

FIDS Pest Report 93-19

August 31, 1993

**SUMMARY OF FOREST PEST CONDITIONS
IN THE KAMLOOPS FOREST REGION, 1993**

Janice Hodge
Forest Insect and Disease Survey

This report summarizes the major forest pests active in the Kamloops Forest Region, up to late August. A more detailed report on these and other significant pests and forecasts will be provided in the regional report, available later in the year.

Mountain pine beetle remains the most destructive forest pest killing lodgepole pine over 17 000 ha compromising 2 300 separate infestations (excluding Merritt TSA), down 15% from 1992 levels. The majority remains in previously infested stands on the east side of Okanagan Lake in the the Penticton District. Surveys to determine the rate of current attack will be conducted this fall.

Discoloration of lodgepole pine needles due to infection by **pine needle cast** was widespread throughout the Region with mostly moderate defoliation mapped over 5 600 ha in the Selish Mountain, Davis Lake and Mount Hamilton areas near Merritt.

Western pine beetle populations tripled to 290 ha consisting of 350 infestations, mostly on the east side of Okanagan Lake from Kelowna south to the U.S. border. Infestations occurred as pockets of 5-20 ponderosa pine, often in association with mountain pine beetle or red turpentine beetle.

Infestations of **western spruce budworm** decreased 87% to 38 850 ha, with mostly light defoliation of Douglas-fir recorded. Populations decreased in all previously infested stands including those in the Okanagan, Shuswap, Thompson Rivers and Carpenter-Seton-Anderson Lakes area, with the exception of a slight increase in the infestation near Merritt. Above normal precipitation received this summer made mapping of defoliation difficult since many of the brown needles had been washed away prior to aerial surveys. Egg mass surveys will be conducted this fall to predict defoliation for 1994.

Although area of Douglas-fir defoliated by **Douglas-fir tussock moth** decreased 38% to 1 150 ha, several new infestations were recorded. These were located North of Kamloops at Paul Peak, Palmer-Forsythe Road, Heffley Creek, and Rayleigh and East of Kamloops near Pritchard, Duck Range Road, Monte Creek and Duck Meadow, and near Cache Creek where two pockets totaling almost 400 ha were recorded. Elsewhere, older infestations west of Kamloops and in the Similkameen declined, with no or trace defoliation recorded. Single Douglas-fir and ornamental spruce continue to be defoliated in Kamloops and in the Okanagan. Forecasts based on pheromone traps and egg surveys will be reported later.

While the area of Douglas-fir killed by **Douglas-fir beetle** increased to 1 170 ha from 340 ha, the number of infestations remained similar. This is due to the expansion of small pockets of 3-5 trees into several larger pockets, up to 150 ha, between Tranquille River and Kamloops Lake, near Spatsum, near Ashcroft at Cache Creek Hill, and on the east side of Adams Lake at Skwaam Bay. New infestations of 3-5 trees were recorded north of Vernon, near Cherryville and the south end of Mabel Lake.

Presently, the area of mature spruce killed by **spruce beetle** has remained similar to 1992 figures with 1 630 ha recorded in previously infested areas. Most of the mortality continues to occur in the Lillooet TSA near Connel and Noel creeks. Aerial surveys will be conducted this fall to delineate new infestations in the Merritt TSA where weather restricted mapping to one new pocket in the Lawless Creek drainage.

While populations of **western hemlock looper** collapsed in the Clearwater District, 1 140 ha of mostly light defoliation of old growth western hemlock and red cedar were mapped in the Perry and Seymour river drainages in the Salmon Arm District. Impact data from mortality plots will be collected this fall as well as overwintering eggs to predict population levels and expected damage for 1994.

In the Vernon District 10 150 ha of alpine-fir and Engelmann spruce were defoliated by **two-year cycle spruce budworm** in the Keefer-Sugar Lake area, similar to 1992 levels. A new infestation totaling 130 ha was mapped near Winnifred Creek, also in the Vernon District. No defoliation was recorded in the Clearwater District due to feeding by immature larvae following defoliation of over 147 000 ha in 1992 by mature larvae.

Populations of **balsam bark beetle** continue at low levels over 5 180 ha in previously recorded areas with new light infestations mapped near Humamilt Lake and Myoff Creek.

Discoloration of western larch by **larch needle diseases** declined to 420 ha from 1 500 ha recorded in 1992. Areas of moderate discoloration were mapped near Mabel Lake and Perry Creek in the Salmon Arm district.

High levels of nucleopolyhedrosis virus (NPV) and parasitism caused the collapse of **forest tent caterpillar** populations in the North Thompson River and north of Clearwater at Hemp Creek. **Satin moth** populations also decreased, defoliating 240 ha of trembling aspen and cottonwood in widely scattered locations in the Region.

Maps outlining all of these pests have been forwarded to the Regional Entomologist and are also obtainable from this office. These will be updated as the information for mountain pine beetle and spruce beetle become available.

* * * * *