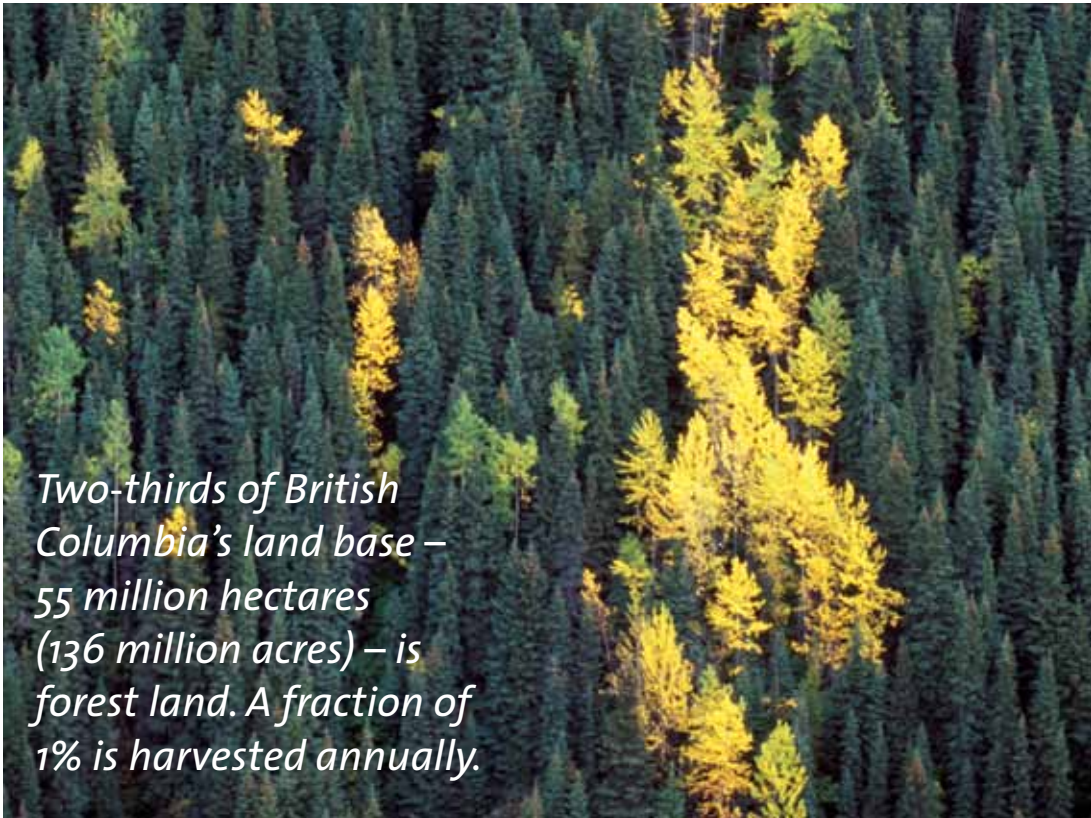


# British Columbia's Forest Diversity

naturally:wood

British Columbia Forest Facts

MARCH 2011



*Two-thirds of British Columbia's land base – 55 million hectares (136 million acres) – is forest land. A fraction of 1% is harvested annually.*

## CONSERVING A GLOBAL TREASURE

British Columbia's forests are a global treasure—from the dry ponderosa pine forests in the southern interior to the boreal forest in the northeast to the temperate rainforests along the Pacific Coast. Few places on earth can match this diversity and richness; few can match British Columbia's care for this precious resource.

British Columbia forests cover 55 million hectares (136 million acres), an area bigger than France. The forest industry is the heart

of the provincial economy yet a fraction of one per cent of its immense forests is logged each year.

The province has roughly the same amount of forested area as it did before European settlement. Only two per cent of its land has been permanently converted to other uses such as farming, ranching and urban development – when public lands are logged, they are returned to forest.





## FOREST DIVERSITY

British Columbia's size and range of climates make it the most diverse province in Canada, biologically and ecologically. It has Canada's only true desert and North America's wettest weather station. Its forests reflect this diversity, with 40 different species of native trees – the only ecosystems that are not forested are harsh alpine tundra throughout the province and dry grassland valleys in the southern interior.

The Pacific Coast region is home to one quarter of the world's coastal temperate rainforest. The breathtaking beauty of these coastal forests and the unparalleled recreational opportunities they offer make forest management especially challenging. Currently, 12 per cent of the land in the region is fully protected, which includes 1.8 million hectares (4.4 million acres) in the globally unique north and central Pacific Coast planning regions.

In the vast and remote northern interior, there is boreal forest in the northeast; high-elevation spruce, willow and birch in the northwest; and spruce and lodgepole pine in the interior plateau. British Columbia's boreal region is part of a diverse and complex ecosystem network that circles the upper portion of the northern hemisphere. A mix of upland forests and muskeg, it is shaped by natural disturbances, including huge wildfires that are driven by winds across the flat, rolling terrain.

British Columbia's southern interior has both a desert and an interior rainforest. It has more

*British Columbia has 22.6 million hectares (56 million acres) of forest that are considered old growth.*



tree species than any other one ecological zone in the province, including subalpine fir, lodgepole pine, ponderosa pine, white pine, western larch, western hemlock, balsam poplar, Douglas-fir, grand fir, western red cedar, Engelmann spruce and white spruce.



## OLD GROWTH FORESTS

While a healthy forest must include a range of stand ages, older forests provide specialized habitats that play a significant role in maintaining biological diversity. Conserving old growth is an important component of long-term resource management planning in British Columbia. By law, old-growth forests must be maintained in each of the province's ecological units to meet biodiversity needs.

Along the Pacific Coast, scientists consider a stand old growth when most of the larger trees are more than 250 years old. In the interior, where trees typically have a shorter life span and wildfires are more common, old growth is considered to be more than 120 to 140 years old. Old-growth forests tend to have more large trees and standing dead trees, multi-layered canopies with gaps resulting

from the deaths of individual trees, and coarse woody debris on the forest floor.

There are 22.6 million hectares (56 million acres) of forest across the province that meet one of two working definitions of old growth – and 4.5 million hectares (more than 11 million acres) are protected.



## FOREST DISTURBANCES

Wildfire and insect infestations play important roles in the natural life cycle of British Columbia's forests. Insects attack older or weakened trees and lead to new forests. Wildfire renews the forest, keeping insects and disease in check and opening up areas to allow the growth of shrubs and grasses that provide browse for deer, moose, elk and bear.

British Columbia's Ministry of Forests and Range fights wildfires that threaten people, property and forest or rangeland resources, and provides education and training to help protect property from wildfire. Although the province has some of the most challenging terrain in the world, it also has one of the best fire suppression records. When conditions allow, managed fire is used to help grow better forests, improve habitat for wildlife, reduce tree encroachment on grasslands and lessen the intensity of naturally occurring wildfires by burning fuels that build up on the forest floor.

Mountain pine beetles have reached epidemic levels in British Columbia's interior forests several times in the last century. An abundance of mature lodgepole pine in British Columbia's interior, combined with low beetle mortality from mild winters and more successful beetle attacks during dry summers, has contributed to the most extensive mountain pine beetle infestation in the province's recorded history. The province has a multi-faceted action plan to deal with the short-term consequences of the epidemic, while working to sustain the well-being of the environment, economy and communities over the long term.

British Columbia's independent chief forester has substantially increased the annual harvest in areas most affected by the beetle epidemic. This will help to capture economic value from the dead trees, maintain the highest environmental standards possible, speed up

*Wildfire and insect infestations play important roles in the natural life cycle of British Columbia's forests.*

regeneration and re-establish healthy forests in areas impacted by the beetle.

Trees can be harvested a number of years after they have been killed by the beetles, and the resulting wood products remain structurally sound although they may have a blue or grey stain as a result of the fungus carried by the beetles. The fungus dies in the manufacturing process.

## BIOGEOCLIMATIC CLASSIFICATION SYSTEM

British Columbia's natural diversity is a challenge for resource professionals who want their actions to support the needs of each unique ecosystem. The Biogeoclimatic Ecosystem Classification (BEC) system provides a common reference point, using information about plants, animals, soils, landforms and climate to describe and classify the full range of ecosystems found in the province.

This can help ensure that protected areas conserve the full range of ecological diversity, support the management of wildlife species, protect soils, and much more. With BEC, resource professionals can determine the best way to harvest and replant any site in British Columbia.



## WESTERN RED CEDAR: BRITISH COLUMBIA'S OFFICIAL TREE

Western red cedar, British Columbia's official tree, thrives in the rich, moist soils of the province's temperate coastal rainforest and interior wet belt. British Columbia has more western red cedar than any other jurisdiction, and two-thirds of it is found on public lands in the Pacific Coast region. Seventeen per cent of productive coastal forests dominated by western red cedar are currently protected.

First Nations peoples have traditionally used cedar, and many coastal groups still

do today. Forest companies frequently take steps to help First Nations obtain cedar logs for cultural uses such as canoes, totem poles, masks and long houses.

Western red cedar is a lightweight, aromatic wood renowned for its exceptional beauty and natural resistance to decay and insect damage. Cedar is used around the world for high-quality and long-lasting house siding, interior panelling, outdoor furniture, decking, fencing, roofing and many other products.

*British Columbia is Canada's most ecologically and biologically diverse province, largely due to its rich mix of tree species and ages.*



## SOURCES

### Mountain Pine Beetle

[www.for.gov.bc.ca/hfp/mountain\\_pine\\_beetle](http://www.for.gov.bc.ca/hfp/mountain_pine_beetle)

### Protection Branch

[www.bcwildfire.ca](http://www.bcwildfire.ca)

### Biogeoclimatic Zones

[www.for.gov.bc.ca/hre/becweb](http://www.for.gov.bc.ca/hre/becweb)

### Tree Book

[www.for.gov.bc.ca/hfd/library/documents/treebook](http://www.for.gov.bc.ca/hfd/library/documents/treebook)

### The State Of British Columbia's Forests

[www.for.gov.bc.ca/hfp/sof](http://www.for.gov.bc.ca/hfp/sof)

### Canadian Forest Service

[www.cfs.nrcan.gc.ca](http://www.cfs.nrcan.gc.ca)

### Council Of Forest Industries

[www.cofi.org](http://www.cofi.org)

### Coast Forest Products Association

[www.coastforest.org](http://www.coastforest.org)

### Western Red Cedar Lumber Association

[www.wrcla.org](http://www.wrcla.org)

About 50% of wood products exported from Canada come from the Province of British Columbia's sustainably-managed forests. This publication is part of the 'Forest Facts' series, published by Forestry Innovation Investment. Visit [www.naturallywood.com](http://www.naturallywood.com) for details.

# naturally:wood

British Columbia wood. Sustainable by nature. Innovative by design.