COCONUT RHINOCEROS BEETLE

Oryctes rhinoceros

The coconut rhinoceros beetle was first detected on O‘ahu in December 2013 by a monitoring program conducted by the state and federal Departments of Agriculture and the University of Hawai‘i at Mānoa CTAHR. Beetles were breeding in coconut tree trimmings that had been piled as green waste mulch for weed control near a golf course located at Joint Base Pearl Harbor-Hickam.

This beetle has decimated coconuts and other palms as it spread from its native southern Asia to Guam, Fiji, Samoa, and the Pacific Islands of Palau. The adult beetle feeds on the sap of coconut leaves but will occasionally attack other palms and tropical plants. Immature stages (grubs) will feed on nearly any moist, rotting or composting organic matter from fallen logs, tree stumps, green waste, grass clippings and sawdust piles, to manure.

We need your help to immediately report suspect damage and the possible presence of these beetles and their grubs in order to keep this pest from spreading and becoming established. Call HI Dept. of Agriculture Pest Hotline 643-PEST.

FOR MORE INFORMATION:
Hawaii Department of Agriculture
http://hdoa.hawaii.gov/pi/main/crb/
Hawaii Invasive Species Council
http://dlnr.hawaii.gov/hisc/info/coconut-rhinoceros-beetle-response-updates/
USDA APHIS
http://www.hungrypests.com/

University of Hawai‘i at Mānoa
College of Tropical Agriculture and Human Resources
Hawai‘i Department of Agriculture
Plant Pest Control Branch
Coordinating Group on Alien Pest Species
CGAPS
Website: http://www.ctahr.hawaii.edu/haraa/index.asp

Cover photo of adult female: HI Dept of Agriculture
**WHAT YOU CAN DO**

Clear away piles of palm tree trimmings and other decomposing organic matter (bags of potting media, livestock manure, compost piles of grass clippings and other green waste) that may serve as breeding sites for the coconut rhinoceros beetle.

Report suspect beetles, grubs and damaged trees to Hawaii Department of Agriculture’s Pest Hotline 643-PEST (7378).

Be vigilant in monitoring your property and surrounding areas for unusual insects and/or damage to plants.

Inspect plants, building materials, and vehicles originating from known infested areas.

**DID YOU KNOW...**

CRB grubs will burrow deep into soil or sand to evade suboptimal conditions, such as heat generated in compost piles.

**LIFE CYCLE and DAMAGE**

3 ADULT BEETLE

Adults live 4 to 9 months; female lays 50 to 140 eggs during its lifetime.

Adult beetles remain in pupal shells for 17 to 22 days to harden, then emerge and fly to palm crowns to feed.

Beetles bore into tree crowns and growing tips with its legs (tarsi, circled below) that are lined with sharp, prickly spines, to feed on plant sap, not on foliage itself. Oval to round exit holes (above) are visible on leaf stalks (petioles).

2 PREPUPA / PUPA

Grubs enter non-feeding prepupal stage for 8 to 13 days usually in the soil or other organic matter; pupal stage follows for additional 17 to 28 days.

Grubs hatch in 8 to 12 days from white, oval eggs (<1" long) laid in decomposing organic matter where they feed for 3 to 5 months.

1 GRUBS

References:


Woodruff, R. 2006. The Asian mango flower beetle, Protaetia fusca (Herbst), and Euphoria sepulcralis (Fabricius) in Florida and the West Indies (Coleoptera: Scarabaeidae: Cetoniinae). Insecta Mundi 20:227-231.

Damaged leaves unfurl with distinctive V-cuts (above), holes in petioles and midribs (left), and browned, circular serrations (below), unlike damage caused by careless pruning.

Several beetles boring into the growing tip to feed on plant sap will eventually cause the tree to die, especially young palms (1-3 years). The dying stump then serves as a breeding site and larval habitat.