



Bright green on the top and purple on the bottom, the leaves of *Miconia calvescens* are also distinctive because of their size, up to 3 feet long. The large leaves effectively shade out other plants in a forest, helping the alien weed to take over the forested watersheds. Maui Invasive Species Committee

Kiaʻi Moku By Joylynn Paman

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Last April, a Makawao resident noticed

resident noticed an unusual plant

growing in his yard. It had large leaves with purple undersides. Curious, he did some research and discovered it was miconia - a plant native to Central and South America that is invading Maui's rain forests.

Surprised by his findings, he immediately called the Maui Invasive Species Committee (MISC). MISC staff investigated and was stunned to find a miconia seedling growing out of a hāpu'u fern in Makawao! To date, miconia was known only from East Maui (one intentional planting in West Maui had been eradicated).

Because the resident knew the origin of the *hāpu'u* (Big Island), MISC surmised that a tiny miconia seed had hitched a ride on a *hāpu'u* harvested from a miconia-infested area and sprouted three years later.

All hands can be part of defense against Miconia invasion

The miconia plant was young and had not seeded, a plus for the environment. Left undetected, the plant would have quickly matured, eventually releasing ten to twenty million seeds each year into an area thought to be miconia-free. Miconia was first introduced to Maui in the 1960's as an ornamental plant in Hāna, then quickly spread to the surrounding forests. By 1993, one plant had multiplied into thousands, distributed over a 2,000-acre area.

Alarmed by miconia's potential to overwhelm available resources, conservation agencies pulled together and formed the Maui Invasive Species Committee (MISC), a voluntary partnership to protect Maui County from invasive plants and animals. Over the years, MISC's focus broadened to include many other invasive species, but miconia continues to be the top priority plant target.

MISC now has a full-time crew searching for and destroying miconia over thousands of acres in East Maui. Miconia leaves can grow to be the size of a small child, averaging 2-3 ft long and 1 ft wide. The leaf has a dark purple underside, oval shape, and 3 distinct veins. In its native environment of South and Central America, miconia's large leaves help the plant capture limited sunlight in dense, dark forests.

On Maui, the forest structure has a more open canopy, so many native plants have not developed a tolerance for dense shade. Miconia's leaves act as "light" umbrellas, casting a deep and often deadly shade over native vegetation.

A characteristic common to many invasive plants is the ability to produce large quantities of seeds that remain dormant for a long time. Miconia is no exception. Each mature plant can produce millions of seeds per year, which may not germinate for another 8–10 years.

The rapid spread of miconia in East Maui has been aided by unintentional movement of these tiny seeds, as small as a grain of sand. Birds, hunters, hikers,

vehicles, and even the movement of other plants, can bring miconia to new areas

You can help combat the spread of miconia.

- Learn how to identify the plant. A good resource for photos and information is www.mauiisc.org.
- Always clean your shoes and gear before and after hiking.
- Know the origin of plants that you purchase.
- If you think you have found miconia, report the location to 573-MISC (6472).
- If you have miconia on your property, allow MISC to control it free of charge. Just by doing these simple preventive measures, you are helping to keep Maui no ka 'oi.

Debuting today, **Kia'i Moku** (or "Guarding the Island") is prepared by the Maui Invasive Species Committee to provide information on protecting the island from invasive plants and animals that can threaten the island's environment, economy and quality of life. The Maui News will publish the column on the second Sunday of the months. The author, Joylynn Paman, is public relations and education specialist with the MISC.