

**MAUI INVASIVE SPECIES COMMITTEE
APPROVED MEETING MINUTES**

May 9, 2008

ATTENDANCE: Forest Starr, Kim Starr, Stuart Funke-d'Egnuff, Nathan Varns, Fern Duvall, Kuhea Paracuelles, Bob Hobdy, Elizabeth Speith, Chris Buddenhagen, Pat Bily, Chuck Chimera, Ranae Ganske, Karl Buermeyer, Mindy Wilkinson, Glenn Shishido, Lissa Fox, Brooke Mahnken, Teya Penniman, Mike Ade, Adam Radford, Elizabeth Anderson

- The meeting was called to order at 9:10am by Dr. Fern Duvall.
- Introductions were made around the table.
- Minutes from the February 1, 2008 meeting were approved. They will be posted on the website.

ANNOUNCEMENTS

- Ranae: NRCS has a farm bill program that should be signed soon. We have programs that assist landowners with habitat restoration, wetlands, ranching, farming, etc. There are incentive payments available and we need applicants. The contracts can be up to \$350,000 per person. Fern: how could that play into invasive species work on private land? Ranae: it depends on the landowner – for example, if they reduce invasive species habitat and provide native insect or bird habitat instead that would probably qualify. Large landowners don't qualify because of AGI limitations. The NRCS office has moved. We are right behind Home Depot with a new phone number of 871-5500. The extensions are still the same as at the old location.
- Kuhea: June 22 is the 2008 International Year of the Reef Night at Maui Ocean Center from 6-9:30pm. There will be a lot of exhibitors and great entertainment including an invasive species cook-off and a poster contest for kids. The winning poster will be displayed on buses, at Haleakala National Park, etc. There will also be a photo wall on display. The cost is \$11 for kamaainas and \$8 keiki.
- Teya: there will be an Incident Command System exercise conducted June 10-13 on the red imported fire ant. Most of the exercise will be on Oahu, with some activities on Maui. HDOA & APHIS will be participating on Maui. It will be a big operation. Karl: USFWS is bringing on board a new biologist who will be stationed on Maui. They are building a green facility up on Olinda Rd. for office space.

BRIEF UPDATES

Funding

- Elizabeth A: we are currently operating primarily off of FY08 OED and FY08 State/HISC funds. There will be ~\$300,000 from the NPS Centennial Challenge going into the unit and another \$200,000 from the NPS flexible base program. The majority of these funds will be to support MISC. The NPS helicopter contract has bumped up from \$250,000 to \$500,000 – this include pampas grass, miconia, leeward Haleakala and park operations. Teya: the bill to allow NPS funds to be used for work outside of park boundaries was approved! Steve has put in a huge amount of time dealing with paperwork and contracting. The additional funding from the NPS will require more time from Steve and Jeremy as they will be here running our pampas heliops this year.
- Teya: we recently submitted a proposal to NRCS for \$75,000 for continuing coqui work in Maliko gulch. We currently have an NRCS grant for miconia aerial operations. Stuart: there is \$100,000 in the County budget each year for environmental emergencies. \$60,000 of this year's fund has not been applied for yet. Kuhea and I have pulled together four grant proposals for these funds - \$20,000 for nettle caterpillar, \$20,000 for turtle fencing at Kealea Ponds, \$10,000 for fireweed, and \$ 10,000 for invasive algae work. It looks like the proposals will go through. There will likely be another \$100,000 fund for next year. Kuhea: the fireweed proposal will support volunteer and biocontrol efforts. The invasive algae funding is for a feasibility study on the Super Sucker. It collects and harvests clean algae that can then be used as fertilizer. Stuart: Tri-Isle has received notification that we will be handling a three year pilot program for a recycling center on the island of Lanai. The center will be a community partnership.

- Mindy: the State budget is all still tentative. The last Committee draft added \$400,000 for coqui frogs (\$125,000 to Maui). The County projects will each need to provide a plan. There was no funding included for coqui on Oahu. The rest of the budget is the same as last year with HISC at \$4 million. We are really looking at clarity and transparency this year in how the funds are allocated. Chris is working on a better way to allocate the funding. Our Forest Service funding should be about the same as last year.
- Karl: there should be approximately \$200,000 from FWS available for the ISCs. The funds are to be spent on private lands. A solicitation for proposals will be sent out. Kuhea: the County budget hasn't been through the second reading yet. I need to get the printout of the request. Level funding was recommended for MISC. There is full support for MISC. No cutbacks are anticipated for any environmental projects. Teya: thanks to all of our partners for their efforts and support – Kuhea, Mindy, Chris, Stuart, Nathan, Steve. We couldn't accomplish our mission without you.

Staffing

- Teya: we will be doing quite a bit of additional field worker hiring. We are still in the process of filling empty positions and adding a new Hana position with the NRCS funds. We will ultimately be adding up to eight positions with the Centennial Challenge funds over the next few months. The park is in the process of hiring ~6 field positions right now.

Public Relations

- Lissa: we had educational booths at the Taro Festival and at the Maui Nui Botanical Garden Earth Day Celebration. Over a two week period (4 days), MISC/EMWP took the entire 7th grade from Kalama Intermediate to Waikamoi. The teacher had obtained a grant for the busses. Our rabbit article in the Maui News generated a number of rabbit reports. Forest: please send the Maui News articles to the MISC-L. Elizabeth A: they are posted on the website. Lissa: our next newsletter is in layout phase and hopefully will be printed before the end of summer. The focus of this edition is early detection and eradicable species.
- Lissa: Elizabeth S. and I gave an early detection workshop to the staff at the Maui Forest Bird Project and we did one for the Piiholo-based MISC crew. The booklets will be printed very soon. Kuhea: what does the workshop entail? Lissa: there is a handbook and we cover how to identify species that have been targeted for eradication. Elizabeth S: we are training people that are in resource positions and we will be starting to give community workshops in the next couple of months. Kuhea: can you come and give a workshop to County workers that are in the field all the time?

Legislature

- Mindy: there is a bill specifying that it is illegal to sell a plant in Hawaii that is on the restricted list. There is no funding attached. Chris: now they can stop weeds on the restricted list from coming in or being sold. The restricted list is related to economically important species. We can get noxious weeds added to that list to stop importation.
- Mindy: there is a TNC bill still pending to get a crew and independent funding for the Super Sucker. The bill focuses primarily on Oahu, but it will free up the aquatic ISC to work on other islands. The Biosecurity package is down to two bills and the Governor is not inclined to sign them. The issue is an increase in cargo fees for uniform cost recovery. There is resistance from the airlines. Although 98% of cargo is maritime, the high risk stuff comes in on airplanes (lettuce, orchids, etc.). There also are concerns that biosecurity facilities at airports will slow down movement of cargo, but in reality it can be planned efficiently.
- Kuhea: I attended the last Superferry Task Force meeting. I was the only one outside of the task force that attended. They revealed some things about damage to the vessel. I made a plug for having the next meeting on Maui. If that happens, I will get the word out that we do want the public to come. They are starting a second daily Maui voyage today. The Superferry is not planning to go to Kauai if the public doesn't want it.

Miconia Conference

- Teya: as most of you already know, MISC will be sponsoring an International Miconia Conference at the Keanae YMCA from May 4-7, 2008. We have a committee pulling things together – Lloyd, Pat, Stuart, Jeremy, Tanya, Lissa, Brooke, Elizabeth, & Teya. Thanks to Tri-Isle for supporting the conference and being our fiscal sponsor. We are budgeting for ~120 attendees.

STRATEGIC PLAN REVIEW

- Teya: our strategic plan is a big picture view of what we are doing and where we want to be going. Today we will look at strategies and performance measures. Do they still make sense? Should we take things off or add things? Where are we meeting our goals? The performance measures don't necessarily capture all of the strategies outlined.

GOAL 1: PROTECT MAUI NUI FROM THE HARM OF INVASIVE SPECIES.

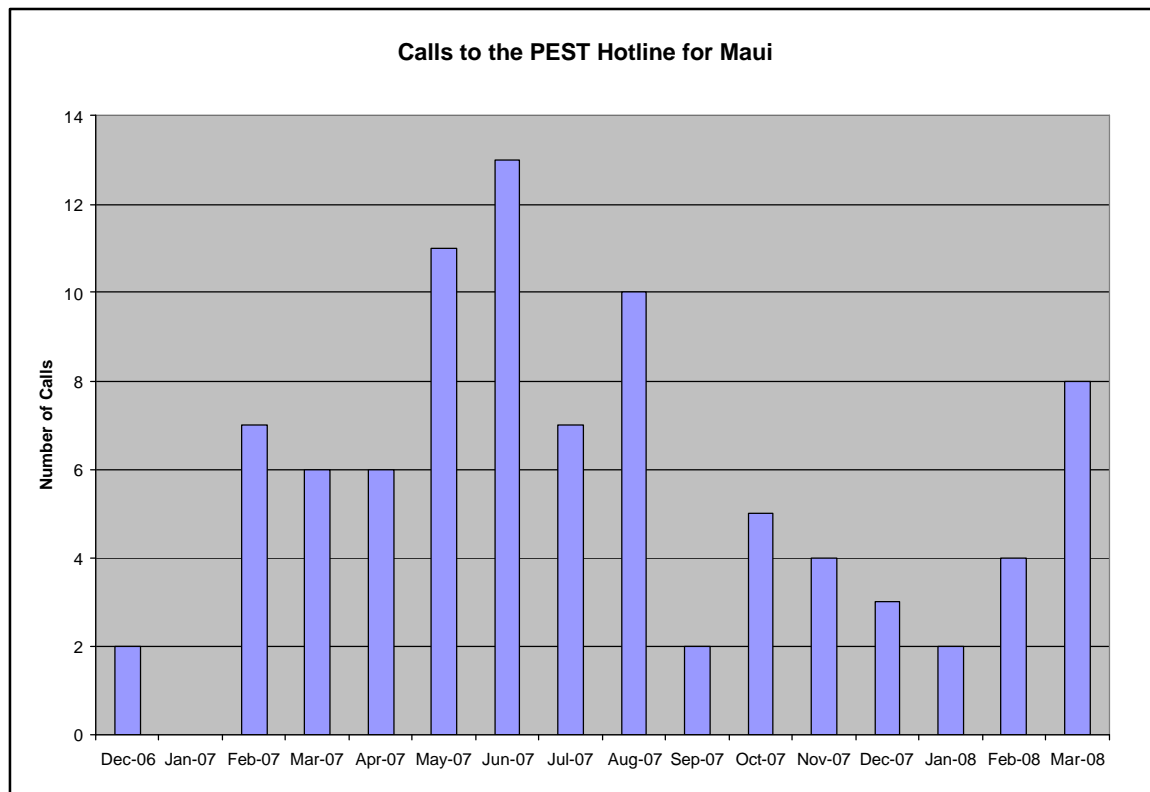
Early Detection – Objective 1.1: New terrestrial invasive species are detected at the incipient stage of invasion – when control or eradication is still feasible.

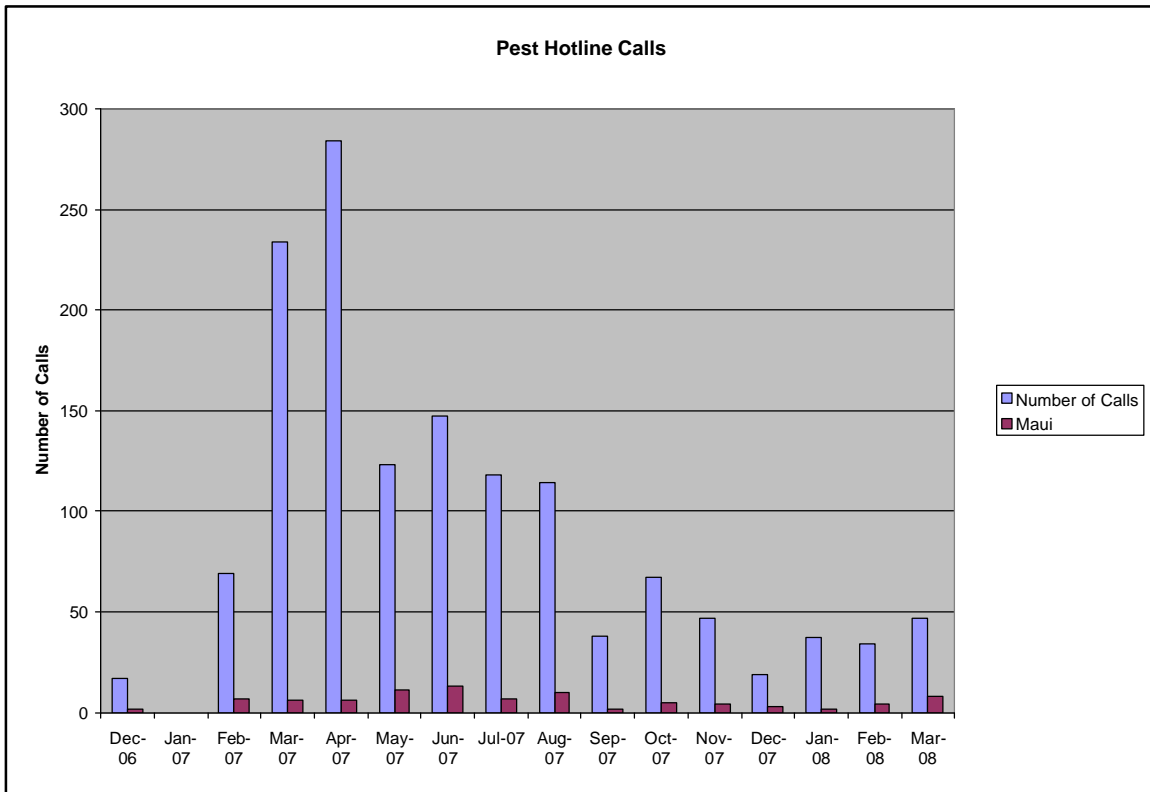
Strategies:

- Teya: Elizabeth Speith, Lissa and Willie are doing eyes and ears workshops. Forest and Kim are funded by MISC to do nursery and botanical garden surveys. We are continuing our monthly newspaper articles in the Maui News. We are working to increase staff capacity through training. We recently held vertebrate training and botany training is scheduled.

Performance Measures:

1. Public reports about invasive species via the state PEST hotline or directly to MISC increase.





- Teya: when there is active advertising of the pest hotline numbers there is a bump in reports. We need to work on identifying awareness gaps. We focus on our targets, but we need to know what else is going on. Fern: every time HDOA detects a new invertebrate, pest alerts are issued. It would be interesting to know how many times Mach detects a new animal for Maui. This seems like something we should be made aware of. Elizabeth S: we can start another list serve. There is a mechanism to allow people to input information via the online form and database. Teya: some information does not make it into the system. Fern: when they determine that something is new, it would be good for MISC to know - especially something new that may have an impact on functions other than just agriculture. Chris: we are working with Bishop Museum to put together a proposal to the HISC for more active early detection and information regarding what is present. We hope to have HDOA report to Bishop Museum. Mindy: it would be helpful to clarify that there are different products needed. We need early detection for other taxa besides plants. We need to work towards uniform data and increase our efficiency. Teya: does anyone have a suggestion for how we get there? What should the next step be? Forest: Clyde Imada has an updated the list of plants naturalized in Hawaii. It would be great to have that be an annual effort that is made public. Mindy: MISC should work with the other ISCs and USGS and find out who is doing early detection surveys. We should have an interagency meeting with agencies that are collecting data. Are there gaps in the surveys? Teya: that sounds like a good next step - participate in an interagency meeting to evaluate scope of early detection efforts.
- Teya: public reports to MISC are not currently tracked adequately for all species. We have good information for coqui frog reports. Anecdotally, reports increase in direct response to newspaper articles. Most, but not all, reports are for existing pests. We regularly receive inquiries about invertebrate pests which are typically referred to HDOA. Should MISC make more of an effort to track every inquiry or attempt to analyze reports from the public? Elizabeth S: you could report into the existing database. Teya: we should work with you on that. Kuhea: it is important to track the inquiries. It is good to report back to people that call in. Pat: this is all part of reinforcing public education. Teya: do you record all reports even if they are not of concern? Pat: is it really worth it? It is a lot of tracking to do. Teya: should we limit reporting to calls that we follow-up on or forward to another agency? Things that need to be assessed. Randy: it might be worth tracking your false alarms to a certain degree. False alarms show you where you need to do more outreach.

2. Numbers of trained observers familiar with MISC targets and other identified incipient species.
Number of newly trained (non-MISC staff) observers:
Early Detection Workshop: 33 trained to date (6 more workshops scheduled)
Vertebrate Training: 3 non-MISC people attended

3. Number of miles / nurseries surveyed; number of new detections.

TO DATE:

Number of nurseries surveyed:

- * 7 nurseries physically surveyed.
- * 4 nurseries surveyed through lists and literature.
- * 13 nurseries cleaned up from 1999 surveys.

Number of new detections:

- * 314 new state records (not yet recorded in HI by BISH).
 - 93 of which have GCW score
 - 29 of which have GCW "environmental weed" score

Total number of species encountered

- * 1866 species encountered
- 910 with GCW score
- 493 with GCW "environmental weed" score

- Forest: we are looking for things that are here in low numbers with high risk numbers and then perhaps we will follow-up with roadside surveys. We have collected 20 of the new state records.

Rapid Response – Objective 1.2: Clear protocols guide agency responses to detections of new invasive plants, vertebrates, invertebrates and aquatic species.

Strategies:

- Forest: have you qualified what new means? Some things may not be new to agriculture.

Performance Measures:

1. Number of responses to new invaders. Teya: this needs better quantification and work on protocols.
2. Key agency personnel have enhanced understanding of responsibilities for responding to invasive species reports. Teya: how do we measure this?
3. Misguided referrals are reduced. Teya: how do we measure this?
4. Time of response from discovery or report to assessment. Teya: this is not possible without clearer protocols and tracking.
5. Time of response from report to action. Teya: this is not possible without clearer protocols and tracking.

- Teya: we need work on this area. We have not put a lot of time or effort here. We know who to call for different things, but we need clearer written protocols. The last two items could come out of the database. Elizabeth S: timing could be generically assessed, but we don't know what the agency does or how long it took for the information to get to the responsible agency. Teya: perhaps we can discuss at another meeting and invite HDOA. Forest: we need a multi-agency rapid response plan that defines responsibilities. Teya: the upcoming RIFA ICS exercise should be helpful here. Karl: where can I find the rapid response list? Mindy: it is compiled by island. I can send it out again.

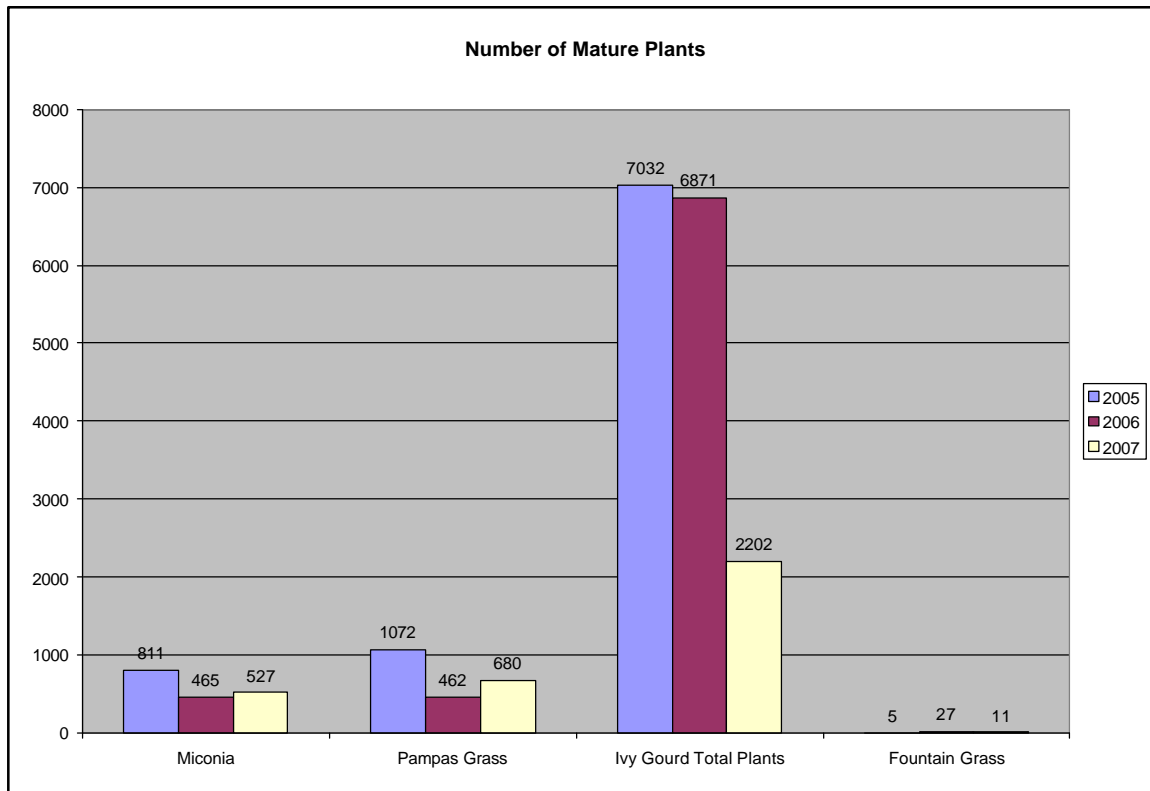
Eradication & Control – Objective 1.3: Maui Nui’s highest priority target species are eradicated or contained.

Strategies:

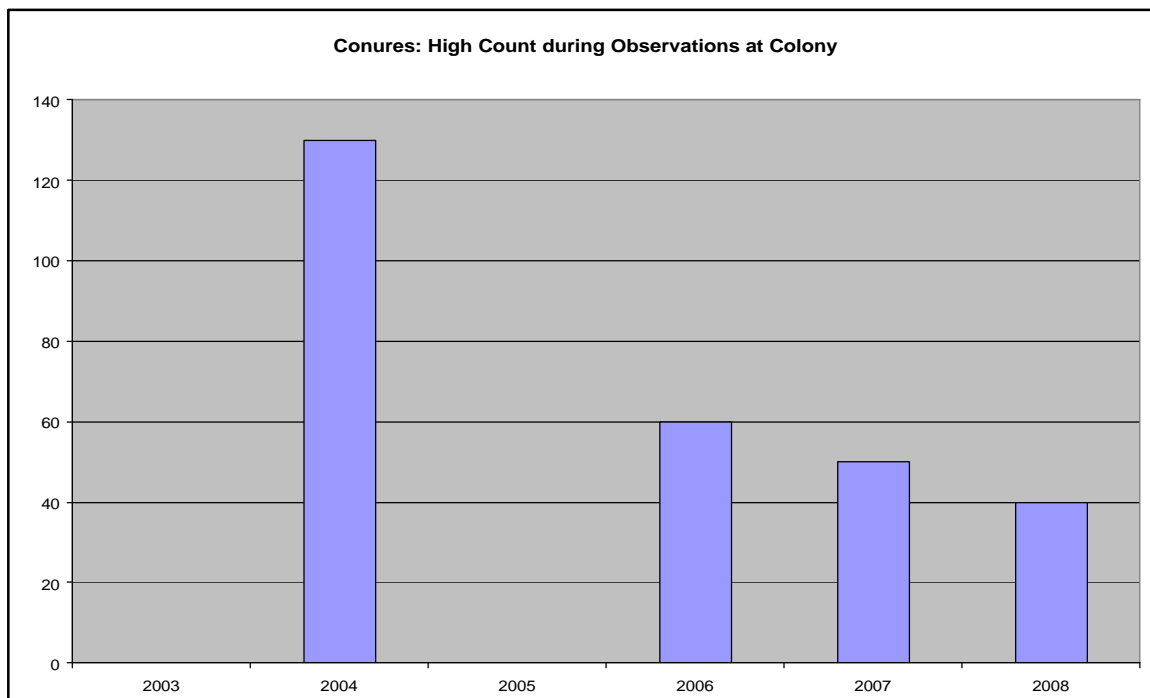
- Teya: the criteria for deleting a species should be the same as for adding.

Performance Measures:

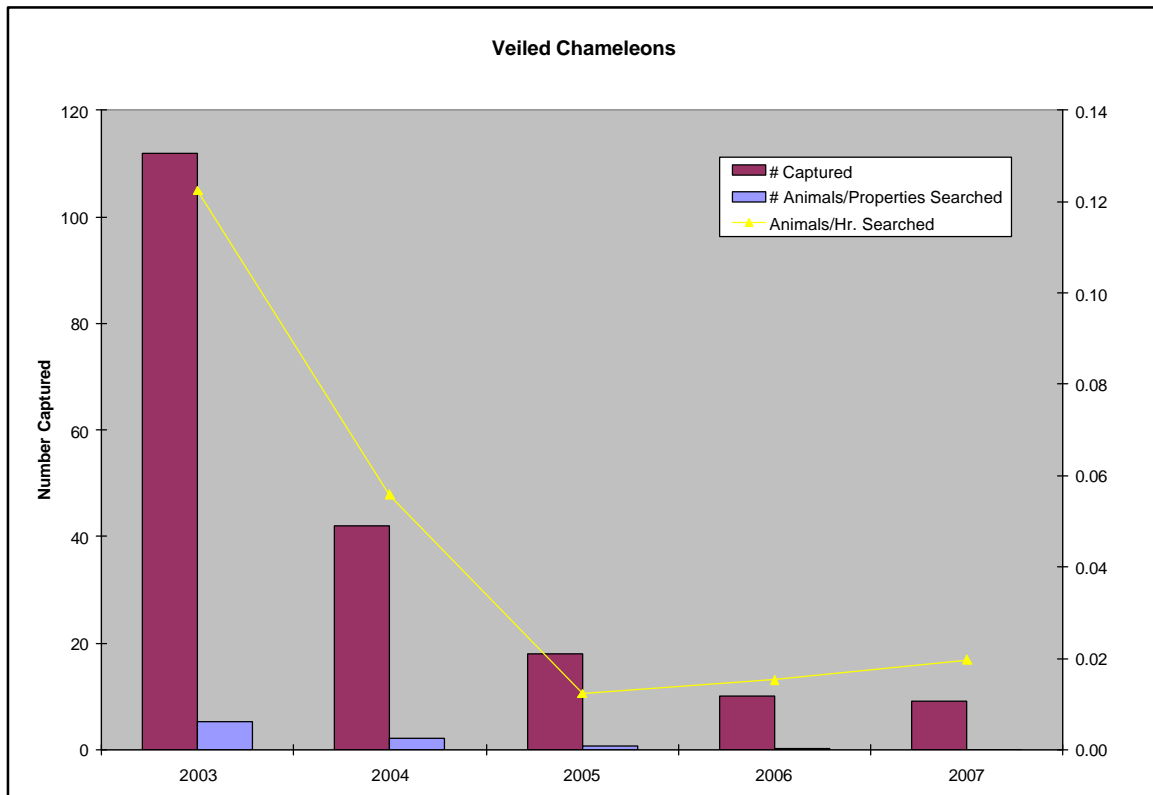
1. List of target species selected for work is consistent with prioritization criteria. Teya: we are doing this, but we need to do a better job of documenting the process.
2. Decreased numbers of mature plant targets.



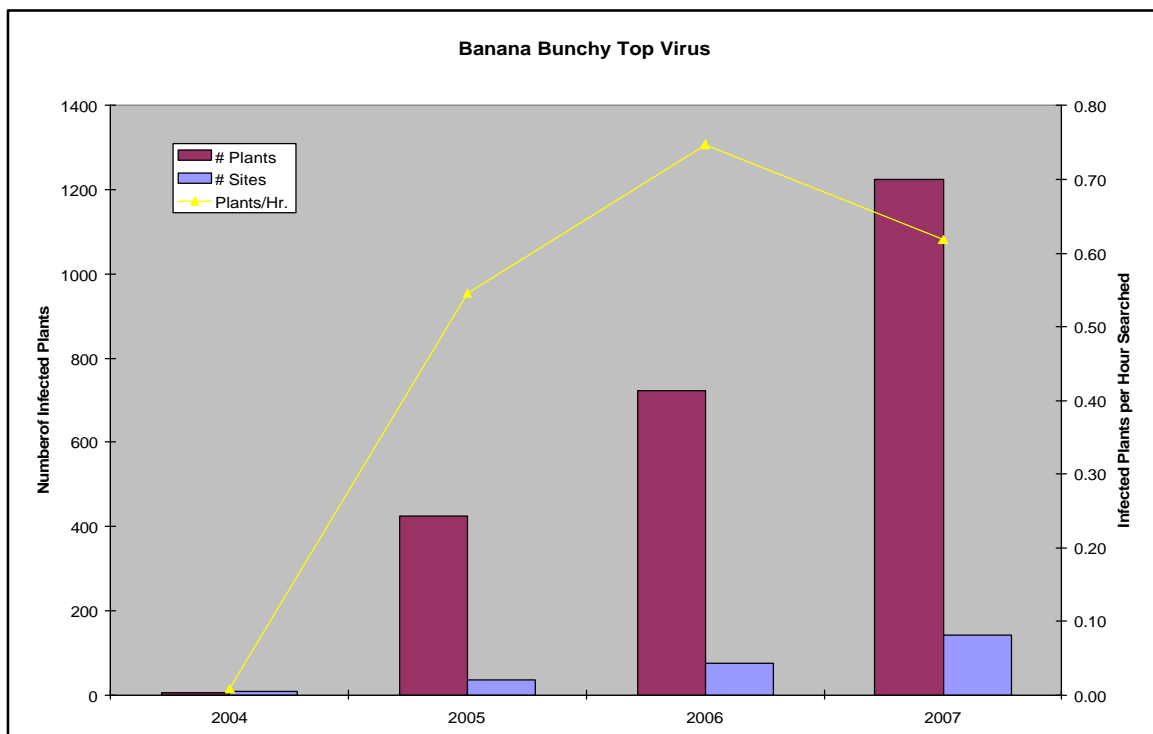
3. Decreased numbers of individual vertebrate or invertebrate targets.

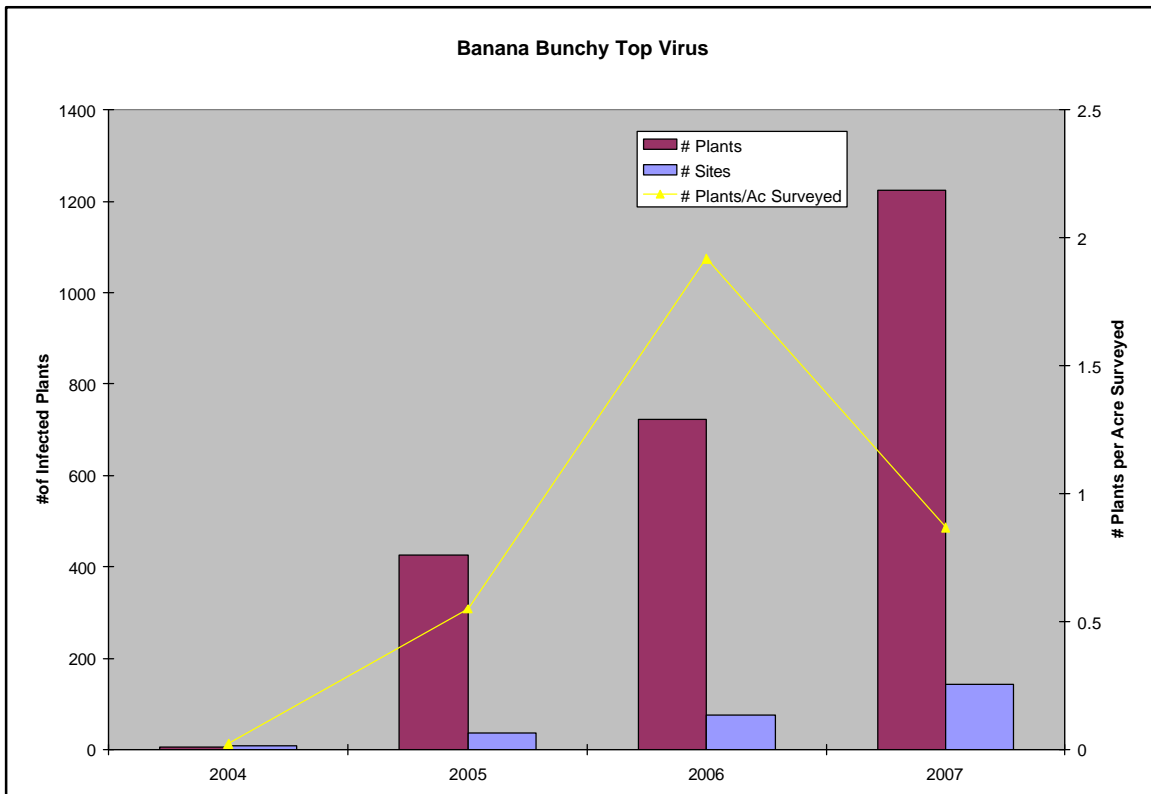


- Teya: a total of 124 conures have been removed to date. Partner participation has been essential. Randy: are we staying ahead of reproductive capacity? Teya: it looks like we are.



- Teya: we have another potential area to search for veiled chameleons in the Pukalnai area. We need to get specifics and go back. Pat: has anyone looked at the original West Maui site recently? Adam: we just searched the area again.

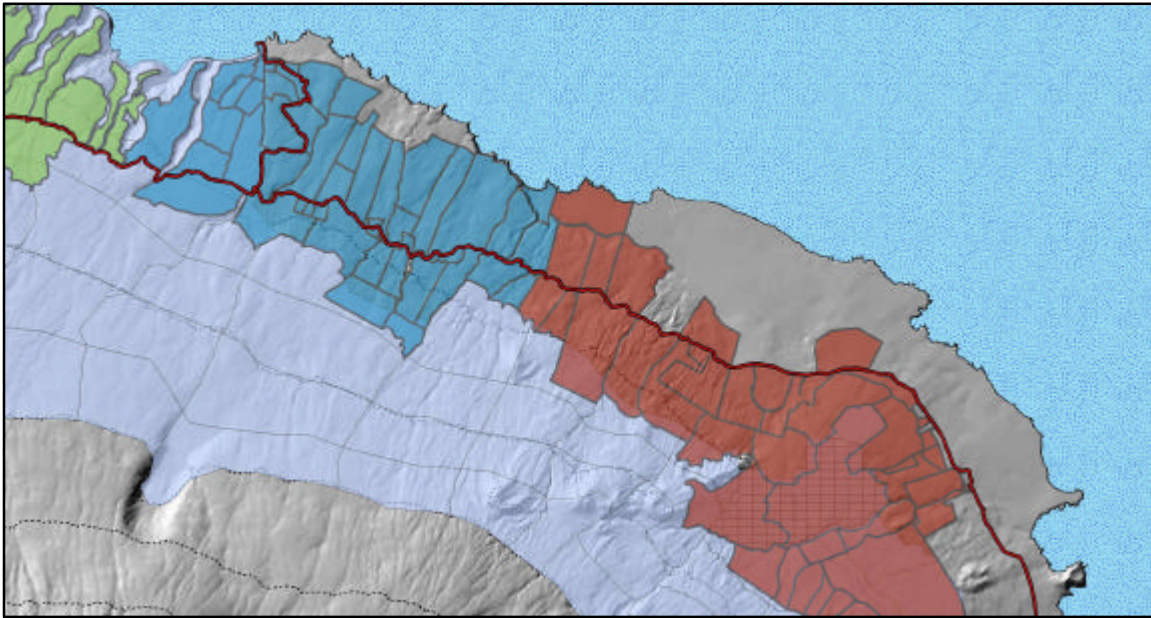




- Teya: we are covering a lot of ground with BBTV. Adam: we are still finding new and big areas. We need to look at our data after we do another full sweep this summer. It does not appear to be expanding as we had originally feared. There are a lot of areas where it has not been found. It is on Molokai now, but only in the central region. It could still be suppressed there. There is none in East Maui or Haiku. Lanai is still clean and we are continuing to do annual island-wide surveys

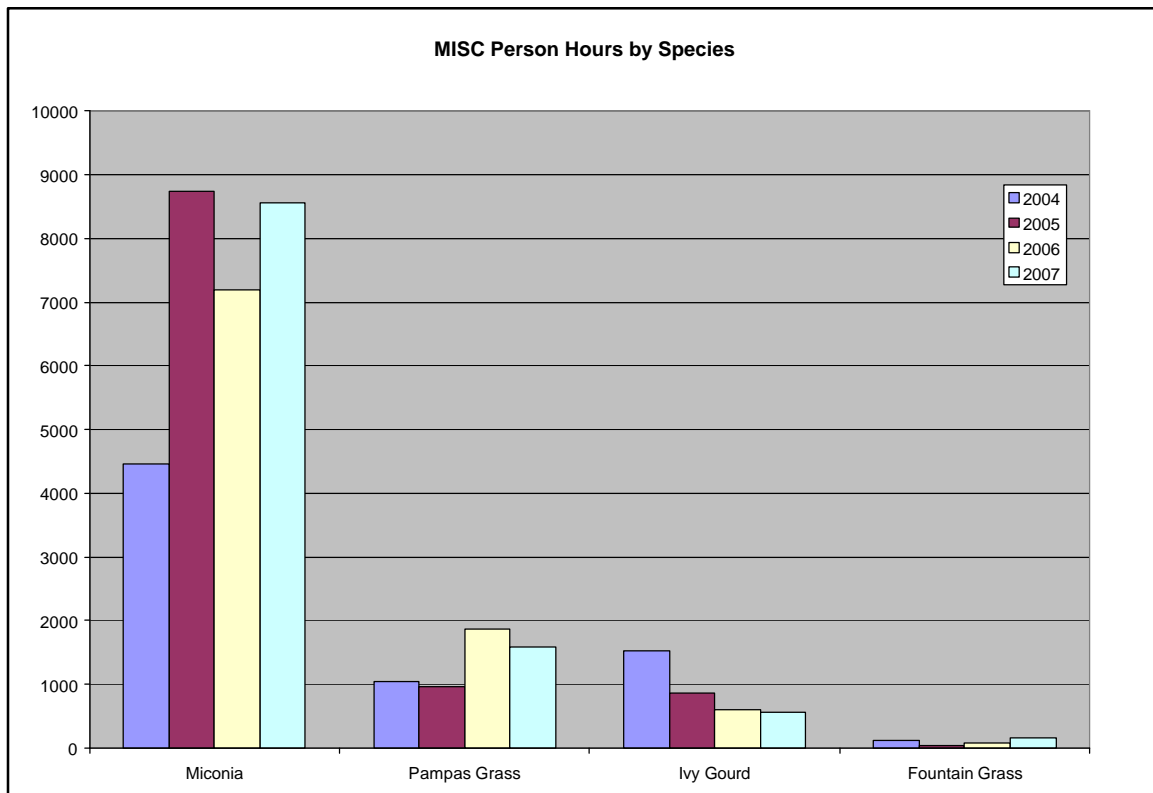
Coqui Frog: Population Centers	# Eradicated
2005: 12	0
2006: 11	1
2007: 12	2
2008: 8	5

- Adam: we have been able to take six coqui sites completely off our list. The situation is well in hand everywhere except Maliko. We continue to have problems with reinfestation at some sites.
4. Decreased number of infested acres by target. Teya: this is difficult to quantify for many species because of the time to eradication and the cost involved in collecting data about infested acreage. This measure works for coqui frogs. With frogs we can measure the boundary and known number of populations. There are too many locations for plants. We need to work on a more valid measure for the future. Fern: we should consider annual or twice a year pet shop surveys. It would be good to have a better idea of what is known to be on the island. We should also get a list of the permits for what is legally being imported. The information might be restricted, but maybe we could get a list of what could be here.
 5. Increased percent coverage of infested areas. Teya: this is difficult to quantify when infested acreage increases or changes over time due to continued discovery of new sites. The idea could be applied to a limited number of repeatable units to gauge success. We can quantify new potentially infested areas that are added to survey work. Example: new miconia aerial management units.

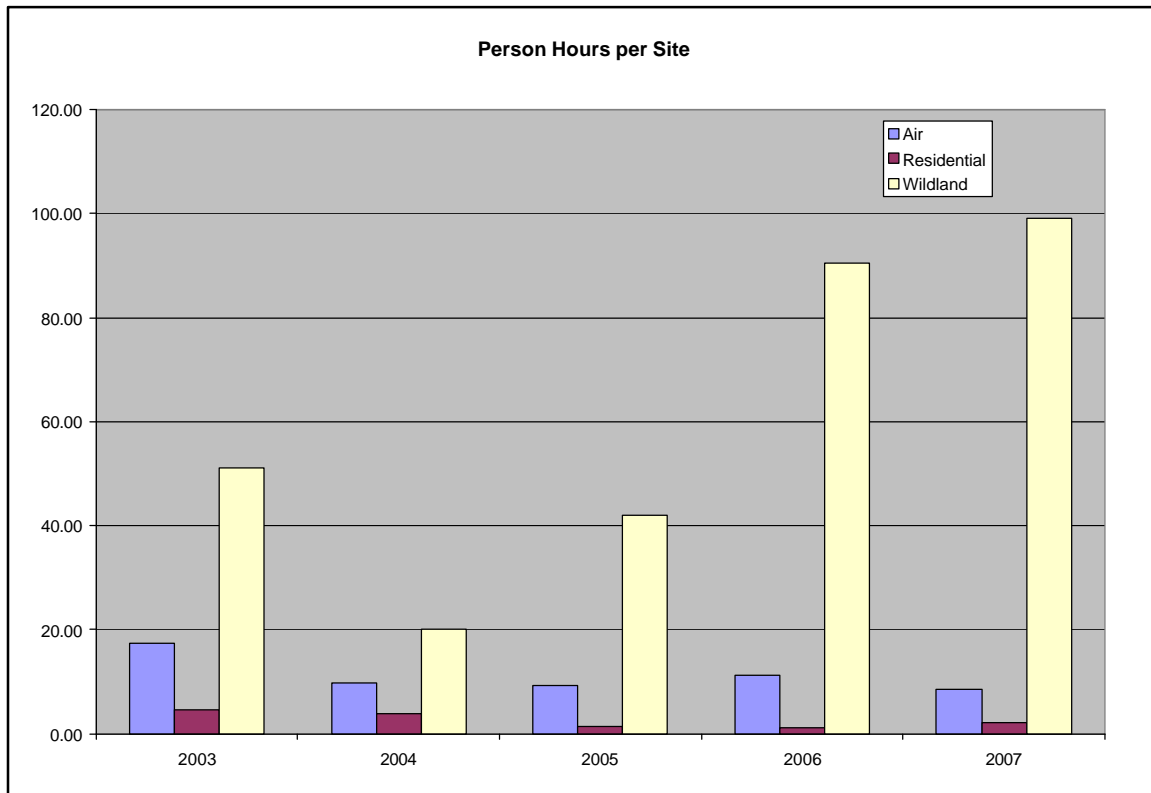


New Aerial Management Units

6. Decreased volumes of herbicide used or applied on target species. Teya: herbicide won't decrease unless the number of plants is decreasing or efficacy of control has increased. I am open to suggestion re: how this would be a useful measure. If we are still finding plants, then it will go up. Pat: is there a way to equate biomass rather than counting individual plants?
7. Decreased labor employed on target species. Teya: at present, labor needs to increase for most species.



- Teya: the 2004 miconia data doesn't include Hana crew hours. We should see an increase in person hours this next year with increased staffing.



- The increase in wildland hours in 2006 and 2007 is a reflection of the fact that we are spending time in areas where we didn't used to work.

Prevention – Objective 1.4: Maui Nui has effective prevention programs to keep unwanted invasive species from breaching our harbors, ports and airports.

Performance Measures:

1. Number of HDOA inspectors on Maui increases.
2007: 9-10
2008: 12-14 (still need 2-3 dog handler teams)
2. Weed Risk Assessment protocols implemented to limit importation of high-risk species. Teya: not yet! But MISC is supporting WRA by hosting WRA Specialist.

Bio-control – Objective 1.5: MISC supports discovery of effective bio-control agents to address high priority target species that are not easily eradicated by chemical / mechanical means.

Performance Measures:

1. Research on bio-control agents for selected targets increases. Teya: not yet. Mindy: how would you measure an increase?
2. Increased discovery and/or release of effective new bio-control agents for selected targets. Teya: releases are pending for fireweed, nettle caterpillar, strawberry guava, and Erythrina gall wasp. The Maui Conservation Alliance drafted a biocontrol resolution for Mayor to present to the Maui County Council recognizing the importance of biocontrol. MISC was active participant in process.

GOAL 2: STRATEGIES AND ACTIONS ARE SCIENCE-BASED, EFFICIENT & EFFECTIVE.

Science-Based – Objective 2.1: Action Plans are based on the most current and reliable science available.

Performance Measures:

1. Control methods are responsive to new information. Teya: for *Cortaderia selloana* we are changing our strategy now that we know it is reproducing and we are using the results of the UC Davis work in our outreach.
2. Committee members and staff report continued learning experience. Teya: should MISC do a survey?

Efficiency & Effectiveness – Objective 2.2: Survey and control actions are efficient and effective while minimizing non-target impacts.

Performance Measures:

1. Control efficacy increases. Number of repeat visits to control target species decreases. Teya: I am not sure this is a good measure. A decrease in the number of repeat visits doesn't necessarily mean an increase in efficacy. It could mean there are simply fewer plants to kill, i.e. effectiveness.
2. Efficiency of control work is increased. It takes less time to complete the same area or number of properties. Teya: this is likely to vary greatly depending on the terrain. It could be measured using the same repeatable units. We have tried to look at this from the miconia standpoint. Repeatable units are essential.
3. Enhanced understanding of control costs for each target species supports decision-making process. Teya: this is in progress. We need to talk about the use of buffers for searches. What needs to be done beyond what we are currently searching? We need uniform standards across the ISCs to use in order to support our cost analysis process.
4. Non-target impacts are documented and reviewed. Teya: how would we document this? We could do a study. Pat: I suggested this as a measure so you have data in case someone complains. You would need to set up 200-square meter plots. You could do this in Honomanu. I could help you.
5. No mature plants at repeat visits. Teya: this is true for some sites. The information could be pulled out of the data with some effort. Fern: does this work for non-plant species? They are out there but harder to find. The control costs for each species don't necessarily reflect these differences.

Data Management – Objective 2.3: Accurate, current and relevant data provide the foundation for MISC's daily operations and long-term strategies.

Performance Measures:

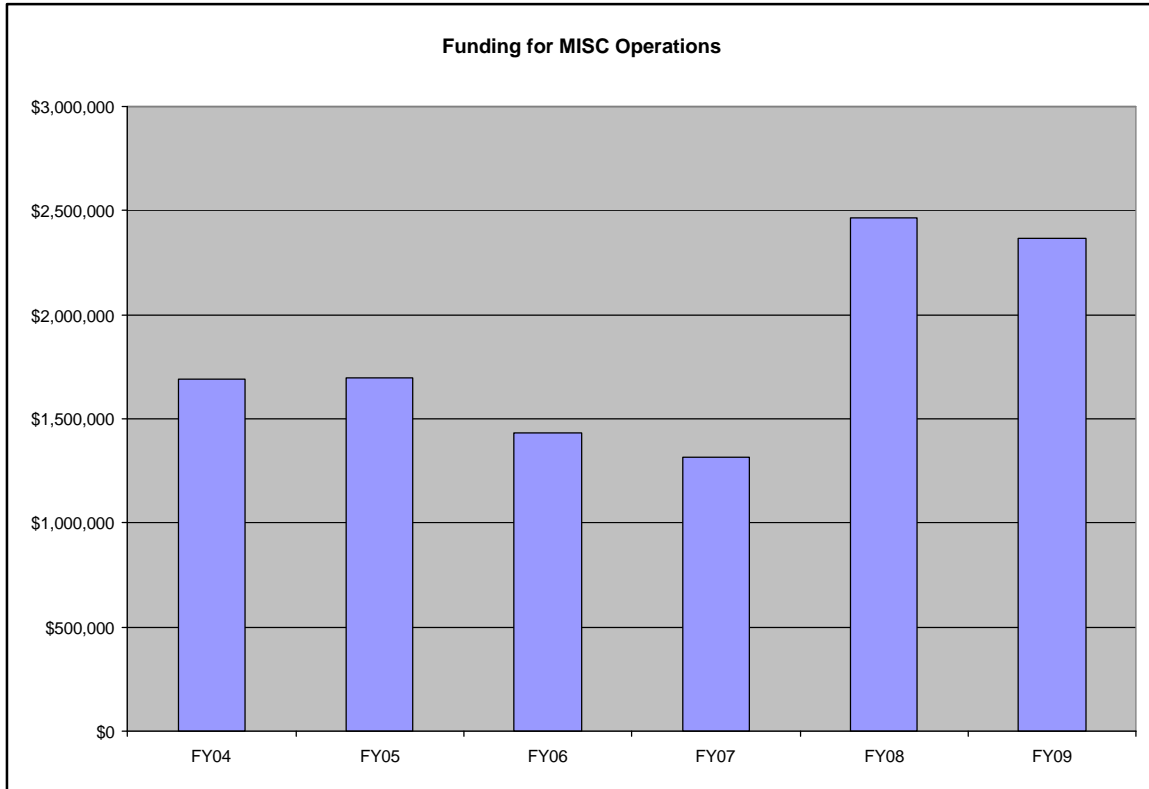
1. Internal data consistency is enhanced; data errors are reduced. Teya: this is hard to document. There is still room for improvement. We change and note any data errors we find. We could create a log, but then we are creating data on our data. Good validity checks are important.
2. Tabular and spatial data are fully portable to statewide system in timely fashion. Teya: our data is currently ported to the statewide system.
3. Data collected provide meaningful measures of success. Teya: this can be improved upon.
4. Maps demonstrate progress over time. Teya: this is true for some species. Progress is best seen in PowerPoint versions of the data.

GOAL 3: ENGAGING THE PUBLIC TO PROTECT MAUI NUI.

Public Understanding & Support – Objective 3.1: The public understands and supports MISC’s mission.

Performance Measures:

1. Funding is maintained or increases. Teya: MISC Funding has increased over time



2. Number of public contacts increases. Teya: public contacts have held fairly steady at public events:

2005: 4000 10
2006: 4827 15
2007: 3893 10

Number of presentations has varied:

2005: 4
2006: 18
2007: 6

3. Landowner recalcitrance decreases. Teya: this is difficult to quantify. Let them meet Willie! He wants to deal with these people and will be tackling some of our problem permission situations.
4. Public awareness of MISC and/or target species increases over time. Teya: this is also difficult to quantify. Anecdotally, yes. Many people in Makawao, Kihei, Kula, Haiku (Kokomo), Haupoa, Huelo, and Lahaina know who MISC is. Our monthly Maui News articles are read and commented on.

Industry Participation – Objective 3.2: The nursery and landscape industry are supportive partners.

Performance Measures:

1. Public is aware of annual award. Teya: this is difficult to quantify.
2. Nurseries and plant providers demonstrate support for frog-free certification program. Teya: so far there has been a relatively high level of interest in participating in the program:
115 Initial Contacts
32 Not Nurseries
83 Nurseries or Farm/Botanical Gardens
 23 No answer / Need to Call Back
38 Contacted
16 Interested
12 Pending
9 Not Interested
3. MALP adopts Codes of Conduct. Teya: MALP adopted the Codes of Conduct.

Education – Objective 3.3: MISC helps educate the students of Maui Nui about invasive species and fosters an appreciation for the natural environment.

Performance Measures:

1. Numbers of presentations to school groups. Teya: the number of classes visited has increased.
2005: 7 238
2006: 24 1852
2007: 46 939
2. Numbers of youth involved in survey and control activities. Teya: the number of youth involved in survey and control activities has increased.
2006: 0
2007: 96
2008: 52
3. Increase in recruitment of local youth to MISC positions. Teya: this area still needs work. We are hosting two local interns this summer - YCC (Piipholo) and AmeriCorps (Hana).

GOAL 4: MISC MAINTAINS A FOCUS ON MAUI NUI & CONTRIBUTES TO STATEWIDE NETWORK.

Molokai, Lanai & Kahoolawe – Objective 4.1: Support invasive species efforts on all islands of Maui Nui.

Performance Measures:

1. MISC has a regular presence on each island of Maui Nui. Teya: we have two full-time staff on Molokai. We make regular trips to Lanai and we are helping to develop on-island capacity on Lanai.
2. Hours worked in cooperation with partner agencies.
2006: 869
2007: 1,622
2008: 914 (to date)

Hours contributed by partner agencies:

2006: 1,484
2007: 1,143
2008: 473 (to date)

ISCs & CGAPS – Objective 4.2: Support statewide efforts to address invasive species.

Performance Measures:

1. Presence and participation at All-ISCs and CGAPS meetings. Teya: two MISC Committee members and one staff member are on the CGAPS Steering Committee; our Committee Chair chaired CGAPS and is Chair Emeritus.

Partnerships – Objective 4.3: Acknowledge and utilize the contributions of our partners.

Performance Measures:

1. Enhanced sense of contribution among partners. Teya: should MISC conduct a survey? Our partnership should be celebrated.

GOAL 5: MISC HAS ADEQUATE AND STABLE FUNDING RESOURCES.

Financial Stability – Objective 5.1: Improve long-term financial stability while maintaining or increasing current level of funding.

Performance Measures:

1. Funding from current sources maintained or increased through FY10. Teya: funding has increased through FY08, possibly FY09
2. New sources of funding secured. Teya: we need to work on this. We did receive funding from NRCS this year. They are a new source.
3. Feasibility of creating endowment fund explored. Teya: this needs work.

Fiscal Responsibility – Objective 5.2: Resources are used efficiently and fiscal accountability is high.

Performance Measures:

1. Cost-cutting measures are implemented where feasible. Teya: a review of operations for enhanced efficiency is needed. Carbon foot-printing could be reviewed as well.
2. Partners and funding agencies report satisfaction with fiscal accounting. Teya: should MISC conduct a survey?

GOAL 6: MISC IS A REWARDING WORKPLACE

Retention – Objective 6.1: Improve employee retention.

Performance Measures:

1. Duration of employment increases. Teya: the average length of employment has increased over time. We need to measure both retention and turnover and analyze the data.

Professional Development – Objective 6.2: Provide meaningful opportunities for personal and professional growth.

Performance Measures:

1. More training occurs. Teya: current training, either recent past or scheduled within next six months includes: Vertebrate Identification, Early Detection, Rappelling, GIS, Botany, Conflict Resolution, Orienteering, Chain Saw, and Wilderness First Aid.
2. More staff movement within MISC. Teya: three members of the field staff have moved into positions with more responsibility. Two have assumed greater responsibility within existing positions. Proposed staff restructuring to create position advancement within the field worker positions is being reviewed by RCUH.

Local Recruitment – Objective 6.3: Enhance recruitment of workforce from local communities.

Performance Measures:

1. Percentage of crew members hired from local communities increases. Teya: we need to continue to work on this.
2. Number of internships increases. Teya: the number of local internships has doubled (1-2). We assign a mentor to each person.