

INVASIVE SPECIES ALERT!

BALSAM WOOLLY ADELGID

(*Adelges piceae*)

IMPACT

Feeding by Balsam woolly adelgids cause damage to their host trees, true firs (*Abies* species), which causes growth distortion, stunting, and can lead to tree death. As a result, this insect can cause significant damage to natural seed production, the timber and Christmas tree industries.

NATIVE RANGE

Balsam woolly adelgids are native to central Europe, and have become established in many parts of North America.

DESCRIPTION

Balsam woolly adelgids...

- Are black-purple in colour
- Are spherical in shape and less than 1 mm long
- Covered with a white wool-like mass (adult females produce the wool to protect their eggs during summer and fall)
- Have orange oval eggs, visible using a magnifying glass
- Can be found on growing tips of tree branches and on tree trunks/stems

WHY SHOULD WE CARE?

Balsam woolly adelgids...

- Feed on true firs, attacking stems and branches
- Affect tree growth and water conduction
- Can infest natural forests and change ecosystems as true firs die; affecting water movement and habitat characteristics

BIOLOGY & SPREAD

Adelgids are similar to aphids in their appearance and biology. Eggs and juveniles can be carried on clothing, vehicles, outdoor equipment birds and animals to new locations. Natural dispersal by juveniles occurs, as they can crawl short distances to a new location from hatch site and often transported long distance by the wind. Their spread is intensified by the fact that females perform asexual reproduction, producing 90-10,000 offspring during their lifespan. No males are produced.

REPORT INVASIVE SPECIES

www.reportinvasives.ca



PRIMARY IMPACT: This insect can cause significant damage to natural seeds production, the timber and Christmas tree industries.

DID YOU KNOW?

Balsam woolly adelgids depend on host trees for growth and development. After an egg hatches, the first generation (instar) crawls to a suitable location on the tree. It begins feeding by inserting its stylet (probe) into the tree, remaining there while it molts several times into an adult.

(over)

BALSAM WOOLLY ADELGID (*Adelges piceae*)



HABITAT

Balsam woolly adelgids can be found on true fir trees in natural forests, planted forests, and urban areas. Host trees can be landscape trees, farmed trees, and naturally regenerated firs. Low elevation sites with good growing conditions (adequate water and nutrition) tend to have worse impacts, but high elevation forests can also be devastated by this pest.

ARE THEY HERE YET?

Yes. Balsam woolly adelgids are established in coastal forest zones of B.C., including the Fraser Valley and Vancouver Island, Cascades Forest District (Coquihalla area), the town of Rossland and surrounding area. Balsam woolly adelgid is not known to be established in other areas of B.C. at this time.

HOW CAN WE STOP THEM?

Prevention:

- Do not move true firs from coastal B.C. to the interior
- Limit movement of equipment and staff from infected areas, as adelgids can hitch a ride undetected
- Raise awareness to avoid further spread in BC

Removal:

- Remove and appropriately dispose of infested trees by chipping or burning on site

LOOK-ALIKES

No other insects cause growth distortion to the twigs or growing points in the same manner as the balsam woolly adelgid. *Pineus abietinus*, another adelgid found on true firs, looks similar but does not cause damage. The balsam twig aphid (*Mindarus abietinus*) can cause twisting of needles but not swelling or distortion of twigs.

WHAT SHOULD I DO IF I FIND ONE?

Report balsam woolly adelgids, or any other invasive species via the **Report Invasives phone app**, or via the **webform** available on the B.C. Inter-Ministry Invasive Species Working Group website:

www.gov.bc.ca/invasive-species

REPORTING CONTACTS

- If you think you have seen adelgids and damage on fir trees, outside of the coastal zone, branch samples can be sent to the B.C. Ministry of Agriculture.

Contact: Ministry of Agriculture

1767 Angus Campbell Road,
Abbotsford BC, V3G 2M3

Phone BC Coast: (604) 556-3001

Phone BC Interior: (250) 861-7681

E-mail: PAHB@gov.bc.ca (Plant and Animal Health Branch)

