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***DROUGHT DAMAGE IN THE EAST KOOTENAY, 1995***

L. Unger

Forest Insect and Disease Survey

An estimated 32 000 cubic meters of drought-killed, mainly semimature lodgepole pine was mapped in the drier portions of the Cranbrook Forest District, in a brief flight sponsored by the BC Ministry of Forests.

Drought damage was mapped over 2200 ha, with the bulk of the tree mortality occurring on the north and east slopes of the Rocky Mountain Trench from Mount Baker to Plumbob Mountain, and on Gold Mountain. Additional damage occurred on the west aspect slope of North Star Hill at Kimberley, and in the Barkshanty-Glencairn creek drainages near Moyie. Although much of the mortality occurred in less than 10-ha patches along stand edges and on rocky knolls, stands up to several hundred hectares were affected.

In addition to tree mortality, roughly an equal number of trees are severely stressed. In a short cruise strip at Mount Baker, a third of the lodgepole pine was dead, a further third had extensive branch and stem dieback but should survive; the remaining trees were outwardly healthy. Both dead and stressed trees were under light attack by Ips beetles. The stressed trees will be highly susceptible to mountain pine beetle attack when their main flight occurs in several weeks. Surveys last fall indicated that stressed trees, especially with root rot, were the most vulnerable to drought.

Drought damage was first detected in August 1994 in the middle of an extended dry spell from mid-July to October during which precipitation was 80% below normal and temperatures were 15% above normal. Mortality of Douglas-fir and lodgepole pine regeneration up to 10 years old was evident in numerous areas, north as far as Parson. As spring growth commenced, additional mortality became evident and included drought resistant ponderosa pine.

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