



America's Least Wanted Wood-Borers

Department of Entomology

LARCH SAPWOOD BEETLE, *SCOLYTUS MORAWITZI* (SEMENOV)

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This bark beetle kills larch trees in Europe and Asia, including Siberia. It is known to kill larch in Siberia. It likely has the potential to kill larches in North America. It can cause significant damage to the forests that have larch as a major component.

Distribution: The beetle is found across Russia including southern Siberia, the southern parts of northern Siberia, Trans-baikalia and the Russian Far East. It also occurs in northern Mongolia. In Europe, the beetle is found in central and northern Russia and Belarus.

General Description: The males are 2.6 – 4.2 mm long and the females are 3.1 – 4.8 mm long. They have reddish-brown pronotum, antennae and legs. In males the forehead is strongly retreating while in females the forehead is projecting with rough wrinkles along it, covered with hairs, the hair being denser in the lower part. The pronotum has a narrow front part, and deep dots that fuse into wrinkles on the sides. The width of the pronotum is less than its length. The elytra have furrows at equal intervals, except the one close to the suture. Eggs are pearly white. Larvae are white, C-shaped with an amber colored head capsule. The pupae are white in color displaying some adult features such as wings that are folded behind the abdomen.

Biology: In its native range, the beetle attacks only larch, *Larix* spp. One generation occurs every year. Flight occurs July to August. Branches of larch trees with a minimum diameter of 7 mm and bark depth not exceeding 3 – 4 cm are attacked by the females. The entry gallery is hidden under the bark scales. It usually extends upwards at an angle from the bark surface. The gallery construction

begins with the female laying 2 – 3 eggs in a small chamber constructed by her. The chamber is widened and she uses the frass to cover the eggs. This process continues for 8 – 12 days during which mating occurs 2 – 3 times. Males usually stay on the bark surface. Females deposit about 8 – 20 eggs in each gallery. Larvae make 15 – 17 cm long galleries. Larval overwinter and feeding continues in the spring until June. Pupation occurs at the end of the larval galleries where a chamber is formed. Adults feed on thin host bark before reaching sexual maturity.

Source: Orlinski, A.D. (2001) Exfor Database Pest Report, *Scolytus morawitzi*. Available: <<http://spfnic.fs.fed.us/exfor/data/pestreports.cfm?pestidval=133&language=english>>. Accessed: Oct. 19, 2011.

Molecular Identification: A DNA barcode for this species has been developed and is freely accessible online at the National Center for Biotechnology Information <www.ncbi.nlm.nih.gov>, and the Barcode of Life Data Systems database <www.boldsystems.org>. If a specimen of this species is suspected, DNA analysis could help to confirm the identification even if the material is of a life stage that cannot be identified with morphological identification techniques.

S. morawitzi NCBI accession numbers: JQ015139 - JQ015142

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