

**MAUI INVASIVE SPECIES COMMITTEE
FINAL MEETING MINUTES
Thursday, August 8, 2019**

ATTENDING: Mike Ade, Kyle Alreck, Makale‘a Ane, Kai‘ena Bishaw, Allison Borell, Fern Duvall, Kerri Fay, James (Aut) Fleming, John Frostad, Bob Hobdy, Adam Knox, Marshall Loope, Brooke Mahnken, Woody Mallinson, Hanna Mounce, Teya Penniman, Adam Radford, Steph Radford, Elizabeth Speith, Forest Starr, Kim Starr, Lissa Strohecker, Abe Vandenberg. Attending remotely: Kari Bogner, John Sprague

The meeting was called to order at 9:05am by Fern Duvall (Chair). Introductions were made around the table. Minutes from the December 6, 2018 meeting were approved for posting on the MISC website.

Announcements

- Fern highlighted the need to focus on where MISC will have its facilities.

Funding

- Adam reviewed funding highlights for state and county funding. General funds include outreach and education. He noted the county has been more specific this year regarding which species should be prioritized, with particular emphasis on coqui frogs (\$2.5m) and little fire ants (\$700K). In the past, MISC has received \$895K for work on all species; this year’s “general” funding will be much less than that (update: \$125K). This will require more reliance on HISC funds for the broad suite of species MISC works on and to support MoMISC’s work. There is also additional funding (\$250K) for work on miconia for one year (which will require hiring additional staff) and DWS funding for invasive plants (\$250K).

Whither Goest MISC

- Fern asked about potential costs of relocating MISC. Makale‘a noted there could be some county funds associated with a potential move to Old Maui High School (update: not feasible). Discussion included issues related to infrastructure (water, electricity) and the process for looking into county sites. Makale‘a and Don Couch are key contacts at the County.
- Discussion topics included:
 - Other potential state or county sites
 - Desirability of having enough space for a potential conservation campus (~25 acres)
 - Desirability of moving everything at once vs. splitting operations and offices
 - Need for long-term commitment
 - Helicopter access (DLNR has a database with all LZs)

Rapid ‘Ōhi‘a Death

- MISC has been more proactive in searching for signs of rapid ‘ōhi‘a death (ROD). A map made by Brain Tucker, ROD Data Coordinator, was shown. It depicts locations where all vouchers have been collected for ROD. Mike Ade noted it doesn’t accurately capture

negative data or effort for Maui (places where a response occurred but it was obvious no collection was appropriate, e.g., damage caused by goats, senescence, drought, lack of irrigation, over-watering, etc.). Mike estimates he's spending about a day a week at present responding to reports. He has been working closely with DLNR, especially Lance De Silva.

- Mike described the response to the report of a suspect tree (ROD detected) in East Maui. He noted that the process is very time-consuming, including following proper sanitation protocols and spending time talking with residents. He said that the diagnostic smell (like incense, vanilla, or banana) was very obvious.
- Three community meetings are planned for Hāna, Nāhiku, and Hai'ikū to update communities about the find in East Maui.
- For sanitation protocol, the current approach is to use alcohol for cleaning – bleach has been determined to not be effective at killing the fungus. MISC should be sure to carry ROD brochures for outreach opportunity when following up on suspect trees. Also, take photos.
- Pu'u Kukui Watershed Preserve is raising 'ōhi'a seedlings and distributing them to residents.
- OISC is doing trail surveys. On Kaua'i, they are finding ROD in trash forests, not in the maps Jim Jacobi (USGS) 'ōhi'a maps which is the basis for where aerial surveys are being done. KISC brought on a ROD-specific person to help with outreach.
- General decline of 'ōhi'a was noted, along with paper bark trees. Forest Starr noted forests from Kailua to Ha'ikū are dying off from the ridgetops. The cause is not 100% clear.
- MISC's work on ROD is supported by funding from DWS and HISC. The County is also supporting TNC's ROD outreach efforts. Rob Hauff (DLNR) may have funding for ROD-specific activities.
- ROD administrative rule: HDOA is still allowing movement of 'ōhi'a from Maui but not to Maui. The permanent rule is in its final steps. Should be finalized soon.

Coqui frogs

Abe Vandenberg reviewed the status of coqui operations.

- Recent single-frog finds included one by Twin Falls and one in Hāna, which was a hitchhiker on a car.
- We've had a great crew, up to 13-14 staff, including interns. We lost a number of staff who were only here for the summer.
- Four different community groups are active now. We're looking to increase the number of staff who work as community liaisons. Citric acid distribution to the community has really ramped up. We're staged to get more 100g tanks for the community program.
- Kīhei nursery site is making good progress, thanks to pressure from HDOA.
- Some research needs include: acoustic monitoring; barrier research and efficacy; and pathology expertise.

Discussion re: morphological differences between Maui and Big Island coqui frogs, noting that in the past new, single-frog locations were most likely to be from Big Island, but that's shifted as coqui are spreading out of the Māliko area.

Fire Ants

Brooke Mahnken provided updates on the status of little fire ant sites on Maui.

- There are three active sites, three transitioning sites, and seven in a monitoring phase.
- Waihe'e: we haven't found there for a few years, but continue to survey.
- Lilikoi site in Ha'ikū associated with Huelo: no LFA there for about two years.
- Kīhana Nursery: finished a year-long survey, none found but there may be a confounding effect of independent treatment with Talstar by the nursery owner.
- Happy Valley: under treatment, have done three treatments of insect growth regulator (IGR), so still lots of ants. Also doing toxic treatments around house. Still no permission for one site, but working on it.
- Kapalua: a couple of hotspots – persistent one or more palm trees are still infested. We've treated with arborist help.
- Huelo: still some hot spots, last survey only one positive ID by the road where we stage from. It's hard to do a full survey.
- Ka'elekū: coming to the end of IGR treatment and already switched to toxic phase. It's challenging because of weather. Joe is spearheading this work. He knows the property and people and works to ensure that contaminated equipment isn't moved from the site before it's treated.
- Nāhiku: doing treatments where people live or there's the potential for vectoring. Date set for first helicopter operation = October 1st. Hope to do first aerial treatment of 150 acres. We're using the coqui sprayer to make large batches of gel bait and, per Cas's preference, will use beef liver powder. Will probably have to do 15 total trips to cover the area, flying at about 10 mph. Plan to do eight treatments, probably over 2-3 years. Will do baseline surveys in advance of the treatment. Makale'a noted that OED has a tech grant that could facilitate "export" of island-based technology.

Plants

Mike Ade provided updates on plant work.

- Mostly extinguishing seedbanks for existing targets.
- Staffing: Iban is now working with Leeward, so total crew size is down.
- Fountain grass – some at Pu'u o Kali; numbers have been down the last two visits. Went from 3,000 plants with half mature to no mature.
- Fern asked about sanitation protocols for the Mauna Kea occupation with thousands of people going up, especially regarding the abundance of mullein in the area. On Maui, it's still present in several locations. Elizabeth Speith can provide information about the exact location where there is a recalcitrant.
- Pampas grass: MISC has benefited from piggybacking onto trips by Mauna Kahalawai Watershed Partnership. Their help has been greatly appreciated. Ground efforts are also ongoing.

Outreach and Education

Lissa Strohecker outlined recent accomplishments:

- The LFA Prevention Partner Program is a two-part that engages hotel landscapers to conduct surveys for LFA and also implements an educational program based on community-based social marketing (CBSM) that addresses challenges people face in reporting suspect ants. The HTA-funded project used a series of surveys to gauge what

hotel landscapers know about LFA and learn about how landscape materials are moved around the island. LFA surveys were conducted at all major hotels and hotel-condominiums where permission was granted. Lissa developed posters showing commonly-found ant species and created a field guide and testing kits to give to program participants. The businesses were asked to “pledge” to do an annual survey of their site or to do surveys of incoming materials. MISC will send all cooperating businesses a reminder in the fall. People have been receptive. A post-survey will be done during October, during Spot-the-Ant month, the statewide LFA awareness campaign.

- MISC was also asked by SWCA to help with outreach to Hawai‘i Department of Transportation (HDOT). SWCA has the contract with HDOT for the Statewide Noxious Invasive Pest Program (SNIPP) grant, which also includes roadside surveys for LFA and miconia.
- Recent events included the MALP and Lawn & Garden Fair.
- After the Happy Valley LFA detection, MISC sent out mailers to the neighborhood. It’s possible to target specific mail routes. This is a good way to get outreach out to specific locations. We got some samples as a result.
- Through a connection with Master Gardeners, we did a series of presentations for 1st, 2nd, 4th, and 5th graders.
- The CBSM program for coqui community engagement stems from a need to address overall impacts and spread by residents. We need to get everybody involved. It starts with identifying neighborhoods, includes an online survey about whether they are involved in control activities, and if not, why not. It’s followed by a community meeting to help develop community ownership. We do a problem-solving exercise with them. Six months later there is a scheduled follow-up. The process and participation rates vary by group. They can sign up for coordinated spray weeks, help with vegetation reduction, etc. We loan out the sprayers and some groups have even rented a truck for spray operations. We also identify a community advocate or leader who will help push it out and we work with them to disseminate information, including showing their successes. We’re limited by equipment at present. Trainings focus on trying to make the desired behavior a community norm. For example, signs saying “Working together for a coqui-free neighborhood” are given to residents to highlight participation. In an area where one resident wasn’t cooperating, the residents all faced their participation signs towards that property. Banners are also used to notify residents that a spray week is coming up. We’ve had people say it’s the first time they’ve slept without earplugs in a long time.
- Hō‘ike Curriculum: this is Allison Borell’s last day of working part-time with MISC. All expressed much appreciation for her work with students in the classrooms.
- Ag in the Classroom: MISC had a booth that helped make seed balls for LHWRP. 120 kids came in. The focus was on water and how they can help protect the watershed by planting trees. All 2nd graders – about 1700 keiki – came through.
- MISC participated in the screening of the ROD movie and also participated in seed collection with Joe Imhoff and Maui Nui Botanical Garden. On O‘ahu, more people apparently know what ROD is than know what ‘ōhi‘a is.

Partner Updates

Pulama Lāna‘i: Kari reported they’ve been sending in suspect ROD samples to Dr. Keith’s lab in Hilo. The process has been very smooth. No ROD detections. ROD heliops for the island is

coming up soon. No LFA detections on the island. One coqui was caught at Kō‘ele but not at the Pulama Lāna‘i quarantine area. The main focus for plants has been on ivy gourd, fountain grass, and false ragweed, *Parthenium hysterophorus*, which is by the stables. No fruiting ivy gourd was detected this year, but still finding immatures from hotspots at the Mānele golf course. Mike and the MISC plant team helped hit hot spots. For fountain grass, they’ve been surveying known areas, finding mostly immature, but still a few mature along Side Road. They need to do a broader survey. Parthenium continues to decrease. They survey 7-10 days after good rains. Cholla cactus is a target by Kamalapau. Also working on cat’s claw in one area. MISC might be able to come help with plant work later in the year.

Hawai‘i Department of Agriculture: We’ve been going to Kīhei Gardens every month. The business has been putting lots of time and effort into habitat removal, which is very helpful.

National Park Service: Woody noted a lot of effort focused on pines on cliffs, with a lot of aerial work. Pete Vorhes has helped find pampas while working on the pines. They will treat it when they fly in October. Should be able to have an MOU with MISC again as the NISIMS data are done. They’re also focused on restoration work and have sampled some suspect ROD trees. They have hired three more biotechs for 4-year positions. Forest noted that the incipient species in the areas they’ve surveyed at the Park continue to decrease.

Mauna Kahalawai Watershed Partnership: Kai‘ena expressed appreciation for the collaboration with MISC on sprayball missions. He noted that Chris was trying to get a Right of Entry to get in on the ground above the Kahoma area. On whether they should take samples for ROD suspect trees, it was advised to just take GPS points and send them to Lance De Silva. Kai‘ena also asked about ability to use the sprayball and could they get SOPs for how to use it on their own. On data collection, Brooke offered to share information about using Survey123 for ArcGIS.

Status of HBT: Ensuing discussion on status of HBT and its possible use for pampas grass in West Maui. Some pampas can’t be treated with the sprayball. Brooke explained that glyphosate won’t work with HBT because it’s water soluble. There is some evidence that triclopyr could work, but it needs to be tested. Imazapyr works but it takes a long time to show symptoms. Regarding HBT for miconia, the label expired and James Leary / CTAHR had been on the label. It’s in process to shift the label to Nelson Paint Company, who is the manufacturer. This will allow much broader use of the tool, but there have to be some “barriers” to its use to be sure it’s used properly. MISC has been involved in the efforts to get it approved, working with Nelson Paint Company and HDOA on an SOP to find acceptable language. Hopefully, it will be approved soon.

Hawai‘i Department of Land and Natural Resources: Fern reported that work has focused on bocconia in Nākula Natural Area Reserve and Kahiknui Forest Reserve and on wattle in the Kanaio Forest Reserve. They are also hoping to add in properties near ‘Ahihi Kina‘u to fence in as part of the NAR plus perhaps some down to the ocean to manage as part of the coastal national historical coastline. Work has also focused on preparation for ROD response, meetings and outreach. They would like to get one of the posters they’ve made out into the community. Maiapilo is doing well, thanks to removal of goats by volunteer hunters. Fencing in the entire

‘Ahihi Kina‘u NAR has been a CIP request but always ends up low on the priority list.

Naio discussion: Is there a naio quarantine to prevent movement of naio thrips from infested islands to those islands that don't have the thrips? Not yet. Forest reported that they continue to do surveys of known naio plants every six months. Naio is naturalizing at Kanahā Beach Park from outplantings. Lāna‘i has a lot of naio, not so much for Maui. Kari said they can't monitor every location as there are thousands of naio. It's one of the key shrub species and would be devastating to lose it.

Bob Hobdy: Bob reported that they had three coqui last week in their area. He noted the upcoming East Maui Watershed Partnership's Wao Akua art show at the Hui No‘eau. The opening reception is September 13th. There will be an award this year for those who work in conservation. Bob is a juror this year.

Action Items:

- Potential expansion of ability to use space at Maui Forest Bird Recovery Project
- Set up subcommittee for interagency training (vertebrates, etc.)
- Train field staff about key things to look for with ROD
- Meet with DOFAW on coqui work

Next Meeting Dates:

- October 17th
- December 12th