



Balsam twig aphid

Mindarus abietinus

Order Hemiptera, Family Aphididae; aphids

Native pest

Host plants: All species of fir, balsam and Fraser, some spruce and pine species.

Description: Mature aphids are bluish gray and approximately 1.8 mm long. Later in the season mature aphids on new needles are covered with white wax.

Life history: There are three stages of aphids which appear during the year: brown-gray, wingless females, followed by blue-gray forms with a white waxy covering, and then by winged forms capable of migrating. There are several generations per year.

Overwintering: Eggs on bark.

Damage symptoms: Needles may become deformed or glued together by sticky honeydew, so that they subsequently yellow and fall prematurely. New spring growth may be stunted or deformed and the bark roughened.

Monitoring: As buds swell, look for wingless females on buds. Also look for white forms on new needles in June. Look for curled needles as a result of aphid feeding, and for copious amounts of honeydew.

Cultural control: Avoid planting trees too close.

Chemical control: Horticultural oil can be applied as a dormant spray if eggs are detected in large numbers. Applications of well-timed sprays may be used in spring if numerous overwintering aphids are present on new growth.

Biological control: Ants, yellow jackets, bigeyed bugs, damsel bugs, assassin bugs, minute pirate bugs, lacewings, earwigs, predatory thrips, lady beetles, ground beetles, soldier beetles, hover fly larvae, and predaceous midges are all important predators. *Aphidius* wasps (Braconidae) are important parasitoids.

Plant mortality risk: Low

Biorational pesticides: azadirachtin, insecticidal soap, horticultural oil

Conventional pesticides: acephate, bifenthrin, carbaryl, chlorpyrifos (nursery only), deltamethrin, imidacoprid



Twisted new foliage on balsam fir caused by balsam twig aphid. (26)

Photo: Steve Katovich, USDA Forest Service



Close-up of twisted needle damage caused by balsam twig aphid. (27)

Photo: Steve Katovich, USDA Forest Service