



PEST REPORT

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SUMMARY OF FOREST PEST CONDITIONS IN THE NELSON FOREST REGION, 1993

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This interim summary is an overview of some of the main forest pests active in the Nelson Forest Region up to the end of August 1993. Data collection and analysis is still in progress; most of the information in this report is not final. A complete and more detailed regional report on these and other pests, their impact and some forecasts will be available later this year.

PINE PESTS

Over 3700 active **mountain pine beetle** infestations have been mapped so far in the region, covering 7000 ha. In the East Kootenay, the number of small pockets of recent attack continued to increase north of Invermere, to the southern end of McNaughton Lake. In the southern part of the Rocky Mountain Trench, there was a general decline; however, some increase occurred near Moyie Lake and along Wildhorse Creek. Spring brood sampling indicated that the 1993 attack levels increased in the north and remained static to increasing in the south. Widespread scattered patches of attack declined in most areas of the West Kootenay but still had significant impact.

Moderate to severe **pine needle cast** was mapped over 71 000 ha in the region. Varying levels of needle infection were present in most pine stands, particularly in the southern half of the region.

Patches of ponderosa pine were again killed by bark beetles, mostly the **red turpentine beetle**, **mountain pine beetle**, and **Ips beetles**. About 170 patches of up to 30 dying trees were mapped throughout the host range in the southern Boundary and Arrow TSAs, up from 140 patches in 1992.

HEMLOCK PESTS

Western hemlock looper defoliated about 45 000 ha in the region, down slightly from 47 000 ha in 1992. Defoliation levels declined in the older portions of the infestation. Notable increases in severity occurred in some newer areas, such as the Illecillewaet River, along with spread to higher elevations in most infested drainages.

The area of **blackheaded budworm** defoliation mapped remained low (45 ha), but larval sampling indicated that populations are continuing to increase at Gray Creek, Glacier National Park, and along the west side of McNaughton Lake.

SPRUCE PESTS

The area of **spruce beetle** killed trees mapped remained low, with the majority of the 100 ha being mapped in Bachelor and Cupola creeks. However, small pockets of two to 30 recently attacked spruce were commonly encountered in the upper end of drainages north of Radium Hot Springs.

Spruce weevil attack levels were variable, averaging 18% in open growing stands in the Golden TSA. Minor increases were noted primarily in stands where the weevils have just become firmly established in the last few years.

DOUGLAS-FIR PESTS

Scattered **Douglas-fir beetle** infestations were mapped over a total of 20 ha in the region. Beetle activity generally declined except for localized infestations near Premier Lake and Drimmie Creek.

Rhabdocline needle cast remained high with an estimated 19 000 ha of Douglas-fir moderately to severely infected along the east side of the Rocky Mountain Trench and side drainages of Kootenay Lake.

TRUE FIR PESTS

Populations of **balsam bark beetle** continued at low to moderate levels over 4500 ha in previously identified areas, most notably in the St. Mary and Spillimacheen river drainages.

Defoliation by mature **two-year-cycle spruce budworm** was mapped over 1100 ha in the St. Mary River and Bugaboo Creek drainages. Due to spring larval mortality, defoliation was less than that caused by immature larvae in 1992. In the Monashee Range, 4300 ha of mostly moderate to severe defoliation was mapped.

LARCH PESTS

Infections by **larch needle cast** were scattered throughout the host range with patches of moderate to severe discoloration mapped over a total of 5400 ha. Populations of the **larch casebearer** remained at low levels.

DECIDUOUS TREE PESTS

Current and mostly severe defoliation of mainly trembling aspen by the **satin moth** was mapped over a total of 2900 ha. New increasing populations severely defoliated aspen stands in the Golden area. Continuing defoliation in the southern Boundary TSA declined by half to about 250 ha; 172 ha of scattered aspen patches killed by defoliation in 1992 were mapped.

Severe infestations of **birch** and **alder leafminers** again occurred in the Revelstoke and northern Arrow Forest Districts. Though common throughout the host ranges, particularly conspicuous patches totaling 12 000 ha were mapped.

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