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PEST REPORT

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FIDS PEST REPORT 94-18

August, 1994

LARGE ASPEN TORTRIX IN THE PRINCE RUPERT FOREST REGION

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The large aspen tortrix, *Choristoneura conflictana*, defoliated trembling aspen in 33 infestations over 7546 ha in the Prince Rupert Forest Region, up from 417 ha defoliated in 1993. This is the second year of recorded defoliation of pure trembling aspen stands in the Kispiox TSA and the first year in the Cassiar TSA (after reports of damage in the previous year).

In the Kispiox TSA, the tortrix activity expanded to a total of 1148 ha, from 417 ha in 1993. Defoliation was again confined to the area between the Cranberry River and Douse Lake and consisted of 111 ha of light, 658 ha of moderate and 379 ha of severe attack.

In the Cassiar TSA, though aerial surveys were conducted in early August (precluding earlier assessment and reporting), long after trembling aspen were showing considerable refoliation, a total of 6398 ha of moderate defoliation was recorded in 30 infestations. Much of the defoliation occurred in areas of mature, pure aspen stands along both sides of the Stikine River, from just south of Glenora to the Telegraph Creek area, and along the Tanzilla River in the Cariboo Meadows area. Several smaller areas totaling 293 ha of defoliation were noted in the Fourmile River area north-east of Dease Lake and one area of moderate defoliation occurred along the Iskut River near Hoodoo Glacier.

During ground surveys, additional areas of mostly moderate and severe defoliation were noted around the north side of Tyhee Lake near Telkwa and along the north side of Burns Lake. The latter was an extension of much larger infestations in adjacent areas of the Prince George Forest Region (see Pest Report 94-3).

Large aspen tortrix is an early season defoliator. Second instar larvae overwinter in hibernacula in bark crevices and begin feeding early in the spring in buds, sometimes causing complete defoliation before buds flush. By mid-June, late instar larvae roll the leaves into shelters, complete feeding damage and pupate. Adults appear in July and lay pale-green egg masses on upper surfaces of aspen leaves. Eggs hatch soon after.

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This is the first occurrence of major infestations in the western part of the region, though outbreaks have been recorded in recent years in the Yukon Territory and are currently active in the Prince George Forest Region. Tree mortality rarely occurs, the damage mainly being limited to reduced stem growth, tree vigor and occasional top kill or upper branch dieback. Infestations generally last for two or three years, then subside. While parasites are common, larval starvation has often been cited as the cause of population collapse.

Control is generally not required, although in special cases a bacterial insecticidal spray, *Bacillus thuringiensis* (Bt) has been used effectively, generally in May, when migrating larvae move to the buds.

As management and utilization of trembling aspen expands in the Prince George Region, interest in this host along with black cottonwood and hybrid poplars will also increase in the Prince Rupert Region, making the tortrix a potentially important forest pest. Monitoring will continue.

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