



## Pales Weevil

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**Plants Attacked:** Pales weevil feeds on all pines within its range. It will also feed, although to a lesser extent, on Douglas-fir, fir, hemlock, juniper, larch, northern white-cedar, and spruce.

**Description of Damage** During the months of June through August look for the following symptoms: 1) Dead seedlings or dead shoot tips on larger trees. These are sometimes called flags because the dead tan twig contrasts with the green tree. 2) Pitch or resin bleeding on twigs, shoots, and at the base of flagged shoots. Adult pales weevils feed on the stem bark of new growth and pitch oozes from the wound. This pitch will callous over and appear as a white patch on the bark. If the damage is severe enough, the twig will die. The adults are involved in the transmission of Procerum root disease. The larval stage, which is not considered a pest, feeds mostly on the bases of dead or dying trees or on stumps.



Fig. 1. Adult Pales Weevil (USDA)

**Identification:** The adult is a small reddish-brown to black weevil about 1/3 of an inch in length. It has a line of scales ranging in color from orange to yellowish-white on its head, and patches of similar scales on its elytra (wing covers). The larva is pale creamy white and C-shaped in appearance. It has a dark head and no legs. Coleoptera: Curculionidae, *Hylobius pales* (Herbst)

**Scouting Tips:** The best way to scout for the adults is to spread a sheet under the tree after dark and shake the tree: the weevils will drop down. To look for the larvae, take a knife and cut back the bark on stumps or on the base of dead trees. The larvae make galleries that run mostly with the grain of the wood. Full-grown larvae and pupae can be found in chip cocoons under the bark, which are small depressions filled with slivers of wood.

**Life History:** Female weevils are drawn to the smell of resin on fresh cut stumps and on damaged and recently dead pine trees. The time they are actively seeking these sites is in the spring between March and June. Once located on a suitable host they lay their eggs on the roots. The larvae feed downward in long tunnels, but work their way to the outer bark above the soil surface to pupate. The new adults emerge in mid- August and mid-September and feed on shoots and twigs. Eventually they seek a site to overwinter, usually in litter below the tree, and emerge in the spring to start the cycle again.

**Control:** The key to pales weevil control has two main components and in most cases these will be all

that is necessary. 1.) The removal of old stumps and dead trees, as these are the weevil's breeding sites. 2.) If stumps are left in the field, then drench stumps and surrounding soil with a registered insecticide between early- April and mid-May. Only stumps cut since the previous year need be treated. Some of water to help the pesticide penetrate the bark. Stumps older than two years do not need to be treated. One possibility of control, if stumps must be left in the field, is to leave a whorl of live pest free branches on the stump. These stumps are unattractive to weevils. Another method for control is to delay replanting until two years after harvest, but this may cause problems if there are nearby plantings with fresh stumps. Pales weevils can fly and may come to your planting from a distance, depending on wind direction and availability of other host trees. Additional control may be needed in the following situations: If flagging is observed in August or September, treat for adult weevils feeding in the trees (do not use kerosene mixture when treating live trees). Dipping seedlings in an insecticide root dip can control damage to new plantings.

**Remarks:** Pales weevil belongs to a group of weevils called pine reproduction weevils. These weevils feed at the base of pines and on branches of live pine trees. This group includes the pales weevil, deodar weevil, pitcheating weevil, and the pine root collar weevil. The pitcheating weevil is found to the south of Virginia and the pine root collar weevil is found to the north; neither is considered a pest in Virginia.



Fig. 2. (left) Ideal situation for pales weevil with fresh stumps and new seedlings. Fig. 3 (right) flagging from adult feeding (both photos by Eric Day)

