

PEST REPORT

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Pest Report 91-15

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SUMMARY OF FOREST PEST CONDITIONS PRINCE RUPERT FOREST REGION, 1991

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This report briefly summarizes the activities of some of the important forest pests active in the Prince Rupert Forest Region in 1991. A more detailed report on these and other pests, their impacts and potential for continued damage will be available later in the year.

Mountain pine beetle-caused mortality of mature lodgepole pine, mostly in the Kalum TSA, covered over 2700 ha, similar to 1990. However, infestations were more scattered in the Nass Valley from south of New Aiyansh to Meziadin Lake, with concentrations at Borden and Sideslip lakes. No recent mortality was mapped at Cranberry Junction for the first time in twenty years, but infestations continued on the north side of the Skeena River from Kitwanga to Big Oliver Creek. Red tree counts in the Bulkley, Morice and Lakes TSAs are not yet available but are expected to be significantly higher than in 1990, especially in the Nilkitkwa area of the Bulkley TSA, and the Morrison Lake and Owen Hill areas in the Morice TSA. Overwintering survival surveys in the spring indicated significantly reduced attacks in the Kalum TSA, and slightly reduced attacks in the three eastern TSAs in 1991. Fall probes in the Bulkley and Morice TSAs for current attack have indicated even greater declines than anticipated.

Damage to young pines by lodgepole terminal weevil decreased in most areas of chronic activity, and ranged from 1 to 5% of the young trees attacked in scattered stands in the northern areas of the Bulkley and Morice TSAs. Warren's root collar weevil infested up to 90% of the pine in young planted and natural stands in the Kispiox TSA, but tree mortality averaged less than 1%. In the Kalum TSA activity was generally very light with only less than 1% of the pine killed at one site. Monitoring of diameter growth of trees in some of the more severely infested stands since 1988, has not yet found any difference in growth between infested and non-infested trees.

Preliminary data from probes for spruce beetle in infested stands in the Morice TSA near Haul Lake, and along the Morice River near the confluence with Thautil Creek, indicate significant levels of current attack in standing timber.

Increased western blackheaded budworm populations moderately to severely defoliated alpine fir and spruce over about 1000 ha above the west shore of Bare Loon Lake in the proposed Chilkoot Trail National Park, near the Yukon border. Populations in the south declined last year and collapsed this year. Spruce budmoth lightly defoliated current foliage of spruce throughout the southern part of the region. White pine weevil killed an average of over 30% of the terminals of young Sitka spruce in some parts of the Skeena and Kitimat valleys, similar to 1990 levels, and new attacks in spruce plantations in the Kispiox TSA are increasing.

Western balsam bark beetle killed increased numbers of mature alpine fir, particularly in the southern part of the Morice TSA over more than 50 000 ha, and in the Telkwa River Valley in the Bulkley TSA over more than 6500 ha. Increased numbers of two-year-cycle spruce budworm lightly to moderately defoliated alpine fir and to a lesser extent white spruce in a mature stand north of Chapman lake in the Bulkley TSA. Fir-fireweed rust severely infected newly planted alpine fir seedlings in the Bell Irving Valley, and lightly to moderately infected all age classes of fir in scattered locations elsewhere throughout the region.

Rhizina root disease sporophores were found as early as June 19 in sites burned in 1989 in the Kalum TSA, but no seedling mortality was noted. The sites had generally still not been planted, due initially to a proliferation of sporophores in 1990. In eighteen sites southeast of Meziadin Lake north to the Bell-Irving River, burned in the fall of 1990 and surveyed in late July, seven sites contained fruiting bodies but there was no seedling mortality because planting was delayed. There was no evidence of fruiting bodies or seedling mortality caused by Rhizina at eighteen sites broadcast burned in 1990 in the Kispiox, Bulkley or Morice TSAs.

Seedling damage by black army cutworm occurred only at trace levels at just two of ten sites in the Meziadin Lake area and five sites in the Bulkley and Morice TSAs, where 1990 pheromone trap results indicated substantial populations. No seedling mortality was recorded and herbaceous feeding ranged from nil to patches of severe.

Damage to conifers by mammal feeding was common and widespread. Mortality of lodgepole pine caused by porcupines was common over about 700 ha in the Kalum TSA. Areas of recent tree mortality were common on both sides of the Nass River near Kitwanga, near Lava Lake and on the west side of Kalum River. Ground surveys in the Shames Creek area indicated that over 40% of the trees were either killed, top-killed or scarred. Vole populations, which peaked in the fall of 1990 then collapsed in most areas during the following winter, caused significant damage in 1990. This resulted in seedling mortality in 1991 which was highest in three plantations in the Kispiox Valley, and was also common in plantations on the east side of Babine Lake and north of Meziadin Lake. More than half of the roadside regeneration was damaged in scattered pockets along Highway 37 near Cranberry River, and near Meziadin Lake and Meziadin River. Squirrels stripped immature cones from lodgepole pine and killed up to 10% of the branch tips on trees over a widespread area near Boya Lake. Less severe damage occurred near the Equity Mine, south of Houston.

Northern tent caterpillar lightly to severely defoliated trembling aspen, black cottonwood and willow, some for the third consecutive year, over about 4200 ha, up from 3200 ha in 1990, adjacent to and on islands in the Skeena River from Terrace west to Kasiks River. Willow in the Wedeene River drainage was also defoliated. Patches of white birch near Bob Quinn Lake were moderately to severely defoliated by increased populations of a birch leaf miner, *Lyonetia* sp.

Other noteworthy forest pests generally at endemic levels in the region including root rots, decays, dwarf mistletoes, and foliar diseases, will be reported later in more detail.

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