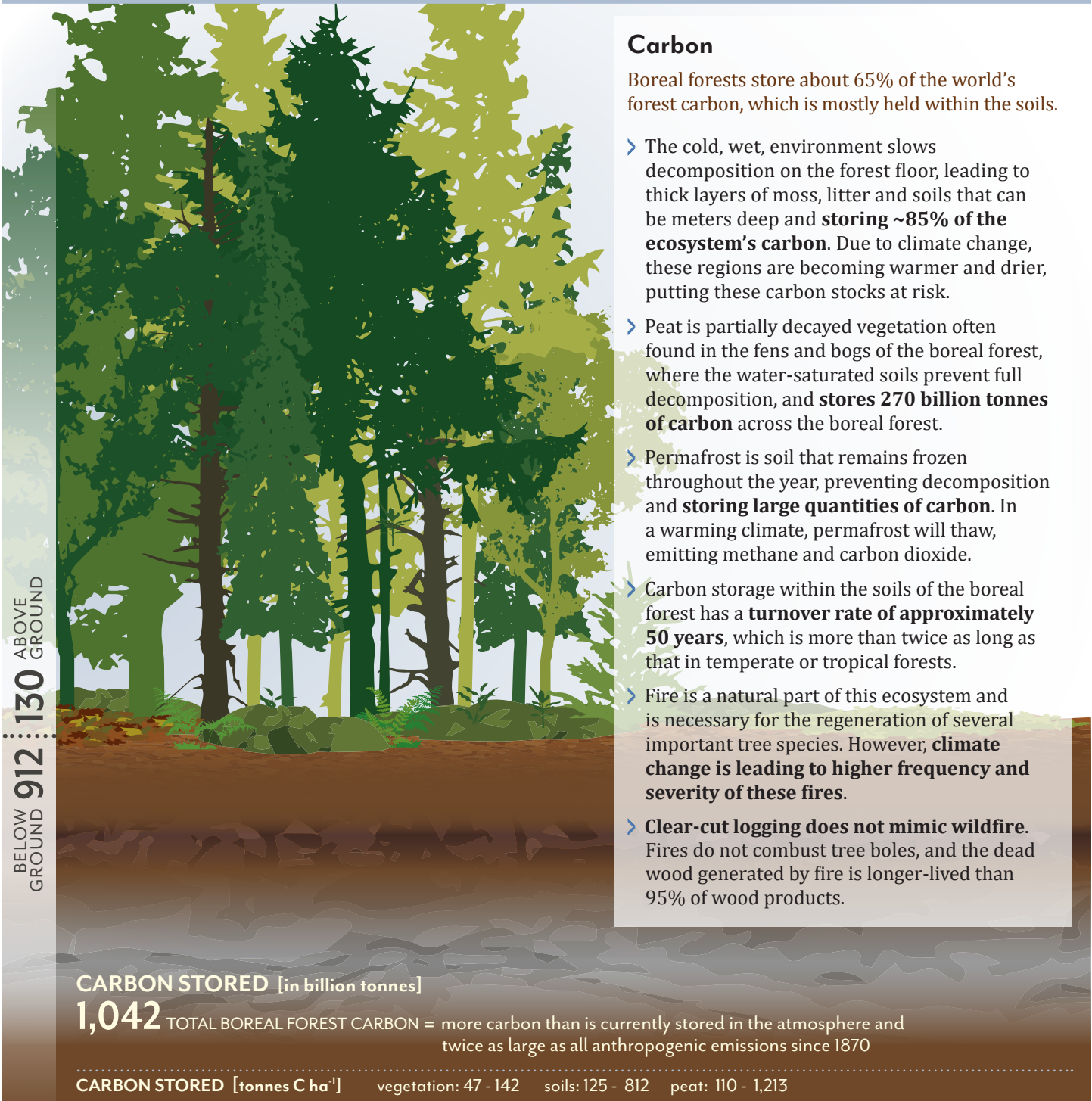


# PRIMARY BOREAL FORESTS

PRIMARY BOREAL FORESTS PROVIDE CRITICAL STORES OF CARBON, BIODIVERSITY AND FRESHWATER



Boreal forests are home to 481 Million hectares of remaining primary forest, or 41% of the global total

## Big, Old Trees

Large trees are critical to maintaining biodiversity, and are being lost due to harvesting and other anthropogenic impacts.

- Southern boreal forests typically have trees **15-30 m high**, while northern boreal forests have stunted trees usually **3-15 m high**.
- Old trees are **critical for the growth and abundance of epiphytic lichens** on their branches, which can decrease by a factor of 6 in managed forests.
- Old, dead trees, both standing and on the ground, **provide diverse habitats** that are important for many species of birds, fungi and insects.
- **Logging and other anthropogenic disturbances homogenize the landscape**, leading to an abundance of young forests and a scarcity of older forests, while removing much of the dead wood, and render the forest vulnerable to human-ignited fires.

## Biodiversity

The diverse ecosystems, flora and fauna within the boreal forest contribute to the ecosystem services this biome provides.



- **US\$703 billion of services** per year in Canada alone.
- **60% of the world's remaining surface freshwater** is stored within the boreal forest, and the wetlands purify this water, filtering out contaminants.
- **Provides important breeding ground** for birds from further south, and important for almost half of all North America's bird species.
- **Maintaining biodiversity leads to higher levels of ecosystem services** such as carbon storage, berry production and game populations.
- Many indigenous communities are dependent on the ecological integrity of old growth boreal forests for medicinal plants, cultural practices and traditional livelihoods.
- These ecosystem services are likely **at risk under the warming climate**.