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SUMMARY OF FOREST PEST CONDITIONS IN THE EAST NELSON REGION

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This report is a brief summary of major forest pests in the East Nelson district. Field surveys are currently incomplete. More comprehensive results, including predictions for pest levels in 1993, will be distributed following analysis of field data. All data contained herein is subject to change upon completion of data collection and analysis.

Mountain pine beetle infestations were recorded over 6000 ha, a decrease from 10 800 ha in 1991. The main decrease occurred in the Rocky Mountain Trench south of Invermere, but significant decreases were also recorded in the upper Elk River. High populations continued at Moyie Lake and Fernie, while expansions were prominent along the Columbia River north of Steamboat Mountain, along the Kootenay River in Kootenay National Park, and in the Glacier National Park to Quartz Creek area. However, due to high over winter brood survival in most areas, the 1992 flight was significantly increased from that of 1991 **(See Pest Report 91-5).**

Douglas-fir beetle killed an estimated 800 trees compared to 3080 in 1991. Infestations at Whiteswan, Columbia and Whitetail lakes were greatly reduced. Pockets of Douglas-fir beetle activity continued at Wickman Creek, Fairmont, and along McNaughton Lake.

Spruce beetle activity increased in the Golden TSA, with small patches of recent tree mortality mapped or observed at Cupola, Bachelor and Smith creeks, and along Sullivan, Blaeberry and Bush rivers.

Western hemlock looper populations increased in the Golden TSA to defoliate 7500 ha (450 ha in 1991) of primarily mature hemlock mainly north of Sullivan River, but with small pockets of defoliation occurring as far south as the Beaver River.

Mature two-year-cycle spruce budworm larvae lightly defoliated 3400 ha of alpine fir and Engelmann spruce along the North White River, in side drainages of Vermilion River from Floe Creek to Marble Canyon, Kootenay National Park, along the Ice River in Yoho National Park and along the Bluewater River. Light

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defoliation by immature larvae was evident over 600 ha in the St. Mary River drainage, with additional trace feeding evident in Vowell and Bugaboo creek drainages.

Trace defoliation by western spruce budworm was noted for the first time in the East Kootenay, over 300 ha along Premier Ridge in conjunction with false hemlock looper.

Spruce weevil attack levels increased by twofold at monitoring sites in the Golden TSA and at Kootenay National Park, and in general surveys in the southern parts of the district. However, perdition by birds destroyed over half of the population at Quartz Creek.

Larch casebearer populations increased in the Creston area with 1400 ha of light defoliation noted along Summit Creek and the Lower Goat River.

Pine needle sheathminer damage was mapped over 40 ha along Diorite Creek, near Canal Flats, while trace feeding was common throughout the southern portion of the district.

Foliage diseases remained at high levels for the third consecutive year. On lodgepole pine, Lophodermella concolor was present throughout the southern portion of the district with increased intensity in the wetter areas, especially in the Purcell Mountain Range, but decreased in the Rocky Mountain Range. On western larch, Hypodermella laricis infection was common in most larch stands, but generally less intense than in 1991. On Douglas-fir, Rhabdocline needle cast caused up to 100% loss of older foliage in numerous stands, especially along narrow drainages such as Summit and Quinn creeks. On trembling aspen, light foliage infection by Venturia macularis was common in most stands.

The area of trembling aspen defoliated by a leaf roller increased to 2300 ha from 875 ha in 1991, mainly along the Columbia and Kicking Horse rivers.

Black army cutworm populations remained low in 1991, with no significant defoliation recorded.

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