

Biological enemy to stinging caterpillar to be set free on Maui

KIA'I MOKU

By Lissa Fox



There's relief on the way for flower pickers, gardeners, and everyone who spends time in their yard in Haiku and Huelo. The Hawaii Department of Agriculture has developed a biological control for stinging nettle caterpillar. The gnat-sized stingless wasp has already been released on Oahu and will soon be released here on Maui. "I think its great news," said Haiku resident Mark Blietz, anticipating the natural enemy that may reduce the population of stinging nettle caterpillar. His young daughter has been stung while playing in the yard, and he frequently encounters the pest in the course of his day. "The caterpillars are on grass that's at eye-level for my daughter."

Stinging nettle caterpillars are named for the spines that line the backs of the insects. The pest arrived on Hawaii Island in 2001 and was first detected on Maui in 2007. Tiny eggs laid on plants are nearly undetectable and the pest is easily moved between islands through the movement of plants. The caterpillars are less than one inch long and develop into small brown moths about one-half inch in length. When someone unwittingly brushes the caterpillar the result is a painful rash and welts can last for weeks. Like a bee sting or mosquito bite the intensity of

the reaction can vary from person to person. Antihistamines lessen the severity, but if you have trouble breathing or are stung in the eye, seek medical attention immediately.

While not eliminating the stinging nettle caterpillar, the gnat-sized stingless wasp, *Aroplectrus dimerus*, has the potential to decrease the dense populations of the pest caterpillar. Blietz, an orchid and palm grower with twenty-six acres, has been struggling with the stinging nettle caterpillar for several years. He keeps population densities down with pesticides. "I go out and spray for eight hours

only to have it all wash off if it rains. I think [the caterpillars] are under control and then I find another population."

"The parasite should lower pest populations to levels where the caterpillars are no longer a significant problem," explained Renato Bautista, the HDOA entomologist assisting in the release on Maui in the next few months. There will be occasional flare-ups but these can be managed with a combination of traditional methods: pesticides, organic insect control products, and reducing the caterpillar's food sources such as cane grass and guinea grass.



Above: The gnat-sized stingless wasp is shown on the back of a stinging nettle caterpillar. State Department of Agriculture/ W. Nagamine photo



Left: The wasp has been released on Oahu and will soon be set free on Maui as a biological control for the invasive caterpillar. Maui Invasive Species Committee photo

The 'stingless' wasp is fully dependent on the stinging nettle caterpillar for brooding its young; it can not survive in the absence of the host. The stingless parasitoid wasp lays its eggs on larvae of the stinging nettle caterpillar where they develop, feeding on the caterpillar and killing it. This parasitoid wasp is a natural enemy of the caterpillar and was discovered in Taiwan, the native range of both insects. Extensive testing by HDOA has been done to ensure the natural enemy has no unintended impacts. The wasp does not sting humans—unlike the caterpillar it feeds on.

You can learn more about the natural enemy on HDOA's website at hawaii.gov/hdoa/news.

■ *Lissa Fox is public relations and education specialist for the Maui Invasive Species Committee. "Kia'i Moku," (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.*