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PEST REPORT

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

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CONIFER SAWFLY, *NEODIPRION ABIETIS* COMPLEX, INFESTATION IN THE PACIFIC MARITIME TERRESTRIAL ECOZONE, SOUTH COASTAL BRITISH COLUMBIA

R. Turnquist
Forest Health Network

An outbreak of this conifer sawfly complex, first reported as causing about 200 ha of light to moderate defoliation in the Phillips River drainage east of Bute inlet in the Pacific Ranges Terrestrial Ecoregion in 1995, has expanded dramatically to cover more than 10 000 ha in 1996. The area defoliated increased significantly this year in the Phillips River drainage, where defoliation of amabilis fir, and to a much lesser degree, western hemlock, was mapped over about 7500 ha. Some young stands in the Phillips river area have also been lightly fed upon. Defoliation has also been reported over an area in excess of 2000 ha of mature stands on the east coast of Vancouver Island, mainly in the northern part of the Eastern Vancouver Island Terrestrial Ecoregion, and to some extent in the northeastern sections of the Western Vancouver Island Terrestrial Ecoregion, north and east of Campbell River. Reports from forest industry sources indicate defoliation is occurring in the Middle Memke and Compton Rivers area, the Schoen Lake area, and Tlatlos Creek near the mouth of the Eve River.

In the Phillips River area, about 1600 ha of severe, 3900 ha of moderate and 1900 ha of light defoliation of mature timber was mapped during an aerial survey conducted on September 10, 1996. An aerial survey is planned for northern and eastern parts of Vancouver Island. More accurate and up-to-date area figures will be available following the planned aerial survey. Many of the trees in the severely defoliated areas, and in those areas that have been defoliated for two consecutive years, appear to be dead or dying. Much of the area mapped as severely defoliated in the Phillips River drainage falls into this category. Initial ground checks by the BCFS report bark beetle attacks in the severely defoliated and dying trees. Samples sent to the Pacific Forestry Centre have been tentatively identified as the Pacific Silver Fir Beetle,

Pseudohylesinus sericeus. This bark beetle commonly attacks true firs that have been stressed by defoliation or other factors.

Most of the sawfly outbreak is in forest lands managed by MacMillan Bloedel Ltd. All of the Phillips River outbreak is in Tree Farm Licence (TFL) #39, and the reported outbreaks on Northeastern Vancouver Island are within Vancouver Island blocks of the same TFL. The company is currently planning to log some of the more accessible, severely defoliated and bark beetle-attacked stands. They are also looking into the possibility of an experimental spray to try to protect young stands in areas that have been defoliated.

Previous outbreaks of this sawfly have been rare. The last outbreak occurred along the East Coast of Vancouver Island in 1979, in the Keta Lake, Big Tree Creek, Haihte Creek and Memkay River areas. Approximately 8200 ha of light to severe defoliation was recorded in these areas. The infestation collapsed in 1980. Trees stressed from defoliation in this outbreak were subsequently attacked by the fir root bark beetle, *Pseudohylesinus granulata*. Salvage logging took place following the infestation at Keta Lake and Big Tree Creek. Aside from this outbreak, high populations of a conifer sawfly, but no defoliation, were reported in 1950 from Drury Inlet (north of Kingcome Inlet) to Redonda Island, and in 1960 on the Sechelt Peninsula. Historically, sawfly populations have often been intermixed with western blackheaded budworm, *Acleris gloverana*, populations during outbreaks recorded in the Queen Charlotte Islands and northern Vancouver Island.