



FIDS PEST REPORT 95-20

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## SUMMARY OF FOREST PEST CONDITIONS IN THE KAMLOOPS FOREST REGION, 1995

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This report is a general overview of the major forest pests active in the Kamloops Forest Region as determined primarily by aerial surveys in late July and early August. A complete and more detailed report on these and other significant pests and forecasts will be provided in the regional report, available later.

The **Mountain pine beetle** continues to be the most destructive pest in the Kamloops Forest Region, killing lodgepole and white pine over a wide area. While the largest infestations continue in the Penticton and Merritt Districts, estimates of damage in these areas are not yet complete. Elsewhere, a twofold expansion in infestation area occurred in the Chase and Charcoal creeks areas in the Salmon Arm District and the Paxton Valley-Martin Mountain area in Kamloops District. Individual spots were comprised of 5 to 100 trees each. Other areas of increase included Mara Lake to Enderby and Tappen to Skimikin Creek. Expansions were also noted in Lillooet District in lodgepole pine stands along Murray, North Luluwassin, Kwoiek and Whitecap creeks and in the Pasulko Lake area. There was also some increase in previously infested stands containing white pine between Avola and Berry Creek in Clearwater District, and along Louis Creek in Kamloops District. Aerially discernible discoloration of lodgepole pine caused by the **pine needle cast**, declined in area to only 2700 ha, from more than 148 000 ha in 1994. The actual area of infected stands was much greater than indicated, but the masking effect of new needle growth and needle drop made discoloration difficult to assess from the air. Similar to 1994, the majority of discoloration was mapped in the upper Deadman River area near Brigade Creek and Lake. Smaller areas of infected stands were noted near Whitewood Creek and McLure in Kamloops District and Vaseux Creek in the Penticton District. After several

years of infection and needle drop the 'lions-tail' effect is quite common in many spaced stands surveyed, particularly in the Bonaparte Plateau area. Increased numbers of drooping dead ponderosa pine shoots were evident near Pritchard, where the **gouty pitch midge** was identified as a significant contributor to ponderosa pine decline and deformity. Nearly every shoot was damaged on some trees.

After a major reduction in infestation area in 1994, populations of **western spruce budworm** continued to decline, causing mostly light defoliation on 2000 ha compared to 14 250 ha previously. Only 150 ha was classified as moderately defoliated near Barnhartvale. Areas of defoliation of up to 200 ha were mapped near Stump Lake, Buse Hill, Barnhartvale, Kamloops and Hat Creek in the Kamloops District, and in two small pockets near Chase in Salmon Arm District. Seven infestations totalling nearly 700 ha of light defoliation were mapped between Peachland and Summerland in Penticton District. Only six pockets totalling 115 ha were observed in Merritt District, including Glimpse Lake, near Douglas Lake, and along Guichon Creek. No defoliation was recorded in Lillooet District where more than 1500 ha were infested in 1994. Some foliar discoloration from budworm feeding was observed in several other areas earlier in the summer, but was no longer visible at the time of mapping. Similar to 1994, attack by the **Douglas-fir beetle** is common in stands with chronic defoliation. For the second consecutive year Douglas-fir beetle infestations have declined. Approximately 550 pockets of infested Douglas-fir were recorded in the Region, compared to 775 in 1994. As in previous years, individual outbreaks were generally small, comprising from 5 to 30 trees each, with occasional groups of up to 50 trees throughout the IDF biogeoclimatic zone. The largest concentration of beetle continues in previously defoliated spruce budworm stands along Tranquille River where more than 50 pockets of infestation occurred, but at reduced intensity. Other areas of notable concentrations in the Kamloops District include Louis Creek Valley, lower Adams Lake, and in the Cache Creek-Pass Valley area. In Lillooet District, numerous pockets were mapped along the Fraser River from Lillooet south to Kwoiek Creek, along Cayoosh Creek, Carpenter Lake and Fountain Valley. In Salmon Arm District beetles were most active in Douglas-fir stands in the Sicamous-Mara Lake area and east of Salmon Arm, and north to Ennis Bay on Shuswap Lake. In Clearwater District small areas of infestation continued at reduced intensity near Momich Lake, Vavenby and in Wells Gray Park along the Clearwater River. Infestations in the Okanagan Valley were generally light and widely scattered. Much of the reduction, especially in Kamloops District can be attributed to concentrated efforts using management techniques such as timely harvesting, trap trees and helicopter logging in areas of difficult access. For the second consecutive year no damage by the **Douglas-fir tussock moth** has been detected.

In the northern half of the Kamloops Forest Region, the area of mature spruce recently killed by **spruce beetle** remained similar in size as 1994 at 800 ha. Final

area figures for the southern half of the Region are still pending. A new infestation on some 60 ha near Silver Creek in the Salmon Arm District was precipitated by fringe blowdown and has the potential for further spread into adjacent spruce stands. In Lillooet District, long standing infestations at Whitecap, McGillivray, Cadwallader, Noel and Connel Creeks continue to decline at a slow rate with host depletion and harvesting. Infestations at Paradise Creek were reduced substantially by timely harvesting. Isolated small pockets of infestation in the District continue at Milkbranch, Van Horlick, and North Kwoiek creeks, Stein River and Blue Earth Lake. Elsewhere, infestations of one hectare or less were found in Kamloops District at Gulch Creek and Chalky creeks and in Clearwater District in Wells Gray Park near Helmcken Falls.

Recent infestations of **western balsam bark beetle** numbered 240 and covered 2600 ha, similar to 1994, but infestations were generally smaller and more numerous. Chronic areas of infestation continue at Taweel Lake, and Tranquille, Chu Chua and Wentworth creeks' areas in Kamloops District. Spot infestations in Hurley Creek in Lillooet District expanded to 130 ha. Elsewhere, other notable areas of beetle activity include Chalky Creek, Upper Scotch Creek, Murtle Lake and areas east of Lumby.

**Larch casebearer** populations declined, causing only light defoliation totalling 68 ha east of Armstrong and south of Coldstream in Vernon District.

Infestations in birch stands by a **birch leafminer** were again prominent in the Adams Lake area on 1500 ha and near Lumby on 600 ha along Creighton Valley, Harris Creek and Echo Lake. In both areas, many of the severely defoliated stands re-foliated by mid-summer. **Satin moth** severely defoliated 30 ha of trembling aspen in three patches along the Coquihalla Highway near Larson Hill. This is the third consecutive year of decline in overall populations.

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