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Pest Report 91-11

September 1991

WESTERN HEMLOCK LOOPER IN THE NELSON FOREST REGION

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Forest Insect and Disease Survey

Defoliation of western hemlock and western red cedar by western hemlock looper, Lambdina fiscellaria lugubrosa, was mostly moderate with light and severe in widespread patches along both sides of Lake Revelstoke in the Revelstoke TSA. The most severe defoliation was in patches of old growth at Downie and Bigmouth creeks and at Goldstream River. These areas had been defoliated in 1990 over about 1000 ha, the first time since 1983. Elsewhere, defoliation was mapped from the north end of Frisby Ridge to Soards Creek, near Yellow and Potlatch Creeks and encampment, along the south side of Wood Arm, and at Redrock Harbour. Regeneration hemlock and cedar at Downie and Bigmouth Creeks and at Goldstream River were very lightly defoliated.

Light defoliation is limited mainly to the upper crown, moderate is throughout the mid-crown, and severe is throughout the crown with the loss of most needles.

This is the seventh recorded outbreak in the region. Outbreaks at eight to nine year intervals lasted two to three years then collapsed. Growth loss, and some top-kill and mortality of scattered old-growth trees occurred.

Increased numbers of larvae were common in stands in the Upper Arrow, Trout, and upper Kootenay lakes drainages, and high numbers of pupae were collected at Downie Creek and Goldstream River, north of Revelstoke indicating continuing population expansion. Natural control factors including larval parasitism and disease are currently being determined from sample areas where four to thirty four percent of the larvae were affected last year.

Egg samples to provide a forecast of defoliation in 1992 will be collected, and the results reported, later in October.

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