

PEST REPORT

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MOUNTAIN PINE BEETLE INFESTATION

Manning Provincial Park

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Following a request by the Provincial Parks Branch a detailed survey of the mountain pine beetle infestation in lodgepole pine near Eastgate in Manning Provincial Park was conducted. In anticipation of a control effort to minimize spread and intensification of the infestation into more developed facilities, survey objectives were to identify and mark currently infested lodgepole pine trees, delineate the infestation boundaries, and determine beetle population levels, infestation trends and stand composition. A total cruise was conducted through the 63 ha infested stand by running 23 cruise lines at 50 m intervals and varying in length from 300 to 800 m.

All pine trees were examined and classified as:

- Healthy - no bark beetle attack.
- Green attack- attacked by bark beetles in 1981.
- Red attack - attacked by bark beetles in 1980.
- Grey attack - attacked by bark beetles prior to 1980.

Of the more than 18,000 lodgepole pine trees examined 3,568 (20%) were currently infested and marked with paint. The distribution of these infested trees between prism plots and cruise lines is shown on the attached map.

Based on 116 prism plots at 100 m intervals along the cruise lines, 21% of the pine in the stand were green attacked; 10% were red, having been attacked and killed in 1980; 7% had been killed prior to 1980; and 62% were as yet unattacked. Prism plot data shows more than a doubling of green attack (1981) compared with the 1980 attack. Stand composition was 61% lodgepole pine, 32% Douglas-fir and 7% Engelmann spruce with average diameters at breast height of 31, 48 and 45 cm respectively.

Random examinations throughout the infestation disclosed healthy, half-grown larvae under the bark and a high survival rate over this past winter, indicating a large beetle flight should be expected in June, 1982.

Trees should be removed before larval populations develop to the adult stage and fly to infest other trees. Slash over 10 centimetres in diameter should be piled and burned. Any beetles remaining in stumps should also be treated and care taken to minimize removal or burning damage to healthy trees.

Removal and burning of infested pines does not eliminate future threats to surrounding susceptible stands but it should significantly delay the spread of the present infestation within and from this stand.

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Manning Park

56 Infested 1981 Trees

scale 100 metres

