



PEST REPORT

Pacific and Yukon Region • Pacific Forestry Centre • 506 West Burnside Road • Victoria, B.C. • V8Z 1M5

November, 1989

Defoliation of Douglas-fir by Western Spruce Budworm in British Columbia in 1989 and Forecast for 1990

C.S. Wood, Forest Insect and Disease Survey

The area of Douglas-fir forests defoliated by western spruce budworm, *Choristoneura occidentalis* in British Columbia in 1989, declined overall for the second consecutive year. An estimated 165 800 ha of forests sustained mostly light defoliation in 460 separate infestations in three regions. This is down from 360 000 ha in nearly 1200 areas in four regions in 1988.

The decline, as forecast in 1988 based on egg counts, was in the Thompson River and Shuswap Lake drainages in the Kamloops Region, and near Quesnel and Canim lakes in the Cariboo Region where populations collapsed. This collapse followed two successive years of infestations over more than 8000 ha and was in part due to disease.

Areas of defoliation expanded in some areas including the western part of the Nelson Region which increased fivefold to 17 600 ha, in the Bridge River drainage west of Lillooet up 35% to 3800 ha, and near Pemberton in the Vancouver Region, up 25% to 4885 ha. Infestations in Okanagan Valley drainages in the Kamloops Region remained largely unchanged over about 105 000 ha.

Parasitism of late instar larvae averaged 10% (range 1 to 22%) at 13 locations in the Kamloops, Nelson and Vancouver regions, down 6% from 1988.

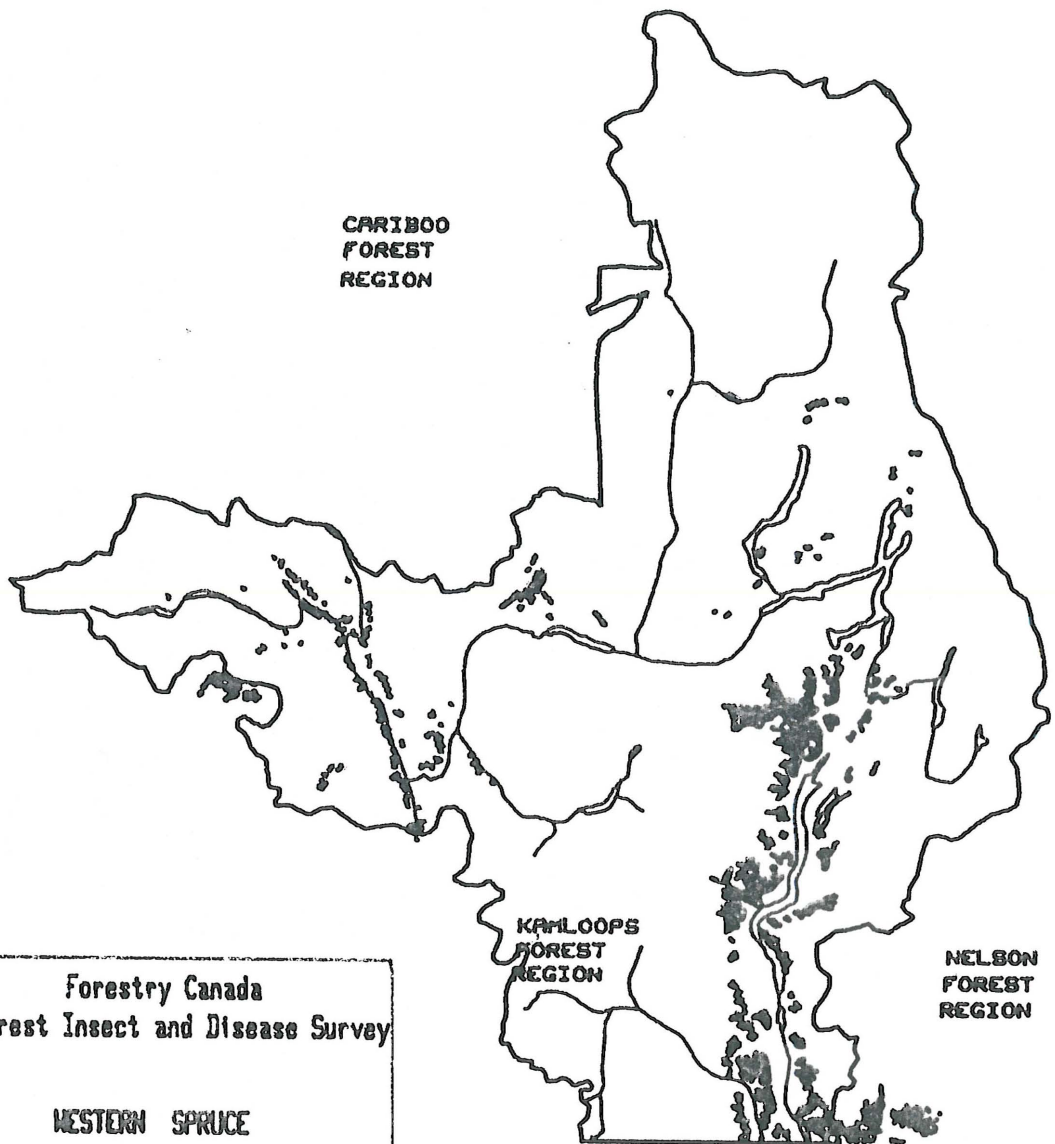
Forecast

Defoliation of Douglas-fir stands in 1989 is forecast to continue in parts of the Kamloops, Nelson and Vancouver regions, but not in the Cariboo Region. Egg mass assessments at 37 locations forecast severe defoliation at 9 locations mostly in the southwestern part of the Nelson region, moderate at 13 sites mostly in the Kamloops Region, light at 11 in parts of all regions, but none at 4 sites in the western part of the Kamloops Region.

Egg masses were more numerous than in 1988 at 6 of 9 sites in the Bridesville, Johnstone Creek and Anarchist Mountain areas in the Nelson Region; at 4 of 7 in the Kamloops TSA; 6 of 10 in the Okanagan TSA, and at 2 of 5 east of Pemberton.

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BUDWORM

1989