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PEST REPORT

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FOREST INSECT AND DISEASE CONDITIONS IN KOOTENAY NATIONAL PARK, 1995

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Forest Insect and Disease Survey

Some of the more important forest insects and diseases found in the park are discussed by host in this report. To obtain a broader perspective of these, and others agents affecting our forests, please refer to the annually published report, "Forest Insect and Disease Conditions, Nelson Forest Region, 1995", available later this winter.

An annual aerial survey, funded by Parks Canada, covered the main drainages of the park on July 18. Limited ground surveys were conducted at intervals between May and October.

This report is written in fulfillment of the requirements for obtaining and maintaining a Parks research/collection permit. Insect and disease conditions have, in most cases, been previously discussed with Parks personnel during the course of field surveys.

Pine

Mountain pine beetle, *Dendroctonus ponderosae*, activity continued to increase, with an estimated 210 000 trees discoloring on 2400 ha in 1995, up from 86 600 trees on 897 ha in 1994. The main concentration of recent attack is centered between Daer Creek and Kootenay Crossing. There was also a significant increase in the size and number of infestations between Pitts Creek and the Swede Creek area. There was no increase in the number of small new pockets of faders along the Vermillion River near Wardle Creek. Scattered single fading pine were noted north to Numa Creek. Infestations along Sinclair Creek continued to decline due to depletion of mature pine.

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Brood examinations and cruise data indicated that the infestations continued to increase in 1995. The reproductive ratio was 6.2 in the main part of the infestation, which was lower than in 1994, but still indicating an increasing population; ratios above 4.0 indicate an increasing population. In stands sampled near Kootenay Crossing in September, 52% of the trees were attacked in 1995, and will fade in 1996. The recent intensification trend is expected to continue at much the same rate within the Kootenay River drainage.

Pine needle cast, *Lophodermella concolor*, infection levels declined to generally trace levels following extensive light to moderate infection of lodgepole pine foliage in 1994. Moist conditions during late spring and early summer could favor increased infection in 1995.

Spruce

The level of **Spruce weevil**, *Pissodes strobi*, infested leaders declined to 6% in 1995 from 8% in 1994, in a young spruce stand examined annually near McLeod Meadows.

Spruce beetle, *Dendroctonus rufipennis*, killed scattered groups of less than 10 trees in a chronic blowdown area near the mouth of the Simpson River. No new tree mortality was noted near the mouth of Numa Creek where approximately 5 ha of mature spruce had been killed over the past few years.

Douglas-fir

No surveys for **Douglas-fir beetle**, *Dendroctonus pseudotsugae* were done in the Park, but scattered, single, recently killed trees continue on south aspect slopes along Sinclair Creek.

Douglas-fir needle cast, *Rhabdocline pseudotsugae*, lightly infected Douglas-fir along Sinclair Creek and Kootenay River. Moist weather conditions during spore dispersal in June and July favored continuing infection in 1996.

Deciduous trees

No **gypsy moth**, *Lymantria dispar*, moths were caught in pheromone-baited traps at Redstreak and Marble Canyon campgrounds.
