Provincial-Level Projection of the Current Mountain Pine Beetle Outbreak

Year 12 Results (Obsolete)

In the past year (2014/2015), the beetle projections have been updated based on the results of the 2014 Provincial Aerial Overview of Forest Health. This work represents an "update" to the efforts of Year 11. The current projection results do not project the forest or beetle management response to the current outbreak.

IMPORTANT NOTES:

- The beetle projections show that the infestation will grow in management units at the periphery of the outbreak center. It is our opinion (based on past projection results and our understanding of the limitations of the projection model) that the infestation will remain stable or continue to decline in these units.

- In areas of the province with missing or inconsistently gathered aerial overview survey mapping, the aerial overview survey mapping has been replaced with infestation severity estimates projected by BCMPB.

- We are reasonably confident in the model's observed and projected infestation estimates at the provincial and district scale, but the specific progression of the outbreak at finer scales, such as a "watershed" or a "pixel", is most likely wrong because theses finer scales exceed the resolution of the model.

- The projection provided is one instance of the output from a stochastic model (BCMPB.v12). It is a projection of what might happen rather than a prediction of what will happen.

Summary

The principal conclusions about the infestation are:

- The worst year of observed red-attack, at a provincial scale, was 2005 with approximately 140 million m^3 observed as red-attack in that year.
- The volume of red-attack pine has declined rapidly, at a provincial scale, since 2005.

- Approximately 728 million m^3 (54%) of the merchantable pine volume in the province has likely already been killed (red- and grey-attack), which includes approximately 5 million m^3 observed as red-attack in the summer 2014.
- The annual volume of mature merchantable red-attack pine on the THLB is projected to remain below 3 million m^3.
- Approximately 55% (737 million m^3) of the pine volume in the province will be killed by 2017. The infestation will have largely subsided by that time and only an additional 1% may be killed by 2024. This is significantly less than the 80% projected mortality published in 2006.

Spreadsheets

- **Summary of Kills** A Microsoft Excel workbook depicting the observed and projected pine loss due to the current mountain pine beetle infestation. The workbook contains tables and charts for each of the Timber Supply Areas. Tree Fame Licences results have been combined together. The results do not project the forest management response to the current outbreak.

Cartographic Maps

The following series of cartographic maps represents the state of the outbreak as seen in 2014, and as projected for 3 different years in the future. They are PDF files approximately 4 megabytes in size.

- Observed percentage of pine volume killed (red- and grey-attack) in **2014**
- Projection of percentage of pine volume killed (red- and grey-attack) by **2015**
- Projection of percentage of pine volume killed (red- and grey-attack) by **2019**
- Projection of percentage of pine volume killed (red- and grey-attack) by **2024**

GIS Maps

Geographic Information System (GIS) maps are available on the following site:

http://www.for.gov.bc.ca/ftp/hre/external/!publish/web/BCMPB/Year12

The site contains a number of zip files, each of which contain a number of ArcGIS ASCII format grids and a text file with metadata. Please refer to the 'readme.txt' and the metadata before using any of the provided data.