

## Protected Areas through Time

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### Abstract

A protected area is a geographically defined area that is designated, regulated and managed to achieve specific conservation objectives. Canada has a long history of establishing protected areas. The first such area, Banff National Park, was created in 1885. Although there was a conscious effort to establish policies to protect land and wildlife in the early years after Confederation, networks of protected areas have been created more systematically in more recent decades as a means to set aside areas free from resource-extraction activities. Over time, an increasing diversity of protected-area types has been created: forest reserves, national parks, wildlife sanctuaries and ecological reserves, to name but a few.

This map illustrates the 1385 protected areas in Canada as of 2007, that are greater than 10 square kilometres and administered by the federal, provincial, territorial and Aboriginal governments. They are classified according to the year they were established, and together illustrate the progression through time in the growth of Canada's protected areas.

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### The Early Years (1885-1928)

The first formally designated conservation areas were established in the latter part of the 19th century. Banff National Park, Canada's first protected area was established after hot springs were discovered on the eastern slopes of Alberta's Rocky Mountains. Today it is the most frequently visited national park in the country.

Last Mountain Lake in Saskatchewan, Canada's first waterfowl refuge, was created in 1887. Last Mountain Lake is an important migratory stopover for hundreds of thousands of birds travelling across the Prairies between their northern breeding grounds and their southern wintering grounds.

In 1893, Ontario was the first province to establish a conservation area: Algonquin Provincial Park. It was followed by Rondeau Provincial Park, also in Ontario, the following year.

The number of protected areas grew during the early part of the 20th century as several laws were established to conserve Canada's land. These included the Northwest Territories Game Act and the Migratory Birds Convention Act (1917). In 1919, the first migratory bird sanctuaries were created under this act. The pressure on wildlife led to the creation of 10 more migratory bird sanctuaries along the north shore of the St. Lawrence River in 1925. The Dominion Parks Branch (now known as the Parks Canada Agency) was established in 1911, the world's first organization

charged with the management of national parks. The first 12 national parks were established during this period.

During the first 60 years after Confederation, Canada and the provinces had established 33 large protected areas. Two-thirds of these were administered by the federal government and the others were provincial conservation areas.

### **The Great Depression and World War II (1929-1945)**

During the 1930s, the Prairies went through a long occurrence of drought. To alleviate the crisis in agriculture, the federal government created more than 30 community pastures to protect native grasslands and provide food for cattle. During the 1930s and early 1940s, the number of protected areas tripled. Most of the newly created protected areas were community pastures located in Saskatchewan and administered by Agriculture Canada's Prairie Farm Rehabilitation Administration. The Saskatchewan government also started a provincial community pasture program. The goal of these community pastures was to provide grazing and breeding opportunities to farmers, promote soil conservation and generally improve the economic development of surrounding areas.

The National Parks Act was passed in 1930 and four national parks were created in Nova Scotia, Prince Edward Island, Manitoba and Ontario during the 1930s. Three large migratory bird sanctuaries were established in the James Bay area between 1939 and 1945.

### **The Post-War Years (1946-1970)**

In the late 1940s, 1950s and 1960s, there was a two-fold increase in the creation of protected areas relative to the previous 16-year period. Half of the newly protected areas were created in Saskatchewan as the community pasture programs, both federal and provincial, continued to expand. Although most of the protected areas were previously administered by the federal government, this trend was reversed as three-quarters of the conservation areas created in this period were provincially administered.

At the federal level, the National Wildlife Policy and Program was put in place in 1966. As a result, many large migratory bird sanctuaries were established in the North, including Queen Maud Gulf, still the largest protected area in Canada today. Two national parks were created in the newly formed province of Newfoundland.

### **Early Environmental Awareness (1971-1991)**

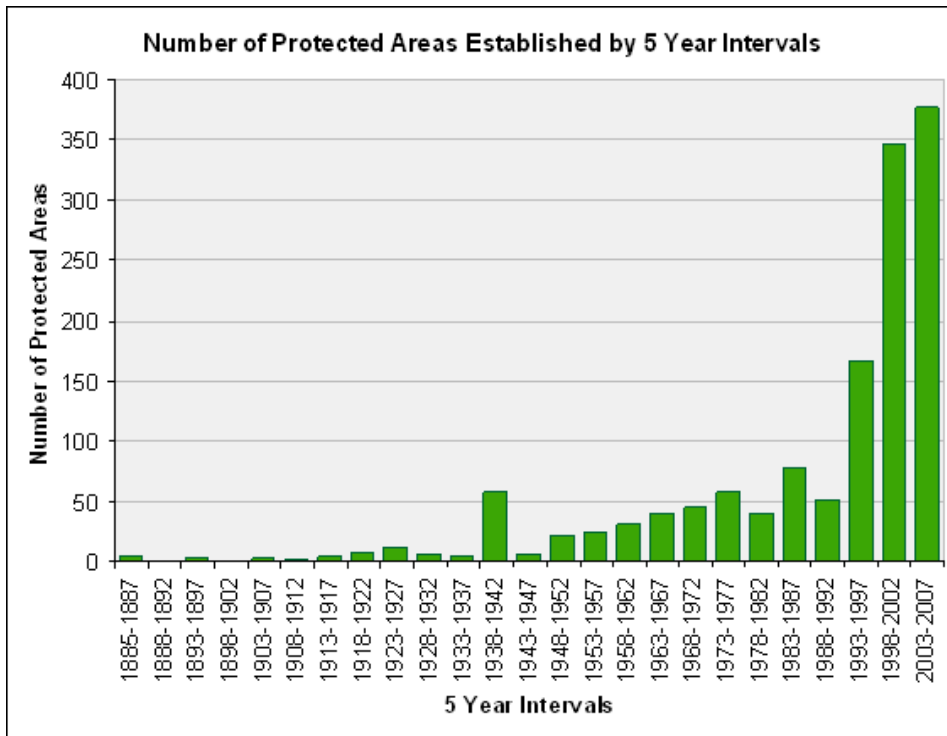
During this period, Canadian conservation groups, such as the Canadian Parks and Wilderness Society and the World Wildlife Fund of Canada, launched an 'Endangered

Spaces' campaign. The campaign's goal was to "establish a network of protected areas representing all natural regions of Canada by the year 2000". The Canadian Wilderness Charter was signed by 600 000 Canadian citizens, making it one of the largest petitions in Canadian history (Monte Hummel et al, 1995). Between 1971 and 1991, the number of protected areas greater than 10 square kilometres almost doubled. Ninety percent of the newly protected areas were created by provincial or territorial governments. British Columbia established 61 protected areas during this period, Ontario created 60, Alberta 23, Saskatchewan 22, Manitoba 13, Quebec 17, the Maritime Provinces 3 and the Yukon 2. Newfoundland created its 17 first provincial protected areas, including Witless Bay Ecological Reserve, the most easterly protected area in Canada.

The Canada Wildlife Act of 1973 gave the Canadian Wildlife Service of Environment Canada authority to purchase land to set aside as National Wildlife Areas, instead of leasing it. Habitat protection evolved to include landscapes other than wetlands, for species other than the waterfowl population. Nine national wildlife areas of more than 10 square kilometres were created during this period. The national parks network continued to expand, with the creation of 13 new parks, including Quttinirpaaq, the most northerly national park; and Kluane and Ivvavik, on the Yukon-Alaska border, the most westerly national parks.

### **Recent Years (1992-2007)**

In 1992, the federal, provincial and territorial ministers of environment met to discuss the protection of Canada's endangered spaces. They produced a statement of commitment to complete Canada's network of protected areas representative of its land-based and marine-based natural regions by the year 2000. This commitment triggered an impressive increase in the number of protected areas, as indicated in the graph below. Within 15 years, the number of protected areas increased by four times, 98 percent of which were provincial or territorial. All of Canada's 10 provinces and 3 territories now have networks of protected areas. Today, close to 1 million square kilometres of Canada's lands, or about 10 percent of the country, are conserved as some form of protected area.



**Figure 1.** Number of Protected Areas Established, by 5-Year Intervals

**Source:** Atlas of Canada 1,000,000 National Framework Data, Protected Areas. V6.0

## Marine Protected Areas

Although Canada is surrounded by three oceans, protection of marine areas and resource inputs have lagged behind when compared to initiatives for terrestrial areas. Some protected areas, such as migratory bird sanctuaries, national wildlife areas and national parks, include important shorelines and marine components. As of 2008, roughly 0.5 percent of Canada's oceans have been included as protected areas, since it is only recently, with the implementation of the Oceans Act in 1997, that exclusively marine protected areas have been legislated. Canada has emphasized national and international commitments to accelerate the growth of its network of marine protected areas.

Since 2000, there have been important changes in the way that some federal, provincial and territorial governments plan and develop their lands and waters, thereby opening up new avenues for protecting the natural capital of Canada. Integrated landscape and seascape management is enabling decision-makers from the private and public sectors to work together to simultaneously identify which lands should be set aside for industrial-resource extraction and which ones should be dedicated for conservation.

## An International Perspective

Canada is not the only country actively working to protect its special places. There have been international commitments for the development of networks of protected areas. In 1972, the Stockholm Declaration from the United Nations Conference on the Human Environment endorsed the protection of representative examples of all major ecosystems as a fundamental requirement for national conservation programs. Since then, the protection of representative ecosystems has become a core principle of conservation biology, supported by key United Nations resolutions-including the World Charter for Nature (1982), the Rio Declaration (1992) and the Johannesburg Declaration (2002). In 2005, member countries to the United Nations Convention on Biological Diversity developed the Programme of Work on Protected Areas, which committed them to complete networks of terrestrial protected areas by 2010, and networks of marine protected areas by 2012. As a signatory to these conventions, Canada has substantially increased the number of its protected areas in the last decades.

## Significant Facts about Canadian Protected Areas

### Banff National Park of Canada, First Protected Area and National Park

Founded in 1885, Banff is Canada's first protected area and national park. It covers 6641 square kilometres of diverse ecosystems along the southwestern border of Alberta. The park spans montane, subalpine and alpine ecosystems. Mountain rivers from major watersheds, such as that of North Saskatchewan, provide clean water and a source of life for many wildlife habitants in the area.



**Figure 2:** Photograph of a Cave and Hot Springs at Cave and Basin, Banff National Park. Banff National Park, First Protected Area and First National Park in Canada, 1885

**Source:** Parks Canada. Photographer: P. McCloskey. 1982. Ref. Number: 09.93.03.31(08).

Web site of Banff National Park of Canada (<http://www.pc.gc.ca/eng/pn-np/ab/banff/index.aspx>)

### **Last Mountain Lake Bird Sanctuary, First Federal Bird Sanctuary**

The first federal bird sanctuary in North America was established in 1887. The 47.3 square kilometre protected area is located in the heart of an important migratory bird stopover that traverses Saskatchewan. In 1982, the area was designated as a wetland of international importance due to its reputation of attracting a wealth of birdlife. More than 280 species of birds have been recorded during migration. This region also provides an appropriate habitat for 9 of Canada's 36 species of vulnerable, threatened and endangered birds.



**Figure 3:** Photograph of Pelicans in Last Mountain Lake Migratory Bird Sanctuary. Last Mountain Lake Migratory Bird Sanctuary, First Bird Sanctuary

**Source:** Environment Canada. Canadian Wildlife Service, photographer: John Dunlop

Web site of the Last Mountain Lake - National Wildlife Area  
(<http://www.mb.ec.gc.ca/nature/whp/nwa/lml/df09s01.en.html>)

### **Algonquin Provincial Park, First Provincial Park**

This provincial park, located in eastern Ontario, was created in 1893 to establish a wildlife sanctuary and to protect the headwaters of the five major rivers that flow from the park. Its vast area of 7630 square kilometres encompasses coniferous and deciduous forests, lakes and rivers. Its many visitors have included artists Tom Thomson and several members of the Group of Seven, whose paintings of park landscapes have captured its rugged wilderness. Algonquin Park was named a national historic site in 1992 in recognition of its heritage values.





**Figure 4:** Photograph of Barron River in Algonquin Provincial Park. Algonquin Provincial Park, First Provincial Park in Canada

**Source:** Parks Canada, Photographer: M. Finkelstein, 2003. Reference number: H.06.02.06.14(14).

Web site of the Algonquin Provincial Park (<http://www.algonquinpark.on.ca/index.html>)

### **Bonaventure Island and Percé Rock Bird Sanctuary, First Migratory Bird Sanctuary**

Established on March 29, 1919, this conservation area is the first migratory bird sanctuary formed after the Migratory Birds Convention Act was signed in 1917. It is a very important nesting ground for seabirds, such as the northern gannet. The area covers 13.6 square kilometres southeast and east of Percé Municipality in Quebec. Tree cover dominates the landscape. Rock outcrops and herbaceous vegetation are two other habitat types on Percé Rock.



**Figure 5:** Photograph of Bonaventure Island. Bonaventure Island and Percé Rock Migratory Bird Sanctuary, First Migratory Bird Sanctuary

**Source:** Photo courtesy of Environment Canada and of photographer Jean-François Rail.



**Figure 6:** Photograph of Percé Rock From Bonaventure Island and Percé Rock Migratory Bird Sanctuary. Bonaventure Island and Percé Rock Migratory Bird Sanctuary, First Migratory Bird Sanctuary  
**Source:** Photo courtesy of Environnement Canada and photographer Jean-François Rail.

Web site of the Migratory Bird Sanctuary in Quebec Area  
(<http://www.qc.ec.gc.ca/faune/faune/html/mbs.html>)

### **Rochers-aux-Oiseaux Bird Sanctuary, First Migratory Bird Sanctuary**

This conservation area was established on March 29, 1919, together with Bonaventure Island and Percé Rock Migratory Bird Sanctuary, under the Migratory Birds Convention Act. Located east of Île Brion in the Gulf of St. Lawrence, Quebec, it is the largest of the three rocky islets that form the sanctuary. The area is surrounded by steep cliffs and largely covered in herbaceous vegetation. It is also a major breeding area for the northern gannet and other seabirds.



**Figure 7:** Photograph of Rochers-aux-Oiseaux Seen From Above. Rochers-aux-Oiseaux Migratory Bird Sanctuary, First Migratory Bird Sanctuary  
**Source:** Photo courtesy of Environment Canada and photographer Jean-François Rail.



Web site of the: Migratory Bird Sanctuary in Quebec Area  
(<http://www.qc.ec.gc.ca/faune/faune/html/mbs.html>)

### **Cypress Hills Interprovincial Park, First Interprovincial Park**

Although this park was established in 1931, it was not until 1989, with the signing of the Cypress Hills Interprovincial Park Agreement by the Alberta and Saskatchewan governments, that Canada's first and only interprovincial park was founded. The area extends across 387.64 square kilometres of fresh springs, pine and spruce forests, and fescue grasslands. During the spring, over 700 plant species blossom. In addition, more than 220 bird species, plus moose, elk and deer, flourish within this diverse landscape.



**Figure 8:** Photograph of Cypress Hills Interprovincial Park, Alberta and Saskatchewan. Cypress Hill Provincial Park, First Interprovincial Park  
**Source:** Photo courtesy of Alberta Parks

Web site of the Cypress Hills Interprovincial Park  
(<http://www.tpr.alberta.ca/parks/cypresshills/chipp.asp>)

### **Stalwart National Wildlife Area, First National Wildlife Area**

Lying in the mixed-grass prairie of Saskatchewan, this wetland complex is surrounded by rolling grasslands. The 15.2 square kilometre protected area was established in 1969. The large wetlands, which are primarily composed of bulrush, cattail, phragmites and whitetop, depend on small streams leading into the marsh to maintain sustainable water levels. The area is also an important spring and fall staging area for ducks, geese, shorebirds and songbirds, with more than 115 bird species having been identified. Given the extensive list of common species, the monitoring of wildlife populations and evaluation of habitat change is critical.



**Figure 9:** Photograph of Flock of Pectoral Sandpipers. Flocks of shorebirds, like these Pectoral Sandpipers, are a common sight on the shallow lakes and marshes of the Canadian Prairies during the spring and fall migration periods. Stalwart National Wildlife Area, First National Wildlife Area.

**Source:** Photo courtesy of G.W. Beyersbergen, Canadian Wildlife Service, Environment Canada.



**Figure 10:** Photograph of a Pectoral Sandpiper. Stalwart National Wildlife Area, First National Wildlife Area

**Source:** Photo courtesy of G.W. Beyersbergen, Canadian Wildlife Service, Environment Canada.

Web site of the Stalwart National Wildlife Area  
(<http://www.mb.ec.gc.ca/nature/whp/nwa/df06s08.en.html>)

### **Nahanni National Park Reserve of Canada, First Natural World Heritage Site in Canada**

This national park reserve, which covers 4765.2 square kilometres of northern wilderness rivers, canyons, gorges and alpine tundra, was granted World Heritage status by the United Nations Educational, Scientific and Cultural Organization (UNESCO) in 1978. Dominated by boreal forest, there is a distinct transition from

lowland wet areas to alpine tundra. The area is known to have the richest diversity of vegetation of any area of comparable size in the Northwest Territories.



**Figure 11:** Photograph of the Nahanni River and the Third Canyon. Nahanni River and Third Canyon, a 40 kilometre stretch which gashes through the mountains of the Funeral Range, Nahanni National Park of Canada. Nahanni National Park Reserve of Canada, First Natural World Heritage Site in Canada.

**Source:** Parks Canada, Ref. number: 12.120.03.12(27)

Web site of the Nahanni National Park Reserve of Canada ([http://www.pc.gc.ca/pn-np/nt/nahanni/index\\_E.asp](http://www.pc.gc.ca/pn-np/nt/nahanni/index_E.asp))

### **Saguenay–St. Lawrence Marine Park, First Federal-Provincial Marine Protected Area**

Established in 1998, Saguenay–St. Lawrence Marine Park has the distinction of being managed jointly by Parks Canada and Parcs Québec in association with local groups. Representing the St. Lawrence estuary marine natural region, the park is 1138 square kilometres in size and is exclusively marine. This is a unique natural environment where the waters of the world's largest estuary mingle with those of the longest fjord in Eastern Canada. This encounter between the St. Lawrence estuary and the Saguenay fjord, in combination with a seabed topography that rises rapidly from a depth of 350 metres to 25 metres, produces significant biological diversity. Five cetacean species inhabit the waters of the marine park, including the St. Lawrence beluga, a protected species. In all, more than fifteen species of marine mammals have been reported, as well as a diversity of seabirds and varied invertebrate communities.



**Figure 12:** Photograph of Polar Sea Stars in the Saguenay–St. Lawrence National Marine Park. Marine floor of the Saguenay–St. Lawrence Marine Park. Saguenay–St. Lawrence National Marine Park, First Federal/Provincial Protected Area.

**Source:** Parks Canada, Photographer: L. Falardeau. 2006. Ref. number: 05.53.10.14(34).

Web site of Parks Canada's Saguenay–St. Lawrence Marine Park  
(<http://www.pc.gc.ca/eng/amnc-nmca/qc/saguenay/index.aspx>)

### **Queen Maud Gulf Bird Sanctuary, Largest Protected Area**

Established in 1961, this site is the largest federally owned protected area in Canada, encompassing some 61 765 square kilometres of the Arctic Circle coastline. Of this total area, 6 710 square kilometres are marine and 55 055 square kilometres are terrestrial. Under the terms of the Ramsar Convention, the site was designated a wetland of international importance. Vast rolling lowlands and countless streams, ponds and shallow lakes are interspersed with expanses of low Arctic tundra and marshes. In 1982, 450 000 geese nested in the sanctuary, representing one of the largest concentrations of geese on Earth.



**Figure 13:** Photograph of a Drake King Eider on the Shore of a Lake in Queen Maud Gulf Migratory Bird Sanctuary. Queen Maud Gulf Migratory Bird Sanctuary, Largest Protected Area

**Source:** Environment Canada. Canadian Wildlife Service, Dana Kellet Photographer

Web site of the Queen Maud Gulf Migratory Bird Sanctuary  
(<http://www.mb.ec.gc.ca/nature/whp/ramsar/df02s03.en.html>)

### **Wood Buffalo National Park of Canada, Largest National Park**

Straddling the boundary between Alberta and the Northwest Territories, this site is Canada's largest national park and one of the largest in the world, covering 44 802 square kilometres. The park was established in 1922 to protect the last remaining free-roaming bison herds in northern Canada. As a remote wilderness park and World Heritage Site, Canadians and international visitors alike are attracted to the unique cultures, landscapes and wildlife of the boreal north.



**Figure 14:** Photograph of Wood Buffaloes Grazing in a Plain at the Wood Buffalo National Park. Wood Buffalo National Park of Canada, Largest National Park

**Source:** Parks Canada, photographer: W. Lynch, 1987. Ref number: 09.90.10.01(98).

Web site of Wood Buffalo National Park of Canada ([http://www.pc.gc.ca/pn-np/nt/woodbuffalo/index\\_E.asp](http://www.pc.gc.ca/pn-np/nt/woodbuffalo/index_E.asp))

### **Thelon Game Sanctuary, Largest Jointly Managed Game Sanctuary**

Straddling the boundary of the Northwest Territories and Nunavut, the Thelon Game Sanctuary covers 55 800 square kilometres. It was founded in 1927, mainly to protect the muskox population. Located in the Low Arctic ecoregion, the sanctuary represents one of the areas with the most significant mammal populations in the tundra. It is important to the ranges of caribou, moose and muskox. It is comanaged by the Nunavut and Northwest Territories governments, Aboriginal associations and the Government of Canada.



**Figure 15:** Photograph of Muscox in Snow. Thelon Game Sanctuary, Largest Jointly Managed Protected Area

**Source:** Photo courtesy of Canadian Wildlife Service, Hinterland Who's Who Photo Collection, Environment Canada.

Web site of the Thelon Wildlife Sanctuary  
([http://64.26.129.36/on\\_the\\_land/thelon\\_wildlife\\_about.cfm](http://64.26.129.36/on_the_land/thelon_wildlife_about.cfm))

### **Polar Bear Provincial Park, Largest Provincial Park**

This isolated wilderness park is located on the southwestern shore of Hudson Bay in Ontario. Established in 1998, Polar Bear Park is Canada's largest provincial park, covering 23 552 square kilometres. Its primary purpose is to protect wildlife habitat, especially that of the several hundred polar bears that migrate through the area. The park is also the habitat of the woodland caribou, moose, marten, fox, beaver, goose and black bear. Seals, walruses, beluga and white whales frequent coastal areas. Subarctic conditions prevail in the Hudson Plains ecozone, the largest wetland in the world. The park is accessible only by air and special permission is required for entrance.



**Figure 16:** Photograph of a Polar Bear in Snow. Polar Bear Provincial Park, Largest Provincial Park



**Source:** Environment Canada. Hinterland Who's Who Photo Collection. Photo courtesy of the Canadian Wildlife Service. Photographer: Bev McMullen.

Web site of the Polar Bear Ontario Park (<http://www.ontarioparks.com/english/pola.html>)

### **Christie Islet Bird Sanctuary, Smallest Protected Area**

This migratory bird sanctuary is located on a small island in Howe Sound, near Vancouver, British Columbia. The island is 30 metres by 30 metres of solid rock that extends from the sea to a height of approximately 20 metres. Abundant grasses and serviceberry are found in crevices and gullies formed by weathering of the rock surface. The island's habitat types include barren rock, bluffs, crevices, boulders and shrubs.



**Figure 17:** Photograph of Christie Islet Migratory Bird Sanctuary. Christie Islet Migratory Bird Sanctuary, Smallest Protected Area

**Source:** Photo courtesy of Gerry Mitchell, Environment Canada, Canadian Wildlife Service.

Web site of the Canadian Wildlife Service, Habitat Conservation, Migratory Bird Sanctuaries - British Columbia (<http://www.cws-scf.ec.gc.ca/habitat/default.asp?lang=en&n=04AEF3A2>)

### **Endeavour Hydrothermal Vents Marine Protected Area, First and Farthest Offshore Protected Area**

Announced in 2003, the Endeavour Hydrothermal Vents is the first marine protected area established under the Oceans Act. As part of the Juan de Fuca Ridge system, this site lies 2250 metres beneath the ocean, 250 kilometres southwest of Vancouver Island. Diverging tectonic plates along an active seafloor spreading zone underlie an area of 97 square kilometres where new oceanic crust is being extruded onto the seafloor. The hydrothermal vents support an abundance of flora and fauna, and host one of the highest levels of microbial diversity on earth.



**Figure 18:** Photograph of the Endeavour Hot Vents. Endeavour Hydrothermal Vents Marine Protected Area, Furthest Offshore Protected Area

**Source:** Photo courtesy of Fisheries and Oceans. V. Tunnicliffe, Photographer.

Web site of the Endeavour Hydrothermal Vents Marine Protected Area  
([http://www.pac.dfo-mpo.gc.ca/oceans/mpa/Endeavour\\_e.htm](http://www.pac.dfo-mpo.gc.ca/oceans/mpa/Endeavour_e.htm))

### **Gully Marine Protected Area, Deepest Protected Area**

The Gully is the largest underwater canyon in eastern North America. Situated 200 kilometres off the coast of Nova Scotia, the Gully cuts a deep gash into the continental shelf that surrounds the Atlantic Provinces. The canyon ecosystem was protected in 2004 as the first Oceans Act Marine Protected Area (MPA) on the east coast. Depths in the MPA drop quickly from tens of metres on the sandy flanks of the canyon to 3140 metres where the main channel cuts into the continental slope. The 2364 square kilometres of the MPA contain a wide range of oceanic environments that support diverse biological communities in the surface, midwater and seabed habitats. The Gully is perhaps best known for its resident population of endangered northern bottlenose whales and deep sea coral. Those portions of the Gully MPA deeper than 600 metres remain relatively untouched by human activities.



**Figure 19:** Photograph of Bubblegum Corral, paragonia arborea. Gully Marine Protected Area, Deepest Protected Area

**Source:** Photo courtesy of Fisheries and Oceans Canada.

Web site of the Gully Marine Protected Area (<http://www.mar.dfo-mpo.gc.ca/oceans/e/essim/gully/essim-gully-e.html>)

### **Witless Bay Seabird Ecological Reserve, Most Easterly Protected Area**

The Witless Bay Seabird Ecological Reserve was established in 1983 and encloses four islands: Gull, Green, Great and Pee Pee islands. Adjacent to the east coast of Newfoundland's Avalon Peninsula and approximately half an hour south of St. John's, these islands cover an area of 31 square kilometres. The reserve contains North America's largest Atlantic puffin colony and it also hosts the second-largest Leach's storm petrel colony in the world. Access to this area is generally strictly prohibited and requires a scientific research or special access permit.



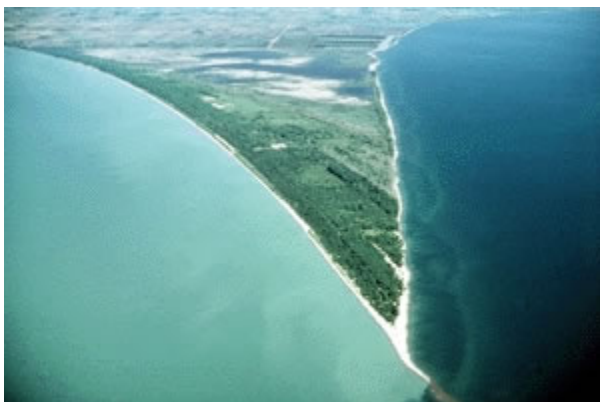
**Figure 20:** Photograph of an Atlantic Puffin. Witless Bay Ecological Reserve, Most Easterly Protected Area

**Source:** Environment Canada. Photo courtesy of the Canadian Wildlife Service. Hinterland Who's Who Photo Collection.

Web site of the Witless Bay Ecological Reserve ([http://www.env.gov.nl.ca/parks/wer/r\\_wbe/](http://www.env.gov.nl.ca/parks/wer/r_wbe/))

### **Point Pelee National Park of Canada, Most Southerly Protected Area**

Established in 1918 and recognized as one of Canada's smallest national parks, this park covers 15 square kilometres of diverse natural ecozones approximately 50 kilometres southeast of Windsor, Ontario. Although it was primarily founded to protect migratory birds, it is also the only national park representative of the Carolinian zone, a region inhabited by many at-risk species characteristic of more southerly regions.



**Figure 21:** Aerial Photograph of the Tip of Pelee Point. Point Pelee National Park of Canada, Most Southerly Protected Area

**Source:** Parks Canada. Photographer: C. Lamiruy. Ref. number 06.62.03.33(18).

Web site of the Point Pelee National Park of Canada (<http://www.pc.gc.ca/eng/pn-np/on/pelee/index.aspx>)

### **Quttinirpaaq National Park of Canada, Most Northerly Protected Area**

This national park covers 37 775 square kilometres across the northernmost reaches of Nunavut. A wide variety of rocks formed over the area more than one billion years ago. Located in the Canadian Arctic, resident wildlife species are often migratory. Colonies of seabirds and herds of arctic hares are commonly found in this harsh environment. Due to prevailing wind, snow and ice patterns, most of the park is an Arctic desert where vegetation cover is sparse and soil development is minimal.



**Figure 22:** Photograph of Tanquary Fjord in Quttinirpaaq National Park. Quttinirpaaq National Park of Canada, Most Northerly Protected Area

**Source:** Parks Canada. Phtotographer: W. Lynch. 1996. Ref. number: 13.02.03.19(32).

Web site of Quttinirpaaq National Park of Canada (<http://www.pc.gc.ca/eng/pn-np/nu/quttinirpaaq/index.aspx>)

## **Four large protected areas are located along the Yukon-Alaska border, the western limit of Canada (141°W)**

### **Asi Keyi Natural Environment Park, Most Westerly Territorial Protected Area**

Asi Keyi Natural Environment Park, adjacent to both Kluane National Park in the Yukon and Wrangell–St. Elias National Park in Alaska, covers 3021 square kilometres. It encompasses a stunning landscape of dynamic alpine glaciers, and includes a portion of the Chisana Caribou Herd range, numerous rare plant species and ecosystems shaped by deep and coarse volcanic ash. A notable feature is the white spruce forest that grows at the terminus of the Klutlan Glacier. Asi Keyi was established through the Kluane First Nation Land Claim agreement and is to be designated under the Yukon Parks and Land Certainty Act, following management planning.



**Figure 23:** Photograph of a white spruce forest at the terminus of Klutlan glacier in Asi Keyi Natural Environment Park in Yukon. Asi Keyi Natural Environment Park, Most Westerly Protected Area

**Source:** Photo courtesy of the Yukon Government, Photographer John Meikle.

Web site of Asi Keyi Territorial Park

(<http://www.environmentyukon.gov.yk.ca/parksconservation/AsiKeyiTerritorialPark.php>)

### **Kluane National Park and Reserve of Canada, Highest Protected Area**

Set in a region of high mountains, immense icefields and lush valleys of the Yukon, this park covers an area of 22 013 square kilometres. As part of Canada's North Coast Mountains, this national park is home to Mount Logan, the highest peak in Canada. Climatic overlap of the Pacific and Arctic air masses has resulted in a great diversity of plants and wildlife in this part of Northern Canada. Much of the lower valleys and slopes is covered in a montane forest of spruce, aspen and poplar. The park provides prime habitat for many species of wildlife, such as the Dall sheep, the most abundant large mammal in the area.





**Figure 24:** Photograph of Mount Logan. Mount Logan, highest summit in Canada, located in the Icefield Range of the St. Elias Mountains. Kluane National Park and Reserve of Canada, Highest and most Westerly Protected Area.

**Source:** Parks Canada, Beedell, M, photographer, 1980. Ref. Number: 11.110.03.10(543).

Web site of the Kluane National Park and Reserve of Canada (<http://www.pc.gc.ca/eng/pn-np/yt/kluane/index.aspx>)

### **Ivvavik National Park of Canada, First National Park Created after an Aboriginal Land Claim Agreement**

Recognized as the first national park created as a result of an Aboriginal land claim agreement, this park covers an area of 10 170 square kilometres in the Yukon. The Arctic landscape, comprising the Yukon Coastal Plain and the British Mountains, is part of Beringia, a vast region that remained ice free during the last glacial event, which spans most of the northern Yukon and central and northern Alaska, and extends well into Siberia. Other prominent features include the Firth River, the coastal plain extending from the Buckland Hills to the Arctic Ocean, and the Beaufort Sea. Arctic and alpine tundra are the most common types of vegetation growing on the permafrost soils of the park. Although the winter season is long, the region supports a wide range of animal life. Many of the resident species migrate between vegetation zones and therefore depend on the harsh environments to survive.





**Figure 25:** Photograph of Firth River Canyon and British Mountains in Ivvavik National Park. Ivvavik National Park of Canada, Most Westerly Protected Area  
**Source:** Parks Canada: W. Lynch photographer. 1991. Reference Number:11.111.03.02(02).

Web site of Ivvavik National Park of Canada (<http://www.pc.gc.ca/eng/pn-np/yt/ivvavik/index.aspx>)

### **Vuntut National Park of Canada, Most Westerly Protected Area**

Established in 1995 following extensive negotiations with the Vuntut Gwitchin of Old Crow and the Governments of Canada and the Yukon, this park covers an area of 4345 square kilometres. The northern ecosystem is defined in part by the Porcupine Caribou Herd, one of the largest in North America. An abundance of migratory wildlife can be found, such as the half million birds that use the Old Crow Flats as annual breeding grounds. Other wildlife species that can be found in the park include muskrats, grizzly bears, wolves and ground squirrels.



**Figure 26:** Oblique Aerial Photo of Old Crow Flats in Vuntut National Park of Canada. Vuntut National Park of Canada, Most Westerly Protected Area  
**Source:** Parks Canada. Photographer; MacNeil, I.K. 1976. Reference Number: 11.112.03.23(21).

Web site of Vuntut National Park of Canada (<http://www.pc.gc.ca/eng/pn-np/yt/vuntut/index.aspx>)

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## Definition of underlined terms

**Continental Shelf:** The submerged part of the continents, extending from the low-water line to a depth at which there is a marked increase of slope toward greater depths. Source: Grand dictionnaire terminologique. Office québécois de la langue française

**Ecoregion:** Part of an ecoprovince characterized by ecological reactions particular to climate, soil, flora, fauna, water, etc. (Source: Wiken, E. B. Environment Canada, Lands Directorate, 1986)

**Ecozone:** An area of the earth's surface that represents a large ecological zone and has characteristic landforms and climate.

**Ramsar sites:** Ramsar sites are wetlands designated of international importance under The Convention on Wetlands, signed in Ramsar, Iran, in 1971. The Convention on Wetlands is an intergovernmental treaty which provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. Many Migratory Bird Sanctuaries and National Wildlife Areas are designated as Ramsar sites.

**Tectonic plate:** Broad thick plate composed of areas of both continental and oceanic crust and mantle. (Source: The Encyclopaedic Dictionary of Physical Geography, edited by Andrew Goudie et al. Blackwell Reference Ltd. Oxford, 1985.)

**Terminus** (of a glacier): (Also called glacial front) The protruding lower extremity, leading edge, or front of a glacier. Source: Glossary of geology / Robert L. Bates and Julia A. Jackson, editors. -- Falls Church, Va.: American Geological Institute, 1980. 2d ed.

## Map Sources

### Protected Areas by Year Established

The protected areas data originate from the Canadian Council on Ecological Areas (CCEA) and its members, representing all Canadian provinces, territories and the federal government. Environment Canada's Canadian Wildlife Service compiled spatial and attribute data for protected areas that were larger than 1000 hectares, and provided the data to the Atlas of Canada. The Atlas of Canada integrated and generalized the protected areas data for national scales of 1:1 000 000 and smaller.

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Ontario Parks. 2008. Polar Bear Provincial Park. <http://www.ontarioparks.com/english/pola.html>

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UNESCO World Heritage <http://whc.unesco.org/en/about/>

World Wildlife Fund Canada <http://www.wwf.ca/>

## **Related Web sites (1999 – 2009)**

### **Federal Government**

Department of Justice Canada, Justice Laws Web Site

<http://laws.justice.gc.ca/eng/UpdateNotice/index.html?rp14=%2Fen%2Findex.html>

The Department of Justice Canada is responsible for and provides access to the Acts and regulations of Canada.

Environment Canada. Canadian Wildlife Service

[http://www.cws-scf.ec.gc.ca/index\\_e.cfm](http://www.cws-scf.ec.gc.ca/index_e.cfm)

The Canadian Wildlife Service of Environment Canada handles wildlife matters that are the responsibility of the federal government. These include protection and management of migratory birds as well as nationally significant wildlife habitat. The site links to protected areas for all regions in Canada.

Fisheries and Oceans Canada

<http://www.dfo-mpo.gc.ca/index-eng.htm>

Fisheries and Oceans Canada is the federal Ministry responsible for policies and programs relating to fisheries and oceans.

Fisheries and Oceans Canada. Marine Protected Areas

<http://www.dfo-mpo.gc.ca/oceans/marineareas-zonesmarines/mpa-zpm/index-eng.htm>

The Oceans, Habitat and Species at Risk sector of Fisheries and Oceans Canada provides information on Marine Protected Areas.

Government of Canada. Species at Risk Public Registry

[http://www.sararegistry.gc.ca/default\\_e.cfm](http://www.sararegistry.gc.ca/default_e.cfm)

Canada's Species at Risk Public Registry gives information on the country's approach, decisions and activities to protect and recover species at risk.

Hinterland Who's Who. Issues and topics: Environment Canada's Protected Areas Network

<http://www.hww.ca/hww2.asp?id=231>

Canada's Protected Areas Network provides news, information and educational resources regarding protection of Canada's wildlife.

Parks Canada

<http://www.pc.gc.ca/eng/index.aspx>

Parks Canada agency seeks to protect and present Canada's natural and cultural heritage

### **Provincial/Territorial Government**

Alberta Government, Sustainable Resource Development.

<http://srd.alberta.ca/>

Alberta Government, Tourism, Parks and Recreation.

<http://tpr.alberta.ca/parks/default.aspx>

Alberta Government, Tourism, Parks and Recreation. Managing Parks and Protected Areas.

<http://www.tpr.alberta.ca/parks/managing/flashindex.asp>

Gouvernement du Québec, Ressources naturelles et Faune

<http://www.mrnf.gouv.qc.ca/english/home.jsp>

Gouvernement du Québec, Ressources naturelles et Faune. Stratégie québécoise sur les aires protégées. (in French only)

<http://www.mrnf.gouv.qc.ca/aires/index.jsp>

Government of British Columbia. Ministry of Environment. BCParks

<http://www.env.gov.bc.ca/bcparks/>

Government of British Columbia. Ministry of Environment. Environmental Stewardship Division

<http://www.env.gov.bc.ca/esd/>

Government of Manitoba. Parks and Natural Areas

<http://www.gov.mb.ca/conservation/parks/>

Government of Manitoba. Protected Areas Initiative

<http://www.gov.mb.ca/conservation/pai/establishing/>

Government of Newfoundland and Labrador, Environment and Conservation

<http://www.env.gov.nl.ca/env/>

Government of Newfoundland and Labrador, Environment and Conservation, Parks and Natural Areas Division

<http://www.env.gov.nl.ca/parks/parks/>

Government of Nova Scotia, Environment, Air, Land, Water

<http://www.gov.ns.ca/nse/topics.asp>

Government of Nunavut. Department of Environment

<http://www.gov.nu.ca/env/environment.shtml>

Government of Nunavut. Nunavut Parks

<http://www.nunavutparks.com/>

Government of Ontario. Ministry of Natural Resources.

[http://www.mnr.gov.on.ca/en/STEL02\\_168322.html](http://www.mnr.gov.on.ca/en/STEL02_168322.html)

Government of Ontario. Ministry of Natural Resources. Ontario Parks

<http://www.ontarioparks.com/english/index.html>



Government of Prince Edward Island, Environment, Energy and Forestry  
<http://www.gov.pe.ca/envengfor/index.php3?number=77998&lang=E>

Government of Prince Edward Island. Tourism Department  
<http://www.tourismpei.com/index.php3>

Government of Saskatchewan. Provincial Parks  
<http://www.gov.sk.ca/Default.aspx?DN=99c3c562-1b20-4cc1-9174-4310be1ea7b9>

Government of the Northwest Territories. Industry, Tourism and Investment.  
Tourism and Parks  
<http://www.iti.gov.nt.ca/tourismparks/>

Government of the Northwest Territories. Land and Environment  
<http://www.gov.nt.ca/agendas/land/index.html>

Government of Yukon. Environment Yukon. Yukon Parks  
<http://www.environmentyukon.gov.yk.ca/parks.php>

Nature's Resorts Nova Scotia Provincial Parks  
<http://www.novascotiaparks.ca/default.asp>

New Brunswick, Department of Environment  
<http://www.gnb.ca/0009/index-e.asp>

Parcs Québec  
[http://www.sepaq.com/pq/index.dot?language\\_id=1](http://www.sepaq.com/pq/index.dot?language_id=1)

The Government of Yukon. Parks and conservations  
<http://environmentyukon.gov.yk.ca/parksconservation/>

The Official Parks Website of the Province of New Brunswick  
<http://www.tourismnewbrunswick.ca/Home/Destinations/Parks/ProvincialParks.aspx>

## **Other**

Canadian Council on Ecological Areas  
<http://www.ccea.org/>

Convention on Biological Diversity  
<http://www.cbd.int/>

Ducks Unlimited Canada. Conserving Canada's Wetlands  
<http://www.ducks.ca/index.html>

Ducks Unlimited Canada is a private, non-profit organization committed to wetland and associated habitats conservation.

Nature Conservancy Canada  
[http://www.natureconservancy.ca/site/PageServer?pagename=ncc\\_main](http://www.natureconservancy.ca/site/PageServer?pagename=ncc_main)

The Nature Conservancy of Canada is a private non-profit land conservation organization that partners with corporate and individual landowners to protect Canada's most important natural treasures through land donation, purchase and conservation easement.

**The Ramsar Convention on Wetlands**

[http://www.ramsar.org/cda/en/ramsar-home/main/ramsar/1%5e7715\\_4000\\_1\\_\\_](http://www.ramsar.org/cda/en/ramsar-home/main/ramsar/1%5e7715_4000_1__)

**United Nations Environment Programme (UNEP).**

<http://www.unep.org/>

The United Nations Environment Programme web site provides access to various documents including: Stockholm Declaration from the United Nations Conference on the Human Environment (1972), Rio Declaration (1992) and Johannesburg Declaration (2002).

**World Charter for Nature**

<http://sedac.ciesin.org/entri/texts/world.charter.for.nature.1982.html>

**World Wildlife Fund**

<http://www.panda.org/>

World Wide Fund for Nature is a non-for-profit organization whose goal is to conserve the world's biological diversity, ensure that the use of renewable natural resources is sustainable and reduce pollution and wasteful consumption.