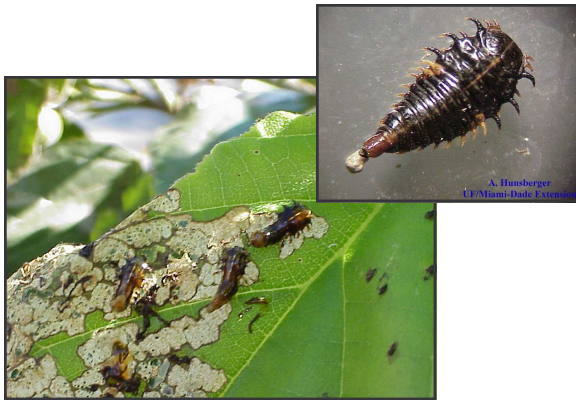


Geiger Tortoise Beetle (*Eurypepla calochroma*)

Current Infestation: South Florida, the Florida Keys, or wherever orange geiger trees are grown.

Description/Biology: Life stages of the geiger tortoise beetle include eggs, larvae, pupae and adults, and there are several generations per year. Eggs are laid on the leaves, and hatch into larvae.

Larvae are up to ½ inch long (12 mm) and have a distinctive tear-drop shape with lateral spines. It is black in color with a thin white stripe down its back. Larvae feed in groups on the underside of leaves between the veins causing the leaf to look skeletonized. Larvae may also feed on flowers and immature fruit. These larvae are unlikely to be confused with other insects.



Pupae retain many of the larval features, including lateral abdominal projections but does not move or feed. The pupal color is dark tan, and the pupa is shorter than the larva.

The adult is a oval, convex, tortoise-shaped beetle with a shiny lime green color, and is sometimes difficult to see on the geiger tree. Length varies from ⅓ of an inch (8mm) to approximately a ½ inch (10.5 mm). Adults feed on leaf margins. Mating and egg-laying occur on the foliage. These beetles are unlikely to be confused with other insects.



Seasonality: Larvae periodically feed from spring to fall. However, any life stage can be found year-round. During some years, populations can be higher than others for unknown reasons.

Hosts: Orange geiger tree, *Cordia sebestena*



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Importance: Although foliar damage is sometimes noticeable, this pest is considered of minor importance. Damage is generally only cosmetic.

Damage: Larval stages feed exclusively on the leaves of the orange geiger tree. Although often commonly found and abundant on geiger trees, this tortoise beetle rarely causes severe injury. Leaves are damaged, but the tree quickly recovers.



Management:

Homeowner - When possible, plant geiger trees in less prominent areas (background of the landscape), thereby minimizing the view of damaged leaves. When leaf damage becomes an issue, knock larvae off the underside of leaves with a strong stream of water. Chemical control is rarely warranted. If more than 50% of the entire canopy is damaged you may choose to spray with something like carbaryl (Sevin) or other insecticides labeled for leaf-feeding beetles.

Professional - For trees in high visibility situations and where damage is noticeable, insecticides labeled for leaf-feeding beetles can be used. Products listed for use in the nursery can be considered but be sure the label states it can be used in the landscape.

Grower - The geiger tortoise beetle is not typically a problem in commercial production. However, if control is warranted products such as acephate (i.e. Orthene), azadirachtin (Azatin XL), bifenthrin (Talstar), carbaryl (Sevin), cyfluthrin (Decathlon), fenpropathrin (Tame), imidacloprid (Marathon), imidacloprid + cyfluthrin (Discus), permethrin (Astro), or spinosad (Conserve).

Websites:

<http://www.doacs.state.fl.us/pi/enpp/ento/entcirc/Entcirc163.pdf>

<http://collier.ifas.ufl.edu/Horticulture/Geiger%20tortoise%20beetle.htm>

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