



SOUTH AMERICAN PALM WEEVIL

▶ A DEVASTATING THREAT TO PALM TREES IN CALIFORNIA



SAPW in larvae stage



Infested palm being removed in San Diego

INTRODUCTION

South American palm weevil (SAPW) (*Rhynchophorus palmarum*) was first detected by trapping in San Ysidro in May 2011. Since then, this weevil has heavily infested the Bonita and Chula Vista areas of South San Diego and has been found in traps as far North as San Marcos.

This invasive pest is a serious threat to many native and non-native palm species. The favorite Canary Islands Date Palm (*Phoenix carariensis*) and edible date palms (*Phoenix dactylifera*) are the most at risk of damage, potentially devastating the \$140 million date and ornamental nursery industry in southern California.

LIFE CYCLE

The adult South American palm weevil emerges out of its cocoon approximately 1 ½" long, all black in color, with small hairs on its body. It begins its adult life (30-60 days) finding a mate and flying to nearby palm trees to eat and lay eggs. The eggs are laid at the top of the palm tree's crown.

The SAPW eggs are pearly white in color and oval in shape. The eggs are 2.5mm long and about 0.87mm wide when freshly laid inside the flesh of the palm.

The larvae range from 1-5" long while boring into the stem of the palm to feed on decaying and live tissues. The SAPW larvae have an orange head and white abdomen. The larvae continue to feed and grow larger until

pupation. The larval period ranges from 36-78 days.

The pupal stage lasts 14-21 days. The cocoon is made out of fibrous vascular bundles of palm. The cocoons are about 7.2cm long and 3.0 cm wide.

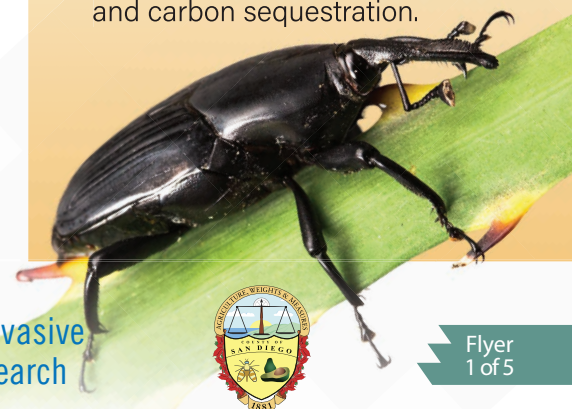


IMPACT

South American palm weevils are attacking palm tree species found throughout Southern California on private properties, municipal, county, state, federal public lands, and tribal lands. This species can infest healthy, undamaged palms, feeding on the growing crown tissue and ultimately killing the tree. Females may oviposit between 120-150 eggs in a 30 day span. A healthy adult coconut palm can be killed by only 30 larva.

TREE DECLINE AND DEATH CAN RESULT IN:

- ▶ Public safety hazards due to falling limbs, fire danger, and flood risk due to water way blockages.
- ▶ Decreased property value.
- ▶ Increase air and noise pollution.
- ▶ Habitat loss for birds and other wildlife.
- ▶ Loss of ecosystem services, including cooling, water filtration, and carbon sequestration.



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Adult Palm Weevil



Tree removal due to infestation.

CONTROL

The spread of this pest can be delayed with the fast detection and removal of infested trees. Chipping, burning, and burying infested material deeply can reduce the likelihood that SAPW will emerge and escape from infested palms. Keeping the palms healthy, reducing pruning activity, and the use of systematic insecticide application may prevent infestations of the SAPW. However, research is still ongoing for the most effective control method.



SYMPTOMS



Yellowing Foliage



Flattening of Crown



FronD Boring Damage



Pupal cases near tree trunk base



Notching on newly emerging fronds

POTENTIAL HOSTS

- ▶ **Coconut** (*Cocos nucifera*)
- ▶ **African Oil Palm** (*Elaeis guineensis*)
- ▶ **Açai Palm** (*Euterpe oleracea*)
- ▶ **Sago Palm** (*Meteroxylon sagu*)
- ▶ **Canary Islands Date Palm** (*Phoenix canariensis*)
- ▶ **Date Palm** (*Phoenix dactylifera*)
- ▶ **Fan Palms** (*Washingtonia spp.*)
- ▶ **Kings/Queens/Royals** (*Archontophoenix/Syagrus/Roystonea spp.*)