

MAUI INVASIVE SPECIES COMMITTEE
Meeting Minutes
Friday, December 6, 2013

ATTENDANCE: Pat Bily, Matt Brown, Steve Anderson, Bob Hobdy, Fern Duvall, James Leary, Lloyd Loope, Jeremy Gooding, Randy Bartlett, Nelson Sakamoto, Una Ching, Renee Doi, Tim Stallard, Chuck Chimera, Teya Penniman, Adam Radford, Abe Vandenberg, Dennis Green, Mike Ade, Aja Akuna, Kona Ball, Molly Wirth, Lissa Strohecker, Darrell Aquino, Brooke Mahnken, Elizabeth Anderson

- The meeting was called to order by Lloyd Loope, MISC Chair
- Introductions were made around the room.
- Minutes from the May 24, 2013 meeting were approved. They will be posted on the website.

ANNOUNCEMENTS

- James: Brooke and I are coauthors on an abstract submitted to the American Society of Bioengineering on customized hardware development for HBT.
- Pat: TNC has a new easement on East Maui Irrigation lands that spans across areas we have been managing for years. We will be fencing the area and we made a new landing zone near MISC's Haipuaena LZ. The new fence line is flagged. There will be infrastructure that we can all commonly use, but we will need to keep in communication when we are going to be in the area. Let Francis know.
- Adam: Brooke and I are submitting abstracts on chameleons and conures to the Vertebrate Pest Conference, which will be held on the Big Island in March.
- Teya: I attended the Hawaii Conservation Alliance (HCA) annual retreat last week. HCA provides a broad forum to advocate for things like interisland biosecurity. In January there will be an all day workshop to talk about the watershed initiative. MISC is getting funding from that initiative this year. There is also a HISC meeting the same week January 9th and 10th there is a HISC strategic planning meeting and then January 8 there is a Legislative briefing.
- Fern: DLNR is pursuing creation of a new wildlife sanctuary in the alpine area of Haleakala on the mitigation site for the ATST telescope. The idea is to protect the area after the mitigation years are pau with predator control and petrel monitoring. The area would be incorporated into the state sanctuary system. It is currently unencumbered state land.

BRIEF REVIEW

MISC Targets

- Teya: we have a crew that mostly works on coqui frogs and banana bunchy top virus (BBTV), with some work on little fire ants (LFA). We also have a crew that focuses primarily on plants and a crew in Hana that is focused on miconia. We have a staff of 2-3 on Molokai. They have a separate committee, but we provide administrative and other support. The MISC Committee continues to meet on a regular basis to help evaluate and guide what we are doing and help secure funding and support. Our work is science based and data driven and we have a strong PR component as well.

Public Relations

- Lissa: we recently published a newsletter focused on biocontrol. If you didn't receive a copy and would like one, let me know. Recent monthly Maui News articles have focused on collector urchins for invasive algae, bo tree, and the coffee berry borer beetle.

- Lissa: I've been working with the East Maui Watershed Partnership and the Maui Forest Bird Recovery Project doing training for tour guides on the island. We are trying to provide them with accurate information to pass on to their guests. We have a one hour classroom program for them and present five facts from each of our three organizations. Abe has been very busy doing classroom visits and has reached ~1400 students in the last few months. A lot of his visits have been focusing on testing new material from the Hoiike invasive species module, which is nearly finished. We held a teacher workshop in August through the DOE. The teachers get credit for using the Hoiike material in their classrooms and completing a portfolio that shows how they used the material. The workshops provide great feedback for us.
- Lissa: we will be doing a series of premieres of the completed LFA video. The first one will be January 8 at 5:30 at the MACC. There will be a discussion panel and an award ceremony to recognize Christina Chang, the Waihee landowner where LFA were first discovered on Maui. The video will be shown on Oahu on January 13 and an award will be presented by the Governor to Cas Vanderwoude from the Hawaii Ant Lab. The video will premiere on Kauai on January 18. Teya acknowledged the incredible work that has been done by Abe and Lissa. Abe stepped in to fill a huge gap in the editing of the film and Lissa has orchestrated all the outreach.
- Teya: we have heard anecdotally that HDOA is intercepting LFA on shipments 3-4 times per week. That is just what they are finding on Maui. We need to do the study to see how often LFA are moving. We aren't doing enough now. Lloyd: potted plants must be tested with peanut butter and a chopstick, but for anything that isn't rooted there is no regulation. This is a huge gap.

VERTEBRATES: GOALS, STRATEGIES, STATUS, & PLANS

Coqui Frog

- Adam: MISC's sustained and comprehensive work on coqui frogs began in 2004 - 2005. Since that time there have been a number of populations that have popped up and a number that have been eradicated. A population is defined as five or more calling males in a location. To be considered eradicated, there must be a year from the time the last calling male is heard. Our biggest challenge continues to be Maliko Gulch. It is the largest population by acreage and the most densely infested area. We have been quite successful at getting on top of known populations and controlling them. We know our approach is successful. The problem is that we keep having new populations pop up and we deal with a lot of single frog infestations. For small/single frog sites we hand capture and for larger areas we spray with citric acid. Citric acid is a food additive mixed with water. It is safe for our staff and results in very minimal non-target impacts. Relationship building has been very important for the program – we visit properties once a month or more and we are in people's yards until 11pm at night.
- Adam: in 2013 the number of single frog interceptions at random locations at least tripled from past years. At these sites we catch the frogs by hand and then we monitor the site for a period of time. Abe: there appears to be a larger number of frogs coming in from the Big Island – most likely because the Big Island is no longer doing control. Adam: this takes away from work at population centers. MISC is spread thin. Our greatest asset is the public. We record more than a call a day re: potential frog reports. Bob: what is the potential habitat? Adam: anywhere there is moisture up to ~5000 feet. Teya: in addition to quality of life issues, they also eat insects, alter soil chemistry, etc. Fern: coqui frogs would be a food source for brown tree snakes if they got here. Adam: we have had frogs show up on Lanai. Abe: a former MISC employee now works on Lanai in July/August says he caught three frogs at the nursery.
- Adam: MISC's coqui free nursery certification program recognizes proactive steps taken by nursery businesses. We work cooperatively with businesses to monitor and set up protocols. We have picked off a few frogs during surveys. The nurseries get marketing materials from us after they are certified. The nursery on Lanai is looking at putting a barrier up to keep frogs from leaving the nursery.

- Adam: with our current small crew size, Maliko is problematic. It is hard to stay on a revisit schedule with all the other reports. Dennis: what we need is a separate crew that just works in the gulch. Adam: the Maliko Gulch infestation extends from the ocean to Kaluanui Road – 3.5 miles in length. The gulch continues on up into the Makawao Forest Reserve. We broke the Maliko infestation up into management units so we could be systematic with our work. We have installed significant infrastructure in order to facilitate the work. To overcome terrain challenges, we have developed trails. There are large volume storage tanks installed along the edge of the gulch and a PVC pipe delivery system in all the areas we can access. The PVC system relies on gravity delivery via fire hose. In the February 2013 flood we lost a third of our pipe. We have also developed a giant sprinkler system. There are over 100 landowners along the edge of the gulch and access on the rim can be an issue. Maliko is not uniformly infested. The infestation continues to be largely confined to the gulch. If we had done nothing, all of Haiku would have frogs. We are starting to get satellite populations, including Haliimaile. There are irrigation ditches that cross the gulch and the frogs are moving along the ditches. We have even had frogs moved by cars that parked near the infestation.
- Adam: we use at least 100,000 lbs of citric a year. It is mixed at a 1:1 ratio and costs \$1.00 per pound. We can easily use 2,000 gal per night. We are currently storing the citric on a local resident's property in his barn. The same individual also allows us to use his forklift to unload shipments. Other residents allow us to use their water for free. Darrell: citric acid is very corrosive and so we need to thoroughly clean all of our equipment at the end of every week.

Mitred Conure

- Adam: mitred conures are found on the north shore of Maui between Haiku and Hana. The population resulted from caged birds that were released in the early 1990's. The parrot is from Central/South America and has a large range. The birds are found in an area that has miconia and they are known to be able to pass the seed of the plant and have it germinate successfully. Displacement of native birds is an issue as well. Conures are also a major agricultural pest. Almost every alternative control method has been tried including trapping, callbacks, baiting, etc. We have benefited greatly from the help of DLNR/DOFAW staff on this project. Lethal control has been occurring for the last couple of years. There are two separate locations: Waipio Bay and Huelo Point. The cliffs in the area are inaccessible. At the peak there were ~200 birds in the area. We estimate that there are two birds left at Huelo and 15 at Waipio. It is hard to get a firm count because the birds intermingle. The north shore of Maui is not an ideal habitat – it is a little too wet. We have had some help from local residents taking action on their own.
- Adam: lovebirds are not a MISC target, but we keep tabs on them. They are well established in the Kihei area. We estimate there are over 100 birds established in several locations. There has been a new occurrence at Skill Village in Paia. There are a couple of escaped caged birds that we are attempting to capture with the cooperation of the owner.

Veiled Chameleon

- Adam: no veiled chameleons have been found since 2008. We continue to maintain a presence in the community. We did years of systematic survey and removal. A lot of the animals were turned in by residents. We are working on a peer reviewed paper. If they are truly eradicated, this would be the first successful removal of a breeding population of a reptile in the world. How do you know when you are done? Teya: veiled chameleons are significantly larger than Jackson's and are able to take small birds. Fern: they aren't as moisture dependent as Jackson's. Brooke: they can also range up to 9,000 feet, which is much higher than Jackson's.

Other Vertebrates

- Adam: we still receive a lot of reports on random things. The most common reports that we follow-up on are rabbits. They were established in the National Park at one time and successfully eradicated. There were over 100 rabbits removed from the park. We are updating our "who to call for what" list and would appreciate input.

- Fern: we also continue to get reports of Bengal cats. They are a cross between a house cat and a wild cat. Hybrids are illegal in the state. We know of five locations where these animals have been seen in the wild. HDOA is starting to be more rigorous in enforcement. At some point, we may need to discuss if we should try to catch the cats that are out there. They can swim, which could be an issue for offshore islets where there are nesting seabirds.

BANANA BUNCHY TOP VIRUS: GOALS, STRATEGIES, STATUS & PLANS

- Adam: BBTV is an aphid borne banana virus that stunts growth and inhibits fruit production. It is mostly an agricultural issue. Maui has more variety of unique banana cultivars than any other island. This is basically a containment project. We are doing targeted surveys looking where we know it is. It has not invaded East Maui to date, which is where the most unique bananas are. It isn't too bad on Molokai and they may be able to get rid of it. All the bananas from the infested area on Molokai have been removed. So far, there is no BBTV on Lanai as far as we know. There is a lot of backyard agriculture on Lanai. Teya: we are able to multitask and look for ivy gourd and LFA while surveying for BBTV. Adam: BBTV was first found on Maui in 2003 by Mach Fukada in Pukalani. Kihei is widely infested. BBTV is not a typical MISC target. Teya: it is not a target we would normally take on. The county was concerned and gave us specific funding for it. We agreed to do outreach. Adam did such a great job the first year that they continued to give us funding. We believe in the value of the project and we are holding the line.

LITTLE FIRE ANT: GOALS, STRATEGIES, STATUS & PLANS

- Adam: Darrell has been ramping up surveys at different locations. We put out 50 vials with peanut butter, per location. We are targeting high probability sites. Forest and Kim are doing the identifications. Fern: we should survey the new Safeway with all the palm plants. Adam: we want input on where to survey. Teya: we will be receiving some funding from DOT to do surveys at airports and harbors for a select list of species including LFA.

BRIEF UPDATES

- Teya: we no longer have access to Lanai to do field work. The new owner is not granting us access. We don't know why. Jay's project also hasn't been allowed access. His staff was actually local. We made great strides there on ivy gourd and fountain grass since we started concentrated work in 2004. It is very disappointing not to be able to continue our work.

Staffing

- Teya: since we last met we have lost a number of staff members: Matt Pratt, Mapu Kowalski, Abelardo Rojas Umana, Chad Smith, and Floyd Helekahi. Steph moved to data and at 50% FTE also. Because of our funding situation, especially the decrease in federal funding, we are not able to fill those positions. We are fortunate to have three temporary positions right now and we are hopeful we will see our funding improve. The \$100,000 from the watershed initiative is our only helicopter funding for this year.

PROPOSED 2014 MEETING DATES & TOPICS – REVISED 2/2014

February 21 – LFA/Biosecurity

April 25 – Miconia

June 20 – PR/Outreach

September 19 – Annual Review & Planning

December 5 – Vertebrates