

**MAUI INVASIVE SPECIES COMMITTEE
FINAL MEETING MINUTES
AUGUST 28, 2009**

ATTENDANCE: Lori Buchanan, Hank Openheimer, Kuhea Paracuelles, Fern Duvall, Randy Bartlett, Kim Starr, Forest Starr, Jennifer Higashino, Paul Higashino, Jay Penniman, Dan Eisenberg, Lloyd Loope, Pat Bily, Elizabeth Speith, Bob Hobdy, Chuck Chimera, Renae Ganske, Christine Costales, Glynnis Nakai, Pat Chee (via telephone), Wendy Swee, Lissa Fox, Teya Penniman, Adam Radford, Mike Ade, Brooke Mahnken, Elizabeth Anderson

- The meeting was called to order by Randy Bartlett, MLP, at 9:05am. Introductions were made around the table.
- Minutes from the June 5, 2009 meeting were approved. They will be posted on the website.

ANNOUNCEMENTS

- Hank: PEP has a poster now. I will leave some if anyone wants one.
- Forest: we have finished the field work for our roadside surveys. We will send around some of our initial findings. We are still working on the best way to display the results. We will be hitting people up for input. We need to complete expert interviews on some items still.
- Teya: we are planning to have a meeting regarding the restricted plant list. Chuck: there was an unsatisfying meeting on Oahu regarding proposed additions based on the new legislation. I went to the meeting with the idea that we would actually add plants. It didn't happen. We plan to have a meeting at MISC (date to be determined – originally scheduled meeting has been postponed) to discuss what we think should be added to the list. Given the proposed HDOA cuts, there may not be anyone to enforce the rules, but in the long run we hope to have something in place. We would like to keep the meeting focused to conservation folks so we can discuss additions rather than debating the merits of the list. The list specifies what should not be imported. Lloyd: we basically want to have a strategy session to decide where we go from here. Nothing is set in concrete at this point. We have too many species we want to add. Chuck: I think 100 would be a good lower limit. Fern: how do we help the process in a way that is best for conservation? Chuck: there are plants that are well known. There are well identified plants from other places that we don't have established in Hawaii yet, but that there is a high probability that someone would bring in. Fern: how do we help the next step? Chuck: a more unified forum the next time we meet with HDOA is important. A unified front stating that it is imperative that we prevent these plants from being imported to Hawaii. Lloyd: to be fair to HDOA, in this case they obviously saw tough times coming and that was a consideration. We need to have a strategy so we are ready when the tough times are over.

MOLOKAI

- Lori: MoMISC target species are chosen by our Committee. Our goal is eradication. Below are highlights of some of our current work.
- *Arundo* has been removed using manual control. In the main population we dug it out with a big back hoe, took to landfill, and buried it. We replanted the area with natives. There were several other locations found through roadside surveys. *Rubber vine* is our biggest and most problematic target. In 2006, MISC came over and helped with control. The plants went all the way up into the canopy. Natives are coming back into the area on their own. We are very pleased with the results. We still control rubber vine seedlings as they appear. The seed viability is longer than the one year reported in the literature. It is more like four years. The only naturalized population of *Barbados gooseberry* in the state of Hawaii is in Halawa. It reproduces vegetatively and breaks off and floats in the water. Control of this plant has benefited the preservation of cultural sites.

- *Australian tree fern* is no longer a huge population. TNC putting in a grant for remote sensing on Molokai for Australian tree fern. *New Zealand flax* is a TNC target and we work on it outside the Preserve. *Gorse* was controlled in 2006. We have done annual *fountain grass* surveys since 2006. None has been found. There were two historic plants - one from bird seed and another was brought back from Kona. Forest and Kim found *tumbleweed* at the landfill. The County of Maui expanded the landfill and paved it under. We are surveying outside the landfill now.
- There are several species that MoMISC is currently assessing. There are less than ten *bo trees* on Molokai that we are aware of. There is one huge tree with people living under it. It would be a big project to control it. Forest: there are ~12 *bo trees* on Maui. It is not spreading as far as we know. Lori: we are waiting on permission to control a small population of *tree daisy*. *Long thorn kiawe* is a low priority in general; however, we are waiting for results on a sample that could be a new species. If it is, we will control it.
- We have a list of things we do because they make sense including – *BBTV* is under control. People call in sightings. *Mule's foot fern*: Hank found a large one and we would like to expand surveys. *Palm grass*: also discovered by Hank. *Multiflora rose*: found now and then outside the Preserve. *Gold dust day gecko*: USDA is controlling at the airport. *Mangrove jellyfish*: the initial report came to our office. We helped DAR with the initial control. It took a half day and turned out to be a good public relations project. *Miconia*: we plan to do aerial surveys in conjunction with TNC every three years.
- Other partnership activities include a south slope blessing in conjunction with other people that are moving toward the same mission we have. We have a protocol of blessing when aerial shooting begins. In three days, 3000 goats were controlled and there was not one complaint. Puu o Hoku Ranch owns a lot of land on east Molokai. We facilitated hooking the owner up with Pono Pacific for weed work. MoMISC helped with last minute outreach on Molokai for the Mokapu Island Rat project. We added a cultural protocol and blessing for this project as well. MoMISC also helped initiate surveys for nettle caterpillar, light brown apple moth and varroa mite. None were found. We also work in partnership with East Molokai Watershed Partnership, Molokai Ranch, Kamehameha Schools and DHHL.
- One of MoMISC's biggest projects this year was *Albizia* control. John Neizman and Kama cut an access road into the site. The infestation is in a significant cultural site. We did the cultural protocol first and asked for permission to come in. MISC came over for a week and helped with the control work. The Plant Materials Center donated 90 lbs of native seed which we broadcast over the area before the control work. For control we girdled the trees and used Garlon 3. We treated 800 mature trees and then retreated those that still had foliage later. There was a lot of seedling recruitment. We have retreated the small plants twice now.
- Our long range plans include being open to new technologies, adding an additional position when funding permits, improving outreach and education efforts, and training the next generation. We need to focus on our ports and harbors especially with the HDOA cutbacks. We did have a third coqui frog interception. It came in a car that was shipped from the Big Island.
- Fern: shama is established on Molokai. There was one bulbul reported in the past, but it was probably shot.
- Hank: the most alarming thing I have seen was a rabbit up near the look-out. There is *Heterotheca* near the USGS monitoring station. The goats don't eat it. We yanked it out. We saw tons of small plants. I would recommend that TNC keep it out of the Preserve. Any dry habitat is fair game for that stuff

LANAIHALE FOREST & WATERSHED RESTORATION

- Jay: I'll start with a brief overview of what we are doing. In 2006, Fern started a program for endangered species on Lanai. We found a significant population of petrels on Lanai. Chris Costales is our on-island supervisor. We have three on-island crew members in addition to summer AmeriCorps interns. We intend to keep bringing the young people of Lanai on as interns to help build the program. Our Crew Leader, Mos Masicampo, came to the project after working for 19 years for Castle & Cooke.

- Jay: we are doing restoration to restore petrel habitat. The big threat is strawberry guava. In areas of dense guava, nothing else grows. The habitat restoration will also benefit snails and rare plants. The site that we started working on was native 30 years ago. In 1980, there is a memo from Peter Connelly verifying at least 100 birds near the fog drip station. Today, the birds are in the gulches, but not on the top. The MISC crew came over and helped to train the Lanai crew. What we are doing hasn't been done before. We try to save any native plants we find in the middle. We do have guava recruitment now. We go back in and treat with a foliar application. There are still mouflon sheep and axis deer in the watershed. We need an ungulate control program. Just hunting is not enough. Feral cats continue to be a problem. They continue to predate the birds. We have a facility at our office to grow native plants for restoration. We appreciate the MISC Committee allowing MISC to step outside their basic mandate and help us gain capacity.
- Pat: we now have data on how much it costs to control an acre of guava. Jay: the cost is coming down. It is very expensive, but it is coming down. Right now it is costing \$20-30,000 per acre. Kim: why not put up a predator-proof fence? Jay: fences are a problem for the birds. It would take \$900,000 to complete the watershed protection fence. Predator control fencing would be even more expensive. We don't have a lot of flexibility because of ownership. Fern: we are seeing a lot of recruitment of things that weren't even present on the site. They were still in the seed bank. The biggest problem right now is the deer. Jay: we are also seeing tibouchina coming up. The guava is coming up mostly from root suckers, not seed regeneration. Pat: what about stainless hunters? Jay: it will take a concerted, dedicated effort to make it happen. We can't do it ourselves. Castle & Cooke has agreements that commit them to doing that work. We need to pressure at the top.
- Jay: we have had a lot of volunteers helping with the project. We will be getting one of the RYCC stimulus interns. Kuhea: you might be able to get more. Some agencies may not be able to use theirs because of the cuts. Jay: they really need to be Lanai people for it to work for us. We want to keep it in the community.
- Jay: our Castle & Cooke funding will run out in February. We are continuing to look for other funding sources. I don't think we will continue to get mitigation funds from the Company. The wind farm is on hold right now due to the economy. There is also an issue with cultural sites found in the area. Nobody really knows what will happen. It is a difficult situation. Except for the six acres we are working on, Castle & Cooke could tell us to leave tomorrow. We are trying to build an integral island-wide program. Fern: we wouldn't qualify for anything from NRCS because the Company has so much money. Fern: it is great having people from Lanai working in conservation. We have trained people over there 24/7. Chris discovered the first shama on Lanai and it was controlled.

LANAI WEED CONTROL

- Brooke: The primary species that MISC controls on Lanai are fountain grass and ivy gourd. We have also done incidental control on bingabing, cat's claw, fireweed, long thorn kiawe, and rubber vine. Our primary control sites are Kanepuu, Koele, Honopu, Mikis, Manele and Kaumalapau. Bingabing was found at the city nursery during BBTV surveys. There were also two bingabing plants in landscaping at a house in Manele. We did some surveys for downy rose myrtle this year based on historic records. We didn't find any. We have a new fountain grass site this year at Honopu. We began control on the site in August 2008 and there were a lot of mature plants. The crew was over there this past week and found a few plants. We did an aerial survey for fountain grass in that vicinity in 2006 and came close to that area, but we didn't fly over the spot.
- Brooke: fountain grass has been at Kanepuu for over 75 years. We began control in 2003 and we are seeing a strong downward trend in mature plants. The rough area between holes four and five at Koele was the biggest fountain grass infestation in Maui County. We only started taking points after several control cycles. Before that it would have just been one big point. We have seen a substantial decrease. The area is much easier to sweep now that there are trails. Mike: we only found four seeding plants this last trip. The seed bank is finally becoming exhausted. Brooke: there has also been some fountain grass in the rough up near hole ten. The last find there was in January 2008.

- Mike: the Mikis site is in old pineapple fields. Hank reported this one to us. Initially we did a broad survey of the area. Since our original surveys they have installed solar arrays and we aren't allowed to go inside. Someone from Castle & Cooke will be following up. Brooke: the number of mature plants is dwindling. Mike: there are deer everywhere in there. We are looking for a grass within grass – very hard to see. Chuck: viable seed could potentially pass through an animal.
- Brooke: there was a cultivated ivy gourd site at the Kaumalapau barge harbor. It was controlled and has not come back. Manele is our major ivy gourd infestation. There was a population in the nursery in all the pots and all along the fairway in the rough. Mike: the nursery has no kieki now. We found one male plant outside the nursery. The nursery will be going out of business soon. We have spent a lot of time in there. We were killing 1000's of seedlings in there each visit. Brooke: we killed 53 long thorn kiawe plants on the North Shore last year. We haven't done anything on that species since then.
- Hank: we looked for the glycine on Keamoku Road again. We didn't find it. That one worries me. There is also an issue with clidemia on the Hale. So far we have been pulling it. I only found a couple of tiny seedling the last time I was there. Jay: our crew is finding it more and more now. They have been controlling it.
- Mike: the Castle & Cooke guys are really receptive to helping us out. One of their guys spotted an unusual plant while he was out hunting and brought back a picture. It turned out to be bingabing and we controlled it yesterday. Teya: the Lanaihale crew has been helping with our control work when we are on Lanai and they keep an eye out all the time.
- Adam: we searched the entire island for BBTV one day last week. We didn't find anything.

KAHOOLAWE

- Paul: we do have fireweed, but none of the other weeds that have been discussed this morning. There are weeds everywhere but we are selective in what we take on. We are still mostly native habitat free. The island of Kahoolawe is 28,600 acres. The highest point is 1,477 feet and rainfall ranges from 25 inches in a good year to 10 inches on the south coast. The island was a bombing range for 50 years. This fact limits our freedom in getting around the island and limits what we can do. During the cleanup the goal was 100% Tier One (surface) and 30% Tier Two (to 4 feet) clearance. In the end 30% of the island was cleared to Tier One and only 10% to Tier Two. This limits the areas we can dig in. Our goal is to restore native vegetation with our main efforts focused in areas that are wetter and where we have water catchments. The summit area planting was funded by the Department of Health. We have a new NRCS project for wetland restoration. The project involves removal of kiawe. We cut it and haul it out with a back hoe. We don't have a chipper. We planted 40,000 plants this last year. Without irrigation we have 20% survival. With irrigation we see 80-90% survival. We leave the water on for 6-9 months.
- Fountain Grass was found on Kahoolawe in 1996. We revisit the area 3-4 times per year and we haven't seen any in a couple of years. We also have tumbleweed popping up along the main road becoming established in the fine gravel. We will be treating 44 acres along road for tumbleweed. In the planting areas we have trouble with kiawe, pluchea, Formosan koa, and guinea grass. Our use of volunteers limits control options due to issues with power tools and herbicide. Our staff uses the power equipment. Ninety-five percent of our workforce is volunteers. We had ~800 volunteers last year. We have a staff of five. We go by boat from the Kihei boat ramp now instead of by helicopter. The trips are Monday through Thursday.
- We also have a fauna restoration plan. We are trying to get rid of predators (cats). We hope to work on mice and rats in the future. Hank: is there still a possibility of diphacinone drops across the island? Paul: yes that is being looked at via a feasibility study. We have been trapping and releasing mice to get a feel for the population cycle. We are trying to get a handle on the mouse explosions. There seems to be a correlation to six months after a major rainfall event. We have a FWS grant to study cats. We want to look at stomach contents, genetics of the population, etc.

- Elizabeth S: do you have a problem with ants in camp? I have heard that there are fire ants there. Forest: we have collected ants. The tropical fire ant is there. We will drop some peanut butter sticks in the next couple of months and see what we find.
- Forest: how is your long-term funding? Paul: there is a total staff of 26. As positions vacate, we don't fill them. We are in year four of the five year DOH project. We are writing grants. We do charge a permit fee for volunteer access to help us cover some of the cost on-island. The fee is \$100 per person. There is a waiting list of two years for volunteers. We can take 30-40 volunteers at a crack on the boat so it is more economical than the helicopter. We are also working on photovoltaic and alternative energies. We are reducing fuel consumption by getting new generators. If you grow us 1000 native plants, that can be your ticket/per group. Fern: do you have a priority list for what plants you want? Paul: this year our priority would be wetland species. Hank: have you considered forming a non-profit? Paul: that has been looked into.
- Paul: we are also working with USGS on an erosion control study. There are stream gauges in two places.

BRIEF UPDATES

Staffing

- Teya: we have had four positions vacate in recent months and we have not filled these positions. Uncle Sam retired from the Hana crew on his 64th birthday, August 13, 2009. He will stay on in intermittent status and help us with public relations. Imi Nelson has assumed temporary crew leader responsibilities for six months and then we will reevaluate. Chris Radford left the vertebrate crew a few weeks ago to return to the mainland for graduate school. Two of our AmeriCorps volunteers from this summer are attending MCC this semester and will continue working on two days per week – Ashley Aquino on the vertebrate crew and Poha Kanakaole on the Hana miconia crew. Former crew member Chris Candito will be back working at MISC for 4 months this winter

Statewide Funding

- Teya: our funding situation is still very uncertain. Last year we received \$430,000 from the state. This year we are requesting \$300,000 and it is doubtful that we will get that much. DLNR is talking about quarterly installments rather than releasing the funds all at once.

HDOA Meeting

- Teya: there will be effort to take ISC money to make up for the HDOA shortfall. Pat Chee: there is a proposal to take one million of the HISC's two million and move it to HDOA. Teya: the meeting yesterday regarding the HDOA layoffs was co-hosted by Maui County and MISC. The purpose of that meeting was to bring to light the drastic cuts pending for HDOA. All three State Senators were there and Representative Yamashita. The picture for HDOA is bleak. Neighbor island staffs are being gutted. Oahu will also sustain some cuts. Fifty people attended the meeting. "Food first" will be the focus for the remaining inspectors. There will be no conservation-related work. The representatives will hold a public meeting soon. We will pull together the facts from this meeting and pass them on. There will be a letter writing campaign. Randy: it sounds like there are negotiations underway and they may be heading back in the direction of furloughs rather than layoffs. Teya: the conservation community will need to be continue to be active regarding funding both in terms of what is coming out of the NAR fund as well as advocating for HDOA. They are not mutually exclusive. Kuhea: we need to rally the community and make everyone aware of the conservation issues.

Next Meeting: October 9, 2009, 9am to noon, (Vertebrates)