

Giant Palm Weevil or Palmetto Weevil (*Rhynchophorus cruentatus*)

Introduced: The giant palm weevil is native to Florida.

Current Infestation: It has been reported from coastal South Carolina south through the Florida Keys, and west into coastal Texas.

Description/Biology: The giant palm weevil is the largest North American weevil. The entire life cycle, from egg to adult, takes about 84 days. Eggs are laid in the bases of palm fronds or in pruning wounds on host palms. Eggs hatch in about three days. Larvae, or grubs, are legless and creamy to yellowish in color. Their prominent head is dark brown and hard. Mature larvae can be quite large and feed



voraciously inside the palm on the soft plant tissue, primarily in the palm heart (growing bud).

Mature grubs migrate to the periphery of the stem or leaf petioles and prepare a cocoon from palm fibers. After surrounding themselves



with the cocoon, the larvae will pupate.

The adult weevils are approximately 3/4 to 1 1/4 inches (1.9 to 3.0 cm) long and vary in color from solid black to red with a variable black pattern. Adults are active fliers and when not flying will hide between the leaf bases and stems of healthy palms presumably to conserve water within their bodies.



Seasonality: The immature stages are found year-round in Florida but adults are usually more noticeable in the late spring and early summer months.

Hosts: The most susceptible hosts are the Canary Island date palm (*Phoenix canariensis*) and sabal palm (aka cabbage palmetto, *Sabal palmetto*). Other reported hosts include: fishtail palm (*Caryota* spp.), coconut palm (*Cocos nucifera*), latan palm (*Latania* spp.), date palm (*Phoenix dactylifera*), royal palm (*Roystonea* sp.), saw palmetto (*Serenoa repens*), Florida thatch palm (*Trinax radiata*), and washingtonia palm (*Washingtonia* spp.).

Stressed, damaged and recently transplanted host palms are the most susceptible. Palms struck by lightning have been found with subsequent weevil infestations.

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Importance: The damage from this weevil is lethal since an infestation is rarely found in the early stage and infested palms are difficult to treat.

Damage: The symptoms of a weevil infestation vary, but commonly involve a general decline of younger palm fronds. In palm species with upright leaves, such as the Canary Island date palm, the older leaves begin to droop during the early stages of infestation but quickly collapse thereafter. As the infestation progresses, the larval feeding damage and associated rot is so severe that the top of the palm falls over which is termed "popped neck". If the palm is pulled apart at this stage, larvae, cocoons, and even adults may be found within the crown region.

Management: Early detection of a weevil infestation is difficult, and treatment even in the early stages of infestation may be too late to save the palm. If a palm is known to be infested, the best decision is to cut it down and dispose of it before adults emerge from the palm.

Homeowner and Professional - All efforts should be made to keep palms as healthy as possible. Avoid pruning susceptible palms during the adult weevil flying season (spring to fall). The resulting wounds are attractive to the weevil. If a palm is suspected of being infested, an automotive mechanics stethoscope can be used for detection. The sound made

by larval feeding is readily heard.

Treatment of recently transplanted palms with insecticides (imidacloprid) is an option but the costs can quickly become prohibitive unless only a few palms are to be protected.

Grower - Palms should be grown using cultural practices that promote vigor (proper fertilization and irrigation). Palms such as the Canary Island date palm are not adapted for the south Florida climate, so great care should be taken to ensure the health of these palms. Wounding of palms, such as by pruning, should be avoided. Insecticides that may offer some control include acephate (Orthene), chlorpyrifos (Dursban, DuraGuard), or imidacloprid (Marathon, Discus), however, results are inconsistent.

If palms are infested with the giant palm weevil, there is little chance of saving them. Therefore, sanitation, as in removing and destroying infested plant material is crucial in preventing or reducing subsequent infestations. Decline due to the giant palm weevil is fairly rapid (3 to 5 weeks). Decline due to disease generally take much longer and for lightning strikes, plant death is almost overnight.

Websites:

http://creatures.ifas.ufl.edu/orn/palmetto_weevil.htm

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An infested palm that has been cut into pieces showing internal damage

