

### PEST PREVENTION TRAINING

An advanced education program for those on the front lines protecting Hawai'i

## Coconut Rhinoceros Beetle

Oryctes rhinoceros

# Present on Oahu, no known incursions on other islands

A major pest of coconut palms, this stout beetle has a single distinctive horn. Adult beetles are active at night. Palm damage and its presence in decaying plant material is an indication of an infestation.







### **Impacts**

- Extensive damage can kill palms. Coconut are preferred but also other palm species including native Hawaiian and endangered species such as Loulu.
- Secondary feeding sources include hala, banana, sugarcane, and taro.

### **Identification**



- Egg: smaller than a grain of rice, off-white, oval.
- Larva: 3 instars. Off-white body, reddish head capsule, and can grow up to 8.9 cm (3.5 in) long.
- Pupa: orange/brown color.
- Eggs, larvae, and pupae are primarily found in decomposing green waste or dead palm stumps.
- Adult: 3.8-5.1 cm (1.5-2 in) long, shiny black with a single horn. Nocturnal and can fly. Primarily found in decomposing green waste or in the crown of palms.
- Feeding damage indicated by oval-shaped boreholes about 5.1 cm (2 in) typically found in midrib of fronds or in the crown or trunk of the tree.
- V-cut shapes or boreholes in leaflets of fronds.







Adult beetle. Hanna Royals/Screening
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Report 643pest.org



# **Coconut Rhinoceros** Beetle

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### **Vectors/Commodities**

- Mulch, compost, green waste, tree stumps, decaying plant material.
- Palm plants.
- Adults can fly.



#### Distribution

- In Hawai'i- only on Oahu. Populations are generally around Pearl Harbor and central Oahu.
- Outside Hawai'i- Highest risk from Guam.
- Found throughout Asia and western Pacific.



### **Best Managment Practices**

- This species is not widespread throughout the state. Prevention and early detection are key to containment and eradication efforts.
- On Oahu:
  - Minimize stockpiles and movement of green
  - Inspect plants and plant material including bags of material before sale. Heat treat to 130F before use if possible.
  - Chip and immediately remove green waste to an active composting or burn facility. If green waste is left on site, keep material whole- do not chip.
- · All other islands:
  - Consider sourcing options and pest distribution (maps at crbhawaii.org) when purchasing plants.
  - BOLO: Be on the lookout! Regularly inspect all palms, green waste, and planting material for indications of CRB, adult beetles, and larvae.
- Report any suspect pests to 643pest.org or by phone 643-PEST (7378).



#### **Selected References:**

- crbhawaii.org
- https://hdoa.hawaii.gov/pi/main/crb/







Photo: Larvae and beetle in mulch. CRB Response

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