



## Red Palm Weevil

**Coleoptera: Curculionidae: *Rhynchophorus ferrugineus* (Olivier)**

**Distribution:** Starting in the 1980s, the Red Palm Weevil (RPW) expanded into the Middle East, North Africa, Mediterranean Europe, and Oceania from its native home of south Asia (Thomas, 2010). In October, 2010, California Department of Food and Agriculture (CDFA) detected RPW in a residential palm located in Laguna Beach, California. This was the first US record (CDFA, 2010).

**Host Plants:** This insect is a known pest of over 24 species of palms; sugar cane and century plants (*Agave americana*) are secondary hosts. The California fan palm (*Washingtonia filifera*) and European fan palm (*Chamaerops humilis*) are thought to be resistant to RPW infestation (Nisson, 2010).

**Economic Importance:** Palms are an important component of desert agriculture and landscaping (Hodel, 2003) and RPW is considered one of the most devastating palm pests in the world. RPW will feed within the growing points of the plant, causing damage to the support tissue. Continued feeding can result in breaking of the trunk, toppling of the palm crown, and death of the palm (Nisson, 2010).

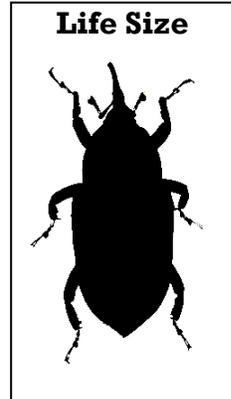


Figure 1. Red Palm Weevil, *Rhynchophorus ferrugineus* adult and larva

**Appearance: Adult** - 35-40 mm (1.4–1.6 inches). The RPW is large and highly variable in color. The form detected in California (Fig 1) is dark brown to black with a single red stripe running the length of the thorax. Another, more common form, is reddish-orange with black markings (Fig 2).

**Eggs** – About 2.5mm (1/10<sup>th</sup> inch). Light yellow in color.

**Larva** - Up to 50mm (2 inches). Grub-like, light colored with a dark head, and legless (Fig 1).

**Pupa** – About 35mm (1.5 inches). The pupa is enclosed in a case constructed of interwoven palm fibers (Fig 3).



Figure 2. Common color form of RPW

**Arizona Department of Agriculture – Plant Services Division**  
**Entomology Fact Sheet– Red Palm Weevil (*Rhynchophorus ferrugineus*)**



Figure 3. Red Palm Weevil adult and pupa case.

**Biology:** RPW will have multiple generations per year; up to 21 generations are known in Egypt (Nisson, 2010). Adult weevils are extremely good flyers and live for approximately two to three months. Females mate and lay eggs repeatedly. The eggs are laid in a tree wound made by the female and take about three days to hatch. Larvae have between three to seven growth stages

(instars). They feed initially on soft tissues near the base of fronds, but burrow deeper into the trunk as they grow. RPW larvae will pupate after about two months. The pupa stage lasts three to four weeks and is located within the damaged tissue of the palm.

**Similar Arizona Weevil:** The Agave Weevil, *Scyphophorus acupunctatus*, is common in Arizona and can be found in Agave, a secondary host to RPW. The Agave Weevil is smaller than RPW (10-19 mm) (3/4 inch), and lacks the red stripe, but is otherwise similar in shape and color to the form found in California (Fig 4).

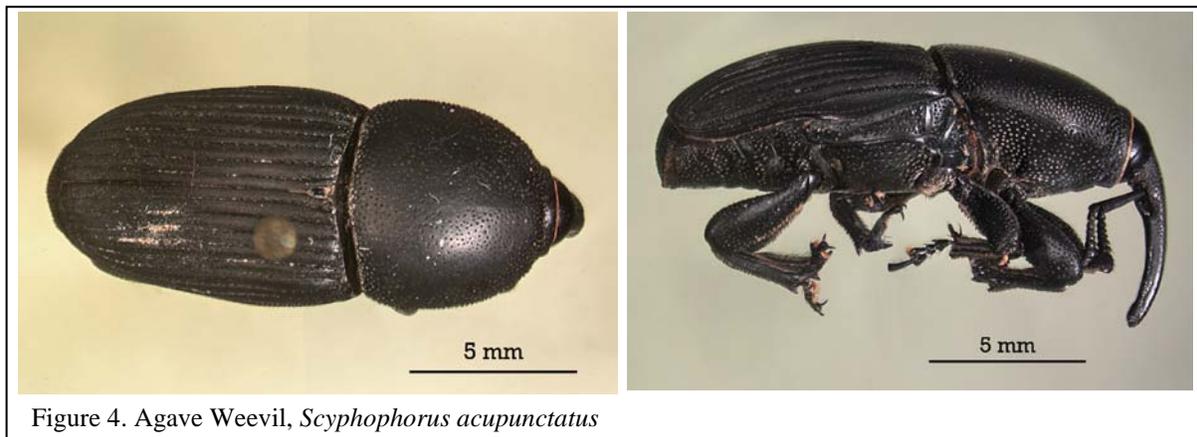


Figure 4. Agave Weevil, *Scyphophorus acupunctatus*

**References:**

Available upon request.

- Photos: Figure 1: Andrew Cline, California Department of Food and Agriculture (Used with Permission)  
Figure 2: Adapted from USDA 2010 New Pest Response Guidelines: Red Palm Weevil  
Figure 3: Center for Invasive Species Research, UC Riverside (Used with Permission)  
Figure 4: A. Woodroffe, Arizona Department of Agriculture – Plant Services Division