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## FOREST INSECT AND DISEASE SURVEY **PEST REPORT**

Pacific Forest Research Centre • Canadian Forestry Service • Victoria

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### ONE-YEAR-CYCLE SPRUCE BUDWORM INFESTATIONS ON THE VANCOUVER MAINLAND AND KAMLOOPS FOREST DISTRICTS 1972

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During August 1972 aerial surveys of the Vancouver (mainland) and Kamloops Forest districts showed that infestations of the one-year-cycle spruce budworm, Choristoneura occidentalis, in Douglas-fir stands and to some extent adjoining alpine fir forests, expanded from 39,000 in 1971, to more than 95,000 acres in 1972. Defoliation was moderate to severe in much of the area affected.

In Vancouver Forest District the most notable expansion of the infestations were at Rutherford Creek southwest of Pemberton, northwest of Pemberton along the Gates and Birkenhead rivers, and along Blackwater and Haylmore creeks. Infestations were also recorded in the Fraser Canyon south of Squeah Mountain, at Spuzzum, Tsileuh, Scuzzy creeks and as far north as Boston Bar as well as along the Sumallo River near Tashme southeast of Hope.

In Kamloops Forest District the infestation increased from 11,000 to 45,000 acres in the regions around Anderson-Seton, Carpenter, Gunn and Downton lakes.

To date, even though the spruce budworm has defoliated Douglas-fir on some areas, such as Mission Mountain Pass near Shalalth,

for the fifth consecutive year, the only tree mortality recorded was among small, understory trees. Some top-kill was noted and it is expected that more will occur.

Egg surveys were conducted again in 1972 to determine the population trend for 1973. Table 1 shows the egg counts from 1970 to 1972.

Table 1. Spruce budworm egg samples on Douglas-fir in the Vancouver (mainland) and Kamloops Forest districts, 1972.

Location	Number egg masses per 100 square feet foliage		
	1970	1971	1972
Gingerbread Cr	150	121	108
Railroad Cr	450	47	69
Ryan Cr	240	268	-
Soo R	83	-	-
Rutherford Cr	84	94	74
Haylmore Cr	24	76	129
Salal Cr*	347	115	126
Seton L (Mission Mtn)	742	44	320
Carpenter L (Mission Mtn)	-	-	364
South Cr	-	95	-
Blackwater Cr west	-	31	182
Gates R	-	71	122
Tashme	-	297	83
Blackwater Cr east	-	-	88
Birkenhead L	-	-	131
Kwoiek Cr	-	-	159

\*Alpine fir

Egg counts taken at points within the current spruce budworm infestation vary from 69 to a high of 364 egg masses. These high counts, followed by a successful hatch, are forerunners for a continuing high larval population in 1973. Apparent absence of disease in the larval populations is another factor allowing continuation of the epidemic.