THE OAK TWIG PRUNER

By Douglas C. Allen

This wood-boring insect is a chronic problem in many areas of New York, and it seemed especially prevalent throughout much of the state in 1993 and 1994.

Fig. 2. End view of an oak branch severed by the twig pruner. Arrow indicates chip plug.

Description

The adult is a slender, grayish brown beetle 0.5" to 0.8" long with antennae that are the same length as or slightly longer than its body. It is these unusually long "feelers" that give the family to which it belongs the common name "longhorned beetles". The dorsal surface or "back" of the beetle is clothed with irregular patches of fine, grayish hairs.

Larvae (lar-vee), the worm-like immature stages that actually do the damage, are legless and distinctly segmented with well developed mouthparts. When full grown the larva (lar-vah) is the same length as the adult and has distinct long yellow hairs on the large and slightly swollen body segment immediately behind the head. Its body is creamy white (*Fig. 1*).

Hosts

Though considered mainly a problem of oak throughout the eastern United States, oak twig pruner has been observed on at least 15 other species of trees and shrubs. As a rule, however, open grown oaks of parks, roadsides, hedgerows, or lawns are most susceptible.

Habits

Following emergence in spring and early summer, beetles deposit eggs at the tips of branches in the upper angles where a leaf joins the twig (leaf axils). Initially, larvae are very small and bore only a short distance into the twig where they feed beneath the bark. Eventually, each larva continues boring to the center of the shoot and excavates a longitudinal gallery *(Fig. 1*) towards the base. As autumn approaches, the fully grown larva moves outward from the center of the shoot back to the region immediately beneath the bark. It does this by making concentric circular cuts in the wood. Following this activity, the infested branch is held in place only by the bark and a thin layer of outer wood. Once this "pruning" is completed, the larva returns to its gallery in the center of the twig. The end of the gallery is exposed at the point where the twig is "pruned." To protect itself from the elements, and probably certain natural enemies, the larva plugs this opening with fibrous wood chips (*Fig. 2*). Each larva overwinters in one of these galleries.

Fig. 1. Twig pruner larva in an oak twig.

Damage

The first evidence of an infestation is the appearance of branch tips with fading or off-color foliage that eventually turns brown. Heavy damage may detract from the aesthetic appearance of oak, but this insect will not kill the tree.

A strong wind breaks most infested branches at the point where mature larvae chewed their way from the center of a twig outwardly to beneath the bark. Some of these branches, along with their inhabitants, do not break off but merely droop and remain attached. Most of them drop to the ground, however, and a large number of branch tips one to three feet long with dead foliage typically accumulate beneath an infested tree (*Fig. 3*). The base of each broken twig has a smooth "cut," as if clipped or pruned (hence the common name); and the fibrous plug placed at the end of the overwintering tunnel may be visible (Fig. 2). If you split open one of these twigs, you may find the overwintering larva (*Fig. 1*).

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Populations on individual trees may be eliminated, certainly substantially reduced, by picking up the broken twigs in the fall and destroying them. Damage can reappear the following year, if infested twigs remain on the tree or beetles invade from adjacent areas. Generally, however, repeated removal and destruction of infested tips will keep beetle populations at tolerable levels on individual trees.

Often damaged twigs are empty because larvae become dislodged when the twig falls or birds remove larvae before the twigs drop. These are two important causes of mortality. ▲

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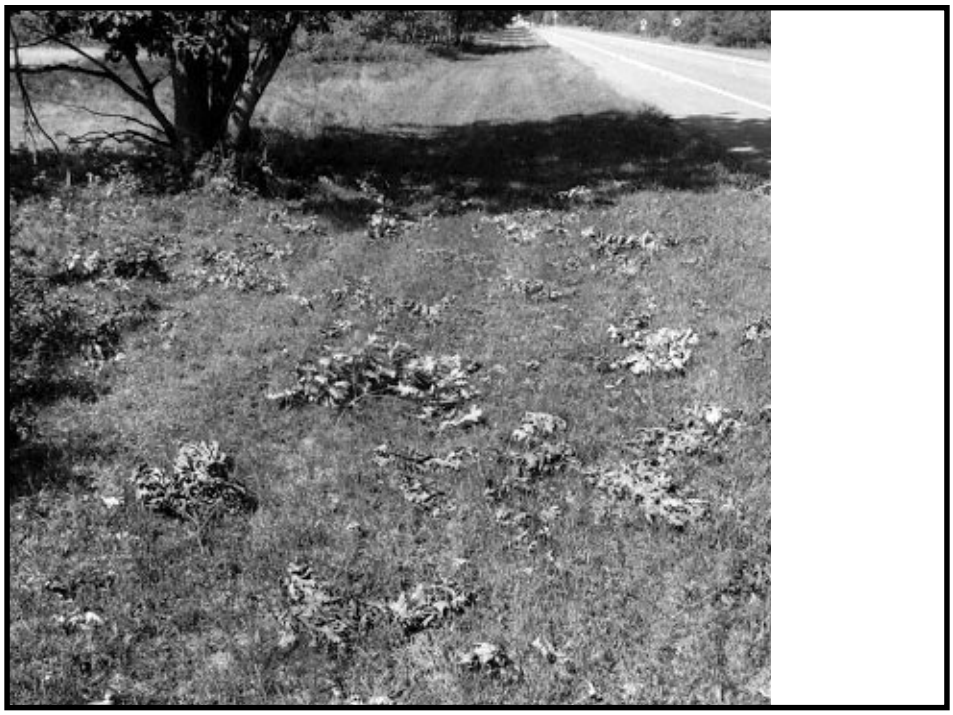

Fig. 3. Oak twigs that fell to the ground as a result of twig pruner damage.