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PEST REPORT

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

FIDS REPORT 92-17

AUGUST 1992

WESTERN HEMLOCK LOOPER IN THE KAMLOOPS FOREST REGION

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Forest Insect and Disease Survey

Western hemlock looper, Lambdina f. lugubrosa, defoliated mature and overmature western hemlock and western red cedar over about 80 600 ha in the Kamloops Forest Region in 1992. This is more than double the area defoliated in the region last year, and the largest ever recorded in the region. Most was in the Clearwater Forest District and to a lesser extent in the Kamloops and Salmon Arm districts (Table), and was mapped during joint Forestry Canada - BCFS aerial surveys.

Severe defoliation covered 18 100 ha, including 10 900 ha in Wells Gray Provincial Park near Hobson and Clearwater lakes and along the Clearwater River Valley, and 6775 ha from Blue River to the Albreda River Valley. East of Blue River near Mud Lake, hemlock and cedar over several hundred hectares were totally defoliated, and ground cover, alpine fir and spruce were severely defoliated. Moderate defoliation covered 38 500 ha in the North Thompson River Valley between Blue River and Gosnell, and in Wells Gray Park, near Hobson, Azure and Clearwater lakes and in the Clearwater River Valley. Moderate defoliation occurred also over 3650 ha in the upper Adams River drainage and over about 425 ha in the Salmon Arm District in the Seymour and Perry River drainages and at Ratchford Creek. Light defoliation was scattered in patches over 19 300 ha in most previously mentioned areas, and over 200 ha defoliated for the first time at the headwaters of Barriere River and at East Barriere Lake.

Tree mortality, of concern to the B.C. Forest Service, Parks and Industry, is likely to occur in severely defoliated mature and over mature stands but is not likely to occur in immature stands. Egg mass samples will be collected later this year to determine population levels and forecast defoliation for 1993. Previous outbreaks occurred at eight or nine year intervals and lasted two to three years, declining usually from naturally occurring factors including adverse weather, parasites and disease.

Table. Location and area of western hemlock and western red cedar defoliated by western hemlock looper, Kamloops Forest Region, 1992

Forest District and location	Defoliation (ha)			
	Light *	Moderate	Severe	Total
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<u>Clearwater District</u>				
Wells Gray Park	10 900	28 500	10 900	50 300
N. Thompson River	2 750	10 000	6 775	19 525
Adams River	3 050	3 650	125	6 825
Mud R. & Raft River	675	425	300	1 400
TFL 18 - Clearwater	100	-	-	100
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	17 475	42 575	18 100	78 150
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<u>Salmon Arm District</u>				
Seymour River	825	300	-	1 125
Scotch Creek	500	-	-	500
Perry River/Malakwa	450	125	-	575
Humamilt Lake	50	-	-	50
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	1 825	425	-	2 250
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<u>Kamloops District</u>				
Upper Barriere River	120	-	-	120
East Barriere Lake	80	-	-	80
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	200	-	-	200
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TOTAL	19 500	43 000	18 100	80 600
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Light * = Discolored foliage barely visible from the air, with some defoliation of the upper crown and branch tips.

Moderate = Pronounced discoloration and noticeably thin crown; top 1/3 of many trees severely defoliated and some completely stripped.

Severe = Upper crown and many branches totally defoliated and most trees 50% defoliated.

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