

Water transport is no longer the principal mode of transportation, but competes with railways, pipelines, aircraft and motor carriers. Water is still the most economical means of transporting bulky raw materials such as wheat, pulp and paper, lumber and minerals for export, especially in the Great Lakes–St. Lawrence and Mackenzie River regions.

Popularity of water-oriented recreational activities — swimming, boating, sightseeing, fishing, hunting, and water skiing — is growing as more leisure becomes available. Although provincial and federal governments produce recreation data, co-ordinated national information on the role of water in outdoor recreation is not yet available.

Fish and wildlife from river and lake systems make a vital contribution to Canada's economy. In addition to sport-fishing and hunting, inland waters support important commercial fisheries. Fish and wildlife require water of high quality. When water systems have multiple-purpose use, pollution can destroy these resources. In government agencies there has been increased work on water pollution problems. Universities are also developing programs in environment-related water research.

### Coastal waters

#### 1.1.3

Canada's coastline, over 243 000 km, comprises the following measurements — Mainland: Atlantic 15 841 km; Pacific 7 022 km; Hudson Strait 4 253 km; Hudson Bay 12 268 km; Arctic 19 125 km; total 58 509 km. Islands: Atlantic 29 251 km; Pacific 18 704 km; Hudson Strait 8 594 km; Hudson Bay 14 775 km; Northwest Territories south of Arctic Circle 22 209 km; Arctic 91 755 km; total 185 288 km.

**Atlantic.** Along this coastal area, the sea has inundated valleys, lower parts of the Appalachian Mountains and the Canadian Shield. The submerged continental shelf is distinguished by great width and diversity of relief. From the coast of Nova Scotia its width varies from 60 to 100 nautical miles, from Newfoundland 100 to 280 nautical miles at the entrance of Hudson Strait, and northward it merges with the submerged shelf of the Arctic Ocean. The outer edge varies in depth from 183 to 366 m. The overall gradient of the Atlantic continental shelf is slight but the whole area is studded with shoals, plateaus, banks, ridges and islands. The 73 m line is an average of 12 nautical miles from the Nova Scotia coast and is the danger line for shipping. The whole floor of the marginal sea is traversed by channels and gullies cutting deep into the shelf.

The topography of much of the Atlantic marginal sea floor was shaped by processes of glacial erosion and deposition. Large areas, however, undergo constant change because of continuous marine deposit of materials eroded by rivers, wave action, wind and ice.

Hudson Bay and Hudson Strait bite deeply into the continent. Hudson Bay is an inland sea 822 324 km<sup>2</sup> in area having an average depth of about 128 m; the greatest depth in the centre of the bay is 258 m. Hudson Strait separates Baffin Island from the continental coast and connects Hudson Bay with the Atlantic Ocean. It is 796 km long and from 69 to 222 km wide; its greatest depth of 880 m is close inside the Atlantic entrance. There are great irregularities in the sea floor but few navigational hazards, except in inshore waters.

**Pacific.** The marginal sea of the Pacific differs strikingly from other marine zones of Canada. The hydrography of British Columbia is characterized by bold, abrupt relief — a repetition of the mountain landscape. Numerous inlets penetrate the mountainous coasts for distances of 93 to 139 km. They are usually a nautical mile or two wide and very deep, with steep canyon-like sides. From the islet-strewn coast, the continental shelf extends from 50 to 100 nautical miles to its limit at depths of about 366 m. The sea floor drops rapidly, parts of the western slopes of Vancouver Island and the Queen Charlotte Islands lying only four nautical miles and one nautical mile, respectively, from the declivity. These detached land masses are the dominant features of the Pacific marginal sea. The region's numerous shoals and pinnacle rocks necessitate cautious navigation.

**Arctic.** The submerged plateau extending from the northern coast of North America is a major part of the great continental shelf surrounding the Arctic Ocean, on which lie all