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PEST REPORT

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WESTERN HEMLOCK LOOPER INFESTATION

NELSON FOREST REGION

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Populations of the western hemlock looper Lambdina fiscellaria lugubrosa increased dramatically in 1982 causing widespread defoliation of western hemlock and western red cedar between Pingston Creek and Mica Creek in the Revelstoke Timber Supply Area (TSA) and Mount Revelstoke National Park. Collections in June and July indicated high larval populations in many areas, and aerial surveys in early August revealed defoliation in 16 drainages and sub-drainages. Approximate areas of defoliation are as follows:

Light	-	4 850 hectares
Moderate	-	2 200 hectares
Severe	-	670 hectares

Larvae began to pupate in late July in the southern part of the TSA, but in the north larval feeding will continue until the latter part of August and further defoliation may be expected.

Egg samples will be collected in October to determine number and viability and predict population trends in 1983.

Western hemlock looper occurs periodically in western North America and in British Columbia it has occurred in overmature hemlock and cedar-hemlock stands of the coast and interior wet belt. Previous outbreaks in the Nelson Region have occurred in the decadent cedar-hemlock stands in the Lardeau and between Upper Arrow Lake and Mica Creek. The first recorded outbreak between 1945 and 1947 caused

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extensive tree mortality. Severe defoliation occurred again in 1972 and 1973 before populations collapsed.

Natural control factors such as parasites, predators and disease play a major role in reducing populations during outbreaks. Adverse weather conditions during the adult stage may significantly reduce populations in the critical egg laying period.

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