

PINE TIP MOTHS: NANTUCKET—*Rhyacionia frustrana*, SOUTHWESTERN—*R. neomexicana*, WESTERN—*R.* *bushnelli* and other *Rhyacionia* spp.

HOSTS: Ponderosa, Austrian, Scotch, and jack pines

IDENTIFICATION, LIFE CYCLE, AND DAMAGE: Larvae vary from yellowish-white to pink to reddish-orange, with dark heads. Mature Nantucket and western pine tip moth larvae are 9 to 12 mm long; mature southwestern pine tip moth larvae are 12 to 15 mm long. Coloration and wingspan of the moths varies with the species; however, most are a mottled reddish-brown and gray.

Nantucket pine tip moths overwinter as pupae in the buds, while the other tip moths overwinter as pupae in the ground. Moths appear during spring and females lay eggs on new growth. Nantucket pine tip moths have 2 to 4+ generations per year. Western pine tip moths have 1 to 2+ generations per year. Southwestern pine tip moths have one generation per year.

Larvae mine needles, buds, and new shoots, killing shoots and stunting tree growth. Old infested tips crumble when squeezed. Shoots infested with southwestern pine tip moths commonly turn brown and bend over in a shepherd's crook.

CONTROL: Spray acephate or dimethoate on foliage in spring when new shoots are elongating but before needles are more than 13 mm long. Repeat in late June or early July. Insecticide application should be timed to coincide with the appearance of young larvae. Synthetic attractants of male Nantucket and southwestern pine tip moths are available commercially and can be used to monitor adult flight periods. Trees should be sprayed 10 to 14 days after moth flight begins.



Southwestern pine tip moth damage



Western pine tip moth damage



Western pine tip moth larva