



Overview to the Mountain Pine Beetle Initiative

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Outline

- ⌘ Character & significance of epidemic
- ⌘ Contributing factors
- ⌘ Impacts
- ⌘ Response options
- ⌘ Conclusions







Epidemic Factors

- ❧ hot, dry summers & mild winters
- ❧ abundant food source due to 40 years of fire suppression
- ❧ lack of early management
- ❧ inaccessible hot spots



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PI & MPB Risk

| Years | MPB Risk Factor |
|--------------|------------------------|
| ≤ 60 | 0.1 |
| 61 – 80 | 0.6 |
| ≥ 81 | 1.0 |

Source: Shore & Safranyik, CFS



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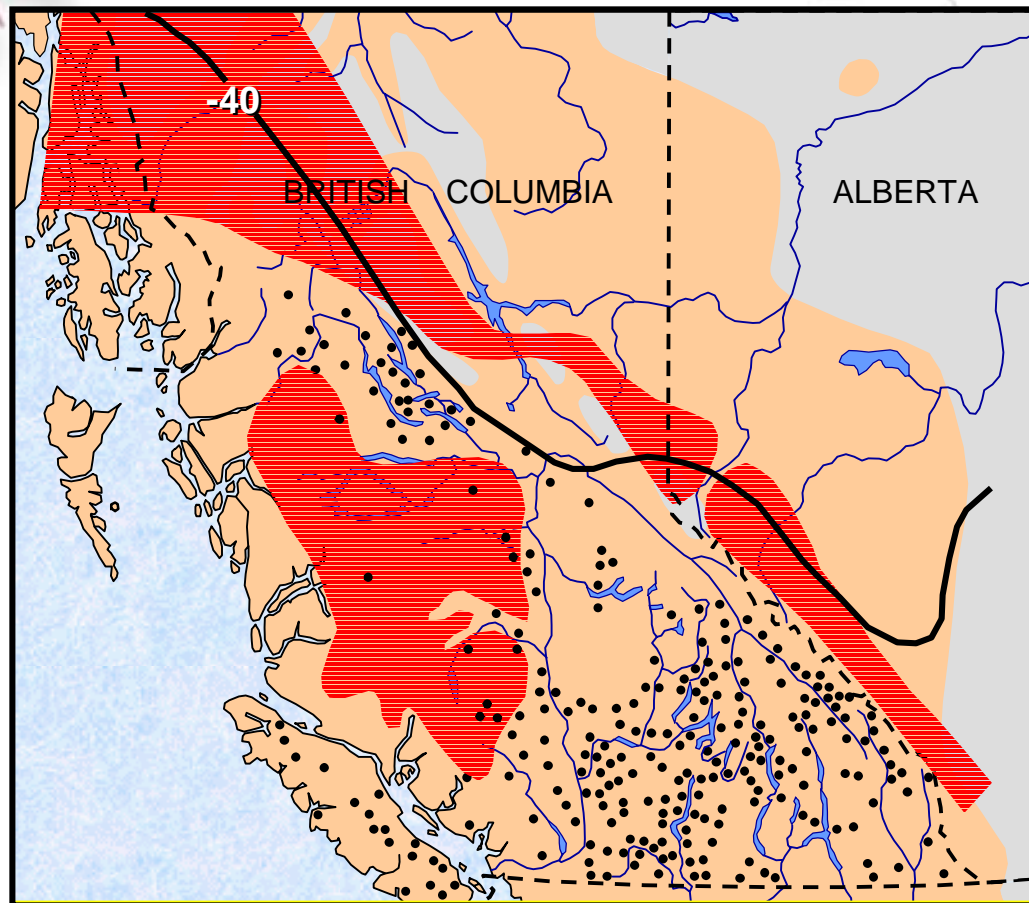
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MPB – historical limits

- **Cool summers**
- **Winter minimums (below -40°C)**



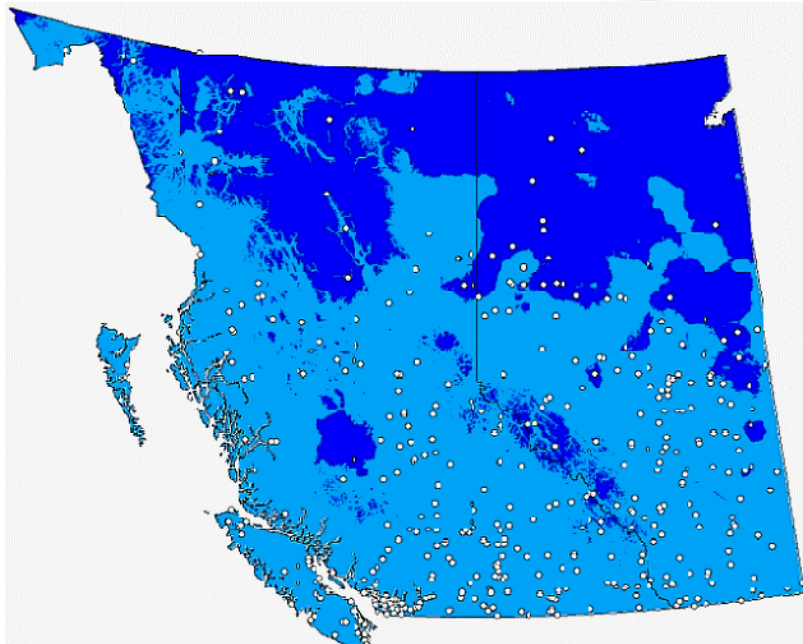
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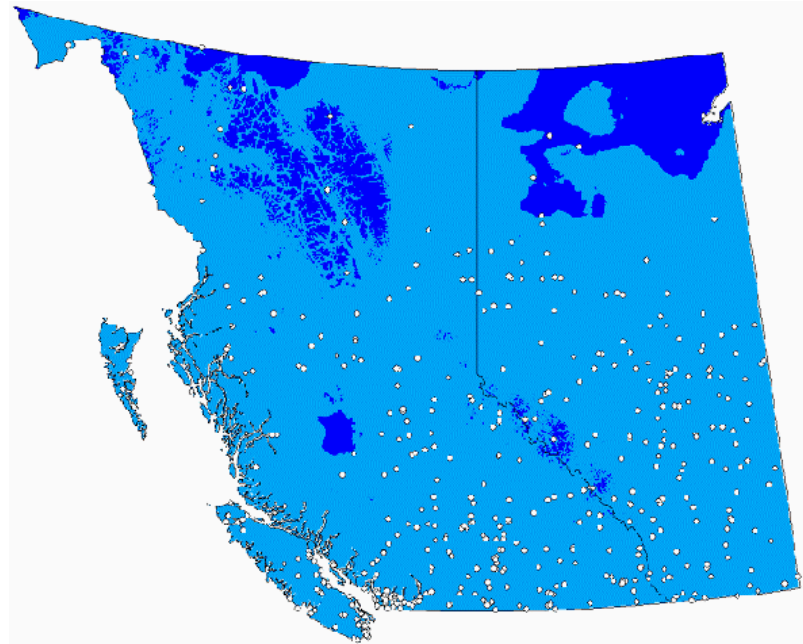




2000



2010



From: Régnière J, Logan JA, Carroll AL, Safranyik L. 2003. Phenological modeling of climate change impacts on North American forest insects. *Unpublished*

- Minimum temperatures $\leq -40^{\circ}\text{C}$
- Minimum temperatures $> -40^{\circ}\text{C}$
- Normal-generating weather stations



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Impacts

- ❧ 1 billion cum mature PI vulnerable
- ❧ forest dependent communities
- ❧ forest ecosystems



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- ❧ AAC's reflect beetle salvage
- ❧ lumber markets in over-supply
- ❧ bluestain lumber
- ❧ road infrastructure
- ❧ regional milling capacity is adequate





Federal MPB Initiative

- ❧ Partnered with BC Forest Service
- ❧ Announced on October 8, 2002
- ❧ Five years
- ❧ \$40 million



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MPBI Programs

⌘ Programs

- Federal forestlands rehabilitation
- Private forestlands rehabilitation
- Risk reduction & value recovery R&D



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Forestlands & ecosystems

- ❧ Integrating beetle risk into forestland management & determining the character of post-beetle forest ecosystems.



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Harvesting & Processing

- Focus is on impacts of beetle-kill on timber quality, the shelf-life of 'grey attack', and on the economic and socio-economic impacts.



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Markets & Products

- Focus is on providing information on beetle zone product performance and assessing potential product and market options.



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Closing Comments

- ❧ outbreak at year 8-10 of 12-13 year cycle
- ❧ w/o cold weather events infestation will continue
- ❧ control new outbreaks & other bark beetles
- ❧ social impacts are medium-long term
- ❧ market demand is constraint not processing capacity
- ❧ Analysis & planning will reduce adjustment costs





<http://mpb.cfs.nrcan.gc.ca>



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