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**PEST**  
**LEAFLET**

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**BALSAM TWIG APHID IN BRITISH COLUMBIA**

by

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## Introduction

The balsam twig aphid, Mindarus abietinus Koch (Homoptera: Aphididae), is a common pest of true firs, Abies spp., in British Columbia. At times, it becomes abundant locally, causing considerable injury to its hosts. Heavy feeding results in needle and twig deformation, and attacks on Christmas trees may render them valueless for harvest. Infestations in British Columbia have been most frequent in open stands of immature Abies. High populations with heavy damage have occurred on the southern Coast on amabilis and grand fir and in much of the Interior on alpine fir.

## Hosts and Distribution

The balsam twig aphid is believed to be a native insect in British Columbia. It occurs on alpine fir, Abies lasiocarpa (Hook.) Nutt.; amabilis fir, A. amabilis (Doug.) Forb.; grand fir, A. grandis (Dougl.) Lindl., and occasionally on exotic true firs. There are records of it on some other conifers.

It is found throughout the range of Abies spp. in Europe, Asia and North America and occurs in most of British Columbia.

## Description

- Egg:** Ovoid, about 0.5 mm long, yellow when newly laid, becoming shiny black after a few days; covered with white waxy threads.
- Nymph:** There are five nymphal stages, typically ovoid in appearance, from 0.7 to 1.7 mm long. First generation appearing in spring (stem mother) is pale brown, later becoming green with white waxy bloom and "wool" around it. Subsequent generations are similar but yellow-green.
- Adult:** Similar to nymphs, 0.7 to 1.5 mm long. Females green-brown, yellow-green or yellow-brown, with or without the white waxy bloom or "wool"; most of the second generation winged. Males elongate, smaller than females, brown or brown-green.



### Artificial Control

Artificial control is not practical or necessary under forest conditions. In Christmas tree plantations and nurseries and on ornamentals, control may be required to assure desirable tree shape or good growth, particularly of the main leader or terminal. Various insecticides suitable for aphids are available and may be used to reduce damage. Insecticides are poisonous; they must be handled with caution and used as specified by manufacturers.

Information on chemical control, as well as other required information, may be obtained from:

Canadian Forestry Service  
Forest Insect and Disease Survey  
Pacific Forest Research Centre  
506 West Burnside Road  
Victoria, B. C.

### References

- Amman, G. D. 1963. A new distribution record for the balsam twig aphid. *J. Econ. Entomol.* 56: 113.
- Saunders, J. L. 1969. Occurrence and control of the balsam twig aphid on Abies grandis and A. concolor. *J. Econ. Entomol.* 62: 1106-1109.





Figures 1 - 4. Balsam twig aphid, Mindarus abietinus Koch, on grand fir, Abies grandis (Dougl.) Lindl.

1 & 2. Needles of current year's growth deformed by feeding aphids. 3 & 4. Waxy wool, nymphs and adult aphids on the foliage.