



NOT PRESENT IN HAWAII

Red Palm Weevil

Rhynchophorus ferrugineus (Olivier)

(Coleoptera: Curculionidae)

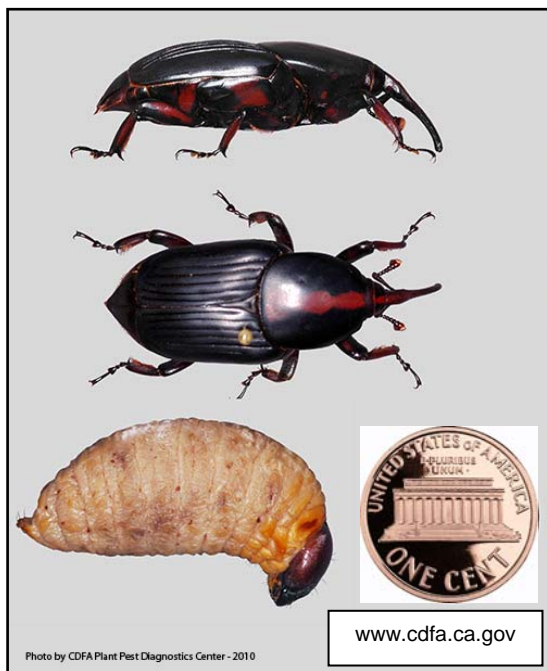


Photo by CDFA Plant Pest Diagnostics Center - 2010

www.cdfa.ca.gov

Rhynchophorus ferrugineus, the red palm weevil (RPW), is the most serious and destructive pest of palms in the world. Since its discovery in the 1980's, RPW has spread from its native southeast Asia, to every major geographical area, inhabiting many different climates and farming systems. RPW was absent from the Americas until August 2010, when this pest was first detected in the U.S., in Orange County, California. **This beetle is not found in Hawaii!**

DAMAGE AND DETECTION:

RPW larvae bore in the soft tissue, tree crown, upper part of the trunk, and the base of petioles in their host plants, causing wilting of crown and leaves. Later infestation detection shows the occurrence of tunnels on the trunk and at the bases of leaf petioles, and through the presence of excrement and brown viscous liquid, which oozes from these tunnels (EEPO 2008, Murphy & Briscoe 1999). Other signs of infestation include "gnawing" sounds and a fermented odor.

DESCRIPTION:

RPW are large beetles averaging 1.5 inches in length. Adults may



RPW infested palm with its last remaining "halo" of fronds. Note the healthy palms in the background.
<http://cizr.ucr.edu/blog/invasive-species/>



Damaged coconut palm cut open to show exit holes. www.redweevil.com



Hollowed out crown. www.palmtalk.org

vary in color from red to reddish-brown, and can have variable patterns. RPW may be mistaken for the New Guinea sugarcane weevil, as the sugarcane weevil also attacks palms, especially native *Pritchardia* spp. RPW is much larger in size than the sugarcane weevil, which reaches only to about a ½ inch in length.

RECORDED HOSTS:

| Scientific Name | Common Name |
|---|------------------------------|
| <i>Areca catechu</i> | betel nut palm |
| <i>Arecastrum romanzoffianum</i> | queen palm |
| <i>Arenga pinnata</i> | sugar palm |
| <i>Borassus flabellifer</i> | toddy palm |
| <i>Calamus merrillii</i> | palasan palm |
| <i>Caryota maxima</i> | giant mountain fishtail palm |
| <i>Caryota cumingii</i> | fishtail palm |
| <i>Cocos nucifera</i> | coconut palm |
| <i>Corypha utan</i> | gebang palm |
| <i>Elaeis guineensis</i> | African oil palm |
| <i>Livistona chinensis</i> | Chinese fan palm |
| <i>Livistona decipiens</i> | ribbon fan palm |
| <i>Metroxylon sagu</i> | sago palm |
| <i>Oncosperma horrida</i> | thorny palm |
| <i>Oncosperma tigillarum</i> | nibung palm |
| <i>Roystonea regia</i> | royal palm |
| <i>Phoenix canariensis</i> | Canary Island date palm |
| <i>Phoenix dactylifera</i> | true date palm |
| <i>Phoenix sylvestris</i> | silver date palm |
| <i>Sabal blackburniana</i> | palmetto |
| <i>Trachycarpus fortunei</i> | windmill palm |
| <i>Washingtonia</i> sp. | fan palm |
| <i>Agave Americana</i> | century plant |
| Secondary host: <i>Saccharum officinarum</i> | sugarcane |

IMPORTANCE OF PEST:

Throughout the world, RPW is a major economic pest, devastating crops of coconut, sage, date, and oil palms (Murphy & Briscoe 1999). In Hawaii, the arrival of RPW would lead to the deterioration of the islands' economic and cultural palm production. Environmental consequences are also of particular concern, as native palm species may be extremely susceptible to this alien pest. In addition, RPW can be a major safety concern for urban landscaping. Infestations of RPW can lead to palms falling over, possibly leading to injury.



REFERENCES:

European and Mediterranean Plant Protection Organization (EPPO). 2008. Data sheet on quarantine pests *Rhynchophorus ferrugineus*. *EPPO Bulletin*. 38:55-59.
 Murphy, S.T. and B.R. Briscoe. 1999. The Red Palm Weevil as an Alien Invasive: Biology and the Prospects for Biological Control as a Component of IPM. *Biocontrol News and Information* 20(1): 35-46N.

Please be on the lookout for this pest. If you see damage to palms as noted here, please call the Hawaii Department of Agriculture Plant Pest Control Branch at 808-973-9525 or email: hdoa.info@hawaii.gov