

**MAUI INVASIVE SPECIES COMMITTEE**  
**MEETING MINUTES**  
February 1, 2008

ATTENDANCE: Forest Starr, Kim Starr, Bob Hobdy, Stuart Funke-d'Egnuff, Jordan Jokiel, Kuhea Paracuelles, Lloyd Loope, Pat Bily, Fern Duvall, Jeff Herod, Joshua Fisher, Christine Costales, Jay Penniman, Nathan Varns, Elizabeth Speith, Hank Oppenheimer, Jeremy Gooding, Teya Penniman, Lissa Fox, Mike Ade, Adam Radford, Brooke Mahnken, Elizabeth Anderson

- ◆ The meeting was called to order at 9:10am by Dr. Fern Duvall.
- ◆ Introductions were made around the table.
- ◆ Minutes from the Dec 7, 2007 meeting were approved. They will be posted on the website.

ANNOUNCEMENTS

- ◆ Teya: we have an Early Detection Workshop scheduled for February 22 at 9am. Now that Elizabeth Speith is back on board we will be ramping up early detection efforts. We will be receiving funds from HISC for publication of the early detection field guide. At the workshop we will talk about incorporation of new species for early detection, workshops for the public, etc.
- ◆ Teya: the Maui Conservation Managers group recently pulled together a biocontrol resolution. We are asking the Maui County Council to pass a resolution endorsing the concept of biocontrol. Kuhea has championed the resolution to the Mayor. The Mayor will sponsor it and send it down to the Council. I will send a copy of the resolution out to the MISC list.
- ◆ Teya: there was a request to reconvene the Maui Advisory Council for the Superferry. I opted to resign from that position. I will no longer be participating. There is a website through DOT that is reporting on the results of the task force and the results of the inspections they are doing. They are finding things.
- ◆ Teya: we have Vertebrate Training tentatively scheduled for March 18-19. We are still looking for a room. MCC is booked up unless we reschedule to spring break. Kuhea: we may have something available. I will check. Stuart: Kahului Community Center might be an option.
- ◆ Kuhea: on March 3 from 10am to noon you are all invited to come listen to a talk by Judge Larry Potter. He is the judge that started Environmental Court. He will talk with us regarding how we might be able to start something similar in Hawaii. The presentation will be in the conference room at the Planning Department.

ACTION ITEM:

- ◆ *Send a copy of the biocontrol resolution to the MISC-L (Teya)*

BRIEF UPDATES

**Staffing**

- ◆ Teya: we will be losing one of our field staff, Chris Candito. He will be moving back to the mainland at the end of February. The announcement for his replacement should post next week and we will send it out to the MISC list. Dave McPherson, who has been in a temporary position, was approved as a regular employee. We are in the process of filling our vacant PR/Education Specialist position. We have made a tentative offer. Mahalo to Steve Anderson for his help with the interviews.

## **Funding**

- ◆ Teya: our FY08 State and Forest Service accounts are finally available. We were very tight for awhile.
- ◆ Kuhea: the County budget is due March 15. Overall the budget is fairly level although they are cutting funds in some departments. Conservation should stay level. It would be a good idea to send a letter with a reminder of the funds you have received.

## **Public Relations**

- ◆ Lissa: 13 teachers attended the Hoike workshop last Saturday. The second day of the workshop is tomorrow and then we will have a field trip the following Saturday. We charged a \$30 fee for game kits that the teachers get to keep. They receive continuing education credit if they complete a portfolio and teach the lessons in the classroom. We had a lot of help from guest speakers (Philip Thomas, Kat Lui, staff from the Forest Bird project, etc.). I will be going into crater with a Seabury Winterim group February 11-14 to work on rabbit's foot clover control. We have five students from Kamehameha Schools scheduled to work in Hana for a day later in February.

## **Legislature**

- ◆ Teya: there are a number of bills of interest out there. There is a bill to limit the sale of plants that are restricted or noxious. The existing law is only that you can't move a listed plant to an uninfested area. There is a bill for funding for nettle caterpillars, a bill for a fee on freight, a bill for eradication of coqui within one mile of residential areas, a bill requiring manifests on stuff coming in, and a five cent surcharge on bottled water that would go to the ISCs and Watershed Partnerships. There is also a bill raising the fee on containers from \$1 to \$10 with some of the funding going to the ISCs. Representatives from DLNR, HDOA, and the ISCs need to get together and evaluate this bill. One bill requires advance notification when pesticides will be used within five miles of a school. Kuhea: there is a community upcountry that wants to be designated a no spray zone. The community itself would take care of the weeds along the roadways.
- ◆ Kuhea: environmental related bills will continue to come directly to me so I can look through them and Justin will be looking at them too. If something important comes up, please let me know. Stuart: if there is funding attached, let me know. Teya: there are no funding bills for coqui frogs this year. Last year we received \$200,000 from the State. Fern: for Forestry & Wildlife there is Senate Bill 2136 for fencing the Mauna Kea Forest Reserve. The bill contains unfunded wording for control of invasive threats. After you fence an area, you need to deal with the invasives. Lloyd: the HDOA inspectors are moving into the new inspection facility today. There are ~13 inspectors on Maui now. They lack two dog handlers.

## ***ACTION ITEM:***

- ◆ *Send a letter to the County reminding them of the funds MISC receives (Teya)*

## **LANAI**

### **Fountain Grass**

- ◆ Teya: MISC started going to Lanai with Pat Bily in 2002 to work on fountain grass. At the time our perspective was that we need to protect Maui from Lanai fountain grass. As we have spent more time on Lanai, we have discovered other targets. Also, as the result of work by Jay, Fern, Hank, and others, we have gained a broader perspective on the resources on Lanai that should be protected. We try to send a crew to Lanai at least 3-4 times per year with at least one big push each year.

- ◆ Brooke: Since 1992 MISC has controlled 14,870 fountain grass plants on Lanai. The Kanepuu fountain grass site has been thoroughly swept over time. It is a wind blown landscape and the population is moving linearly in relation to the wind. At Gary's Island, on the Koele Golf Course, there were initially so many plants that we didn't even take points. Gary's Island has been a real success story with the number of mature plants dropping dramatically over time.
- ◆ Bob: to our knowledge the Lanai fountain grass stems from two different introductions. One introduction at Kanepuu was found a long time ago. It most likely came over with a hunter from the Big Island. The second introduction was in the golf course and was likely the result of planting wildflowers in the fairway rough to make it pretty. The original golf course population had a pinkish tinge. Originally HDOA worked on the Lanai fountain grass. The fact that it isn't all over is really a testament to people looking and taking action.
- ◆ Lloyd: on Maui our rationale for controlling fountain grass has been that it could spread to bare lava and could increase the area that could actually burn. What would be the impact of fountain grass spread on Lanai? Bob: I don't think it would take over like on the Big Island, but it would certainly spread. The vegetation on Lanai is pretty low. Fountain grass is not a preferred forage species so grazing has less impact on it than on other grasses. Guinea grass is actually a bigger fire threat on Lanai, but we don't know what fountain grass might do if it gets thick. Fern: it would increase the fire danger and carry fire up into areas that we are trying to protect for the resources. Also, because so many hunters go to Lanai, the risk of fountain grass being carried to Maui and elsewhere is high. Hank: we should get a message out to the hunters via the lottery re: deconning their boots and packs. I talked to Bryan Plunkett about the idea already. I was surprised it wasn't already being done. Pat: we could insert a fact sheet specific to fountain grass in their hunting packet. Lloyd: we need to get information out. Elizabeth S.: boot cleaning stations where they check in for the hunt would be great.
- ◆ Brooke: our third fountain grass site is Miki's in the old pineapple fields. It is a hard area to survey because of really dense grass. Adam: one of Bryan's staff who mows for the hunts is going to help us out and do some additional mowing. He is familiar with fountain grass identification.

**ACTION ITEM:**

- ◆ *Develop a fountain grass fact sheet for Lanai hunters and have it included in the hunter lottery material (PR Specialist)*

**Ivy Gourd**

- ◆ Brooke: thanks to a hot tip from Hank, we have been controlling ivy gourd at the Manele Golf Course. There is ivy gourd growing in the pots at the nursery that supplies all the plants for the development. We are mainly finding immature plants now. Mike: we have been using a combination of foliar and basal bark. After the third treatment, the golf course guys cut down the trees in the area so now we have ivy gourd growing out of the chips. All the big stuff has been controlled. We have taken 3000+ plants out of the nursery. The harbor site from 2003 is pau. It was a lone female plant and was definitely planted. Pat: a large portion of that island is habitat for ivy gourd. Brooke: it really thrives in irrigated areas. We have controlled 15,634 plants to date.
- ◆ Kim: what about other species of concern over there? Teya: if there are small populations of bad actors, we should control them. Hank: I was concerned about the glycine, but there was a fire that burned the area and it has never come back. It could really take over the remnant forest areas. Kim: Australian tree fern is widespread in cultivation. Hank: I did find some on Lanaihale too. I killed all of it. It is widespread on West Maui. You could do outreach in Lanai City. I was also worried about the cow pea along the highway outside of town. Teya: we should compile a list of the status/distribution of species of concern and send it around. If you have target recommendations for Lanai, send them to Teya along with what you have regarding distribution and we will send the list around to the Committee.

- ◆ Hank: Expeditions has requested that any plant material going to Lanai from Maui be inspected. I haven't seen the idea tested yet. I think they are very concerned about insect pests and coqui.

**ACTION ITEM:**

- ◆ *Compile a list of species of concern for Lanai and put it out for Committee review (Teya)*
- ◆ *Check with Expeditions about their policy on plant movement (PR Specialist)*

**Vertebrates**

- ◆ Adam: we went over last summer to follow-up on a coqui report. A container came in full of greenhouse frogs and they were controlled. Darrell and I spent a couple of days and collected whatever we saw in the vertebrate realm. Everything we found was commonly known (Jackson's chameleons, anoles, *Bufo*, skinks, geckos, greenhouse frogs, etc.) but there were very few vouchers. *Bufo* and Jackson's are common in the residential areas. Greenhouse frogs are more common by the coast. We have responded to four frog reports on Lanai – only one was actually coqui. Pat I have had several anecdotal reports. Adam: yes, there have been a number of possible reports, but not confirmed. Hank: Lanai is unique. Castle and Cooke could get on board regarding not using Big Island materials, etc. for new house lots. Adam: the landscapers that manage Murdock's have been controlling greenhouse frogs. We have been supplying them with citric acid.

**Lanaihale Forest and Watershed Protection Project**

- ◆ Jay: The uau or Hawaiian petrel is an endangered species. Hawaii has a comprehensive strategy and recovery plan in conjunction with the Fish and Wildlife Service for uau. Our project really began with Fern who had heard various reports of petrels on Lanai and wanted to get over there and check it out. He wrote a number of grants and ultimately I was hired as the Research Specialist for the project. Christine Costales was hired on Lanai as a field assistant originally and is now moving into an on-island supervisor and outreach position. We will be hiring 3.5 Lanai-based field positions in the near future. Two of the field positions will be doing habitat restoration work. We also have funding for work on barn owls. We have evidence that barn owls are predated the petrels. Castle & Cooke has allowed us unrestricted access to the project area.
- ◆ There was a watershed protection fence completed in 2006 and ungulate removal is ongoing within the fence. There will be a second increment of fencing constructed in the future, but the exact location is not known yet and then there will be a third installment. The fence is really a watershed protection fence and there were compromises made between hunting interests and covering critical habitat in determining the location for the fence.
- ◆ There were a number of petrel sighting records going back to the early 1970's so Fern had a good idea that there were birds present. We expected to find a very few birds. In 2006-07 we did listening surveys and discovered a lot of birds. Quantification is difficult. We have had a number of seabird experts help out with the surveys and we estimate there must be several thousand birds present. Next to Haleakala, this is the most significant breeding area in Hawaii. In Haleakala they have documented 1200 breeding birds, but they don't survey all potential habitat. In the late 1970s and early 1980s at sea counts showed a population of ~20,000, which would correlate with a breeding population of ~4,500 birds. These surveys look at targets that could be other species. Fern: the at sea surveys took place in a location that may not even catch the breeding birds in terms of flight path.
- ◆ Jay: we want habitat restoration to move toward uluhe ferns. The birds like the fern mix with trees growing out of the ferns. Often the nests will be at the base of the trees. There are numerous threats to deal with. Deer create trails and the uluhe dies back giving feral cats free access. We have initiated a cat trapping program. The deer may be crushing the burrows. Strawberry guava ruins the habitat for birds and destroys the watershed. There are no birds in the guava areas and there is tons of guava. The birds can't get through the thick vegetative growth.

- ◆ Castle & Cooke has decided they want to develop wind resources on the island. They have cooperated with us and have come to us asking what they need to do. Radar surveys show the birds are flying right over where they want to put the meteorological towers. They are putting up seven meteorological towers to determine the wind resource. The towers are on a two year permit. We are writing a habitat conservation plan. They will fund mitigation and additional cat trapping. There will be allowable take at the meteorological towers. We would like to do restoration on ten acres total. We will start with three acres across from the fog drip station. If there is a take of seven birds, we will do a second three acres. The existing fence has been marked with white tape to help prevent bird strikes. There were strikes on the fence before. There has only been one strike in 700+ hours of observation since the tape was added.
- ◆ We want to create a corridor between known populations by removing the guava and returning the area to uluhe. Brooke and I went over yesterday and put in a plot to begin quantifying the vegetation. We will leave the Cook pines as they definitely drip water. We will preserve uluhe patches as we control guava. Growing uluhe is difficult. Hopefully, we can get it to move from existing patches into disturbed areas. We will control the guava by cutting, poisoning, and chipping. The chip biomass may be an issue. It may limit the recruitment. We won't put chips around areas where we have natives. The Lanai-based staff will continue to follow-up on seedling recruitment for the next two years. Guava seed may only be viable for a year, but the root mass is an issue. We will also do some planting. We have been collecting seeds and Bryan has a greenhouse set up. We are coordinating with Hank on this aspect of the project. We really need a local source of pili grass for erosion control. There are a lot of questions on the project and we are looking for any input people have.
- ◆ MISC has the experience with this type of work and the Lanai people we are hiring don't have the experience. We need knowledgeable people to help us get started. The Lanai staff will be available to help with MISC work on Lanai as well. We are developing a conservation group on Lanai and developing a skill set on the island to deal with the problems. There is a lot of work up there and there is funding to do it. We hope to reconvene the watershed partnership on Lanai at some point. Teya: Mike, Brooke, and Elizabeth have already been putting in time helping the project get going. We plan to send a crew of seven over for two weeks in March to take out as much guava as possible on the first three acre plot. MISC will be paid for its time on the project. Chuck is also helping with project design.

### **Natural Resources on Lanai**

- ◆ Hank: there are a lot of rare plants that have recently been relocated on Lanai. We have collected seeds from three plants that were last seen in the 1930s. We are trapping rats around the trees. Cat trapping may have an impact on rats. Jay's site does not have critically rare species. Teya: are you going to keep going to the Maui Nui islands. Hank: yes, I will continue to be a presence. I go over roughly every 2-3 months to revisit known plants and try to get seeds. We are surveying new areas. Fern: the areas we are going to clear will be maintained. You should think about out-planting opportunities there.
- ◆ Hank: the glycine is something I think would be worth pursuing. Tree fern outreach in town would be valuable and to try and limit it from coming in. Once the animals are taken out of an area, you do have huge weed problems coming in.

### **ACTION ITEMS:**

- ◆ *Survey for/control glycine on Lanai (Mike's crew)*
- ◆ *Develop outreach materials for Australian tree fern (PR Specialist)*

## UPDATES

### **Plants**

- ◆ Mike: we thought we had all the known rubber vine locations controlled. We have had three new reports in the last couple of weeks. Two were in Kihei (Maui Meadows) and were found during BBTV surveys. The third, from the Lahaina area, was reported as a result of an article in our monthly Maui News column. We had a report of princess tree off of Omaopio Road. There is a row of them growing near the old agriculture park. I don't know if we should do something. Fern: there are some houses in Olinda that have princess tree. We saw them during the cat surveys. Lloyd: the bio-diesel question is an issue. Chuck is putting together a presentation. We should have him give the presentation at the early detection workshop.
- ◆ Adam: there are three BBTV locations on Molokai. We will be going over in a couple of weeks to help.

### **Vertebrates/Invertebrates**

- ◆ Teya: we agreed to assist HDOA with nettle caterpillar surveys in Haiku for four months. Checking the traps takes our six-person vertebrate crew 4-6 hours per week. The four month period is over and HDOA has requested that we keep checking the traps until June. It was thought that the original four months would be enough to capture the lifecycle. We need to have a broader meeting to understand HDOA's overall strategy. We declined to continue surveying without a better understanding of HDOA's plan.
- ◆ Adam: we are seeing considerable trickle down of the coqui in Maliko Gulch. We have surveyed before and recent surveys indicate they are much further down than previously thought. They are now in the very bottom of the gulch. They are under control everywhere else.
- ◆ Fern: there was a report of a ferret or weasel in Nuu. I think it is unlikely. I will do a site visit to see the surroundings.

### **Partner Updates - NPS**

- ◆ Jeremy: we are still in the running for the Centennial Challenge funding. We should know any day now. Steve has been inundated with information requests from Washington this week, which implies we are sitting well. Hopefully, we will have a budget by the next meeting. If we are awarded Centennial Challenge funding, a good portion will go into PCSU for people and into expanded aerial operations, equipment, herbicide, etc. A lot of our equipment is getting run down and needs to be replaced. Things in Hana are going well except this week we canceled everything due to weather. We need to spend the DOFAW helicopter funding by March 15. We have six days with three ships/day scheduled in February.

### **Partner Updates - EMWP**

- ◆ Jordan: we have been focused on fence building and removing animals for quite awhile now. We will be shifting our focus more to weed control in the near future. We are developing weed management plans for each of our units. We need to coordinate data collection, etc. with Brooke.

## Partner Updates - Nursery Surveys

- ◆ Forest & Kim: results to date are summarized below:

### NUSERIES

- ◆ 7 nurseries surveyed
  - 5 retail
  - 2 botanical gardens

### TOTAL PLANTS

- ◆ 1,787 plants identified
- ◆ 999 plant species

### NATIVITY

- ◆ 51 (5%) Native
- ◆ 948 (95%) Non-Native

### GLOBAL COMPENDIUM OF WEEDS

- ◆ 618 (62%) considered weed
- ◆ 336 (33%) environmental weeds

### HAWAII WEED RISK ASSESSMENT

- ◆ 54 (5%) reject or high risk
  - 13 (1%) reject
  - 41 (4%) high risk

### NEW STATE RECORDS

- ◆ 132 (13%) previously not recorded from state
- ◆ 25 (18%) of the new records are GCW environmental weeds

### NATURALIZED STATUS

191 (19%) known to be naturalized on Maui

40 (4%) not yet naturalized on Maui, but naturalized on other HI islands.

### ISC TARGETS

- ◆ 0 MISC targets found
- ◆ 1 MoMISC target - (*Phormium tenax*)

### HDOA WEEDS

- ◆ 5 HDOA noxious weeds found (*Ardisia elliptica*, *Bocconia frutescens*, *Cereus uruguayensis*, *Tibouchina urvilleana*, *Triumfeta semitriloba*).

### COLLECTIONS

- ◆ 766 (76%) have yet to be collected from Maui

NEXT MEETING: Our next MISC meeting will be on April 11, 2008 from 9am to noon. The tentative topic is Action Plan/Strategic Plan.