



The Locust Borer

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The locust borer, *Megacyllene robiniae*, is a serious wood-boring pest of black locust in Idaho and other Pacific Northwest states. In recent years, this insect has killed many shade and windbreak trees in southern Idaho. Borer damage to other trees allows opportunistic insects and microorganisms to invade and further weaken them. This publication describes the biology of the locust borer and the damage it causes to black locust, and suggests methods of control.

Description

The adult locust borer is a fast-flying, hard-shelled beetle 0.5 to 0.8 inch (13 to 21 mm) long. It is black with bright yellow cross bands on the thorax and wing covers. The third and rear bands on the wing covers are W-shaped (Fig. 1). Both sexes have very long antennae; antennae of males are as long as the body. Because of their antennae, the adults are commonly called

long-horned beetles. The larva is a legless, cream-colored grub with a brown head and will measure 1 to 1.5 inches (25 to 38 mm) when mature (Fig. 2). The larva is called a round-headed borer.

Life Cycle

In Idaho, adult beetles emerge in late August or early September and mate soon thereafter. They lay eggs in cracks in the bark or around wounds on living trees. Adults commonly can be seen feeding on pollen on goldenrod blooms or on trunks of black locust trees searching for egg-laying sites.

After hatching, larvae bore into the inner bark (phloem tissues) where they feed until cold temperatures prevent further activity. In the spring, the partially grown larvae resume feeding in the phloem and eventually bore into the heartwood where they cause their main damage (Figs. 3, 4). Larvae continue to feed



Figs. 1 and 2. Adult locust borer (left) and locust borer larva (right).



Figs. 3 and 4. Locust borer larvae damage to black locust in side (left) and cross-section (right) views.

until late summer when they pupate. After 2 to 3 weeks they mature to adult beetles and emerge to start the annual life cycle again. Locust borers have only one generation per year in Idaho.

Hosts and Damage

Black locust trees are the primary hosts of the locust borer, although the insects may attack other locust species and hardwood shade trees. Infestation of locust trees causes the trunks and branches to swell where larvae are present. Occasionally the bark cracks open and exposes the larval burrows. As larvae grow and enlarge their tunnels, they expel sawdust-like frass that collects in cracks of the bark.

Infested areas are usually discolored or blackened from sap oozing from the wounds in the tree. Even if trees survive infestation, they become weakened structurally, and limbs and trunks frequently break during windstorms (Fig. 5).

Management and Control

Although the locust borer is a serious pest, the problems it causes are manageable if proper preventive measures are taken. Trees should be properly irrigated and, in some cases, fertilized to maintain them in a healthy and vigorous condition. Vigorously growing trees are less susceptible to damage. Homemakers also should take care to avoid scarring trees with lawn mowers, shovels and other tools during yard care. Trees weakened by fire damage or soil compaction from livestock are also more susceptible to borer injury.

Pruning and destroying dead or infested wood will reduce the borer population and eliminate attractive wood. Many nursery owners recommend interplanting black locust with other shade trees to reduce their attractiveness to locust borers.

Insecticide sprays are effective if applied at the correct time but worthless if applied at the wrong time. A key point is that borers already inside the wood cannot be controlled even by systemic insecticides. Several residual insecticides are available for preventing borer damage. Consult the latest Pacific Northwest Insect Control Handbook, available at Extension county offices, for insecticide recommendations.

Apply the recommended spray mixture to the trunk and major branches of infested trees in mid-August and again the first week of September. This should prevent new infestations by larvae that hatch from eggs laid in the bark.



Fig. 5. Black locust trees that are infested with locust borer larvae can be weakened and break.

Always read and carefully follow the instructions on the pesticide label. Insecticide labels are subject to change. The pesticide user is always responsible for the effects of pesticides applied to his trees as well as problems caused by drift from his property to other property, plants or livestock.

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