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PEST REPORT

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SAWFLY INFESTATION NEAR KELSEY BAY, VANCOUVER ISLAND

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Sawfly (Neodiprion sp.) populations were very high in the general area of Keta Lake in late July. Larval sampling produced collections of 500 to 3,000 larvae from understory trees, and defoliation of individual trees ranged from 30 to 80%. Smaller numbers of larvae were found in the Haihte Lake area.

By September 28 feeding was completed and defoliation of mature amabilis fir trees was severe in an area examined just east of Keta Lake. Most of the older foliage and some of the new foliage was consumed, but the buds on the top 2 metres of one severely defoliated, mature, dominant balsam and one felled intermediate were sound and should flush in 1980.

Some tree mortality in the heavily defoliated areas is a possibility. Following the 1944 to 1946 hemlock looper outbreak in mature hemlock, balsam, Sitka spruce stands on southern Vancouver Island, amabilis fir died with much lighter defoliation intensity than other tree species. However, unlike the sawfly, the looper feeds on old and new foliage and is much more severe. Also there was evidence that much of the mortality was due to attack by Pseudohylesinus sp. beetles. Populations of this secondary beetle had increased rapidly in balsam trees killed very early in the outbreak by complete defoliation, then were attracted to the more lightly defoliated trees. Since it appears that only an endemic beetle population is present in the Keta Lake area the probability of the defoliated trees being attacked is slight, therefore significant mortality of balsam should not occur.

Western hemlock trees are much less heavily defoliated and could withstand further defoliation.

(more)

A prediction for 1980, based on the presence of cocoons, is difficult since sawfly cocoons, which were present on the foliage of balsam and hemlock as well as in the soil, may produce adults this fall, or they may go into diapause and emerge over 1- or 2-years. The average number of cocoons on 50 cm branch samples was 3 on western hemlock and 4.5 on balsam. Approximately 22% of the cocoons were parasitized or unsound.

The average number of eggs on 50 cm branches was 6 on western hemlock and 22 on balsam. These numbers are sufficient to indicate a continuing population. However, an egg survey in the spring would better determine what hazard the sawfly will present in the summer of 1980.