

MPB Lifecycle

Mountain Pine Beetle



In Alberta, mountain pine beetle (MPB) normally has a one-year life cycle. In higher elevation areas, it may take two years to complete their life cycle.

Adults

In mid-July to mid-August, adults bore exit holes through the bark and fly to attack new trees. Female beetles attack first and release an aggregation pheromone to initiate mass attack and attract males. Females tunnel through the outer bark and construct vertical egg galleries in the inner bark (phloem). Adults carry blue stain fungi on their bodies and within specialized pouches found in their mouths - which spreads quickly through conductive tissues of the tree.



Eggs

In the galleries, females mate with males and lay approximately 60 eggs individually along the sides of the gallery.



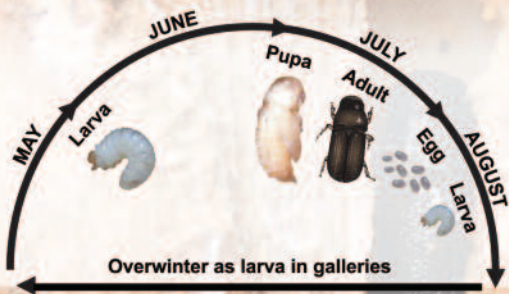
Larvae

About two weeks after eggs are laid, white, grub-like larvae with brown heads hatch and mine horizontal galleries in the phloem. As they mine, they disrupt water and nutrient flow by cutting into conductive tissues in the phloem. Here they overwinter, protected from cold temperatures by the bark and resume feeding in the spring.



Pupae

By late June to early July, larvae create oval-shaped chambers at the end of the larval galleries where they develop into adult beetles.



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