



Black Fir Sawyer

Monochamus urussovii

The Black fir sawyer beetle, *Monochamus urussovii* (Fischer von Waldheim), is native to Eurasia and is not present in North America. This beetle attacks all species in the family Pinaceae, but is most damaging to fir (*Abies*). However, larch (*Larix*), spruce (*Picea*), pine (*Pinus*) and birch (*Betula*) species are also commonly attacked. It is the capability of *M. urussovi* to vector phytopathogenic fungi that poses the greatest threat to North American forests. Reproduction of this beetle occurs in weakened or dying trees that have been affected by drought or fire, or have been wind thrown or recently cut. Outbreaks can occur, however, in live, healthy trees.



Photo by www.zin.ru

Identifying features

Male black fir sawyer beetles have antennae approximately twice as long as body, whereas those of females are just a bit longer than that of the body. The pronotum is as long as it is wide and the head, as well as the pronotum, have sparse white or yellowish pubescence. Legs, elytra and antennae are all black with very slight brass tinge, but female elytra have spots of whitish-gray hairs. Larvae are 55-60 mm in length with white elongated abdomen and dense rusty hairs.



Photo by forestryimages.org

Damage Potential

The life cycle begins when beetles feed in the crown, removing strips of bark. This feeding infects branches with the blue-stain fungus *Leptographium sibiricum*. Dieback of branches in the crown weakens the tree and reduces resin flow. These changes make the tree suitable for beetle oviposition and larval feeding. In the summer, female beetles excavate oviposition niches, often in the branches, and lay a single egg beneath the bark. Larvae dig sinuous galleries, up to 2.5 cm wide, under. These galleries are filled with frass. In the spring, overwintered larvae dig into the sapwood and create a pupal chamber, from which adults later emerge. As an infested host tree dies, its needles turn yellow and then red.



Photo source natureworld.ru

Information source: Bugwood.org authors: Van Driesche, R.G., J.H. LaForest, C.T. Barger, R.C. Reardon, and M. Herlihy. 2012. Forest Pest Insects in North America: a Photographic Guide. USDA Forest Service. Forest Health Technology Enterprise Team. Morgantown, WV. FHTET-2012-02.

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