

The Pine Engraver Bark Beetle (*Ips pini*) in Northern Wisconsin

NOTE: The information and control suggestions in this factsheet are written for forest managers and property owners in Northern Wisconsin. People elsewhere should consult their local Extension agent about tree disease and insect problems.

Biology

- The pine engraver almost never attacks healthy pines during periods of near normal precipitation.
- It infests (1) recently cut pine material down to about 2 inches in diameter and (2) stressed pines.
- These bark beetles cannot live in pines with loose bark, so removal of pines that have been dead for awhile is unnecessary in terms of bark beetle population reduction.
- It breeds and spreads during the warm months (approximately mid April through September).

Control Tactics

*Local Population Reduction**

- *Late summer – mid-April:* If pines start dying suddenly (i.e. the *entire* crown turns orange and individual needles turn *completely* reddish-orange), remove the trees before April 15th. If the removal occurs after the end of February, all tree trunks and branches down to 2 inches in diameter should be destroyed by complete bark removal, chipping, burning or shipment off the property to a facility that will utilize or destroy them.
- *May – August:* If pines die as described above, remove them as quickly as possible. All tree trunks and branches down to 2 inches in diameter should be destroyed by complete bark removal, chipping, burning or shipment off the property within 3 weeks of cutting. All stumps should be cut as low to the ground as possible.

Prevention

- Perform timber harvests in pine from October to the end of February. If cutting during this period, destroying/removing the cut material is not necessary. If harvests are done March – October, remove the logs promptly, no more than 3 weeks after being cut.
- *When monthly precipitation dips to 1 inch or more below average:* Slowly water (e.g. with a soaker hose) select ornamental pines, once every two weeks for several hours at or slightly beyond their driplines. Here are a couple rules of thumb about watering trees:
 - 1.) "... use approximately 10 gallons of water per inch of trunk diameter for each watering (CO State Univ. 1999-2009. <http://www.colostate.edu/Dept/CoopExt/4dmg/Trees/caring.htm>)."
 - 2.) "... water one hour per inch diameter of the tree (Univ. of MN Extension Service; Planting Trees/Shrubs. 2005. <http://www.extension.umn.edu/info-u/environment/BD556.html>)."



Figure 1: Red Pines dying suddenly from bark beetles. Armillaria root disease and Annosum root rot can cause similar symptoms.



Figure 2: Many bark beetle emergence holes indicate tree death due to bark beetle attack.



Figure 3: Bark beetle feeding galleries on the surface of the wood, also found on the inside of the bark

* Employing local population controls may or may not reduce local bark beetle populations significantly. These bark beetles cannot be locally eradicated from a forested area with conifers. In developed areas, neighbors must work together to achieve any significant control.