

AMBERMARKED BIRCH LEAFMINER

Profenusa thomsoni (Konow)

BIRCH LEAFMINER

Fenusa pusilla (Lepeletier)

DISTRIBUTION

Both species were introduced into North America from Europe. They are found throughout BC.



Figure 304. Ambermarked birch leafminer larva.



Figure 305. Birch leafminer larva.

TREE SPECIES ATTACKED:

Paper birch is the primary host.

WHAT TO LOOK FOR:

Brown blotches on birch leaves with sawfly larvae between the two epidermal layers. Larvae are whitish with characteristic black markings on the underside.

INSECT DESCRIPTION & DAMAGE SYMPTOMS:

Larvae are slightly flattened, have a whitish body with light-coloured heads, and are 0.6 to 0.7 cm long when fully grown. Dark coloured marks on the underside of the larvae can be used to distinguish between the two species. The ambermarked birch leafminer has a conspicuous midventral light-coloured patch on the prothorax, and a much smaller, dark patch on each of the other two thoracic segments. The birch leafminer has four midventral black dots, one on each of the three thoracic segments and one on the first abdominal segment. Ambermarked birch leafminer adults are tiny, black sawflies with characteristic white legs. Females are parthenogenetic, and no males have been found in North America.

Birch leafminer adults are black with yellowish-brown legs. Males are rare and mating is not required. The birch leafminer is the first leafminer to attack birch in the spring. Adults emerge and lay their eggs in late



Figure 306. White birch leaf mined by leafminers.



Figure 307. Egg punctures in birch leaf by ambermarked birch leafminer.

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May and early June in slits cut on the upper surface of developing leaves, usually near the midribs, where small, light green or grey spots become visible. When the eggs hatch, the larvae begin to feed on the leaf tissue between the two epidermal layers. The spots on the leaves develop into brown blotches, which increase in size and eventually coalesce, covering most of the leaf. There are two to four generations each year. Eggs are never laid on mature leaves. In later generations, eggs are laid mainly at twig terminals where new leaves are produced. Ambermarked birch leafminer eggs are laid in July along the veins in the basal and central area of the leaves. Feeding by larvae causes brown blotches, which usually contain frass, similar to those caused by the birch leafminer. There is only one generation each year.

DAMAGE:

Mining by these leafminers causes the leaves to dry out and turn brown. Severe damage can result in stress, slight reduction in radial growth, and branch and top die-back.



Figure 308. Ambermarked birch leafminer mines in white birch leaves.



Figure 309. Leaf mined by birch leafminer.



Figure 310. Severe damage caused by ambermarked birch leafminer.