

Boreal Forests

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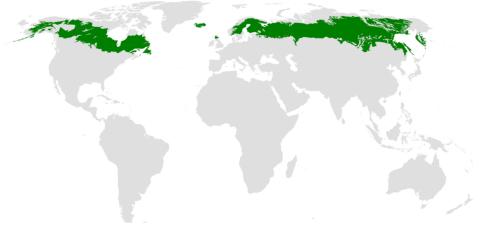
A study reveals that nearly **half of the world's boreal forests** are undergoing major changes due to climate change, increasing **wild fire risks** and altering their **carbon sink role**.

- Key Findings of the Study: Boreal forests are warming four times faster than the global average.
 - Boreal forests are transitioning to an open state (with sparse tree cover), reducing their carbon storage capacity and increasing wildfire risks, with tree density decreasing from south to north.
 - <u>Permafrost thawing</u> may release significant soil carbon, further complicating carbon storage projections.
- Boreal Forests: The boreal forest (or "taiga") is the world's largest land biome, covering 30% of global forest area and 10% of Earth's land surface.
 - The boreal ecozone principally spans eight countries in the Northern Hemisphere (Canada, China, Finland, Japan, Norway, Russia, Sweden, and the US).
 - Boreal forests are dominated by coniferous trees like pine, spruce, and fir, along with some broadleaf species such as poplar and birch. They thrive in high-latitude environments.
 - Contains **more surface freshwater than any other biome**, significantly impacting northern oceans and global climate.
 - Boreal regions provide over 33% of lumber and 25% of paper exports, playing a key role in climate regulation and acting as a major carbon reservoir, rivaling tropical forests.

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Taiga and Boreal Forest Global Distribution

The taiga or boreal forest covers much of Canada, Alaska, Sweden, Finland, Norway, Estonia, and Siberia and parts of Scotland, Iceland, Mongolia, Japan, and Kazakhstan.



This biome does not occur in the Southern Hemisphere.

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