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PEST REPORT

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NORTHERN TENT CATERPILLAR IN THE KALUM FOREST DISTRICT 1991 AND FORECAST FOR 1992

Prince Rupert Forest Region

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Forest Insect and Disease Survey

Damage

Defoliation by the northern tent caterpillar, Malacosoma californicum pluviale, continued for the third consecutive year in the Skeena Valley. Deciduous growth, primarily black cottonwood, but also trembling aspen, willow, white birch and fruit trees, was lightly to severely defoliated. Feeding damage occurred throughout the Skeena Valley from the Kasiks River area east to the Shames River area, and this year expanding further east to encompass most of the Terrace area. Defoliation was also mapped for the first time in the Wedeene River valley. The area mapped during an aerial survey in July totaled 4261 ha, a substantial increase from the 3230 ha mapped in 1990. While an increase in severity was also noted, both the increase in area and severity are attributable to the Wedeene River drainage infestations. Along the Skeena River, area and intensity were overall slightly reduced.

Early season defoliation was again followed in most areas by a second, smaller flush in mid to late summer. There is usually no tree mortality directly attributable to defoliation by tent caterpillars, excepting perhaps occasional young saplings after repeated severe attacks. Successive years of defoliation will reduce radial growth and may cause branch and twig dieback.

Forecast

Defoliation in the Skeena Valley is expected to be light to moderate over a similar area in 1992. In the Terrace area itself, severe defoliation is expected in some areas; in the Wedeene Valley severe defoliation can also be expected. Predictions are based on egg mass surveys conducted this fall (table). Diseases in larval populations were not noted and larval parasitism not assessed; neither are expected to significantly impact on populations at this time.

Table Predictions of 1992 defoliation by the northern tent caterpillar based on egg mass counts in the Kalum District. Prince Rupert Forest Region 1991.

Location	Host ¹	Avg. DBH (cm)	Avg. No. Egg Masses		1992 Pred. Def. ²
			Old	New	
Kasiks River	bCO/willow	11	1	3	LT/MOD
Exstew River	bCO	12	<1	5	LT/MOD
Shames River	tA/rA	11	0	2	LT
West Terrace	tA/wB	10	4	20	SEV
South Terrace	tA	10	2	6	MOD
East Terrace	tA	10	3	19	SEV
Wedene River	tA/willow	9	1	10	SEV

¹bCO-black cottonwood, rA-red alder, tA-trembling aspen, wB-white birch

²Predictions are based on the number of egg masses by tree diameter that will cause complete defoliation (from thresholds developed in work on forest tent caterpillars on tA).

DBH	# Egg Masses
2.5	2
5.0	5
7.5	9
10.0	11
12.5	14
15.0	19

Control

Homeowners can help reduce populations by destroying the silvery gray-brown egg masses during the winter months. On small trees, these are readily evident on twigs, small branches and occasionally young stems. Colonies can also be effectively destroyed prior to late larval dispersal.

Once larvae begin to disperse control becomes more difficult and expensive. Incursions from outside the control area become common at this stage; this is also the most destructive stage. The following insecticides are available for use in areas of particular concern; their application should always scrupulously follow label directions.

Biological insecticides: Dipel 132 and Thuricide 48lb contain a bacteria toxic to insects only.

Chemical insecticides: Sevin (various formulations), Ortho (Orthene), Ambush 500 EC

The Forest Insect and Disease Survey will continue to monitor tent caterpillar populations and assess their impact in 1992.
