

## **Earth Info**

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### **Mountain Pine Beetle Fact Sheet**



A pine beetle-affected forest in the Cariboo-Chilcotin region of B.C.  
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A novel application for beetle-affected wood, perfect for promotions.

### **Summary**

Hotter, dryer summers and mild winters have facilitated the spread of the Mountain Pine Beetle beyond its traditional range to affect 13.5 million hectares of British Columbia's forests. The beetle burrows into the tree to lay its eggs. The hatched larvae then feed off the tree, cutting off its nutrients and killing the tree. This epidemic has killed millions of lodgepole pine trees across the Province, leaving behind large stands of dead trees and creating a significant forest fire hazard. Industry and government are now finding ways to use the still-marketable affected wood before these vast stands of dead trees either rot or burn.

### **About the Beetle**

The mountain pine beetle (*Dendroctonus ponderosae*) is a small insect about the size of a grain of rice. It lives most of its life under the bark of pine trees – in particular, the lodgepole, ponderosa, and western white pine. There are now fears it may soon attack the jackpines of North America's boreal forest, which stretch across the top of the continent.

The beetle is not an invader to the forests. In fact, it has played a vital role in the ecosystem, providing food for beetle predators such as birds, while the affected trees have provided a roosting and nesting habitat. In the past however, regular occurrences of cold winters kept the population of the beetle in check, but recent years

have seen a rise in average temperatures, increasing the survival rate of the bug. The beetle's range has also spread and it now affects forests across the B.C. Interior. The beetle is also found in Alberta, twelve U.S. states and as far south as Mexico.

The beetle lives for one year, spending the winter as larvae under the bark of the tree, transforming into pupae in the early summer and emerging from the tree during late summer and fall. Newly attacked trees can be identified by their red needles and blue stained sapwood. After a year, the trees turn grey. The beetle kills the tree, but the wood retains its strength and can be used for a variety of applications.

The mountain pine beetle prefers mature (roughly eighty years old) lodgepole pines – B.C.'s most commercially harvested tree. The provincial government has committed hundreds of millions of dollars to battling the mountain pine beetle and has increased the annual allowable cut in affected areas in an attempt to curb the epidemic. Timber losses are currently estimated to be more than 435 million cubic metres. However, this strategy has come under fire from environmental groups who say the mono-culture stands of trees which will be replanted following logging present an ideal breeding ground for a second epidemic of the beetle.

Another concern regarding the beetle is the impact on greenhouse gas emissions. The death of the affected trees will release an estimated billion megatonnes of carbon dioxide into the atmosphere by 2020, roughly the same amount as five years of emissions from Canada's transportation sector

**Links to more in-depth information about the pine beetle and its effects on British Columbia's forests, economy, and environment.**

Natural Resources Canada pine beetle epidemic info  
[http://mpb.cfs.nrcan.gc.ca/biology/index\\_e.html](http://mpb.cfs.nrcan.gc.ca/biology/index_e.html)

Origins of the outbreak  
[http://www.pfc.forestry.ca/entomology/mpb/outbreak/index\\_e.html](http://www.pfc.forestry.ca/entomology/mpb/outbreak/index_e.html)

BC Gov't pine beetle action plan  
[http://www.for.gov.bc.ca/hfp/mountain\\_pine\\_beetle/](http://www.for.gov.bc.ca/hfp/mountain_pine_beetle/)

Suzuki Foundation criticism of pine beetle management plans  
<http://www.davidsuzuki.org/Forests/Canada/BC/Beetle/>

CBC News Pine Beetle backgrounder  
<http://www.cbc.ca/news/background/science/beetle.html>