Climate Zones and Biomes in Canada

Examples of seven of the world’s eight major biomes can be found across Canada. The only biome that is not found in Canada is the tropical rainforest biome, for which you saw the climatograph at the beginning of this section. Because Canada is located north of 41°41’ north latitude, it falls within the temperate and polar climate zones. Therefore, temperature in Canada never gets high enough for long enough to support tropical plants and animals. However, Canada supports biomes as varied as temperate rainforests, deserts, and permanent ice. Each biome in Canada is described in Figure 7.17. Can you identify the biome in which you live?

**Permanent Ice**
The polar icecaps of Canada’s far north are permanently frozen zones with annual precipitation of less than 50 cm. Lichens and mosses can tolerate the cold and drought.

**Tundra**
The tundra has a layer of permanently frozen soil called permafrost. Few trees can survive the thin soils and lack of moisture. Plants grow close to the ground.

**Boreal Forest**
A broad band of northern Canada between latitudes 45° and 65° north is covered by a forest of coniferous trees such as black spruce and white spruce. Annual precipitation is between 30 cm and 85 cm, much of it falling as snow. Temperatures are below freezing for six months per year.
Temperate Deciduous Forest
Found mainly in eastern Canada, this zone has annual precipitation of 75 cm to 180 cm, distributed evenly throughout the year. Temperatures range from -30°C in winter to 30°C in summer. Maple, oak, and birch are typical trees in these forests.

Temperate Rainforest
Coastal British Columbia is home to Canada's temperate rainforest, receiving more than 200 cm of precipitation per year. Average temperatures are mild, ranging from 5°C to 25°C. This climate produces very tall trees, such as Sitka spruce and Douglas fir.

Grassland
The Canadian prairies have annual precipitation of 25 cm to 100 cm, with hot summers and cold winters. Limited rainfall restricts the growth of trees, and the typical vegetation is grasses with deep roots adapted for drought.

Desert
Canada's only desert zone is in southern British Columbia. It forms the northern end of the Great Basin Desert of the western United States. Rainfall is less than 25 cm annually. Plants have spiny leaves to conserve water and grow deep roots.