

## Pest Profile



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**Common Name:** California Oakworm / Oakworms

**Scientific Name:** *Phryganidia californica*

**Order and Family:** Lepidoptera, Notodontidae

**Size and Appearance:**

	Length (mm)	Appearance
<b>Egg</b>		-White but develop red centers that become pinkish to brownish gray before hatching -Tiny, round eggs in groups of about two or three dozen on the underside of leaves
<b>Larvae</b>	2.5 mm long when newly hatched to 25 mm when fully grown	-Small, yellowish green caterpillars with large, brown heads and dark stripes on their sides -Older caterpillars vary in color, commonly dark with prominent, lengthwise yellow or olive stripes
<b>Adult</b>	Body is 12.7 mm long with a 32 mm wingspan	-Uniform tan to gray or silvery color and is distinguished by its prominent wing veins. -Males have feathery antennae
<b>Pupa</b>	12.7 mm	-White, yellowish, or pinkish with black markings -Suspend from limbs, leaves, trunks, or objects near trees.

**Type of feeder (Chewing, sucking, etc.):** Chewing

**Host plant/s:** The California oakworm is one of many species of caterpillars that feeds on oaks (*Quercus agrifolia*). It is the most important oak-feeding caterpillar throughout its range, which extends along the coast and through the coastal mountains of California. Damage is most common on coastal live oak (*Quercus agrifolia*) in the San Francisco Bay and Monterey Bay regions.

**Description of Damage:** Young oakworm caterpillars skeletonize the leaf surface of native oaks, while older caterpillars chew all the way through the leaf. Partially chewed leaves may turn brown and die. Viewed from a distance, the canopies of damaged trees may appear brown or gray overall because of the dead leaves and because chewed-away foliage makes branches more visible than normal. In some years, overwintering oakworms can completely defoliate trees by May or June. The subsequent summer generation may cause defoliation in July through September. During years when populations are high, oakworms may noticeably defoliate virtually every oak in a neighborhood, sometimes contiguously across acres of oak woodlands. Trees under stress from drought or other factors may decline if defoliated. Healthy trees can tolerate oakworm damage because defoliating outbreaks last usually only 1 or 2 years. Oakworms rarely cause repeated defoliations that can severely harm or kill otherwise healthy trees.

Even when tree health is not threatened, caterpillars and moths may become a nuisance when populations are high. The caterpillars may move from defoliated oaks and travel on other surfaces in large numbers, such as across lawns and up walls of buildings. In the process, they sometimes enter homes and form harmless, but annoying, pupae attached to household surfaces such as drapes and walls.

#### **References:**

Hogue, C. L. (2015). *Insects of the Los Angeles basin*. J. N. Hogue (Ed.). Los Angeles, LA: Natural History Museum of Los Angeles County.

Johnson, S. G. (1995). *Living Among the Oaks: A Management Guide for Homeowners*. Oakland: Univ. Calif. Nat. Res. Publ. 21538.

Swain, S. and Tjosvold, S. A. "California Oakworm" (Online), University of California Cooperative Extension and Statewide IPM Program. Accessed February 01, 2016 at <http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7422.html>