

MEETING MINUTES
MAUI INVASIVE SPECIES COMMITTEE
Friday, June 3, 2005

ATTENDANCE: Randy Bartlett, Erica VonAllmen, Doug Runde, Joylynn Oliveira, Melora Purell, Bob Hobdy, Erica Anderson, Brooke Mahnken, Jeremy Spencer, Glenn Shisido, Mike Ade, Adam Radford, Art Medeiros, Kim Starr, Forest Starr, Nathan Varns, Stuart Funke-d'Egnuff, Mindy Wilkinson, Jeremy Gooding, Pat Bily, Kim Langley, Lloyd Loope, Fern Duvall, Rob Parsons, Teya Penniman, Elizabeth Anderson

- The meeting was called to order by Randy Bartlett (ML&P) at 9:15am.
- Minutes from the February 4, 2005 and the April 8, 2005 MISC meetings were approved. They will be posted on the website. Any problems or additions to the minutes should be sent to Teya by the end of the day. The early detection meeting notes will be distributed for review soon.

UPDATES

Manager's Report

- Teya: MISC is in a really good place right now. We have great momentum with new staff coming on and the additional funding from the HISC. Our new crew members have been a very positive addition. They have a lot of good constructive ideas and suggestions for improving our operation. I'd like to thank the individuals who started MISC and had the vision of what was possible. The Committee should be proud of that vision.

Budget/Funding

- Elizabeth: things may get a little tight over the next few months as we wait for additional funds to come on-line with the University. We are just about pau with our FY04 DWS account and the FY04 OED general and Coqui/BBTV accounts both are closing. This year's NFWF grant will be pau at the end of June. We are primarily spending HISC and State/Forest Service funds right now with some salaries coming from FWS. Our FY05 OED funds are working their way through the University and we are waiting for an additional FY05 \$100,000 from the HISC.
- Stuart: the Mayor will sign the overall budget for FY06 on June 12. We expect \$250,000 from OED (our general support funds) and an additional \$50,000 for BBTV and \$50,000 for coqui. There is also \$100,000 allocated for rapid response that we may be able to tap into later. The DWS contract for FY05 is almost executed.
- Teya: there is also \$100,000 state funding for coqui in Maui County. We don't know for sure if those funds will be coming through MISC. The Legislature has approved the FY06 HISC funding, but we are still waiting on signature.
- Stuart: per Ed Case the Agriculture Appropriations Committee has approved additional funds for the RC&Ds around the country. It seems fairly likely it will be approved. This is really good news for the RC&Ds. The funding is performance-based and Maui is very high in performance. Hopefully they will start filling empty positions. Also, at the Federal level there is \$1 million proposed for coqui (\$500,000 each for Maui and Hawaii counties). The FY06 Federal budget includes a proposed \$825,000 for Wildlife Services.

- Jeremy: NPS sources for miconia funding are starting to get a little thin. We have additional funds to see use through April 2006 and then MISC will need to support the Hana crew. The helicopter contract will continue at approximately the current level through the next Federal fiscal year (through September 2006). Teya: as most of us know, the NPS has underwritten the Hana-based ground and aerial operations for the last several years. That funding will run out in the middle of next year. We looked at our cash flow and evaluated what we can take from our general funds to keep that operation going. We should be able to keep the Hana operation going at full speed until the end of September 2006. There will be no more CCI money (at least for another year) and we will be pau with the three-year NRPP program. We will have a gap that we need to fill. It is time for us to find new creative funding approaches for miconia. Kim L.: I've been doing some research and we need to start looking at options. I have some ideas. Jeremy: the Washington folks assure us that the CCI program will be brought back next year. There is also a proposal for the EPMT budget to be increased in FY07. Stuart: I think we should have a special funding meeting to discuss options for the miconia program.
- Lloyd: Don Reeser is retiring in July. Don is the one who made the decision that the NPS was going to step in and support the miconia operation. Ron, Steve, and Jeremy stepped up and found a way to make it happen. Jeremy: the good news is that Ron will be acting Superintendent until a new person is hired. We need to exert positive pressure on him to continue the NPS support.
- Randy: I'd like to see a budget summary spreadsheet, like in the past, at future meetings.

NEW ACTION ITEMS

- Schedule miconia funding brainstorming meeting
- Distribute funding update table at future MISC meetings

Bio-control

- Jeremy: there is a push to pull funds from NPS bio-control support to keep floating other programs. Mindy: there has been no coordinated bio-control plan. At a recent meeting it was decided that Tracy Johnson will write a strategic plan for miconia bio-control including timelines, funding needs, search for new organisms (insects and pathogens), etc. Tracy will be receiving ~\$125,000 in funding from the HISC Research and Technology program for miconia bio-control work. He is pretty much set for the next 1.5 years. He also will receive ~\$56,000 for *Tibouchina* bio-control. There were no applications for added kahili ginger work. Currently the biggest ginger project is on Kauai. As far as I know there have been no applications for exploring new ginger bio-control agents.
- Forest: has there been any post-release information? Mindy: it depends on the species. People are trying to look at it in some cases. Art: Tracy is way overworked. There is a bias towards using Costa Rica because it is closer, but we really need to expand to Brazil for species like guava. Lloyd: Tracy definitely has too much on his shoulders. Mindy: we need to advocate for USGS and UH to fill the GS-12 bio-control supervisor position. They are stalled right now.
- Randy: it was nice to see the recent article in the Maui News. Valerie Monson did a great job. It is also good to hear that there is still work being done on *Clidemia*. It is still moving rapidly on West Maui. Glenn: Forestry is trying to be more active. Randy: we are seeing *Clidemia* out-compete and take over *Tibouchina* areas. Art: we should write a thank-you letter to the Maui News for Valerie's coverage of the topic.
- Melora: Tracy thinks *Tibouchina* could be the most successful bio-control. Nobody on the Big Island really knows where it is spreading. My thesis is focused more on how it is spreading rather than on bio-control. Art: all the *Tibouchina* work comes out of a small private university in Brazil. We are depending on them. They are working on a shoestring budget and they don't get support from the Brazilian government. There are some really brilliant students there. Any funding that could get to them would be well spent. The work

that we need is there in Brazil. Tracy is focusing on one of the insects, but there are other promising insects that hammer *Tibouchina*. Randy: so, they need funding. Mindy: I was told that Tracy doesn't want to dump more funding into that program right now. It is too easy to swamp one Principal Investigator with graduate students. Melora: my advisor, Julie Denslow, was hoping there would be a graduate student here that would be able to go over and support them.

- Melora: I am trying to evaluate whether *Tibouchina* is really worth studying. It is not ecosystem modifying, it is not a canopy species, and it is not a nitrogen fixer. I want to hear from people here as to why you think it is important. *Tibouchina* on the Big Island is a much worse problem than on Maui. Art: on East Maui it is different than on West Maui. My question is why is it so bad in some areas, like West Maui, and not so bad on East Maui? The potential for invasion seems to be different. There is the potential that it could really blow up. Disturbance seems to play a big role.
- Forest: how does HDOA fit into bio-control? Mindy: plants and insects of agronomic concern are their focus. Lloyd: they make their facility available to other agencies. They have the only fungus facility in the state. Teya: there is considerable talk regarding the importance of continued bio-control work. Is there any decision or action item that should come out of this discussion? Art: we should draft a letter to Julie/Tracy to express support and ask what else can be done.
- Pat: if we aren't just focusing on melastomes, I would push for more bio-control work on kahili ginger. Ginger has been neglected and I think it is #2 to miconia. Art: I don't agree that it is #2, but it is an issue at high elevation. Pat: I see ginger as a climax species while *Tibouchina* is a primary succession species. Lloyd: according to Cliff Smith the reason the Melastome Action Committee was formed in 1991 was to move bio-control forward. Randy: when I first showed Cliff pictures of *tibouchina* taking over gaps on West Maui, he was very concerned. That was the impetus to move forward, especially on bio-control. Lloyd: there has been an evolution of the Committees away from bio-control to focusing more on mechanical and chemical control. Melora: quarantine has been approved for an insect for *Tibouchina* to come in this summer
- NEW ACTION ITEMS
 - Send a thank-you note to the Maui News for the recent Val Monson article.
 - Send a letter to Tracy Johnson/Julie Denslow re: bio-control support (include ginger)

Staffing

- Teya: the Piiholo field crew is up to nine people now. Starting next week we will have a temporary coqui crew on-board for the summer/fall. The coqui crew will be made up of three temporary hires plus Darrell Aquino, with Adam Radford as supervisor. They will spend 50% of their time on frogs, 25% on BBTV, and 25% on peripheral miconia populations. We are also in the process of filling a Field Worker position on the Hana crew and for MoMISC.

PR/Education

- Joy: my big project right now is putting up two displays in the Kahului airport. There will be one exhibit in the mainland terminal and one in the inter-island terminal. The inter-island display focuses on miconia, frogs, and what local residents can do to help. The mainland side focuses on what makes Maui special and what visitors can do to help. The displays will be up for six months. Teya: Joy has only had two weeks to pull these displays together. The Maui Visitor Bureau is sponsoring the displays.
- Joy: on June 20 we will be having an open house for the Makawao residents impacted by our chameleon searches. We want to let them know more about the upcoming research project and get their feedback.

Other

- Teya: Sydney Singer sent a letter to the Attorney General and Linda Lingle questioning the validity of the ISCs doing the work we do. This is the same individual who wrote the newspaper commentary on frogs. He is questioning the State giving money to the ISCs. This is an important issue. Kim: this needs to be given some serious thought. Mindy: we are pursuing an AG opinion on the use of the Committees. I believe it is legal - just novel. It is a fairly productive way to do things. Randy: we need to respond to the opinion in Maui News.

NEW ACTION ITEMS

- Reply to Singer commentary in Maui News

MOMISC REPORT

- Teya: miconia recon flights are scheduled on Molokai for the last week of June. Lori came to Maui recently and went out in the field with the Hana crew and had a chance to participate in our miconia heliops. Kim L.: I went to the last MoMISC meeting. The aquatic invasive species team will be doing some work on Molokai. They will do official survey work.
- Mindy: is there any support for rubber vine work on Molokai? Teya: we are still planning to help out. Mike needs to go over and do a recon. Forest: we did a road survey of Molokai and we took some *Cryptostegia* pictures. It seems to be restricted to coastal sites. There is ~12-20 acres. The boundaries need to be delineated with a GPS. MoMISC is really unique. There are winnable battles on Molokai. There is a small tight-knit community. *Cryptostegia* will be tough, but it should be doable. It is still at a stage where chemical/mechanical control is possible. Forest and Kim will be writing up the results of their work on Molokai. Lloyd: at the very first MISC workshop there was argument re: whether *Cryptostegia* should be a target or not. It was one of MISC's charter target species.
- Forest: in general MoMISC and Lori are awesome. They need additional resources. Teya: the growth needs to be incremental. It is a question of how quickly they are willing to grow. With Tina gone, Lori is taking on more responsibility. They also have a space limitation. The growth needs to be slow to be effective.
- Stuart: is anyone doing BBTV work on Molokai? Teya: HDOA is doing surveys and we will work with them if necessary. Adam: there was BBTV found right by the airport on Molokai. There definitely needs to be more survey work. HDOA would support an additional technician over there. They are lacking the resources for survey work. HDOA is taking the lead for surveying Molokai with the help of a volunteer. We have offered our services, but they felt they had it in hand. We will be surveying Lanai in a couple of weeks
- Kim: they have had good success in stopping Australian tree ferns. People bring them over from Costco. Christy and I will be taking on Costco to see if we can get them to stop selling Australian tree ferns. One mega-store at a time!

LANAI

- Teya: MISC will be doing a work trip on Lanai from June 22-24. We will be taking the ferry over and camping at Manele. The entire Piiholo-based staff (including office staff) and some of the Hana crew will be going. Lori Buchanan hopes to join us as well. Our primary targets for the trip will be fountain grass, ivy gourd, and banana bunchy top virus. We will also be following up on reports of cat's claw and gorse and keeping our eyes open for fireweed. Both Lanai Company and DOFAW will be assisting us with transportation and logistics.
- Fern: I will be on Lanai June 23, 6-9pm. There is a public meeting for the comprehensive wildlife strategy. There is a meeting on Molokai on the 21st from 6-9pm and on Maui on the 22nd from 6-9pm.
- Kim S.: we pulled 12 fountain grass plants on Kahoolawe last week.

PLANTS

Miconia

- Jeremy: we will be starting to put more time into peripheral populations (Huelo to Haiku) this summer. Adam's crew will be working makai of the Highway and Mike's crew will focus on mauka areas. The surveys won't be completely comprehensive. We will focus on high probability/suspect areas. The crews will be attempting to remain contamination free during the peripheral surveys. If they find fruiting trees, they will put on tyvek booties and will call in a contaminated crew. Pat has 10-12 Huelo points and we have found 3-4 plants mauka of the Highway. Fern: make sure you look for parrots during the peripheral surveys. Teya: Adam's frog crew will be fully trained on all targets so that we get good negative data. Jeremy: we are hoping for few finds.
- Jeremy: our aerial operations are hurting from a lack of aircraft. For our last operation, we had only one ship. We are attempting to enter high density, low priority areas and clean them out with the helicopter. We are trying to refine our cost estimates for the long-term by hitting units until we find no plants. The first one we did was the EEWf training ground from 2002. We assume we cleaned it out in 2002 and then we are cleaning it out again in 2005. Based on how long it takes with heliops, we will be able to revise our funding estimate. We will continue working on this for our next couple of missions and then expand the experiment to some other blocks. In the past, we haven't had a refined estimate on how much effort is necessary for high-density areas. We have had a good handle on low-density areas. We are coming up on three years since full crew integration.
- Jeremy: the aerial surveys on Molokai will focus on vector routes (roads, hunter access, etc.). After we finish the high probability areas, we will follow topographic features, ridges, etc. We think we can cover the area of concern in two days. Pat: will you be mapping other species? Jeremy: we will have data loggers and we can do that.
- Forest: how are we addressing the hapuu trade and the Makawao find? Lloyd: we discussed the fact that we should take advantage of this as a PR opportunity. Someone needs to take on this issue and bring it to the attention of HDOA. Teya: Joy has done a draft article. We need to emphasize the hapuu trade connection. Fern: there is more than just miconia that comes in. Lloyd: *Rubus ellipticus* is a huge issue in the hapuu trade.
- Pat: is anything being done at the original core at Healani Gardens? Jeremy: yes, we have done ground and aerial work in the area. Mike: that is our rainy day site. It is mostly keiki. It is rare to see flowering/fruiting trees there anymore.

NEW ACTION ITEMS

- *Press release for Maui News on the Makawao miconia/hapuu trade (include Rubus ellipticus)*

Pampas Grass

- Teya: we will be focusing on pampas grass for all of September in hopes of making some substantial headway. We will not be doing any miconia work during September.

Eradicable Species

- Teya: we still have some significant time to put in on *Pittosporum viridiflorum*. It has been proposed that we should work *Pittosporum undulatum*. *Undulatum* is on the State noxious weed list. It was suggested that we could substitute it for the *Acacias* we dropped. Pat: the seed longevity is lengthy. Will we be able to follow-up? I would seriously question taking on a new species. I would really look at the long-term vision. Elizabeth: we would be taking it on under the trial eradications project. Lloyd: we would not necessarily be committing to it. We need to survey and assess. It is a high elevation invader. Forest: it appears to be naturalized in Kula and Steve found plants in Makawao. Pat: we need more information and we should be cautious against wasting labor. Lloyd: to some extent we could stay that about everything we are working on. There is a rumor that it is being sold at Wal-Mart.

NEW ACTION ITEMS

- *Survey for *Pittosporum undulatum* and determine feasibility of control*
- *Confirm sales of *Pittosporum* at Wal-Mart. HDOA follow-up if needed*

VERTEBRATES

Frogs

- Adam R.: our new crew will have specific training in the next few weeks on miconia, coqui, and banana bunchy top virus as well as basic training on all MISC targets. We are really excited to have a dedicated coqui team. We should see a substantial impact on our productivity. We have ten coqui management units on Maui with 2-20 households in each unit. We plan to spend four nights per management unit every 3-5 weeks. We are just about finished with data cleanup. We also are continuing to do rapid response. We have had four successful rapid responses in the past few months. We have been able to hand capture at these sites and there have been no additional animals heard during follow-up visits. It has been four months since we did substantial control at the Haiku Post Office. We just did a follow-up with the area residents and they haven't heard anything more. I envision this crew dealing with management units, rapid response, and then by end of summer getting into suspect, high-risk areas and doing some survey work.
- Fern: now that you have more staff it would be a good time for another radio announcement. Joylynn: we have a draft PSA almost ready.
- Adam R.: the hot water treatment is in use, but not on a broad scale. At the recent coqui meeting in Hilo, HDOA said they will build transportable hot water facilities. Mindy: hot water treatment is not in the protocol, but they are viewing it as a potential tool. Adam: it was suggested recently that when nurseries ship containers, they should toss in an insect fogger. Arnold Hara thought that might be effective. It is worth looking into.
- Rob: the Mayor requested that I schedule a meeting with the owner of the Kihei Nursery. He eventually did agree to cooperate with MISC. Teya came up with suggested steps and a strategy. He will pay for the cost of the citric acid. The ball is in Adam's court to set up a meeting and get started. Kim L.: would the Kihei Nursery be a good place to push for a hot water facility? The costs are not prohibitive in the long-term. Forest: we really need pre-treatment before they leave the Big Island. Kim L.: a nursery in Waimanalo made a unit because they were frog free and wanted to treat incoming plants. Stuart: how much funding would be needed for a facility? Mindy: a basic unit can be pulled together for ~\$1,400 to \$20,000 depending on the complexity. This might be a good project to look at for alternative funding sources. If UV treatment is included, the water can be reused without the possibility of spreading fungi and pathogens.
- Adam: kudos to Mindy for putting on a very successful statewide coqui meeting in Hilo earlier this week. It was great to hear from everyone. Rob and Teya gave presentations on behalf of Maui County. Teya: Rob did a great presentation.
- Fern: if we have known vectors for problem things, we need to figure out at what point we get HDOA and DOFAW to move away from voluntary protocols to mandatory enforcement. With voluntary we miss some of the worst distributors. We need to have teeth. Teya: we had a vertebrate subcommittee recently and discussed the idea of MISC developing our own voluntary program for Maui County. We agreed to move forward and that we would be involved in the inspection process as well. Fern: once we have the certification program in place, we could publicize the compliant nurseries. That way we should get around any liability issues. We will just publicize the good nurseries. Teya: we wanted to build in a way to not penalize those nurseries that are not yet compliant but are taking steps towards compliance – "certification pending." Fern: this type of program will move MISC into a different arena. Stuart: we need to provide an infrastructure for these people to solve the problem without an economic impact.

- Joylynn: in April hydrated lime was approved for coqui. On Wednesday there will be an HDOA training on how to use the hydrated lime. Adam R.: Lowe's donated all of their citric acid supply to MISC because it wasn't selling. Randy: there is a new frog location below Napili Park. Rob has the address.

NEW ACTION ITEMS

- *Put out a new PSA on coqui*
- *Set up meeting with Kihei nursery owner*
- *Explore funding for hot water treatment development*

Jackson's Chameleon – Auwahi

- Fern: we don't typically deal with this species; however, the discovery of Jackson's chameleons at Auwahi is cause for concern. The ten-acre dry forest restoration area at Auwahi contains a number of rare native species. We recently discovered a large male Jackson's, two pregnant females, and two other females. The population appears to be isolated and is in a very easily reached place. There is conjecture that someone is putting them out there for commercial trade. There are native spiders and insects important to the ecosystem in the area. The area has a high density of happy face spiders. I'd like to consider using MISC staff to survey Auwahi. It could be a site for other strange reptiles, veiled chameleons, etc. I'd propose a one-time search in the evening to determine the density. Art: there are at least nine invertebrates only known from the site. This is a place where we want to restore native bird habitat. If MISC could pitch in and at least help determine the density, it would be appreciated. I think time is of the essence. Fern: you and Erica would need to flag off areas for us. I think a nighttime survey would be best.

NEW ACTION ITEMS

- *Assist with initial survey for Jackson's chameleons at Auwahi*

Conures

- Doug: I am working for Wildlife Services out of Hilo. The Huelo conures are a top priority project for me. We are wide open in terms of options for controlling the conures. We need to know where the birds are regularly seen, where they roost or stage, feeding areas, and what they are feeding on. We need to find a place where they can regularly be encountered. I know there have been previous unsuccessful attempts to bait, but I am going to try again. Baiting is really our best option. I am hoping to plug into the MISC network and get as much information as possible. Fern: you should get in contact with staff from the Maui Forest Bird Project. They specialize in netting birds and they are interested in helping. Teya: the funding for this project was given to Wildlife Services by the Fish & Wildlife Service. Pat: the current conure core is also the Huelo miconia core. Jeremy: since you will be working out there, we should get you tied in with a miconia search image. Fern: we know that miconia seeds will germinate after passing through a parrot. Randy: welcome, we are excited you are on the job!

Vertebrate Training

- Fern: vertebrate training is something we've had on the Action Item list for a couple of years. Training is scheduled for July 11 & 12. Mindy will be coming over to help. The first day will focus on snakes with an afternoon classroom session and an evening field exercise. The second day we will talk about birds, lizards, turtles, etc. and there will be an evening chameleon search. We will be inviting staff from partner agencies (NPS, HDOA, Watershed Partnerships, etc.). We want motivated people who are going to stick around and can be counted on to respond to attend.
- Teya: I've been asked by Earl Campbell to participate in a workshop in Florida on invasive vertebrates in early July.

Next Meetings: August 12, 9am to Noon.

- Regular meetings are scheduled for October 14 and December 9.
- There is a Vertebrate Subcommittee Meeting scheduled for September 9 from 9am to noon.