

**MAUI INVASIVE SPECIES COMMITTEE
MEETING
FRIDAY, MAY 11, 2001
9:00 AM - 12:00 NOON**

ATTENDANCE: Randy Bartlett, Jack Peterson, Renate Gassmann-Duvall, Philip Thomas, Steve Lohse, Fred Kraus, Christy Martin, Steve Anderson, Elizabeth Anderson, Les Matsuura, Hans Schopen, Lloyd Loope, Tina Lau, Pat Bily, Mike Walker, Will Haines, Anne Carter, Natalie Powell, Sharon Souza, Nathan Varnes.

?? Call to Order by Randy Bartlett: MPC/Chair at 9:10am.

INTRODUCTION OF STEVE LOHSE --- CGAPS ADMINISTRATIVE ASSISTANT

?? Steve will be our CGAPS Coordinator. He is not officially on for another couple of weeks. Since this is a new position, he will need to set-up an office, get equipment, etc. and get a handle on what we need funded, where we are and where we want to be. Half of Steve's position will be getting funding for the assorted ISCs. The other half is administrative, coordination, etc. His background is in political and environmental science --- where politics and the environment meet. He has been in Hawaii for 6 months but has visited for the last 10 years.

NEW BUSINESS

MEETING MINUTES APPROVAL

?? Minutes from the March 23rd meeting were approved. They will be posted on the HEAR website.

BUDGET/FUNDING REPORTS

County/State Funding Update (R. Bartlett, Fred Kraus; DOFAW)

?? The \$400,000 in the Governor's budget request for rapid response (LNR402) was approved. About half of the funding will pass through to the ISCs. MISC should receive about \$60,000 in pass through. DOFAW staff will be hired to work directly with the ISCs on rapid response on the ground. There is also funding for a new truck on each island to assist the ISCs.

?? Steve A. asked what these positions are really going to do and what skills we are looking at. Fred responded that they were conceived as field people, but position descriptions have not been written yet. Conceptually they will provide another person on the ground to build DOFAW capacity for dealing with invasives. They may be able to serve as point people for specific projects and possibly could have more of a wildlife focus than plant focus. They will spend time in field controlling plants. Steve also asked who would supervise the positions. Fred replied that it hasn't been decided yet. Mike Buck wants to sit down and have a meeting (sometime in early June) with key people to address these details. Bob Hobby will let us know when a meeting is planned.

?? The County Council voted to give Tri-Isle \$200,000 and there will be at least \$100,000 coming from the Board of Water Supply. We are asking the Board to match the \$200,000 from the County. All of this funding will go through RC&D and then possibly to the unit. We have put in for more funding in the FY02 budget and it looks like there is a good shot at that too. There is also \$75,000 in the kitty from a previous year for the Hana crew.

- ?? We received a letter stating that NFWF wants to give Tri-Isle \$100,000 to support MISC. We don't know how much of this funding is DOD based. The County funding we are receiving should be more than enough to match the NFWF funds. The NFWF Pulling Together Initiative is a capacity building funding source so we can't count on it every year. This is a plant-focused pot of dollars.
- ?? We will need to evaluate how much funding to pass thru to PCSU since we aren't planning to expand Hana crew at this time.

Draft Miconia Emergency Action/Funding Plan (Lloyd Loope; USGS-BRD)

- ?? The County keeps asking what it would take to eradicate miconia. They have been wanting a big picture strategy and dollar figure --- not just the year to year. So Lloyd was asked to prepare a plan. GIS maps and more aerial recon was really giving us a picture that we weren't making progress and that miconia was getting away from us. Lloyd came up with a figure of a million and a half a year as a preliminary estimate to give to the County. The proposal was given to Alan Arakawa and the Council Budget Committee members.
- ?? Arakawa was enthusiastic and at one point he was even lecturing us that we needed to be more aggressive. They did double our funding from \$100,000 to \$200,000 and the proposal gives us a basis from which to proceed. We need to refine it over the summer and get it to the Legislature and County.
- ?? Steve A added that we really need to refine the dollar figures. MISC is working on tuning up how much miconia work has cost to date per acre. If we look at 11,000 acres times \$600 an acre = \$7 million to make one pass through. The question is how much we can afford to let go for any period of time. We need to look at the data more closely. Have we covered an area of land cleanly enough that we can let it go for 3-4 years? No one really has numbers for a program like this and we don't want to underestimate.
- ?? Pat asked if the per acre figure is a mean. Steve A. responded that the figure is from 1995 before the dozer roads, etc. We did time trials in dense and thin areas, etc, (no gulches included). Lloyd added that another factor we need to consider is balance between bio-control and on the ground control.

Coordinator's Status Report (J. Peterson)

- ?? Don Reeser was at the Invasive Species Forum and became alarmed by the miconia situation. Art and Lloyd went to Don and confirmed the idea that this is an emergency. Steve A. stepped in and reinforced that miconia is getting away from us. We've been gathering good data to present the case and also working on the budget summary of everything spent since the beginning of the project in different categories. The bottom-line is we realize that to have a chance of controlling this weed on this island we need to dip into the Federal pot. The NPS is ready to declare this an emergency (like a fire). We will have the per acres figures for ground and air control of miconia ready by late May when we are expecting a visit from two high level NPS staff. We will also have the figures on what the total infested area on Maui is. We don't want it to be a crude estimate --- we want it to be very accurate. We need to evaluate the level of confidence on various areas so we can deal with the question of how often we have to make a pass. We are talking a huge commitment that is more than the State and County can handle.
- ?? There have been a variety of meetings recently. The park had an emergency park-wide staff meeting on Miconia (with presentations by Art, & Steve), there have been miconia strategy sub-committee meetings (Lloyd, Art, Steve, Jack), and a data technicians meeting (Dan McNH, Aaron K, Mike W., Steve A, Lloyd, Art, Jack, Jeremy).
- ?? The shortfall we expected in our budget has disappeared and we can continue at the same level of control work as last year.

?? NIFTAL will be pulling out of this site by next February and we would like to explore the possibility of having the University retain the site. There would of course be a cost. We have talked to David Duffy about this possibility. He wanted to know about the water situation. The water is contaminated and the well is not functional --- water must be hauled to the site. Could we attract other tenants? EMWP is hiring a coordinator who will have an office here and within a year they hope to have a crew down here as well. We need to start considering this as it would be a shame to lose this place.

USFWS Funding Status

?? There is no new word. We received the \$46,000 for Christy's PR/Education position and they funded half of Steve L.'s salary.

Hana Crew Budget Status Report (Nathan Varnes, Sharon Souza; RC&D)

?? We lost a crew-member and started a new member in late April. We need to buy a new fax machine and we are getting a phone line for the shed.

?? We released fungus in April and May. We are still hoping to do more aerial spraying and also want to get a GPS and hardware that is compatible with MISC. Randy cautioned that we don't want to duplicate hardware, equipment, etc. if the Hana crew will eventually come in under MISC.

Federal Funding Update (Lloyd Loope; USGS-BRD, Steve Anderson; HALE-NP)

?? Steve A. summarized that the crux of the issue at the moment is that it is difficult to use National Park Service funds outside of National Park boundaries. We are concerned that if the question of using park funds on non-park lands is raised at a high enough legal level, we could be told no and it could jeopardize the SWAT Team work. In the best case scenario it could be recognized that the miconia situation is an emergency, like a fire, in which case you deal with it until it goes out. There is also a liability issue that is out there for debate.

?? Lloyd commented that it is to Don Reeser's credit that he is willing to go all out to support this effort.

?? Jack added that regardless of the Federal situation we really feel it is time to present a good solid dollar figure for Miconia, to all funding sources. We want to be more accountable, accurate, and realistic in our figures.

?? Philip asked if there had been any effort to talk about the cost of not doing this. If we don't do this, how much will in cost in other ways? Lloyd added that if we don't control miconia then all biodiversity up to 5000 feet elevation in Kipahulu Valley will be sacrificed. Fred continued that there is nobody here qualified to come up with that figure. We would need an economist and a watershed approach --- this is an extremely complex topic. Philip countered that we need to address this cost somehow because people will ask. We need to present this as a frame of reference. Lloyd suggested we have to argue what is at stake --- a world class National Park. Steve L. added that maybe the best argument is there is no one kind of cost. There is a dollar cost, a species cost, an aesthetic cost, etc. Not everything can be quantified.

?? Steve A. informed the group that on May 21st Abby Miller, the #2 person in NPS for Natural Resources will be here for a week. Don Reeser impressed on her the gravity of the miconia situation when he met with her recently. Also visiting that week will be Linda Drees, the person who is responsible for invasive species and restoration for the NPS. We will be taking them in the field to see the situation, they will be attending an EMWP meeting, and will be meeting at MISC. On Tuesday there will be a short meeting at the office with Art to give them a flavor and over view of the miconia situation. On Thur., after EMWP meeting, folks that are interested in strategy should come if possible. Lloyd

emphasized that we need to build their knowledge --- their ability to sell the information we give them will be what gets us funding.

Other Funding

?? Fred stated that given that we are getting more funding than expected, we should be passing some funds through to MoMISC.

PR/EDUCATION STATUS REPORT (Christy Martin; MISC)

?? We went to Maluhia Ranch Acres to check out the report of hanging nests. They turned out to be ohia aerial roots.

?? We did a booth at the East Maui Taro Festival and made some good contacts. Highly visible, very successful. We had a large miconia plant tied to the tent post.

?? Christy visited the Hana core with Glenn to really look at conditions and methods. It was illuminating for her to really see how difficult the terrain is and better understand some of the reasoning for why the Hana crew is working in certain areas.

?? Christy met with Scott Splean from the High Performance Computing Center. He has a project going where students map alien species. He provides the software, etc. Hana High School will be signing on to the project next school year.

?? Christy also met with Philip, Mike and Lloyd to discuss ideas and needs for redesigning the MISC web-site. MISC will propose some things to Philip and we will have a draft to the committee in the next couple of months.

?? Christy went to the recent fireweed meeting. The Cattleman's Association received \$50,000 in matching funds from the County Council for fireweed control. Lloyd added that fireweed would be a perfect species for kid's mapping projects. It is so easy to map and would be a great way to increase awareness.

?? Bob Yonahara is Ed Tamura's replacement. He will be participating more in MISC meetings and activities as the state "noxious weed specialist."

?? Christy is on SCB/Conservation Conference planning committee. They have closed registration, but they will request a list of people from organizations that should be represented and will target spaces that open up to people who should really be there. Get your name to Christy if you aren't registered yet and she will get you on the list.

MOMISC STATUS REPORT (Tina Lau; TNCH-Moloka'i)

?? Ten partner agencies have started MoMISC as a subcommittee of MISC. They have been meeting for about six months now and have three subcommittees --- education and outreach, response, and budget.

?? The education and outreach committee has been working with Philip to get a web page going. Earth day was MoMISC's first public appearance. They had a display with frogs in a jar and a miconia leaf. They have also developed a fact sheet (similar to MISC's) including action plan items. Tina has extras if anyone wants a copy. They also produced a brochure on invasive species and are making up

invasive species ID cards. The ID cards are wallet sized with a little information, but not enough to be overwhelming. The “Nature’s News” newsletter goes to all Molokai mailboxes. A summary article on MoMISC was recently included in the newsletter.

- ?? They have developed a reporting form. All numbers go to The Nature Conservancy office. They are also using standard field data forms from OISC. A number of field surveys have been done. Pampas grass was found on Mauna Loa by Molokai Ranch. Bishop Museum verified a specimen as jubata. They immediately dug all the plants out. MoMISC went back to the site to look at the roots. Fred asked how the pampas was disposed of. Tina responded that she thinks they burned it, but needs to verify that. There is an irrigation ditch that runs into pasture lands from the site, they surveyed it and will continue to survey and monitor.
- ?? Lloyd asked about fountain grass on Molokai. Tina responded that there was only one on the South side. The landowner was cooperative and removed the plant. DOA has been checking the site and it has never reoccurred.
- ?? Cats claw has been designated as potential containment project. It has spread considerably. There was a small population, but it has now spread through large gulch area. There are a lot of seeds being vectored by water and gravity. They need to develop a strategy, but they don’t really know the extent yet. When it flowers (in Dec. possibly) they will do a helicopter recon to see the extent and possibly look at helicopter spraying. There may be NRCS funding for control.
- ?? MoMISC has been talking with the state and waiting to decide if New Zealand flax is a plant they want to control. It is on forestry land so they are talking to Bob Hobdy about it.
- ?? Plants targeted for prevention include Miconia. The TNC Field Coordinator has put out a request to hunters (they were given flyers) that visit Wailau and asked them to contact TNC if they see any.
- ?? MoMISC has chosen to use the \$5000 from the State to purchase a Trimble GeoExplorer 3 GPS unit and also has used some of the funds for printing, etc. for flyers and brochures.
- ?? Future plans include writing an action plan in the next 6 months or so. They will also be looking for funding for field activities and education and will put together a budget. MoMISC would like to request \$7000 for helicopter, herbicides, supplies, and education/outreach. They will also work with the NPS SWAT Team when they come to Molokai this summer.
- ?? Randy requested that they try to have their action plan ready by end of summer so it can be integrated with the MISC action plan.
- ?? Steve L. suggested that an “alien species cost you” fact sheet along the lines of the one MoMISC put together would be a great idea for all the ISCs.
- ?? Lloyd commented that it is in our interest to support Molokai. Not only because they are in Maui County, but also because they have some great success stories already.
- ?? Randy concluded that we can definitely give MoMISC at least \$7000 and should probably round up to \$10,000. The \$10,000 was approved by the Committee. Pat added that there is a substantial in-kind contribution from TNC given the time Tina is putting in coordinating MoMISC.

HEAR STATUS REPORT (Philip Thomas; HEAR)

- ?? Over the past month we got a web-site up and running for DLNR titled “Hawaii’s Most Invasive Horticultural Plants.” Fred wrote a great concise introductory summary for the site. The list includes

the 100-plus plants that are problematic that Fred has researched. There is a link to the new site from the HEAR web-site called "horticultural weeds." The site still needs some more pictures.

- ?? Philip has been working with the Arborist Committee on the Maui County Planting Plan. At this point there are 2-3 dozen invasives in this publication that the County is condoning. Philip is trying to get the Arborist Committee to revise the Planting Plan to include the information from Fred's web site. It looks like it will happen and landscapers, etc. will have to abide by it. He is also hoping to get a screening process similar to Australia's implemented.
- ?? Philip was elected Chairman of the Arborist Committee yesterday. His first official action was to object to a plan for a subdivision in Kula that wanted to plant two trees that were on Fred's list. The committee backed him up and came up with some alternatives for them. The Arborist Committee really wants to be able to offer alternatives when they say "no" to an invasive species
- ?? Philip and Mike (and Christy & Jack) have been working on a revamp of the MISC web-site. They hope to use the new format as a template for all the ISC websites so they all look the same.
- ?? The new all-ISC-list seems to be working well.
- ?? Philip will be on the Big Island next week helping with database conversion for Operation Miconia.
- ?? We are requesting articles for newsletters on invasives, alternatives for landscaping, etc. If anyone has a topic they would like to write something about, please do. Christy recently had got a cryptostegia article in the MALP newsletter.
- ?? We are still requesting information on proposed noxious weed species. The OISC policy working group is coordinating this effort. So far there have only been three submissions.
- ?? Fred added that the Forest Service has funding to hire someone half time to do some plant screening. They will be looking at plants West of here initially. There may be additional funding for two other half time grad students looking at commercial forestry plants. The plant-screening concept is moving forward well this year.

ONGOING BUSINESS:

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

PLANT UPDATES (J. Peterson, MISC)

Operational Details

- ?? Hans will be leaving MISC in just under 3 months to go back to school. His last day of work will be July 27. We want to get the word out to get good candidates for the position. We are also hoping to have some overlap between Hans and his replacement.

Miconia Peripheral Populations

- ?? We have really been emphasizing miconia --- with 18 field days spent on miconia since the last meeting. The crew spent three full backcountry weeks in the Hana area. Two of the weeks were in conjunction with the park SWAT team. We have found a good place to stay on miconia field weeks in a trailer with a large garage out close to the core. We've also done 6 miconia helicopter operations since the last meeting. Three of these were spray operations. We have killed every tree we know about

down by Moomoonui. For the ground sweeps we have laid out grids, and are collecting good data for control/cost estimates.

- ?? Fred suggested that if we need another place to stay near the core we should contact the State to see if they can help us with Wainapanapa Cabin reservations. We can contact Dan Quinn who is the acting head of State Parks or we may want to put in a request directly through Mike Buck.
- ?? The helicopter operation yesterday was enlightening. There were seeding trees on Olopawa . We sprayed above the cinder pit and killed about 150 trees. We are hoping to get rid of the seeding trees on steep terrain above the cinder pit. We also sprayed about 100 trees south of Kawaipapa River. We have about two weeks of spraying we could do around the periphery of the core. The Hana crew has been very helpful on spray operations. They have been bringing the water truck out and providing ground support.
- ?? Pat has been going out to other East Maui sites. He visited the Wailuku site and couldn't find any miconia at all. In Peahi/Haiku he found 4 plants and he revisited a couple of Huelo sites and did some control work. There is a declining trend in some of these areas and all in all they look good. With enough persistence we can make an impact.
- ?? Mike has been getting a lot of data work done. We are now set-up with some very useful systems to query APCHUL.
- ?? Randy suggested we need to keep miconia way up there on our priority list. We may need to consider bumping up the 50% figure for miconia work. Lloyd added that aerial work should be a very high priority --- it is critical. We may not need to increase the overall percentage of time on miconia as long as we are dealing with fruiting trees via heliops. We don't want to let the other species go, but miconia flights should be a priority. Randy concurred that we should keep the flights on top and maybe we won't need to bump up the crew time. We can go ahead and bump up the time if we need to. We've currently been aiming for no more than 2 weeks a month with the crew in Hana.
- ?? Jack asked about the Hana crew's aerial spray plans. They didn't do any in April or May. They had funds for 12 aerial sprays this year and if they didn't do them the funding will be gone soon if it isn't already.

NPS Exotic Plant Management Team (Steve Anderson, NPS-HALE)

- ?? The plant that Dino Brown found in Kipahulu has been confirmed as miconia. There has been a joint MISC/EPMT ground survey completed around the area and we've also flown recon in the valley adjacent and around the area where the plant was found. We haven't found anything so far.
- ?? This incident has caused us to become even more concerned about dispersal. How did the plant get into Kipahulu Valley? We also have the cinder pit issue. These are both real PR issues as far as local dispersal. We need to put more attention into trying to deal with this. For the cinder pit, we should talk to the County Council regarding the situation. The County needs to address it. Christy has also heard that Hana Ranch is selling cinder from a possibly infested area.

Pampas Grass

- ?? The crew spent three days on pampas since the last meeting. They revisited Waikamoi sites and controlled 158 small plants.

Fountain Grass

?? The crew spent three days on fountain grass. Two of these days were spent rappelling at Kahakaloa. They also revisited the Maui Lani and Dunes areas. We are planning an aerial survey with the National Guard in about a month down by Kanaio.

Ivy Gourd

?? There have been five days of ivy gourd work in Kihei, Kahului, Kapalua, and Lahaina since the last meeting. Ryan controlled 23 vines at one site yesterday. Christy has prepared an ivy gourd summary, which is attached. It displays the complexity of the entire process of survey/landowner contact/permission/ control/ permission again/ revisit-follow-up, etc.

Arundo

?? The crew spent two days controlling arundo in Kihei since the last meeting.

Rubber Vine

?? Two days were spent on rubber vine in Wailuku and Lahaina with 14 more plants controlled. We keep finding additional sites. We have a couple of locations on Lahainaluna Rd. we need to visit and also one on Omaopio Rd.

VERTEBRATE UPDATES

Caribbean Frogs (F. Kraus; USDA-APHIS)

?? The caffeine field trials are done. The written reports are finished and have been submitted to the Department of Agriculture to be included in a package that will go to EPA hopefully next week. EPA does not have 90 days to approve or reject the application as is commonly believed. They actually have forever, but the turnaround averages 57 days. Because this is an emergency use application, Department of Ag. will need to keep track of how much is used, when, and where. There will need to be small number of participants in the program --- limited to about 20 certified applicators (and their crews).

?? Harry Kim, the mayor of the Big Island, contacted the Department of Agriculture and wanted a meeting to find out what is being done about frogs. Mike Buck has been pushing Ag. to deal with the vectoring problem and focus on what can be done to stop movement through the nursery trade.

Parrot-type Birds (Renate Gassmann-Duvall, Anne Carter)

?? A report on the one-year effort observing parrots in the Huelo area has been completed. Recommendations for control of the mitred conures in Huelo were included in the report. Summarized as follows:

- 1) Establish a thorough public relations program. This should be implemented immediately and continue during the course of management actions.
- 2) Establish feeding stations and live capture as many mitred conures as possible by June 2002.
- 3) If the above retrieval method is successful, maintain feeding stations and remove remaining population of mitred conures by Dec 2002.
- 4) If feeding stations are ineffective, implement trapping at burrows preferably during the breeding season. Remove as many eggs and birds as possible within a sixth month period.
- 5) Lethal methods should be used as a last resort.
- 6) We should give MARS a year to deal with the situation. It will take 6 months for the feeding stations to become established.

Other summary comments from the parrot report include:

- 1) Ten parrot taxa have been documented from Maui since 1977.
- 2) The most detectable species to date, occupying the windward lowland rain forest on East Maui, are the mitred conures. The birds are roosting in seacliff areas from Waipio-nui to Huelo Point.

- 3) The rapid mitred conure population growth, expanding range, potential to transmit disease to Hawaiian birds, and the proven dispersal of nonnative tree species poses serious threats for native Hawaiian flora and fauna.
 - 4) The ability to damage commercial fruit and seed farms is a serious economic concern
 - 5) Parrots are something we should really be looking at in light of the miconia concerns. They are a time bomb and we need to act on this.
- ?? We have a proposal from Dr. Van Sant/MARS, but it is missing numbers, time frames, and other important details. Dr. Van Sant knows she is starting from scratch and will need to work with us on the details. Fred asked that Anne and Renate put together a list of deficiencies in the proposal and forward them to Randy. Mike Avery will be here August 14 or 15 to discuss management strategies for parrots.
- ?? Lloyd suggested that we should do a miconia feeding study to see if viable seeds will pass through the conures.
- ?? Randy thanked Anne and Renate for their excellent work. We definitely want to have Renate continue doing parrot work for us. Anne has said she has other commitments and will not be able to continue. Renate will put together a proposal for continuing her work through a contract with MISC/PCSU.
- ?? Fred mentioned that there is a working group under OISC for vertebrates. We should be in contact with them.
- ?? Pat added that the parrot issue in Huelo is becoming more polarized --- with more people favoring the parrots. We need to keep moving on this. He is concerned about other miconia trees in the area that we don't know about. This is pretty urgent!

OTHER BUSINESS

- ?? Fred Kraus is leaving DOFAW to do herpetology work for the Bishop Museum in New Guinea.

Next Meeting Date/Time: Friday, 6/29/01, 9am-12noon

**M.I.S.C. Activity Schedule
March 23 – May 11 2001**

- 3/23: MISC Meeting
Pampas: Residential – Kula Revisit (Dig/Haul)**

- 3/26: HOL: Prince Kuhio Day
Miconia: Travel to Hana for backcountry week (P.M.)**
- 3/27: Miconia: Hana Ranch Mauka ground recon
Heli-Ops drop off. M.I.S.C. and E.P.M.T.**
- 3/28: Miconia: M.I.S.C. and E.P.M.T., Hana Ranch Sweeps
Heli-Ops: Miconia Spray – Hana Ranch Mauka**
- 3/29: Miconia: M.I.S.C. and E.P.M.T., Hana Ranch Sweeps
Heli-Ops: Miconia Spray – Moo Moo Nui**
- 3/30: Miconia: Hana Ranch Mauka Sweeps
Meeting (MISC): Lloyd, Art, Steve, Jack**
- 3/31: Taro Fest – M.I.S.C. booth**

- 4/2: Crew off: Previous week adjust**
- 4/3: M.I.S.C. / E.P.M.T. Meeting: Planning, Strategy
Data/Decon., Errands**
- 4/4: Office maintenance/Prep for MIC week/Errands**
- 4/5: Miconia: M.I.S.C. and E.P.M.T. – Kipahulu Recon.
Office maintenance
Christy: Hana core tour with Glenn S.**
- 4/6: Pampas: Residential Kula Spray**

- 4/9: HALE NP: All park Miconia emergency meeting.
Miconia: Backcountry Trip (crew split)
Lower Nahiku Sweeps (3/4 of M.I.S.C.)
Hana Ranch Mauka – Recon. of Base Lines (1/4 of M.I.S.C. and E.P.M.T.)**
- 4/10: Miconia: M.I.S.C. and E.P.M.T., Hana Ranch Mauka – Cutting base lines
J.P. Pesticide Applicators Licensing process.**
- 4/11: Miconia: M.I.S.C. and E.P.M.T., Hana Ranch Mauka – Cutting base lines
J.P. Pesticide Applicators Licensing process.
NRCS Miconia emergency meeting:
DLNR, USFWS, Hana Ranch, NRCS, NARS, Art M. presentation**
- 4/12: Miconia: Hana Ranch Mauka – Cutting base lines/Scout east end of lines
J.P. Pesticide Applicators Licensing process.**
- 4/13: Miconia Trip Return, Data/Decon.**

- 4/16: HOL: Switched for Good Friday**
- 4/17: Personnel pre Annual evaluation meetings
Ivy Gourd: Kapalua – Green waste and “Iron Wood Rd.” & Town Errands**
- 4/18: Fountain Grass: Kahakuloa Rappel**
- 4/19: Heli-Ops: Recon – Miconia, East of Moo Moo Nui (weather poor but found farthest known
MIC east of Core)
Fountain Grass: Maui Lani and Waiehu Dunes**
- 4/20: Fountain Grass: Kahakuloa Rappel (Finished first round)
Ivy Gourd: Lahaina revisits; Rubber Vine: Lahaina
J.P. Pesticides exam.**

- 4/23: Miconia: Backcountry Trip**
Hana Ranch Mauka – Scout east end of base lines
- 4/24: Miconia: Hana Ranch Mauka Sweeps**
- 4/25: Miconia: Hana Ranch Mauka – Cutting base lines east**
- 4/26: Miconia: Hana Ranch Mauka Sweeps**
- 4/27: Miconia Trip Return**
- 4/30: Meeting,Data/Decon., Errands**
- 5/1: Rubber Vine: Maui Seaside and Oaokas**
- 5/2: Ivy Gourd: Kihei w/Christy**
Meeting (MISC), Miconia Strategy:
Lloyd, Art, Steve, Dan, Aaron, Mike, Jack, Christy, Hans.
- 5/3: Ivy Gourd: Kihei**
Arundo: Kihei
- 5/4: Pampas: Waikamoi Revisit: Baldwin Estate/Hank O.'s pop./Reservoirs**
RCUH safety meeting, HAVO: Nelson Sakamoto, Les Matsuura, Jack, Nelson Ho,
Greg Santos, etc.
- 5/7: Ivy Gourd: Kahului**
Arundo: Kihei – Haul away
- 5/8: Heli-Ops: w/E.P.M.T. – Recon Waihoi Valley/Kipahulu MIC (none found)**
Miconia: Nahiku Tropicals
Ivy Gourd: Kahului/Lahaina/Kapalua
- 5/9: Pampas: Shibouya revisit**
Surveys/Flyers and letters for Ivy Gourd, Arundo and Rubber Vine
- 5/10: Heli-Ops: Spray – Hana Ranch Mauka/Moo Moo Nui/Olopawa MIC, with Tina Lau (TNC)**
Ivy Gourd: Kihei/Kahului
- 5/11: M.I.S.C. Meeting**
Pampas: Kula – Dig/Haul, Snake retrieval.

Kihei Ivy Gourd Update

Submitted by Christy Martin, MISC PR Specialist, 5/8/01

The Kihei ivy gourd infestation provides a good example of some of the challenges in controlling invasive plants. Survey and control work on this population has been conducted approximately every two months since May, 2000.

To date there are 66 reported sites spanning approximately eight streets in the Kihei suburbs. These streets are Kenolio, Aliilani, Ohukai, Konale, Luluka, Pakalana, Kinaole, Nani Alii, with a couple of plants on adjoining streets, Koki and Kaiola. A large infestation was recently found on Mikioi in Maui Meadows, stemming from several large male plants.

Ivy gourd plants are most often found in inaccessible areas in the back or side of the houses, requiring the MISC crew to go door-to-door and request permission to survey and treat the vines. Aliilani, Konale, and Luluka are the most heavily infested, accounting for 29 of the 66 reported sites. Of these, ten were seen and reported by Forest Star and Kim Martz of USGS. An additional 19 sites were found by the MISC crew during door-to-door surveys of these streets.

Of the 66 reported sites, 31 of these sites have been treated once by the MISC crew, 14 of these sites have been treated twice, and six have been treated three or more times. Ten of the reported sites were visited and no ivy gourd was found, and the remaining five sites have either not been confirmed, or landowner contact has not been established. Most of the residents contacted during this work were not familiar with ivy gourd, and a number said they did not have it before surveys revealed that it was indeed growing in their yards.

Basal treatment of vines with Garlon 4 is an effective method of controlling this plant. The re-treatment schedule reflects the need to find and treat every place where runners send roots into the ground. In some locations, this can be every five inches, extending across an entire fence line, and on either side of the fence. The resurvey schedule for this population is dependant on who is home to grant access at the time of the survey every two months. The number of people home during the surveys is very high. There are few houses whose occupants have not been met by the crew at least once.

There have been two landowners that liked the ivy gourd and wanted to keep them, although after discussing the plant and our work, they agreed to let MISC control it.

Additional surveys and re-surveys will be needed for the next few years, as the population consists of both male and female plants, and they appear to be producing fruits with viable seeds, carried by birds.