

Māmaki Damage

It is difficult to identify the culprit of your māmaki damage based on feeding alone.

As early instars, the ramie larvae move around the plant creating small holes in the middle of leaves. Both native caterpillars will feed in or near their protective structures.

In later larval stages, the ramie caterpillars create sizable holes through feeding damage and completely strip leaves, leaving only the major leaf veins.

The Kamehemahea butterfly and *Udea stellata* will not cause such large amounts of feeding damage.

The best way to identify your caterpillar species is to look for signs of the protective structures made by our native caterpillars illustrated in this pamphlet.



If you find the ramie caterpillar or have questions, PLEASE CONTACT:



Michelle Au

Insect Ecology and Integrated Pest Management Laboratory

aumi@hawaii.edu

(808) 421-7878



COLLEGE OF TROPICAL AGRICULTURE
AND HUMAN RESOURCES
UNIVERSITY OF HAWAII AT MĀNOA

Identifying Early Instar Caterpillars on Māmaki



There are three common caterpillars you will find on māmaki, two natives and one invasive to the Hawaiian Islands.

At early stages, these caterpillars are all green in color with very little patterning, making them very difficult to identify.

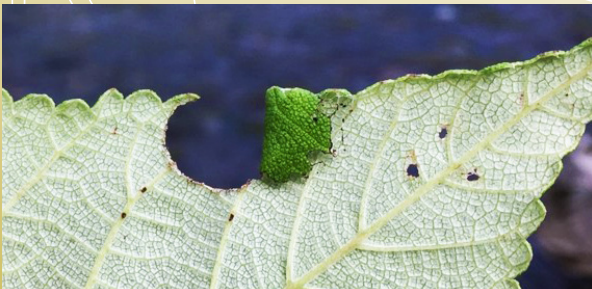
Here are a few tips and tricks that will help you identify the caterpillars on your māmaki.



Kamehameha Butterfly

Native

- * Moves in a crawling motion
- * Green and black coloration
- * Black head capsule
- * Back legs (prolegs) spaced evenly throughout its body
- * Creates a tent-like structure for protection using the edge of a leaf (shown below)
- * Not very active
- * Hides when disturbed



Udea stellata

Native

- * Moves in a crawling motion
- * Green and white coloration
- * Green head capsule with 4 black dots on the top
- * Back legs (prolegs) spaced evenly throughout its body
- * Creates a web-like structure for protection surrounded by brown spots from feeding damage (shown below)
- * Not very active
- * Hides when disturbed



Ramie Moth

Invasive

- * Moves in an inching motion
- * Green and white coloration
- * Tan head capsule
- * Head capsule will turn black as it grows
- * Black dots on side of its body
- * Back legs (prolegs) are near the end of its body
- * Very active
- * Inches away when disturbed

