

## MOUNTAIN PINE BEATLE

(*Dendroctonus ponderosae*)

**HOSTS:** All western species of pines, native and introduced.

**DAMAGE:** Epidemics in lodgepole and ponderosa pine stands can cause widespread depletion of commercial timber. In pure stands of lodgepole pine, all trees down to 5 inches in diameter may be killed. It is a chronic pest in western white pine stands and kills single trees or small groups each year. Whitebark pine stands at higher elevations also have been seriously affected.

**LIFE HISTORY:** Mountain Pine Beetle overwinters mostly as larvae within the inner bark. Pupae and callow adults may also overwinter beneath the bark. Larvae pupate at the ends of their feeding galleries in late spring.

Adults emerge and attack in June through August. Depending on elevation and temperature. Egg galleries are more or less straight and vertical and may extend up to 30 inches long. Eggs are laid along each side of the gallery in individual niches. Both niches and egg galleries are tightly packed with partially digested woody particles, or frass. Eggs hatch and larvae feed until freezing temperatures cause dormancy. Larvae go through four instars before pupating (Amman and Cole 1983).

**IDENTIFICATION:** This is one of few bark beetles that usually makes an obvious pitch tube on the bark surface at the site of attack. Pitch tubes are masses of reddish, amorphous resin mixed with bark and wood borings. "Blind" attacks, where pitch tubes are not formed, are not uncommon in lodgepole pine.

Diagnostic characteristics for mountain pine beetle: Are straight, vertical, frass-filled egg galleries with a crook or "J" at the start. Mature adults are black and about three-sixteenths of an inch long. Infested trees fade within a year from yellowish-green to orange. The second year the needles turn reddish-brown.

