



MISC

MAUI INVASIVE SPECIES COMMITTEE

Quarterly Report to the MISC Committee

FY 2006, Third Quarter

January 1 to March 31, 2006

Manager's Report

This quarter had the usual suite of challenges: tackling multiple species of plants, animals and plant diseases; working in the air and on the ground in the ever-changing weather (mostly wet!); administering a project with four different crews and a vast array of potential gear sizes; working on three different islands; and simultaneously seeking to educate, inspire, and at times, cajole, a diverse public. We handled all this while also making significant progress on some longstanding items on MISC's Action Item list.

We held a Strategic Planning meeting, updated the Mayor's Ag Advisory Group, initiated rappelling training, held our first Early Detection Workshop, continued work on Lāna'i, and finally made it to Moloka'i to start work on rubber vine. We got a group of volunteers out to (and safely back from) miconia land. We began work on our coqui-free certification and chameleon research projects. And we became active on the Maui County Superferry Advisory Board.

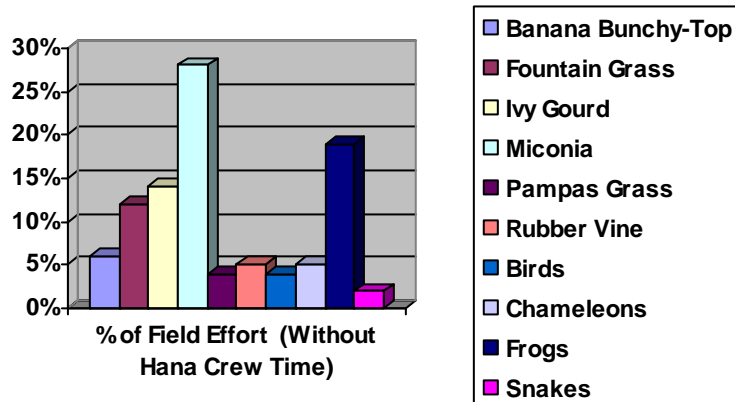
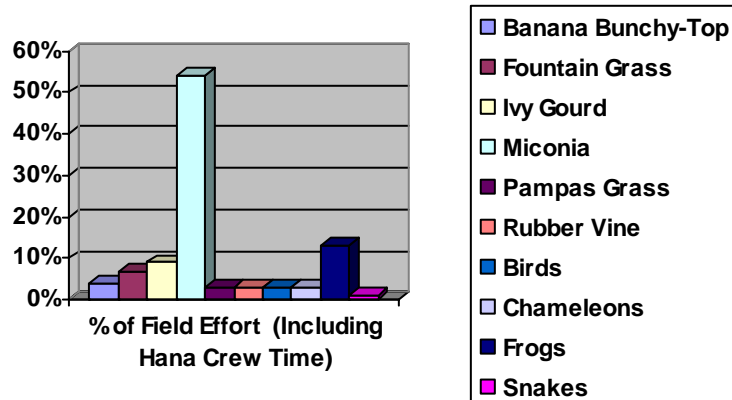
Involvement in the Superferry issue shines a light on the balance that we all must walk in our work on invasive species. I think I can safely say that MISC is not opposed to new modes of transportation in general, or the Superferry in particular. But we are in the business of protecting Maui County from invasive species and we have seen too clearly how quickly a single new pest can devastate irreplaceable resources. We have a responsibility to share the Committee's collective knowledge and expertise with decision makers and responsible members of the business community. It is the least we can do.

The continued input of Committee members is essential to finding the right balance – whether that means focusing more on incipients, continuing to control the high-threat, more established targets, or devoting more effort to stopping new invasions from reaching our shores. Your continued wisdom and support will help ensure the best use of our limited resources, even as we work to find additional funding sources. Mahalo nui loa. Enjoy our first Quarterly Report,* designed specifically for you, our Committee members and members of our larger 'Ohana.

*Kudos to Elizabeth for putting this report together.

Quarterly Highlights

MISC FIELD TIME SUMMARY



ACTIVITY HIGHLIGHTS

- Jan 3: Scott Heintzman joins the Pi'iholo crew as a Field Worker on Mike's team
- Jan 13: Intern Claire Esbenshade begins work with the Pi'iholo crew for one month
- Jan 13: Teya & Lloyd attend groundbreaking ceremony at Kahului Airport
- Jan 19: Miconia Operations Review Meeting
- Jan 20: All Day/All Staff Strategic Planning Meeting
- Jan 23-27: Both Pi'iholo crews to Lāna'i for fountain grass control & heli recon

- Feb 6-10: Mike's crew to Moloka'i to assist MoMISC with rubber vine control
- Feb 7: Miconia Funding Strategy Meeting
- Feb 9-10: Adam R. conducts rappelling training for the Hāna crew
- Feb 20-23: Seabury students volunteer for miconia control during their Winterim trip
- Feb 24: MISC Committee Strategic Planning Meeting

- March 2-3: Adam R. conducts rappelling training for the Pi'iholo crews
- March 9: Teya & Adam observe frog operation at Manukā, Big Island
- March 11: Ha'ikū Ho'olaule'a exhibit/booth
- March 20: All Day/All Staff Safety Meeting
- March 21: Pi'iholo crews meet w/ Angela Kepler & Frank Rust for a banana identification & cultural importance workshop
- March 22: Teya & Joy testify at County Council Budget Hearing, Upcountry
- March 28-29: Joy attends the Native Hawaiian Educators Assoc. conference on O'ahu
- March 28-30: Pesticide Training for newer crew members
- March 30: Teya attends Superferry Forum
- March 30: Joy & Sam testify at County Council Budget Hearings, Hāna
- March 31: Early Detection training for Pi'iholo and EMWP crews

PR & Education News

MISC IN THE NEWS

This quarter proved to be quite newsworthy for MISC. We were mentioned in ten articles featured in newspapers and magazines. Based on the circulation of these publications, we estimate that 239,375 copies of publications containing MISC-related articles were printed and distributed throughout the state and some throughout the nation!

News highlights included Randy Bartlett and his continued work with invasive species - a nice spread featured in Maui Nō Ka 'Oi magazine. "Students Declare War" focused on Shannon's work with high school students investigating ant populations on Maui. There were updates on the Hawai'i Dept. of Agriculture's efforts, in conjunction with MISC, to search for two snakes in the Lahaina area. And we can't forget the controversial article in the Maui Time Weekly, which covered Castleton's nursery and coqui frog control by MISC. MISC-related articles were included in The Maui News (3), Hawai'i Landscape (2), Maui Nui Botanical Gardens Newsletter (1), Maui Time Weekly (1), The Maui Wrap (1) and Maui Nō Ka 'Oi Magazine (2).

Randy and Joylynn were guests on Akakū's "Crossroads" show. The show focused on how we can prevent invasives from entering our islands and miconia. Willie appeared on MCC Today as a guest speaker on "Connecting the Dots," a show that draws parallels between the employer, the student and the teacher. A coqui presentation given by Adam R. at a recent Ha'ikū Community Association Meeting has aired on Akakū.

REACHING OUT TO THE COMMUNITY

'Tis the season for community fairs! Joylynn and MISC staff attended three events this quarter: Lahainaluna High School Career Day, Ha'ikū Community Health Fair and Ha'ikū Ho'olaule'a. Overall, we educated more than 450 residents about coqui frogs, resource-related careers, miconia and what makes Maui special.

We had a wonderful opportunity to honor the residents in Hāna who are "cleaning their mountain." They are the six full-time and one part-time Hāna-based MISC employees

who are fighting miconia day after day (Sam, Elroy, Darryl, Imi, Chad, Floyd, & Tanya). For three months an exhibit was displayed at the Hāna Library thanks to Irene Pavao. She has always been a great supporter of our work and stated, "I can honestly say that everyone who has walked into our library during the past three months has seen your display. Some even came in special just to see it!" Pavao was amazed at the response from the community and estimates over 750 people viewed the exhibit. It was a great way to bring the community up to speed. Way to go Hāna crew!



Shannon continues to promote the Hō'ike o Haleakalā curriculum and "Extinguishing the Fire Ant through Education," the island-wide student fire ant survey. To date, approximately 740 students at five schools, including Moloka'i High School, have collected ants. Fire ants have not been identified among the collected samples.



Active recruitment has begun for "Weed Warriors," a series of service work trips funded via a HISC

grant. The first trip involved 11 Seabury Hall Winterim students and two chaperones in the field controlling miconia alongside the Hāna and Pi'iholo crews. Despite rough terrain and inclement weather, the students prevailed over Maui's worst weed. Other Weed Warriors trips focused on ivy gourd and coqui frog control. Students' comments after the trips demonstrated a high level of enthusiasm and respect for the work of the MISC crews - one student's powerfully written letter of support was published in the Maui News.



Joylynn, Shannon, and Elizabeth Speith (PBIN) continue to collaborate on early detection. The team has been finalizing presentation styles, handouts, information on the report-a-pest website and the first draft of an early detection field book. You'll all have a chance to comment and include your *mana'o*! Keep an eye out for more information coming soon....

LET'S TALK STORY!

Our new outreach database, created by Aaron in collaboration with MISC and KISC staff, allows us to easily track all areas of public relations, outreach and education. One of the fun categories is "talk story." Blending in with local customs, this includes typical conversations via e-mail, telephone, or just bumping into someone who is interested in MISC's work. This quarter, we recorded 22 "talk story" encounters covering subjects ranging from gall wasp locations, the superferry and coqui frogs to whether or not a family could import goat's milk during their vacation. It's a varied array of subjects. We gotta be prepared for anything!

Plant Updates

IVY GOURD

A new ivy gourd (*Coccoloba grandis*) site was found during a peripheral recon makai of Kihei Elementary School. This is a site with mature fruit and is thought to be a core area for the Lipoa Street ivy gourd sites. Ivy gourd was also controlled at a new site reported by Bob Hobdy mauka of the Hyatt in Kā'anapali. This is a new core population for ivy gourd.



With inspiration from Mike and assistance from Randy (Thank-you!) we now have permission to camp at the Kapalua Ball Park above Flemming Beach when we are doing ivy gourd (or coqui) work on the west side. Our travel time back and forth to the Kapalua area has been greatly reduced by this new arrangement allowing us to do more recon in the area.



FOUNTAIN GRASS

Both Pi'iholo field crews traveled to Lāna'i for fountain grass (*Pennisetum setaceum*) control at known sites and peripheral fountain grass recon. Extensive helicopter reconnaissance on peripheral areas was also completed with the help of Windward Aviation and funding from the U.S. Forest Service. More acres were surveyed on Maui this quarter because of plants found along the Mokulele Highway.

The field crews have now been trained in rappelling thanks to our in-house rappel master, Adam R. At long last we were able to rappel at the Kahakuloa fountain grass site to complete control work. Rappelling skills have been long sought after to augment our fountain grass and miconia control efforts.



PAMPAS GRASS

Through vigilance, we finally received permission to control pampas grass (*Cortaderia jubata*) on a core area in Upper Kula. We also explored using an aerial drop site and hiking into remote areas of known infestations. Mike, Russ, and Adam C. found several keiki and flowering plants that were not visible from the helicopter in the Honomanu / Waikamoi area.

PERIPHERAL MICONIA

Surveys of peripheral areas for miconia continued as often as the weather permitted. No miconia was found during peripheral sweeps this quarter.

HĀNA MICONIA

We completed our third year miconia helicopter reconnaissance and control contract in January and began our year-four contract in March. NPS involvement in aerial ops

continues to be indispensable (Jeremy, Sean and Perry). The budget for the fourth year was reduced by the NPS to approximately 60% of year three. Ground crews began a second round of sweeps in management units mauka of Hāna Ranch in January. The units were first swept in 2003 and are on a three year re-entry interval. Information from the re-entry will help guide program strategy, including re-entry intervals and treatment effectiveness. Aaron, with help from Lissa, completed a thorough quality review of old miconia data. The Hāna crew will begin using their new rappelling skills to target miconia plants on steep slope that are not appropriate to treat with a helicopter.

PLANT DATA JANUARY 1 TO MARCH 31, 2006

Maui

	<i>Plants Controlled</i>			<i>Acres</i>	Total Person Hours
	Mature	Immature	Total	Inventoried	
Priority Target Species					
<i>Miconia calvescens</i>	64	13,146	13,210	7,042.4392	1,707.50
<i>Cortaderia</i>	33	215	248	3,017.5371	101.40
<i>Pennisetum setaceum</i>	14	11	25	1,033.1591	52.25
<i>Coccinia grandis</i>	86	2,644	2,730	595.0205	208.09
<i>Arundo donax</i>	0	11	11	19.9432	1.70
<i>Cryptostegia grandiflora</i>	1	0	1	2.8215	3.20
<i>Parkinsonia aculeata</i>	0	0	0	1.5211	1.00
Totals:	198	16,027	16,225	11,710.7841	2,075.14
Eradicable Species Project					
<i>Caesalpinia decapetala</i>	4	8	12	5.1112	3.00
<i>Maclura pomifera</i>	0	0	0	3.8227	2.20
<i>Pittosporum viridiflorum</i>	0	20	20	39.7290	3.50
Totals:	4	28	32	48.6629	8.70
Grand	202	16,055	16,257	11,759.4471	2,083.84

Lanai

	<i>Plants Controlled</i>			<i>Acres</i>	Total Person Hours
	Mature	Immature	Total	Inventoried	
Priority Target Species					
<i>Pennisetum setaceum</i>	439	2,087	2,526	8,955.0216	337.85
Totals:	439	2,087	2,526	8,955.0216	337.85
Grand	439	2,087	2,526	8,955.0216	337

BANANA BUNCHY TOP WORK

This quarter MISC crews surveyed 228 TMKs on Maui and 496 on Lānaʻi for BBTV. TMKs are much smaller on Lānaʻi – the resulting acreage surveyed on Maui was 84.5 acres compared to 34.6 acres on Lānaʻi. MISC crews spent 272 hours surveying for BBTV on Maui and 42 hours on Lānaʻi. Samples of suspect plants from Lānaʻi were submitted to UH-Mānoa. Fortunately, all Lānaʻi samples came back negative! This provides us with a really comprehensive base of information. This was the second complete MISC survey of Lānaʻi and all “suspect” samples have been returned with negative results. Unfortunately, 25 sites in Pukalani and Makawao were found to have BBTV this quarter. Seventeen have been treated so far. Bunchy top was also found in Kula this quarter by HDOA.

Vertebrate Status

FROG FIELD WORK

MISC crews have been steadily working on the 12 known Maui populations of coqui frogs. We have been making progress as evidenced by a reduction in vocalizations heard at most sites. As we move into summer, when frogs are more likely to vocalize, the results of our efforts will become clearer. Some additional highlights this quarter included the complete cooperation at two infested nurseries with substantial suppression at both sites and a major habitat modification effort in Honopou Valley, where Chris played a key role in chainsaw work. Darrell A. and Adam R. broke a staff record this quarter by using (16) 50 lb. bags of citric acid by themselves in one night at one location! An overall plan for controlling the Māliko Gulch population, including a budget and strategy recommendations, was prepared in January.



- This quarter MISC received 25 frog-related reports.
- Staff made 59 separate visits to 32 frog infested areas and / or suspect locations.
- MISC crew members spent 443 hours at a variety of locations working on frog control.
- 4,840 lbs. of citric acid were used this quarter.
- MISC crews have continued habitat modification work at the Haʻikū Post Office, Haupoa Place Nursery and Honopou Valley infestation areas by working cooperatively with area residents.
- A “coqui kit” was prepared and sent to Molokaʻi.

CHAMELEON WORK

MISC’s Veiled Chameleon research project continues to move along with Brooke compiling a variety of resources to help refine our search methods and protocols, revising and cleaning up our chameleon database, ordering the necessary tracking equipment, contacting leaders in relevant research fields and assisting with the approval of our IACUC application.

- Searches were held on Jan 17-19, 2006 and Feb. 27-March 1, 2006
- One veiled chameleon was found during these searches.

- 285.3 staff hours were spent searching for veiled chameleons this quarter.
- MISC crews followed-up on an old report at the Montessori School in Makawao and did not find anything.

MITRED CONURES

Abe's photographic skills and observation abilities have augmented surveys of conure activity in the Huelo area headed up by USDA Wildlife Services. Abe began conducting surveys in early February in both the evening and morning hours at three separate locations. Bait stations and playbacks were not very successful. Conure flight patterns, including times and numbers of birds, were observed. In late March, Teya, Adam R., and Doug Runde (USDA WS) surveyed the roosting area of the conures via helicopter. Roughly 80 birds were spotted in the Kailua area. Results of that flight and ground observations indicate the need for alternative approaches.

SNAKES

MISC employees assisted HDOA and DAGS with responses to two separate snake reports - Kapalua (mid-February) and Lahaina (late February to early March).

MoMISC Activities

Mike's crew assisted MoMISC with rubber vine (*Cryptostegia madagascariensis*) suppression on Moloka'i. The control work was performed with the joint efforts of Moloka'i TNC, MoMISC, and MISC. Five acres were initially controlled. Of 13 known rubber vine populations on Moloka'i, 12 have been initially suppressed. Lori and Kama will continue with maintenance and monitoring.

Miconia aerial surveys were conducted the week of March 20 – with perfect weather! Sean and Elisse from Maui joined staff on Moloka'i for the surveys. MoMISC extends their thanks to everyone who helped out. In addition to MISC/Hale NPS support, thanks go out to Sam Aruch for GIS support and training future navigators, Kalaupapa NHP for Bill G. and James Espaniola, and land owners Pu'u o Hoku Ranch, Dunbar Ranch, and Kapualei Ranch. These surveys have allowed for overall assessment of the of the survey areas for invasives, ungulates, etc. Lori has been able to report back to the community (taro farmers, ranchers, the east Moloka'i community board, etc.) on the need for initiating watershed protection now. This effort has generated many positive partnerships and feedback. In FY07, MoMISC will be receiving an additional \$20,000 in matching funds from the U.S Forest Service to continue aerial surveys.