

MAUI INVASIVE SPECIES COMMITTEE
MEETING MINUTES
April 3, 2009

ATTENDANCE: Mach Fukada, Pat Chee, Lloyd Loope, Fern Duvall, Philip Thomas, Forest Starr, Kim Starr, Chuck Chimera, Donald Brown, Pat Bily, Karl Buermeyer (via phone), Josh Fisher (via phone), Teya Penniman, Wendy Swee, Lissa Fox, Adam Radford, Mike Ade, Brooke Mahnken, Elizabeth Anderson

- The meeting was called to order by Dr Fern Duvall at 9:15am. Introductions were made around the table.
- Minutes from the February 6, 2009 meeting were approved. They will be posted on the website.

ANNOUNCEMENTS

- Pat C.: Chris Buddenhagen is leaving his position with HISC on May 1 and Mindy Wilkinson will be back from the National Invasive Species Council in September. Chris has taken a job with an environmental consulting firm. I hope to take his position so there is continuity. Lloyd: any word on the HISC funded research projects? Pat C.: Chris is working on the letters. The decisions have been made, but we are waiting on the Governor's approval since there were three that are considered not to be business as usual. Lloyd: one is for biocontrol for Kahili ginger and the other is an economic analysis for stopping new strains of ohia rust. Karl: so results won't be released until the Governor approves? Pat C.: three out of 18 went to the Governor. Rejection letters have already been sent out. Karl: do you have a list of the proposals that were funded? Pat C.: yes, I will get you a copy.
- Fern: does everyone know about the biocontrol resolution with the County? Teya: the County Council passed a resolution supporting safe, effective biocontrol for Maui County's forest pests. On April 27th or 28th, the Forest Service will be putting on a public listening session regarding the Environmental Assessment for strawberry guava biocontrol release. There will be stations addressing various topics and people at each station to answer questions. There will be an opportunity for people to provide written comments. We want people to be as informed as possible. Pat Bily is taking some people into Waikamoi to help foster discussion. Pat B.: I hope nobody gets too distracted by the Kahili ginger. It is an example of what happens when a monotypic plant takes over the forest. We hope to have a number of people from the Hawaiian community attend in order to strengthen the cultural connection.
- Don Brown (member of the public): I want to bring this group's attention to actions of Dow Chemical and Monsanto in New Zealand. An employee in New Zealand was intentionally releasing weeds and seeds. Don questioned the value of trying to control weeds on Maui while these same chemical companies, which are based in Kihei, are working to spread them. Forest: what is it you want MISC to do? Don: make people aware of what is going on. Get the evidence in hand. You need a citizen's committee to monitor Monsanto's activities. Forest: we would be interested in any species you know are being spread. Don: a lot of these intentionally spread infestations will be treated with chemicals that contain dioxin. It is persistent. I need help to wake people up to the fact that someone is intentionally spreading weeds to make money. It is very real and I know it is out there. Teya: Thank you for the information. We would definitely want to know about any intentional spread. However, MISC is not an enforcement agency.

BRIEF UPDATES

New Species: *Silybum marianum*

- Chuck gave a PowerPoint presentation on milk thistle. Chuck: Bob Hobdy found milk thistle growing in Makawao a few weeks ago. Prior to that, the only Maui record was from 1998 in a botanical garden. Milk thistle has a long history as a medicinal plant. It is native to the Mediterranean region. There is white coloring in the leaves and it has a white milky sap. It is also called blessed thistle, Mary's thistle, or blessed virgin thistle. It is bigger and meaner than bull thistle. It superficially resembles Mexican prickly poppy which is common on Maui. The yellow flower on the poppy is a give-away. Milk thistle is obvious when flowering. The other plant it resembles is bull thistle which has been naturalized in Hawaii for a long time. Bull thistle flowers are 2-4cm in diameter. Milk thistle flowers get up to 13cm in diameter. Don: in New Zealand they have a massive infestation of milk thistle. They pull it, burn it, and spread the ashes on the ground. It doesn't grow back. Chuck: the MISC Committee will need to make a decision as to whether this is a target MISC should take on.

PROS

- Only spread by seed, there is no vegetative reproduction
 - Seeds are eaten by birds and rats but not dispersed intact
 - Doesn't like to grow in shade, goats can eat the flower heads
 - Cutting, mowing will prevent seeding
 - Herbicides are effective for control in certain situations
 - Medicinal uses including a potential hangover cure, liver medicine
 - The young foliage is edible
- It is grown as a crop in some places. Maui Medicinal Herbs grows it in Makawao and on Piiholo Road to produce seeds. They say it is totally under control when they cultivate it and it has not escaped from their farm.

CONS

- Broad climate suitability, prefers cooler, higher elevations sites
 - Worldwide weed, noxious in Australia and Oregon and Washington
 - Invades pastures and disturbed areas
 - Spiny leaves and flowers
 - Potentially toxic to animals, but not in all cases
 - Can form dense impenetrable thickets
 - Can start flowering and producing seeds in less than a year
 - Large numbers of seeds spread by people and sticks to animals
 - Dispersal by wind, but only short distances
 - Potentially very long seed life, up to 10 years in some areas
 - Fire may stimulate seeds to germinate
 - Perennial but behaves as an annual if the climate is right (which it is here)
 - The seeds have bristle-like awns which with the Maui wind currents could show up anywhere
 - Can reach heights of greater than three meters
- Chuck: the cattle industry on Maui doesn't need any more plants that the cows can't eat. Fern: it would be a good idea to browse seed packets at Wal-Mart and Lowe's. I think I may have seen it for sale somewhere. Forest: it is seasonal. Seed packets were not there the last time we surveyed. Fern: it looks like it is right in the path of the trade winds. Teya: the owners of Maui Medicinal Herbs are open to having us survey around their site. Mach: sometime before 2002, there was a person raising it commercially. He had a huge box of seeds. It has probably been here a long time, but it has taken a long time to get out where it has been seen. Mike: we are doing surveys all long Makawao Ave. near the horse center, which is the epicenter. We have found plants three feet in height and in full flower.
 - Chuck: California tried to release a seed head weevil biocontrol in the early 1970s. It was not successful. Mach: there are a lot of native Asteraceae. It would be very hard to test biocontrol agents against all the

native members of the family. If we are going to look for a biocontrol it will take a long time. Lloyd: it sounds like biocontrol is unlikely to be a tool.

- Pat B.: how aware is the ranching community? Teya: it has only been on our radar for a month. Lloyd: we need to get them the information. Teya: I think they would be supportive. They understand that it is best to get things sooner rather than later. Don: you really need to look into the burning option. Mike: a lot of the plants are still in the rosette stage. We will try mowing. You would need a suit of armor to try and collect seed heads. We could try to mow the big ones down. On the small plants we could do mechanical or chemical. The guy from Mid-Pacific who sprays for fireweed told me of other possible locations. It may be up Olinda Road, in Oskie Rice Arena, and at the Haleakala Ranch offices. It may be much more widespread than we realize. Fern: we need more survey information before we decide if it is something that can be tackled. I would look along the trade wind path from Maui Medicinals. Kim: it is on our list to look for while we do our surveys. Fern: you could do a sweep from Maui Medicinals to the horse pasture. Don: even though there is a straight line and it is upwind, umbrella shaped seeds like these are found very high in the wind column. They are designed to fly far. Pat B.: the pathway was intentional introduction. I suspect that there is a tremendous seed bank. I don't think spraying that pasture is going to solve the problem. It sounds like a mechanical suppression will be the best bet. This could be an opportunity to get the ranches involved. This is not as much of a natural area concern except for maybe Haleakala. Action is premature right now. We are probably just seeing the tip of the iceberg. Philip: the thing to do is a survey. Either you will quit finding it or you will discover it is everywhere and is more than we can deal with. More extensive survey is indicated. Fern: this is a good tie in with the Farm Bureau if you are going to do outreach. Teya: we will do more surveys on a limited basis.

Funding

- Teya: we are still in an uncertain mode. HB 1741 would suspend funds going into the NAR fund and would devastate conservation work across the islands. Invasive species funding comes entirely out of the NAR funds this year. Past years it has included General Funds. If NARF gets gutted, there will be no funding for invasive species, watershed partnerships, etc. It would be devastating. There has been a lot of testimony and opposition. When it comes time, everyone should submit testimony. We are already assuming a 50% cut for next year without the NAR fund being gutted. There also is a possibility that county funding from the Transient Accommodation Tax may be suspended. Invasive species programs would suffer. There has been a huge amount of opposition to this proposal. Currently we are looking at flat funding from Maui County for next year. We have good cash flow for another year. We just received our new OED contracts for 2009.
- Teya: as Stuart says there is still a lot of spaghetti being thrown at the wall in terms of stimulus funding. We just hope some of it sticks. We put in for funding through NRCS and there also is some possibility through the Forest Service. It is a moving target. The Fish & Wildlife Service might have funding as well. Our hope is, at a minimum, that any stimulus funding that comes in will keep us level. Pat C. our Forest Service funding should be level. Teya: there is also a chance that an Emergency Environmental Workforce program might happen again. If it happens, the program will be managed through PCSU. There are a lot of things up in the air. We should know more by early May. Karl: you are on our radar.

Legislature

- Pat Chee gave an overview of the status of current Legislative initiatives related to invasive species and conservation. There was considerable discussion.

Miconia Conference

- Elizabeth: the early registration deadline passed on April 1. We have roughly 100 people registered so far. We have speakers coming from Australia, New Caledonia, Tahiti, Brazil, and Costa Rica as well as local speakers. Teya: we are a little concerned that we have not yet received the \$22,000 from HISC/Entrix. Thank you to our various sponsors.

PUBLIC RELATION & EDUCATION: STATUS & FUTURE DIRECTIONS

- Lissa: the last public relations focused meeting we had was in 2006. This update will cover what has happened/changed since 2006.

Programs

- Lissa: *Early Detection Workshops*: in 2006 we were preparing for summer workshops and the field book was in a draft format. We developed a target audience list. We have advertised public workshops in the newspaper and conducted workshops in six different communities. Workshops have also been conducted for most Maui (terrestrial) conservation organizations. To date, 84 people have attended early detection workshops and each person has received a field book. We have received a few reports from people that attended the workshops, but nothing significant. *Coqui Free Certification Program*: the program is off and running. PR products include a website, banners, bumper stickers, and fliers. We recorded a PSA for Pacific Radio Group. They gave us 30 seconds for three months for free. The *Malama i ka aina* award is ongoing. This was our sixth year. The program is intended to help engage the landscape industry.

Publications

- Lissa: in August 2006 we began doing a monthly article in the Maui News. The articles focus on specific species and broader issues. We have had several guest writers including Lloyd, Art, and Chuck. The total numbers of newspaper articles by MISC was 12 in 2006, 15 in 2007, and 14 in 2008. The total number of articles referencing MISC was nine in 2006, seven in 2007, and three in 2008. The total number of articles referencing MISC hasn't gone down much because we are producing more articles ourselves. We have published four MISC newsletters to date – pampas grass, coqui frogs, miconia, and early detection. A fifth edition on Lanai is in the works.

Presentations & Displays

- Lissa: we have a new display at the airport that focuses on nettle caterpillar and BBTV. We do a variety of oral presentations (Pacific Century Fellows, rotary clubs, etc.). We tend to take a reactive approach with presentations. We don't actively target specific groups.

Events

- Lissa: we try to participate in as many community events as possible – County Fair, Earth Day, Ag Fair, Maui Lawn and Garden Fair, Makawao Rodeo Parade, etc. Our displays incorporate the message of what MISC does, the threat from invasive species, and HISC messages. We also have targeted displays for agricultural pests like stinging nettle caterpillar and BBTV. In 2006 we participated in 16 events with 4,914 attendees, in 2007 we participated in 10 events with 3,893 attendees, and in 2008 we participated in 10 events with 3,418 attendees.

Education

- Lissa: our education program is driven by the Hoike o Haleakala curriculum and includes classroom visits and guided volunteer field trips. *Classroom visits*: 2006: 20 visits — 1666 students; 2007: 17 visits — 939 students; 2008: 11 visits — 756 students.
- Lissa: the drop in numbers is somewhat driven by funding availability. We are hoping to increase our visits in 2009. There is a great deal of interest. Teya: we do have a contractual obligation to the NPS to continue with the Hoike curriculum. Lissa: We have conducted two Teacher Development Workshops in coordination with the DOE (July 2007 and February 2008) and we are planning a third one for August 2009. The three-day workshops expose teachers to the curriculum as if they were students. Guest lecturers provide “expertise” and we spend a day in the field. The teachers must submit a portfolio in order to get DOE credit. This ensures that the curriculum gets used. The curriculum is being used independently throughout Maui. All high schools on Maui have participated in some way. We are just beginning work on development of an invasive species module for the Hoike curriculum. The work is funded by the NPS and Shannon Wianecki is doing the writing. We have had three scoping meeting for the module and there are ~10 teachers participating in the development.

- Lissa: we have hosted a number of school groups doing volunteer work. We hosted two Seabury Hall Winterim trips this year – one in Haleakala Crater and one in Hana.

Web Presence

- Lissa: our web presence is increasing thanks to Philip and Patti. The ISC website is up and running (www.mauisc.org) and we are hoping to add an early detection page. We also have a site dedicated to the coqui free certification program (www.coquifreemaui.org). The site highlights the program and is an advertising tool for participants. We also recently launched a site for the upcoming miconia conference (www.hear.org/conferences/miconia2009/). Philip: all the ISC web stuff runs through us.

Future Direction

- Lissa: I would like to start by revisiting our strategic plan.
Engage the Public in Working to Protect Maui Nui
 - o Objective 1: The public understands and supports MISC’s mission
 - ♦ Strategy: communicate progress, value and relevance of MISC’s work to decision makers and funders
 - ♦ Strategy: Increase public awareness of MISC’s work and engage them in our efforts through coordinated media campaigns
- Lissa: we are continuing to go to meetings and interact with the landscape community. Fern: what about the Office of Hawaiian Affairs and Department of Hawaiian Homelands? There is no real agency oversight or input on what you can or can’t do on your property. Education is important. Homeowner associations in homesteads would be good contacts. Forest: flyers specific for various homeowners associations would be nice. Lissa: Akaku has the Daily Show and they have guest hosts. They approached me recently about hosting. Pat B: there is a section of the general public that you won’t reach through the media. I am not sure how to best reach these people. Even with all the effort we have put in, there are still a lot of people clueless about the invasive species issue.
- Teya: this raises a bigger question regarding where we have gaps in our public outreach. What people we are not hitting (e.g. the under 30 group)? A first step would be to look at our overall program and identify the groups we are missing and then brainstorm how to reach them. The surveys we did as part of the coqui free certification project gauged people’s knowledge but also served as an educational tool. Adam: the questions on the survey will raise awareness, but we didn’t want to bias the answers. We answered participants’ questions after they had completed the survey. We have also been putting signs out on the road in neighborhoods where we are doing BBTV surveys. We have gotten a lot of calls as a result. People call up to talk story and we are reaching a new group this way. We are looking at Facebook and blogs as future tools. As part of the survey, we looked at how people receive information. People mentioned that they don’t see flyers at businesses. Teya: the final results will be interesting. Adam: Wal-Mart is a good demographic cross section of Maui and they have been really good to work with. Philip: it might be a good idea to target the folks that actually do the landscaping. They cover a lot of ground and they are the people who are looking at plants.

Engage the Public in Working to Protect Maui Nui

- o Objective 2: The nursery and landscape industry is a supportive partner
- Lissa: I attend the MALP meetings. Adam: the coqui free program has been a great interaction with landscape industry folks. We have gained a lot of good information. Forest: things that people really don’t want like fire ants help to open up the door. Pat B.: aside from MALP, are there other venues? Lissa: we participate in Ag Day. Other possibilities include the Maui Orchid Society, the Maui Garden Club, and the Hawaii Organic Farmer’s Association.

Engage the Public in Working to Protect Maui Nui

- Objective 3: The children of Maui Nui learn about invasive species and how to act responsibly.
 - ◆ Strategy: Develop and conduct educational programs for elementary, high school, and college groups
 - ◆ Promote implementation of the Hoike Curriculum
 - ◆ Complete Hoike module on invasive species

- Lissa: do you see any gaps? We will ramp up classroom visits. Fern: what about MCC students? Anne Emmsley is a good contact. Chuck: Art is going to teach his field biology class again. Elizabeth: Frannie Coopersmith will help test curriculum. Teya: how do we want to interact with the new CTAHR specialist? We should invite him to meet with us and come to our meetings. Philip: there was a proposed “No Child Left Inside” Act. I am not sure if it passed. Wendy: we are looking for ideas on volunteer projects we can offer for school kids. Kim: Kanaha Beach is an option. Pat: Waikamoi is an option for older kids. Lissa: last year we had an AmeriCorps intern and a YCC intern. Both were students from classes I visited.

- Lissa: what messages do we want to incorporate more of? The crew has had some training on biocontrol. We will be taking this on quite a bit more. Lloyd: biocontrol PR should be a major theme for all the ISCs. It is very important that we explain why it is needed for some species. Pat B.: we need to do in-reach especially on biocontrol. Lloyd: Hawaii is the only place in the world where there is so much opposition to biocontrol. There is a great deal of mistrust in Hawaii. It is important for MISC to interface with HDOA PPC and PQ.

Next Meeting: June 5, 2009