

Pine Tip Moth

Hollowed out shoots

Name and Description—*Rhyacionia* spp. [Lepidoptera: Olethreutidae]

Western pine tip moth—*R. bushnelli* Busck

Nantucket pine tip moth—*R. frustrana* Comstock

Southwestern pine tip moth—*R. neomexicana* Dyar

Larvae of pine tip moths are yellowish with black heads and are less than 1/2 inch (13 mm) long. Adults, though rarely seen, have forewings mottled with yellowish gray and reddish brown (fig. 1). Hind wings are gray. Wingspans extend to about 3/4 inch (19 mm).

Hosts—Ponderosa pine

Life Cycle—A single generation per year occurs in most parts of the Intermountain West. Winter is passed as pupae in cocoons in the litter or soil beneath infested trees. Adult moths emerge by late May or early June, mate, then females deposit eggs on needles, buds, and shoots of young trees.

Newly hatched larvae either feed between or mine the needles. Later instars feed inside needle sheaths or buds and then enter new shoots and mine within developing shoots. Larvae complete growth by midsummer or fall, emerge from shoots, and drop to the ground to pupate, where they spend the winter (fig. 2).

Damage—Larvae mine shoots and buds of young pines—this is especially damaging in plantations, even-aged natural stands, and ornamental plantings (fig. 3). Infested trees are often deformed and growth is reduced. Damage is unsightly but seldom fatal. Pine trees less than 25 ft (7.6m) tall are most commonly affected (fig. 4).

Management—Damage is seen in upper and mid-crowns of young ponderosa pines. Larval feeding activity distorts and kills both terminal and lateral shoots, which often stunts growth and deforms trees. No control is necessary in forest settings. Ornamental trees may be protected by applying insecticides to the foliage and soil in the spring.



Figure 1. Adult pine tip moth. Photo: Scott Tunnock, USDA Forest Service, Bugwood.org.

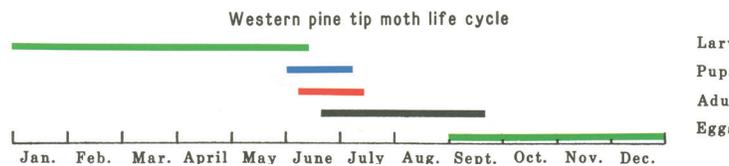


Figure 2. Western pine tip moth life cycle (from Johnson 1982).



Figure 3. Pine tip moth larva. Photo: Whitney Cranshaw, Colorado State University, Bugwood.org.



Figure 4. Pine tip moth damage. Photo: John Guyon, USDA Forest Service, Bugwood.org.

1. Furniss, R.L.; Carolin, V.M. 1977. Western forest insects. Misc. Publ. 1339. Washington, DC: U.S. Department of Agriculture, Forest Service. 654 p.
2. Johnson, D.W. 1982. Forest pest management training manual. Lakewood, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Region. 138 p.
3. Stevens, R.E. 1971. Ponderosa pine tip moth. Forest Insect and Disease Leaflet 103. Washington, DC: U.S. Department of Agriculture, Forest Service. 5 p.