

Mountain Pine Beetle Vulnerability

Determine the risk and management options for invasive Mountain Pine Beetle in Northwest Territories pine forests.

CONTEXT

Mountain Pine Beetle (MPB) has historically been found in the pine forests of British Columbia (BC), and after a recent epidemic in BC the beetle crossed into Alberta (AB). In the fall of 2012, MPB was detected at sites along the Northwest Territories/AB border. A March 2013 survey found beetles had survived the winter in the NWT for the first time. The movement of MPB further north is being aided by warmer winter temperatures, the result of climate change.

Government of the Northwest Territories



MPB's spread blue stain fungus that, combined with larval feeding, can kill pine trees by blocking their conductive tissue. MPB attacks both pine species found in the NWT, jack pine and lodgepole pine. While the potential impact of MPB in the NWT is unknown, it has impacted the wood supply for forest harvesting, wildlife habitat and hydrology in BC. Healthy Forests and Landscapes are integral to maintaining safe and sustainable communities. No MPB was found in the NWT in 2014, but surveys and monitoring are still important so we can prepare ourselves if they return.

OBJECTIVE

The goals of this study are to assess the current status and risk of MPB spread in the NWT, to identify achievable objectives to mitigate and minimize negative impacts of MPB and to communicate current and predicted status of MPB to communities and affected Stakeholders. This project is taking place over 4 years, with 2013/14 being the second year.

APPROACH

Working with the Alberta Government, monitoring is in place along the NWT/AB border using pheromone traps. This includes monitoring overwinter survival rates between April and June each year as is possible. Aerial surveys of susceptible pine stands for MPB activity have been conducted in the summer and fall over the last 2 years.

The Government of the Northwest Territories (GNWT) Forest Management Division (FMD) has and will continue to participate in and attend meetings regarding MPB to expand their understanding of the beetle and its activity in other regions.

RESULTS

A report, analyzing data from the first year of this project has been produced by FMD. This report will be continually updated over the years of this project - as the quality of the data improves, and the uncertainty of risks and management strategies decreases. Upon completion, the NWT will have a robust management plan for MPB.

The recently conducted pest risk analysis for the NWT pine forests estimated MPB risk as low in the short term, but increasing over a longer horizon to become a greater impact on the NWT.

Significance

Climatic conditions now allow Mountain Pine Beetle to survive in the NWT. Pine forests and values depending on them may be at risk.

Partners

- GNWT Environment and Natural Resources, Forest Management Branch
- Aboriginal and Northern Development Canada
- Natural Resources Canada
- University of British Columbia
- Alberta Environment and Sustainable Development
- JCH Forest Management

FOR MORE INFO

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