

Mountain Pine Beetle

The mountain pine beetle, *Dendroctonus ponderosae*, is a bark beetle native to British Columbia, Alberta and western American mountain states. During the 2000s, a severe mountain pine beetle outbreak occurred in British Columbia infesting thousands of hectares of lodgepole pine forests that spread into previously uninfested areas of eastern British Columbia and western Alberta. As a result, there has been a large amount of pine salvage being harvested and exported from these infested forests. It is believed that there is a high probability that pine products with bark intact originating from infested forests could contain live mountain pine beetles. This presents a potential threat to Manitoba, as mountain pine beetles could be introduced to Manitoba through infested firewood or logs.

This insect normally attacks lodgepole, ponderosa, sugar, and western white pines. These pine species are not typically present in Manitoba, but researchers believe that jack pine, a commercially important tree that is native to Manitoba, could be attacked. The likelihood of mountain pine beetle successfully infesting Manitoba's jack pine forests is not completely known, but field tests suggest that mountain pine beetle can infest jack pine trees. To date, mountain pine beetle has not been found in Manitoba.

Life cycle and damage

The beetles have a one-year life cycle. Adult female beetles bore under the bark and lay eggs in brood galleries they construct in the inner bark. Larvae (caterpillars or grubs) hatch from the eggs and begin feeding in the phloem (nutrient conducting tissues of the tree). Trees are killed when the phloem is disrupted by the larval feeding and when it becomes clogged by a blue stain fungus that is introduced to the tree by the bark beetles. Overwintering in the larval (caterpillar or grub) form under the bark, they continue feeding in the spring leading up to pupation (transformation to adult beetle form) which occurs in June and July. The adults emerge from the tree in summer into late fall to continue the life cycle.



Adult
(actual size 7 mm)



Larva
(actual size 7 mm)

What to look for

To look for the presence of mountain pine beetle in a tree or barked wood, look for yellow pitch masses on the outer bark, red boring dust in bark crevices, and long straight egg galleries that follow the wood grain under the bark. The egg galleries will be packed with boring dust and insect droppings. Adults are stout, black, cylindrical beetles. Larvae are white legless grubs with brown heads. Both are about seven millimetres (1/4") long. Also, infested wood is often discolored by the blue-stain fungi.



Pitch Tubes



Blue stain caused by fungi introduced by mountain pine beetle
(Whitney Cranshaw, Burgwood.org)

If you encounter any imported pine products with bark attached that you suspect may have live mountain pine beetles in it please call the Forestry Branch, at 945-7868.

For more information on the mountain pine beetle please go to:

<http://www.nrcan.gc.ca/forests/fire-insects-disturbances/top-insects/13397>