

Meeting of the  
O‘ahu Invasive Species Committee

May 12, 2010  
9:00 a.m. – 12:00 p.m.

Bishop Museum Paki Room  
1525 Bernice Street  
Honolulu Hawaii

AGENDA

- I. Welcome and introductions
- II. *Tibouchina herbacea*
- III. Partner updates
- IV. Coqui update
- V. First round of Early Detection species
- VI. Miconia update

MEETING NOTES

I. WELCOME AND INTRODUCTIONS

Rachel opened the meeting and everyone introduced themselves. Rachel explained to the new attendees that the Committee meets three times a year and everyone talks about what their organization is doing so we can all be connected. Rachel read the mission statement.

II. *TIBOUCHINA HERBACEA*

*Tibouchina herbacea* is very bad on Maui and the Big Island. A few years ago OISC found one in the bush beardgrass control area along H3. Then a couple of years later in August of '08 Army found one at the Ko‘olau summit near the Poamoho trail. Army did helicopter surveys in '08 and '09, looking for large patches. Then Chris Miller found one and Emma found one with spent fruits, and three others. Two more immatures were found April 19.

Probably we need to be more systematic with this one. KMWP was going to be here but couldn't make it so I'll share this with them. There are quite a few agencies working up there. Delimiting surveys were done mostly on the leeward side as the back side is very steep; the helicopter surveys went over there.

Jane: We flew back and forth on the cliffs with Windward Aviation, who's from Maui and very familiar with *Tibouchina*. We saw something that looked like it from the air but it turned out to be young *Buddleja*. We did more surveys the next year in September, flying very slow and low, back and forth along the summit, a little on the windward side but more on the leeward side. We didn't get too far down on the leeward side. We were going so slow I could see some individual plants, I recognized some *Phyllostegia*, but aeriels won't work well for picking out individuals.

Rachel: *Tibouchina* is on the noxious weed list, so it won't be widely cultivated. The fact that no large patches were found, it probably was a hiker that brought it up there.

Jane: The one we found was right on the trail.

Rachel: The delimiting survey included the trail, and people have been looking for it, but haven't seen any more.

Rachel: It takes a year to mature. Pat Bily seems to think it flowers mostly in winter, though that could change with adaptation. It can be propagated from as little as 3 cm of stem. The seeds are wind dispersed.

Rob: Do they know anything about the seed?

Rachel: I had a paper on it where they tested seed viability in different conditions, I'll look that up.

What I'd like to propose is that we use a central database, I set it up on Google Docs already. OISC will create a schedule. The crew will go out with Emma or on a weekday, every 6 months, to try to catch anything before it matures.

Images and information are posted on Google Docs—CTAHR info, pictures etc. There is also a report form. Please go to the site and take a look at the form, give me feedback about its ease and usefulness. When someone does a survey if they can then go online and fill out the form we'll build up a database. It automatically goes to a spreadsheet which is hidden so it won't confuse people, but I can show you where it is if you want to see it. Every six months I'll send it out to everyone who wants it. Then at OISC meetings I'll put it in a more PowerPoint-friendly form and we can discuss it. Ideally we'll find everything that sprouted from the seeds that were dispersed and then we won't find any more.

Decontamination: I know you all have procedures for your own sites. If you do find some make sure everything is clean before you go anywhere. At OISC we incinerate all propagative material. If you don't have a way to do this, since it can propagate vegetatively, you can call us or drop it off at either baseyard and we'll throw it in our incinerating pile.

Does this sound like a good system, do you think it's good, people will use it?

Jane: I'm really excited about this system, it is really nice to know someone else is also checking, and it's really good to have an online place to store the data.

Rachel: We can update the site with additional maps if more is found. We might label the points A–D and take everyone up there who will be checking, and people can say "I found plants at point C, etc."

Emma, was the site flagged or staked? That would be good, maybe pictures too. You can kind of see where things are, that would be really helpful.

Jane: That's a good idea. Let's make flagging orange; pink and blue mean rare plants to our staff.

Dave A.: Is this in the NAR?

Jane: I think it's close to the border, on Kam Schools land. The border isn't the trail, it's a weird property line.

Rachel: I should talk to KMWP.

The other side is State Parks.

Jean: One of our staff said you have to look under vegetation, it would be easy to walk past.

Susie: The ones we found were really small.

Jane: We should disseminate some information about keiki *Phyllostegia*, anything that might look like it.

Emma: I think young *Peperomia* kind of looks like it too.

Rachel: Should we do another ground survey? We don't have to answer that today necessarily. How far out do we go? Do we bring binoculars and scopes? If we have five people in a line, a lot of native vegetation will get trampled. We could use some assistance from you guys who work in more native areas.

Jane: The potential to find really small plants is low unless you're looking right where plants were found before.

Susie: I think we should do more surveys, but with limited numbers of people. We could look at where it wasn't walked before. On a six-month schedule, if it matures in a year, maybe do it more than every six months.

Jane: We'd be limited to how much sweeping can be done on the windward side.

Susan: Which of the plants were mature? There's a line of four plants, two were mature.

Rachel: We'll mark it.

Jane: The plant we found was the right size to be mature, it could have flowered in the past but didn't have any fruits or flowers.

Chris: The Forest Reserve boundary is the stream.

Jane: North of that is Kam Schools leased by Army.

Dave: Windward side is State Parks.

Rachel: We'll check on the boundaries just to make sure.

Chris: I have that information.

Rachel: Go to the web site and look at the form and please give me any comments. We'll put some of the lookalikes up there. In comments, add "put in pvc pipe, take photo points, use orange flagging."

Chris: How about metal tags?

Jane: OISC is going to try to go every six months?

Rachel: We'll try to go that often no matter what.

Susie: We went last in April, we'll go next in October.

Rachel: We'll put a calendar up of our surveys. If people are doing sling loads, take a look for patches. Pat Bily put up a good aerial image.

On Maui it definitely flowers in October/November.

Rachel: If you know other people who regularly visit, let them know. If you want a new document up there just let me know. For OISC is the first time we've had a superweed in a place where so many people work.

### III. PARTNER UPDATES

- A. OISC, Rachel Neville: Naomi Hoffman is officially our new chair. She volunteered in December, her term starts today. The chair usually serves for a year, they do my evaluation and are in charge of the steering committee. One year we had a deputy chair, and that person was slotted to be the new chair the following year. We don't have one now, if anyone wants to do that please let me know.

One of our crew members, Zach Luechauer has moved on, he went to San Francisco. He worked with us for a long time, he started with the coqui crew. I've been trying really hard to replace him, the position should be posted soon, we're going to try to replace him and hire one more person, they probably won't be in place for another month or two. It will be open for three weeks, probably posted this week. If you know anyone looking for an entry level conservation position with a great organization, let them know. All the position descriptions say "dependent on funding," it's not a permanent position.

- B. Honolulu Botanical Gardens, Naomi Hoffman: At Koko Crater Botanical Garden Alex and Danielle found *Tetrastigma hookeri*. There is also a *Cissus quadrangularis* spreading there. *Moringa stenopetala* is also crawling up the walls of the crater, three or four. Then there's the nasty *Bridelia* at Ho'omaluhia. We need help.

Rachel: I wanted Alex and Danielle to put that in their assessment pool, but the assessment process has gotten a little bit sidetracked. We're not sure if it is just in the garden or if it is behind too. We might have a grant we could charge that to. We could do a delimit and then figure out if it is early detection or it's beyond that.

- C. Army, Jane Beachy: One kind of interesting thing is that our four fountain grass sites have been clear since 2006. After talking with Danielle it sounds like all four of those sites were eradicated. We're still working on *Melochia* in Kahuku and *Rhodomyrtus* in the East Range. *Buddleja madagascariensis* was last seen in '06, and '04 in November in the East Range.

Susie: We saw some in about '06.

Jane: The '06 plant was in our baseyard. There is no information about seed longevity.

Susie: We were thinking we should go check the East Range to make it more official. On Tantalus there's been nothing.

Jane: Our seed propagation lab was doing some trials, they put seeds in little bags and bury them and pull them out every three months and test viability.

Rachel: If you have greenhouse facilities that could be used.

Jane: I'd only be comfortable asking them to do one or two species at a time as they're really busy with native plants. If you can get Katie Cassel to send a packet of seeds I can see how many seeds they need to do it.

*Smilax bona-nox* is another one we're working with. We've been trying to kill it for a long time. We're trying Oust pre-emergent, it was more effective but not completely. We sprayed in July, and killed a lot but not all of it. Oust isn't good for

native areas as it kills all seeds. It's in the East Range, not that far from a residential area.

*Acacia mangium* in Kahuku, we are still finding plants. *Tibouchina urvilleana* at Whitmore, we need to get in there, we have had access issues. There is another gate and security can be sort of tight.

Rachel: It's on the noxious weeds list.

*Verbena bonariensis* at Pali interchange, we have found it at an Army site, we are still working out how to monitor Army gravel piles.

Rachel: we were controlling it for a while but gave up because we were finding it everywhere. There were a lot of *Verbena* species at that one site and it was hard to pick out.

Susie: Alex and Danielle found it all over the island.

Jane: So we won't get that excited about it.

Rachel: If you can document that it was found in a gravel pile, can you provide that? This is one of the policy issues we've been trying to address, moving materials.

Jane: It was in an area with gravel and equipment and so forth, not growing directly out of a gravel pile.

Dave: What about that unidentified tree from the summit?

Jane: It was narrowed down to two possible species, we need to go back and check that site.

- D. NARS, Chris Miller: We are continuing weed control in the NARS, testing Milestone on weed trees, we can share that info. We've been testing on *Spathodia* and *Schefflera*, working with James Leary. It sounds like there will be a lot more testing to do with this, combining it with others. We hope to be hiring a weed specialist this summer with ARRA funds.

Rachel: Is that a field position?

Chris: Yes, it would be someone to handle all the weed control issues for the NARS, it will be under RCUH. I'll let you guys know.

Rachel: You can post it at the ALLISC-DISCUSS list.

- E. Marine Corps Base Hawaii, Lance Bookless: We have been working with a Navy entomologist on crazy ants. They have inundated a shearwater colony and really disturbed the nesting, they annoy the birds so much they leave. We are doing baiting trials right now. It's a significant area that's just covered with those ants. Also California grass problems around freshwater areas. Otherwise it's general invasives issues.
- F. Forest Service, Rob Hauff: It looks like we'll be funding OISC at the same level next year. The early detection grant is in place for July.

#### IV: COQUI FROG

Coqui frog presentation, Chelsea Arnott: The map here is from Nov. '09 to the present, it's non-coqui season. May to October is the calling and mating season, so these few points will probably increase. The squares on the map show populations, there are three that we

had to go back and spray, there were quite a few of these operations in the last 6 months. We are still getting frogs here on Oahu, we caught frogs in Manoa. We went to a town hall meeting there on Monday night. A couple of these points aren't nurseries. A lot of those we couldn't find a source for. In Manoa there was a single calling frog at a residence, no new landscaping, but quite a bit in the past. The guy had been camping on the Big Island. But it's been really windy this winter, maybe it wasn't calling when the weather was bad.

At Hau'ula Homestead, we got a call after the HDOA press release went out. A nursery owner who lives in the area came out too, there were two calling frogs, they said they've been hearing them for at least two years. So some issues that came from that are that we need to get more outreach to places we don't usually get to. We have been monitoring it and haven't found any more. It could easily have turned into another Wahiawa situation, we'll keep monitoring for at least a year.

In Waimanalo, there are a lot of potted plant nurseries. In the past HDOA didn't like to crack the whip but now they're getting more serious, they are penalizing. Frogs were found at International Marketplace and they knew where the plants came from and made the nursery owner take care of it. In Waimanalo there's a group of nurseries that's taken it on themselves to monitor the entire area.

We know of at least one nursery that had about 15 frogs that doesn't do very well. The names of the nurseries aren't supposed to be published. That's been an issue in the past, they don't want people to be put out of business. Some of the nurseries that have been problems in the past supply to home improvement stores. Be wary. That has been something that has been a problem.

Here on Oahu we're good at rapid response, we take care of it as soon as we get a call. We had a Coqui Working Group meeting on April 26 on the Big Island, Jane gave the presentation she gave in New Zealand. There was discussion about setting up hot water treatments on the Big Island, this also takes care of some of the problem ants. Not even the HDOA inspectors get the list of which organizations get what from the Big Island. Not even Derek can get that list any more.

Rachel: HDOA is split into Plant Quarantine and Mechanical Branch. Derek is Mechanical Branch.

Lisa: Is there a legal reason why he can't get the list?

Rob: Is there any way to follow up, is it an overnight trip for a barge? Has Young Brothers been trained?

Chelsea: Domingo is working with them, trying to get people to treat their plants with hot water before they get on the barge. Young Brothers makes the importer pay to send a container back, and that has happened when a frog jumped out. Ray McGuire was at the Coqui Working Group meeting, I was the only person from another island at the meeting. The conversation kept switching back to what the Big Island is going to do, they're still trying to control them in natural areas. Let's get some quarantine, hot water treatments. HDOA was going to fund those portable treatment units, but with the funding cuts, they haven't got the money.

Lisa: What would the cost per plant be?

Rachel: The hot water treatment technology has been able for several years.

Chelsea: Dr. Hara developed the technology, he's really hard to get in contact with. He sent an assistant to the meeting, I'm hoping she'll get back to me. There is one unit on the Big Island that they move around, but plants get treated and then go sit at the port, which is

totally infested. The port needs a staging area. The plan is that they want to put the treatment centers on our islands.

Rob: What's OISC's funding and plan to deal with outreach over the next year?

Rachel: We don't have dedicated coqui funding, and we don't know how the match is going to work out.

Rachel: We can't spend FWS money to kill them, but we could use it for monitoring.

Chris: Is the Waimanalo neighborhood board doing anything?

Chelsea: Working with the nursery owners that have made this coqui watch group is good, we should go to their neighborhood board meeting. We're trying to do this with Manoa and Hawaii Kai, almost like a neighborhood watch system, where people can listen and call us or HDOA. It would be good to have this in Waimanalo. I'm going to start going to more neighborhood board meetings, it takes a lot of time.

Lisa: Maybe you could have one contact on each board, and give the information to that person.

Chelsea: The press releases and the Manoa article really made a difference.

Lisa: You need to get the word out about what it actually sounds like, there are a lot of greenhouse frogs around and people don't know the difference.

Rachel: Jane presented the Wahiawa coqui eradication project at the New Zealand invasives meeting. We'll present it again at the Hawaii Conservation Conference.

Chelsea: There is also work on Agent Green, a new pesticide they talked about at the Coqui Working Group meeting. So far citric acid is the only approved one. Agent Green might be another. The active ingredient is acidic but it's trademarked. Dave Davies is trying to market it. It would clog the hoses in the big sprayer. It might not need an EPA label, it sounds about the same as citric.

Rachel: Chelsea is going to do neighborhood board stuff, we'll talk about that at the next meeting.

## V. EARLY DETECTION

Rachel: Alex and Danielle are on Kauai right now, but they are based here at Bishop Museum. They have spent 3 years driving all the public roads on Oahu. Kim and Forest did the same thing on Maui in 6 months, but there are a lot fewer roads there. The plan was to do the surveys, then do a systematic scientific assessment and select target species. There were two good funding opportunities that came along. They're doing State roads, and also Kauai needed their road surveys done. Alex and Danielle thought it would be good to test their methods on another, rural island. It also helps out KISC, who wouldn't have been able to do any kind of early detection. So these projects had to be done, so Alex and Danielle have a really large list of species but haven't had time to look at them all in a systematic way. I asked them to come up with a first batch. There is more information needed for the assessment. The weed info is pretty clear, but do we have access for the plants that are on private property? If not, we can't do much. Do we know the distribution? We need delimiting surveys. What I'm going to show you now is a list for which we need more information. There might be some of these for which the scores will change, and more species might be added later. I'm doing this because I want to get the crew out there delimiting things and killing things if possible.

At the August meeting Alex and Danielle presented their system for prioritization. On Maui they cross-reference their species with the Global Compendium of Weeds. We decided to do it a little differently. Each plant is assigned a score made up of a letter (weediness) and a number (practicality of control). We're looking for things with that extra something that makes them really bad, because they found hundreds of new things that are naturalizing and we can't go after all of them. This was done through discussions with land managers and botanists. A is highest weediness, D is lowest. 10 is highest practicality of control (low distribution), 1 is least (strawberry guava). Is there a practical control method, do we have access to the land? Ideally A10 is a target. D1 would be a very poor target for us. Here are some of the species:

*Imperata cylindrica* is on the federal noxious weed list, and we don't get many of those here. It's a cultivar, but can revert to wild type under stress. It's in two locations. One has been removed, the second we don't know yet if we can get access. It's like fountain grass in the Southeast US. It's even a bit invasive in its native habitat.

Rob: The wildfires in Indonesia a couple of years ago were widely blamed on people clearing land and this grass coming in and then burning.

*Pennisetum villosum*, a relative of fountain grass, with rounder flowering heads. It's the same as fountain grass but can tolerate wetter conditions, so it could do some damage in the Waianae and Ko'olahe. It's in seed packets at the Navy Exchange. Look for "feathertop fountain grass" when you're in the seed sections of stores. We asked Navy Exchange to stop selling it. It has been found in two locations, one at a house in Kahala.

*Nassella tenuissima*. This is a fire-promoting grass. People love the way it looks. It is fire-promoting and displaces other plants. So far the distribution is low. It also was sold in Navy Exchange packets. Lance can check the shops at the MCBH if gets list of plants.

*Piper aduncum*. This is really bad in other parts of the Pacific. It's reproducing in Waimea Botanical Garden, though the source plants were removed. Lyon removed most of it but not all. They're "keeping an eye on it." If they won't let us monitor it, it will change the practicality of the control score.

*Parkinsonia aculeata*. This was removed from a botanical garden, so was the only noncultivated one, in a field in Waianae. There had been some on Sand Island but Alex and Danielle can't find it. Practicality of control is high but it's hard to kill. Herbicide didn't kill it, it came back after burning. It's a tree.

Jane: This is a good candidate for the Milestone. If you want some we have it. It is not restricted use, it's in the same category as Garlon. There is a guy you can call, Rachel has his card.

Dave: It is persistent in the environment.

Jane: With Milestone you use a really small quantity.

Rachel: The distribution, there is none in Sand Island. We're pretty sure the plant in Waianae is the only one. Koko Head Botanical Garden had it and Naomi said she would check on it. If they killed it Naomi could report back how they killed it.

*Rauvolfia vomitoria*. This is a B10. Kohala Watershed Partnership has had a huge problem with it.

Lisa: It has taken over thousands of acres. It is some kind of herbal remedy, it was planted on purpose. It turned out to be economically not feasible and the people just walked away from it, and nobody really noticed. Melora Purell could give you more information. It has been bulldozed, they have tried a lot of things, it's very hard to kill.



Rachel: It has been removed from Ho‘omaluhia. There might be one at Waimea.

*Pereskia aculeata* – B9. Cape gooseberry. This is a target of Molokai ISC. There are some unclear records of it at Bishop Museum that we need to investigate. It is also at some botanical gardens.

*Delairea odorata*, cape ivy. This is a very bad vine on the Big Island. It is also called German ivy there. It's in the Waianaes, OISC doesn't work that much there. It's in a residential area bordered by forested areas. We need to do a delimiting survey. There is at least one land owner. There's a newly formed Waianae Watershed Partnership. It's probably something we'll be able to tackle. We will probably go out sometime between July and December.

Susie: I think it's pretty distinctive, even without flowers.

Rachel: We got a grant from the Forest Service for early detection and rapid response, that will hopefully be in place by July 1.

Rob: Control is in the Motooka reference.

Susie: What they treated died, they found more.

*Melinis nerviglumis* – C8. Some of the Weed Risk Assessments may come out low because they're new to cultivation. They looked at the biology, so if it's wind dispersed and ornamental so people are likely to start planting it, we should consider it. There was a school in Waipio that had it, we contacted them and they took it out themselves. Another homeowner did too. There is another house in Hawaii Kai in a gated community that has it, they also removed it.

Chelsea: Neal Snow is monitoring it, he lives over there. There are seedlings of it popping up all over the yard at that Kahala house. He might remove it if it's looking weedy.

*Guzmania lindenii*, C8. This is one Alex feels very strongly about. Lanky said it's exciting for plant collectors. It is rare in its native habitat. It is found only near the summit on Bowman Trail above Kalihi. They think someone brought it up there and planted it. It has wind-dispersed seeds and it is definitely spreading. There is no information about its weediness. We have no idea how to get rid of it. We talked to James Leary about how to herbicide it. It is growing in the crown of large 'ohi'a trees, and the plants are very large. HBT might be the answer.

Naomi: They're sensitive to metals.

Rachel: They went up and tried to delimit but visibility wasn't good.

Alex and James Leary tested HBT at Lyon, we should look at control methods, then delimit and take it from there.

*Topobea parasitica* – C9. This is a melastome. It is hemiepiphytic, semiparasitic. It has a low distribution, at someone's house. I don't think they'll give it up, but we haven't asked. The person who owns it is emotionally attached to it, she got it from a friend. Foster Garden had one and they removed it.

If you guys see any of these being sold or hear any more information about weediness and so forth, let us know.

Naomi: It might be called cat's tongue.

*Caesalpinia crista*. This is in the wild, it needs a delimiting survey. It is kind of like catsclaw, it's on Tantalus. It is skinnier than catsclaw but the thorns are more hooked and are impossible to get off. It's on public land, we just need to make sure it's not too widely distributed.

## VI. MICONIA

Rachel: At the December meeting we said we didn't have enough staff time to fulfill our strategy of 800 m around all historical points and aials another 800 m. We cut that to a 450 m buffer with a small field crew. Our goal for January through March was 600 acres. We got 625 done. We found 2,945 immatures. The priority aerial target was 280, we got 197 done. A lot of this is because pilots are very scarce, as is OAS certification. We're working on a PO for another company so hopefully that will help. We told the crew we need to make this acreage a priority and they have been working really hard, maxing out the acres.

There was a fairly large tree in Nu'uauu on the Ewa side of the Pali Highway, and we've *never* found any miconia there. It was within the 450 m buffer. There was no evidence of fruiting or flowering, no other seedlings. It was not super tall, it's kind of dry habitat. We should do that survey again in a year instead of 3 years. Aka said it was about 12-15 feet but what was alarming was the branching.

Jane: It sounds like the priority acreage plan is working pretty well, you're on track for that. Do you think hiring an extra person will help?

Rachel: Yes, though that person will also be doing some of the early detection work. If we're in an area finishing up we go out to 800 m, as we're going to make all the priority acreage as well. We also have three Americorps interns, which is a huge help. If we get two more people we should be really good. We're good for about 12 months, but everyone is saying 2011 will be worse than 2010 budgetwise.

Lisa: NRCS is giving \$1M back to DC, but they say they can only fund private landowners. There may be a push for that to change. They're getting more and more money. Maybe for coqui control. The CREP program, Conservation Reserve Enhancement. Maybe this could benefit watersheds, how can we work with the landowners? How can OISC etc. work together. What kind of agreement between landowners, nonprofits, etc. If people are on staff that can do the paperwork that's an issue. Talk to Lisa more about this, she seems to know something about it.

Rachel: If you are going to meet with them, I would be interested.

Lisa: yes we are.

## VII. ADJOURNMENT

Rachel: If there is anything you want to see at the meetings, just let me know.

The meeting was adjourned.

## ATTENDEES

David Anderson, State of Hawaii Natural Area Reserves System (NARS)  
Chelsea Arnott, OISC  
Jane Beachy, Oahu Army Natural Resources Program  
Lance Bookless, Marine Corps Base Hawaii

Susan Ching, Oahu Plant Extinction Program  
Lisa Ferentinos, State of Hawaii DOFAW/Watershed Partnership Program  
Jean Fujikawa, OISC  
Rob Hauff, State of Hawai'i Department of Land and Natural Resources,  
Division of Forestry and Wildlife (DLNR DOFAW)  
Naomi Hoffman, Honolulu Botanical Gardens  
Mary Ikagawa, OISC  
Susie Iott, OISC  
Brianna McDowell, NARS  
Chris Miller, NARS  
Rachel Neville, OISC  
Kawika Shizuma, NARS  
Emma Yuen, NARS