



# MISC

## MAUI INVASIVE SPECIES COMMITTEE

### Quarterly Report to the MISC Committee

*FY 2007, First Quarter*

*July 1 to September 30, 2006*

## Manager's Report

Aloha kakou:

Effective partnerships and a strong sense of teamwork continue to be the basis for MISC's success. We know that MISC *is* a partnership, but the breadth of our connections and the level of our interdependence with the community are much greater than the gathering of agencies and organizations at MISC meetings. A few examples from this quarter highlight how MISC's work is woven into the fabric of our larger community:

- Multiple agencies (including Haleakalā National Park, the Nature Conservancy and the Department of Land and Natural Resources) “walked the talk” and participated in our front country pampas grass sweeps.
- Local residents in the Māliko Gulch area attended a community meeting focusing on coqui frogs.
- DLNR and USDA Wildlife Services collaborated with MISC on mitred conure control activities.
- All the Hawai'i ISCs gathered to swap stories and share successes at the Hawai'i Conservation Conference.
- Our local newspaper featured MISC's work and a regular column was initiated.

In each instance, the addition of partners or community members significantly enhanced our work, whether it was on the ground or at the table. We were able to search 1666 acres on the slopes of Haleakalā for pampas grass because we had 30 people stretched out across the mountain. We generated 100% approval for access to properties in the Māliko Gulch Rim area because of local involvement.

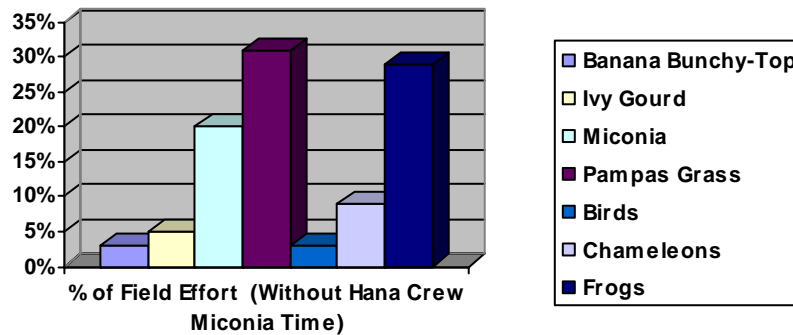
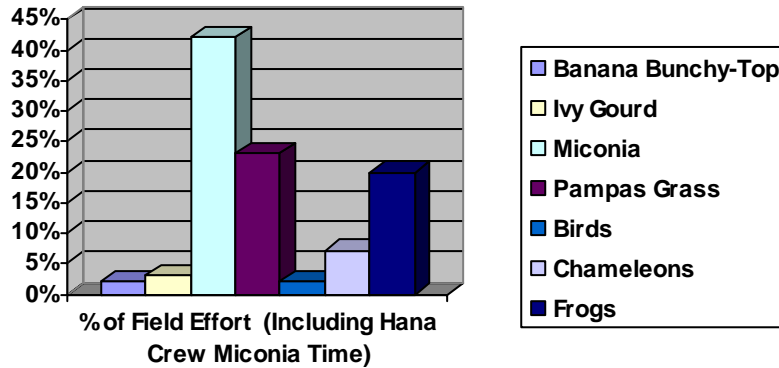
After years of discussion, conure control operations actually happened because of partner participation and local access. Staff from each of the Invasive Species Committees discovered they have a lot in common by coming together to talk story. Thousands of local residents are learning about our target species and what they can do to help.



With a county-wide focus and a host of challenging targets, we cannot accomplish our objectives by working in isolation. I'm pleased to report that MISC continues to shine in our efforts to ensure that the general public and our invaluable partners understand and support our mission. Lucky we live Maui.

# Quarterly Highlights

## MISC FIELD TIME SUMMARY



## ACTIVITY HIGHLIGHTS

- July 1: Makawao Fourth of July Parade – MISC wins “Most Unusual Entry” award
- July 5-6: Conure reconnaissance rappelling mission
- July 10: Temporary coqui crew starts work
- July 10: Teya attends agricultural rules meeting
- July 11: Teya attends County Council meeting on the Superferry
- July 12: Teya & Jeremy Hāna heli tour w/ Senator English & biocontrol researcher
- July 13: Vertebrate Subcommittee meeting
- July 15-16: Hō’ike o Haleakalā Curriculum teacher’s workshop
- July 17-21: Mike’s crew camps at Hana’ula for pampas control
- July 18: Teya attends HISC meeting
- July 19: Māliko community meeting re: coqui frogs
- July 24: Adam & Teya meet with HDOA & consultant re: coqui frogs
- July 25: Teya & Lori attend CGAPS meeting
- July 26-28: Hawai’i Conservation Conference
- July 27: All ISCs Forum at the Hawai’i Conservation Conference

Aug 1: Sustainability Fair at Maui Community College  
 Aug 7 & 28: CPR refreshers for all staff  
 Aug 11: MISC meeting – general  
 Aug 14: MoMISC meeting  
 Aug 16-18: Wilderness First Aid training – all field staff  
 Aug 17: Teya attends Olinda Community Association meeting to discuss helicopters  
 Aug 25: Adam & Joy attend Banana Industry Association Conference in Hilo  
 Aug 30: Teya attends Mayor’s Ag Advisory Group meeting  
 Aug 31: Representative Kyle Yamashita visits MISC



Sept 14: Miconia management and operations meeting  
 Sept 18: Teya attends CGAPS Steering Committee meeting  
 Sept 18-22: Interagency pampas grass sweeps on the slopes of Haleakalā  
 Sep 28-Oct 1: Maui County Fair booth

## PR & Education News

### MISC IN THE NEWS



Where can you find a picture of our fearless leader, Teya Penniman, hanging from a cliff over twenty feet above the ground? In the inaugural edition of *Kaunānā*, a research publication of the University of Hawai’i, Teya is seen doing just that. The University highlighted Teya and did a wonderful job of acknowledging the difficulty and complexity of being the manager at MISC. From supervising a rapid response program for tiny wasps to creating a positive public image and cooperative partnerships, Teya has it covered.

MISC is excited to announce that we now have a permanent home in the Maui News. After eight months of deliberation, our local newspaper found a place suitable for MISC to receive optimum public exposure. Called *Kia’i Moku* (Guarding the Islands), the monthly column is featured the second Sunday of each month. Each article highlights an invasive species - its description, invasive characteristics, what MISC and its partners are doing to control the species, and how the public can help.

We also had excellent news coverage in August when Valerie Monson of the Maui News wrote about miconia - our struggles and accomplishments. The article covered the front page of the *Currents* section of a Sunday edition. With over 33,000 people receiving the Sunday paper, we’re certain that Maui County is learning about MISC!

Finally, MISC could not be complete without having its own public newsletter. You asked for it, and we created it! The very first MISC newsletter (*Kia'i Nā Moku O Maui Nui*) was printed in late September and distributed – hot off the press – at the Maui County Fair. With 2,000 copies available, we were not stingy with passing them out. The newsletter featured pampas grass and included articles written by MISC partners and crew members. MISC's very own in-house artist, Brooke Mahnken, showed off his talent in what he calls, *MISCommunications*, a MISC comic strip exclusive. If you're interested in receiving a copy of the newsletter, contact us.

### **REACHING OUT TO THE COMMUNITY**

This quarter, MISC hosted and participated in several community events. In early July, we celebrated the Fourth of July at the Makawao parade. Our float had a papier-mâché coqui frog on a skate board pulled by a MISC truck with a 13 foot long snake sticking out of the truck's bed. MISC staff handed out coqui frog magnets to the crowd. We were definitely a hit and we have the award for the "Most Unusual Float" to prove it! We also participated in the first annual Maui County Sustainability Fair (held in conjunction with the Islands of the World IX Conference), the Ke'anae Ho'olaule'a, and the Maui County Fair. All in all, we reached 3,534 people at outreach events this quarter.



State Representative Kyle Yamashita (12<sup>th</sup> District) visited the Pi'iholo Headquarters in August to learn about our operations and gain a better understanding of our efforts to prevent the establishment of alien species.

It's time for the annual Mālama i ka 'Āina Award. This is the fourth year that MISC, the Maui Association of Landscape Professionals, and the County of Maui are partnering to recognize efforts to keep invasive species out of Maui County. Landscapers, plant providers, or commercial/agricultural property owners/managers who protect Maui County from pests are eligible. To submit your nomination, visit [www.mauiisc.org](http://www.mauiisc.org) for application information. The deadline for nominations is October 27, 2006.

### **ENVIRONMENTAL EDUCATION**

In July, MISC hosted a three-day teacher's workshop exploring the Hō'ike o Haleakalā environmental education curriculum. It was our most successful Hō'ike workshop to date -16 educators attended! Each teacher must complete six Hō'ike classroom activities by December in order to receive professional development (PDERI) credit for the workshop. Thanks to our guest speakers (Philip Thomas, Jeff Bagshaw, and Kat Lui) for their assistance. The workshop included a hike in the Waikamoi cloud forest with Jeff. Many of the teachers experienced a native forest and native birds for the very first time on the field trip. Photos of this trip will be posted on the Haleakalā National Park website's new educational page. In addition, Shannon collaborated with the Digitalbus/Maui Coastal Land Trust project in Waihe'e, presenting the curriculum to teachers participating in their workshop.





The Hō'ike "Weed Warriors" project is taking place in classrooms island-wide. Twelve teachers responded to an advertisement for in-class visits - our highest response yet. Two sixth grade classes at Maui Waena completed the Hō'ike lesson, "What Makes a Plant Invasive." Advanced placement science students at Saint Anthony followed that lesson with "Managing Invasives on Survivor Island."

## Plant Updates

### PAMPAS GRASS

Pampas grass season is in full swing. Cooperative weather is contributing to our efficiency, but we've had some disheartening discoveries.

Crews were dropped by helicopter for the day in the Honomanū area on six occasions. This strategy allows us to get into historic pampas areas on the ground for the first time and do a lot of control work. The crew carries emergency camping equipment with them for the Honomanū drops – so far they've only had to spend the night on the mountain once when the weather clouded in and Windward wasn't able to pull them out at the end of the day. Our long term goal is to build a camping platform in Honomanū for regular overnight trips.



In July, a small crew camped at Hana'ula on West Maui for a week. They had perfect weather, a wonderful camp, and a productive week. The crew was able to revisit areas where they worked last year and also do additional reconnaissance. The bad news from



West Maui: during a heli recon in September ~300 new pampas plants were found above Launiupoko. The unexpected plants are on an old landslide area that had been reconned earlier in the season – probably before the plants were blooming and visible from the air. In September, MISC crews (including Hāna) were joined by multiple partners for our annual pampas sweeps across the Haleakalā front country. Over 1,600 acres were covered and only two plants found.

### IVY GOURD

We continue to increase the efficiency of our ivy gourd control work through a revised data system and management strategy. Ivy gourd management is complicated because there are so many sites and the majority are residential. Each site now has its own revisit frequency. The computer calculates which sites need to be revisited and a punch list and associated map are printed. On the map, each site is color-coded indicating its status, whether it is ready for a revisit, or whether it is a "no go." The new system eliminates the problem of double hitting houses so we don't irritate the landowners. As we fine tune the system we are also grouping the sites to be visited geographically.

## **FOUNTAIN GRASS**

We continue to revisit old sites. Additional plants were found and controlled at the Pukalani site on our most recent visit.

## **PERIPHERAL MICONIA SWEEPS**

The vertebrate crew surveyed peripheral areas for miconia this quarter as weather allowed. We hope to complete sweeps of the area above the highway before winter. No new miconia was found in peripheral areas this quarter.

## **HĀNA MICONIA**

We expected funding from the Pacific Islands Exotic Plant Management Team (PIEPMT) and Haleakalā National Park to support aerial spray and recon operations in Hāna through January 2008 on a regular schedule of ~6 helicopter days per month. Because of unanticipated contracting problems, all current funds must now be expended by April 2007. As a result, the number of helicopter missions will be expanded to a goal of ~12-16 helicopter days per month from October through April. The accelerated helicopter schedule will have several impacts on the miconia control program including increased demands on support staff and a significant increase in the effort to control targets within the Hāna core population. Following the use of all existing NPS funds, it is anticipated that funding from DLNR (Maui Natural Area Reserves) will support helicopter operations through the summer of 2007.

Two miconia helicopter missions were completed during this quarter, one each in July and September. The Hāna-based ground operation continued working on the Mo'omo'onui unit that lies mauka of Hāna Ranch and Hāmoa. We anticipate completing the unit in early November 2006.

A presentation titled "Stemming the Tide: Status and History of Miconia Control after 17 Years of Developing Partnerships and Escalating Management Action" was presented at the Hawai'i Conservation Conference in July. The presentation examined data from multiple entries into aerial and ground management units over numerous years. The information supports a conclusion that the miconia control program is reducing the number of mature miconia on Maui and also the total number of trees.

## **BANANA BUNCHY TOP WORK**

Joy and Adam attended the 37<sup>th</sup> Annual Hawai'i Banana Industry Association Conference in Hilo in August. Adam presented a summary of the history of BBTV and suppression efforts in Maui County. A new BBTV display debuted at the Maui County Fair. New BBTV public service announcements were recorded at the Pacific Radio Group and will play randomly on each of their stations over the next six months.

This quarter MISC crews surveyed 109 TMKs on Maui for a total coverage of ~42 acres. 145 crew hours were spent in the field conducting 214 site visits. Ten sites in Pukalani were found to have BBTV this quarter; all were treated. Two recalcitrant property owners were approached by HDOA for removal of infested plants and successful control ensued. All known infested properties have been treated.

**PLANT DATA JULY 1 TO SEPTEMBER 30,2006**

**Maui**

	<i>Plants Controlled</i>			<i>Acres</i>		<b>Total Person Hours</b>
	<b>Mature</b>	<b>Immature</b>	<b>Total</b>	<b>Inventoried</b>	<b>Treated</b>	
<b>Priority Target Species</b>						
<i>Miconia calvescens</i>	32	8,391	8,423	5,384.8725	0.8081	1,871.37
<i>Cortaderia</i>	532	1,695	2,227	7,482.4212	0.1568	1,459.00
<i>Pennisetum setaceum</i>	1	7	8	6.6458	0.0008	8.50
<i>Coccinia grandis</i>	7	440	447	219.3290	0.0696	97.08
<i>Arundo donax</i>	0	5	5	31.0603	0.0005	3.50
<i>Cryptostegia grandiflora</i>	0	0	0	3.2591	0.0000	1.10
<i>Melastoma candidum</i>	1	0	1	2.2684	0.0001	4.00
<i>Rhodomyrtus tomentosa</i>	0	0	0	1.3374	0.0000	1.50
<b>Eradicable Species Project</b>						
<i>Caesalpinia decapetala</i>	0	31	31	5.1111	0.0096	3.00
<i>Macaranga mappia</i>	1	0	1	2.2684	0.0001	4.00
<i>Maclura pomifera</i>	0	310	310	1.9114	0.3180	4.50
<i>Morella faya</i>	0	21	21	0.0000	0.0021	1.60
<i>Pittosporum viridiflorum</i>	0	0	0	2.0677	0.0000	0.20
<b>Grand Totals:</b>	<b>574</b>	<b>10,900</b>	<b>11,474</b>	<b>13,142.5523</b>	<b>1.3657</b>	<b>3,459.35</b>

# Vertebrate Status

**COQUI FROGS**

Three temporary employees were hired to work with our regular vertebrate crew, primarily to assist with coqui frog control in the residential portion of the Māliko infestation. The additional staff has allowed us to begin systematically working on Maui's last unmanaged coqui frog infestation, visit other sites more frequently, and respond to new reports in a timely manner. Our crews responded to a report at a Kihei nursery that has since been determined to be a new population center (based on our criteria of five or more vocalizing male coqui frogs). Nursery owners indicated that the frogs appeared after they received a shipment of plants from the Big Island – once again highlighting the need for improved inter-island preventative measures. The owners have agreed to begin control operations immediately.

Efforts in the Māliko area were initiated with a community meeting held in July at “ground zero” of the infestation. An overview of coqui frog infestations on Maui, current control strategies, and plans for the area were discussed with neighborhood residents. Residents



were notified that we would be clearing frog habitat areas and spraying at night. MISC crews continue to minimize habitat at Haupoa Place, an East Maui junkyard, Māliko Gulch, and Honopou Valley by working cooperatively with area residents. A burn permit for the Honopou infestation was approved and will be used to complement our habitat removal techniques. A 400-gallon sprayer is on loan from HDOA to assist with large-scale control efforts in Māliko Gulch.

Our work continues to yield positive results at the other coqui frog population centers - vocalizations and acres infested continue to decline. Four additional infestations have been downgraded to a “monitor” phase (signifying that no coqui frogs have been heard or reported in the area for at least three months.) Adam, Teya and the vertebrate crew hosted a coqui control evaluation and information session with HDOA representatives and a private contractor in July as part of a broader state-wide review. In summary: MISC originally determined that there were 12 coqui frog population centers in Maui County. One center is now considered eradicated, four are in a monitor phase, and we have identified one new infestation, leaving us with eight active centers.

- This quarter MISC received 30 frog-related reports.
- MISC crews spent 832 hours on frog control.
- MISC crews made 252 separate visits to 115 frog infested and/or suspect areas.
- 13,683 lbs. of citric acid were used this quarter! This is at least twice as much citric acid as we have used in any other quarter - highlighting the value of a few extra people and the ability to send teams to several infestations each night.

### **VEILED CHAMELEONS**

MISC’s veiled chameleon research project continues to move along. Brooke gave an excellent presentation at the Hawai’i Conservation Conference summarizing his hypotheses and findings to date. Chameleon expert Kenneth Barnet traveled to Maui from New York in July to offer assistance with our research and management plan. Kenneth joined a round of chameleon searches, assisted Brooke with observation and research techniques, and gave an overview of his research and findings to MISC staff and Vertebrate Subcommittee members. Our observations continue to reveal how difficult veiled chameleons are to find and follow. We hope our research will provide meaningful data on spatial and temporal patterns, diet, and genetics.

- This quarter 31 properties were searched over seven nights.
- Three males and one female were recovered.
- Three animals recovered were found during MISC surveys and one was found and turned over to HDOA by an area resident.

## MITRED CONURES AND OTHER PARROT-LIKE BIRDS

Significant action to control conures in Huelo took place this quarter. In July MISC crews surveyed the cliff area where it is suspected the birds roost and nest, using recently acquired rappelling skills. Doug Runde from USDA Wildlife Services accompanied the crew in hope of identifying nests, capturing young, or removing eggs. No eggs or young were found, but several possible nests and consistent roosting locations were identified. During these observations at least one different parrot-like bird was identified flying with the conures. Three control operations were conducted by DLNR and USDA Wildlife Services during August and September. These operations removed 36 birds from the population.

MISC crews assisted HDOA in responding to reports of feral love birds in Kīhei in July. It was determined that the birds were owned by a nearby resident who was allowing them to fly free. Control is pending.



## MoMISC Activities

In July, MoMISC hosted a Youth Conservation Corps group and provided them with training (tool use, herbicides, etc.). The group worked on rubber vine and Barbados gooseberry control, performed a Hālawā valley stream survey, and did trail clearing for cat's claw.

During this quarter MoMISC did control work on the following species: rubber vine, Australian tree fern, cat's claw, false awa, woodrose, New Zealand flax, fountain grass, long-thorn kiawe, 'ōhi'a rust, tumbleweed, tree daisy, gooseberry, and arundo. MoMISC is trying to get a lot of control work done before rainy season! John Neizman (DOFAW) worked with MoMISC for four days on rubber vine, woodrose, and New Zealand flax.

In August, MoMISC participated in The Nature Conservancy's first annual "Goat Fest" for the Moloka'i Watershed Partnerships and gave brief overview of MoMISC activities. Lori hosted Paula Warren on Moloka'i – Paula is an invasive species policy analyst from New Zealand and was a guest speaker at the Hawai'i Conservation Conference.

Kamalani joined the TNC staff for a 2-day staff retreat on Moloka'i in September and also completed the 3-day pesticide applicator course. Lori and Kamalani attended four days of in-house GIS training with Sam Aruch, TNC's Assistant Natural Resource Manager.