I37

Pacific Forest Research Centre • 506 West Burnside Rd. • Victoria, B.C. • V8Z 1M5

July, 1984

STATUS OF WESTERN HEMLOCK LOOPER OUTBREAKS

IN THE CARIBOO, KAMLOOPS AND NELSON FOREST REGIONS, 1984

Rodney Turnquist & Colin Wood Forest Insect and Disease Survey

The western hemlock looper, Lambdina fiscillaria lugubrosa. which defoliated 37 250 hectares of mature and overmature western hemlock and western red cedar stands mainly in 1983, has declined significantly.

Larval samples in stands previously defoliated in 1982 and 1983 in the Columbia River drainage in the Nelson Region averaged 22 (range O to 115), down from 96 (range 1 to 300) in 1983. Light defoliation of understory trees is localized at Ledge and Cusson creeks in the Upper Arrow Lakes and at Cougar Creek in Glacier National Park. Low populations but not defoliation are evident at Red Rock Peninsula and Cranberry Creek, where the wasp-like, egg parasite $\frac{\text{Telenomus}}{\text{on 100}}$ sp. affected 33% to 43% of the overwintering eggs (based on 100 gram samples of old man's beard lichen). Similar declines have occurred in stands infested in 1983 in the Kamloops Region. However, at Scotch Creek, northeast of Chase, generally light and moderate defoliation of mature trees and severe on the understory has occurred for the second year.

Most current western hemlock foliage was defoliated in mixed hemlock-cedar stands at Abbot Creek in the Quesnel Lake area in the Cariboo Region, where populations had increased the previous two years.

Blackheaded budworm populations, Acleris gloverana increased throughout the previous western hemlock looper outbreak area, and are causing light defoliation from Cougar Creek west to Mount Revelstoke National Park.

Sawfly populations, Neodiprion tsugae also increased, but are not causing noticeable defoliation.