



Tulip Tree Leaf Miner (Sassafras Weevil)

*Eric R. Day**

Coleoptera: Curculionidae, *Odontopus calceatus*

Plants Attacked

Yellow poplar, sassafras, and magnolia.

Description of Damage

Rice-shaped holes about 1/16 inches result from adult feeding. Larval feeding forms mines, usually two per leaf. If they are both on the same side of midrib, one is extensive, and the other dwarfed. If the insect lays eggs on opposite sides of the midrib, both mines develop normally.

Identification

Small, blackish weevil, short and stubby, about 3/16 inches long. It has brown antennae, mouthparts, and tarsi. Larval stage is a pale grublike insect with a dark head that lives inside the leaf.

Life History

Before bud break, weevils attack swelling buds and make puncture-like feeding marks. Mating and oviposition occur in May and early June. The eggs are placed

in a 1/4 inch section of midrib on the underside of leaves. This destroys that section of the midrib, causing the leaf in many cases to break over. The newly hatched larvae move from the midrib into the mesophyll, their boring action accentuating the midrib damage. The larvae pupate in the infested area of the mine. The first adults emerge in early June. The weevils then feed heavily on the leaves and by mid-summer enter a period of aestivation, which is continuous through diapause in winter. Adults overwinter in leaf litter. There is one generation per year.

Control

Adults can be controlled in July. Treatments during May can be helpful in preventing oviposition. Larvae in mines can be controlled with systemic insecticides applied during June.

Remarks

This is a sporadic pest in Virginia, although in some years extremely high populations exist with large numbers showing up on window screens and floating in pools. It has also been serious in West Virginia, Ohio, and western Pennsylvania.

*Manager, Insect Identification Laboratory, Virginia Tech †Redrawn from an image by Tim Tigner, Virginia Dept. of Forestry