The advent of spring in the Maritime Provinces is much the same as in comparable latitudes in Ontario and Quebec, but temperatures do not fall so rapidly in autumn. Nevertheless there are wide variations with respect to the length of frost-free season throughout the region. Along the immediate shoreline and on the islands of the Bay of Fundy there is a frost-free period of 140 to 160 days but in the Miramichi highlands of New Brunswick where there is a greater liability of frosts from a spring or autumn inflow of polar air, the average frost-free period falls to less than 100 days. The frost-free period decreases from 140 days at the mouth of the St. John River to 100 days along the upper reaches. Periods free of frosts average about 120 days in the southwestern lake region of New Brunswick while along the east coast and along the south shore of the Bay of Chaleur the growing season is extended another ten days. In Nova Scotia an average frost-free season of 160 days is enjoyed at Yarmouth which is ten or fifteen days longer than most stations experience elsewhere along the Atlantic Coast. Periods free from frost of 125 to 140 days occur on the average in the Annapolis Valley but in the central highlands on the Nova Scotia mainland there is a comparatively short growing season of less than 100 days. On Cape Breton Island the frost-free period exceeds four months at Sydney but it is believed that this figure falls to less than 100 days on the higher elevations. Prince Edward Island enjoys a frost-free period of about five months.

Mean annual precipitation ranges from 55 inches along the outer coast of Nova Scotia to less than 40 inches in northwestern New Brunswick. The heaviest precipitation in the latter province, 42 to 48 inches, falls along the north shore of the Bay of Fundy. In the southern section of New Brunswick precipitation is fairly evenly distributed throughout the year with a tendency toward a maximum in the autumn and early winter months. In the northern interior the precipitation shows a summer maximum characteristic of the continental type of climate. Except for the wet Atlantic coastal area of Nova Scotia, precipitation in that province varies from 37 to 50 inches and on Prince Edward Island annual precipitation averages slightly more than 40 inches.

The heaviest winter snowfall in the Maritime Provinces occurs in northwestern New Brunswick where 100 to 120 inches may be expected. This heavy snowfall is of economic importance to lumbering. In the eastern and southern sections of the province winter totals generally range from 70 to 90 inches. Snowfall averages about 90 inches on the higher elevations in Nova Scotia but elsewhere totals are smaller—60 to 80 inches. On Prince Edward Island, a long record of snowfall observations at Charlottetown Experimental Farm gives an average winter fall of 113 inches.

Newfoundland

Newfoundland, the newest and most easterly province of Canada, consists of two distinct geographical units—the Island of Newfoundland comprising an area of 43,000 sq. miles and the mainland territory of Labrador with a much larger area of 113,000 sq. miles. In view of the physical separation of these two sections of the province, the climatic characteristics are discussed separately.

Island of Newfoundland.—The landform of the Island of Newfoundland is quite similar to that of the Maritime Provinces. The coastline is deeply indented with bays and inlets and the Island itself consists of a plateau rising in a northwesterly direction from the east coast to almost mountainous highlands on the west side of the Island. The greater part of the Island consists of bleak, flat terrain at elevations of 800 to 1,500 feet. Because of its position on the eastern side of North America, Newfoundland comes under the influence of continental air masses and experiences a wide range between summer and winter temperatures. However, as a result of the virtual encirclement of the Island by cold waters of the Labrador Current, the sea exerts a dominating influence on Newfoundland's climate moderating both summer and winter temperatures. Sea-ice which normally reaches its greatest extent in March retards the advent of spring especially on the eastern and northern shores.