

DRAFT MEETING NOTES
MAUI INVASIVE SPECIES COMMITTEE
Friday, February 9, 2007

ATTENDANCE: Pat Bily, Fern Duvall, Bob Hobdy, Kuhea Paracuelles, Renee Ganske, Alex Michailidis, Lloyd Loope, Forest Starr, Kim Starr, Randy Bartlett, Joseph Manaute, Daniel Tanaka, Joe Ward, Paul Higashino, Lori Buchanan, Kama Pali, Teya Penniman, Joylynn Paman, Mike Ade, Adam Radford, Brooke Mahnken, Aaron Kogan, Elizabeth Anderson

- The meeting was called to order by Randy Bartlett, ML&P/Chair at 9:25 am. Introductions were made around the room.
- Minutes from the December 8, 2006 meeting were approved. They will be posted on the website.

ANNOUNCEMENTS

- Teya: earlier in the week David Bakke from the U.S. Forest Service was here visiting. Hawai'i receives annual statewide funding from the Forest Service for invasive species. Previously we fell under the Forest Health Program and now we are under a funding program focused on invasive species. David is the Regional Grant Manager for the Forest Service. He is spending the week in Hawai'i getting familiar with the invasive species committees. He was on Maui for two days and toured the National Park, went on a Kula weed tour with Steve Anderson, and did a miconia over-flight. He attended the CGAPS meeting on O'ahu on Wednesday.
- Kuhea: if you know anyone who might be interested in working with the County's Community Development Block Grant (CDBG) program, please have them contact Program Manager Carol Gentz at 270-7216. The candidate should have the ability and desire to read, interpret, and apply federal regulations specifically in the area of environmental review with attention to detail and a strong financial background.

BRIEF UPDATES

Staffing

- Teya: Aaron will be leaving MISC at the end of March. He will be moving to Evergreen, Colorado. We are in the process of recruiting for his replacement. We hope to move forward as quickly as possible so the new data person can overlap with Aaron before he leaves. Aaron will stay on intermittent status for awhile to help us out.
- Teya: Shannon left her Hō'ike curriculum position to pursue her writing career full time. Shannon will be staying on intermittent status to continue assisting us with our newsletter. Lissa Fox will be picking up Shannon's work with the Hō'ike curriculum and will be assisting with public relations and outreach activities. Lissa was initially a member of the Hāna crew and then worked with us part-time as a data assistant. She has been working on Mike's crew for almost a year now and is our lead person on pampas grass. She will continue working with Mike's crew three days per week and work two days per week on education.
- Teya: one member of our vertebrate crew, Chris Candito, will be transferring to plant crew. We are recruiting for a field crew member for the vertebrate crew to replace him. The announcement is posted on the bulletin board. The recruitment closes February 14, 2007.

Legislative Update

- Teya: three bills for coqui frogs were heard last week. Two were deferred and the third is moving forward. The bill that is moving forward has a dollar figure for the Big Island and for Kaua'i, but the amounts were left blank for Maui and O'ahu. We will provide information to the Legislature stating that the figure for Maui should be \$750,000. There is a Noxious Weed List bill that would require the list to be updated every two years. This bill has been deferred while Mark Fox works with HDOA to address various issues. There is also a bill related to allowing additional fees to be collected by HDOA (service fees, port and harbor fees, etc.) to help cover the cost of inspection. The decision on this bill was deferred until Tuesday.

- Teya: there was a bill introduced to require an EIS for the Superferry. The hearing was on Wednesday and they decided to hold public hearings on the neighbor islands. The hearing on Maui will be at 5pm at Baldwin High School on Saturday, February 10. It is very unusual for them to go out to the public at this point. They are still at the Committee level in this process.

Funding Proposals

- Teya: we have been busy with funding proposals recently. A huge thanks goes out to Stuart for helping us pull things together. We submitted a proposal to the CDBG program for \$100,000 to support the Hāna crew. We have received funding through CDBG in the past, but the evaluation process was different at that time. The proposal was denied partly because Tri-Isle is not a Community Based Development Organization and because CDBG can't fund the same program twice.
- Teya: we submitted a Grant-In-Aid proposal to the Legislature for coqui frogs - \$750,000 for this year and \$500,000 for next year. We also submitted a \$4,000,000 proposal to the Natural Resource Conservation Service (NRCS) Conservation Innovation Grant program for bulldozing the Hāna core using an innovative grid approach. Hāna Tropicals leases 400 acres in the area and they are an eligible landowner under the NRCS program. They would convert the bulldozed area to noni and taro. The other portion of the land is owned by the Department of Hawaiian Homelands and would be converted to housing.
- Teya: Forest Service funding will decrease by ~25% next year. We are hopeful that HISC will be approved for the full \$400,000 for FY08. We have asked OED for an additional \$300,000 for Hāna and \$200,000 for coqui. Those figures are going forward to the Mayor. If we get a full \$750,000 from the State for coqui, we will reduce the request to the County. We are lucky we have strong County support. Alex: are any of these proposals aimed at making up for the loss of NPS funding? Teya: what we are asking for would replace the funding for the Hāna crew salaries, but not the funding for aerial work. We are still short a couple hundred thousand dollars for aerial miconia work.

NEW CALEDONIA (Joseph Manaute, Assistant Minister for Agriculture)

- Randy: New Caledonia has problems very similar to ours. Joseph is going to give us a brief presentation on banana bunchy top virus (BBTV), miconia, and deer in New Caledonia. Joseph: all islands are isolated to some degree and then when the island is opened up to the world, new species come in. New Caledonia is a little larger than the Big Island (~ 19,000 sq km). The total population is 250,000 people with 60% of the population in one main area.

Banana Bunchy Top Virus (see attached summary)

- Joseph: BBTV was first found and identified in New Caledonia in 1999. The known infestation area was limited and our initial objective was eradication. An eradication plan was developed including destruction of infested trees using glyphosate, a compensation fund for banana growers, and further detection of infested areas. During the first four years of the eradication program ~\$3.4 million U.S. dollars were expended. There are three Provinces in New Caledonia – North, South, and the Islands. Each Province has a local government that can enact laws. Under the Provinces there are 33 cities each with their own government. Funds were provided by the government of New Caledonia and partly through a tax on insurance for natural calamities. The tax goes directly to the agency for use. Part of the funding is kept in case of a cyclone or other disaster. The tax provides roughly \$5 million/per year in revenue.
- By 2003 we realized that eradication was impossible due to a number of constraints – natural/geographical, social, and regulatory. Social constraints revolve around bananas as a food source. It is difficult to convince low income people to kill banana plants. The control strategy is based on local involvement, but there is no authority to enforce rules against transport or even to allow for road signs. The police need the power to prevent people from moving bananas. We don't export bananas out of the country. The countries around us know we have BBTV. Adam: how big are your buffer zones? Joseph: that depends on the area and the level of infestation. The goal is to avoid expansion to uninfested areas with big growers and to avoid recontamination. Our results in the South Province are encouraging although BBTV is still there. The North Province is more complex to control. We have had an information campaign on television and radio and we have been providing training to the tribes. It is important to have the growers involved if we hope to achieve containment.

Miconia

- Joseph: miconia was introduced to New Caledonia in the 1970s by one person. It was imported from Tahiti by a nursery owner. He died leaving the nursery abandoned in a place where the soil is good and the weather is right. The property is now owned by his sons. By 1993 there were 100 plants and the authorities had been informed but they had other problems. In 2003 and 2004, 3,000 mature trees were killed on the site and we began to look at the size of the infested area and to formulate an action plan. Our target is eradication. The ultramafic soil in the area helps to prevent expansion. In 2006 we attempted to properly identify the core area, kill all mature plants, and improve our mapping. We did not find many mature trees in 2006. The densest areas are not as dense as what I've seen here on Maui. It doesn't seed and flower as often as it does on Maui. We have wild parrots and pigeons that could be potential dispersal agents. In 2007 we will continue survey work and continue killing tall plants. We hope to deal with the core and to find funds for a larger operation. The plants are on private land. The owners are aware but they don't have motivation to deal with the problem. They will let us on the site.

Deer

- Joseph: deer have reached a level that is not sustainable. We are in a drought and in critical areas there are no palatable species left. We have lost soil and in the rainforest we have lost most of the understory. Deer were introduced more than a century ago and there has been nothing really done to manage the population. There are limits on ammunition sales leading to fewer and fewer hunters. The population continues to grow exponentially. Cattle breeders must fence their properties to exclude deer. This is very expensive.

MOLOKA'I (Lori Buchanan, MoMISC Field & Outreach Technician)

- Lori: we have no miconia and no coqui – any questions? We had two summer hires in 2006, Mapu and Amado. Mapu helped with outreach and office work and Amado worked with Kama in the field. It was great to have some extra help. In my mind, all of our target species will get eradicated. Our top priority right now is Australian tree fern. We have found it naturalizing. We canvassed every house in the area. Our other targets are: fountain grass, pampas grass, gorse, banana bunchy top virus, New Zealand flax, Barbados gooseberry, arundo, rubber vine, Mexican poppy, and long thorn kiawe. Additional targets for localized control are woodrose and cat's claw. We are also controlling false awa, gold dust day gecko, and tumbleweed while distribution is being determined.
- Lori: we found no fountain grass, pampas grass, or arundo in 2006. We found two gorse seedlings. There were no mature New Zealand flax plants and the gooseberry is 100% treated and in a monitoring phase. No new BBTV was detected in 2006. All rubber vine plants, except those in residential areas, have been treated with help from the MISC field crew. We added Mexican poppy to our list at the urging of the National Park Service. We are trying to prevent it from getting top-side. There has been no growth on the long thorn kiawe and we are currently controlling one population of false awa. Kama dug the false awa out and covered it with a black tarp on-site. There is another population in Hālawa that we will try to treat in the same way. We have permission to control it. We are only controlling woodrose near native forest. In 2007 we hope to take care of the day gecko at the airport. We killed the tumbleweed at the landfill. We did find seedlings. We did a Garlon4 foliar treatment. All the plants had seeded so we are in a monitoring phase. We are continuing to keep the cat's claw from spreading.
- Lori: we also have a list of prevention species that are on the back burner: brown tree snake, red imported fire ant, coqui frog, miconia, *Bocconia*, fireweed, ivy gourd, Himalayan blackberry, aquatic invasives, rust disease, apple snail, Asiatic clam, *Ardisia*, bushy beardgrass, veiled chameleon, faya tree, *Rhodomertus*, aramina, red vented bulbul, and papaya ring spot. We are constantly surveying and we really need an agriculture inspector. During the 2005-2006 aerial miconia surveys we got into the back of Wailau Valley. We combined our aerial surveys with TNC vegetation monitoring surveys. They have added miconia to their protocols for aerial search. We have helicopter surveys scheduled for next week and we will look for Australian tree fern in addition to miconia.

- Lori: for outreach we have started a “Stop Planting & Start Removing” campaign. We are also continuing to do targeted workshops for various entities including harbor and airport staff, state and county workers, utility companies, the water works, ranch owners, and schools. We now have a large bulletin board where people wait in line for the barge. They have no choice but to read our material while they are waiting. The board focuses on invasive species “Here on Moloka‘i” and “Not Here on Moloka‘i.” It is nice to have something at the harbor and the airport. It would be nice to suggest some good Moloka‘i equivalents for the plants that are removed. Maybe you could get someone to grow replacement plants. We don’t have a nursery right now, but we have been replacing with native seeds and Kama has started a small nursery at his house. Lloyd: you really need an HDOA person on Moloka‘i. Ideally you want a Moloka‘i resident who is qualified.

KAHO‘OLAWĒ

- Paul: the level of clearance in different areas dictates what we can do in those areas. In Tier 2 areas we can walk more freely. The total size of the island is 28,632 acres. The island is coqui and ungulate free. The last goat was removed in 1993. Our biggest weed of concern is fountain grass. It was first discovered in December 1996. We have it under control. We monitor every six months and we still find some seedlings. Initially there were 1,200 plants. Now we only find 4 or 5 plants each time we survey. Fountain grass is the only active weed work we are currently doing. The potential for it to take over the island is tremendous
- Paul: we are doing a lot of planting right now - primarily funded by the Department of Health (DOH). There are 400 acres we are looking at planting up in the Luamakika area on the slopes to reduce erosion and impacts to the watershed. Our DOH funding is for half a million per year for three years. We must match that amount with volunteer hours and funds from our accounts. It takes ~600 volunteer hours per year to meet the match. In reality we have volunteers on the island almost every week. Managing volunteers is a big job and a lot of responsibility. Our staff right now is only four people. We hope to fill several positions in the next few months.
- Paul: there are safety and legal issues with invasive species control work on the island. We have problems in our plantings with koa haole, *Pluchea*, and *Glycine wightii*. Ironwood is spreading. The tamarisk trees are beneficial for our plantings at this time. They slow the wind and stabilize the soil. Kim: what about the forestry plantings? Do you have any plans to tackle them? Paul: there is the potential for them to spread out. We should attack them but due to our safety focus, that is not really feasible right now. There is an *Acacia* that is spreading out a bit. Teya: would aerial control be helpful. Paul: I think we can get most of it on the ground. Pat: what is the status on the *Glycine*? Paul: it was brought in by the Soil Conservation Service in the 1990s. There was a hypothesis that nutrients were a limiting factor in growth on the island. We have a \$400,000 NRCS wetland project that we are currently working out the legal issues on and we just completed a kiawe removal and planting project in a coastal area. We hope to have a bigger crew to address alien species issues.
- Paul: we are working on cat and mice eradication. There has been a preliminary survey completed. We are looking for funding. We plan to do the project in phases and we hope to start Phase 2 in August. We want to do a catch and release study to determine home range and we need to determine if there are any rats on Kaho‘olawe. Teya: what is the best way MISC can support you? Paul: we have funds, but we need more staff. When you guys come in May, we will do some more planting. We have new augers and with a good crew we can plant 1,000 plants a day.

LĀNA‘Ī

- Brooke: fountain grass is our biggest project on Lāna‘ī. The largest infestation is at Kō‘ele golf course and we continue to find plants in Kānepu‘u. We found fewer plants on our last visit. As you would expect we are finding keiki over a large area, but control is becoming quicker and easier. We can thoroughly cover the area in just a few days now. We pull the smaller plants and spray the larger ones. The fountain grass is under a cover of 10 foot tall lantana in many places. We have a system of trails now which makes the control easier. Hank Opemheimer found additional fountain grass sites that we have not treated yet. They are a high priority for our upcoming trip.

- Mike: we controlled some long thorn kiawe, but it is difficult to know the full extent because there is kiawe everywhere. Brooke: we did some ivy gourd control in the Mānele area and began surveying the extent. There is ivy gourd along the entire golf course edge right off the green. Outside the golf course it is growing on construction equipment. We haven't been down in the gulch on the eastern edge of the population yet. We will do additional survey work on our next trip to get a better handle on the distribution. Teya: we want to find out if they are open to the possibility of biocontrol for ivy gourd on Lāna'i. Brooke: there is a lot of arundo and cat's claw – probably more than can be controlled.
- Fern: New Zealand flax should be assessed on Lāna'i – it is probably doable. Strawberry guava is encroaching on the petrel colony. Adam: we regularly survey for BBTV on Lāna'i and have not found any. We will re-survey again this summer. We have had one false coqui report from Lāna'i.
- Teya: now that we have been going over quarterly, we have a more regular presence and we have developed a good relationship with Castle and Cooke. They provide transportation and often lodging. We could use funding for a position or two on Lāna'i. Kuhea: as weeds are taken out can there be groups that come in and plant natives? Teya: we have started a small nursery here as a possible source of replacements.
- Pat: are you going into the enclosure for your February trip? There is now a Lāna'i resident, Bob Hera, who is doing deer management on Kānepu'u. He is working there with volunteers. He also has been doing some Christmasberry work. He could be a potential ally on Lāna'i. Mike: I have been in touch with him. Pat: I suspect there is fountain grass hidden inside the enclosure.

ACTION ITEMS

- *Assess the feasibility of controlling New Zealand flax on Lāna'i*

SUPERFERRY & GENERAL PLAN

- Teya: I would like the Committee's opinion on whether MISC should take a formal position on the Superferry EIS and submit testimony. Randy: yes. Pat: there needs to be an EIS. Teya: it is an interesting question for me since I have been on the advisory board. Kuhea: the Mayor has not taken an official stand. Teya: the key points I would make would be 1) to disclose that I am on the advisory board, 2) commend them for working with HISC, etc. on outreach, 3) emphasize the key issues = meaningful inspection and a high pressure undercarriage wash.
- Kuhea: I would like to encourage you all to attend the County general plan meetings. You can review the County's Draft Countywide Policy Plan at www.mauicounty.gov in the "What is New" section. I will keep you informed as to the next meeting date, time, and place.

NEXT MISC MEETING

- RESCHEDULED TO: April 27, 2007, 9 am – 12 pm, Strategic Planning