



Mountain Pine Beetle

Issues from British Columbia

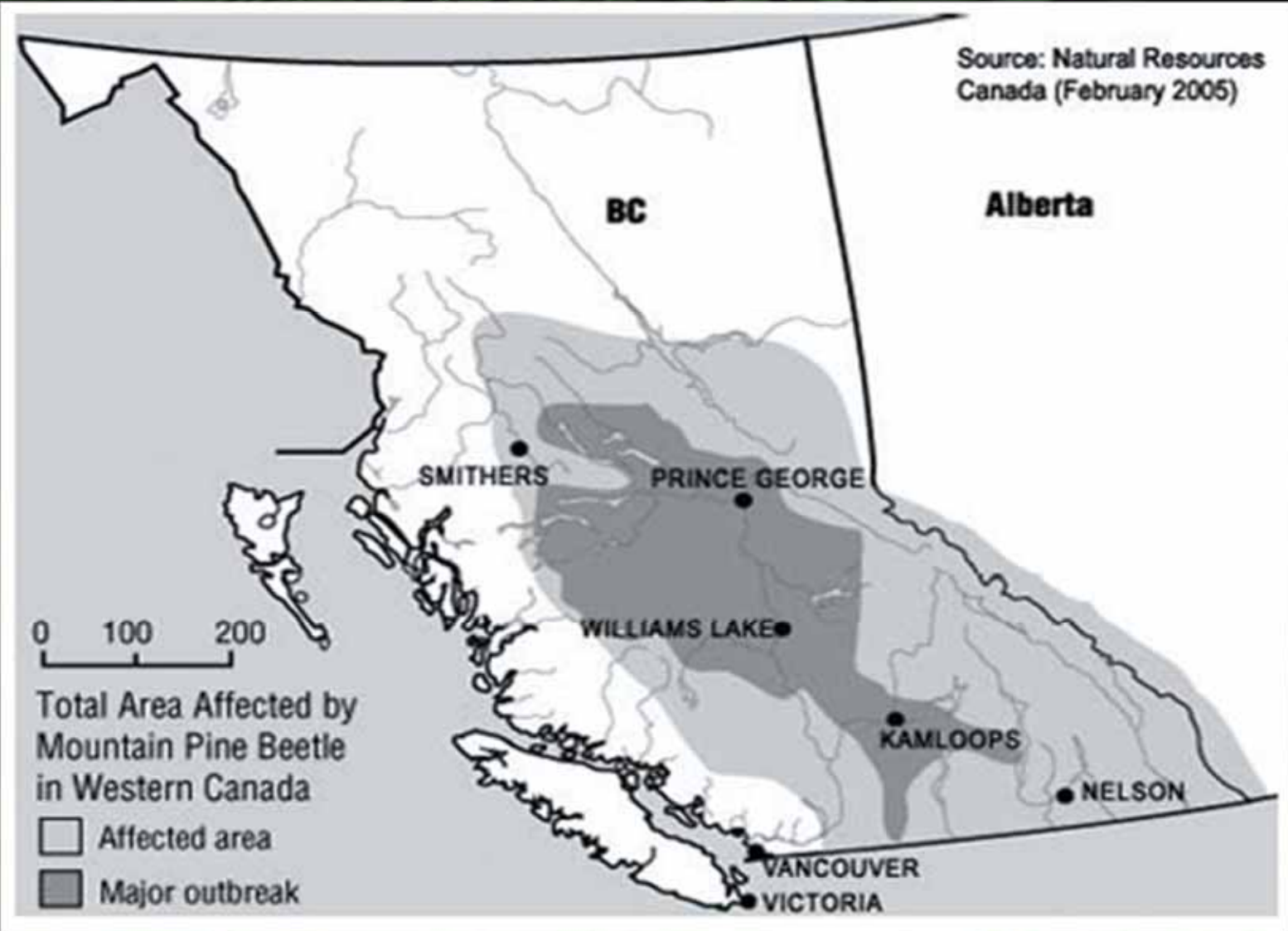
Mountain Pine Beetle



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- MPB attack mature stands of Pine
- The Interior of BC is a vast forested area, with an estimated area of over 18.1 million ha infected with MPB
- The Pine infestation volume was estimated at 710 million m³ in 2005
- They can have two flights in hot dry years and they spread rapidly in the prevailing winds
- The only known way of stopping the advance of the beetles is an early season cold spell, with temperatures in the -30c or colder range for a prolonged period

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- The Mountain Pine Beetle epidemic created some major issues in BC
 - Harvesting of the Dead Dry logs
 - Scaling of the Dead and Dying logs
 - Conversion issues for Payment and Inventory
 - Mill Lumber Recoveries
 - Downturn in available timber for harvest in areas of heavy Pine content
 - Loss of some mid-term timber supply due to immature stand infestation

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- Harvesting Issues
 - Field Layout crews have had many safety instances due to the instability of dead Pine during wind and weather events
 - Handling of the dry brittle logs with heavy equipment creates additional breakage and timber loss
 - Water table on many of the harvesting sites has risen due to lack of tree consumption, which influences area, time and season of harvesting
 - When processors switch between dry and green logs the processor wheels produce off-lengths in measuring, due to different depths spike wheels sink into the logs

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- Harvesting Issues
 - Many Quality issues around Operators ability to identify spiral checking and multiple checking in different weather conditions because the dry wood soaks up water which causes the checks close and defect hard to see
 - The Sap wood portion of the pine becomes blue stained and starts to Sap Rot in a short time
 - Sap Rot mainly starts from the ground and goes up 6-8' as the timber ages, which results in blowdown and reduces harvesting productivity and available volumes

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- Harvesting Issues
 - Conversions for Green Pine run in the 800-820 area and for dry 620-660 (kilo per m³)
 - Light dry wood does not allow log trucks to get the full weight payload, so weight top-ups are brought into play for companies who pay by the ton
 - These conversion swings affect Contractor Pay in all phases of the harvesting operations

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- Harvesting Issues
 - There are many on-block fire related issues with the dead dry logs, especially in the drier seasons
 - In the first couple of years we had many instances with feller/buncher machine fires because of the dead dry pine needles that settled in the machinery in the harvesting phase
 - More CTL type harvesting was brought in to help reduce loss due to handle of long dry wood

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- Scaling of MPB Logs using the BC Interior Log Grades created challenges for the scalers around the quality grading rules, such as checking, twist/spiral and sap rot
- Identifying Checks and the extent they affect a given log is probably the toughest
- Spiral Checking is very prevalent in the dead pine, especially in windy areas and can be hard for scalers to make the proper grading call when the stem is partially covered with bark
- Weather conditions are a major factor as the checks close up when damp or wet

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- Many grading and scaling trials around MPB logs were conducted jointly with BC Forest Service Check Scalers and Company Scalers to get everyone on the same page, items such as;
 - Check depth and severity
 - Blue Stain and Sap rot
 - Twist and Spiral checking
 - Effects of weather conditions

Following slides are from check depth trials

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Log Grade Trials



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- Mill Recovery Issues
 - LRF recovery loss
 - Lumber grade fall down on higher value products (ie: J-grade, square edge)
 - Side board recovery due to multiple checking
 - Mill jam-ups, split side boards, fall apart on conveyors or chains
 - Sorting wets and dries (lumber) in mills without moisture sorting capabilities
 - Kiln damage, when dry and wets are not separated, dry boards can be over dried which causes them to split

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- Mill Recovery Issues
 - Dust Issues, potential combustible problems are a constant threat when cutting MPB logs
 - Loss of MSR quality lumber (truss quality)
 - Denim or Blue Stain in the lumber, grade fall down to many customers or even loss of customers
 - Reduction of higher quality logs used for pine utility Poles
 - Inventory issues due to the conversion swings in the samples over the season