

QuickNotes

Science Summaries from fRI Research

Wildlife responses to forest stands impacted by mountain pine beetle in western Canada

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Background

Mountain pine beetle (MPB) outbreaks have affected millions of hectares of pine forest in western North America. MPB outbreaks—and management strategies to mitigate the outbreaks—have the potential to alter the habitat and distribution of threatened species like woodland caribou and grizzly bears. They could also impact other species like deer, moose, and elk. However, there is currently a lack of information on the direct impacts of MPB and MPB mitigation on wildlife, which limits the ability of managers to make evidence-based decisions for MPB that considers wildlife and the boreal forest ecosystem.

Objectives

This project will use existing location data for wildlife species, data from camera traps, fine-scale forest stand data, and data on MPB infestations and control to:

1. Model wildlife response to attributes of forest stands (vegetation species, crown closure, stand age, etc.) in Alberta and British Columbia.
2. Model wildlife response to MPB infestation and MPB control (salvage logging and single tree cut and burn) in Alberta and British Columbia.
3. Build an interactive GIS tool that will allow land managers to simulate the impacts of changes in forest stands, MPB outbreaks, MPB control strategies, and other disturbances on the habitat use of multiple wildlife species across western Canada.



fRI Research

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Implications

This project will provide land managers with tools and knowledge that will allow them to evaluate the potential consequences of changes in forest stands, MPB infestation, and MPB mitigation on key wildlife species, including species-at-risk, across western Canada.

The information will also assist with science-based, operational, and cumulative effects-based decision making in areas where MPB, forest harvesting, and wildlife species of conservation and management concern co-occur.

Partners

This project is a partnership between fRI Research and Dr. Cole Burton, the University of British Columbia, the Government of Alberta, and Parks Canada.



Federal-Provincial MPB Research Partnership

Mountain Pine Beetle remains a severe threat to Alberta's pine forests despite the province making positive progress in controlling its spread within the province and reducing the risk to the rest of Canada.

Natural Resources Canada and Alberta Agriculture and Forestry have provided funding to a suite of projects with the goals of limiting the spread of Mountain Pine Beetle and mitigating damages where it has already invaded.



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