

precipitation may occur as either rain or snow. For this reason, the accumulation of snow on the ground during the winter varies rather widely from year to year, especially on the lowlands. Snow cover is generally more reliable in the highlands.

Quebec

Quebec is the largest province in Canada, stretching from the International Boundary on the south to Cape Wolstenholme on Hudson Strait, a distance of 1,200 miles. In the north, treeless tundra, wasteland and unproductive forest occupy 160,000 sq. miles; productive forest covers slightly less than 225,000 sq. miles and about 25,000 sq. miles are utilized for agriculture. Physiographically, Quebec may be divided into three main regions: the Canadian Shield or the Laurentian Plateau, which occupies the greater part of the province, extending from the rugged plateau-like highlands north of the St. Lawrence River to Hudson Strait; the St. Lawrence Lowland; and the Appalachian Highlands.

The Laurentian Plateau rises from sea level on the shores of Hudson and James Bays to 1,000 feet in Abitibi, 1,500 feet in the Laurentian Mountains and about 2,000 feet along the Labrador boundary. Summits rising to 3,900 feet are found in the Laurentide Park north of Quebec City and to 3,150 feet in Mont Tremblant Park west of Montreal. In general, however, the Laurentian Plateau is a surface of unbelievable monotony, literally strewn with lakes. Extending from Alabama to Newfoundland, the Appalachian Mountains include southeastern Quebec. They reach their greatest extent in the Eastern Townships and their greatest heights in the Gaspé Peninsula where Quebec's highest peak, Mount Jacques Cartier rises to 4,160 feet. The small St. Lawrence Lowland is triangular in shape, bounded by the Canadian Shield in the north, the Appalachian Highlands on the east and the Adirondack Mountains of New York State to the south.

Owing to its geographical position, large area and complex physiographic relations, Quebec has a wide variety of climates. The southwestern part of the province is subject to the same climatic influences as the lower lakes region of Ontario but is without the protection afforded by the Great Lakes. On the other hand, the highlands stretching from Hudson Bay to Labrador are bitterly cold in winter and are practically summerless in the far north.

Mean annual temperatures vary from 44°F. in the extreme south to about 17°F. near Cape Wolstenholme. January mean temperatures are in the neighbourhood of 15°F. in the Montreal area and 12°F. at Quebec City and in the Eastern Townships. Maritime influences serve to maintain means of 10° to 12°F. in this mid-winter month at low-level stations on the Gaspé Peninsula and on Anticosti Island. The 0°F. isotherm for January runs from Abitibi almost due east to the Lake St. John area and thence northeastward along the north shore of the Gulf of St. Lawrence. The Ungava peninsula, which is subject to the almost continuous importation of cold air masses from higher latitudes and intensive radiation from the prevailing high level of the land, experiences mean winter temperatures of -10° to -15°F.

The topographical situation on the Canadian Shield in the interior of central Quebec is quite similar to Northern Ontario and as a result winter minima may be expected to fall to -40° or -50°F. A record low temperature for Quebec of -66°F. has been reported at Doucet.

The rapid advance of spring in the St. Lawrence Valley is a striking feature of the climate of that area. March is definitely a winter month at Montreal but by April the mean temperature is nearly as warm as at Toronto, while May and the summer months are equally warm, with July averaging 70°F. Farther down river at Quebec and throughout the Eastern Townships, July mean temperatures are two to five degrees cooler than at Montreal. On the south shore of the Gaspé Peninsula, July temperatures average about 64°F. but elsewhere in the Gulf of St. Lawrence region normal mid-summer temperatures are around 60°F. On the Laurentian Plateau July mean temperatures decrease from 60°F. at latitude 50°N. to 45°F. along the south shore of Hudson Strait but despite the generally cool summer temperature, markedly warm days may occur. Extreme maximum temperatures of 90°F. have occurred in all but the extreme northern portion of the Ungava peninsula.