Coleoptera: Cerambycidae

**Tetropium fuscum** (Fabricius)

Brown spruce longhorn beetle

**IDENTIFICATION**

Adult beetles have a flattened body, 10 to 15 mm long. The head is black or dark brown, with a deep longitudinal groove between the antennae. The head is also covered with long, light-coloured hairs. Their eyes are completely divided. The slender antennae are half the length of the body and are reddish brown. The pronotum bulges laterally. The elytra are tan, brown, or reddish-brown with 2 or 3 longitudinal grooves. The legs are dark brown or reddish-brown.

**SIGNS AND SYMPTOMS**

Eggs are laid singly or in pairs in well concealed locations under bark scales or in bark crevices. Larvae bore into the inner bark and excavate a network of irregular, 6 mm wide galleries, which become filled with tightly packed, fine-grained frass and short wood fibres. Larval galleries lightly etch the sapwood. Much of the tree’s inner bark can be destroyed by these wide, irregular and meandering larval galleries. Mature larvae bore “L-shaped” galleries within the sapwood. Larvae first bore into the sapwood to a depth of about 2 to 4 cm, then turn parallel to the trunk for another 3 to 4 cm. These galleries end in an oval-shaped pupal chamber.

Pupation occurs in the spring either in the bark, between the sapwood and bark or in the sapwood. Papae lie in a vertical position with their heads pointed upward. The wood may be stained from the associated Ophiostoma fungi.

Adults exit through oval or circular exit holes that are 4 to 6 mm in diameter, which may or may not be plugged with coarse sawdust. Attacked trees produce excessive white resin down the length of the trunk. Trees may be re-infested over subsequent years. Infested tree crowns exhibit progressive yellowing, browning and loss of needles. Once the tree has died, the remaining foliage changes to reddish-brown.

**HOST TREES**

*Picea* (main host), *Abies, Pinus* and *Larix*. In North America, only *Picea* has been found infested to date.

**LOCATION OF INFESTATION WITHIN THE TREE**

Larvae feed on the inner bark and sapwood along the entire stem. However, the lower portions of the bole are the most heavily infested.

**HOST CONDITION**

Stressed (e.g. drought, root disease), dying, recently felled, or healthy trees. Middle aged and mature spruce trees are preferred.

**DISTRIBUTION**

Europe and Japan. Introduced and under eradication in eastern Canada (Halifax, Nova Scotia). 1, 55
A. Adult *T. fuscum* (10-15 mm long).

B. Resin flowing from tree attacked by *T. fuscum*.

C. Resin flowing from infested tree.

D. *T. fuscum* larva.

E. Irregular shaped *T. fuscum* larval galleries.

F. *T. fuscum* larval galleries and oval exit hole (4-6 mm wide). Note fine-grained frass in larval galleries.

G. Stand mortality caused by *T. fuscum*. 