

**MAUI INVASIVE SPECIES COMMITTEE
MEETING
FRIDAY, FEBRUARY 21, 2003
9:00 AM – 12:00 NOON**

ATTENDANCE: Kim Starr, Forest Starr, Kerri Fay, Mach Fukada, Mele Fong, Teya Penniman, Randy Bartlett, Erik Barnard, Mike Walker, Elizabeth Anderson, Steve Anderson, Nathan Varns, Lloyd Loope, Jeremy Gooding, Fern Duvall, Pat Bily, Elizabeth Sperth, Glenn Shishido, Chris Grasa, Jonathan Ciacci, David Pyle, Alex Michailidis

- The meeting was called to order by Randy Bartlett (ML&P/Chair pro tempore) at 9:10 AM
- The minutes from the December 6, 2002 meeting were approved. They will be posted on the website.

REVIEW OF ACTIONS ITEMS FROM DECEMBER 6 MEETING

GENERAL ITEMS

1. Schedule a position management meeting:
 - We are moving forward with an internal review of all MISC position descriptions, clarifying roles, and evaluating the adequacy of compensation.
2. Purchase yurts for office space at Piiholo site:
 - The RCUH purchase order has been approved. We are working on details such as yurt color, site location, etc. The yurts should be here in 3-4 weeks. The foundation materials are here and we expect to begin work on the foundations soon.
3. Follow-up on status of bio-control POs with PCSU:
 - We checked in with PCSU regarding the status of the MISC/County bio-control purchase order. Cliff Smith will be at PCSU next week and will hopefully get things rolling. We need to stay on top of this since the County account will be closing out at the end of March.
4. Follow-up with Eloise on providing labor for culturing bio-control fungus since we won't have a facility at Piiholo:
 - Eloise is not interested in continuing to grow the fungus even if she has a helper. We need to look outside HDOA. MISC is not doing any bio-control work here on the site right now. Mach noted that as far as HDOA is concerned, the work is done. The goals of the ISCs are not always compatible with bio-control. If all the trees are being controlled, there is no reservoir. Lloyd asked if there has been any evaluation of the effectiveness of the fungus. Mach replied that the only work has been in Hilo. It does seem to be preventing recruitment, but the results aren't conclusive. If our goal is removing all the flowering trees, it isn't going to work. Lloyd stated that he strongly disagrees with HDOA. The only answer to miconia is bio-control. There will be a bio-control meeting on April 8, 2003 --- details to be announced. Mach noted that there are positions in Eloise's office that are not funded.
 - Randy asked Mach to follow-up on the Big Island situation. Mach noted that we do need to get back out and look at what has happened here on Maui. Erik suggested that there is not much out there to look at after all the spraying that has been done recently. Steve indicated that the information we have is that the bio-control is attacking the seedlings. We aren't able to hit the seedlings via aerial spraying. Randy stated that he thought the idea was to get out of the core. Jeremy countered that with the quantity of air time we have, we need to do it all. On our last operation we ran out of targets. Teya asked if once the canopy is knocked back, seedling flush would provide an opportunity for bio-control. Jeremy replied that in about a year and a half it will look like we lost ground. Pat asked about release sites in Nahiku and elsewhere. Erik replied that we have done aerial releases in Nahiku. Mach added that Eloise is planning on retiring in three years.

- Forest asked how many sites we really need for this agent. Lloyd replied that we don't know the answers. Mach noted that Eloise needs to keep the strain going as long as the Tahiti project continues. The goals of eradication and bio-control are different. Jeremy suggested that the bio-control does help us slow things down. Steve added that at this point we don't even have a record of all the releases in one place. Teya concluded that it sounds like we are due for a miconia strategy meeting. Mike W. noted that MISC did have a meeting with Glenn and got information on his sites.
5. Ask Earl to have Katie Swift attend the regular MISC meetings:
 - She will try to attend meetings whenever possible.

PR/EDUCATION ITEMS

1. The existing bulbul flyer needs to be updated --- phone numbers are incorrect:
 - Tina requested assistance with this.
2. Attend Koolau hunter volunteer group meetings and talk to them about miconia:
 - We haven't gotten to this yet. We need contact information. Fern has contact information.
3. See if the Hunter Education program is willing to include information on miconia in the course:
 - We haven't gotten to this yet. We need contact information. Fern has contact information.
4. Include the Maui Outdoor Circle in frog related PR efforts:
 - We will include the Outdoor Circle. There hasn't been any recent activity.
5. Consider holding a public meeting at Eddie Tam with the community to discuss the veiled chameleon issue:
 - We have decided against holding a public meeting. It is better to deal one-on-one with the local residents.

VERTEBRATES ITEMS

1. Finish the Vertebrate Operations position description and proceed with hiring:
 - We are in the process of reviewing the applications. We have a fairly small applicant pool. We hope to schedule interviews next week.
2. Compile a review summary of the different agency's roles, what legislation exists, what the punishments are, etc. for vertebrate issues:
 - We haven't formally compiled the summary yet. We have received helpful input from HDOA.
3. Develop a strategic plan for chameleons:
 - The chameleon plan is an ongoing process and we are adapting as we go. After every event, we plan again strategically.

PLANTS ITEMS

1. Find a way to get rid of the pampas grass in the Quonset hut at NIFTAL:
 - The dump will only accept one truck-load of pampas per day. The burning in place option was not OK with the University. We are still working on this.
2. Send a plant results summary out via email before the regular MISC meetings:
 - We are behind on data entry at the moment.
3. Get together with Sierra Club to set up another service trip:
 - Nothing additional has been scheduled to date.

4. Check with Hank re additional locations for *Stapelia nobilis gigantea* (Randy):
 - Randy did check with Hank. Hank knows of a site at Ukumehame at 756 meters elevation. There are fruiting plants with wind-dispersed seeds. Randy also obtained information from Steve Perlman regarding a site on lower Lihau slopes and Fern knows of a location along Lahaina Pali trail. Forest noted that he and Kim are seeing it elsewhere. They will get the information to Mike Walker. Fern added that Hank says it is pretty widespread on West Maui in steep, open areas with populations as big as the areas Creighton dug out. It appears to be much more widely spread than we originally thought.
5. Contact Fern regarding addressing endangered birds in the miconia EA (Jeremy):
 - The current focus is entirely on the front-line operation. The EA is on the back burner.

NEW BUSINESS

LEGISLATIVE UPDATE (R. Bartlett)

- There are a ton of bills out there right now. I am trying to stay on top of them along with Mark Fox, Christy, and Steve Lohse. The number of bills is indicative of the interest in the problem at the Legislature. In the long run it will come down to whatever funding is left over that they can give us. For instance, there is a new bill proposing a motor vehicle tax on high end vehicles with the money going into the NARS fund. Most of the current NARS funds are from the conveyance tax.
- We want to end up at least protecting what we currently have. There is good support from the environmental committees in both the House and Senate. If you have the time to send in testimony, as a private citizen, please do. Pat asked if there was a bill for improving HDOA enforcement. Randy replied that there may be, but he hasn't followed it. Fern noted that there are also bills to merge parts of HDOA with DLNR.
- Teya thanked Randy for all the work he has been doing in this area!

BUDGET/FUNDING/REPORTS STATUS

MISC Budget Status (E. Anderson)

- We have just about finished spending down this year's NFWF funding and our current County account has just a little bit of supply money left. Both accounts will be closing out at the end of March. Our payroll and expenses will primarily be coming out of the DLNR/Forest Service account until the new County accounts come on-line.
- Our Year-1 HCF money is also finished. The Year-2 HCF accounts came on-line just in time, at the beginning of February. MISC's new account for our Data Specialist is for \$28,000 and the new MoMISC Field Technician account is for \$21,000.
- The Hana Miconia Crew account is closed out and the crew is currently being paid by Jeremy's Exotic Plant Management Team account.

County Funding Update

- Teya reported that we have asked for \$200,000 from the Department of Water Supply for the upcoming year. Teya and Randy talked to Ellen Kraftsow and asked about increasing the amount. We weren't able to get an increase for next year, but we have been awarded an extra \$50,000 for this cycle.
- Teya noted that a lot of our financing for the upcoming year will depend on what comes down from the Legislature. There are uncertainties at present.
- Nathan mentioned that the agreement with between Tri-Isle and RCUH for the current County OED grant is in the University's court.

- Alex asked about lag times in getting County accounts set up with PCSU/RCUH. Elizabeth responded that we typically aren't able to access County funds until eight or nine months into the year in which they are allocated. There is always a substantial time off-set and you will generally be spending funds well into the next fiscal year. County contracts need to be extended when this happens.
- Teya thanked Nathan and Tri-Isle for setting up a meeting with Bob Carroll. We hope to at least hold the current level of County funding. Without the County funds we would be in trouble.

Federal Funding/Reports Update – Haleakala National Park (Jeremy Gooding)

- Jeremy indicated that there are a lot of funds being expended. The NPS is paying for the Hana crew, the expanding EPMT crew, the mainland crew from Washington, and the helicopter contract. We are spending funds we don't really have yet. We haven't spent any of the NRPP funding yet.
- Don Reeser sent out a letter to all parties potentially interested in the miconia EA asking for their support since the EA is not done yet.

PR/EDUCATION STATUS REPORT (Mele Fong; MISC)

Community Outreach/Meetings

- Maui's Keiki Zoo reaches about 8,000 families a year. Mele met the Director, Wanda Riggs, to discuss opportunities for working together. If the zoo obtains funding, they plan to build a new exhibit building. MISC could install a permanent exhibit on invasives at the zoo.
- Mele is part of the planning committee for the Earth Day celebration to be held on April 19 at the Maui Nui Botanical Gardens. Mele will do a PSA for the event.
- MISC is working with MALP to institute an annual award called "Malama ia ka Aina Award" (caring for the land) to recognize landscape professionals who are taking concrete steps to address invasive plants and animals. Mele outlined details about the award, including timing and the proposed criteria. Forest questioned whether anyone could meet all criteria and asked who will judge. Mele replied that applicants don't have to meet all the criteria. If anyone is interested in being a judge, let us know. Steve asked if we are committing to awarding this regardless of how well these people do. The award committee will have to determine that. Mike W. suggested that maybe we should have a minimum criteria.
- Children have been helpful in telling us about veiled chameleons in their neighborhood. We're developing an idea to reinforce their enthusiasm by designing a "Jr. MISC" badge they can wear to school. Mele circulated a mock-up badge.
- Community Fair season is starting. MISC will have an information booth at the Haiku Hoolaulea and Flower Festival on March 15, the Hana Taro Festival on March 29, Earth Day on April 19, and the Ulupalakua Thing on April 26.

Media

- A thank-you letter to Makawao residents who gave us permission to search for veiled chameleons on their properties in December was printed in the Maui News on January 3.
- The Maui News interviewed Erik and printed an article on January 6 ("Effort Could Send Coqui Frogs Away") in the Check-It-Out section. The article also was published in the Maui Weekly Wrap on January 14.
- An article, "Maui's Alien Invasion," appeared in *Maui No Ka Oi* Magazine's winter 2003 edition. The article focused on efforts by MISC and EPMT to fight miconia. There also was a link to the article online at www.mauimagazine.net/issues.htm. We worked with journalist Michael Stein last September on material for the article. Thanks to Pat Bily for taking Mr. Stein into Waikamoi Preserve.

- Baltimore Sun reporter Jean Marbela was on Maui February 7 to do a story on the poouli and was also interested in the coqui frogs. Mele took Jean to talk to Fritz and Thorunn Bartheld about their experiences with coqui and to Howard's Nursery.
- Mele taped a 5-minute PSA on veiled chameleons that was broadcast on cable channel 53 on four occasions in January. Mele taped a second 5-minute PSA on veiled chameleons to be broadcast on cable channel 53 in February and March. Mele showed the PSA to the group. Alex questioned whether it is a good idea to tell people to catch them and asked if they bite. Mele responded that they won't hurt people.

Products

- Mele detailed development of the following products: MISC letterhead; phone call record/response sheets to track public calls; new flyers and permission letters for target plant species with consistent format and style; summaries about our target plant and animal species for internal use; "Pest Alerts" and landowner letters related to veiled chameleons; crew identification badges; and a miconia flyer outlining what the public can do to control miconia on their property.
- Fern noted that all the MISC agencies can be subject to public records requests under the Freedom of Information Act. We need to make sure we are factual and clear about what we are stating. Whatever we say is out there with the public. Randy added that it does us no good to put out misinformation. We need our efforts to be based on science and facts.
- Mele described possibilities for developing three permanent exhibits on invasives: 1) at the Maui Nui Botanical Gardens (plants); 2) at the Keiki Zoo (animals); and 3) at the airport (general invasive species). Fern suggested considering one for the ninth floor of the County building. Alex added that he is interested in the airport idea. Space is limited so perhaps we can collaborate on an exhibit that combines MISC and the two watershed partnerships.
- In December, Mele explored opportunities for video production at Akaku and Maui Community College. While at the TV studio at MCC, Mele taped a segment on veiled chameleons, which aired in December on cable channel 54. In February, Mele took an Akaku Introduction to TV Production.
- On January 24, a MISC meeting was held to discuss public relations priorities. Participants included all MISC staff, Randy, Christy, Fern, Pat, Lloyd, Phillip, and Creighton. We identified priority audiences, discussed what we want them to do, developed messages, and brainstormed a MISC slogan.
- In response to discussions at a previous All-ISC meeting, Mele drafted questions to help guide an ISC discussion scheduled for February 24th. Mele also worked with Philip Thomas to help prepare for this meeting.
- Pat added, on a PR-related note, that the Hawaii Nature Center has pictures on display from "Remains of a Rainbow" until March 27.

MOMISC UPDATE (Tina Lau; TNCH-Molokai)

- Tina was not able to make it over for the meeting today, but she did send an update.
- Lori has been leading the Hoikaika volunteer group, made up of four to eight workers, for one or two days each month. Over the last two months, she spent three days with them. Lori obtained helicopter certification on Maui for external loads and water ditching in early February.
- Two days were spent on-the-ground controlling outlying populations of cat's claw. We are preparing for a cat's claw aerial spray operation in April with Windward Aviation. We will be using Garlon 4. We consulted with James Anderson and Philip Motooka in preparation.

- One day was spent treating Barbados gooseberry with Garlon 4. Three-quarters of the population has been treated. One day was also spent re-treating an arundo population using the cut-stump method.
- Creighton Low headed up one day of New Zealand flax control by the State crew. All of the flax populations on Forest Reserve land have been treated with Round-up Pro.
- There has been no additional information on the bulbul report. We are still attempting to get a photo of the parrot-like bird that remains in Kaunakakai town in order to identify and eventually trap it. MoMISC plans to take on a similar role to MISC in taking and investigating reports of invasive vertebrates. We are concerned with how to best deal with rabbits. Please contact Tina regarding any training for rabbit or bird surveys.
- Fern noted that there is a land access issue related to the bulbul sighting. The people that reported the bird haven't granted access. They were told to shoot the bird and bring it in. They haven't done that. Folks who are going to CGAPS should talk to HDOA. It is time for some follow-up. We should put in a request to HDOA through CGAPS.
- Thanks to Teya and Christy for attending the last MoMISC meeting on January 15. The next meeting will be on April 9, 2003 from 10 AM to 11:30 AM at the Plant Materials Center.

LaMISC UPDATE

- Glenn mentioned that Creighton has been going over to Lanai bimonthly to yank out the fountain grass. We put together a poster to educate hunters about cleaning their gear before they go out. The poster will be distributed on Lanai. We need to target hunters coming over from the Big Island. Bob Yonahara is following up on the golf course population of fountain grass on Lanai. Fern added that because fountain grass promotes fires, it would be hazardous to the watershed. Randy suggested that maybe we can get assistance from the watershed coordinator on Lanai. Randy will call and ask him to check on it for us.
- Glenn brought up the fact that Lanai doesn't really have a committee. Forest noted that we need to survey Lanai. Mach added that he hasn't been able to survey Molokai or Lanai for anything. There is no travel money. Randy suggested that MISC might be able to help by providing coupons. Forest concluded that we need to make sure the *coccinia* doesn't fall through the cracks.

FACILITIES (Teya Penniman, Erik Barnard)

- MISC is continuing to prepare for moving to the CTAHR Haleakala Field Station on Piiholo Rd. Most of our field supplies have been moved up to Piiholo. Alex asked how often we will be conducting heliops out of the Piiholo base-yard. Erik replied that most of our miconia operations are out of Hana now. Later in the year we will conduct some pampas operations out of Piiholo, but nothing in the near future.

FIELD WORK

See the attached Activity Summary for an overview of the MISC crew's schedule since the last meeting.

VERTEBRATE CONTROL UPDATES (F. Duvall; DOFAW)

Snakes

- On February 18th, Creighton received a call regarding a snakeskin found at Kaanapali Golf course in the cart garage. He went out and retrieved the skin. It is not clear what type of snake it is. The night of the 18th we did a search with 11 people. The search went well and the golf course staff was very cooperative. We determined there were many places a snake could be in the area so we asked HDOA to send over a dog. They sent over a handler and dog. The dog did detect a snake along the wall in the garage. We determined that the snake had been there, but it wasn't in the building any longer. We will go tonight and do an exterior search.

- Domingo was unaware of what sort of treatment golf clubs get when they come to the islands. He was not sure if they are scrutinized. A snake could easily get in that way. This might be a mode of transport that we need to look at. The golf course is sensitive about the publicity. Evidently they had employees not wanting to show up to work in the dark because of the snake.
- Lloyd indicated that Fern should be the one following up on snake reports because he knows the most. When MISC gets a snake call, they should immediately call Fern. Fern continued that for snakes, they drop everything and go. That is how the State handles it. The protocol is that Fern will always be notified when there is a snake report.
- Forest asked at what point we give up. Fern responded that it is a very difficult call to make. Not finding a snake when you are looking for it doesn't mean there isn't a snake there. The dog has the same reaction for snakes or fruit. If we thought the snake was a climbing snake, the dog wouldn't be able to respond. We are going back from 6:30 to 8:30 PM this evening.
- Mele mentioned that the number we gave out in the paper was the HDOA pest line. MISC's number is in the paper too. If someone sees a snake and doesn't know which number to call, they should call the police. The police have the "264-4564" snake pager number. Creighton will respond during the day. The new MISC vertebrate person will be carrying a pager and that will resolve issue. In the meantime, MISC's answering machine has Teya's cell phone number for live animal reports. Glenn noted that Creighton doesn't have a cell phone. If Creighton can't be reached, call Glenn.
- Pat asked about the guy who carried the snake on the plane in his pocket. There may be a black market trade with these animals. Fern added that, for whatever reason, most snakes are carried on people rather than in the mail. The guy did put the snake on his declaration form. The stewardess questioned him. It was a rosy boa. There also was a snake dropped off recently in the amnesty box.

Vertebrate Subcommittee Meeting (F. Duvall)

- We had a small Vertebrate Subcommittee meeting on February 7th. Mindy came over for the meeting. A list of action items from the meeting has been passed out to everyone. MISC is moving forward with hiring a Vertebrate Operations Supervisor.
- It is a high priority to complete the parrot surveys and get the details to Trevor for a contract. Control will most likely be mauka of the highway rather than below. We did get permission from EMI to survey on their ditch road system. Now that the initial surveys are complete, we are trying to determine where the birds are actually going.
- Mike Walker showed a map detailing station locations and numbers of birds seen. The data from stations four, five, and six probably overlap. We estimate there were ~90 birds within the survey. They are first seen in the release area and then they fly up the valley. We think we know where they are crossing the road. Fern asked if anyone saw the birds land. Erik responded that he saw the birds above the highway land and hang out in the tree-tops for about an hour before taking off and flying west toward Twin Falls.
- Alex mentioned that he saw approximately 50 conures from the helicopter at 3 PM yesterday. Forest added that they saw footage on the travel channel of a colony established in Kona. Fern suggested they could be mitred or Patagonian conures in Kona.

Molluccan Cockatoos at Waikapu (F. Duvall)

- Four cockatoos have been removed from wild. There are possibly still two more out there, farther to the north. The person who owns the property where they were seen last has been hard to reach. The birds that were removed are at Bishop Museum. There will be an evaluation of what foods they were eating. Steve asked if it was possible to age the birds. Fern replied that two were young and two were mature. One of the mature birds had half of one leg missing. All four birds were un-banded. Forest noted that there was a one-legged cockatoo reported by Anna Palomino.

Saffron Finches

- One dead male saffron finch was turned in from Keopuolani Park. The bird was banded. This bird certainly had been in captivity, which means it most likely did not migrate here from the Big Island. We need to do a survey in that area based on this find.

Frogs (E. Barnard)

- We have responded for several nights to a location in Maui Meadows, but we haven't caught anything. We have had several calls on new locations that we will follow up on. We want to do our own citric acid trials when the new vertebrate person comes on board. Mach indicated that HDOA will be getting a sprayer that will be available for loan to MISC, homeowners, etc.
- Fern commented that the caffeine is still tied up with legal issues. It really looks like citric will be the way to go. It is already in use so there aren't the restrictions. There are phytotoxicity issues. The recommended concentration is 15%.
- Randy indicated that if you get new frog reports we shouldn't send people out. We don't have the funding. Ask people to call the Legislature and/or County Council and lobby for funding.

Veiled Chameleons in Makawao (F. Duvall)

- There have been a total of 21 veiled chameleons captured/turned in. Twenty of these are from Makawao and there is the original one from West Maui. They are being found in a small area along one drainage and may have all originated from a single location. Questions have come up regarding the best way to handle this situation. Should we be giving priority to searches in the core or the periphery? In this case the core is important. If people are moving them around, they are probably getting them from the core where they are easy to catch. Animals and plants continue to be very different issues. There are complex considerations with timeliness, time of day, etc. that make dealing with animals more problematic.
- There were more chameleons found during the second Makawao survey than during the first one. This may be the result of increasing skill level in the searchers. We are finding a lot of Jackson's. Mele has been doing a great job with the homeowners and getting permissions. The next step is to return to the core at least monthly and do more searches until we reach a point of diminishing returns. We would still like to try to establish the perimeter and continue to follow up on non-core reports.
- FWS is paying for stomach-content analysis on the veiled and the Jackson's we caught. We did get some bad publicity regarding killing the Jackson's. There were threats of legal action towards the agencies by "Animal Rights Hawaii." We won't be collecting any more Jackson's. It was important to get information on what the Jackson's and veiled eat, to understand the ecology of these two populations.
- Mach noted that there was supposedly a report from Iao. Teya indicated that every time there is publicity, we get a lot of calls. We always check them out even though most of them will be Jackson's.
- We went back to the West Maui site and did an evening survey. We did not locate any additional chameleons, but the terrain is difficult. We do need to plan a daytime survey in the area.
- We also had a report from a Nahiku area person that had a large chameleon drop out of a tree. The animal was captured and then later released along the lower Hanawai Trail. It may have been a giant two-horned chameleon (*Bradypodion*). It was two feet long.
- Teya thanked Creighton, Fern, and Domingo for all their support and assistance and gave kudos to the MISC staff for adapting their schedules and going out at odd hours to conduct chameleon searches.

Other Vertebrates (Fern Duvall)

- There have been four reports of a cougar in the Olinda/Hanamu Road area. The reports are of a large cat-like creature. There were three reports in January and one recently. There have been sightings in the past from the golf course in Makena (three sightings since 1996) and three past sightings from the lower Maliko Gulch area.

PLANT CONTROL UPDATES (Erik Barnard)

- We are backlogged on data right now. Mike's time has been tied up with the miconia operation and bird surveys. We started a new log two months ago to help track how we spend our time. Out of our total field hours for the past two months, we spent 40% of our time on miconia, 16% on ivy gourd, 15% on pampas grass, 9% on chameleons, 9% on fountain grass, 7% on birds, 2% on arundo, and 1% or less each on frogs, rubber vine, and other plants.

Miconia (Jeremy)

- Jeremy informed the group that the NPS Helicopter contract became a reality in February. We flew over fifty hours in one week (251 person hours) and covered 11,000 acres. We controlled 4,600 plants of which 141 were fruiting. With that kind of flight time we flew most known areas. We are not doing residential areas, but we did fly significantly in the core. We won't always be able to work from the periphery in. Once we cover an area, we can't go back for a few weeks. If we save the core until the end, there would be a large brown spot above Hana. Doing the core in stages is better. The helicopter operation was pretty smooth. We over-taxed our personnel that first week. We will be flying again next week, Tuesday through Thursday, and then again in four weeks. Pat asked if we are spraying Garlon 3 or 4. Jeremy responded that they are mostly spraying Garlon 3.
- There is a mainland EPMT crew from North Cascades and Olympic National Parks on a detail here to work on miconia. Yesterday they merged with the existing Hana miconia crew. Glenn and Creighton have been very supportive and helpful during the merger. Our current ground target is to clean out Hana Ranch. The MISC crew is still focusing on the Nahiku area. The Hana crew has been very receptive to the modifications in strategy and methods. We will be switching to 25% solution with crop oil and we will go to thin-line basal as the primary technique. They are excited about working with other crews and they will be covering more ground. They have shown interest in additional data collection and are excited about learning GIS/GPS. They have all been issued dedicated gear and will be following our decontamination protocol. MISC has been a great help with the purchasing and gear-up for the transition. We are making progress. The Hana crew deserves a lot of recognition for their willingness to take on a new strategy and learn new skills. Glenn commented that Jeremy did a great job of explaining the strategy to them.
- We will have three new EPMT folks starting on Monday to work with Bessie. Kerri Fay has been hired as the crew leader and Darryl Tau'a and Dave Quisenberry have been hired as additional field crew workers. The new crew will mostly be doing miconia work.
- We are working with Glenn to get official approval for expanding the existing base-yard. We plan to centralize all the miconia crews in one location. We will need to expand the site and get water and electric.
- Fern noted that the MISC crew found two miconia plants in the area where we are finding conures. There is overlap between the conures and miconia. We don't want fruiting miconia trees where there are conures. Lloyd continued that we do have evidence that viable miconia seeds will pass through a conure. Erik indicated that during a recent aerial survey we found a large tree in the Twin Falls area. We think the tree has fruited before. We didn't find any seedlings in the area. Pat noted that last month he revisited the core area near there and it was pretty clean. The last trees seeded in 1994-95. In December 2002 he still found seedlings that had just come up that year. It is possible there is a tree in a gulch close-by, but more likely this is residual from the original core eight years ago. His searches are limited to areas where he has rapport with the landowners. Pat has talked with MISC regarding getting help with permissions. There is a lot of undeveloped land and thick vegetation in the area that will make it difficult to survey from the air or ground. We need to really stress that with conures in the area this should be a high priority.

- Fern added that the conures need to become more of an issue for the EMWP. We should consider asking Alex's crew to help. Alex replied that he would have a hard time convincing the partners that the crew should be dealing with birds rather than building fence. Fern countered that the birds can undo all the miconia work that has been done. The birds must be taken out. They can change the structure of the watershed. Miconia isn't the only issue. They could spread *Ficus* and other species that are problems for the watershed.
- Erik mentioned that we still need to have a discussion with David Duffy regarding IACUC as related to the conure issue. IACUC is shifting from a research focus to encompass management activities and as a result we may fall under their review process. Fern asked in what form David needs support on this. We need specifics on who to write to.
- Teya suggested that it is time we get together a miconia subcommittee meeting. We will aim for mid-May.

Pampas Grass

- We still have permission issues in Kula we need to resolve. We also need to follow-up on local stores, websites, etc. selling seeds.

Fountain Grass

- We are in a maintenance mode with fountain grass. We are fairly confident we know the distribution.

Ivy Gourd

- We've talked with Mach about moving away from bio-control on the golf course. We are looking at going ahead and dealing with control on that population.

Giant Spanish Reed

- Control is continuing to be difficult. We may shift our focus to dealing primarily with wetlands.

Other Species

- Mach announced that he has found mullein (*Verbascum thapsus*) in Kula Glenn. It is flowering. Lloyd commented that this is a big deal. We know what it can do from what has happened on Mauna Kea. We need to look at adding this as a MISC target. We bragged in the past that we eradicated it. Jeremy suggested that it should probably be an EPMT target with MISC doing the public relations and education. It is a real threat to the National Park. Randy indicated that it should become a MISC PR priority and EPMT can deal with it in the field. Lloyd continued that there was a 1990 story in the Maui News on mullein. The lady that was growing it has stopped. It hasn't been seen on Maui in ten years. There was one plant found in the park in 1986.
- Randy suggested that this summer it will be time for a total review workshop for MISC. We need to look at adding things to our targets and categorize some species for PR/education but not necessarily for control. There is a lot we can do with the other species. Lloyd reminded the group that the one million dollars in FWS funding for eradicable species will be competitive.
- Teya mentioned that she would like to work on educating our staff better regarding other species. She is interested in ideas for training, field trips, etc. Alex added that he is interested in doing that with his crew as well. We should work together.
- Alex suggested that we need an "Adopt an Invasive Species Program" to get businesses involved in killing a known location of a specific species.
- Forest noted that the weed of the month is *Salvinia*. It has gotten a lot of press lately.

- Mach added that the banana bunchy top virus was found in Pukalani the week before Christmas. HDOA hopes that it is localized in Pukalani and is looking at voluntary control rather than eradication. Plants have been removed from about a dozen sites already. Forest indicated that this should be a totally winnable battle. Mach continued that the problem is we need people to go out house-to-house and look at every banana tree in Pukalani. Access would be needed. It has already been moved from Pukalani to Hookipa. Some people are really attached to their banana trees. HDOA didn't get a press release out until February. Randy asked if Mach was requesting help from MISC. Mach responded that he doesn't think HDOA would accept the help. Randy continued that if HDOA wanted our assistance, we would consider giving it to them. Mach suggested that when our crews are out doing other things, they should keep an eye out for weird-looking banana plants and report any they see. Shannon asked if an outside group could get support from HDOA if they wanted to do something about it. Mach countered that there are issues dealing with liability.

Other Business

- Teya mentioned that she is trying to get clarity on MISC's mission, vision, and values. She will send out an email with draft concepts and would like to work on refining it at a future meeting.
- Alex announced that he is looking for Public Relations/Administrative person. The position closes on March 14. It is posted on Career Giant.

Next Meeting Date/Time: Rescheduled to Friday, April 11, 2003 from 9AM to Noon

MISC ACTIVITY SCHEDULE December 9, 2002 to February 21, 2003

- 12/9 Miconia: Upper Nahiku (Mike A., Sam, Russ, Jin-wah, & Shannon)
Molluccan Cockatoos: Waikapu (Erik, Fern, Reny, Creighton, & John)
- 12/10 Miconia: Upper Nahiku (Mike A., Sam, Russ, Jin-wah, & Shannon)
Ivy Gourd: Lahaina (Jamie)
- 12/11 Miconia: Upper Nahiku (Mike A., Sam, Russ, Jin-wah, & Shannon)
Ivy Gourd: Lahaina & Kihei (Jamie)
- 12/12 Miconia: Upper Nahiku (Mike A., Sam, Russ, Jin-wah, & Shannon)
- 12/13 Miconia: Lower Nahiku (Mike A., Sam, & Shannon)
Miconia: Helicopter Recon (Teya, Erik, Elizabeth, Russ, & Jin-wah)

- 12/16 Cleaning Piiholo (Sam, Russ, Jin-wah, & Shannon)
- 12/17 Cleaning Piiholo (Mike A., Sam, Russ, Jin-wah, & Shannon)
- 12/18 Cleaning Piiholo (Mike A., Sam, Russ, Jin-wah, & Shannon)
- 12/19 Painting Piiholo (Mike A., Sam, Russ, Jin-wah, & Shannon)
- 12/20 Miconia: Helicopter Spray Operation (Erik, Sam, Russ, Jin-wah, & Shannon)

- 12/23 Miconia: Helicopter Recon (Erik, Mike A., Jin-wah, & Shannon)
Painting Piiholo (Sam, Jin-wah, & Shannon)
- 12/24 Painting Piiholo (Sam, Jin-wah, & Shannon)
- 12/25 Christmas Holiday
- 12/26 Painting Piiholo (Russ & Jin-wah)
- 12/27 Painting Piiholo (Russ & Jin-wah)

- 12/30 Moving Field Equipment to Piiholo (Sam, Russ, Jin-wah, & Shannon)
Caffeine Video Editing (Russ)
- 12/31 Moving Field Equipment to Piiholo (Sam, Jin-wah, & Shannon)
- 1/1 New Year's Day Holiday
- 1/2 Moving Field Equipment to Piiholo (Mike A., Sam, Russ, Jin-wah, & Shannon)
- 1/3 Moving Field Equipment to Piiholo (Mike A., Sam, Russ, Jin-wah, & Shannon)

- 1/6 Fountain Grass: Kahului (Mike A., Sam, Russ, Jin-wah, & Shannon)
- 1/7 Pampas Grass: Kula (Mike A., Sam, Russ, Jin-wah, & Shannon)
- 1/8 Pampas Grass: Kula (Mike A., Sam, Russ, Jin-wah, & Shannon)
Veiled Chameleon Survey: Makawao
- 1/9 Pampas Grass: Kula (Mike A., Sam, Russ, Jin-wah, Shannon, & Bessie)
- 1/10 Ivy Gourd: Kahului (Sam, Russ, Jin-wah, & Bessie)
- 1/13 Miconia: Lower Nahiku (Mike A., Sam, Russ, Jin-wah, & Shannon)
- 1/14 Miconia: Lower Nahiku (Mike A., Russ, Jin-wah, & Shannon)
- 1/15 Miconia: Lower Nahiku (Mike A., Sam, Russ, Jin-wah, & Shannon)
- 1/16 Miconia: Lower Nahiku (Mike A., Sam, Russ, Jin-wah, & Shannon)
- 1/17 Miconia: Lower Nahiku (Mike A., Sam, Russ, & Jin-wah)
- 1/20 Martin Luther King Junior Holiday
- 1/21 Invasive Bird Survey Training (Erik, Mike W., Mike A., Sam, Russ, Jin-wah, Shannon, Fern, & Creighton)
- 1/22 Mitred Conure Survey: Huelo (Erik, Mike W., Mike A., Sam, Russ, Jin-wah, Shannon, Fern, & Creighton)
Miconia: Huelo (Mike A., Sam, & Jin-wah)
Ivy Gourd: Kihei (Russ & Shannon)
- 1/23 Ivy Gourd: Kihei (Mike A., Russ, Jin-wah, & Shannon)
Mitred Conure Survey: Huelo (Erik, Mike A., Sam, Russ, Jin-wah, Fern, & Creighton)
- 1/24 Ivy Gourd: Kihei (Jin-wah & Shannon)
- 1/27 Pampas Grass: Kula (Mike A., Sam, Russ, Jin-wah, & Shannon)
Veiled Chameleon Search: Makawao (Teya, Erik, Mele, Mike A., Sam, Russ, Jin-wah, Shannon, Fern, Creighton, Paige, Domingo, Mindy, & Earl)
- 1/28 Pampas Grass: Kula (Mike A., Sam, Russ, Jin-wah, & Shannon)
Veiled Chameleon Search: Makawao (Teya, Erik, Mele, Mike A., Sam, Russ, Shannon, Fern, Creighton, Domingo, & Earl)
Miconia: Hana (Jin-wah)
- 1/29 Ivy Gourd: Lahaina (Mike A. & Shannon)
Pampas Grass: Haiku (Mike A. & Shannon)
Fountain Grass: Helicopter Recon, Kanaio (Erik, Mike W., Sam, & Russ, w/ Nat. Guard)
Miconia: Hana (Jin-wah)
- 1/30 Fountain Grass: Ground Sweeps, Kanaio (Mike W. Mike A., Sam, & Shannon, w/ Nat. Guard)
Miconia: Hana (Jin-wah)
- 1/31 Out-planting w/ National Guard, Kanaio (Sam, Russ, & Shannon)
Miconia: Hana (Jin-wah)
- 2/3 Miconia: Helispray Support in Hana (Erik, Russ, & Mike W.)
Pampas Grass: Haiku (Mike A., Sam, Jin-wah, & Shannon)
Veiled Chameleons: Makawao (Mike A., Sam, Jin-wah, & Shannon)
- 2/4 Miconia: Helispray Support in Hana (Erik, Russ, & Mike W.)
Pampas Grass: Haiku (Mike A., Sam, Jin-wah, & Shannon)
Veiled Chameleons: Makawao/Pukalani (Mike A., Sam, Jin-wah, & Shannon)
Frogs: Kihei (Mike A., Sam, Jin-wah, & Shannon)
- 2/5 Miconia: Helispray Support in Hana (Russ & Mike W.)
Ivy Gourd: Kapalua (Mike A., Sam, Jin-wah, & Shannon)
Veiled Chameleon Search: Kaanapali (Teya, Erik, Mike A., Sam, Jin-wah, Shannon, & cooperators)
- 2/6 Miconia: Helispray Support in Hana (Russ & Mike W.)
Ivy Gourd: Kapalua (Mike A., Sam, Jin-wah, & Shannon)
- 2/7 Miconia: Helispray Support in Hana (Russ & Mike W.)
Ivy Gourd: Kapalua (Mike A., Sam, Jin-wah, & Shannon)

- 2/10 Ivy Gourd: Kapalua/Lahaina (Mike A., Sam, Russ, Jin-wah, & Shannon)
- 2/11 Staff Meeting (all)
- Pampas Grass: Olinda (Mike A., Sam, Russ, Jin-wah, & Shannon)
- 2/12 Ivy Gourd: Kihei (Mike A., Sam, Russ, Jin-wah, Shannon, & Bessie)
- Arundo: Waikapu (Mike A. & Shannon)
- Rubber Vine: Wailuku (Mike A. & Shannon)
- 2/13 Arundo: Waikapu (Mike A., Sam, Russ, Jin-wah, Shannon, & Bessie)
- Mitred Conure Survey: Huelo (Erik, Mike W., Mike A., Russ, Jin-wah, Bessie, Fern, & Creighton)
- 2/14 Rain Out/Power Outage – No Field Work

- 2/17 President's Day Holiday
- 2/18 Arundo: Waikapu (Mike A., Sam, Russ, & Jin-wah)
- Snake Search: Kaanapali (Teya, Erik, Mike W., Mike A., Sam, Russ, Jin-wah, Shannon, Fern, & Creighton)
- 2/19 Mitred Conure Survey: Huelo (Teya, Erik, Mike W., Mike A., Sam, Russ, Jin-wah, Shannon, Sam, & Fern)
- Fountain Grass: Kahului (Mike A., Sam, Russ, Jin-wah & Shannon)
- 2/20 Fountain Grass: Kahului (Teya, Mike A., Sam, Jin-wah, & Shannon)
- 2/21 Ivy Gourd: Kihei (Mike A., Sam, Jin-wah, & Shannon)
- Snake Search: Kaanapali (Erik, Mike W., Mike A., Sam, Jin-wah, Shannon, Fern, & Creighton)
- MISC Meeting