

The Lower Great Lakes-St. Lawrence Lowlands.—Flanking the Shield to the south and southeast they consist of gently dipping or almost flat strata of Palæozoic sediments. Laid down in epi-continental seas in beds of mud (shale), sand and limestone, these strata produced a belted lowland with distinctive though subdued relief. The belts of shale form low vales and the belts of limestone stand up as prominent scarps, the most famous of which is the Niagara Escarpment. The whole region was greatly modified by ice and, as the ice melted, depressions became lakes. The glacial lakes were much larger than those of to-day. Glacial Lake Algonquin covered the three upper Great Lakes, together with Lakes Nipigon and Nipissing. It flowed out to the sea by the Mattawa-Ottawa and the Trent river valleys. When it receded it left behind important plains at Port Arthur, Nipigon and North Bay. Lake Erie developed from a succession of glacial lakes at different levels and consequently is surrounded by a number of sandy deltaic deposits, beach ridges and lacustrine flats, each of which has its own role in diversifying agriculture. Lake Ontario is the successor to Lake Iroquois and is surrounded by the old Iroquois beach which stands out everywhere and provides sites for roads and settlements. Farther east, the lower Ottawa and St. Lawrence valleys were invaded first by glacial Lake Champlain and then by the Champlain Sea. Here also, deltaic sands, beach gravels and lake-bottom clays play a pronounced part in agriculture and in the distribution of settlement. The ice left large terminal or inter-lobate moraines, the most significant of which are the Horseshoe moraine in southwest Ontario and the Oak Ridge moraine in central Ontario. These provide catchment basins for many small rivers.

The Lowlands may be divided into four sub-regions: Southwest Ontario, west of the Niagara Escarpment; Central Ontario, between the Escarpment and the Rideau Hills [these are a spur of the Shield (the Frontenac axis) between the Algonquins and the Adirondacks]; Eastern Ontario and the Montreal Plain; and the estuarine plains of Quebec and Anticosti Island.

The Lowlands are poorly endowed with fuel and other mineral resources, except for the natural gas fields and the salt deposits of southwest Ontario. However, the area is the most southerly part of Canada, has a very favourable climate and good grey-brown soils, and is therefore very productive. The immense water-power potential of the Niagara and St. Lawrence Rivers and of the rivers plunging down from the Shield or the Appalachians is a major asset. Although the Lowlands comprise Canada's smallest region, they support nearly two-thirds of the country's population.

The Western Interior (Prairies and Mackenzie) Lowlands.—The largest plains in Canada, they occupy a truly continental depression between the Shield and the Rocky Mountains, long the site of shallow seas that expanded and contracted from Palæozoic to Cenozoic times. Sedimentary rocks laid down by rivers and by these seas in almost horizontal strata dominate the scene. They have been attacked, since, by differential erosion, the softer beds being worked down into basins and the harder beds standing up as intervening scarps.

The Prairies have thus come to occupy three levels or steps. The lowest consists of the Manitoba plain, of Palæozoic rocks, dipping gently away from the Shield. This step is at an elevation of from 600 to 900 feet. Much of it is flooded by fertile glacial clays and beach ridges left by glacial Lake Agassiz that once filled the Red and Assiniboine Rivers and the flats around Lakes Winnipeg, Manitoba and Winnipegosis. It gives way, westward, to the great Cretaceous escarpment