



Figure 1. Nettle caterpillar

Nettle Caterpillar

Darna pallivitta Moore

(Lepidoptera: Limacodidae)

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Introduction. Specimens of a stinging nettle caterpillar were first found infesting rhaps palm at a nursery in Panaewa on the Big Island in September 2001. They were tentatively identified as *Darna pallivitta* Moore by D. Tsuda, University of Hawaii (UH) Insect Diagnostic Clinic, and B. Kumashiro, Hawaii Department of Agriculture (HDOA) and confirmed by Dr. M. Epstein formerly with the Smithsonian Institution. This species occurs in Southeast Asia and is known to feed on palms (coconut and areca) and grasses (Cock et al. 1987).

Description. Nettle caterpillars grow to a maximum length of one inch and are covered with spines (Figure 1). A dark longitudinal stripe runs down the back of each caterpillar. The brownish cocoon is round and surrounded by a netting of silk (Figure 2). The adult moth is brown and is one-half inch in length (Figure 3).

Distribution. The nettle caterpillar can be found on much of the east side of the Big Island. Its currently known range is from Ninole through Hilo and south to Volcano, extending east to Kalapana and Kapoho. On the west side it has been found in Keahole and Hualalai (Kona

District) and in the Kohala District. The infestations on the west and north sides of the Big Island are most likely due to people moving plants infested with nettle caterpillars. In June 2007, the nettle caterpillar was found at a nursery in central Oahu. Importation of infested plants from the Big Island is the most likely source of this infestation. In August 2008 it was found in Waimanalo. Efforts to control the nettle caterpillar on Oahu are being undertaken by the HDOA, USDA-Animal & Plant Health Inspection Service (APHIS), USDA-Agricultural Research Service (ARS), Oahu Invasive Species Committee (OISC), and various Oahu nurseries. Collaborative activities include a public outreach program, monitoring and elimination of adult moths with the use of sticky traps baited with pheromone lures, applications of insecticides to caterpillar hosts.



Figure 2. Nettle caterpillar, larva (left) and cocoon (right).



Figure 3. Nettle caterpillar adult.

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In July 2007, several residents of Haiku, Maui, discovered infestations of nettle caterpillars on their properties. Subsequent HDOA surveys revealed nettle caterpillar populations to be well established in Haiku, Paia, Makawao, Wailuku and Kihei.

Damage. The caterpillars have been found feeding on over 45 species of plants in 22 families including Agavaceae, Apocynaceae, Arecaceae, Bromeliaceae, Caryophyllaceae, Commelinaceae, Costaceae, Euphorbiaceae, Fabaceae, Hypoxidaceae, Iridaceae, Liliaceae, Melastomataceae, Musaceae, Myrtaceae, Oxalidaceae, Poaceae, Polypodiaceae, Rubiaceae, Urticaceae, and Zingiberaceae. However, they appear to prefer monocots over dicots. Feeding by the caterpillars (Figure 1) results in heavily damaged leaves. Fecal pellets on the leaves are indications that the caterpillar is present. Some of the common preferred host plants of the nettle caterpillar in Hawaii include palms, various grasses, ti leaf, iris, and most lilies, including mondo grass (lily turf).

Health concern. In addition to causing plant damage, the caterpillars are a health concern due to the stinging spines which cause burning and itching sensations to the skin. Noticeable swelling may occur and welts or blisters may form that can last for several days, followed by a persistent rash lasting for weeks. If there are any severe symptoms such as difficulty breathing, or if any spines get into the eyes, seek medical help immediately. To avoid incidents of stinging, do not touch host plants, especially during the summer months, and keep them trimmed back or remove them completely.

Biological Control. In a joint project between the UH College of Tropical Agriculture and Human Resources (CTAHR) and the HDOA, exploration for natural enemies to control the nettle caterpillar was undertaken. In October 2004, a beneficial parasitic wasp that attacks the caterpillar stage of the nettle caterpillar was collected in Taiwan by former HDOA Plant Pest Control Branch Chief L. Nakahara. Host specificity testing in the HDOA Quarantine

Facility is complete, and pending Federal approvals, the biological control agent will be released.

Sightings. Encounters with the nettle caterpillar should be reported to the HDOA's toll-free Pest Hotline at 643-PEST (7378).

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