

**MAUI INVASIVE SPECIES COMMITTEE  
MEETING MINUTES  
Friday, February 17, 2012**

ATTENDANCE: Pat Bily, Lloyd Loope, James Leary, Forest Starr, Kim Starr, Bob Hobdy, Fern Duvall, Chuck Chimera, Adam Radford, Lissa Fox, Teya Penniman, Mike Ade, Abe Vandenberg, Brooke Mahnken, Elizabeth Anderson

ATTENDING VIA WEBEX: Josh Atwood, Evelyn White, Rob Hauff

- The meeting was called to order by Pat Bily, TNC/MISC Chair at 9:05am
- Introductions were made around the table.
- Minutes from the December 9, 2011 meeting were approved. They will be posted on the website.

ANNOUNCEMENTS

- Josh: as far as funding bills go the bag bill is still alive. The proposed change would increase the tax on bags from 10 to 5 cents with 40% going to the Natural Area Fund. Teya: what is happening with the EEW bill? Josh: it went thru committee and they are still shuffling around funds. No one voted against it in committee. We will watch as it moves forward. RCUH initially didn't support the bill. On paper the testimony was more positive than it really is. Teya: it sounds great on the surface, but it doesn't bring any new funding in. They are raiding existing funds from all over to pull it together. The hiring would all be temporary workers. Josh: a large chunk of the funding would come out of funds that support people that area already working in the field.
- Chuck: the most recent edition of the publication "Hawaii Landscape" (put out by the Landscape Industry Council) had an Oahu coqui frog update and an update on the naio thrip. There was also an article on how the WRA has identified a number of high risk plants that are economically important and the impacts of what would happen if they were legislated against. The article was interesting and thought provoking.
- Teya: last Friday a group of environmental funders came to MISC for a site visit. The group gets together annually and goes on a field trip. We hosted 12 people from a variety of foundations. It was a nice opportunity to share with them the work we do.

PUBLIC OUTREACH AND EDUCATION (REVIEW AND SOLICIT INPUT)

**Outreach Events**

- Lissa: our numbers last year were lower than in past years because we did not participate in either the County Fair Parade or the Makawao Parade. Both parades are high number events although the interaction quality is quite low. Other outreach events include the Maui Nui Botanical Garden Earth Day Event, the Taro Festival, the County Fair, Agriculture Festival, etc. The Milagros fundraiser provided good exposure although we didn't make much money.
  - 2005: 10 events—4000 Audience
  - 2006: 15 events—4914 Audience
  - 2007: 9 events—3763 Audience
  - 2008: 10 events—3418 Audience
  - 2009: 10 events—4420 Audience
  - 2010: 12 events—6551 Audience
  - 2011: 12 events—3076 Audience

- Every event season we try to do a new topic focus for our displays. This past year we did ecosystem jenga, which focused on the effect of invasive species on natives and watershed impacts. It was fun! Other displays have focused on native plants in the landscape and encouraging the use of local/native plants. For upcoming fairs in 2012, we will focus on LFA again with a new display. We will have an LFA newsletter out by then so it will be a good pairing. Suggestions for future topics/messages are welcome. Teya: in the past we needed to get the word out as to who we are, but we are there already so the focus is better now. One thing we may not have gotten out there is our successes. We have some really impressive graphics regarding coqui frogs, etc. Lissa: we were talking about doing a coqui-free stand alone exhibit and we could include that. Forest: the Waihee LFA story is a major success. Lissa: I like the idea of using more data in our displays.
- We did a cooperative project with the Hui Noeau this year. Crew worked with volunteers to collect guava and eucalyptus for an amazing sculpture done by Patrick Dougherty. It is still open and will be there for a couple of years. We got a lot of good press out of the project and there is a sign with the exhibit explaining about invasive species. We have also been helping with school programs at the Hui. There was an article in the Hawaiian Airlines Hana Hou magazine on the sculpture recently. The project was a great partnership.
- Future “events” outside of normal community events we are considering include a MISC open house where we invite the community up. We are also thinking about an ant week with a big campaign encouraging people to go out and sample their yards. We need to be looking for RIFA in addition to LFA. More people seem to be aware than in the past - we just need to keep getting the word out.

#### **PSAs (LFA, Miconia)**

- Lissa showed the three LFA PSAs and the new miconia PSA. The PSAs have been shown on Oceanic Time Warner and have been aired regularly on Akaku since the beginning of the year. The LFA PSAs played throughout the state (285 airings) during three two-week periods with twice as many airings on Maui. Elizabeth S. says she has seen a bump in ant reports since we aired them. The miconia PSA was produced for us for free by a video production company that Kuhea works with. All the PSAs are linked to our website, blog, and FaceBook page.
- In March, OC 16 will be airing a Cal Hirai piece from The Rain Follows the Forest. The Hana miconia crew will be prominently featured.

#### **LFA & Other Video Projects**

- Lissa: we have completed the filming for the LFA video project. Our most recent Hilo filming trip was interesting. When we went a year and a half ago, we had trouble getting interviews from residents that showed much concern. This past trip was different. We interviewed a couple who have a baby that didn't learn to crawl because they were afraid to put her on the ground due to fire ants. On Oahu, we interviewed Carol Okada, Russell Kokubun and Darcy Oishi, all with HDOA. On Kauai, we interviewed a local family involved with the small infestation there. Lissa showed a short clip of Teya talking about LFA that was put together for another purpose.
- Abe has been working on some other video projects. He is making a short BBTv video from an existing longer video. He is also looking at some shorts - girdling albizia, time lapse of treating pampas, the sound of a single coqui vs. 100 coqui. Akaku is always happy to play stuff and we will put them on our blog and Facebook, etc. Additionally, Abe has plans to work on short species segments for Akaku, the web, etc.

## Maui News Articles

- Lissa: we have been doing monthly articles for the Maui News since 2006. To date, 65 articles have been published. We have focused on species reports, impact awareness, and partner effort awareness. It becomes a challenge to come up with topics. Suggestions for future articles are appreciated. Fern: an article on pathways and how things get here would be good. Adam: you could highlight drop shipping as an issue. Fern: it is important that people know how often we have snakes show up – how often flat snakes end up in horse hay bales. Chuck: have you done mosquitoes? Lissa: we did West Nile virus. Chuck: you could do the change in elevation range resulting from climate change and the impact on birds. Iiwi is being proposed as a candidate species. Teya: kudos to Lissa for writing an article once a month under a tight deadline.

### *Maui News, Molokai Dispatch & Kia'i Moku Column*

- 2005: 8 mentions
- 2006: 23 mentions—6 Kia'i Moku
- 2007: 22 mentions—12 Kia'i Moku
- 2008: 9 mentions—12 Kia'i Moku
- 2009: 10 mentions—12 Kia'i Moku
- 2010: 13 mentions—12 Kia'i Moku
- 2011: 18 mentions—11 Kia'i Moku

## Newsletter

- Lissa: we have been publishing newsletters since 2006. Each newsletter focuses on a specific topic. Topics covered include pampas, coqui, miconia, early detection, Lanai work, the miconia conference, Molokai, and little fire ants. The little fire ant edition should be to the printer next week. The next edition will focus on biocontrol. Each newsletter contains eight articles so the topic needs to be pretty broad. Fern: you could do one on snakes and lizards. There have been quite a few turned in lately. Teya: we could do one on data. Elizabeth: or on technology in general and include things like HBT.

## Press Releases

- Lissa: topics for upcoming press releases include veiled chameleons (we haven't found any), pampas grass success in Honomanu, and frog work in Maliko Gulch. For Maliko, we may want to invite a reporter down to see what we are doing. We are open to any suggestions for additional topics.

## Social Media

- Lissa: during the last quarter of calendar year 2011 we had 4,498 pageviews for all of our websites combined. This number reflects hits, not discrete people. The general ISC site had 1,636 pageviews. The LFA site had 417 pageviews. Chris Reickert and Elizabeth Speith helped us develop the little fire ant website. It is housed with Elizabeth S. Forest: we may need to find a new host soon with PBIN dissolving. Brooke: Sky and staff are becoming a project of PCSU. The PBIN stuff is now on UH MCC server and will stay there. Josh: starting in March, they will be drawing from the new HISC account that Elizabeth is tracking.
- Lissa: the coqui-free website had 115 page views this quarter. We are thinking of rolling it over into Word Press format that will search higher on Google. All the certified businesses are listed on the site. Abe is maintaining our Facebook, which had 638 tabviews this quarter. Abe: we have a personal page and a public page. I focus on the public page and am aiming for quality not quantity. I have had some really good conversations with folks as a result of the postings. We get coqui reports and it is a good place for people to go to get plant identifications. It comes up high in searches. I am trying to show people what we are doing. I have also been posting HDOA advisories, links, etc. If you "like" MISC, it will come up in your news feed. I try to post something every day I am in the office. We can track what people are interested in. It is good marketing to know your audience. We also have Twitter and I need to explore that more. Lissa: for the blog, I take articles from the newspaper and newsletter and repost them. The blog had 1,324 views this quarter. Teya: I am very pleased and proud with our increased Internet presence. We have really expanded our exposure.

## **Education Program**

### *Teacher workshops*

- Lissa: we are continuing to do regular Hoike teacher workshops. In the past we did the workshops in conjunction with DOE. We are doing them more informally this year since the pay raise incentive with DOE is no longer there. We are offering stipends to teachers if you use the information and give us feedback. Abe: we've had some teachers who are new to Maui attend the workshops, which is really valuable. We have conducted two one-day workshops and one two-day where they get to go in the field for part of the second day. Lloyd: there was a scathing newspaper article recently about the fact that there is no information on invasives in Hawaii's curriculum.
  - 2005: 2 workshops—13 teachers
  - 2006: 9 workshops—48 teachers
  - 2007: 3 workshops—208 teachers
  - 2008: 2 workshops—22 teachers
  - 2009: 3 workshops—16 teachers
  - 2010: 1 workshop—9 teachers
  - 2011: 2 workshops—8 teachers

### *Hoike curriculum*

- Lissa: we are hoping to have the invasive species module completed this summer (before the fall semester starts). We've received a grant from the Hawaii Natural History Association to help fund desk-topping, and web posting. Abe has been testing a lot of the new activities in classrooms.
- Classroom visits:
  - 2006: 20 visits—1666 students
  - 2007: 17 visits—939 students
  - 2008: 11 visits—756 students
  - 2009: 31 visits—2068 students
  - 2010: 33 visits—1877 student
  - 2011: 28 visits—1379 students

## **Early Detection Workshops**

- Lissa: early detection workshops have slipped by the wayside a bit. Do we want to revive them? Elizabeth Speith was doing a lot of the advertising and promoting of the workshops. She has had a shift in priorities and hasn't had much time to promote the workshops. The workshops are a valuable tool, but they do take a fair amount of time and work.
  - 2008: 13 Workshops—111 Participants
  - 2009: 8 Workshops—196 Participants
  - 2010: 7 Workshops—122 Participants
  - 2011: 1 Workshop—12 Participants
- Fern: as a result of the early detection workshop you did on Lanai, when the first shama thrush showed up they knew what it was. Teya: it might be helpful to know what groups we have reached rather than just how many people. We made a list of priority groups when we started this program. We should review that list. Lissa: we had very low turn-out when we did them for the general public. Pat: I think MECO, transportation workers, etc should be high priority. There is a lot of turnover. Fern: I think redoing people that work outdoors is good. People forget.

## SPECIES ASSESSMENTS

- Teya: there is a list of species that Forest & Kim analyzed that should be the highest priorities if we choose to take on additional targets for control. I would propose that this morning we look at the species we specifically want answers about and get input from the Committee. We want to be sure we get answers to some of our old questions. As part of our Forest Service contract, we need to evaluate initial control for five species and actually do control on three of those.

### **Targets for Additional Assessment/Control**

- Forest: we took all the plants from our surveys and put them in a database and cross-checked them all with the Compendium of Weeds and the Weed Risk Assessment. We then cross-checked them for high risk and if they were widespread, we pulled them off the list. That left us with species that are invasive and that we can control. We figured out an algorithm and then derived a numerical system. We weighted the system an order of magnitude toward the species that are easiest to control. The rating is not strictly based on invasiveness. Rob: keep in mind that these targets need to be threats to forest ecosystems if you are using them for reporting on the Forest Service grant. This is just something to keep in mind when you come up with the species that you are going to target in the grant. Forest: we didn't really take that into account. James: it is reasonable to assume that they could all have impact on the forest.
- Forest: *Nassella tenuissima* ranks the highest of the species examined. There is one patch that we know of on Upper Kimo, but there may be more since it came from Lowes. Pat: it is very close to pastureland and then it would ultimately end up bordering natural areas so it is a fire threat to forests. Lloyd: wiping out this one population seems like a good idea. We should get rid of it. Kim: the landowners are receptive.
- Forest: control for *Erica lusitanica* is harder than we would like. It is cultivated in Kula right on Crater Road on an old flower farm. We imagine it is elsewhere. It was first found on Haleakala Ranch. The MISC crew went back and tried to control it and found another section of it in shrubland below the park. This is the closest of the incipients to the park. It would be an issue in the shrubland. It will take a significant amount of control effort. Mike: the revisit frequency needs to be determined and it may need to be frequent. Forest: this one is within reach, but we will need to stay on it for quite a while. Chuck: the documented seedbank is four years or more with 3-4 years to flowering. Mike: it is growing through pukiawe. Kim: if you look at images from where it has invaded, it is pretty major. Pat: since you have a few years until it flowers, your follow-up could be only every year. Forest: our best guess is that it was planted. We did delimiting surveys around all known plants at 200 meters. This is the most widespread of the plants we are looking at. It is a heavy seeder. It will be a component of the park shrubland within a few years if something isn't done. Pat: it is a direct threat to *Geranium arboreum*. You could do intervals close together at first and hold your standard to preventing mature occurrences. Mike: we can do it when we do pampas. Bob: what about shade tolerance? Kim: we don't see it under the shade of the eucalyptus. Chuck: seedlings can withstand shade and repeated heavy grazing. Teya: we have already invested a fair amount of effort in this species. It seems like we should keep this in a fairly high category. Pat: the location close to the park is important.
- Forest: there is a lot of *Pittosporum viridiflorum* on Lanai and we now know there is more on Maui than we thought. It is mostly in the Keokea and Waipoli areas. This one will be hard to put back in the bag. Mike: this one is easy. We think we still have it under control. Forest: it is pretty well spread all around the area and is in the Kula Botanical Garden. I don't think we can do this. There are a lot of residential sites. Mike: we haven't had any trouble controlling it. We have controlled all the points you gave us before. Forest: we should get you the points of additional ones. Dispersal is by birds. Teya: so the delimitation isn't complete? Forest: no probably not. It would take a long time to delimit if we went 200 meters from every plant. This should go in a "need more information" category. We want to know where we have controlled vs. where all it is. Teya: decision = we need more information.

- Forest: *Pittosporum undulatum* has a history of invasiveness elsewhere. It has been extensively cultivated. It is on the Hawaii State Noxious Weed list and we have recalcitrants. We missed this one on the initial road surveys. Fern: *undulatum* is really bad in South Kona areas on the Big Island. Kim: since it is a noxious weed we should have some muscle. It is a beautiful tree. Lloyd: it is a really bad forest weed. Eradication would likely be impractical. Containment might be a more realistic goal. How much effort would it take to contain it? Fern: how would you contain it? It is bird dispersed. Lloyd: you could look for seedlings. Mike: we have controlled the ones we have permission. There is a huge population in the gulch by Kamehamehaiki that we don't have access to so we stopped at that point. There is also a property with a large hedge. They will let us control it if we replace it. It is a huge double row hedge. Pat: what about the containment idea? You could dovetail it with pampas sweeps to keep it from spreading up through the pasture toward natural areas. These things have been seeding for decades. When they start outliers, it will explode. Bob: when it gets into a wetter area it will take off. Teya: how many recalcitrants are there? Mike: six that I can think of. We need to do another survey to see how far up and down it is. Kim: can HDOA help us since it is a noxious weed? Lloyd: they don't enforce the noxious weed law anymore. That could change in the future. Teya: decision = continue to maintain the known sites and do additional surveys. Consider a buffer strategy for containment to keep it from moving to higher elevations.
- Forest: Mike and the MISC crew have been following up on the cat's claw (*Caesalpinia decapetala*) in Ulupalakua. It has very long-lived seeds. There is a big patch in Kapipi gulch out of Haiku. Pat: we flew over it and it goes way up. Cattle may be moving it. Kim: it goes all the way to the coast. Bob: it is a big problem on Kauai where it is spread via tractors. Forest: Fern had a sighting from Hana. Bob: the native one is out in Hana. It may have been that. Teya: it has been brought to my attention by a number of folks in the Haiku community. It is a bad invasive, hard to control, and the terrain is intense. Since it is one gulch, could we boom spray it? Mike: no, it is below power lines. Lloyd: a delimiting survey would be good. We need to know how much it is spreading. It is surprising that in 15 years it hasn't turned up elsewhere. Teya: it could be a community outreach target. Bob: it is in the Cabral Pasture on the far side of the gulch. He has used a tractor on it. Teya: what is the forest threat? Forest: lowland mesic. Bob: on Kauai I have seen it covering the forest way up. Pat: I worked on it with Lori on Molokai. She did aerial spray and mopped up. Aerial didn't completely kill it, but there was dieback. We had 1000s of seedlings. The seeds are viable for a very long time. It is easy to make things worse. Forest: the Ulupalakua one is worth dealing with from a local eradication standpoint. Teya: we will continue following up on the Ulupalakua site. Do we want to do delimiting surveys? Brooke: if it appeared someone else, we might want to take it on. Pat: what do we know about West Maui? Kim: maybe we should do some neighborhood surveys in Ulupalakua. Brooke: it would only take 10 minutes out of a miconia survey to check-out the gulch. We should set that up with Jeremy.
- Lloyd: we will never eradicate *Rubus ellipticus*, but it is really important. Forest: it gets here via the hapuu trade. Teya: we should have nurseries keep a look out. Rob: it is a biocontrol target.
- Forest: broom snakeweed (*Gutierrezia sarothrae*) has been at Science City for years. We are growing a cutting. It could be a fireweed type thing. Art's crew sprayed it and it is dead. It flowers in July and we will check the site then. Lloyd: this one is a huge threat to agriculture because it is poisonous to cattle. It would make a good Maui News article. Forest: it probably came in on equipment from the observatories. Teya: we agree we will do the little bit of work needed on this one.
- Forest: *Torilis arvensis* gets into peoples socks. It is native to Canada and has invaded North America. It was found in the HVC parking lot at the park. We delimited the HVC parking lot and didn't find any, but very dry now. We need to go back after the rains. Chuck: it spreads naturally and has become an annoyance in western US. It has high dispersability. If it got here, it could be everywhere and it has the potential to invade the high elevation woodlands. James: access points are key. Forest: we don't want it tracked down the trails. Pat: what about involving the National Park? Forest: they know about it. Pat: let them deal with it unless it explodes.

- Forest: *Dalbergia sissoo* is in Kahanu Gardens in Hana. It is weedy elsewhere. We are thinking we should survey around it. Chuck: it is a weed in Australia and can form dense thickets. Lloyd: it is not anywhere else on Maui that we know. Forest: we are going to do delimitation around Kahanu.
- Forest: we want to see if we can find *Allophylus cobbe*. It is reported from Kahanu, but we haven't seen it.

### **Conclusion**

- Teya: it would be helpful if each person would please look through Forest & Kim's list and come up with 3-5 species that you think pose the greatest threat to forest ecosystems based on your knowledge. Please get your list to Teya by the end of next week.
- Next Meeting: April 20, 2012 10am-3pm: Benchmarks