

Canada  
PFC  
Pest. Lab.  
FIDS-91-5



Forestry Canada Forêts Canada

# PEST REPORT

Pacific and Yukon Region • Pacific Forestry Centre • 506 West Burnside Road • Victoria, B.C. • V8Z 1M5

LIBRARY

JUL 13 1991

FORESTRY CANADA -  
PACIFIC & YUKON REGION  
506 W. BURNSIDE RD.  
VICTORIA, B.C. V8Z 1M5 CANADA

FIDS 91-5

## MOUNTAIN PINE BEETLE IN THE EAST KOOTENAY SPRING 1991

L. Unger  
Forest Insect and Disease Survey

Mountain pine beetle, Dendroctonus ponderosae, broods were generally smaller in the spring of 1991 than in the previous recent years. A major decline was recorded in the drier southern Rocky Mountain Trench areas, IDF biogeoclimatic zones. At the same time the largest broods were found in both the northern and wetter areas, primarily in the ICH zones. Of 23 infestation areas examined, 12 (52%) indicated declining populations, 5 (22%) static, and 6 (26%) increasing populations (Table).

Table. Beetle brood productivity ratios in the East Kootenay, spring 1991.

Status	Cranbrook TSA	Invermere TSA	Golden/Kootenay L. TSAs National Parks
Increasing	Barkshanty Cr. (7.3)* Etna Cr. (4.8) Van Cr. (4.2)	Parson (7.9) Pinnacle Cr. (5.4)	Mountain Cr. (8.1)
Static		Brisco (3.3) Horsethief Cr. (3.2)	Golden (3.7) Hawkins Cr. (3.2) Redstreak Cr. (2.9)
Decreasing	Teepee Cr. (2.0) Bloom Cr. (1.6) Ferne (1.4) Sparwood (0.7) Elko (0.7) L. Yahk (0.4) Phillipps Cr. (0.3) Lost Dog Cr. (0.1)	Cartwright L. (1.1) Canal Flats (0.5)	Field (2.1) Hector Gorge (0.7)

\*"R" value = An average population trend derived from the number of overwintering mountain pine beetle relative to the number of parent galleries originating within a representative bark sample, where  $\leq 2.5$  indicates a decreasing population, 2.6-4.0 static and 4.1 or over an increasing population.

Decreasing "R" values do not necessarily indicate a collapsing beetle population, but only that fewer beetles will be flying in 1991 than in 1990.

The low brood productivity was a result of several factors:

- 1) The initial flight in 1990 was delayed due to cool weather and consequently the beetle broods entered the winter in the egg and early instar larval stages. These progeny were subsequently killed during a two-week period of -30 to -40° weather during December.
- 2) Beetle broods in drier trees are more susceptible to extreme cold temperatures than those in trees retaining more moisture. This can be related to time of attack, site, and extent of woodpecker damage. Tree condition appears to have been a major factor in areas where significant brood mortality occurred.

\* \* \* \* \*

July 1991