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FIDS Pest Report 92-22

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FOREST TENT CATERPILLAR IN TREMBLING ASPEN IN THE PRINCE GEORGE FOREST REGION

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Forest Insect and Disease Survey

Forest tent caterpillar, Malacosoma disstria, populations decreased throughout much of the Prince George Region in 1991 but still defoliated trembling aspen over more than 21 000 ha (Map).

Tent caterpillar populations in the Prince George Forest District decreased for the second consecutive year after five years of increase. An estimated 11 600 ha of trembling aspen were defoliated in the district down from 83 000 ha in 1991. The largest area of decrease was again in the Salmon and Willow River drainages where recorded defoliation declined by over 25 000 ha to 2450 ha in 1992 and down from 60 000 ha in 1990.

The McBride Forest District was the only area where tent caterpillar defoliation increased. Trembling aspen was defoliated over 9700 ha, mostly severe, up from 6500 ha in 1991. Feeding was recorded from south of Tete Jaune to the Monroe Creek drainage northwest of McBride. The majority of the increase was near locations where feeding was noted in 1991. Large moth flights were noted in the McBride area during June and July of this year indicating continued defoliation for 1993.

The tent caterpillar populations collapsed in the Peace River area in 1992. For the first time in eight years no defoliation of trembling aspen was recorded in this area. Feeding by the caterpillar was mapped over almost 5000 ha in 1991.

The population fluctuations recorded in 1992 were as predicted by FIDS Forestry Canada in the fall of 1991 through egg mass sampling. The number of egg masses found in the Prince George TSA declined to 2 from an average of 17 and in the Peace River area to less than 1 from an average 2 in 1990. Increases were noted in the McBride area where an average of 12 new egg masses were collected, up from less than 1 in 1990.

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The decline in tent caterpillar populations can be attributed primarily to infection by viral disease, nuclear polyhedrosis virus, a fungal pathogen, Entomophthora sp. and parasitism. Both these diseases were isolated from mass collections made in 1991. The mortality rate of five larval mass collections submitted in 1991 averaged 75%; 43% from disease, 20% from parasitism and 12% unidentified causes. These diseases have contributed to the collapse of various lepidopteran infestations throughout British Columbia.

In areas around Prince George where defoliation has occurred for 3-5 years top and branch dieback is evident although no whole tree mortality has been recorded. Continued defoliation promotes growth loss and increased susceptibility to attacks by other insects and diseases. As well as damaging trees, forest tent caterpillars can be a nuisance to homeowners, campers and picnickers because of its tendency to migrate in large numbers during the larval stage.

Egg surveys to forecast forest tent caterpillar populations for 1993 will commence this fall at selected locations. results will be available in early October.

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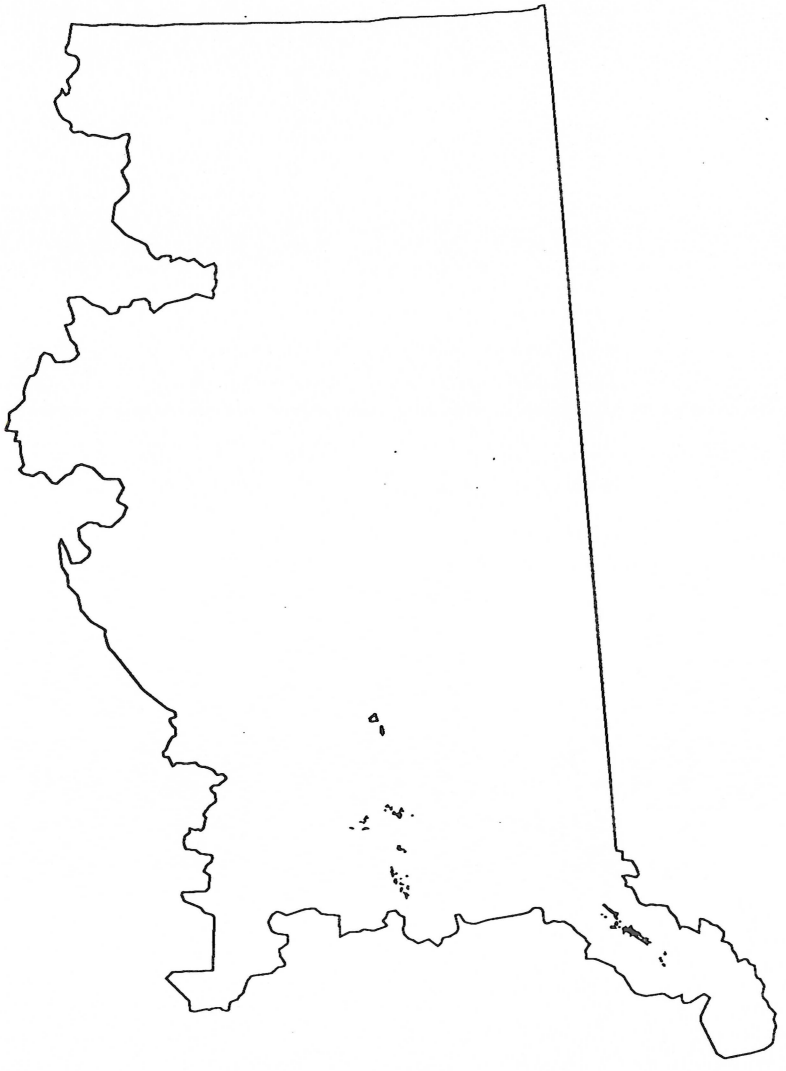
PRINCE GEORGE - FOREST TENT CATERPILLAR 1992



FORESTRY CANADA

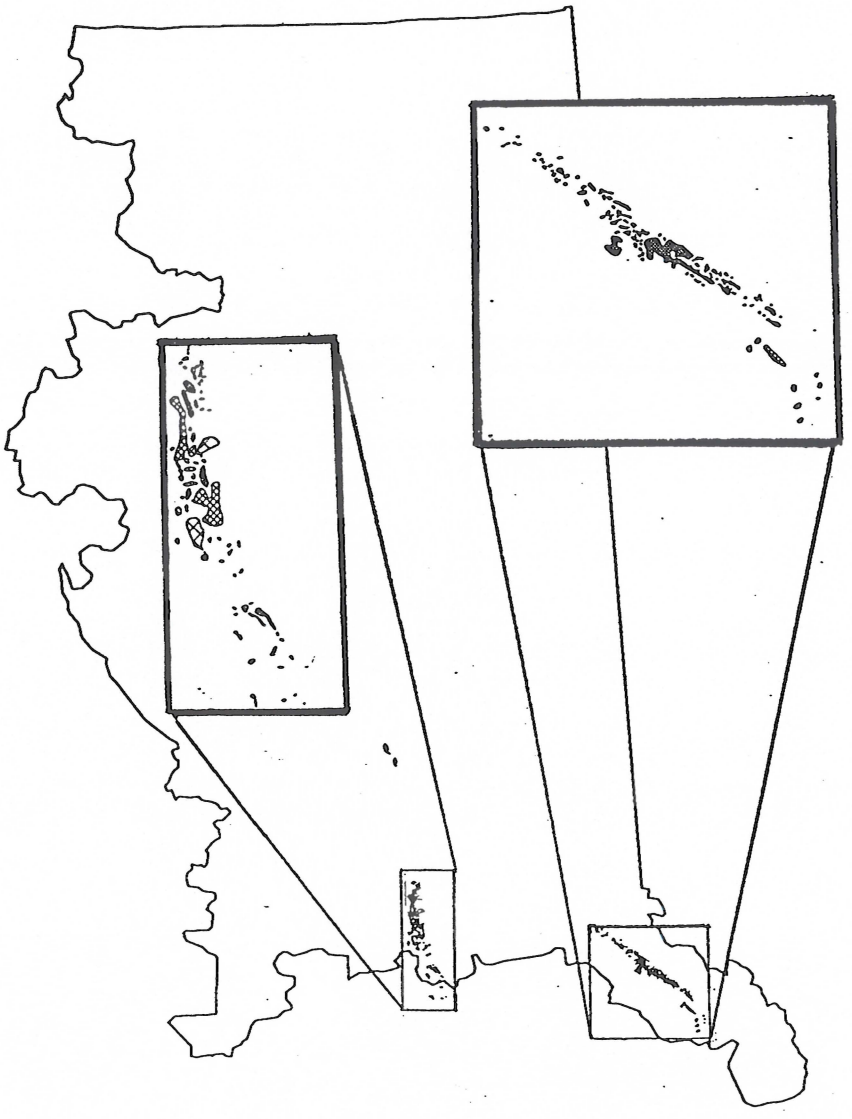
Forest Insect and Disease Survey

Scale 1:6240371 18 Aug 92

STATISTICS:

	Ha:	Freq:
Light:	11168	42
Moderate:	2804	6
Severe:	7221	21
Total:	21193	69

PRINCE GEORGE FOREST TENT CATERPILLAR 1993



FORESTRY CANADA

Forest Insect and Disease Survey

STATISTICS:

	Ha:	Freq:
Light:	4443	23
Moderate:	11449	27
Severe:	21504	120
Total:	37396	170

Scale 1:6000000 05 Jul 93