

DETECTION AND SURVEY METHODS

FOR

MOUNTAIN PINE BEETLE

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Detection surveys for mountain pine beetle are generally conducted from the air. Usually this is done as part of an annual pest detection survey where newly infested spots are marked on a map for later reference. Due to the annual nature of these surveys, population trends can be followed. Computerized mapping and data summaries of the aerial sketch map information can greatly aid this detection and survey work.

As a new survey tool, semiochemicals are being used by the Canadian provinces of Alberta and Saskatchewan to monitor low level beetle populations and to attempt to detect increases of activity. Mountain pine beetle pheromones are being deployed as tree baits to provoke attacks on baited trees (Van Sickle 1988).

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Once the location of a new outbreak is known, evaluations can be conducted to determine the need for follow-up action and to determine the type of action that might be required. Standard forest cruising techniques have been incorporated with computer programs to produce volume tables of standing green and pest-infested trees. Also, for outbreaks of the mountain pine beetle in lodgepole pine, this program will make predictions of 10-year losses and of residual stand volumes after the outbreak has subsided (Bousfield and others 1985).

REFERENCES

Bousfield, Wayne; Eder, Robert; Bennett, Dayle, 1985. Users guide and documentation for insect and disease damage survey (INDIDS). USDA, FS, Northern Region, State and Private Forestry Forest Pest Management Report No. 85-19, June 1985. 19 p.

Van Sickle, Allan, 1988. (Personal communication), June 28. Victoria, British Columbia, Canada; Canadian Forestry Service, Pacific Forest Research Centre.