



Forest Health Note

Hosts:

Ponderosa pine, lodgepole pine, shore pine, sugar pine, and many ornamental pines.

Importance:

Pitch moth attacks create large, unsightly pitch masses on the bole of pines, particularly ponderosa (Figure 1). Attacks do not cause serious damage on large trees, but attacks on small diameter stems can make them more susceptible to wind breakage (Figure 2). Wounds created by pitch moth attacks eventually callus over, but lumber defects can result from this healing process. Pitch masses or resin on the lower bole of pines are readily ignited by ground fire and can create severe scars or tree mortality.



Figure 1: Resin masses from pitch moth attacks often occur where branches join the trunk.

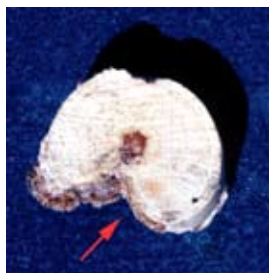


Figure 2: A cross-section through a 1½" pine stem showing the deformation from a pitch moth attack.

Sequoia Pitch Moth (*Synanthedon sequoiae*)

Look For:

Pitch masses, usually a whitish-pinkish color, are typically found where a branch joins the trunk (branch collar) or at wound sites along the bole. Often it is possible to locate the off-white or yellowish larva by scraping away the pitch and examining the wound area (Figure 3).

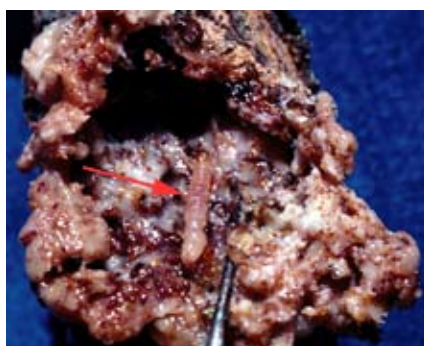


Figure 3: Scraping away the pitch mass will often expose a single larvae.

Infestation Characteristics:

Despite the name, Sequoia pitch moth, this insect's attacks are restricted to pines and rarely Douglas-fir. Trees less than six feet in height are not infested. A very high proportion of attacks are associated with bole wounds, particularly branch pruning. Often the wounds on one tree will be reinfested year after year creating pitch masses several inches in diameter.

Infestations can be particularly severe when a native pine, such as ponderosa, is growing off site as an ornamental. Pitch moth infestations are a minor problem in natural pine stands.

The adult stage of this insect is unusual in that they mimic yellow jackets and fly during the day (Figure 4). The female moth lays its eggs in bark crevices or wounds in July – August. Newly hatched larvae bore into the cambial area where they feed for one to two years. Larvae pupate near the surface of the pitch mass where empty pupal cases are often found.

Control:

Silvicultural

Avoid wounding pines or cutting limbs in the spring and summer months. Fresh wounds are attractive ovipositional sites for the female moths. If pruning is conducted between October and February pines suffer fewer attacks (Figure 5).

Usually new attacks associated with pruning wounds disappear after a couple



Figure 4: Adult pitch moths mimic yellow jackets in size and coloration.

Photo: Jerald Dewey, USDA FS, Bigwood

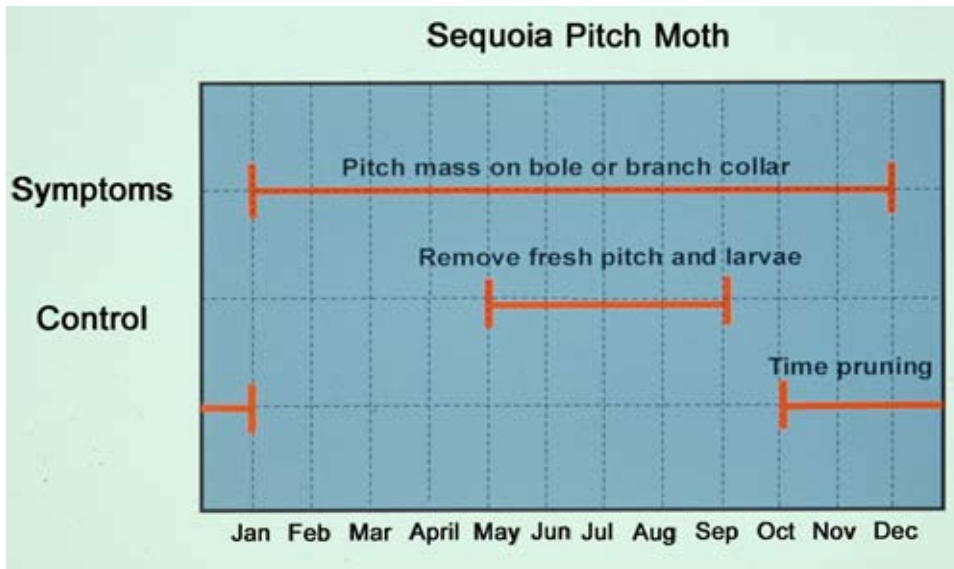


Figure 5: Timing of control and prevention activities for Sequoia pitch moth.

of years. When planting pines in ornamental situations, be sure the tree is well adapted to the site. Pitch moth infestations are particularly severe where pines are planted off site.

Insecticides/Cultural

Insecticides have not proven effective in controlling pitch moth attacks. The recommended method of control is to cut out pitch masses and physically destroy the larva or pupa (Figure 5).

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