

Maui Invasive Species Committee (MISC): Highlights

Significant progress on all target species protected important conservation and agricultural lands.

Highlights:

- Approximately 45,910 acres surveyed for 11 invasive plant species.
- Total number of plants controlled = 63,458 (2,104 mature).
- Number of dead birds submitted for WNV in 6-month period: 26.
- Public contact through outreach & education efforts: 3,250.
- Partnership support resulted in greater than a 2:1 match for all state funding.

MISC conducted survey and control efforts for targeted invasive species on both Maui and Lanai. On Maui, these activities helped to protect eight unique ecosystems, which support 79 federally listed threatened and endangered plant species and a comparable number of candidate species and species of concern. Work concentrated on controlling the highly aggressive forest invader, *Miconia calvescens*, and the ecosystem-modifying pampas grass (*Cortaderia* spp.) to protect the integrity of the east and west Maui watersheds. Important grazing areas were protected from the fire-adapted fountain grass and control efforts against banana bunchy top virus helped limit continued spread to commercial and domestic banana production.

The raucous coqui frog (*Eleutherodactylus coqui*) continued to be Maui's top animal pest. Efforts shifted to the infestation in Maliko Gulch, consistent with the Legislature's recent mandate to control coqui on public land adjacent to communities. The eastern half of the heavily infested gulch is state land which borders the Haiku community. Other population centers on Maui have been eradicated or fully contained.

Lanai has 37 endangered or threatened plant species. After years of grazing by introduced ungulates, Lanai has a greatly diminished forest area, underscoring the importance of protecting the watershed from additional invaders. Work on Lanai focused on two species: fountain grass and ivy gourd. Successful control efforts against fountain grass (*Pennisetum setaceum*) are protecting the open hunting areas of Kanepuu from this fire-prone invader. An infestation of ivy gourd (*Coccinia grandis*) has been greatly reduced in the Manele area through persistent control action. Lanai remains free from the devastating banana bunchy top virus. Periodic surveys of all banana production on Lanai helped protect the agricultural industry from BBTv and provided an opportunity for growers to provide clean tissue for production elsewhere in the State.

Progress on control efforts in Maui County are reviewed by subject matter experts during regular Committee meetings. Quarterly reports detail project activities and are available on the MISC website. All tabular and spatial data are ported annually to the statewide ISC database, which is managed by the U.S. Geological Survey's Pacific Basin

Information Node. Selection of target species is evaluated during an annual priority-setting workshop, based on a New Zealand model.

Miconia:

- Ground and aerial crews surveyed 23,766 acres for miconia.
- Over 57,700 miconia plants were controlled, including 566 mature ones.
- Aerial control efforts benefited from substantial support and involvement by the National Park Service.
- A partner project with Hana Ranch and Natural Resources Conservation Service (NRCS) funding supported one additional staff and aerial operations.

Coqui Frog:

- Five population centers on Maui have been eradicated, meaning it has been more than one year since the last vocalization was heard.
- Eight population centers have been contained.
- Work continued in Maliko Gulch. Crews delimited the extent of the lower infestation of the gulch, which represents spread within the gulch. Where feasible, initial control work occurred in these lower infestations.
- All background work for the coqui-free certification program has been completed, including surveys and production of marketing materials. The program will be launched officially in October 2008. Approximately 23 nurseries and plant providers are official participants in the program.
- More funding is needed to aggressively manage the Maliko wildland infestation.

Molokai/Maui Invasive Species Committee (MoMISC):

Highlights

Molokai is richly endowed with rare native plants, including 60 federally listed plant taxa, 52 candidate and species-of-concern plant taxa, as well as rare invertebrates and birds. There is broad agreement on Molokai that watershed protection, the home for many of these rare species, is the Island's top environmental priority, and that agriculture is the heart of the Island. Control efforts on Molokai focused on protecting both the watershed and agricultural interests.

Much effort is focused on preventing the worst invaders that have gained a foothold elsewhere in the islands from becoming established on Molokai. Annual aerial surveys of the forested watershed are needed to ensure early detection of plants, such as miconia. Community outreach and education has been a high priority to help prevent

the introduction of new threats. MoMISC has successfully partnered with other state and federal agencies to eradicate several harmful species and to survey for agricultural pests.

Progress on target species included:

- Over 11,780 acres surveyed for invasive plants and animals.
- Total number of plants controlled = 2,961 (805 mature).
- Evaluation of albizia (*Falcataria moluccana*) as a new target species.
- Extensive survey and control for banana bunchy top virus.

Banana Bunchy Top Virus

- MoMISC partnered with federal and state agricultural staff and MISC to conduct surveys on Molokai for BBTV.
- Approximately 2,204 acres were surveyed and 462 infected plants were treated.
- Staff conducted educational outreach during door-to-door surveys about the disease.

Other Accomplishments

- Delimiting surveys were conducted to determine the extent of an albizia infestation and assess feasibility of control. Over 83 acres were surveyed with initial control of 4 trees. MoMISC agreed to take this on as a new target.
- Approximately 8,705 acres were surveyed for miconia and other forest invaders.
- MoMISC officially declared pampas grass eradicated from Molokai.

Public Outreach

- MoMISC maintained informational displays at the airport kiosk, public wharf, and community boards.
- Outreach articles were published in the local newspaper.
- Staff participated in the annual Earth Day event on Molokai.
- Quarterly articles on invasive species were published in The Nature Conservancy's newsletter.