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# PEST REPORT

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## BLACKHEADED BUDWORM INFESTATIONS IN THE PRINCE RUPERT FOREST DISTRICT, 1973

by

Richard J. Andrews and Robert D. Erickson

There was a general increase in blackheaded budworm populations throughout the Prince Rupert Forest District in 1972. Light to moderate populations were present in localized stands of western hemlock from Calvert Island north to Douglas Channel, Lyell and Burnaby islands on the Queen Charlotte Islands, and on alpine fir west of Babine Lake. In 1973 populations were at epidemic levels and obvious defoliation by budworm extended over 268,000 acres of western hemlock on the mainland coast, 10,000 acres on the Queen Charlotte Islands, and 2,900 acres of alpine fir in the interior of the District.

Along the mainland coast, moderate defoliation extended from Ocean Falls north through Matheson, Tolmie and Princess Royal channels and in portions along Gardner Canal. Light defoliation was recorded along Grenville and Douglas channels to Hirsch and Dahl creeks north of Kitimat. On the Queen Charlotte Islands, defoliation increased on Lyell and Burnaby islands and new infestations were recorded along Tasu Sound, Sewell Inlet, Rose Harbour and in the Deena River drainage. In the Interior, budworm defoliation of alpine fir and white spruce expanded west of Babine Lake, and new infestations were recorded near Andrew Bay and Morice Lake.

There was no evidence of disease in larvae sent to the Insect Pathology Research Institute from the infestation areas.

For prediction purposes, egg counts were made in October on two branches from the mid-crown of each of three western hemlock trees at 19 locations along the Coast, one on the Queen Charlotte Islands and three in the interior alpine fir stands. Results of the assessment appear in the following table.

It is predicted that defoliation will decrease from Ocean Falls along Matheson, Tolmie and Princess Royal channels and increase along Douglas and Grenville channels and from Kemano north to Terrace. Defoliation of current year's growth on white spruce and alpine fir at Fort Babine, Smithers Landing, Morice Lake and Andrew Bay probably will again occur in 1974.

Table 1. Intensity of defoliation by blackheaded budworm in 1973 and predicted 1974 defoliation, based on egg sampling October 1973, Prince Rupert Forest District.

Locality	<sup>1/</sup> 1973 defoliation	<sup>2/</sup> Predicted 1974 defoliation
<u>Terrace-Kitimat</u>		
Terrace	trace	moderate
Hirsch Cr	light	moderate
Dahl Cr	light	moderate
<u>Douglas Channel</u>		
Emsley Cove	light	light
Foch Lagoon	light	light
Kiskosh Inlet	light	light
Hartley Bay	light	moderate
Kildala Arm	light	moderate
<u>Gardner Canal</u>		
Kemano River	light	heavy
Chief Mathews Bay	moderate	moderate
Gamsby River	moderate	moderate
Kitlope River	light	light
<u>Princess Royal Channel</u>		
Klekane Inlet	moderate	light
Green Inlet	moderate	light
<u>Roderick Island</u>		
Watson Bay	moderate	light
Jackson Passage	moderate	light
<u>Matheson Channel</u>		
Lizette Lake	moderate	light
Salmon Bay	moderate	light
<u>Ocean Falls</u>		
Link Lake	moderate	light
<u>Queen Charlotte Islands</u>		
Takelley Cove	light	moderate
Powrivco Bay	moderate	moderate
Gogit Point	heavy	moderate
Burnaby Island	light	moderate
Jedway	light	moderate
Sewell Inlet	light	moderate
Tasu Sound	light	moderate
Deena River	moderate	moderate
<u>Interior Subalpine area</u>		
Ft Babine	moderate	moderate
Smithers Landing	light	moderate
Morice Lake	moderate	light
Andrew Bay	moderate	moderate

<sup>1/</sup> Defoliation estimated from aircraft:

Light - up to 50%; moderate - 51-75%; heavy - 76%+.

<sup>2/</sup> Defoliation based on average per 18" branch sample:

Light - 5-26 eggs; moderate - 27-59 eggs; heavy - 60+ eggs.