

Sri Lankan Weevil *Mylocerus undecimpustulatus undatus* Marshall¹

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Introduction

Mylocerus undecimpustulatus undatus Marshall, the Sri Lankan weevil, is a plant pest with a wide range of hosts. This weevil spread from Sri Lanka into India and then Pakistan where many subspecies of *Mylocerus undecimpustulatus* Faust are considered pests of more than 20 crops. In the United States, the Sri Lankan weevil was first identified on *Citrus* sp. in Pompano Beach a city in Broward County Florida. Three specimens were identified by Dr. Charles W. O'Brien, first as *Mylocerus undecimpustulatus*, a species native to southern India, and then again as *Mylocerus undatus* Marshall native to Sri Lanka, finally as *Mylocerus undecimpustulatus undatus* Marshall to show its status as a subspecies.



Figure 1. Sri Lankan weevil, *Mylocerus undecimpustulatus undatus* Marshall, adults on Hong Kong orchid tree, *Bauhinia blakeana*.
Credits: Anita Neal, UF/IFAS

Distribution

The Sri Lankan weevil was first detected in 2000. By May 2006 it was found in 12 counties in Florida. Michael Thomas of the Florida Division of Plant Industry has obtained data from field agents identifying this weevil in an additional 15 counties since May of 2006. It has not been determined how the Sri Lankan weevil arrived in south Florida.

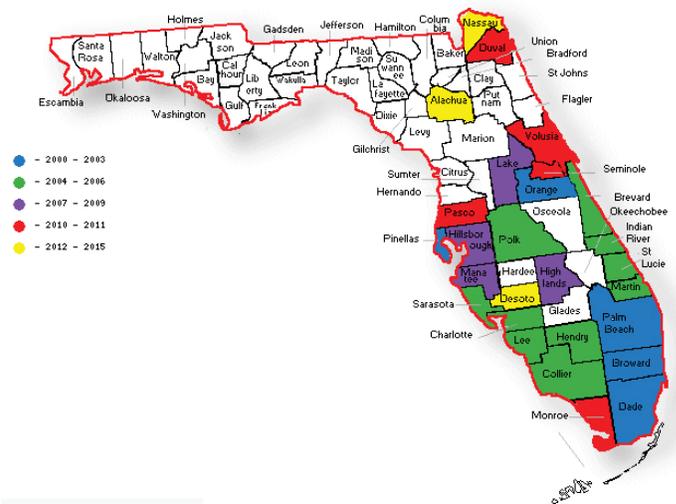


Figure 2. Distribution of Sri Lankan weevils, *Mylocerus undecimpustulatus undatus* Marshall, in Florida based on initial collection from 2000 to 2006, and additional data through 2015.
Credits: Anita Neal, UF/IFAS

1. This document is EENY579, one of a series of the Entomology and Nematology Department, UF/IFAS Extension. Original publication date November 2013. Revised July 2020. Visit the EDIS website at <https://edis.ifas.ufl.edu> for the currently supported version of this publication. This document is also available on the Featured Creatures website at <http://entomology.ifas.ufl.edu/creatures>.
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Description

Adults

Adult Sri Lankan weevils vary in length from approximately 6.0 to 8.5 mm; the female weevil is slightly larger than the male by 1.0 to 2.0 mm. Some of the notable features of the Sri Lankan weevil are toothed femora (front and middle bidentate and hind femora tridentate), strongly angled humeri (shoulders, see red arrows in Figures 3 and 6) are broader than the prothorax, the yellowish coloration of the head, and the dark-mottled elytra. These features help distinguish the Sri Lankan weevil from other weevils of similar size and coloration. *Artipus floridanus* Horn, the little leaf notcher, is most similar in appearance but the femora lack teeth, the humeri are not angled, and the elytra are grayish to white, with smaller black cuticular marks formed by perforations on the elytra.



Figure 3. Adult Sri Lankan weevil, *Myllocerus undecimpustulatus undatus* Marshall, with angled humeri and dark mottled elytra.
Credits: Anita Neal, UF/IFAS



Figure 4. Adult Sri Lankan weevil, *Myllocerus undecimpustulatus undatus* Marshall, with yellowish coloration of head.
Credits: Anita Neal, UF/IFAS



Figure 5. Adult Sri Lankan weevil, *Myllocerus undecimpustulatus undatus* Marshall, hind femur with spines.

Credits: Paul Skelley, FDACS-Division of Plant Industry



Figure 6. Adult Sri Lankan weevil, *Myllocerus undecimpustulatus undatus* Marshall (left) comparison with the little leaf notcher, *Artipus floridanus* Horn (right).

Credits: Paul Skelley, FDACS-Division of Plant Industry

Eggs

Female *Myllocerus* spp. may lay up to 360 eggs over a 24-day period, and larvae emerge in 3–5 days. Sri Lankan weevil eggs are laid directly on organic material at the soil surface, which is common for most *Myllocerus* spp. Eggs are less than 0.5 mm, ovoid and usually laid in clusters of 3–5. The eggs are white or cream-colored at first, then gradually turn brown when they are close to hatching.

Larvae

The larvae range in size from 1.09 ± 0.05 mm as first instar larvae to 4.0 ± 0.05 mm as fourth instar larvae and are beige-white with a reddish-brown head. They burrow into the soil where they feed on plant roots for approximately one to two months. The larvae pupate in the soil for approximately one week.

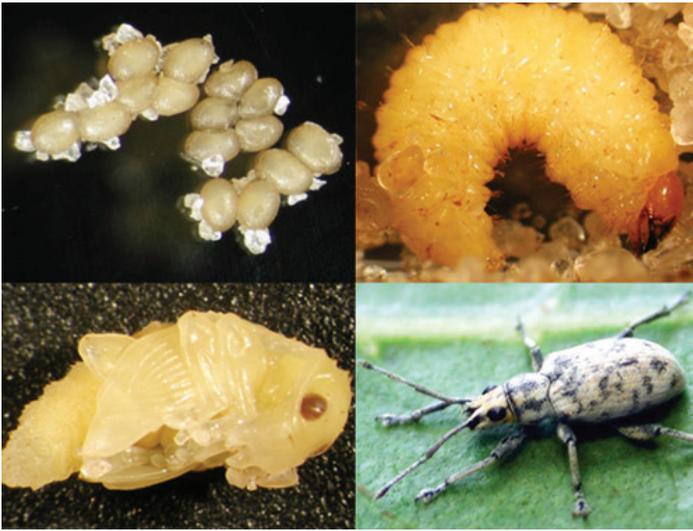


Figure 7. Life cycle of the Sri Lankan weevil, *Myllocerus undecimpustulatus undatus* Marshall, eggs, larva, pupa, and adult life stages.

Credits: Holly Glenn, University of Florida

Host Plants

The Sri Lankan weevil has a wide host range of over 150 plant species including native, ornamental, vegetable and fruit species. Some host plant examples include *Citrus* spp., citrus; *Conocarpus erectus*, green buttonwood; *Bauhinia x blakeana*, Hong Kong orchid tree; *Chrysobalanus icaco*, cocoplum; *Phoenix roebellenii*, pygmy date palm; *Prunus persica*, peach; *Lagerstroemia indica*, crepe myrtle; *Capsicum* spp., pepper; *Litchi chinensis*, lychee; *Muntingia calabura*, strawberry tree; and *Solanum melongena*, eggplant. It is unclear what the larval host plants are, but they have been reared in the laboratory on pepper, eggplant, cotton, carrot, and sweet potato roots.

Economic Importance

Leaf-feeding adults damage the foliage of ornamental plants, fruit trees, and vegetables, whereas the larvae injure root systems. Due to its feeding habits, the Sri Lankan weevil could negatively affect subtropical and tropical fruit, ornamental, and vegetable industries here in Florida. The possible impact to the horticulture industry in nurseries, landscape services, and horticultural retailers could reach billions of dollars based on the value they generate in Florida (Kachatryan and Hodges 2012). Extension agents and Master Gardener volunteers around the state have received requests from homeowners for information on the control of this weevil. Botanical gardens and plant nurseries have reported damage due to chewing injury and require effective control measures.

Damage

When adult weevils feed on leaves, they feed inward from the leaf margins (or edges), causing the typical leaf notching. There are some instances where the leaf material is almost completely defoliated, where the weevil has fed along the leaf veins. The adults prefer new plant growth. Intense feeding by numerous weevils may cause plant decline or stunting. Young seedlings may not survive a large amount of feeding damage. With healthy plants, however, the feeding damage may be considered cosmetic if the plant recovers.



Figure 8. Adult Sri Lankan weevil, *Myllocerus undecimpustulatus undatus* Marshall, feeding damage on *Terminalia catappa* L., tropical almond.

Credits: Susan Halbert, FDACS—Division of Plant Industry



Figure 9. Adult Sri Lankan weevil, *Myllocerus undecimpustulatus undatus* Marshall, feeding damage on *Conocarpus erectus* L., green buttonwood.

Credits: Holly Green, University of Florida

Management

Traditional methods of control include pesticides, many of which provide only limited management of this pest. Chemical control of the adults is difficult because of their ability to fly, hide, or feign death and drop to the ground. Chemical control of the eggs, larvae, and pupae is more difficult due to their location on or in the soil.

Adult weevils can be removed from plants by vigorously shaking a branch over an open, inverted umbrella. The collected weevils can then be dumped into a container of soapy water.

As insecticide recommendations and regulations are updated yearly, it is advisable to consult your local UF/IFAS Extension office or a pesticide reference guide for current information on control methods for this pest.

[Florida Insect Management Suggestions on Landscape Plants](#)

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Acknowledgements

Special thanks to Morgan Conn, Dr. Ron Cave, Dr. John Capinera, and Dr. Howard Frank for their review of this document.