

# RESEARCH LABORATORY TECHNICAL REPORT

## Oak-Leaf Skeletonizer

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The oak-leaf skeletonizer, *Bucculatrix ainliella* Murt., periodically reaches outbreak proportion, causing significant foliage injury to oaks in both forest and landscape settings. This insect is a native pest found in New England and the Lake States, and south to the Carolinas and Mississippi. Larvae of the oak-leaf skeletonizer feed on the lower surface of oak leaves, imparting a translucent, lacy appearance to the foliage (Figure 1).

Heavy populations cause leaf-browning and premature defoliation, which weakens the tree and renders it more susceptible to disease causing organisms and wood boring insects. Larvae characteristically drop from the leaves and suspend on silk threads just prior to pupation or when they are disturbed. When landscape trees are heavily infested, the silk threads and larvae may become a nuisance.

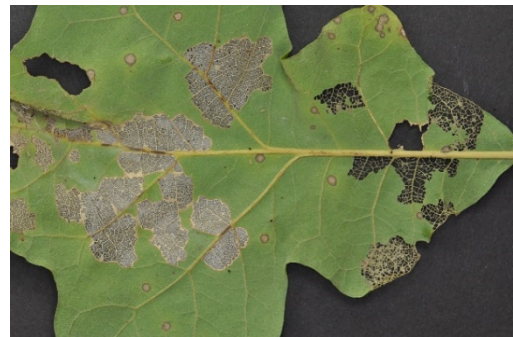
### Description

The adult moth is off-white with brown markings and a wingspan of 5/16 - inch. Larvae are yellow-green and 1/4 - inch-long when fully grown. Larvae spin white webs on the undersides of leaves, where they molt before transforming to the next instar. These webs are

**Figure 2: Cocoon of oak-leaf skeletonizer**



**Figure 1: Skeletonizing damage on oak leaf**



noticeable wherever larvae are present. Brown pupae occur inside 1/4-inch-long, white-ridged cocoons on leaves, bark, buildings, and other objects (Figure 2).

### Life Cycle

The oak-leaf skeletonizer overwinters as pupae in cocoons on bark, fallen leaves, and sides of buildings. Adults emerge, mate and lay eggs on the undersides of oak leaves in May through mid-June. Eggs hatch within two weeks, and first instar larvae begin feeding between the leaf surfaces, creating serpentine mines. Subsequent larval instars feed on the underside of the leaf, but the upper surface and veins remain intact. Larvae become fully-grown and pupation occurs in June and early July. Second generation adults are active during July and larvae in August and September. Some overlapping of generations occurs, so all stages

may be present in mid-summer. In early fall, second generation larvae pupate and overwinter in this stage. Two generations occur each year.

### Pest Management

The oak-leaf skeletonizer can be maintained below damaging levels with insecticide treatments applied when larvae are actively feeding. Please contact your Bartlett Arborist Representative to learn about effective control methods for this pest.



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