might be a good complement to OED work.

Chris: Are you looking at beaches? There are houses along there, and people walk along the beach.

Danielle: That is on the radar but we're prioritizing roads.

Jane: How about HECO? Roads and powerlines? Maybe this is not an OED project but someone else?

## VI. 2008 OISC In-House Strategy Plan

The Strategy Plan includes biology of target species, tasks to perform for target species, historical locations, strategy changes with dates. It is 80 pages and contains all the species we've worked on. We would like to try to produce a public document for 2008 which will discuss the strategy for this year (we did this in '05-06 and it seemed to work well). People who aren't in attendance today can comment on the 2008 strategy.

Spreadsheet handout: Rachel estimated how long it would take us to do a certain number of acres with the amount of crew that we have. She also estimated the hours for new and 3-year resurveys. Initial surveys will take about 2,279 hours. Weather and helicopter availability are limiting factors for aerals.

Rachel would like to propose that miconia initial surveys take priority over everything else.

## VII. Species discussions (Please see attached materials)

There will be an HDOA meeting tomorrow on strategy for nettle caterpillar. There is concern that the wet season will bring an explosion. Rachel told HDOA we'll plan for 208 hours, if they want more they can ask.

We have budgeted 600 hours for rapid response, based on the *Verbena* project. The hiptage plant was killed, we believe it may have been planted.

- A. Strategy modification for *Piper auritum*. We took on this species because it was a concern for HDOA. The threat is that it looks a lot like true kava but lacks its medicinal properties. We keep finding more. People think it's the real thing, they have a cultural plant, often it is given to them, but it's not the real kava.

We think we'll still control it in natural areas but if we find in someone's yard, we can provide a coupon from a nursery who says they'll give the person a real kava plant. It only spreads vegetatively. It's in Ahuimanu gulch, we take volunteers there, it is nice for them and this works with the new strategy. We can finish that and WCC, Kahekili Highway, a couple of the places we've put a lot of time in. It forms huge, very tall patches. So far there are only these few known naturalized sites, one in Kalihi. When we find new sites on private property, we will send the homeowner a letter alerting them to the fact that they have false kava. Otherwise, we won't control it.

- B. *Medinilla magnifica*. This is another one that the more we look, the more we find. We were opportunistically killing it, not putting buffers around it. We may also try the coupon strategy, ask them to remove it and provide a coupon to a native plant nursery for a replacement plant. Lyon's new director might be more amenable to taking it out. Shahin said she could talk with him. Rachel is planning to see him and take location maps. Chris B. says he's the new chair of HISC's Research and Technology working group. We'll try to take as many as we can out of cultivation, but there are too many being cultivated to make it an eradicable species. Alex: Only in the past couple of years has it been of concern as an invasive, it has been cultivated a long time.

Jane: It may not be practical to survey just for this.

Micah: KMWP could do some surveys if needed.

Katy: The ones not in miconia buffer.

C. Strategy modification for *Melochia umbellata*.

Rachel: We have looked up some references, it has been planted on Oahu in the past. Lyon's apparently died. Charlotte found one in Waiawa. Does anyone know the history of this species?

Katy: Apparently there were hundreds on the Ewa Plain back in the 30s.

Rob: Waianae Uka, Ewa Forest Reserve, forestry plantings.

Jane: We had only heard of it in a small area in Kahuku. We thought it came on military transport as it is all over the Big Island. It responds to soil scarification, we think it might be a priority because someone did some work there and hundreds of them came up. It competes with guava, likes open, sunny gaps, grows fast, seeds are wind dispersed. It is also easy to kill. Small ones hand pull, 20% Garlon, cut stump. Roadside spray works too. It seems like a good species to eradicate, this Kahuku population is the only one we know of. We have found it at a couple of spots nearby we think were moved on vehicles.

Rachel: Do you go to Punalu'u?

Micah: We're going next Monday.

Action item: Follow up on Ewa site, Rob's info on the forestry plantings. There are several copies, but it's not digital. See if there are more where plantings were done in the past. Find out if anyone does work in that area who could check it out. Maybe ask Joel Lau, people who get around.

Katy: If we do find these and don't find more, do we want to go after it? What kind of buffers? It is wind dispersed.

Jane: We have never found it very far away, ballpark is definitely less than a mile. One outlier plant.

Rachel: We'll get a point for the tree and go kill it, and look into the other site.

Katy: There is a BISH record of Punalu'u planting, not much information.

Jane: That seems like more of the right habitat for it, more water.

Micah: Alex is coming with us out there on Monday. We may have to go back another day.

Katy: An OISC person will also go.

- D. Strategy modification for *Schizachyrium condensatum* given new range extension on the Pali. It would have to be aerially sprayed to get rid of it. We've been working on these species a long time. Also just found range extension into the next valley. This is not State land.

Katy did an assessment of what it would take to do that pali population. One year would take 800 hours of staff time and \$25,000/year of helicopter time to spray.

Rachel: I think this species is a containment situation no matter what. Mike Ade thinks doing a pali spray is a bad idea. He does aerial spraying for Pampas grass for MISC.

The alternatives we've discussed are:

Do it.

Contract it out, maybe to the people who do Australian tree fern on Kauai

Move to containment, continue with the Halawa population and restoration of that site, volunteer work on the invasives in that valley.

Drop Ahuimanu SchCon only

Drop SchCon altogether.

Katy thinks the aerial ops would be very dangerous. Mindy felt strongly that we should keep it as a target species and try to do Pali population control.

Amy: I doubt our legal or risk managers will go for it.

Guy: There is a concern for everyone when OISC drops something, nobody takes it up.

Susie: OISC's mission is only incipient species. The pali population is directly above a neighborhood that we go back to every month, and those plants are spreading. That area is getting bigger. It will be an endless task. Halawa has native plants and it's getting smaller. Ahuimanu is a neighborhood.

Jane: I think the Halawa population should be continued. I can see the problem with the pali population. If it got to the Waianaes it would be horrible. It would be good to continue some containment in Ahuimanu, if you want to try some PR. Going once is month is kind of often for you to have to do.

Chris B.: I'd suggest outlier surveys for containment.

Katy: I'm for Halawa, I think we're making good progress. My concern with Ahuimanu is that we continue to spend time and money on this this year, and then we drop next year because it is outside our mission.

Micah: Do you feel like you've done enough surveys?

Katy: No, we found some in Kahalu'u the other day when doing miconia. In the forest, the next valley over.

Chris: Outlier surveys would probably be valuable.

Rachel: More flights?

Katy: Every time we look we find more. We can do the next couple of valleys north and south, use spotting scopes, then come back to the committee with more information about the total population size.

Action item: OISC will do more SchCon surveys outside the existing control areas to determine the extent of infestations.

Action item: Rachel will write a letter to BWS asking about herbicide use on the pali population, whether they have any suggestions.

Action item: Rachel will investigate Stinger trials on Kauai.

VIII. Proposed hour allocations by species—use electronic Species Handout. Rachel will take off hours allocated in handout to Pali population, use for outlier surveys.

IX. Date for next meeting: April 17, Thursday, 9 a.m.

The meeting was adjourned.

### **Miconia strategy meeting**

*Purpose of meeting.* We are concerned about where we're not looking, the areas outside the buffer. We want to ask you how we can start tackling some of the other areas. Maybe a few gulches per year...? We have maps from Army, where Charlotte goes, weed road surveys, OED, NARS, KMWP as of mid-year. Can we allocate resources toward other places? What is high priority after the buffer area? We also have done abandoned nursery sites. Mike Ade from MISC thinks focus on abandoned and passed-on nurseries.

Joby: I'd go for that, focus on where it was probably planted.

Micah: Also expanding buffers, one valley to the north of the buffer.

Jean: We also go down streams to one mile past the edge of the buffer.

Rachel: Waimanalo, near known concentrations of nurseries?

Joby: Waikane, there are a lot of nurseries.



Hakepu'u, Punalu'u, Kahuku has big nurseries.

KMWP in Punalu'u has only surveyed way in the back. They don't survey like OISC does, summit areas excepted. If it's just one mature we're not going to catch it.

Katy: So Waiahole, Haiku, Punalu'u, Kahuku.

Joby: So Waimanalo is pretty much done, Maunawili.

KMWP: We've done a lot of surveys at Ka'a'awa, Brody's done Hakepu'u, I'd say they have it covered.

Katy: We should get Kualoa's map. Also the crew wants more aerals and less climbing where safety is an issue.

Rachel: As far as I know, Ag only tracks certified nurseries.

Micah: Waihole, there are a lot of active nursery sites back there, pushing into natural areas. You can go to Earl or talk with ADC for access.

Katy: We could start with the ditch trail.

Guy: With the Superferry coming, it might be smart to track miconia according to where cars go.

Micah: Is there anything KMWP can do to look into new areas that fits with our work? We fly to and from the summit, normally leaving from Waimano. If we fly over one of your areas we could take a few minutes to go up a gulch. Whether they'd have to have the aerial search training would have to be decided.

Katy: The crew could potentially do more surveys if we add Fridays, if we get more money.

Micah: We could do SenMad, we go there 2 days/mo. It came in on the BI koa, we know all the area where that was planted. It's doubtful it's going to be outside that.

Rachel: Ag stuff isn't outside our mission. It's not a priority for them though. Let's make a map of the areas that are out to 800m, good habitat, and give it to KMWP.

Rachel: So for this year, it sounds like wet valleys where there are nurseries.

Katy: Start with Waiahole.

Rachel: Amy, do you fly?

Amy: We may do some key projects at a couple areas so we're flying to check it out, but that's it. There's no one else doing watershed areas, except Army in Makaha. Kalihi and Nuuanu are State, designated to us for watershed purposes, we're trying to revert back to the state but they don't want it. Lisa Ferrentino [sp?] with Kokua Kalihi Valley, they're surveying, want to put some trails in there.

Rachel: They send us points.

Katy: If we add new stuff, the 3-year surveys would probably be extended to 3.5 years.

Rachel: Waiahole, we've done some spots in there. It might be worth looking at sooner rather than later.

Micah: That valley is huge. Start with some ideas of where you'd start.

Katy: Punalu'u is huge too.

Guy: Maps areas that aren't done and randomly pick some points?

Katy: For this year we're looking at the most likely places instead of going totally random. I'm thinking main rivers, main gulches, see if we've missed some big stands.

Micah: Do you think there's value in ground surveys if it hasn't been done aerially? We might be able to tack on some.

Katy: If we zip the main river in the bird and you hit the streams in the gulches, we could add on some of those, try to fit it in with other priorities. Not everywhere but in a few areas.

Alex: If you're doing these randomized things, we used to walk streams and find nothing, but a flight over would catch the trees. The high-drainage slopes might be the best habitat rather than the bottom where the stream is.

Katy: That's true.

Joby: Ask David Orr about Waimea? Rachel said there was one there for 10 years. Betsy Gagne said they had found some keiki.

Micah: Bruce said he's been out there, somebody would have seen it if it was down where the collections are.

Rachel: If we give you guys maps and you can decide what you can do, that would be great.

Micah. Yeah, what we can do it opportunistically.

Joby: We can do that on Army lands. BWS?

Amy: We did 600 and below.

Katy: That blue at the edge of the buffer there, looking toward Aina Haina, that would be 15 flights. Christine got a couple of tips to look in Niu Valley when she was looking at the abandoned nurseries.

Micah: Talk to Ane, she flies up there all the time, she has a lot of sites up there. She has points for individual native plants, she goes all over.

Jean: Anyone else have shape files, trails, mapped?

Amy: It's pretty much me for BWS. Katy has the Waihee ones.

Micah: Mark and Terrence, Norman, with Forestry. Aaron on trails. Contact people Dave uses. Find out where they've been, those areas could be eliminated.

Amy: Ryan Peralta, State Protection Forester for Oahu. Charlotte has cards, Trail and Mt. Club. HECO has to fly all the lines every so often. Ane did on the ground for some areas for them.

Rachel: I just met someone in their PR office.

Micah: They have money set aside to do conservation and education.

Action item: Ask Dave if there's anyone else. Rachel will contact HECO.

Mahina said she saw one in Haiku. A pilot (David) said he saw one near Coral Kingdom, we checked it out, didn't find anything. It's all cow pastures. We saw a lot of bingabing there.

Guy: My neighbor reported one around Coral Kingdom also.

Chris: DOFAW organizes monthly hikes. They could take binos and look.

Katy: I can start taking our hard-core volunteers, but access is an issue.

Micah: Punalu'u, you won't get access.

Action item: Katy and Jean will do a map for the next meeting of the other areas that have been covered.

Action item: Micah will give info on the valleys they've hiked like Waihole, trails like contour trail. He'll give update to Jean. They have used spotting scopes.

Alex: We have a nursery list.

Rachel: I'll get that from you, we can see which valleys might be top priorities based on those. There was a Big Island nursery found not that long ago that was growing it, anecdotally.

Private properties that are less than an acre: The chance miconia is there is pretty small unless they intentionally planted it. Should we plan a 2009 door-to-door? Just a flyer? It's more like city, tiny lots. Lower Kaneohe.

Amy: First go to the neighborhood board, let them know.

Chris: Politicians do mailings twice a year, they include issues. Also if one property owner would agree to put a sign in their yard, like the pigs sign on Tantalus, "Got pigs?" everyone would see it.

Rachel: We're trying to schedule for a windshield-wiper effect, so the whole valley comes up for resurvey at the same time.

We'll try and incorporate some flight time based on this and send it out to you all.

DOT/Halawa:

Chris: Also this year in June, DOT is going to start paying HISC for all the work done on the roadside. Halawa Valley will be completely paid for by DOT.

DOA and the ISCs can come unannounced to any of the sites to randomly inspect and the contractor is responsible for anything at the site that wasn't found in the presurvey (and identified specifically in the contract as a high risk). I'm going to add to it to include where the fill comes from, has to be treated. We're still working on it. Construction specs are very general. DOT bids are very specific, low bid environment. Also all earthworking equipment must be pressure-washed before coming to the site.

The Oahu pilot program is 3 years. We have an outline of the scope but it is still flexible. It will be driven by the ISCs and DOA. About half a million a year will be driven by this group.

The meeting was adjourned at 3:05.

Attendees:

Shahin Ansari	SWCA Environmental Consultants
Jane Beachy	Army Natural Resources Program
Lance Bookless	MCBH
Chris Buddenhagen	DLNR/HISC
Chris Dacus	HDOT
Jean Fujikawa	OISC
Brody Hartle	Kualoa Ranch
Rob Hauff	DOFAW
Mary Ikagawa	OISC
Susannah Iott	OISC
Alex Lau	OISC
Katy Metzler	OISC
Cliff Morden	PCSU
Guy Ragosta	KMWP
Joby Rohrer	Army Natural Resources Program
Micah Ryder	KMWP
Miranda Smith	KMWP
Amy Tsuyenoshi	BWS