

## ***Miconia calvescens* on the Island of Maui: Profile of an Early Containment Attempt for a New Plant Pest**

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Although many troublesome plant species have been introduced to the Hawaiian Islands, and have established themselves without too much concern until after the fact, the story for *Miconia* involves a unique proactive approach for this state. When personnel at Haleakala National Park on Maui first began noticing this handsome ornamental escaping cultivation, a parallel was drawn to its recent invasive history on the island of Tahiti. Natural area managers on Maui were alerted by the potential impact of a similar invasion, and immediate action was taken to control the original population, augmented by expanded mapping and public outreach. To initiate the public's involvement, an information-alert flyer was prepared and distributed. Reported satellite populations were located and removed. The Melastome Action Committee was formed on Maui in 1991 to focus on strategies and funding resources for controlling *Miconia* and other invasive members in its family, Melastomataceae. This organization is comprised of federal and state government agencies, as well as public and private conservation organizations. Another cooperative venture, the East Maui Watershed protection plan, was launched shortly after, and *Miconia* became one of its focal points for the watershed protection plan. This group is made up of public and private conservation organizations, state and county government agencies, and private landowners and businesses, all concerned with preserving the integrity of the 100,000 acre East Maui Watershed. They pool funding resources for its protection and management.

While all this bureaucratic infrastructure was being formed, action was being taken on the ground and in the air. Accessible *Miconia* populations were being removed by field crews, and remote large fruiting trees were targeted for herbicide treatment from helicopter. This resulted in initial knockdown of future seedbank and bought time for the control effort (*Miconia* takes 4 - 5 years to reach maturity). Known satellite populations were intensively scouted, controlled, and mapped. A public outreach program was underway, with increased media coverage and a growing state-wide awareness: *Miconia* was found on other islands, also locally escaping cultivation. Control efforts began involving volunteers, and community members residing near *Miconia* sites became especially concerned with the threat to their lifestyle and landscape. Reports continued to roll in. Early in 1996, a large-scale public awareness campaign began, with an official launch date of 'Operation *Miconia*' state-wide in April. Culminating at this time were numerous events: the Governor officially declared a state of emergency on this weed; on Maui alone, over 6,000 high school students were targeted with new alert flyers and *Miconia* suspect neighborhoods as well as garden shops were canvassed by informed workers; local TV and newspapers covered volunteer work parties to remove the pest (on Maui, 34,000 *Miconia* plants were removed that weekend). Currently a *Miconia* "hotline" phone number is available on each island, to encourage reports from the public. A Public Service Announcement is being continually aired for free by a local TV Station, and will be updated for better exposure.

The result of this landmark effort is the containment of many of the *Miconia* populations throughout the state, with hopes of eradication on a localized level. Were it not so aggressively pursued, this pest would take the same course as many other noxious weeds, and likely be established beyond the point of control in a very short time. Many natural area and other land managers in Hawaii feel the impact of this one plant would be more devastating to the islands than any other weed perceived. The repercussions would permanently affect lands beyond retrieval, in terms of natural processes, agriculture, and watershed management. While current funding for the control project is short term, the expanding public awareness and support will help secure future working capital for the necessary on-going efforts. The raised consciousness of lay people in regards to pest plants being a form of biological pollution is a major accomplishment for conservation education and it is hoped that the example made by *Miconia* will be applicable to other new pest species that may come to Hawaii.