

12.0 PROTECTED AREAS AND SENSITIVE HABITATS

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To have true standing a protected area must be established in law. Important habitats within and adjacent to the Hudson Bay marine ecosystem have been afforded legislated protection in a number of forms. These include National, Provincial and Territorial parks, Migratory Bird Sanctuaries, Territorial Game Sanctuaries or Preserves, National Historic Sites, and Canadian Heritage Rivers (Figure 12-1). Each of these offers a different type of protection and is administered and managed differently; most have been, or will be, affected to a greater or lesser degree by recent land claims settlements (Quebec 1991; Canada 1992, 1993; TFN and DIAND 1993). Each of these types of protected areas will be discussed briefly as it pertains to the Hudson Bay marine ecosystem. A brief discussion of sensitive habitats that have been identified as important but remain unprotected will follow.



Figure 12-1. Map of Hudson Bay and James Bay showing locations of protected areas (adapted from Canadian Geographic 1999). The northern boundary of the Hudson Bay marine ecosystem is shown with a heavy black line; a thin black line separates the Hudson Bay (north) and James Bay (south) marine regions of the ecosystem.

12.1 NATIONAL PARKS

Parks Canada Agency (hereafter Parks Canada) has a mandate to protect important natural areas and historic sites in Canada, and to encourage public appreciation, understanding, and enjoyment of them.

12.1.1 Terrestrial

Parks Canada has divided the Canadian landmass into 39 different natural regions - each representing a different and distinct Canadian landscape. Their goal is to ensure that there is at least one national park in each of these regions to create a National system that protects examples of each of Canada's landscapes. To date, two National Parks, Wapusk and Ukkusiksalik, have been established bordering the Hudson Bay marine ecosystem. Two other areas are currently under consideration as future National or Provincial parks, the Lake Guillaume Delisle and Eau-Claire Lake area, and the Povungnituk Mountains—both in northern Quebec.

(http://parkscanada.pch.gc.ca/docs/pc/plans/plan/plan3_e.asp)

Wapusk National Park, which represents the Hudson-James Lowlands Natural Region, was established on 24 April 1996. This wilderness park is situated east of Churchill Manitoba and protects an area of 11,475 km² that extends southward from Cape Churchill (Figure 12-2). The park's natural heritage resources are of international, as well as national, significance. It includes one of the world's largest known polar bear denning areas, and vital habitat for hundreds of thousands of waterfowl and shorebirds that nest along the coast of Hudson Bay or gather and feed there during the annual spring and fall migrations. A board consisting of representatives of the federal and provincial governments, the Town of Churchill, and the First Nations of Fox Lake and York Factory manages the park.

(<http://www.canadianparks.com/manitoba/wapusnp/index.htm>)

(http://www.pc.gc.ca/pn-np/mb/wapusk/plan/index_e.asp)

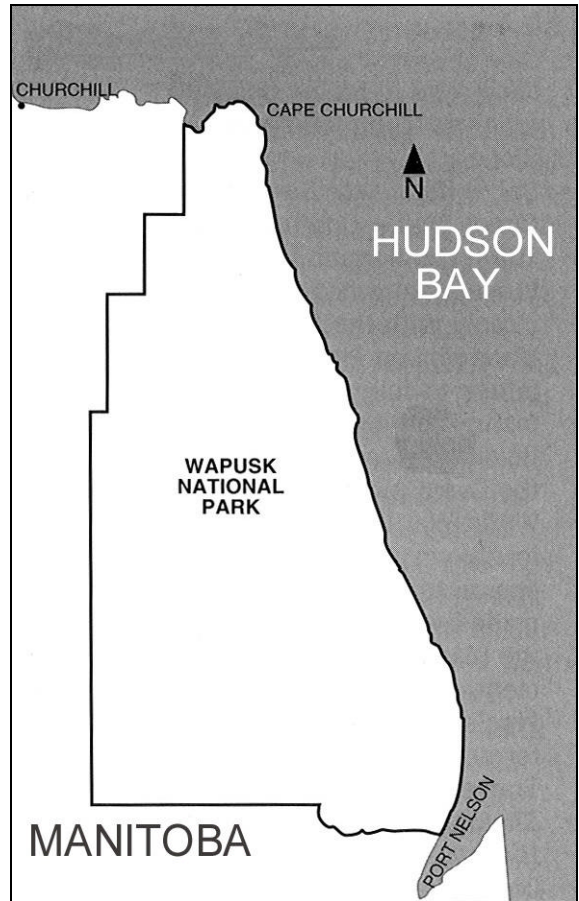


Figure 12-2. Wapusk National Park (adapted from New Parks North, March 1997).

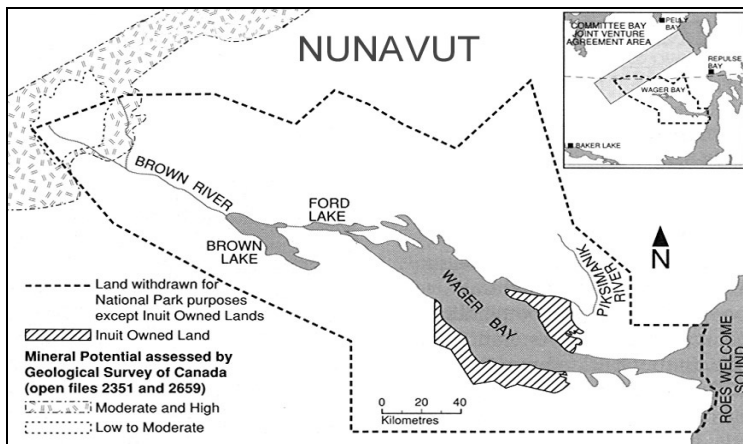


Figure 12-3. Ukkusiksalik National Park (Wager Bay) (adapted from New Parks North, March 2003).

Ukkusiksalik National Park, which represents the Central Tundra Natural Region, was established on 23 August 2003. This wilderness park extends westward from Roes Welcome Sound to include Wager Bay and the Brown and Piksimanik rivers, encompassing an area of 23,500 km² and most of the Wager Bay watershed (Figure 12-3). It includes a variety of landforms and wide range of habitats. Inuit residents from the Kivalliq communities, mainly Chesterfield Inlet, continue to travel to the area to hunt and fish.

(<http://www.newparksnorth.org/wager.htm>)

(http://www.cnf.ca/media/aug_23_03.html)

12.1.2 Marine

Parks Canada has identified nine marine regions in arctic Canada within which it plans to identify Natural Areas of Canadian Significance (NACS). The National Marine Parks Policy guides this process (Canada 1986). Each area is intended to represent the natural, historical, and cultural diversity within a region. While National Marine Parks have yet to be established in northern Canada, Parks Canada has sought advice on which areas might make the best and most representative marine park in the James Bay, Hudson Bay and Hudson Strait marine regions, which lie entirely or partially within the Hudson Bay marine ecosystem (Figure 12-4). Their boundaries were drawn on the basis of physical and biological oceanography (Dunbar 1988).

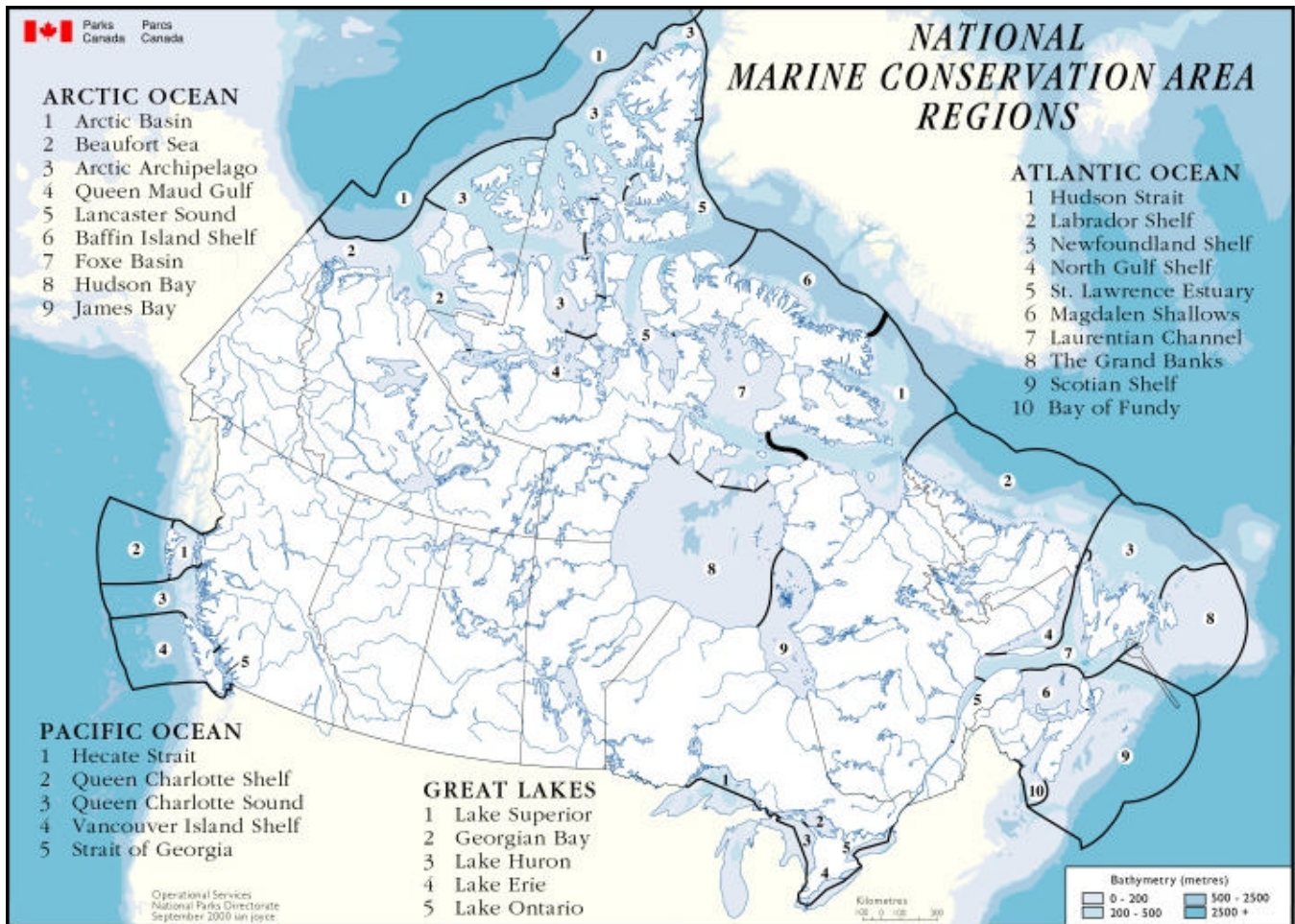


Figure 12-4. Arctic marine regions delineated by Parks Canada (courtesy F. Mercier, CPS Hull, pers. comm.).

James Bay

There is no single area of moderate size within the James Bay marine region wherein the characteristic regional marine features are represented adequately. Consequently, Stewart et al. (1993) recommended that each of the four distinctive areas in the James Bay marine region be represented in Canada's system of National Marine Parks, either by individual marine parks or by a composite marine park consisting of four non-contiguous areas as provided for under the National Marine Parks Policy (see Canada 1986, Section 1.2.3). The areas recommended for consideration were: Chickney Point in western James Bay, the Rivière du Castor estuary in eastern James Bay, Richmond Gulf (Lac Guillaume-Delisle) in the Hudson Bay Arc, and the Belcher Islands. Each of these areas presents features that are not found elsewhere in Arctic Canada, so that none of them can

be eliminated without significant loss to the National Marine Parks system. A fifth area, Long Island, was considered too poorly known to be recommended but worthy of future consideration.

Western James Bay offers some of the finest examples of a fast-emerging, shallow coastline and its extensive salt marshes and tidal flats provide shorebird and waterfowl habitats of critical national and international importance. Along the western James Bay coast, the areas of greatest value to shorebirds, north and south of the Albany River, have not yet been afforded any statutory protection (Gillespie et al. 1991). Chickney Point, north of the Albany River, is one of the most important areas for shorebirds in the Hudson Bay Lowlands, and is of critical international importance to the Hudsonian godwit, which appears to make a non-stop flight from its staging grounds in James Bay to wintering areas in South America (see Appendix 4 for scientific names of birds). The very large concentrations of Hudsonian godwit and other species at Chickney Point are very noteworthy (Curtis and Allen 1976). Ontario (OMNR 1985) also considers the Chickney Point area to be Provincially significant, citing as significant features the "extensive display of coastal tidal/super-tidal marsh and freshwater thicket/meadow marsh" and the waterfowl habitat. The boundaries of the proposed NACS at Chickney Point extend 10 km inshore and 10 km offshore from the high tide mark, between 52°24'N and 52°30'N (Figure 12-5). This area was recommended to protect and preserve the exceptional shorebird habitat at Chickney Point and to present the transitional features of the fast-emerging coastline.

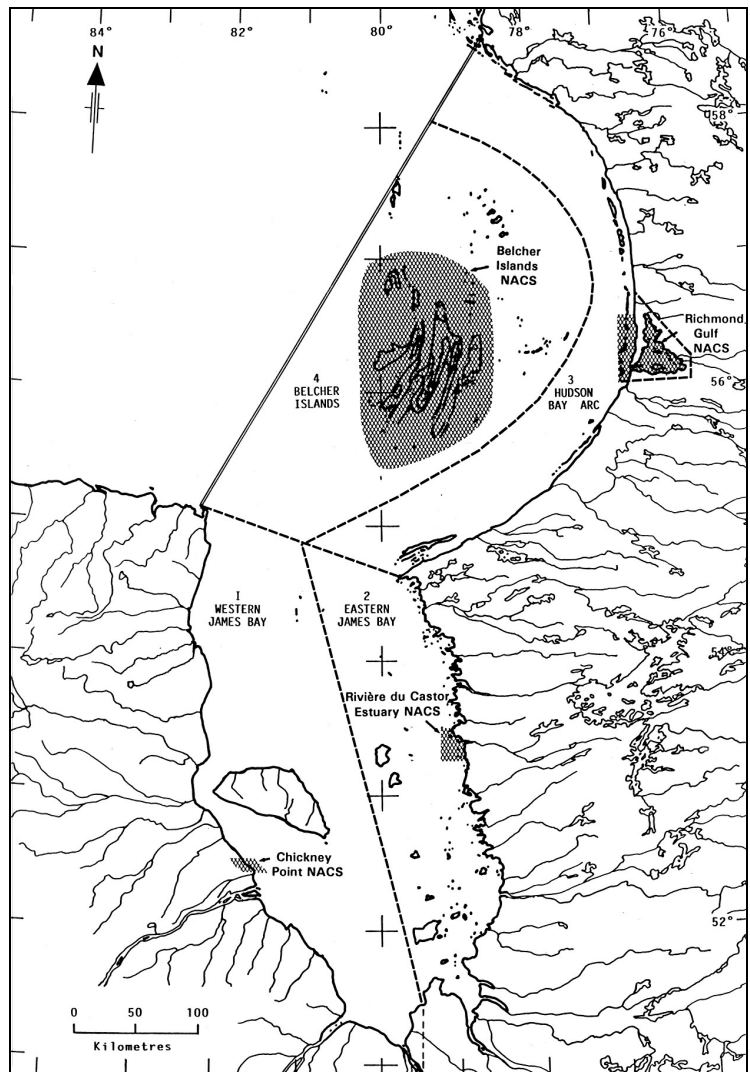


Figure 12-5. Natural Areas of Canadian Significance (NACS) recommended for consideration as new national marine parks in the James Bay marine region (from Stewart et al. 1993)

The skerry coastline of the Eastern James Bay area offers a rich variety of coastal and marine habitats. Because the area receives a very large volume of freshwater runoff from the land, unique brackish water communities have developed in its estuaries and coastal waters. These communities include a mixture of Arctic marine, estuarine and freshwater species--some of them relicts. The extensive subtidal eelgrass beds, which are unusual in Canada's Arctic waters and form the base of major food chains in the James Bay marine ecosystem, are particularly noteworthy and of critical international importance for brant. These themes are well represented at the Rivière du Castor estuary (e.g., Curtis 1974/5; Curtis and Allen 1976; SEBJ 1990; Dignard et al. 1991), which was recommended to protect and preserve examples of the area's extensive eelgrass beds, unique brackish water communities, and critical migratory bird habitats. The boundaries of this proposed NACS extend inshore along the Quebec coast to the high tide mark and from 53°15'N near the Comb Islands north to 53°30'N, and offshore to 79°15'W (Figure 12-5). The river has not been altered by hydroelectric development, so that the natural seasonal flow into the estuary has been maintained. It is somewhat removed from the influence of existing and proposed hydroelectric developments, and from the communities of Chisasibi and Wemindji.

The Hudson Bay Arc area is a transitional area wherein the southern brackish features are gradually replaced by Arctic marine features. It offers a number of remarkable marine habitats including the Long Island area, the Nastapoca River estuary with its threatened beluga population, the Nastapoca archipelago, and Lac Guillaume-Delisle (formerly Richmond Gulf). Of these, the enclosed marine environment of Lac Guillaume-Delisle with its spectacular coastline is unique, and least likely to be affected by hydroelectric development. The proposed boundaries of this NACS encompass the whole of Lac Guillaume-Delisle, Gulf Hazard, and the coastal waters and islands of southeastern Hudson Bay bounded on the north by 56°30'N, on the west by 76°50'W, and on the south by 56°00'N (Figure 12-5). The main purpose of the latter would be to include the small polynya at Gulf Hazard and some representative coastal habitats of southeastern Hudson Bay proper. There are few "hard" marine data to support or oppose the consideration of Lac Guillaume-Delisle as a NACS so the recommendation was based on a sense that this enclosed ecosystem is unique and worthy of preservation. It does support a rich fauna that includes Arctic marine, estuarine, and freshwater species--some of them relicts. The coastline is spectacular, with cuestas and flights of raised marine beaches, and at Gulf Hazard there are important archaeological sites and winter open water. Much of the land surrounding Richmond Gulf is Inuit owned.

The Belcher Islands area, virtually unknown until this century, is also unique--not so much for its individual features as for the whole. It offers a relatively rich marine ecosystem that supported, and continues to support, a specialized maritime culture. The archipelago has a remarkably rich avifauna that includes an indigenous population of Hudson Bay eider that is resident year-round. No specific area of the Belchers was recommended for consideration as a NACS, as scientific information was insufficient for the purpose and the question is better considered by direct consultation between Parks Canada and the Belcher Islands Inuit who, under the Nunavut Land Settlement, have wide and well-defined rights relating to the use of coastal and offshore areas of the archipelago. The purpose of this NACS would be to preserve and protect at least a representative cross-section of marine habitats in the Belcher Islands area, in particular those related to walrus and the indigenous subspecies of the common eider (Figure 12-5).

Political jurisdictions and economic factors were not considered in these boundary recommendations, only those factors that contribute significantly to the character of the James Bay marine region. Areas that already had statutory protection such as the Twin Islands, Akimiski Island, Boatswain Bay, and Hannah Bay were considered but were not included in the NACS. They offer important migratory bird habitats and characteristic coastal features which complement but cannot replace those of the recommended NACS.

Hudson Bay

Unlike James Bay, the characteristic features of the Hudson Bay marine region can be well represented in a single area. Stewart et al. (1991) recommended two areas of this region to Parks Canada for consideration as national marine parks, the Churchill-Nelson area and the Rankin Inlet-Marble Island area.

The Churchill-Nelson area was recommended as the logical choice for a marine park in the region. It encompasses an area of Hudson Bay bounded in the north by 59°30'N latitude, in the east by 91°00'W longitude, and to the south and west by the Manitoba coast (roughly from Cape Tatnam in the east to Hubbert Point in the west)--inland to the high tidal marks (Figure 12-6). The intent of a marine park in this geological and cultural transition zone would be to protect and preserve the exceptional beluga population that summers there, and to include the widest possible variety of coastal, seafloor, and oceanographic conditions and habitats.

Characteristic themes of the Hudson Bay marine region that are particularly well represented in this area include: 1) the extensive low-lying marshy coastal plains with wide tidal mud flats; 2) large estuaries of the Churchill and Nelson rivers; 3) exceptional summer concentrations of belugas in the estuaries of the Nelson, Churchill, and Seal rivers; 4) exceptional autumn concentrations of polar bears on the islands and headlands near Cape Churchill; 5) breeding shorebirds and waterfowl including Hudsonian godwit and the Hudson Bay subspecies of the common eider; and, 6) prehistorical coastal cultures, historical ports of entry instrumental in the exploration and development of central Canada, and the region's only deep water port for international shipping.

This area was recommended before Wapusk National Park was established. It would complement the existing park by protecting the largest concentration of belugas in the world and offer a relatively accessible area for presenting other Arctic marine features.

The Rankin Inlet-Marble Island area extends inshore to the high tide mark along the Kivalliq coast from 62°35'N near Cape Jones north to 63°00'N, and offshore to 89°00'W (Figure 12-6). This area would afford protection to the exceptional peregrine falcon population and the maritime historical sites at Marble Island and include a wide variety of coastal, seafloor, and oceanographic conditions and habitats.

Characteristic themes of the Hudson Bay marine region that are particularly well represented in this area include: 1) anadromous Arctic charr; 2) a dense breeding population of threatened peregrine falcon near Rankin Inlet, and a breeding colony of the Hudson Bay subspecies of the common eider on Marble Island; 3) evidence of prehistorical coastal Inuit cultures; and 4) historical sites from the Knight Expedition and whaling period, including two accessible shipwrecks.

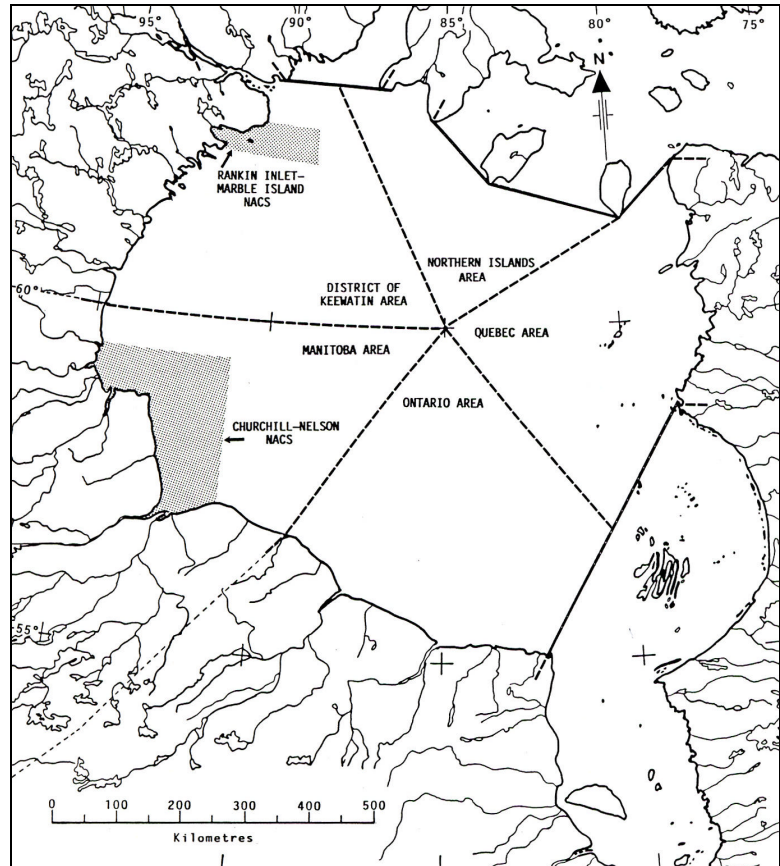


Figure 12-6. Natural Areas of Canadian Significance (NACS) recommended for consideration as new national marine parks in the Hudson Bay marine region (from Stewart et al. 1991).

Both the exceptional peregrine population and the maritime historical sites at Marble Island are facing increasing human disturbance. They are located near the growing community of Rankin Inlet and Marble Island is a stop for tourists visiting by cruise ship. Both of areas would benefit immediately from the protection afforded by National Parks designation.

The area's rocky, Shield coasts are less representative of the region but provide a greater variety of coastal and nearshore marine habitats than the Churchill-Nelson area. The Diana and Meliadine rivers provide small-scale estuarine habitats, and there is greater arctic character and better representation of typically arctic conditions, species, and cultures than the Churchill-Nelson area. Landfast sea ice is well represented, and the plume from Chesterfield Inlet also influences the area oceanographically. Access to the region is, however, more limited.

While this area would afford some protection to historical bowhead habitats, a larger area stretching from the northwestern boundary of the Hudson Bay marine region along the west coast of Roes Welcome Sound north to about 59°30'N and extending part way across the sound would be more effective.

Hudson Strait

The area of Hudson Strait immediately northeast of the Hudson Bay marine region was recommended as the most representative candidate for consideration as a future national marine park in the Hudson Strait marine region (Mercier 1991). However, this was before its boundaries were altered to include Foxe Basin and exclude eastern Hudson Strait, as shown in Figure 12-4. Habitats and features of the Repulse Bay and Wager Bay areas

were not considered to be representative of the marine region as a whole. However, protection of the waters of Wager Bay within any new National Park in the Wager Bay area was recommended, and has been legislated (see Section 12.1.1).

12.2 PROVINCIAL AND TERRITORIAL PARKS

12.2.1 Quebec

Two areas of northern Quebec that include portions of the Hudson Bay coast are currently under consideration as possible future parks. The first area encompasses Lac Guillaume-Delisle (formerly Richmond Gulf) and Lac à l'Eau-Claire, which drains into it via Rivière à l'Eau Claire (Figure 12-1) (http://www.fapaq.gouv.qc.ca/en/parc_que/parc_lacGui_A.htm). The area under study is located in the transition zone between boreal forest and tundra and covers about 10,290 km². Lac Guillaume-Delisle (56°15'N, 76°17'W) is a marine embayment connected to Hudson Bay by a narrow channel. It is subject to tides and supports marine biota including seals and belugas. The shoreline is remarkable for its high cuestas. This area has also been studied as a possible National Park (McNicholl 1990) and suggested for consideration as a National Marine Park (Stewart et al. 1993). Lac à l'Eau-Claire (56°10'N, 74°25'W) is the second largest freshwater lake in Quebec and fills the impact basin created by two meteors. Together, the Makivik Corporation, the Kativik Regional Government, and the Government of Québec plan to create a new park in this region by 2007.

The second area encompasses the Puvirnituk Mountains, which extend inland northeastward from Akulivik (http://www.fapaq.gouv.qc.ca/en/parc_que/parc_puvirnituk_A.htm). This proposal is less advanced. Studies are planned to assess the state of knowledge of an area of about 3,000 km².

The area northeast of Cape Wolstenholme, at the northern most tip of Quebec is also under consideration (http://www.fapaq.gouv.qc.ca/en/parc_que/parc_cap_A.htm). This area, which borders Hudson Strait, includes a massive colony of thick-billed murre.

12.2.2 Ontario

Polar Bear Provincial Park

This 2,355,200 ha wilderness park extends eastward along the coast of Hudson Bay from 87°W to Cape Henrietta Maria and then south along the James Bay coast to 54°N (Figure 12-7). It is the largest and most northerly park in Ontario and features some of Canada's most southerly tundra and a vast wetland complex. The park has an IUCN designation of 2, which signifies that it is designed to protect a relatively large natural area of national or international significance that has not been materially altered by human activity, and where extractive resource uses are not allowed. Polar Bear Provincial Park is notable for its Arctic wildlife, including polar bears and walrus, and its seasonal use by migratory waterfowl and shorebirds.

During migration, the area supports hundreds of thousands of migratory waterfowl, including a substantial portion of the central Arctic breeding population of the red knot, the entire breeding population of the Hudsonian godwit, and over a million Canada geese. There is also a breeding

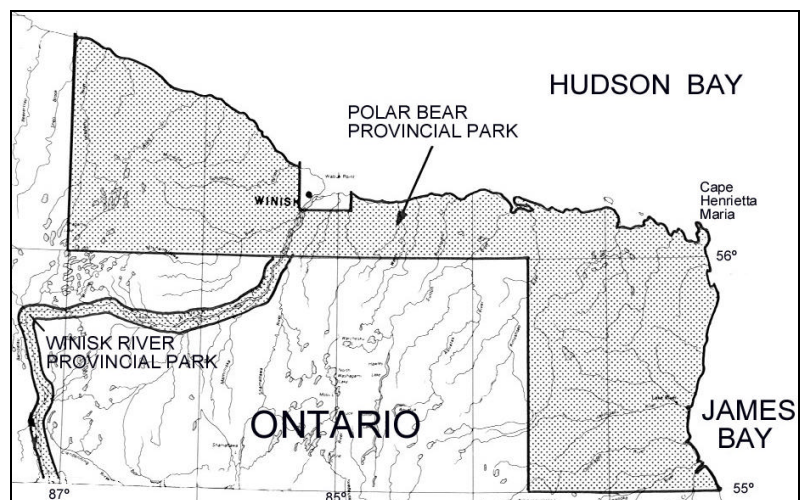


Figure 12-7. Polar Bear Provincial Park in Ontario (adapted from OMNR 1985).

colony of over 50,000 Canada geese. The park was designated as a Ramsar site (no. 360) in 1987 because of the importance of its wetlands to migratory birds. (<http://www.ontarioparks.com/english/pola.html>)

Kesagami Provincial Park

This 55,977 ha wilderness park follows the Kesagami River for about 80 km through the James Bay lowlands until it drains into the Hurricanaw River immediately upstream of the southern tip of James Bay (Figure 12-1). It too has an IUCN designation of 2. There is a commercial lodge in the park and canoeing, camping, and fishing are permitted. (<http://www.ontarioparks.com/english/kesa.html>)

Tidewater Provincial Park

Located on four islands in the Moose River estuary, this 980 ha “natural environment” park is about 20 km upstream from James Bay (Figure 12-1). It is accessible by water taxi from Moosonee and notable for its subarctic flora and fauna, and as the historical site of the first Hudson’s Bay Company trading post at Moose Factory.

Winisk River Provincial Park

This 141,000 ha park is a wilderness whitewater river. The river passes through a large moraine and drumlin field on its way to Hudson Bay (Figure 12-7). It has an IUCN designation of 2. There are no visitor facilities.

12.2.3 Manitoba

There are no provincial parks in Manitoba that extend to the Hudson Bay coast. However, two coastal wildlife management areas (WMA), the Cape Tatnam WMA and the Cape Churchill WMA have been established to protect the region’s coastal and tundra ecosystems. The latter once included the area now protected by Wapusk National Park, but now includes only land to the south and west (Figure 12-8).

(http://www.gov.mb.ca/conservation/wildlife/managing/wma_northeastern.html - cape_tatnam)

12.2.4 Nunavut

Territorial Parks in Nunavut are selected to reflect what is most important to Nunavummiut. They are developed in partnership with communities, in areas people believe to be important and where the people of Nunavut will benefit from them. The Nunavut Department of Sustainable Development (DSD), through the Parks and Tourism Division and the Wildlife and Fisheries division, manages these parks. (http://www.nunavutparks.ca/parks_planning/index.cfm)

Ijiraliq Territorial Park

This small territorial park straddles the Meliadine River about 10 km northwest of Rankin Inlet (Figure 12-1). It is accessible by rough road from Rankin Inlet and has become a destination for passengers aboard cruise ships visiting western Hudson Bay. The park is notable for its Thule, Dorset, and Pre-Dorset archaeological sites and glacial eskers. The Meliadine Esker that runs parallel to the river is one of the largest, continuous features of its kind. In 1975, it was identified by the International Biological Programme (IBP) as a

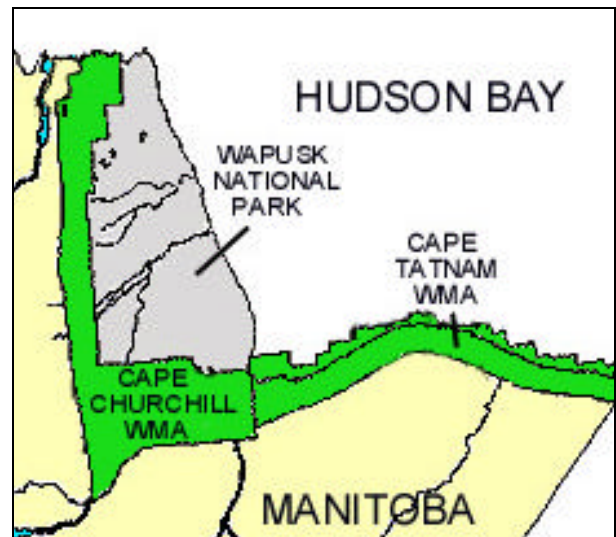


Figure 12-8. Cape Churchill and Cape Tatnam Wildlife Management Areas in Manitoba.

feature worthy of protection (Nettleship and Smith [ed.] 1975). The Meliadine River supports a run of anadromous Arctic charr and has been the site of an important Inuit fishery (McGowan 1992).

(http://www.nunavutparks.ca/on_the_land/ijiraliq_park.cfm)

12.3 MIGRATORY BIRD SANCTUARIES

The Canadian Wildlife Service (CWS) of Environment Canada establishes bird sanctuaries to control and manage areas of importance for the protection of migratory birds, their nests, and eggs. These sanctuaries can include a range of habitat types, such as terrestrial, wetland, or marine. The CWS establishes regulations determining what activities can be carried out within these areas. Prohibited activities include the harassment or killing of birds, and disturbing, destroying, or possessing nests or eggs.

Under the Nunavut Land Claims Agreement (NLCA) an Inuit Impact and Benefit Agreement (IIBA) must be negotiated for most conservation areas, including existing Migratory Bird Sanctuaries, and a management plan must be prepared for all of them. The East Bay Migratory Bird Sanctuary on southeastern Southampton Island lies just outside the boundaries of the Hudson Bay marine ecosystem, as does Digges Island which is under study as a possible bird sanctuary. The CWS has identified both areas as key terrestrial migratory bird habitat (Alexander et al. 1991). Digges Island has also been identified as an IBP site (Nettleship and Smith [ed.] 1975).

(http://atlas.gc.ca/maptexts/map_texts/english/bird_e.html)

(http://www.cws-scf.ec.gc.ca/hww-fap/hww-fap.cfm?ID_species=87&lang=e)

12.3.1 Boatswain Bay Bird Sanctuary

This sanctuary lies just north of Rupert Bay in southeastern James Bay (Figure 12-9). It includes all waters and lands in Boatswain Bay and all land 3 km inland from the high-tide mark (Alexander et al. 1991). The offshore islands and reefs lie within Nunavut and the coastline in Quebec. This area is very important for a variety of migrating and moulting water birds including Canada geese, lesser snow geese, Atlantic brant, American black ducks, northern pintails, scoters, scaups, and several species of shorebirds (Curtis and Allen 1976).

(<http://www.bsc-eoc.org/iba/site.cfm?siteID=NU097&lang=en>)

12.3.2 Hannah Bay Migratory Bird Sanctuary

This small sanctuary has one of the widest expanses of marsh along the James Bay coast. It lies at the extreme southern tip of the bay near the Ontario-Quebec border (Figure 12-10). The coast lies in Ontario and the offshore islands and reefs within Nunavut—the latter are part of the James Bay Preserve. The marsh

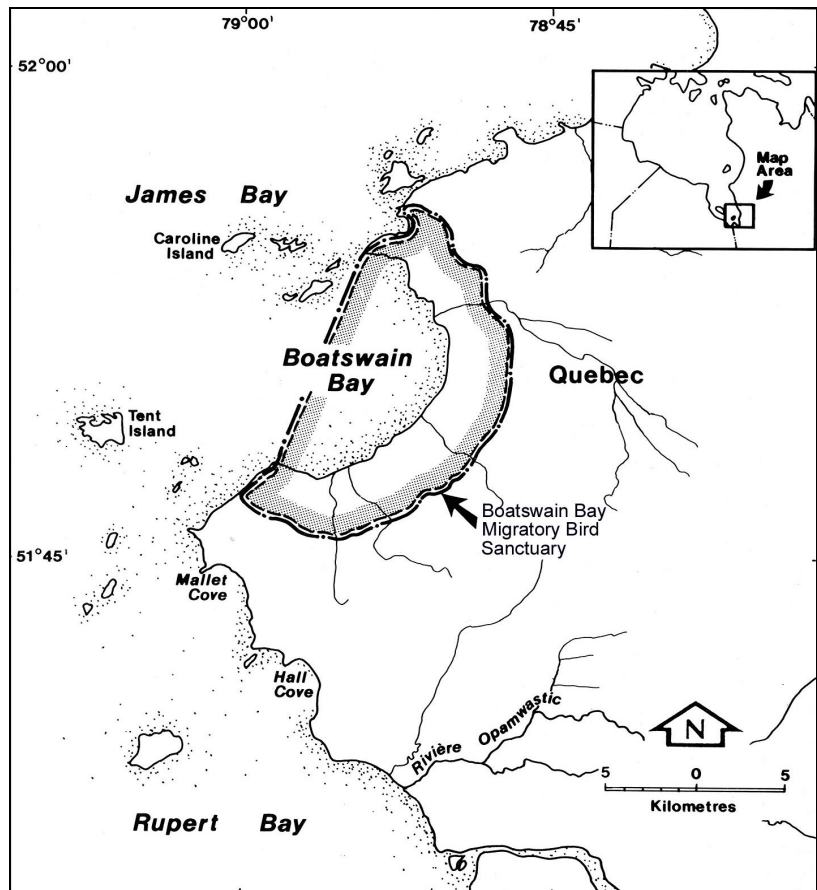


Figure 12-9. Boatswain Bay Migratory Bird Sanctuary (adapted from Alexander et al. 1991, p. 170).

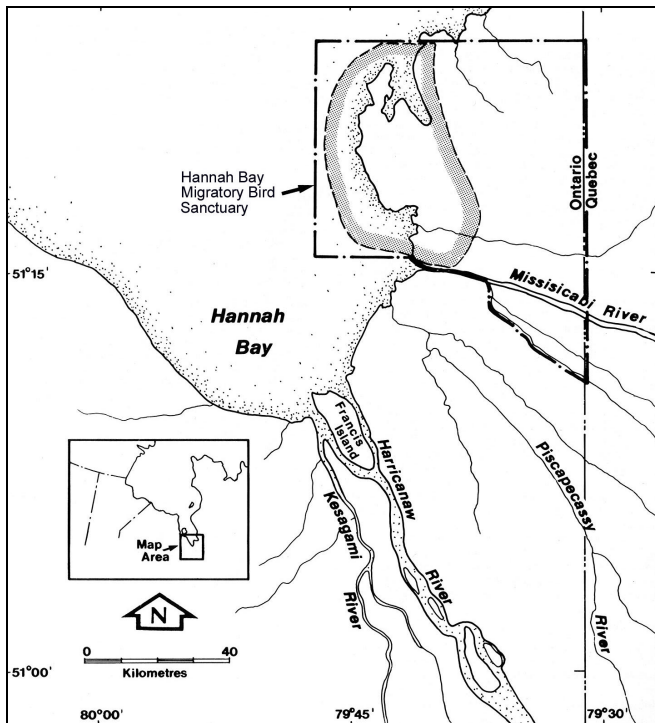


Figure 12-10. Hannah Bay Migratory Bird Sanctuary (adapted from Alexander et al. 1991, p. 172).

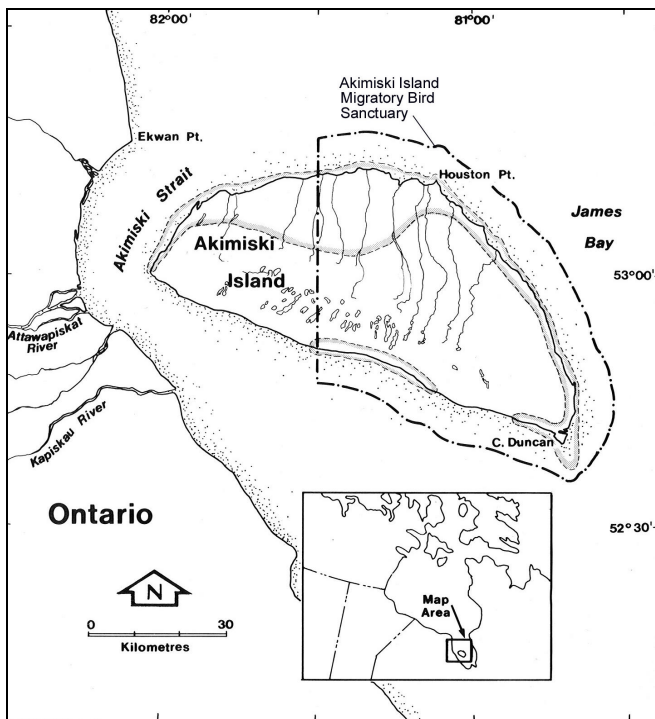


Figure 12-11. Akimiski Island Migratory Bird Sanctuary (adapted from Alexander et al. 1991, p. 168).

averages 1.5 km in width and the adjacent tidal flats 15 km (Alexander et al. 1991). It is one of the most important staging areas in North America for migratory, Arctic-breeding waterfowl—particularly lesser snow geese and Canada geese and shorebirds (Curtis and Allen 1976). Hannah Bay has been identified as key terrestrial habitat for migratory birds by the CWS (Alexander et al. 1991). This sanctuary and the Moose River Migratory Bird Sanctuary constitute the Southern James Bay Migratory Bird Sanctuaries, which were designated as wetlands of international importance in 1987 under the Ramsar Convention (part of site no. 367).

12.3.3 Moose River Migratory Bird Sanctuary

This sanctuary and the Hannah Bay Migratory Bird Sanctuary constitute the Southern James Bay Migratory Bird Sanctuaries, which were designated as wetlands of international importance in 1987 under the Ramsar Convention (part of site no. 367). The site extends along the Ontario coast of James Bay north and east from the mouth of the Moose River, for about 10 km in each direction and includes Ship Sands Island, which is located on the northern side of the river's mouth. Like Hannah Bay, to the east, its wide tidal mudflats (1 km), intertidal marsh, meadow marsh, fens, and bogs provide important staging habitat, primarily in the late fall, for large numbers of lesser snow geese, Canada geese, and dabbling ducks. The area is also heavily used in the spring by returning dabbling ducks.

(<http://www.bsc-eoc.org/iba/site.cfm?siteID=ON138&lang=en>)

12.3.4 Akimiski Island Migratory Bird Sanctuary

This sanctuary takes up the eastern two-thirds of Akimiski Island in west central James Bay and is part of the James Bay Preserve (Figure 12-11). It is a critical staging and/or moulting area for migratory waterfowl and shorebirds, particularly lesser snow geese, Atlantic brant, Caspian terns, red knots, Hudsonian godwits and semipalmated plovers. Significant numbers of Canada geese and lesser snow geese nest on the island. The Canadian Wildlife Service has identified most of the coastline as key terrestrial habitat for migratory birds (Alexander et al. 1991). Northern Akimiski Island is also a summer retreat and maternity denning area for polar bears (Jonkel et al. 1976).

(<http://www.bsc-eoc.org/iba/site.cfm?siteID=NU036&lang=en>)

12.3.5 McConnell River Migratory Bird Sanctuary

This 32,800 ha sanctuary was established in 1960 to protect a small colony of lesser snow geese (Figure 12-12). It is located south of Arviat on the Nunavut coast of Hudson Bay and is protected under the Migratory Bird Sanctuary Regulations that stem from the Migratory Birds Convention Act of 1917. The site is owned by the Inuit of Nunavut and is subject to co-management agreements under the Nunavut Land Claims Agreement. Inuit from Arviat continue to hunt, trap, and fish within the sanctuary. The area identified in 1975 as an IBP site in need of protection was somewhat larger than the existing sanctuary (Nettleship and Smith [ed.] 1991). The sanctuary boundaries are under review and may increase as most geese now nest, moult, and graze outside the sanctuary (CWS 1990).

In 1982, the sanctuary was designated as a "Wetland of International Importance especially as Waterfowl Habitat" under the terms of the Ramsar Convention (Ramsar site 248). It received this designation because the area is a major summer nesting habitat for several species of migratory birds, including lesser snow goose, Ross's goose, and Canada goose. Up to 200,000 birds colonize this site annually and habitat degradation is occurring due to an increase in the snow goose population. The Canadian Wildlife Service has identified this area as key terrestrial migratory bird habitat (Alexander et al. 1991).

(<http://www.pnr-rpn.ec.gc.ca/nature/whp/ramsar/df02s01.en.html>)

12.3.6 Harry Gibbons Migratory Bird Sanctuary

This sanctuary is located in northern Hudson Bay on Southampton Island, where it extends about 35 km inland from Bay of Gods Mercy to encompass low-lying wetland habitats and extensive tidal flats around the mouth of the Boas River (Figure 12-13). The river delta supports a nesting colony of lesser snow geese that was estimated at 529,100 birds in 1997, and nesting populations of Atlantic brant, Canada geese, and tundra swans. Smaller breeding colonies are located outside the sanctuary at Ell Bay and Bear Cove. The CWS has identified the Boas River area as key terrestrial migratory bird breeding habitat (Alexander et al. 1991); it is also an IBP site (Nettleship and Smith [ed.] 1975).

(<http://www.bsc-eoc.org/iba/site.cfm?siteID=NU022&lang=en>)

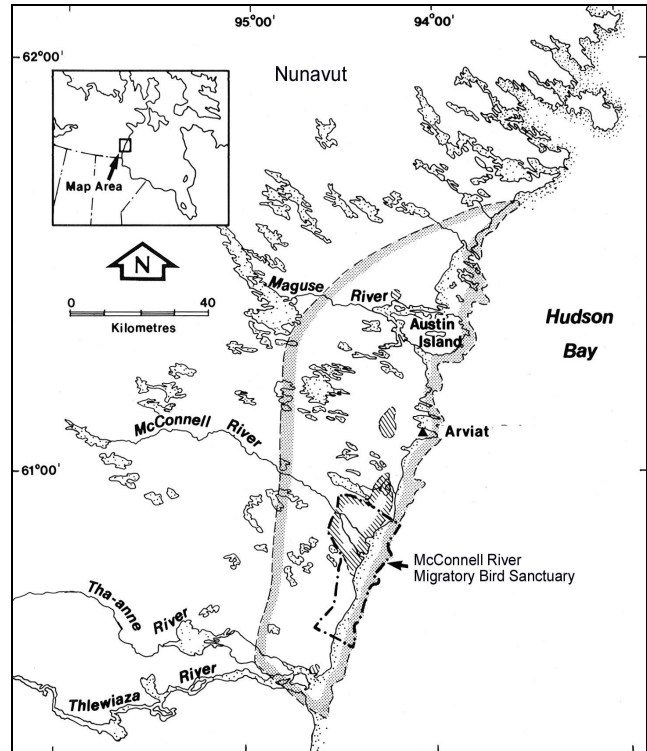


Figure 12-12. McConnell River Migratory Bird Sanctuary and the extent of the key terrestrial habitat for the snow goose colony (adapted from Alexander et al. 1991, p. 54).

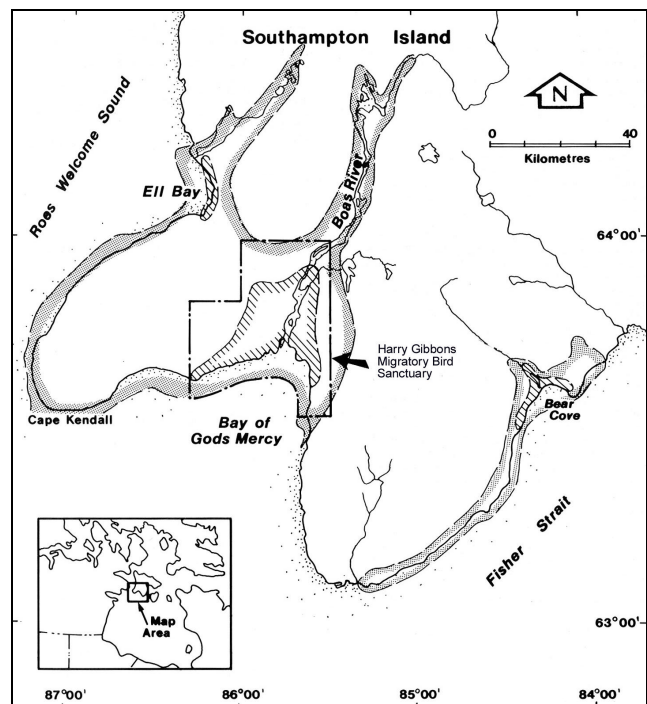


Figure 12-13. Harry Gibbons Migratory Bird Sanctuary (adapted from Alexander et al. 1991, p. 130).

12.4 TERRITORIAL GAME SANCTUARIES

Territorial game sanctuaries protect wildlife species and their habitat while preserves protect wildlife for the benefit of native hunters and trappers (New Parks North, March 1998). The James Bay Preserve includes the islands and shoals of James Bay, which are part of Nunavut. Some of these islands have key migratory bird habitats that have been afforded greater protection either as migratory bird sanctuaries managed by CWS or as territorial game sanctuaries managed by the Government of Nunavut.

12.4.1 Twin Islands Game Sanctuary

These two small, low-lying islands are situated in central James Bay (Figure 12-14). They are part of the James Bay Preserve (Alexander et al. 1991) and were identified as an IBP site (Nettleship and Smith [ed.] 1991). The islands are an important summer sanctuary and winter denning area for polar bears. They have also been identified tentatively by CWS as key terrestrial habitat for migratory birds (Alexander et al. 1991). An estimated 23,600 birds of various species may nest on the islands.

(<http://www.bsc-eoc.org/iba/site.cfm?siteID=NU034&lang=en>)

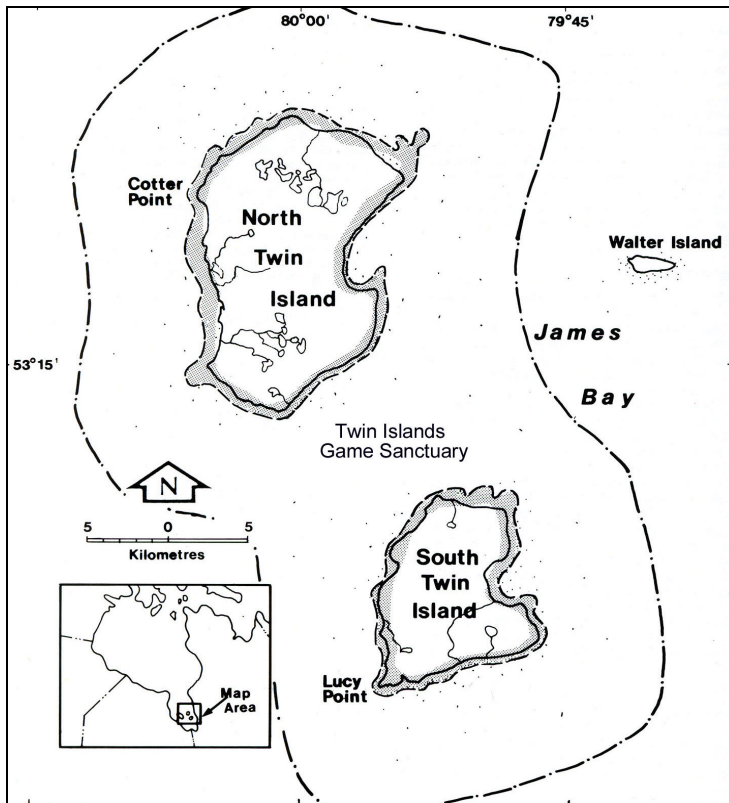


Figure 12-14. Twin Islands Game Sanctuary (adapted from Alexander et al. 1991, p. 164).

12.5 NATIONAL HISTORIC SITES

Parks Canada administers a program that recognizes places of national historic importance. These sites and their associated artifacts are preserved to promote an appreciation of historic places, people, and events and their contribution to the Canadian identity. Several of these sites are located in coastal areas of Hudson Bay and each of these has been important in the region's maritime history.

12.5.1 York Factory

The Hudson Bay Company built the original fur trading post at York Factory in 1684, near the mouth of the Hayes River on the Manitoba coast. This location was chosen because it was accessible to ocean-going vessels, which would anchor at Five Fathom Hole, and provided a safe harbour. Trade goods were transferred from the ships to York Factory, and then carried inland via navigable rivers in smaller boats. York Factory served as a major administrative, transshipment, and manufacturing centre within the company's fur trade network for over 250 years. It afforded the company good access to the good quality furs of the hinterland and to existing aboriginal trade networks.

The 102 ha national historic site includes the Hudson's Bay Company's Depot building, a clearing around it, and some marsh and boreal/taiga forest cover. The current building, known as York Factory III, was developed after 1788 and abandoned by the Hudson's Bay Company in 1957. The sites of the two earlier buildings have been destroyed by erosion of the north bank of the Hayes. The site commemorates York Factory for its critical role in the French-English struggle for control of the fur trade, for its long and important role as a trading post and

distribution centre, and for its role in the expansion of the fur trade into the interior of western Canada. (http://parkscanada.pch.gc.ca/lhn-nhs/mb/yorkfactory/index_e.asp)

12.5.2 Prince of Wales Fort

The Hudson Bay Company began building this massive stone fort at the mouth of the Churchill River in 1731 but it was not completed until 1746. The location offered a better harbour than York Factory and was a likely site for a whaling operation (Payne 1978-9). The fort was a hundred yards square and had more cannons (42) than men. Unfortunately, it was not strategically placed or manned to withstand an assault from the sea, and was surrendered without resistance by Samuel Hearne to Comte de la Perouse in 1782 (Rich 1958; Mathews 1966). Today the partially restored fort is a national historic site that commemorates the role of Prince of Wales Fort in the 18th-century French/English rivalry for control of the territory and resources around Hudson Bay. The site also includes the Cape Merry Battery on the opposite shore of the river and the harbour at Sloop Cove.

(http://parkscanada.pch.gc.ca/lhn-nhs/mb/prince/natcul/index_e.asp)

12.5.3 Arvi'juaq National Historic Site

Arvi'juaq (Sentry Island) and Qikiqtaaluk, near Arviat, were designated as a national historic site in August 1995 (Figure 12-15). For centuries Inuit returned each spring to camp at these locations and to harvest the abundant marine resources. These gatherings also provided an opportunity to teach the young, celebrate life, and to affirm and renew Inuit society. The island was first occupied about 1200AD and has some 117 archaeological sites (Travel Keewatin 1990). One site is thought to be a beluga hunting/caribou crossing hunting game. It consists of stone outlines of kayaks, shorelines, and other features and the object was apparently to hone hunting skills. Hunters placed themselves inside the stone kayak outlines while someone pulled a rope with a small loop on the end from one end of the site to the other. If a hunter managed to get the point of his harpoon through the loop, he “got the whale”.

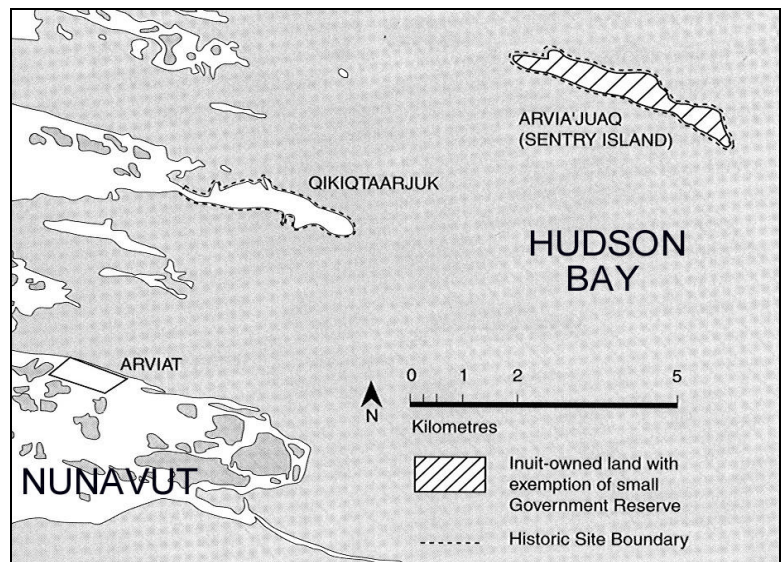


Figure 12-15. Arvi'juaq National Historic Site (adapted from New Parks North, March 1998).

(http://atlas.gc.ca/maptexts/map_texts/english/historic_sites_e.html)

12.6 HERITAGE RIVERS

The Canadian Heritage Rivers System (CHRS) is a cooperative program between the parks administrations of the federal and provincial/territorial governments. It was established in 1984 to give national recognition to important rivers in Canada and to ensure that they are managed in a manner that conserves their distinctive value while enhancing public use and enjoyment. Governments nominate rivers, and rivers in this system are outstanding in terms of their human or natural history, or recreational value. The Seal River in Manitoba is the only Canadian Heritage River that drains directly into the Hudson Bay marine ecosystem. Two other rivers, the Hayes in Manitoba (http://www.gov.mb.ca/conservation/parks/regions/heritage_rivers.html; Dodds 1987) and the Missinaibi in Ontario (http://www.chrs.ca/Rivers/Missinaibi/Missinaibi-F_e.htm) have been nominated for heritage river status. The Missinaibi drains into the Hurricanaw River, just upstream of James Bay. In Nunavut,

the Kazan (<http://www.newparksnorth.org/kazan.htm>) and Thelon (http://www.chrs.ca/Rivers/Thelon/Thelon-F_e.htm) rivers also have heritage river status but they drain into Baker Lake, well upstream of the marine ecosystem.

12.6.1 Seal River

The Seal River was designated as a Canadian Heritage River in 1992, is the largest remaining undammed river in northern Manitoba (Dodds 1986, 1990) (Figure 12-1). It flows some 260 km from its headwaters at Shethanei Lake, through the wilderness transitional zone between subarctic boreal forest and arctic tundra, to Hudson Bay. Its valley exhibits some striking glacial landforms and provides habitat for 33 species of plants that are rare in Manitoba. It also provides winter range for part of the Kamanuriak caribou herd. Harbour seals penetrate well upstream and inhabit the river year-round. Belugas concentrate in the estuary in summer in large numbers.

(<http://www.sealriver.com/SealRiverSystem.pdf>)

(http://www.chrs.ca/Rivers/Seal/Seal_e.htm)

12.7 SENSITIVE HABITATS

Various programs have identified sensitive, important habitats in the region. Two international programs that deserve special mention are the Ramsar Convention and the International Biological Programme (IBP).

The Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention) was adopted in Ramsar, Iran, in 1971, and came into force in Canada in 1981 (Gillespie et al. 1991) (see also (http://www.ramsar.org/profiles_canada.htm)). Ramsar seeks to ensure the sustainable, wise use of wetland resources including designation of wetland sites of international importance, and to ensure that all wetland resources are conserved, now and in the future. In Canada, the Canadian Wildlife Service (CWS) in cooperation with the provinces and territories is responsible for identifying and describing sites worthy of inclusion in the Ramsar List of Wetlands of International Importance, and for ensuring that they are given adequate legislative protection. To date, four Ramsar sites have been identified along the coast of the Hudson Bay marine ecosystem and at least part of each of these wetlands is now protected. This protection is afforded by the McConnell River, Hannah Bay, and Moose River Migratory Bird Sanctuaries and by Polar Bear Provincial Park.

In 1975, the International Biological Programme (IBP) recognized a number of areas of biological, geological, and historical importance in northern Canada that were in urgent need of special protection (Nettleship and Smith [ed.] 1975). Some of these areas lie within or adjacent to the Hudson Bay marine ecosystem. Areas that have since been afforded protection are discussed above. They include the McConnell River (McConnell River Migratory Bird Sanctuary), Twin Islands (Twin Islands Game Sanctuary), and the Boas River (Harry Gibbons Migratory Bird Sanctuary). Areas that were identified but have not yet been protected include the Belcher Islands, Duke of York Bay, the Manitounuk Islands, and Long Island. The latter two areas were identified primarily on the basis of their physiographic features. Coats Island and Digges Sound, which lie just north of the ecosystem boundary, were also identified as IBP sites and key terrestrial habitats for migratory birds. The latter is being considered as a possible bird sanctuary.

The Belcher Islands were selected as an IBP site on the basis of a number of exceptional features, in particular the southerly presence of Arctic flora, endemic population of Hudson Bay eiders, varied marine mammals populations, and archaeological sites (Nettleship and Smith [ed.] 1975). The area has also been recommended for consideration as a new national marine park (Stewart et al. 1993). The CWS has also identified the North Belcher Islands as key terrestrial habitat for birds on the basis of the large nesting colonies of Hudson Bay eiders (Alexander et al. 1991).

Duke of York Bay is in a geological transition zone and offers a wide variety of habitats (Nettleship and Smith [ed.] 1975). It supports a variety of marine mammals and has archaeological sites including some from the recently extinct Sadlermiut Inuit.

The Canadian Wildlife Service has also identified key terrestrial (Alexander et al. 1991) and marine (Mallory and Fontaine 2004) habitats for migratory birds that have not been protected. The terrestrial areas include the Salikuit, Sleeper, and Koktac River archipelagos, which support indigenous populations of Hudson Bay eiders, and northeastern James Bay, which is extremely important for waterfowl including tundra swans, Canada geese, Atlantic brants, and lesser snow geese (see also Dignard et al. 1991; Reed et al. 1996a). Moulting and fall staging dabbling ducks are also very abundant in the latter area (Curtis and Allen 1976; Reed et al. 1996b). The marine areas include waters around the Belcher and Sleeper archipelagos that provide year-round habitat for Hudson Bay eiders (see also Nakashima and Murray 1988; MacDonald et al. 1997; Robertson and Gilchrist 1998; Gilchrist and Robertson 1999, 2000), and along the Ontario coast that provide important moulting habitat for black scoters (see also Ross 1983, 1994).

The marine parks studies have recommended a number of other areas for protection, in particular the estuaries of the Churchill and Nelson rivers for their remarkable concentrations of belugas, and the Rankin Inlet area for its exceptionally dense coastal breeding population of threatened peregrine falcon (Stewart et al. 1991). To this might be added two other “hotspots” of marine activity, one is the area of Hudson Bay north of Churchill where many polar bears concentrate in the winter to hunt seals (Figure 9-8; Stirling et al. 1999). The other encompasses northern Hudson Bay and western Hudson Strait, an area that supports a rich variety of Arctic marine species and was historically an important area for bowhead whales (Figure 12-16; Ross 1979; Mitchell and Reeves 1982; Mercier et al. 1995).

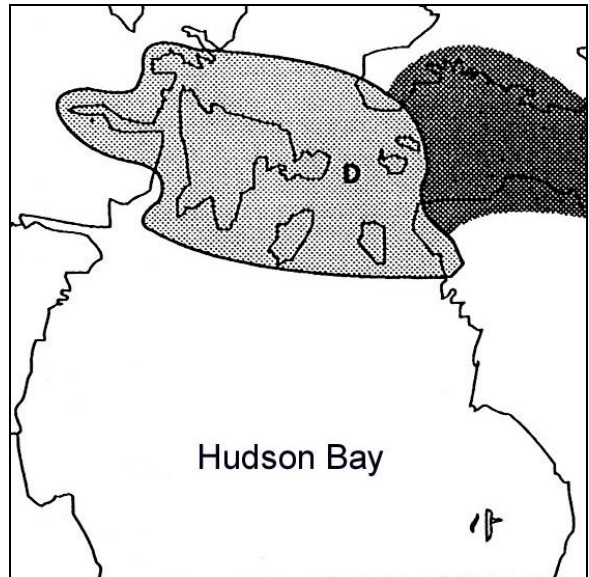


Figure 12-16. A “hotspot” (D) of biological activity identified by participants at the 1994 Arctic Marine Workshop (adapted from Mercier et al. 1995).

12.8 SUMMARY

Marine parks or protected areas have not been established in James Bay or Hudson Bay to protect the remarkable concentrations of beluga whales or other marine biota, although studies have been conducted to recommend areas for consideration. Protection is afforded coastal habitats and wildlife, such as the polar bear, by Wapusk National Park in northern Manitoba and Ukkusiksalik National Park in the Wager Bay area of Nunavut; Polar Bear, Kesagami Tidewater, and Winisk River provincial parks in Ontario; and Ijiraliq Territorial Park near Rankin Inlet in Nunavut. Migratory birds, particularly waterfowl and shorebirds, are protected in the James Bay area by the Boatswain Bay, Hannah Bay, Moose River and Akimiski Island migratory bird sanctuaries, along the Kivalliq coast by the McConnell River Migratory Bird Sanctuary, and on Southampton Island by the Harry Gibbons Migratory Bird Sanctuary. The Twin Islands in northern James Bay are a Territorial Game Sanctuary. A number of key terrestrial and marine habitats for migratory birds and the indigenous Hudson Bay eider are not protected.

York Factory at the mouth of the Hayes River, Prince of Wales Fort near Churchill, and Arvi'juaq near Arviat have been designated National Historic Sites. The Seal River in northern Manitoba is the only river that drains directly into Hudson or James bays that has been designated as a Canadian Heritage River.