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PEST REPORT

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Pest Report 91-13

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Summary of Forest Pest Conditions Prince George Forest Region

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This report is a brief summary of some major forest pests active in the Region up to early September. A more detailed report on these and other pests and their impacts and some forecasts will be available later in year.

Spruce beetle populations increased for the third consecutive year. Aerial surveys recorded scattered mortality over an area in excess of 6 000 ha from southeast of Prince George to north of Mackenzie. **Eastern spruce budworm** populations decreased for the first time in three years, in this the sixth consecutive year of the current outbreak. The area of recorded defoliation declined by 40% to 245 400 ha. Defoliation by mature **two-year-cycle spruce budworm** increased to 21 000 ha, from 8 610 ha recorded in 1990. Defoliation by mature "off-cycle" populations was mostly light over 14 000 ha, along the Omineca River between Duckling and Ominicetla Creeks and at Ankwill Creek in the Fort St. James Forest District. Budworm damage has not previously been recorded in this area. In the Ospika River and nearby Davis River drainages, north of Mackenzie, light defoliation occurred over approximately 7 000 ha. Last year, an even year, is considered to be the major feeding or 'on-cycle' year of this budworm, so the majority of feeding noted this year, an odd year, was done by what is termed 'off-cycle' mature two-year-cycle budworm.

Spruce weevil continued to infest and kill young spruce leaders throughout the southern half of the region. Populations of the **northern spruce engraver beetle** increased killing white spruce tops on widely scattered single trees.

Lodgepole pine mortality due to **mountain pine beetle attacks** increased for the second consecutive year. Approximately 10 000 m^3 were killed over more than 10 000 ha, based on a combination of maps supplied by the B.C. Forest Service and FIDS. Most of the mortality continues to occur in the Fort St. James Forest District (9 000 ha). Surveys of log decks for woodborers were initiated this year as part of an experimental pasteurization program to control the pinewood nematode, in conjunction

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with COFI and FORINTEK. **Pine stem rusts** are the major cause of mortality, and are widespread in young stands throughout the region. **Root collar weevil, stem rusts, secondary insects** and **microfungi** were found at four lodgepole pine plantations established in 1986 as a joint **Canada-Sweden project.** A new species of **pine feeding budworm** was monitored through the use of pheromone traps north of Prince George; results are pending.

Balsam bark beetle mortality increased mainly due to increased aerial surveys, to 4800 ha from 3900 ha in 1990. **Douglas-fir beetle** populations increased and killed an estimated 5000 trees over 1000 ha, up from 500 trees over 110 ha recorded in 1990. Most of the mortality, over 600 ha, occurred in the McBride district.

No **acid rain** symptoms were recorded at a long term study plot near Averil Lake in this fifth year of monitoring. A total of 50 **young stands surveys**, 40 1989-90 FRDA sites, at widespread locations found a variety of diseases and pests, the most common being **stem rusts, root** and **terminal weevils, adelgids** and **environmental damage. Black army cutworm** populations increased, and light to severe defoliation of herbaceous material was recorded at 2 locations. The results of pheromone trapping are not yet available. **Animal damage** was recorded at several locations throughout the region.

Forest tent caterpillar populations decreased throughout most of the Prince George region. In the Prince George area, for the sixth consecutive year, mainly trembling aspen was defoliated over 92 000 ha, down from 193 675 ha in 1989. Populations decreased by more than eighty-five percent in the Peace River area to 4830 ha. This is the ninth consecutive year of recorded defoliation in this area. Defoliation also increased in the McBride area for the third consecutive year; 6500 ha were recorded, up from 4465 ha last year. **Large aspen tortrix** populations increased for the third consecutive year, mainly trembling aspen was defoliated over 18 000 ha, mainly in the northern half of the region. Infections caused by **poplar shoot blights** were widespread in the northern half of the region. Various **birch leafminers and skeletonizers** were active in the southern half of the region.

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