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# PEST REPORT

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## **SUMMARY OF FOREST PEST CONDITIONS IN THE VANCOUVER FOREST REGION**

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This summary is an overview of some of the more important forest pests active in the region up to early September. Following aerial surveys in mid-July, detailed district maps were provided on July 21 and a combined summary map was sent to the Ministry of Forests' regional staff on August 8. A more detailed report on these and other pests, their impact, and some forecasts will be available in the annual regional report later this year.

Defoliation by the *western spruce budworm* decreased for the second consecutive year to 1900 ha in 46 infestations, down from 2970 ha in 1993. All occurred in the Fraser TSA; infestations in the Soo TSA collapsed following a decline last year. In the Fraser TSA mainly light to moderate defoliation was recorded on both sides of the Nahatlatch River, above the Nahatlatch lakes, along the Fraser River near Mowhokam Creek, at Ainslie Creek and opposite Scuzzy Creek, south of Boston Bar. Tree mortality caused by *Douglas fir beetle* in the Fraser and Soo TSA's declined to 120 ha from 280 ha recorded in 1993. Most of the decline occurred in the Fraser TSA, along the Fraser and Anderson rivers. Mortality in the Soo TSA (40 ha) was the same as last year. *Root diseases* were widespread in all age classes of Douglas fir region-wide. *Phantom hemlock looper* moderately to severely defoliated semi-mature Douglas fir over several blocks of residential area in southeastern Burnaby, the first recorded outbreak since 1982. *Douglas fir tussock moth* populations in the Chilliwack area remained endemic following their collapse last year.

The area of mature lodgepole pine killed by *mountain pine beetle* declined by about 20% to 430 ha. Most mortality occurred in the Soo TSA, where the area declined to 335 ha. Infestations declined near Birkenhead River and Tenas Creek due to harvesting, but mortality continues elsewhere and increased at the mouth of Joffre Creek, near Lillooet Lake. In the Fraser TSA the area infested increased to about 90 ha, up from 50 ha in 1993, mostly in the eastern half of Manning Park. *Pine needle cast* infections were recorded over 200 ha, up from none in 1993, and extensive infections continued in the eastern sections of Manning Park. Increased infections also occurred on shore pine on eastern parts of Vancouver Island.

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No new *pinewood nematode* surveys were instituted this year, however, follow-up sampling of bait logs at Agassiz and Pemberton was conducted. Results of this study will be available later this year. Surveys in Scots pine Christmas trees for the *pine shoot beetle*, recently introduced to eastern North America, were negative.

*Western blackheaded budworm* populations on northern Vancouver Island remained endemic for the fourth consecutive year, with no defoliation observed or reported. Low levels of *western hemlock looper* larvae were found in some lower mainland areas, part of a pheromone trap calibration study.

Mortality of high elevation fir by the *balsam bark beetle* declined slightly to 310 ha, from 375 ha recorded in 1993. Most mortality occurred in the Fraser TSA. Increased areas of mortality were recorded during aerial surveys in the Mid-Coast TSA. *Balsam woolly adelgid* populations continued to cause heavy gouting and reduced growth in a young stand in the Cameron River area on Vancouver Island. Additionally, adelgid damage causing gouting and flattened, misshaped tops, was confirmed from younger amabilis fir in the Caren Range area of the Sechelt peninsula. Stem attack and some light gouting was also recorded on alpine fir in the Birkenhead Lake area, which is outside the current regulation zone. *Fir root bark beetle* was again common on predisposed mature amabilis fir on northern and central Vancouver Island. *Multiple tops* in young amabilis fir, some caused by squirrel feeding on terminal buds, was common in several mainland areas. Similar damage recorded on northern Vancouver Island is thought to be weather and site related.

Although *spruce beetle* populations region-wide remained low for the ninth consecutive year, some mortality was recorded at the very edge of the Chilliwack District near the Coquihalla Lakes, part of an increasing infestation in the adjacent Merritt District. *Spruce weevil* continued to attack Sitka spruce leaders throughout most of the host range. *Spruce aphid* populations remained at low levels in south coastal areas following their decline in 1993.

Assessments at 10 existing and one new *Acid Rain National Early Warning System (ARNEWS)* plots found no evidence of acid rain damage. Tree mortality of about 1% was attributed to natural causes. About 30 planted and natural *young stands* were surveyed for pest problems which included root rots, defoliators, foliar diseases, mammal and climatic damage.

*Winter moth* populations, although down slightly, continued to defoliate deciduous boulevard trees in south Vancouver. Patchy light to moderate defoliation occurred throughout previously infested stands in the Greater Victoria area.

The *oak leaf phylloxera* continued to cause discoloration and premature leaf drop on about 10% of the Garry oak trees in greater Victoria, similar to last year. Discoloration of scattered Garry oak continued north to Nanoose Bay and

on the Gulf Islands. The *jumping gall wasp* was collected for the first time from Garry oak on Saltspring Island. Jumping gall wasp populations, while declining slightly in Greater Victoria, increased in the Deep Cove area of the Saanich Peninsula and Maple Bay.

*Northern tent caterpillar* populations increased for the second consecutive year, and lightly to severely defoliated various deciduous species throughout southeastern Vancouver Island and some of the Gulf Islands. At Strathcona Park, the infestation continued for the third consecutive year. Defoliation was also recorded for the first time during this current outbreak in the Powell River area, including Texada Island.

For the fourth consecutive year, *Cottonwood sawfly* defoliated mainly native black cottonwood and some hybrid poplars on islands in the Fraser River near Chilliwack. The infestation declined to 600 ha of mainly light to moderate defoliation, down from 730 ha in 1993. Detailed maps were provided in July.

Discoloration by *bigleaf maple scorch* was common, particularly on east coastal areas of southern Vancouver Island, while remaining at low levels on mainland areas such as the Sunshine Coast and the lower Fraser Canyon. *Powdery mildew* was common, and caused widespread discoloration on bigleaf maple throughout the upper Fraser Valley, particularly between Chilliwack and Hope. *Dogwood leaf blight* infections, while reduced from previous years, were once again widespread throughout the host range. Branch and lower crown dieback was common in areas that have experienced repeated, severe infections. *Birch leafminer* populations remained high for the second consecutive year; most birch on mainland areas up to Yale were moderately to severely infested. *Fall webworm* was again common throughout the Fraser Valley and Canyon to the Yale area. Light populations were also common on east coastal areas of Vancouver Island.

*Apple ermine moth* populations were common throughout southwestern British Columbia. Moderate to severe defoliation occurred in some upper Fraser Valley locations, as well as in the Powell River area where the apple ermine moth, in conjunction with northern tent caterpillar, severely infested apple and other deciduous trees.

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