

QuickNotes

Science summaries from fRI Research

Community Resilience to Mountain Pine Beetle and Other Forms of Disturbance and Change

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This project, funded through the fRI Mountain Pine Beetle Ecology Program, engages with rural communities and First Nations to actively support resilience to a broad array of current and future threats and disturbance.

The work is connected to and extends a recently completed resilience assessment and social network analysis based in the Hinton, Jasper, and Grande Cache areas funded through fRI Research Project 246.27: “Assessing Community Resilience to Mountain Pine Beetle Outbreaks: Practical Strategies for Rural Community Sustainability in a Context of Change,” by Friberg, Gonzales, Parrott, and Hanna completed 2022.

Overall Project Objectives

The key purpose of this project is to promote and assist First Nations and rural communities and with developing approaches, road maps, and actions to support their resilience and well-being in the face of changes driven by pine beetle and other landscape level impacts. Project outcomes will support resilience to a range of disturbance, including events driven by climate change, cumulative impacts on the landscape, and other factors. Direct interaction including face-to-face engagement are an essential aspect of the project, which seeks to work alongside communities to explore gaps, needs, priorities, and opportunities identified by communities themselves and through the earlier fRI Research Project 246.271. The aim is that project outcomes will be relevant and tangible.

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.



Natural Resources Canada
Ressources naturelles
Canada

Canada



Alberta
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Phase 1 Objectives

Phase 1 explores the interest and priorities of communities and First Nations for engaging with the resilience extension work so that we can more clearly define activities in Phase 2. Examples of potential extension activities include support for strengthening community adaptive capacity, identity and cultural values, scenario analysis and planning, information exchange and learning through a community resilience forum, a user-friendly resilience handbook, and additional ideas that emerge during Phase 1.

A second goal of Phase 1 is to explore and outline potential policy and evaluation components linked to gaps identified in the case study assessment above¹, and, focussed on evaluating the impact and effectiveness of fRI pine beetle research on operational decisions and policy development.

Scope and Approach

Initial stakeholder engagement for Phase 1 takes place through email, phone, and online meeting platforms. Travel to engage directly with community leaders will take place tentatively later in the fall of 2022.

Specific Activities

1. Engaging with the resilience case study communities¹ (Hinton, Jasper, Grande Cache, the Aseniwuche Winewak Nation), and associated industry, NGO, and government stakeholders to determine interest and priorities for engaging with resilience building initiatives.
2. Engaging with additional communities and First Nations.
3. In response to interest identified during the resilience case study assessment:
 - a. assess the extent of information currently available about the experience and learnings of communities that have been through pine beetle, wildfire, or other significant landscape-level events; and,
 - b. assess the potential for hosting a pine beetle community resilience forum or post-beetle reflection workshop.
4. Assess and outline parameters for a condensed, user friendly community resilience handbook.
5. Conduct a preliminary document review and engage with stakeholders and experts to outline one or more policy and evaluation-oriented projects to be completed in Phase 2 or later, focussed on:
 - a. extending existing fRI annotated research bibliographies by means of a formal evaluation of research impact (including opportunities to further the impact of existing research); and,
 - b. an evaluation of provincial and federal policy having implications for community resilience due to the cross-jurisdictional and complex nature of landscape-level disturbance and climate change.

Timing

Phase 1 activities are taking place from August to December 2022. The next phase, project implementation with communities, is anticipated to commence early in 2023.