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MOUNTAIN PINE BEETLE IN MANNING PARK

A POST-CONTROL SURVEY

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The mountain pine beetle, <u>Dendroctonus ponderosae</u>, infestation in mature lodgepole pine stands near <u>Eastgate</u> in <u>Manning Provincial Park</u> was resurveyed September 12-14 following a sanitation control program and the 1983 beetle flight (Pest Report, R.O. Wood, September 1982).

A total of 29 trees attacked in 1983 was found in the area from the Park HQ east to the Eastgate area (Bonnevier Cr.).

The 5.75 man day survey concentrated initially on mature pine within a 20 metre radius of the 10 trees baited with a commercial pheromone by Parks staff (Map 1). Of 150 trees examined, 20 (including the 10 baited trees) were attacked in 1983 and flagged for removal before progeny dispersal in July 1984. In addition, probe lines 100 metres by 10 metres were established in each cardinal direction from the plots; 2 the 668 trees examined were attacked in 1983. The stand west of the baited trees for 1 200 metres were examined by following lines surveyed in 1982, without discovery of any 1983 attacks.

Bark samples $(1,000~{\rm cm}^2)$ at breast height from each of the 22 lightly attacked trees contained an average of 5 attacks (range 1-12). Eggs and small larvae were evident in 10 of the trees and gallery development was in the initial stages in the balance. Precluding overwintering mortality, populations are expected to continue.

About 5 km west of the Eastgate infestation a total of 7 trees, 2 and 5 in each of two pockets, were attacked in 1983. This included the single pheromone baited tree at each location. These were tagged for removal. There was no sign of current attack in Muledeer and Hampton campgrounds.

The mountain pine beetle control program in the Park has reduced the population from more than 252 trees attacked in 1982 to 29 in 1983, a high level of control. However, about 19 groups of 5 or more recently killed lodgepole pine within 16 km east of the Park (Map 2) indicate a buildup which, if not controlled, constitute a threat of reinfestation.



