



Master Plan



Parc national Kuururjuaq



LE
NORD
POUR TOUS

Québec

Master Plan



Parc national Kuururjuag

This master plan was produced by:

Ministère du Développement durable, de l'Environnement,
de la Faune et des Parcs
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A Word from the Minister



The mission of Québec's national parks is to ensure for the benefit of current and future generations the permanent protection and preservation of territories that are representative of Québec's natural regions or outstanding natural sites, in particular because of their biological diversity, and make them accessible to the public for educational and extensive recreation purposes. Moreover, education on the natural environment and outdoor activities are becoming increasingly popular and parks are playing an essential role since they contribute to Quebecers' quality of life.

V

Since the adoption in 1977 of the *Parks Act*, the Québec government has created 25 national parks. The parks are established according to criteria recognized by the International Union for Conservation of Nature (IUCN) and are thus protected from the commercial and industrial exploitation of their forest, mineral or energy resources. Furthermore, hunting is prohibited there as is the presence of oil and gas pipelines and power transmission lines. These restrictive measures enable the protected territories to preserve their natural heritage intact for future generations.

What is more, the Québec government deems the establishment of Parc national Kuururjuaq to be in keeping with the implementation of the *Partnership Agreement on Economic and Community Development in Nunavik (Sanarrutik)*. The agreement, concluded between the Makivik Corporation, the Kativik Regional Government (KRG) and the Québec government, is intended, among other things, to support tourism development in Nunavik and calls for the creation of national parks.

Yves-François Blanchet
Minister of Sustainable Development,
Environment, Wildlife and Parks



While two hunters were hunting caribou, Tuunngaq appears in front of them. Tuunngait are evil will meaning spirits.

Stonecut Print, 2004. 22/50

Drawing

Tivi Etok (1929-), Kangiqsualujjuaq

Cutting and printing

Peter Morgan (1950-), Kangiqsualujjuaq

Kativik Regional Government



Introduction



1

The Torngat Mountains, the highest mountain chain in eastern continental Canada, are located at the tip of the peninsula separating Ungava Bay and the Labrador Sea. The mountainous region is a mythical place that is apparently inhabited by spirits that the Inuit have feared or venerated. The spectacular scenery is similar to that in the Rockies in western Canada but is also unique because of the presence of numerous fjords that jut out from the mountains. The Koroc River originates here, hemmed in by a deep valley and flowing over more than 160 km toward Ungava Bay. The Inuit have used this valley, which they call Kuururjuaq, for thousands of years as a transportation corridor linking the Ungava Bay coast to the Labrador Sea. The centre of the wooded Koroc Valley is like an oasis in the heart of the tundra and displays floristic and faunal diversity that is unusual at this latitude.

Parc national Kuururjuaq is the 23rd park established in the network of Québec national parks. This unique, immense territory, which is at once austere and grandiose and with

which Quebecers are hardly familiar reveals to what extent nature in Québec is spectacular.

THE PURPOSE OF ESTABLISHING PARC NATIONAL KUURURJUAQ

In the 1982 *Politique sur les parcs québécois*, the Ministère du Loisir, de la Chasse et de la Pêche (MLCP) announced its intention to establish a network of parks in order to protect representative or outstanding components of Québec's natural heritage. The Ministère du Développement durable, de l'Environnement, de la Faune et des Parcs (MDDEFP) participated in giving a concrete expression to the project by creating Parc national Kuururjuaq in order to protect a territory that is representative of the Torngat Mountain Foothills natural region (B-43) and outstanding components (see Map 1). The park also adjoins two other natural regions, i.e. the George River Plateau natural region (B 33) and the Ungava Coast natural region (B 42).

The park is also intended to promote the discovery and appreciation of Québec's natural and cultural heritage. Lastly, through the establishment of Parc national Kuururjuaq, the government is confirming its intention to associate the Inuit with the protection, development and management of the territory. An agreement has been concluded for this purpose with the Kativik Regional Government (KRG).

HISTORICAL BACKGROUND OF THE CREATION OF PARC NATIONAL KUURURJUAQ

The idea of creating a park in the Torngat Mountains and Koroc River region dates from the early 1980s. In 1977, Québec adopted a framework law on parks that enabled it to create parks according to criteria recognized by the International Union for Conservation of Nature (IUCN). From that point until the early 1980s, the Ministère du Tourisme, de la Chasse et de la Pêche, which was then responsible for parks, revised the boundaries and vocation of existing parks. It adopted a policy and tools to select sites to complement its long-term initiatives and designated, among the other territories under its responsibility, those that it wished to integrate into Québec's network of national parks.

In 1982, a working group (Pitsiataugik) in the MLCP drew up a list of several territories in Northern Québec that might warrant protected status. The sites were selected according to their spectacular nature, the diversity of their biophysical components and their outstanding or rare nature. As a result of the analysis, the territory encompassing the Koroc River and part of the Torngat Mountains was deemed to be suited for the establishment of a national park.

Between 1980 and 1986, the government created 14 national parks south of the 49th parallel in the part of Québec the most extensively subject to natural resource development and the greatest environmental pressure. It subsequently imposed a moratorium on the establishment of new parks in order to consolidate and develop the existing parks.

In 1989, the MLCP submitted to the Comité ministériel permanent de l'aménagement, du développement régional et de l'environnement (COMPADRE) a brief devoted to sites of interest in Québec's territory located north of the 49th parallel in order for the Ministère de l'Énergie et des Ressources (MER) to include them as proposed parks in the plan to allocate public lands then being elaborated. The objective was to protect from forest, mining and energy

resource development sites representative of Northern Québec's natural regions or with special features, a transition measure until the Québec government was able to legally grant them park status.

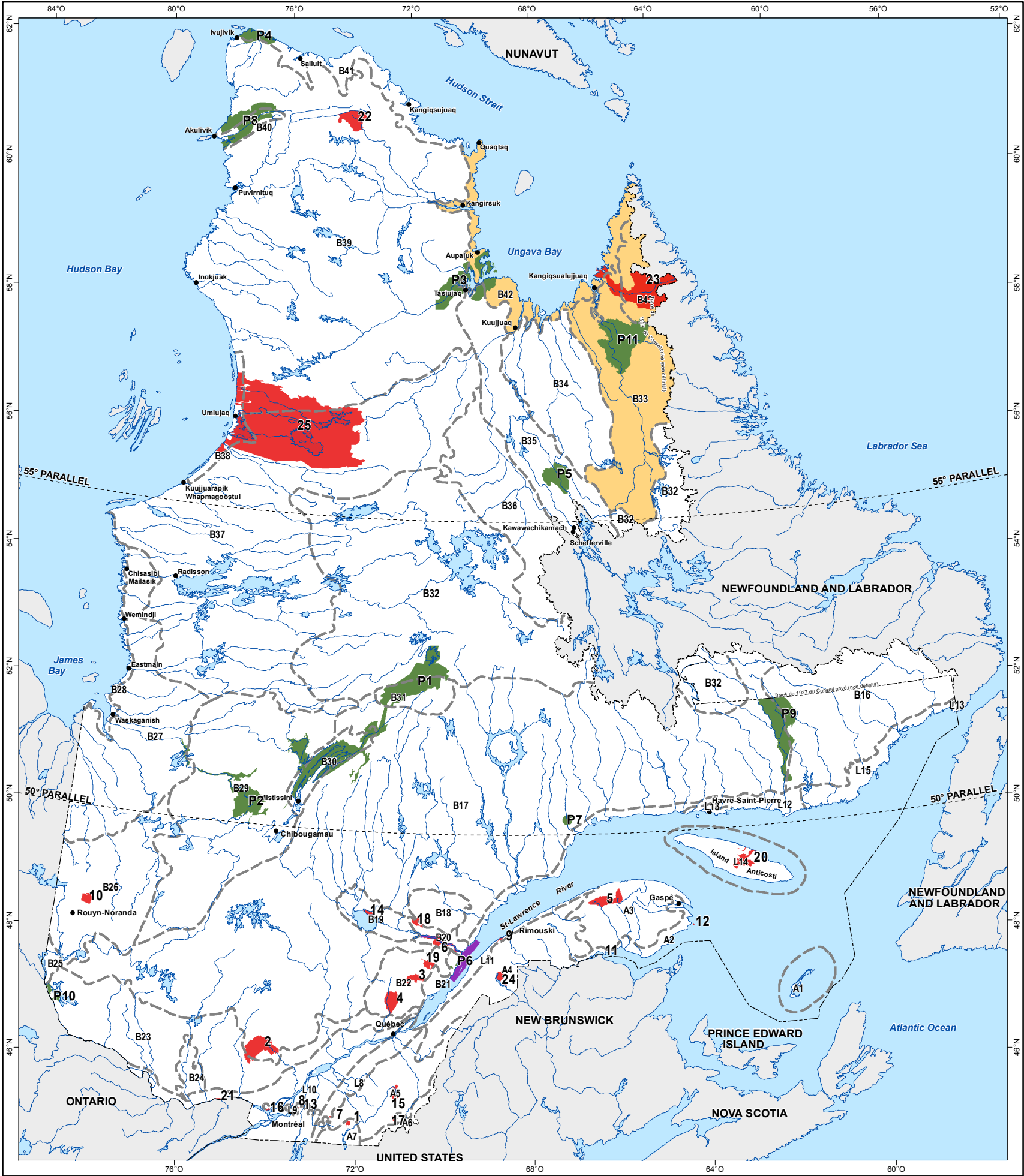
In 1990, in the wake of an interdepartmental consultation, the COMPADRE approved the 18 projects that the MLCP submitted and asked the MER to include the sites in the public lands land-use plan.

In 1992, the territory designated to protect the Koroc River and part of the Torngat Mountains were included in the second group of territories that were set aside north of the 49th parallel as parks and thereby withdrawn by a Ministerial Order of the MER (M.O. 92 170 [15 July 1992], 1992 G.O.2., 4596, eff 1992 06 18) from staking, map designation, mining exploration and mining operations.

The same year, the MLCP unveiled *La nature en héritage*, its action plan on parks. The plan marked an important step in the recent history of Québec parks. It ended the moratorium and called for a significant increase in the areas to be protected by means of park status. Among other things, it confirmed the MLCP's intention to create in Nunavik Parc des Monts-Torngat-et-de-la-Rivière-Koroc and its desire to more closely associate the region with the park's development and management. It specified that the MLCP first intended to consult the communities concerned and ensure that its projects conformed to the *James Bay and Northern Quebec Agreement* (JBNQA).

Steps were subsequently undertaken involving the committees stemming from the JBNQA. Accordingly, the Hunting, Fishing and Trapping Coordinating Committee (HFTCC) adopted a resolution in favour of the proposed parks in the North provided that beneficiaries' utilization rights were respected, as stipulated in Chapter 24 of the JBNQA and the *Act respecting hunting and fishing rights in the James Bay and New Québec territories* (R.S.Q., c. D-13.1). Talks were also held with the Kativik Environmental Advisory Committee (KEAC) and the Kativik Environmental Quality Commission (KEQC).

In 1996, the KRG, which is responsible for land-use planning in Nunavik, produced the *Master Plan for Land Use in the Kativik Region*, in which are designated all of the proposed parks in the region, including Parc national des Monts-Torngat-et-de-la-Rivière-Koroc. The KRG Board of Directors adopted the plan by resolution in 1998.



Map 1
THE NETWORK OF PARKS
AND NATURAL REGIONS



NATIONAL PARK

- 1, MONT-ORFORD, DU
- 2, MONT-TREMBLANT, DU
- 3, GRANDS-JARDINS, DES
- 4, JACQUES-CARTIER, DE LA
- 5, GASPÉSIE, DE LA
- 6, FJORD-DU-SAGUENAY, DU
- 7, YAMASKA, DE LA
- 8, ÎLES-DE-BOUCHERVILLE, DES
- 9, BIC, DU
- 10, AIGUEBELLE, D'
- 11, MIGUASHA, DE
- 12, ÎLE-BONAVENTURE-ET-DU-ROCHER-PERCÉ, DE L'
- 13, MONT-SAINT-BRUNO, DU
- 14, POINTE-TAILLON, DE LA
- 15, FRONTENAC, DE
- 16, OKA, D'
- 17, MONT-MÉGANTIC, DU
- 18, MONTS-VALIN, DES
- 19, HAUTES-GORGES-DE-LA-RIVIÈRE-MALBAIE, DES
- 20, ANTICOSTI, D'
- 21, PLAISANCE, DE
- 22, PINGUALUIT, DES
- 23, KUURURJUAQ
- 24, LAC-TÉMISCOUATA, DU
- 25, TURSUVUQ



MARINE PARK

- SAGUENAY – SAINT-LAURENT, DU



PLANNED PARK

- P1.ALBANEL-TÉMISCAMIE-OTISH
- P2.ASSINICA
- P3.BAIE-AUX-FEUILLES, DE LA
- P4.CAP-WOLSTENHOLME, DU
- P5.COLLINES ONDULÉES, DES
- P6.CÔTE-DE-CHARLEVOIX, DE LA
- P7.LAC-WALKER, DU
- P8.MONTS-DE-PUVIRNITUQ, DES
- P9.NATASHQUAN-AGUANUS-KENAMU, DE
- P10.OPÉMICAN, D'
- P11.ULITTANIUALIK

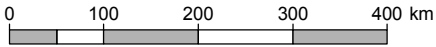


NATURAL REGIONS

- A1, MAGDALEN ISLANDS
- A2, CHALEUR BAY SLOPE
- A3, GASPÉ MASSIF
- A4, NOTRE-DAME MOUNTAINS
- A5, ESTRIE, BEAUCE AND BELLECHASSE SECONDARY RANGES
- A6, BOUNDARY MOUNTAINS
- A7,SUTTON MOUNTAINS
- L8, APPALACHIAN LOWLANDS
- L9, MONTEREGIAN HILLS
- L10, ST-LAWRENCE LOWLANDS
- L11, SOUTH SHORE OF ESTUARY
- L12, UPPER NORTH SHORE AND MID-NORTH SHORE LOWLANDS
- L13, NORTH SHORE CUESTAS
- L14, ANTICOSTI ISLAND
- L15, LOWER NORTH SHORE ROCKY COASTLINE
- B16, PETIT MÉCATINA PLATEAU
- B17, NORTHERN LAURENTIANS
- B18, MONT VALIN MASSIF
- B19, LAC-SAINT-JEAN - SAGUENAY LOWLANDS
- B20, SAGUENAY FJORD
- B21, CHARLEVOIX COAST
- B22, LAURENTIAN MASSIF. NORTH OF QUÉBEC CITY
- B23, SOUTHERN LAURENTIANS
- B24, GATINEAU VALLEY
- B25, TÉMISCAMINGUE LOWLANDS
- B26, ABITIBI CLAY BELT
- B27, JAMES BAY LOWLANDS
- B28, JAMES BAY ISLANDS AND MARSHES
- B29, RUPERT PLATEAU
- B30, MISTASSINI LAKE
- B31, OTISH MOUNTAINS
- B32, CENTRAL LAKE PLATEAU
- B33, GEORGE RIVER PLATEAU
- B34, RIVIÈRE À LA BAINE PLAIN
- B35, LABRADOR TROUGH
- B36, CANIAPISCAU PLATEAU
- B37, HUDSON PLATEAU
- B38, HUDSON CUESTAS
- B39, UNGAVA PLATEAU
- B40, PUVIRNITUQ MOUNTAINS
- B41, HUDSON STRAIT. FJORD COAST
- B42, UNGAVA BAY COASTLINE
- B43, TORNGAT MOUNTAIN FOOTHILLS

Metadata

Geodetic reference system	NAD 83 compatible with the World system WGS 84
Coordinate system	Lambert Conic Projection with two Standard Parallels (46° and 60°)



1/8 000 000

Source

Data	Organization
Base générale et administrative du Québec (BGAQ)	Ministère des Ressources naturelles
Les régions naturelles	Ministère du Loisir, de la Chasse et de la Pêche, 1986

Realization

Direction du patrimoine écologique et des parcs
Service des parcs
Division de la géomatique et de l'infographie

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In 2002, the Québec government, represented by the Société de la faune et des parcs du Québec (FAPAQ)¹, concluded with the KRG the *Entente relative au développement des parcs au Nunavik*. The agreement defined the respective roles of the FAPAQ and the KRG and called, among other things, for the creation of Parc des Monts-Torngat-et-de-la-Rivière-Koroc. In 2002, work began on the creation of the park. A task force was first set up comprising representatives of interest groups, including the KRG, the northern village of Kangiqsualujjuaq, the land corporations concerned, the Makivik Corporation and the Québec government. The task force promoted participation by local and regional bodies in the advancement of the project.

The *Stratégie québécoise sur les aires protégées* was launched in 2002. The Québec government then undertook to protect 8% of Québec's territory. Five proposed parks in Nunavik were at that time designated Réserves de parc national, including Monts-Torngat-et-de-la-Rivière-Koroc.

A lengthy consultation process, a review of the literature and field surveys began in the summer of 2003. The initiatives, conducted by the KRG and the FAPAQ, led to the production of documents entitled *Projet de parc de la Kuururjuaq, État des connaissances* (KRG, 2005) and *Provisional Master Plan – Parc national de la Kuururjuaq* (Québec, 2007).

On January 17, 2007, the Minister of Sustainable Development, Environment and Parks announced a public hearing with a view to creating Parc national Kuururjuaq. The hearing was held in 2007 in the village of Kangiqsualujjuaq and was co-chaired with the KEQC, a first in the history of Québec parks. During the hearing, groups, organizations and individuals expressed an opinion on the park boundaries and zoning as presented in the provisional master plan. A majority of the interveners favoured the creation of Parc national Kuururjuaq within the proposed boundaries.

On March 14, 2007, the Commission de toponymie du Québec issued a favourable opinion to the MDDEP concerning the use

of the place name Kuururjuaq to designate the park, in order to highlight the breadth of Inuit culture. The name literally refers to a river that flows in a wide valley.

In March 2008, the KEQC submitted to the MDDEP its decision to authorize the project. On April 9, 2008, a certificate of authorization was issued pursuant to the *Environment Quality Act* (R.S.Q., c. Q 2), thereby allowing the park's creation to proceed.

Parc national Kuururjuaq was created on May 21, 2009 under Order in Council 461 2009. The same year, the Québec government assigned the operation of the park to the KRG by adding a new mandate to the *Sivunirmut Agreement*. Lastly, on September 22, 2009, the Québec government concluded an agreement with the KRG to assign to it responsibility for capital assets and development.

THE APPROACH ADOPTED BY THE MASTER PLAN

The approach followed to produce this master plan is common in the realm of land-use planning. First, a survey was conducted of scientific data on the biophysical, archaeological and historical resources of the territory under study. Interviews were also conducted in order to take into account the traditional knowledge of the Inuit in the region. The regional context surrounding the future park was also described from the standpoint of access, services, conservation guidelines and economic and tourist development so that the park is harmonized with the regional service offer. Lastly, a description of the use of the soil and land tenure concluded the survey. All of the data were compiled in a companion document produced by the KRG entitled *State of Knowledge*.

The analysis of the data presented in *State of Knowledge* made it possible to distinguish in the study area of the park fragile sectors from areas with greater development potential. It was then possible to establish the optimum perimeter of the park to allow it to fully fulfil its vocation. Following the analysis of all of these factors, the key facets of the preservation of the natural heritage and the cultural heritage associated with it were pinpointed, along with guidelines respecting the offer of activities and services.

The master plan, produced by the Direction du patrimoine écologique et des parcs of the MDDEFP, takes into account,

¹ It should be noted that between 2002 and 2009, responsibility for planning Québec's network of national parks was transferred from the Société de la faune et des parcs to the Ministère des Ressources naturelles, de la Faune et des Parcs in 2004, to the Ministère du Développement durable, de l'Environnement et des Parcs in 2005, then to the Ministère du Développement durable, de l'Environnement, de la Faune et des Parcs in 2012.

as far as possible, the comments received during the public hearings, the advice of the KRG and the park harmonization committee, the authorization certificate issued by the Service des évaluations environnementales in the MDDEFP, and legislation, regulations and government policies.

THE UTILIZATION RIGHT GRANTED TO THE BENEFICIARIES OF THE *JAMES BAY AND NORTHERN QUEBEC AGREEMENT*

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Since Parc national Kuururjuaq is located in the territory covered by an agreement, it is important to specify that in order to abide by the terms of Chapter 24 of the JBNQA and the *Act respecting hunting and fishing rights in the James Bay and New Québec territories* (R.S.Q., c. D-13.1), the beneficiaries of the Agreement may exercise their utilization rights within the park boundaries. However, the *Parks Act* applies to visitors who are not beneficiaries of the agreement. Among other things, section 7(a) of the Act stipulates that “hunting or trapping of every kind is prohibited in a park.” This legal provision applies to all parks in the network.



1 The current situation



1.1 PARK BOUNDARIES

Parc national Kuururjuaq is located east of Ungava Bay between 58° 27' and 59° 12' north latitude and 63° 35' and 66° 05' west longitude (see Map 2) and covers an area of 4 460,8 km². It encompasses all of the components that are representative of the Torngat Mountain Foothills natural region (B-43). The park represents 42.8% of the natural region's area. It also adjoins two other natural regions, i.e. the George River Plateau natural region (B 33) and the Ungava Coast natural region (B 42). Other proposed parks are being targeted in order to include features of these regions not represented by Parc national Kuururjuaq.

The park perimeter has been established in order to protect the Koroc River drainage basin. However, to the east this principle has not been applied since the perimeter exclude Category I lands in the village Kangiqsualujjuaq. Most of the park (66%) is located on Category III lands and the remaining 34%, on Category II lands. On the far eastern side, the boundary of Parc national Kuururjuaq adjoins Torngat Mountains National Park of Canada. The contiguous parks make up an immense protected area that covers over 13 000 km².

The possibility of protecting substantially all of a drainage basin is rare in Québec, bearing in mind the size of such basins and the density of human activities. In fact, Parc national Kuururjuaq is one of the parks in the network to boast of such a situation, which will afford appreciable protection to terrestrial ecosystems and the park's fragile or vulnerable features.

1.1.1 THE NATURAL REGIONS REPRESENTED

Kuururjuaq National Park touches three natural regions, but is representing efficiently only one of them, the foothills of the Torngat Mountains (B-43). This region has an area of 8 390 km² and lies in the centre of the peninsula separating Ungava Bay and the Labrador Sea. It encompasses two homogeneous sectors, i.e. to the east, a mountain range (the Torngat Mountains) rising to over 1 500 m and, to the west, a series of plateaus over 800 m high sloping toward Ungava Bay. The region is divided by several deep valleys, of which the biggest ones are the Koroc River and Alluviaq River valleys. Numerous vestiges of the last glaciation are found there: U-shaped valleys, cirques, morainic ridges, hanging valleys, and so on. The rigorous climate that prevails there engenders tundra vegetation. However, the Koroc River valley constitutes, at that latitude, an enclave displaying great ecological diversity, distinguished by the ascent of the boreal forest, which contrasts with barren patches on slopes and peaks in the region. From the standpoint of wildlife, the distribution of species is closely linked to vegetation, topography and climate. The Torngat Mountains caribou herd (MLCP, 1986) is a noteworthy feature of the region's wildlife.

The George River Plateau natural region (B-33) stretches from the source of the George River to Baie Keglo, located on the eastern coast of Ungava Bay. The level plateau slopes from east to west from between 800 m and 900 m in altitude to roughly 400 m in the western portion of the region. Forest tundra covers the surface of the plateau while small islands of boreal forest dot valley bottoms. From the standpoint of wildlife, caribou cows from the George River herd gather here to calve. Wolf, black bear, the snowy owl and the willow ptarmigan also inhabit the region. Atlantic salmon and Arctic char abound in the region's rivers (MLCP, 1986).

Lastly, the Ungava Coast natural region (B 42) delimits former deep erosion surfaces, above all in old Archeozoic crystalline rock. The jagged coastline features sea arms, bays, islands and a few fjords. However, it is the estuaries of major watercourses that shape the landscape. From the standpoint of hydrography, the coast is the site of very high tides (among the highest in

the world), which reach over 15 m in the Baie aux Feuilles. This marked drawdown, linked to the region's generally flat topography, has helped to shape the big foreshore tidal flats covered with ice-rafted boulders. Because of the very cold climate that prevails at these latitudes, the plant cover consists mainly in tundra. As for fauna, the Ungava Bay coast is an area of contact between the terrestrial and marine environments, which affects faunal composition. Belugas and several seal species frequent the estuaries, which abound in salmon, Arctic char and brook trout.

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1.2

THE REGIONAL CONTEXT

The Nord du Québec administrative region is divided into two distinct sub-regions, i.e. James Bay and Nunavik. The 55th parallel separates them, with Nunavik lying to the north. Nunavik, with an area of 500 164 km², encompasses 14 Inuit communities along the coast, the Cree community of Whapmagoostui and the Naskapi community of Kawawachikamach. The village of Kangiqsualujjuaq, located less than 20 km south of the mouth of the Koroc River, is the village closest to the park.

1.2.1 THE LAND REGIME

The Nunavik region is subject to the application of a land regime defined in the JBNQA (see Map 3). The regime comprises three categories of land, which determine the use to which land is put and procedures and responsibilities pertaining to management. Accordingly, in the Kangiqsualujjuaq region, Category I lands belong to the Qiniqtiq Landholding Corporation, except for the subsoil. The land extends beyond the village boundaries to include the area of influence where traditional activities are intensive. Category II lands are also found there, which are public lands in the Québec public domain where the beneficiaries of the JBNQA enjoy exclusive hunting, fishing and trapping rights. The location of the lands is based on the presence of resources that are accessible to the Inuit that ensure the exercising of their utilization right. Lastly, Category III lands make up the remainder of the territory. They are also public lands in the Québec public domain where the Inuit may engage in non-exclusive hunting, fishing and trapping (Beauchemin, 1992).

1.2.2 LAND USE AROUND THE PARK

The territory surrounding the park is used for various purposes, i.e. for tourist activities, the preservation of the natural heritage and for mineral exploration.

Regional tourism offerings

Two outfitting operations are located near the park. The Pourvoirie Aventures Alummi, established at the mouth of the Koroc River, appears to have ceased operations. On the other hand, the Pourvoirie Rapid Lake Lodge is still in operation and owns facilities on the Barnoin River, south of the park.

Other protected areas

There are three other protected areas near Parc national Kuururjuaq. Torngat Mountains National Park of Canada, which covers some 9 700 km², is located east of Parc national Kuururjuaq. The boundaries of the Canadian national park adjoin those of Parc national Kuururjuaq, where the summit ridge of the Torngat Mountains marks the dividing line between Ungava Bay and the Labrador Sea (see Map 3). Accordingly, the two parks will together protect the heritage of a considerable portion of the Torngat Mountains.

South of Parc national Kuururjuaq, two other protected areas are found along the George River, i.e. the Réserve de parc national des Monts-Pyramides and the Réserve de territoire pour fin d'aire protégée de la Rivière-George. The two territories were thus designated in October 2008 and have been granted temporary protected status until consultations are conducted to confer on them permanent protected status. The two protected areas cover 9 880.5 km² (MDDEP, 2010).

Mineral potential

The territory north and south of Parc national Kuururjuaq encompasses active mining rights. Uranium is the mineral ore sought in the area. However, a decrease in the number of active mining rights in the area has been noted.

1.3

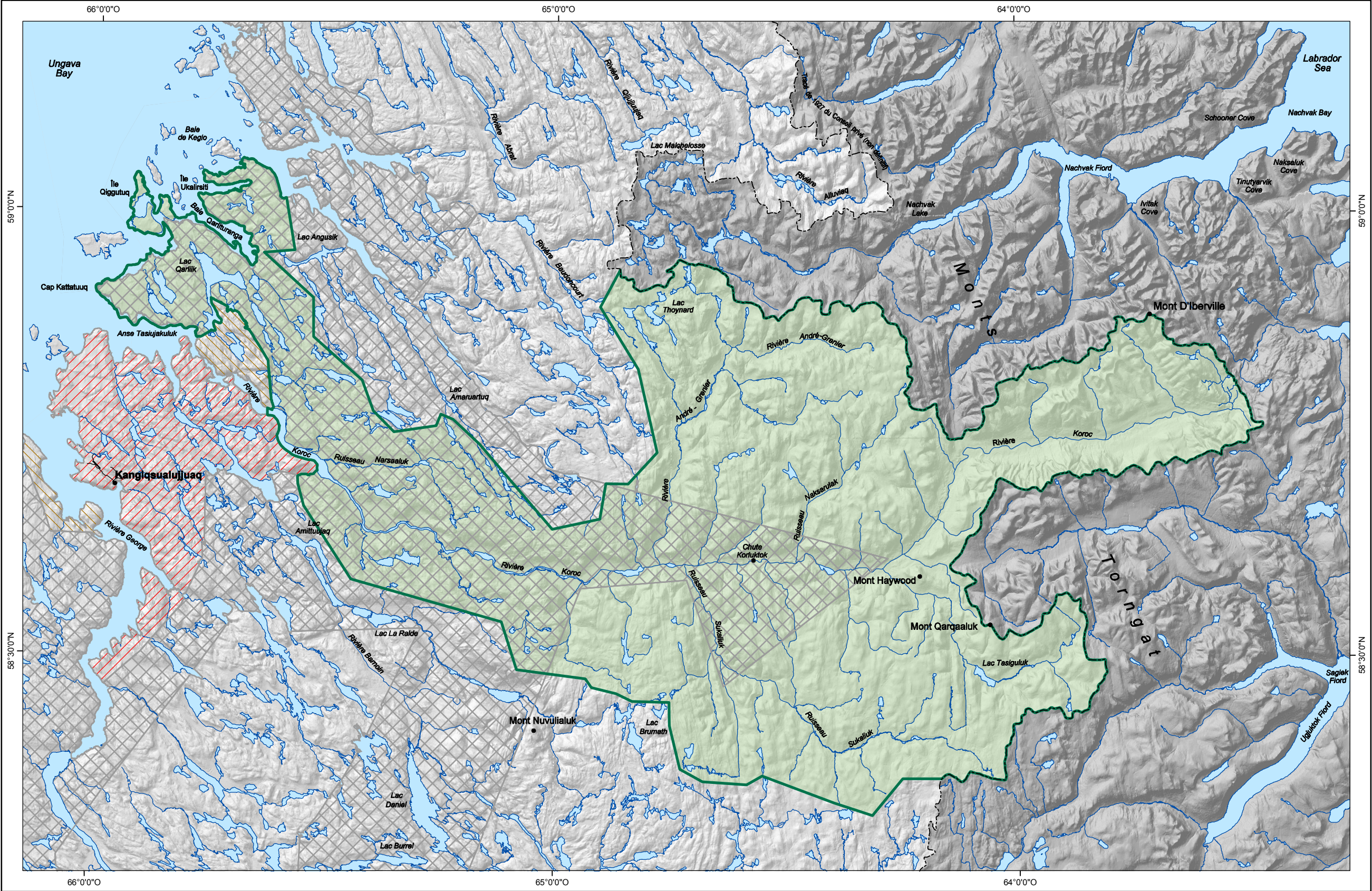
SYNTHESIS OF KNOWLEDGE

This section summarizes the document entitled *Projet de parc de la Kuururjuaq, État des connaissances*, produced by the KRG in 2005. Readers are encouraged to consult the report to obtain more detailed information.

1.3.1 CLIMATIC CONDITIONS

Given the park's size and its varied, uneven topography, geographic factors significantly affect the types of climate. Accordingly, at higher elevations, the Koroc River plateau and the Torngat Mountains have a polar/alpine climate. However, in the coastal region of the Koroc River, a maritime climate prevails. Indeed, Ungava Bay, a significant water body, regulates

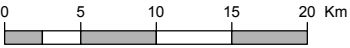
Map 2
Boundary



- Park boundary
- Category I lands
- Special category I lands
- Category II lands

Metadata

Geodetic reference system: NAD 83 compatible with the World system WGS 84
Coordinate system: Modified Transverse Mercator (MTM), zone 5



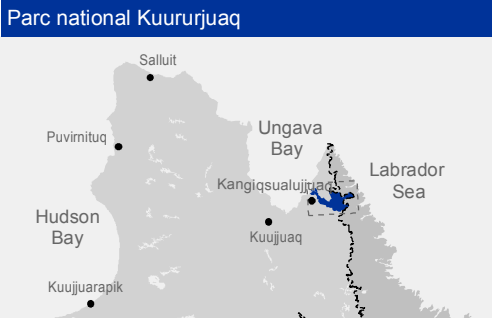
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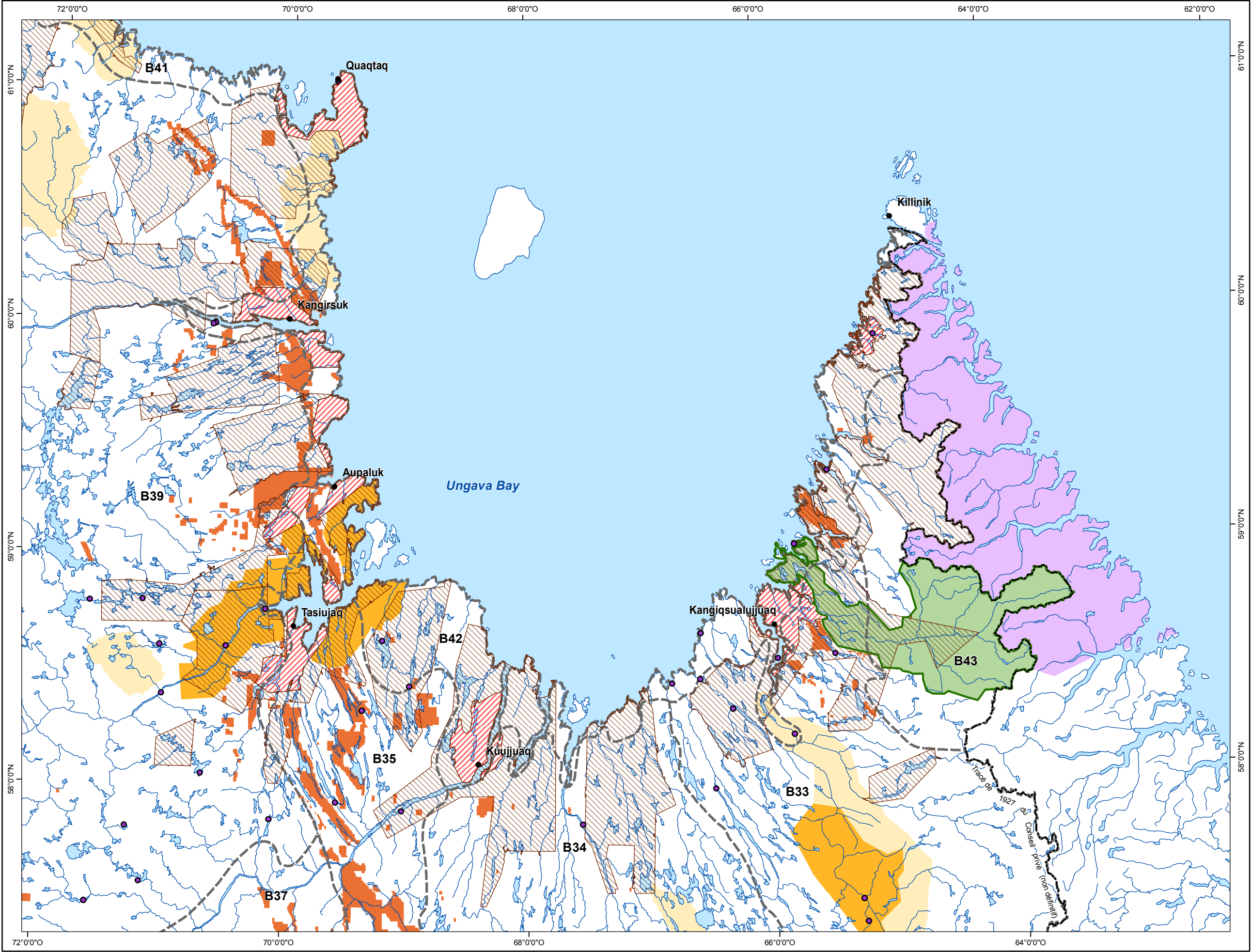
Source

Data
Base de données topographiques et administratives (BDTA) à l'échelle de 1/250 000

Organization
Ministère des Ressources naturelles

Realization
Direction du patrimoine écologique et des parcs
Service des parcs
Division de la géomatique et de l'infographie
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Map 3

The area surrounding
Kangiqsualujjuaq

Protected areas

Parc national Kuururjuaq

Torngat Mountain National Parck Reserve of Canada

National Park Reserve

Other protected areas

Land regime

Category I lands

Category II lands

Natural regions

B33, GEORGE RIVER PLATEAU

B34, RIVIÈRE À LA BALEINE PLAIN

B35, LABRADOR TROUGH

B37, HUDSON PLATEAU

B39, UNGAVA PLATEAU

B41, HUDSON STRAIT. FJORD COAST

B42, UNGAVA BAY COASTLINE

B43, TORNGAT MOUNTAIN FOOTHILLS

Other rights

Outfitting camps

Active mining titles

Metadata

Geodetic reference system

NAD 83 compatible with the World system WGS 84

Coordinate system

Lambert Conic Projection with two Standard Parallels (46° and 60°)

0204060

Km

1/1 750 000

Source

Data

Base de données topographiques et administratives (BDTA) à l'échelle de 1/250 000

Organization

Ministère des Ressources naturelles

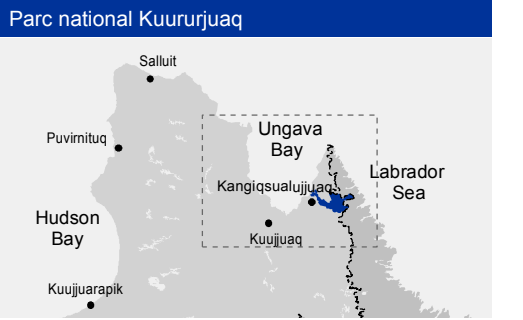
Realization

Direction du patrimoine écologique et des parcs

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temperatures. On the other hand, the Atlantic Ocean hardly affects the territory's climate since the Torngat Mountains form a natural barrier that limits its moderating effect.

The mean annual temperature in the coastal portion of the park is roughly -5.7°C . Farther inland, on the Koroc River plateau and in the Torngat Mountains, the mean annual temperature stands at approximately -7.5°C . However, a lower mean temperature can be expected on the high peaks of the Torngat Mountains. Furthermore, the wind chill index may appreciably alter the perception of the temperature. This effect is more apparent on mountain peaks, where wind speed can increase 20% in relation to that in neighbouring valley bottoms. Unforeseeable temperature changes in the Torngat Mountains area are a significant factor that must be considered in its development but also for the safety of users.

As for precipitation, the coastal area receives 527 mm a year, half of it in the form of snow. Total annual precipitation inland is estimated at roughly 600 mm. The maximum thickness of snowfall, which can reach between 3 m and 4 m, is usually recorded in the valleys and on the leeward slopes of mountains, while the peaks of hills and mountains, which are regularly swept by wind, are snow-free or covered with a thin crust of snow.

The freeze-up of lakes usually occurs between November 10 and 20 and that of rivers, after December 1. River ice thaws between May 20 and June 1, while the breakup season on lakes occurs between June 10 and 20, although variations may occur. As for Ungava Bay, freeze-up on the coast usually occurs from mid-December while the breakup season begins in mid-July and ends one month later.

1.3.2 NATURAL HERITAGE

The east-west axis features a succession of high mountains and vast plateaus whose altitude gradually decreases toward Ungava Bay, deeply cut by a network of U-shaped valleys, of which the main one is the Koroc River valley. Mont D'Iberville, Québec's highest peak, with an altitude of 1 646 m, emerges from the heart of the Torngat Mountains.

The bedrock of Parc national Kuururjuaq is part of the Canadian Shield and belongs to the Churchill Tectonic Province, which covers all of the territory west of Mont D'Iberville, and to the Nain Province. Some 1.8 billion years ago, the two tectonic provinces collided and spawned the Torngat Mountains.

Between 1.6 million and 10 000 years ago, the park, like Canada overall, experienced four major glaciations. Only the traces of the Wisconsinian glaciation, the most recent one, are still visible today. At the height of the extension of the ice cap 20 000 years ago, the ice could be between 2 000 m and 3 000 m thick. The formation of this mass lowered the level of the oceans. Its enormous weight subsequently sunk into the Earth's crust. Moreover, the advance of the glaciers altered the landscape by shaping valleys and sculpting in the mountains vast amphitheatres called glacial cirques.

Certain studies conducted until very recently suggest that the high peaks of the Torngat Mountains were apparently freed of ice during the glacial maximum. However, research now under way tends to show the opposite.



With the retreat of the glacier, the landscape was completely remodeled. Unconsolidated deposits covering the territory take varied forms, which reveals how they were created, i.e. by the advancement of the glacier or the movement of its thaw flow. Moreover, deposits marking former beach lines are apparent on the slopes of valleys and are evidence of the presence of a lake that apparently covered a large part of the park. In the coastal portion of the park, raised beach lines are also visible but are not associated with marine encroachment. Indeed, since the raising of the Earth's crust that followed the retreat of the ice cap occurred over several thousand years, it allowed the sea, which had advanced far inland, to gradually withdraw, thus facilitating the accumulation of marine deposits arranged in a loosely compacted manner.

At present, the landscape is mainly shaped by freezing: cones and talus and traces of avalanches are numerous

on the steep slopes. Furthermore, water and wind shape the landscape in their own way, which is readily apparent along the Koroc River. For example, sediment cones are found there associated with the occasionally torrential flow of certain tributaries but also dunes that are constantly reshaped by the winds that sweep into the valley.

Vegetation

Despite its northern latitude, Parc national Kuururjuaq displays varied vegetation composition, which stems from the coexistence of several factors, i.e. the type of rock, topography, altitude and the orientation of the valleys. Mainly Arctic vascular plant species are observed in the Torngat Mountains area and on the high plateaus overlooking the Koroc River. Here, moss and lichens are the main vegetation found on the rock fields. On the other hand, inside the Koroc River valley under spot elevation 275 m, boreal species predominate, i.e. a portion of the Koroc River valley constitutes a boreal enclave in an Arctic zone. The enclave encompasses old-growth forests comprising mainly black spruce and a significant proportion of larches. The predominant trees have a diameter of 20 cm to 25 cm and are between 8 m and 12 m high, although certain larches can attain 35 cm in diameter. Unusually, a small stand of white birch is found in the valley on a rocky, south-facing slope, the most northerly known white birch stand in Québec. The stand appears to encompass 200 trees and is likely a vestige of a stand that was much bigger in the past.

Along the Koroc River in wetlands where organic deposits are thick, beautiful patterned fens are found, some of which contain ice lenses that lead to the formation of hummocks called palsas.

To date, 269 vascular plant species have been inventoried in the park, of which three are likely to be designated threatened or vulnerable in Québec and four are deemed to be rare in Canada. In the park overall, 59 species are deemed to be rare, mainly species that lie at the northern boundary of their distribution area or display sporadic distribution bearing in mind strict habitat requirements.

Little is now known about invascular flora, i.e. lichens, moss and liverworts, in Parc national Kuururjuaq. Botanical exploration conducted in 1951 by Jacques Rousseau along the Koroc River and the Tassivialuk Strait, then by the KRG and its collaborators in 2003 and 2004, led to the identification of 178 lichens, 80 mosses and 70 liverwort species. What is more, a study carried out in Torngat Mountains National Park of Canada near Mont D'Iberville reports a high concentration of mosses and rare liverwort species at the Canadian level, which is unusual.

Wildlife

The wildlife profile of Parc national Kuururjuaq is characterized by varied composition, mainly because of the diversity of habitats. Accordingly, from the mouth of the Koroc River to its source in the Torngat Mountains are found highly contrasting environments: a coastal area dotted with islands including entirely marine areas and others displaying variable salinity, a forest environment in which coniferous trees predominate, scrubland bordering the valley slopes, and a vast open tundra area that has developed because of the elevation. According to wildlife distribution maps in Québec and previous research, there are apparently 23 fish species, 74 bird species and 36 mammal species in the park.



Arctic char abound in the Koroc River, which, with the George River to the southwest, constitutes the most productive sector in Nunavik. Some 17 spawning grounds have been counted along the Koroc River up to the Chute Korluktok. The river also hosts other species, including brook trout, lake whitefish and Atlantic salmon.



Among the 74 bird species potentially present, 34 nest inside the park, mainly in the forest base. Since this is the most northerly forest stand, several species are found in it and are located at the northern boundary of their distribution area. Numerous passerine birds are observed, but also spruce grouse.

Lastly, it is possible to observe marine mammals in the coastal area. Indeed, four seal species, eight whale species and walrus penetrate in the southeastern portion of Ungava Bay. Moreover, 24 species of terrestrial mammals are apparently present in the territory, of which two warrant special attention. First, caribou are frequently observed in the park. The numerous trails formed by their recurring movements are evidence of their presence. The most recent data reveal that the distribution area of the George River herd has moved toward coastal Labrador, southeast of the park (MDDEFP, 2012). Accordingly, the caribou that frequent the park are much more likely to belong to the Torngat Mountains caribou herd, although exchanges between the two herds are possible.

Today, little data exists on the Torngat Mountains herd. The number of animals in the latter herd is unknown (between 100 and 1000) but the herd is known to engage in short migrations between the eastern coast of Ungava Bay and the Labrador Sea. The caribou are largely distributed north of the park, near Killiniq.

Furthermore, the black bear is abundant in the park and the Inuit often mentioned its presence. In addition, it has frequently been observed during field campaigns and by visitors. Since the black bear is curious, it may approach campsites, which must be considered from the standpoint of the safety of park visitors.

Polar bears occasionally use the Koroc River valley as a west-east travel route. In 2012, two polar sightings were reported.

1.3.3 CULTURAL HERITAGE

Three phases of prehistoric occupation are recognized in Nunavik: the Pre-Dorset period (4000 BP² to 2500 BP), the Dorset period (2500 BP to 600 BP) and the Thule period (750 BP to the historic period). Until now, 30-odd archaeological sites have been listed in the park

and are evidence of the three phases of occupation. They are located mainly in the coastal portion of the park but also on the banks of the Koroc River. Past excavations on the sites have revealed objects carved from Ramah quartzite, a material prized for making tools. The quartzite comes from rock outcrops along Baie de Ramah, roughly 13 km east of the park. Ramah quartzite was especially renowned during Labrador's prehistoric period but also in Nunavik. Indeed, items shaped from the material are found at different sites in Nunavik and even in southern Québec. The Koroc River valley played an important role in the transportation of quartzite to the east coast of Ungava Bay, but also to Hudson Strait and even further afield to Southampton Island and Baffin Island. The circulation of the raw material also implies human travel and interaction between different groups.

Research conducted near the park in the 1970s and 1990s showed that, unlike the west coast, the east coast of Ungava Bay was sparsely populated during the Paleohistoric Period and recent history. The low settlement rate on the coast apparently stems from its very uneven morphology and the occasionally significant tide range, factors which might have limited the establishment of campsites. Geomorphologists believe that the region, unlike the rest of Nunavik, was submerged during the periods, which explains the erosion of sites located near the sea.



² BP: Before present.

The first contacts between the inhabitants of the peninsula separating Ungava Bay and the Labrador Sea and Europeans dates back to the time of the explorers who were seeking a passage to the Northwest in the 1550s. However, the encounters were only brief. It was only starting in 1771 that contacts became more regular, following the establishment of Moravian missionaries in Nain. The missionaries, natives of Germany, gave priority to the evangelization of the Aboriginal peoples. Other missions were established along the Labrador Sea, including one in 1868 in the Nachvak Fjord, abandoned the same year, and another one in Baie de Ramah in 1871. Until the mid-19th century, Moravian missions were the main supply point for the Inuit of European goods.

On June 24, 1811, the Moravian missionaries Kohlmeister and Kmoch, guided by an Inuit, launched an expedition from Okak to Ungava Bay. The missionaries arrived in Kangertlualuksoak (now Kangiqsualujjuaq) on August 7, 1811, and observed the surrounding area for several days. Once they had ascertained that there was sufficient wood and game to survive and to build a mission, they took possession of the site in the name of George III and named the George River.

The expedition paved the way to other voyages of exploration by the Hudson's Bay Company, which inaugurated in 1838 a trading post 16 km upstream on the east bank of the George River. The trading post was permanently closed in 1952 after alternating periods of operation and inactivity. In 1959, in the wake of a study on the region's economic potential conducted by Indian and Northern Affairs Canada, the Coopérative des pêcheurs esquimaux de George River was established. It was the first Inuit cooperative in Canada and is now called the Fédération des coopératives du Nouveau-Québec.

In 1962, in the wake of growing involvement by the provincial and federal governments in the North, the Inuit campsites along the George River were assembled at a single site at Anse Akilasakallak to establish the village of Kangiqsualujjuaq. Houses, a school, a power plant and a sawmill were built that year.

The history of Kangiqsualujjuaq is also imbued with numerous myths and legends linked to the territory that stretches from the coast of Ungava Bay to the Labrador Sea through Killiniq. The myths and legends range from the presence of malicious spirits (*Torngak*) in the Torngat Mountains that apparently put obstacles on trails, to the existence of little people (*Tuunit*) who apparently jump on the Inuit's' necks to suffocate them

with their stomachs, and a giant polar bear (*Nanuklurk*) that is apparently responsible for breaking ice on the Labrador coast. Villagers have many other stories to tell. The stories, myths and legends are transmitted from generation to generation through the oral tradition and by certain local artists, including Tivi Etok, who have presented them in their own way (Heyes *et al.*, 2003).

The Naskapi of Kawawachikamach also have a legend associated with a specific site in the park, i.e. Caribou Heaven. According to the legend, when hunted, the caribou's spirit flies to the site, where it finds a new body and can thus return to the forest. Consequently, caribou hunting does not seem to be a source of destruction (Rousseau, 1953).

The inhabitants of Kangiqsualujjuaq have always used the territory of Parc national Kuururjuaq to engage in traditional subsistence activities and are deeply attached to the territory. The intensity of traditional use is high near the coast and diminishes inland, but is average in the Koroc River valley. Several hunting and fishing camps are found in the park, above all in the coastal area.

1.4 THE STATE OF THE NATURAL HERITAGE

Most of Parc national Kuururjuaq's natural heritage is intact. The human presence in the territory has had little impact on the state of ecosystems. The shifting of rocks or the construction of cairns at certain sites reveal the occasional passage of hikers and canoeists. The most visible signs in the territory are those left by the repeated movements of caribou.

The literature review and ground surveys have made it possible to determine the facets of the natural and cultural heritage that are representative of the natural regions to be protected but also rare or fragile components that warrant special attention. Below is a summary of the analysis.



2 Analysis of the situation and diagnosis



2.1 THREATS TO CONSERVATION

The impact of global warming in the Arctic has made the headlines in daily newspapers the world over. Nunavik is no exception. Indeed, record temperatures have been recorded in recent years and the period that the sea is ice free has lengthened. It should be noted, in this respect, that Ungava Bay experienced an early thaw in the summer of 2006. The same year, in the Kangiqsualujjuaq region, the mouth of the George River and the coast of Ungava Bay were ice free in mid-June, a month earlier than normal. This trend has persisted since then.

Such climate change will affect not only the distribution of animal and plant species in Parc national Kuururjuaq but also travel related to subsistence activities, the way of life of the residents of Kangiqsualujjuaq and the installation of park infrastructure.

Mineral resource development in the park's periphery might have an adverse impact inside its boundaries. Indeed, mining rights covering uranium exploration are active on the edge of the park. Increased air traffic and a change in air quality are the potential impacts pinpointed. Since the park protects substantially all of the drainage basin of the Koroc River, fragile features and the quality of the river water are thus preserved.

The installation of infrastructure and greater visitor numbers in the most attractive areas are also threats likely to have

repercussions on the natural and cultural heritage. However, an environmental and social impact assessment is conducted prior to the installation of infrastructure and the conservation plan calls for measures to limit impact to the minimum acceptable level to avoid jeopardizing the natural and cultural heritage.

2.2 DEVELOPMENT POTENTIAL AND CONSTRAINTS TO DEVELOPMENT

Parc national Kuururjuaq displays extensive potential that is noteworthy for its scope, quality, representativeness and outstanding nature inside the natural region. The potential centres chiefly on geomorphology, hydrography, vegetation, wildlife and archaeology. Consideration has also been given to the aesthetic and panoramic aspect of certain sites.

An examination of these parameters has allowed for the subdivision of the park into four separate landscapes, i.e. the Torngat Mountains, the Koroc River valley, the Koroc Plateau, and Ungava Bay (see Map 4). Each unit combines various unique attractions and stands out clearly from the extensive territory.

2.2.1 THE TORNGAT MOUNTAINS

The Torngat Mountains display highly variable topography and very steep slopes that offer a unique vista in eastern North America. From the summit of Mont D'Iberville, the highest peak in the region, the surrounding landscape is grandiose and the view is unrestricted in all directions. The view looking eastward extends to the Labrador Sea where, on a clear summer day, icebergs are visible. The turquoise and steel blue waters of glacial lakes contrast with the grey, brown and ochre of the surrounding mountains. The impression from the valley bottoms is entirely different. The herbaceous vegetation, the sound of watercourses and the passage of caribou enliven a hike. The steep walls occasionally diminish, thus altering the landscape as the hike continues.

The Torngat Mountains unit presents a series of geological, geomorphological, wildlife and plant attractions that enhance the beauty of the landscape. Glacial cirques, summit rock

fields, hanging tributary valleys and moraine are readily identifiable in the territory and are evidence of the passage of the glaciers. From a biological perspective, the sector includes part of the calving grounds of the Torngat Mountains caribou herd and the presence of several rare moss and liverwort species in Canada in such a small area is outstanding. A number of the species are known in the High Arctic and their presence on the summits of the Torngat Mountains marks the southern boundary of their distribution area in eastern North America.

The Torngat Mountains unit is undoubtedly the most richly endowed in natural attractions in Parc national Kuururjuaq and will be the key drawing card for visitors.

However, the mountainous region does display various constraints to the development of the territory. The slopes are covered with unstable boulders that make walking difficult. Steep slopes are conducive to avalanches and rocky scree. Erosion scars are also visible on the slopes. Numerous alluvial cones are also visible in the area, clear indicators of catastrophic geomorphological processes. The cones were shaped in the wake of landslides, heavy rains, rapid snow melt or the draining of lakes formed by natural barriers (Lafortune



et al., 2003). Having stabilized after sedimentation, the alluvial cones can be reactivated in an equally destructive manner. Lastly, the Torngat Mountains unit is located in the continuous permafrost zone. Permafrost has reduced bearing capacity and

adapted permanent infrastructure is emphasized and located on properly drained surfaces.

2.2.2 THE KOROC RIVER VALLEY

While the Koroc River has its source in the Torngat Mountains, the Koroc River valley landscape unit begins at its junction with the Palmer River valley and ends at the Ruisseau Narsaaluk. To travel all of the valley, which the Inuit have used for hundreds of years to reach the Labrador Sea, reveals both the magnificent scenery shaped by the passage of the glaciers and the outstanding vegetation at this latitude. The presence of a boreal vegetation enclave in the Arctic has allowed certain more southerly wildlife species to establish themselves there and reach the northern boundary of the distribution area. This is true of the spruce grouse, among other species. Lastly, mention must be made of the presence of a white birch stand in the downstream portion of the landscape unit, the northernmost stand of the species in Québec.

Mont Haywood, 732 m high, occupies a strategic position in the Koroc River valley. The panorama that the visitor enjoys from its summit reveals the colossal work performed by the glaciers, which shaped the Koroc valley and the Ruisseau Nakvak valley to the east, and the Palmer River valley to the north, two tributaries of the Labrador Sea.

The Koroc River is turbulent in places and poses a worthwhile challenge to paddlers who have to portage to avoid certain ledges and the Chute Korluktok. As a result of a drop of roughly 30 m, the falls forms a natural barrier to the upstream migration of Arctic char in order to spawn. During this period, and according to Kangiqsualujjuaq residents, the bottom of the falls turns red because of the numerous fish.

Near the Rivière André-Grenier, the northern slope of the valley comprises

gneiss rusted by alteration, which contrasts with the colour of the surrounding vegetation. Farther downstream, the river runs through highly varied environments. In wetlands, the discontinuous permafrost is apparent in palsas. Once the ice lenses that form the hummocks melt, a local collapse occurs.



On loose ground, local melting of the permafrost leads to the formation of small depressions called thermokarsts. Lastly, in a number of properly drained areas, the wind has shaped the landscape. Big, bare dunes are found on the edge of the river or on islands.



Evidence of the recent or distant past are always apparent in this area with a varied history and the Kangiqsualujjuamiuts readily share anecdotes and legends associated with certain specific sites. The Naskapi of Kawawachikamach mention that “Caribou Heaven”, a site of great spiritual value to them, was located in the area.

The Koroc River valley unit also offers a great variety of attractions and ranks second among the centres of interest in the park.

The unit also displays several constraints to the development of the territory. Unlike the Torngat Mountains unit, the Koroc

River valley is located mainly in the extensive discontinuous permafrost zone. Because of the steep slopes, several alluvial cones and talus are visible along the river. Moreover, numerous alluvial cones observed on the edge of the river indicate catastrophic past events. While vegetation is solidly established there, the cones are liable to be reactivated. In the downstream portion of the area, several peat bogs border the river and, in properly drained sectors, dunes and blowouts are found. The instability and limited carrying capacity of this type of environment are factors that pose a major impediment to the installation of permanent equipment. Lastly, the absence of a big lake in the Koroc River drainage basin means that the level of water in the river depends primarily on precipitation after the spring freshets. Accordingly, starting in mid-July, rocks may be much more apparent on the surface and heighten the level of difficulty of navigating a boat, above along downstream from the outlet of Lac Tasiguluk.

The Kangiqsualujjuamiuts still extensively use the Koroc River valley to engage in traditional hunting, trapping and fishing, mainly in the area located downstream from the Chute Korluktok. Special attention must be paid to the area known as Qamanialuk.

2.2.3 THE KOROC PLATEAU

Located on both sides of the Koroc River valley, the Koroc Plateau landscape unit is intersected by several tributary valleys of the Koroc River, of which the main ones are the Rivière André-Grenier and the Ruisseau Sukaliuk. The unit sustains Arctic/alpine vegetation, where scrubland, herbaceous meadows and moss and lichens predominate. The more limited diversity of plant species in the unit does not mean that it is devoid of interest. Indeed, vascular and invascular flora species likely to be designated as threatened or vulnerable in Québec have been inventoried there, in addition to a new species in eastern North America, *Botrychium pedunculatum*, a fern discovered near Lac Thoynard.

The vast, fairly flat, uniform unit contains all of the features that are representative of the Torngat Mountain Foothills natural region. Furthermore, in the southern portion, near Lac Tasiguluk, striking phenomena associated with glacial melt and the presence of a proglacial lake can be observed. To the southeast of Lac Tasiguluk, a deep, subglacial gorge roughly 5 km long cuts a gash in the plateau. At its southern tip lies an immense moulin kame roughly 20 m high pointing skyward. This phenomenon is evidence of the presence of a depression on or in the glacier, which filled with sedimentation



during glaciation. The sediment remained there when the glacier melted. Following the retreat of the glacier, most of the valleys in the park were flooded by a proglacial lake. The former shore of the lake is still visible on the slopes of the mountains surrounding Lac Tasiguluk. Today, the shoreline takes the form of green paths that contrast with the rest of the slopes, which are fairly bare.

The main constraints to the development of the Koroc Plateau area are above all of a climatic nature. Indeed, the virtually flat terrain offers no shelter from high winds.

2.2.4 THE UNGAVA BAY COAST

The Coast of Ungava Bay landscape unit displays a panorama that is much different from the other units as it is the area of the park with the most extensive water cover. Moreover, Lac Qarliik, the biggest lake in the park, with an area of 15.6 km², is found here.

The irregular shoreline of the coast is bounded by the existing beaches and raised beaches formed long ago by the D'Iberville Sea. The melding of freshwater, brackish water, saltwater and sea-air foster a rich, diversified biological environment. Depending on the season, various marine mammal species such as seals, a few polar bears and belugas frequent the coastal zone. From the standpoint of flora, the area hosts a taxon of vascular flora that lies at the northern boundary of its distribution area (*Rumex salicifolius* var. *mexicanus*).

The area is unquestionably the richest as regards the presence of historic and paleohistoric sites, most of which are located

on the shores of Anse Tasiujakuluk. The sites are evidence of the way of life of the paleo- and neo-Eskimo populations that hunted, above all, marine mammals.

The main constraint to the development of the area stems from the presence of high tides. The Kangiqsualujjuaq region and the mouth of the Koroc River are

subject to tides just over 8 m. Accordingly, transportation services that require travel by boat in Ungava Bay to link the park to the village must be operated at high tide. Passage at high tide makes it possible to use marine infrastructure in Kangiqsualujjuaq and to take advantage of the channels between the islands which, at low tide, are linked by land. Lastly, a portion of the Koroc River located in this landscape unit is more exposed to winds from Ungava Bay, which can slow a boat's progress.





2.3

THE CHALLENGES TO BE MET

The steps undertaken to establish Parc national Kuururjuaq have proceeded in a spirit of collaboration between the interveners who made up the task force. Since the park's creation, the group has become the park harmonization committee, which meets at least twice a year. It examines a number of challenges facing the park. The key challenges that the managers must contend with are to:

- ensure the maintenance of ecological integrity and the protection of the park's cultural heritage;
- adopt a common perspective with Torngat Mountains National Park of Canada to manage, when possible, the two contiguous protected areas;
- promote an integrated regional environment management framework;
- promote community commitment to protect the park's natural and cultural heritage;
- offer a quality ecotourism product in respect of which visitor safety is paramount;
- foster local economic spinoff.



3 The concept of conservation and development



25

The concept of the conservation and development of Parc national Kuururjuaq hinges on the observations indicated below:

- The park has an area of over 4 000 km² and is one of the biggest parks created to date in Québec.
- It is located far from major centres and such isolation implies risks.
- Access to the park is difficult.
- It has few visitors and displays a high degree of ecological integrity.
- The park displays a wide array of plant, animal and physical attractions.
- Rapid climate change is affecting the distribution of wildlife and plant species and the traditional activities of the Inuit.
- The bonds between the Inuit and nature are an important facet of the region's nature.
- The JBNQA grants such beneficiaries a utilization right, which sets the park apart from parks in southern Québec, where wildlife harvesting is prohibited, except for sportfishing.
- The park is partly located on Category II lands.
- The regional tourism supply is hardly diversified.

In all facets of the management of Québec's national parks, the maintenance of ecological integrity is of paramount concern,

i.e. the preservation of indigenous species and ecosystems and the natural processes that shape and unite them. The objective is also to maintain the integrity of other forms of heritage, i.e. the cultural heritage and the landscape heritage. In Nunavik, it has been agreed that the KRG will pursue the objective of maintaining ecological integrity, in a spirit of respect for the principle of conservation defined in section 24 of the JBNQA.

Moreover, the management orientations and zoning plan are tools that make it possible to carefully set out long-term initiatives to attain a harmonious outcome, without adversely affecting the park's valuable attractions.

3.1 MANAGEMENT ORIENTATION

At the regional level, the conservation and development of Parc national Kuururjuaq's natural and cultural heritage are subject to concerted management by the park managers and the Inuit communities concerned. The conservation principle underpinning the rights accorded the Inuit must be respected and the park's management must ensure close collaboration between hunters, fishermen and trappers who frequent the region to engage in traditional activities.

The management orientation presented below helps to guide the initiatives of park managers in the realms of conservation, development, security and administration.

3.1.1 CONSERVATION

The document entitled *Politique sur les parcs. La Conservation* (Québec government, publication pending) reaffirms the importance of making Québec's national parks accessible to enable visitors to discover and appreciate the diversity of the heritage that they contain. It sets out three basic principles that underpin conservation in the parks:

- conservation takes precedence over development;
- the integrity of heritage must be maintained;
- the principle of precaution must be central to all decisions.

An ecosystem's integrity is deemed to be maintained when:

- its structure and functions are intact;

- its components and natural processes are likely to continue to exist;
- human use and facilities are compatible with the limited capacity of ecosystems to support such use and the level of use.

The application of the principle of precaution will allow for the enhancement of the management of the territory. This principle defines the attitude that the manager must adopt when it believes that its initiatives are likely to have an impact on heritage. However, this must not necessarily be interpreted as an encouragement to avoid action but instead as an incentive to take action in order to actively manage risk. Furthermore, current management tools will be adapted to apply to the northern environment. Accordingly, the conservation plan proposes concrete measures in this regard.

The following general key directions have been adopted with respect to conservation and the protection of the natural,



cultural and landscape heritage:

- apply the precautionary principle in all development initiatives in the park bearing in mind the natural environment's support capacity;
- maintain a harmonization committee comprising representatives of Kangisualujuaq, park officials, the KRG, the Makivik Corporation and the MDDEFP to discuss questions pertaining to protection and conservation;



- increase knowledge of heritage;
- take into consideration pressure stemming from the use of the park and from outside the park that threatens or is likely to threaten the natural and cultural heritage;
- integrate the traditional knowledge of the Inuit into the initiatives undertaken;
- act in a concerted manner with Torngat Mountains National Park of Canada;
- establish measures to monitor the park's heritage;
- adopt ecologically acceptable operational practices.

The managers of Parc national Kuurlurjuaq have available a number of tools to support them in the fulfillment of their mandate and aimed at ensuring the conservation and preservation of the natural and cultural heritage, in particular research, follow-up mechanisms and environmental management.

Research

Research is an essential function in national parks and is the ideal means of attaining the conservation objective. Indeed, it fosters the proper management of the parks' ecosystems and biodiversity and planning of harmonious development, in a spirit of respect for ecological integrity. The representative nature of the national parks and the high degree of protection accorded the natural and cultural heritage make the parks the ideal sites on which to conduct research. Research projects can be initiated by the park or by educational and research institutions. To inform the latter of the procedure to be followed to obtain authorization to initiate projects, a document has been made available to them (MDDEP and KRG, 2006).

Accordingly, the park managers have produced a research plan that prioritizes relevant study topics. The research plan will be sent to officials of Torngat Mountains National Park of Canada to promote exchanges of knowledge and facilitate the resolution of problems that are common to both parks. The following general guidelines were adopted to produce the plan:

- priority will be given to projects aimed at solving management problems;
- priority will also be given to projects that overcome gaps in knowledge of the natural and cultural heritage;

- projects that enrich the park's educational program will be favoured;
- the projects adopted must be supported by the communities in the region and integrate traditional knowledge.

Monitoring the state of heritage

It is essential to ensure that human activities that take place in the parks minimize impact on the natural and cultural heritage. The conservation plan, elaborated by the park managers, will establish and monitor the state of health of certain natural and cultural facets of the park and ascertain their ability to evolve, develop and adapt to change.

Through monitoring and research programs adapted to the situation and emergencies that park management may face, it will be possible to adjust, modify or even prohibit certain activities and contemplate measures to restore disturbed habitats.

The following guidelines have been adopted to prepare the mechanisms:

- act in a concerted manner with officials of Torngat Mountains National Park of Canada;
- take into account traditional Inuit knowledge;
- establish partnerships with competent researchers.

Environmental management

Government bodies, especially national parks, must opt for irreproachable environmental practices. Environmental management makes it possible to "ecologize" the necessary park management initiatives by promoting the establishment of efficient, environmentally sound measures.

Parc national Kuurlurjuaq has adopted the following guidelines pertaining to environmental management:

- limit local greenhouse gas emissions;
- limit the consumption of drinking water;
- elaborate effective methods to treat small quantities of wastewater adapted to the type of existing climate;
- limit the production of waste by fostering reduction, reuse and recycling;
- abide by or even surpass standards respecting the acquisition, handling and storage of petroleum products.

3.1.2 THE DEVELOPMENT OF NATURAL AND CULTURAL HERITAGE

For visitors, the mission of Québec's national parks is reflected in the activities and services implemented for them. Following the example of other networks of national parks in the world, this mission consists, on the one hand, in ensuring the preservation of representative or outstanding features of the natural heritage and, on the other hand, in fostering their development through discovery activities that respect such heritage and the attendant cultural heritage (Société de la faune et des parcs du Québec, 2002).

The activities and services offered in Québec's national parks are based on three principles. Specifically, they must:

- have a minimum acceptable impact on heritage;
- foster the discovery of heritage;
- facilitate accessibility.

The three principles must not be considered in isolation. Indeed, the first principle is prioritized, thereby satisfying the requirement of section 3.1.1 of this master plan. Accordingly, an activity or service that fails to comply with the first principle is not compatible with the activities and services offered in Québec's national parks. Moreover, in addition to observing the three principles, the offer of activities and services must avoid as much as possible restricting the practice by the Inuit of traditional activities.



Lastly, Parc national Kuururjuaq's program of recreational and educational activities must comply with the following guidelines:

- Educational offerings must promote the establishment of close, significant contact between visitors and the protected heritage and encourage visitors to discover the diversity of the heritage and the role and value of such diversity.
- Such offerings must encourage a concrete commitment by visitors to the realization of the conservation mission.
- Educational offerings must adopt the recreational and educational approach along with the environmental education approach.
- Educational offerings must develop the Inuit culture, in particular legends, their material culture and know-how.
- Such offerings must include activities for the school population and be incorporated into the Nunavik program of study.
- Educational offerings must raise awareness among visitors of the importance of obeying regulations in force in the park.
- Offerings of activities and services must be aimed chiefly at visitors who have experienced isolated environments that are exposed to the rigours of the climate and make provision for offerings adapted to a clientele that requires broader supervision and seeks more comfort.
- The recreational activities and services offered depend on the fragility of the natural heritage, the distances to be covered and the limited number of visitors expected.
- Offerings of educational and recreational activities must require a concerted approach with Torngat Mountains National Park of Canada.

3.1.3 RESPECT FOR THE RIGHTS GRANTED TO THE BENEFICIARIES OF THE JBNQA

While it has been clearly established that the JBNQA takes precedence over the Parks Act, which guarantees that beneficiaries may pursue their traditional activities inside the park, the fact remains that the cohabitation of traditional activities with those offered to visitors might affect the Inuit way of life. As early as the planning process,



the Kangiqsualujjumiuts expressed their concerns about the presence of visitors in certain areas of the park, not only for fear of a misunderstanding of their way of life but also for reasons of safety.

The activities and services of Parc national Kuururjuaq must not significantly affect the exercising by the Inuit of their utilization right. Accordingly, managers must adjust the offer of activities and services to visitors in light of the practice of traditional activities.

The following orientations are guiding managers to ensure respect inside the park for the rights of beneficiaries under the JBNQA:

- reliance on the harmonization committee as a consultation mechanism between the interveners to ensure respect for the rights granted to the beneficiaries of the JBNQA;
- the implementation of a mechanism to monitor the maintenance of traditional activities;
- visitor information concerning the possibility of mixing with Inuit engaging in traditional subsistence activities inside the park.

3.1.4 SECURITY

The territory of Parc national Kuururjuaq harbours numerous natural hazards related to the presence of high mountains, cold water, a harsh climate or wildlife. Given the park's isolation and remoteness, even a minor accident can have serious consequences for the victims' survival. What is more, even when emergency responders are contacted promptly, they can take several hours or days to arrive if an aircraft is not readily available or in the event of bad weather.

The park has adopted an emergency measures plan that designates the key interveners and establishes the steps to follow, among other things during search and rescue operations. Accordingly, the following orientations are guiding managers in Parc national Kuururjuaq with respect to security:

- adopt a preventive approach to avoid accidents by informing visitors of the threats that they are facing;
- work closely with Torngat Mountains National Park of Canada with regard to communications and search and rescue operations;
- promote the hiring of local park wardens and guides for visitors with limited experience or technical skills.

3.1.5 ADMINISTRATION AND REGIONAL DEVELOPMENT

The Québec government formally committed itself to participation by the Inuit in the development and management of parks in Nunavik on April 9, 2002 when it signed the *Sanarrutik Agreement*. As for Parc national Kuururjuaq, it must also rely on collaboration with officials of Torngat Mountains National Park of Canada in order to guarantee a quality service offer to visitors who stay in the two parks.

Québec's national parks are dedicated first and foremost to heritage conservation and nonetheless constitute catalyst projects for the local economy. For a small community such as Kangiqsualujjuaq, economic spinoff from activities in the park will be considerable. The following orientations have been adopted with respect to administration and regional development:

- foster the hiring of residents of Kangiqsualujjuaq;
- rely on local enterprises to manage certain activities and services;
- act in a concerted fashion with local organizations;
- continue to rely on local organizations to develop the park;
- provide training adapted to the demands of the jobs offered.

3.2 ZONING

The zoning plan of a park is a regulatory tool that establishes key directions governing the level of protection and development contemplated for each unit in the park. It marks the initial step in compliance with the orientations listed in the preceding section. It is important to specify in this regard that the directives and regulations associated with the zoning plan do not hamper the exercising of the utilization right granted to the beneficiaries of the JBNQA.

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The zoning plan of Parc national Kuururjuaq (see Map 5) takes into account, as far as possible, indications concerning the use of the territory by the Kangiqsualujjuamiuts, fairly difficult access to the territory, the anticipated number of visitors, and the facilities planned.

3.2.1 MAXIMUM PRESERVATION ZONES

Neither activities nor harvesting are allowed in maximum preservation zones. The park director may authorize scientific research and certain educational activities under certain conditions and upon submission of a full description of the project showing that the techniques used conform to the park's conservation objectives.

There are three maximum preservation zone inside Parc national Kuururjuaq, totalling 47.3 km², equivalent to 1.1% of the park's area. The first such zone, with an area of 19.9 km², covers a portion of the high summits above spot elevation 760 m and maintains intact a sampling of the high peaks of the Torngat Mountains. As noted earlier, the high peaks host an outstanding concentration of rare invascular flora species in Canada.

Another maximum preservation zone has been registered to protect a cultural site known as Caribou Heaven that is important to the Naskapi Nation of Kawawachikamach and covers an area of 0.2 km².

The third maximum preservation zone is located roughly 15 km upstream from the Ruisseau Narsaaluk on the northern slope of the Koroc River valley, where the most northern stand of white birch known in Québec is found. The 27.1 km² zone extends beyond the forest stand as such. Accordingly, visitors are prohibited from entering the zone but may nonetheless observe the stand at a distance.

3.2.2 THE PRESERVATION ZONE

In a preservation zone, visitors are directed in such a way that they avoid disturbing the most fragile features and neither motor vehicle traffic nor sportfishing are allowed. The establishment of huts and campgrounds is allowed along long hiking trails and their use is governed by an environmental code of ethics based on the Leave No Trace Canada program (www.leavenotrace.ca). Most of the territory (3 931.3 km², i.e. 88.1%) of Parc national Kuururjuaq is designated as a preservation zone.

3.2.3 THE NATURAL ENVIRONMENT ZONE

The natural environment zone is devoted to less restrictive discovery of the park territory. Unlike the preservation zones, this type of zoning allows for the use of motor vehicles and the establishment of several types of accommodation. Sportfishing is authorized in water bodies located in the natural environment zone, which includes all of the Koroc River. Accordingly, the natural environment zone corresponds, by and large, to valley bottoms, the main traffic corridors that link the various points of interest in the park. It covers an area of 475.9 km², i.e. 10.7% of the territory.

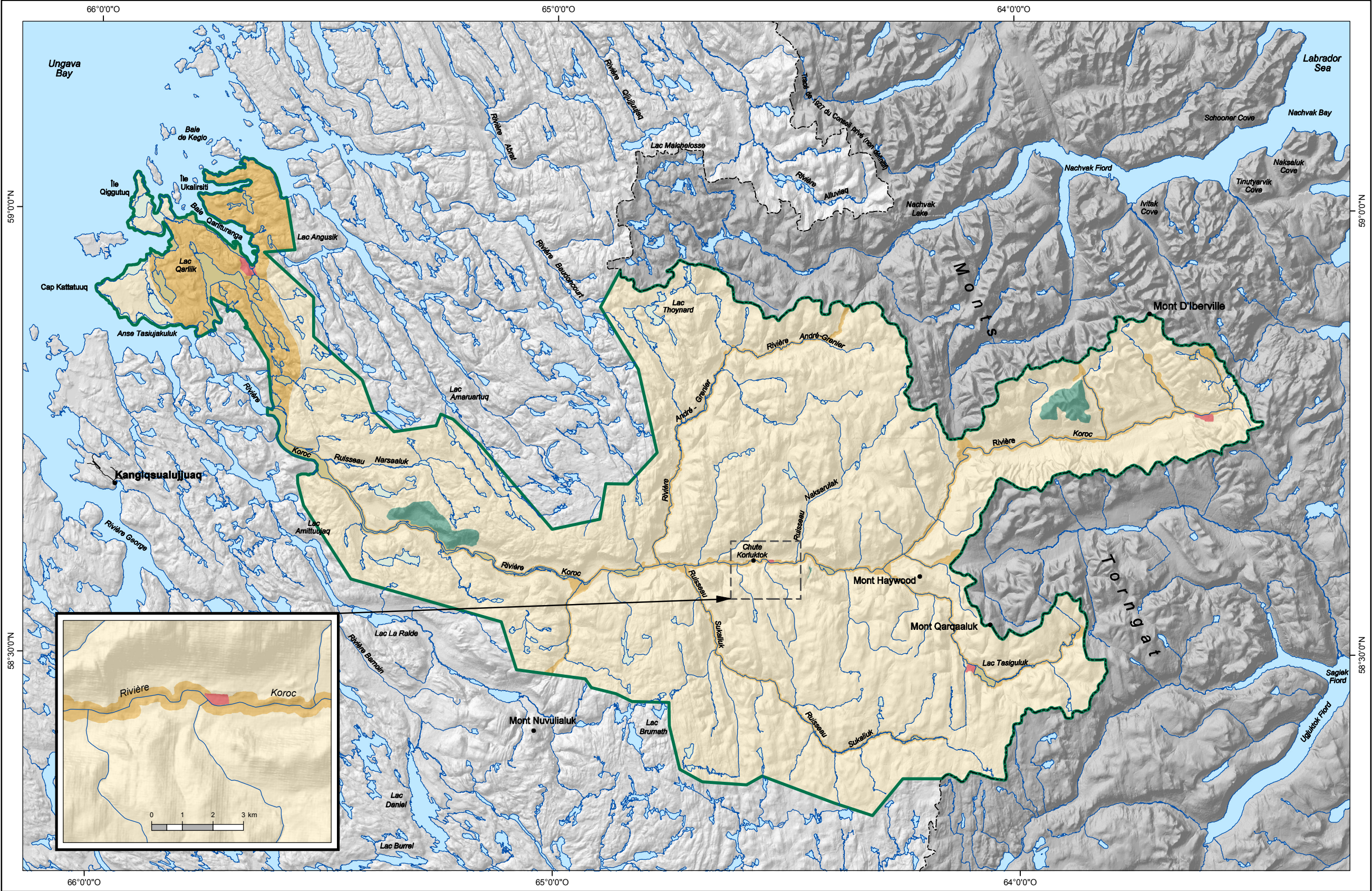
Along the Koroc River and in the tributary valleys, the natural environment zone extends over a minimum width of 200 m on both sides of the river, thereby allowing for the establishment of huts and camping platforms. It widens in the western part of the park, mainly because of the intensity of use to which it is subject by the residents of Kangiqsualujjuaq. Indeed, several seasonal camps are found there.

3.2.4 SERVICE ZONES

Service zones are sites designated for the main access to the park by air but also for the development of accommodation infrastructure that offers greater comfort and the storage of equipment required to operate the park. The attribution of this type of zoning stems above all from the higher support capacity of the sites designated.

Service zones cover a small area in the park (6.4 km², i.e. nearly 0.1%). The first service zone is located in the portion at the headwaters of the Koroc River, on the south bank of the river in the Torngat Mountains area. It has been established on an alluvial terrace that has been used for many years to access the Torngat Mountains by air. Located less than 20 km from Mont D'Iberville, the service zone is the main access point

Map 5
Zoning

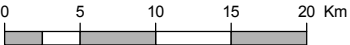


- Services
- Ambience
- Preservation
- Maximum preservation
- Park boundary

Metadata

Geodetic reference system
Coordinate system

NAD 83 compatible with the World system WGS 84
Modified Transverse Mercator (MTM), zone 5



1/500 000

Source

Data

Base de données topographiques et administratives (BDTA) à l'échelle de 1/250 000

Organization

Ministère des Ressources naturelles

Realization

Direction du patrimoine écologique et des parcs
Service des parcs
Division de la géomatique et de l'infographie
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Parc national Kuururjuaq





to Parc national Kuururjuaq. The area is also ideal for visitor accommodation or park wardens, the storage of material and equipment, or the establishment of a weather station.

A second service zone has been established in the coastal area of the park. It was selected because it is easy to berth boats there. Indeed, few sites along the coast are suited to berthing because of the tides, strong winds or rocks. This service zone serves mainly as an entry point to discover the park's marine environment.

A third service zone is located on the edge of Lac Tasiguluk. It was designated in anticipation of a need that may arise in the medium term for accommodation for visitors wishing to discover the area.

Lastly, since the park's creation, a service zone has been added upstream from the Chute Korluktok. Not only does the Chute Korluktok's beauty make it an important attraction but it is also an ideal fishing spot. The falls are also located at midpoint for those wishing to descend the Koroc River. The site is accessible most of the year. The area, now designated as a service zone, may be further developed. To this end, the construction of a landing strip will facilitate access by air near the falls. Moreover, a full-service camp will be built there to offer more extensive accommodation.

3.3 PARK DEVELOPMENT

Parc national Kuururjuaq is characterized by a virtually unaltered natural environment. It would, therefore, be advisable to ensure that its development respects its intrinsic diversity that is rare in the modern world and that we take advantage of it. The concept of development, while allowing for an original ecotourism product to discover the Torngat Mountains and the Koroc River valley, prioritizes the conservation of this outstanding natural heritage. The mountain peaks offer views of fjords whose majesty rivals that of the fjords in the Scandinavian countries. The lush Koroc River valley is a unique ecosystem at this latitude, in the heart of the tundra.

However, this land of high mountains is a harsh region where sudden, unforeseeable changing weather conditions are the most significant constraint to park development, not only from the standpoint of accessibility but also as regards danger, especially for hikers. Both park managers and visitors must

take seriously this climate phenomenon since the safety of park visitors and the quality of their experience there depend on it.

The mountainous region's undulating topography and the presence of permafrost limit the number of sites suited to the establishment of landing strips, full-service camps, huts and campsites. Against a backdrop of climate change, the sites and the type and method of construction must be chosen carefully to avoid the thawing of the permafrost and ensure the stability of facilities.

3.3.1 CENTRES OF DEVELOPMENT

This master plan covers four centres of development. One of them is located outside the park. The objective of each one is to enable visitors to discover different areas of the park that have special features. While the location of future facilities is not defined exactly, it will must conform to the zoning plan presented in the preceding section.

Kangiqsualujjuaq

The village of Kangiqsualujjuaq is the main service point where the reception and interpretation centre and the park's administrative and technical services are located. It is the park outpost where visitors may obtain the extensive information that they need. They can also visit the permanent exhibition that will help prepare them before they enter the park. To ensure proper control of activities and, above all, of safety, visitors will be required to register before entering the park and indicate when they leave the park. If visitors plan to frequent areas adjacent to Torngat Mountains National Park of Canada, registration forms will be sent to the managers of the Canadian park. The pooling of information by the two parks will allow for the coordination of search and rescue operations, as the case may be.

The Torngat Mountains

The Torngat Mountains centre of development is the main one in the park since it is the area likely to attract the most visitors. It will be accessible by airplane and by snowmobile. It is a starting point for excursions down the river and for long hikes in the mountains. It will be possible for visitors to stay in a full-service camp near the landing strip or in a campground that offers some services. Huts and primitive campsites will be located at strategic points along the long hiking trail to ensure a safe walking distance between accommodation sites.

The Chute Korluktok

Located in the heart of Parc national Kuururjuaq, the Chute Korluktok centre of development will be accessible by airplane and by snowmobile, or by whitewater boat from the Torngat Mountains, roughly at midpoint along the Koroc River. It can thus be used as a starting point or exit point for shorter excursions downriver, i.e. lasting three to four days. As a starting point, the centre of development has the advantage of allowing navigation on a section of the river that is less subject to rubble³ when water levels are low. Accommodation services will also be offered in the centre of development in the form of a primitive campground and a full-service camp.

The Baie Qarlituranga

This centre of development, accessible by boat, allows visitors to discover the diversity of the marine environment along Ungava Bay coast. Accommodation in the area will be offered in the form of a full-service camp and a primitive campground. Visitors can discover the points of interest along the Ungava Bay coast mainly by boat or sea kayak.

3.3.2 ACCESS TO THE PARK

Depending on the season and the areas that visitors wish to visit, there are several ways to access the park. Airplanes, boats and snowmobiles are the main means of transportation. Furthermore, it is possible to use a helicopter, but mainly for park management needs. While it is encouraged that the customer comes to the park by the village Kangiqsualujuaq some visitors will come directly from the National Park Torngat Mountains.



Summer access

During the summer, bush planes can deposit visitors on groomed landing strips. Pilots or the airline must first obtain

³ A significant ensemble of rocks and boulders found in part of a watercourse (Office de la langue française, 1993).

permission from the park director. Moreover, to ensure the quality of the visitors' experience but also to disturb as little as possible fauna in the Koroc River valley, pilots are asked to fly outside the valley corridor, as far as possible, or at a minimum altitude of 600 m (2000 feet) above ground.

Since the Torngat Mountains are an important pull factor in the park, the main entrance to the park is located in the service zone at the headwaters of the Koroc River. The terrace now used to enter the park will be signposted to make it safer. The same is true of the Chute Korluktok area. A landing strip in the service zone located 1 km upstream from the falls will serve as a park entrance. A full-service camp will be built there to accommodate up to 16 visitors. Another landing site, opposite Mont Haywood on the north bank of the Koroc River, has been designated in the park but it constitutes a secondary access.

Visitors can also enter the park by boat from Kangiqsualujuaq, where guides will be able to offer this service. This is only possible at high tide and it takes roughly two hours to reach the park, depending on the type of boat used. The presence of rapids at the mouth of the Koroc River limits upstream travel to a short distance downstream from the camps of the Pourvoirie Aventures Alummi, located outside the park.

Winter access

While it is always possible to access the park by air, the snowmobile is the most economical means of doing so in the winter. Optimum conditions for visiting the park occur in March and April, since the first months of winter are very harsh and the days very short.

The local population has created a network of snowmobile trails that radiates from Kangiqsualujuaq. The park entrance is nearly 30 km from the village and it is then necessary to follow the Koroc River. Inside the park, snowmobile traffic is essentially confined to the Koroc River.

While it is possible to visit the Torngat Mountains area in the winter, doing so is hardly recommended because of the harsh climate, limited snow cover, and high winds. It is preferable to remain within the tree line.

It is also possible to travel by dogsled, an activity that a number of village residents might offer. This mode of transportation fits in perfectly with the type of experience sought in Nunavik.



Furthermore, educational offerings help visitors to:

- understand the objectives that underpin the creation of national parks;
- absorb the ambiance specific to the park's open spaces;
- learn about possible threats related to activities;
- understand and respect the Inuit way of life.

Educational offerings also target the Kangiqsualujjuamiuts, thereby contributing to develop and sustain their cultural traditions. An educational program will be specifically designed

for Inuit young people.

The natural and cultural heritage of Parc national Kuururjuaq is at the root of the educational initiatives implemented by park managers. A number of heritage attractions located in the village of Kangiqsualujjuaq and the surrounding area are also being broached.

Parks visitors' initial contact with the educational program occurs in the village of Kangiqsualujjuaq. Indeed, the reception and interpretation centre presents a permanent exhibition designed to highlight all of the park's attractions and reveal some facets of the park's diverse cultural heritage and its region of influence.

Aside from the exhibition, several other means are being elaborated and contemplated by the managers to develop the heritage of the park and the surrounding area: guided or self-guided hikes, brochures, posters in the huts and the reception centre, talks, commented demonstrations, initiation to Inuit culture, excursions, and so on. Recreational activities must also offer means of better appreciating the territory in which they take place.

The park has adopted an educational plan, a frame of reference to plan and develop educational offerings. It describes the clientele and objectives of educational offerings, the themes to be developed, and the educational means proposed. The



3.3.3 ACTIVITIES

As is true of Québec parks overall, Parc national Kuururjuaq can be discovered through recreation and education. To take advantage of the imposing scenery and discover the diversity of this extensive biodiversity, ecotourists can engage in various outdoor activities. For example, during the summer, hiking, canoeing, kayaking and inflatable rafting allow visitors to travel beside the magnificent Koroc River with its alternately emerald and turquoise waters, or to be transported by it. In winter, Nordic skiing and snowshoeing allow for unforgettable excursions in the snow-filled valleys. Furthermore, education is an ideal way to facilitate and enrich discovery by revealing to visitors the meaning of the phenomena and landscapes observed, and the area's human history.

The fragility of northern ecosystems to frequent trampling and the low regeneration rate of flora when damaged reveal a limited support capacity. Specific development measures and visitor quotas will be applied at accommodation sites and along hiking trails to respect their support capacity. This question is an ongoing concern for managers.

Education

In addition to helping visitors to discover and appreciate Parc national Kuururjuaq's heritage, education also seeks to heighten awareness among visitors of the importance of their contribution to heritage conservation, in particular through compliance with regulations.

education plan also targets the short-term initiatives to be carried out in this field.

Hiking

Hiking in the mountainous area is unquestionably the most widespread activity among visitors. It demands relatively little specialized equipment and no specific technique. Moreover, when differences in level are significant, several warnings are extended to the most daring hikers who are contemplating reaching certain peaks.

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Given that such open environments encourage the use of different routes to link two points in the valleys and on the piedmonts and bearing in mind the appreciable impact of repeated trampling at the same sites, the construction of trails is not being contemplated. It will also be possible to offer visitors georeferenced routes (GPS) for hiking trails to ensure safe travel, above all on days when the fog is thick. The park operators are gradually installing markers at strategic sites (watercourse crossings, emergency kits or the identification of sections of routes that present a high level of difficulty).

Hikers who wish to hike independently in the Torngat Mountains must first show park officials that they have the experience and ability to do so and that they possess all of the necessary equipment, adapted to their expedition. They must also submit the itinerary that they plan to follow and notify park officials of any change in it.

The long hike route indicated on Map 6 enables hikers to discover the key attractions of the Torngat Mountains but hikers are not confined to the path. It should be noted that not everyone is able to climb up the peaks on Mont D'Iberville, in particular.

Mont D'Iberville is a horn, i.e. a residual peak at the junction of three glacial cirques accessible both from Parc national Kuururjuaq and Torngat Mountains National Park of Canada. Three combed ridges that form veritable knife edges radiate from the peak, one northward, one eastward, and one southwestward. It is possible to climb Mont D'Iberville from Parc national Kuururjuaq via the eastern ridge or the southwestern ridge. It is also possible to combine the two routes to make a loop from a base camp located in the main valley (see Figure 1). The loop is roughly 12 km long and drops just over 1 000 m. The climb is fairly easy until the starting point of either ridge. From there, the hike becomes breathtaking given

the narrowness of the path that becomes jagged and the almost vertical north side of the ridge and the sloping south side. Falls on the ridges can be fatal. Hikers who are unaccustomed to a fairly technical level of hiking, i.e. one that requires the use of the hands and occasionally ropes because of overly steep walls, must avoid hiking to the summit. The eastern ridge is the easiest path to reach the summit but nonetheless remains technical. Over most of the route, the level of difficulty is Class 3YDS⁴, although several sections are Class 4YDS. The southwestern ridge is more difficult than the preceding one. First, rocks are less stable there and an abrupt, 10-m break demands climbing techniques whose level of difficulty is Class 5.6YDS. Hikers must descend the break when hiking up the mountain along this ridge or climb down it when descending the mountain by this route (Lavigne, 2006).

Less experienced hikers can enjoy an unforgettable experience on Mont D'Iberville without necessarily reaching the summit. The climb to the starting point of the eastern ridge ends on a triangular plateau that affords a splendid view of the peak and the lakes and glaciers located on the north side of the mountain.

The Koroc River valley is also suited to long hikes, although this is not the ideal way to discover the area's attractions. Certain points of interest, including Mont Haywood, are accessible by a short hike. Canoeists and kayakers wishing to enjoy a complementary experience will enjoy walking to reach the points of interest.

Climbing

Climbing is not within everyone's reach and demands specialized techniques, the appropriate equipment, and

⁴ YDS: Yosemite Decimal System. This is the rating system of the level of difficulty of rock climbing faces adopted by the Fédération québécoise de montagne et d'escalade. Source: Conseil québécois du Loisir, 2005 a.

Class 3: Technical hiking on an inclined slope that requires the use of the hands. The use of a rope is sometimes appropriate to minimize the consequences of falls.

Class 4: A moderately technical climb on a more exposed slope that requires physical movements. The use of a rope is often appropriate to minimize the consequences of falls.

Class 5: Free climbing that requires the use of climbing equipment to ensure the hikers' safety. Free climbing routes begin with a 5, followed by a decimal point and a number from 1 to 15.



minimum training to be enjoyed safely. It is, therefore, a secondary activity in the park's offer of activities.

Park management, assisted by experts, must determine which rock faces are passable and specify the attendant levels of difficulty. Among other things, the rock faces must not shelter plant species with special status or the nesting sites of falconiformes. Climbing will be allowed only on designated rock faces. Elsewhere, climbing is only permitted provided that hikers obtain special permission from the park director.

Skiing

In the same way as hiking, long and short ski touring trips are an excellent way to discover Parc national Kuururjuaq during the winter. The Koroc River valley is suited to this activity, above all in the area upstream from Mont Haywood. Indeed, downstream from Mont Haywood, ice conditions on the river can make skiing difficult. The valley of the Ruisseau Sukaliuk is also suited to skiing and enables skiers to discover the Koroc River Plateau and to reach Lac Tasiguluk. This valley, which is wooded at its mouth on the Koroc River, climbs gradually to the plateau, where landmarks are scarcer and skiers are more exposed to the harsh climate. Good navigation equipment and proper clothing are essential.

Canoe-camping

The Koroc River is an attractive canoeable route. Canoe-camping is by far the most suitable way to discover the Koroc River valley in the summer. It is possible to descend the river in a canoe, kayak or inflatable raft. As they descend the river, paddlers encounter rapids and ledges of varying degrees of difficulty. It is a demanding canoeable route, since most of the rapids found there are difficult (Class III and less) while only some others, are easy (Class IV and over) (Conseil québécois du loisir, 2005 b). To avoid the falls, ledges and rapids that are overly difficult, paddlers can portage easily. Park employees are familiar with the portages, which will be clearly indicated along the river.

The Koroc River is generally shallow and since only spring freshets foster easy navigation, this constraint reduces the period in which conditions are favourable to the descent toward Ungava Bay for several types of boat. Accordingly, starting in mid-July, the water level in the section located downstream from the outlet of Lac Tasiguluk is already low and navigation there is harder because of the numerous boulders that become apparent.

It is possible descend the river entirely from the landing strip in the Torngat Mountains in six to ten days, depending on the water level and weather conditions. The Chute Korluktok area can also be the starting or finishing point of a boat trip. The main advantage of a boat launch here is that it guarantees a water level sufficient to engage in boating throughout the summer.

Along the entire canoeable route, markers will indicate the location of primitive campgrounds. Visitors will be encouraged to use them as far as possible, but bearing in mind changing weather conditions and varying water levels, canoeists may be unable to travel to the next site. The Koroc River is dotted with numerous beaches that can comfortably, safely accommodate small groups of canoeists.

Sea kayaking

The coastal portion of the park can be discovered essentially by sea. The camp located in the service zone is accessible from Kangiqsualujjuaq by motor boat and will serve as the starting point for visitors who can then pursue their discovery of the marine environment by sea kayaking. Since this portion of the territory encompasses a heavy concentration of archaeological sites, it is possible to develop a number of them in order to make known the ancestral way of life of the Kangiqsualujjuaq Inuit.

Wildlife harvesting

As is the case in all of Québec's national parks, sportfishing is the only form of wildlife harvesting authorized in Parc national Kuururjuaq. However, the beneficiaries of the JBNQA may continue their traditional harvesting activities, such as hunting and trapping.

Visitors may engage in sportfishing on water bodies designated for this purpose in ambience zones only. The rules governing sportfishing in Québec apply in the park and visitors wishing to engage in the activity must possess a provincial fishing licence. In addition to the authorization to fish in the park, visitors must also obtain an authorization to fish from the Qiniqtiq Landholding Corporation in Kangiqsualujjuaq to fish on Category II lands inside the park. Furthermore, visitors who frequent the park solely to engage in sportfishing will be asked to do use services of an existing outfitter. It should be noted that fishing is authorized only in the service zones and the natural environment zones.

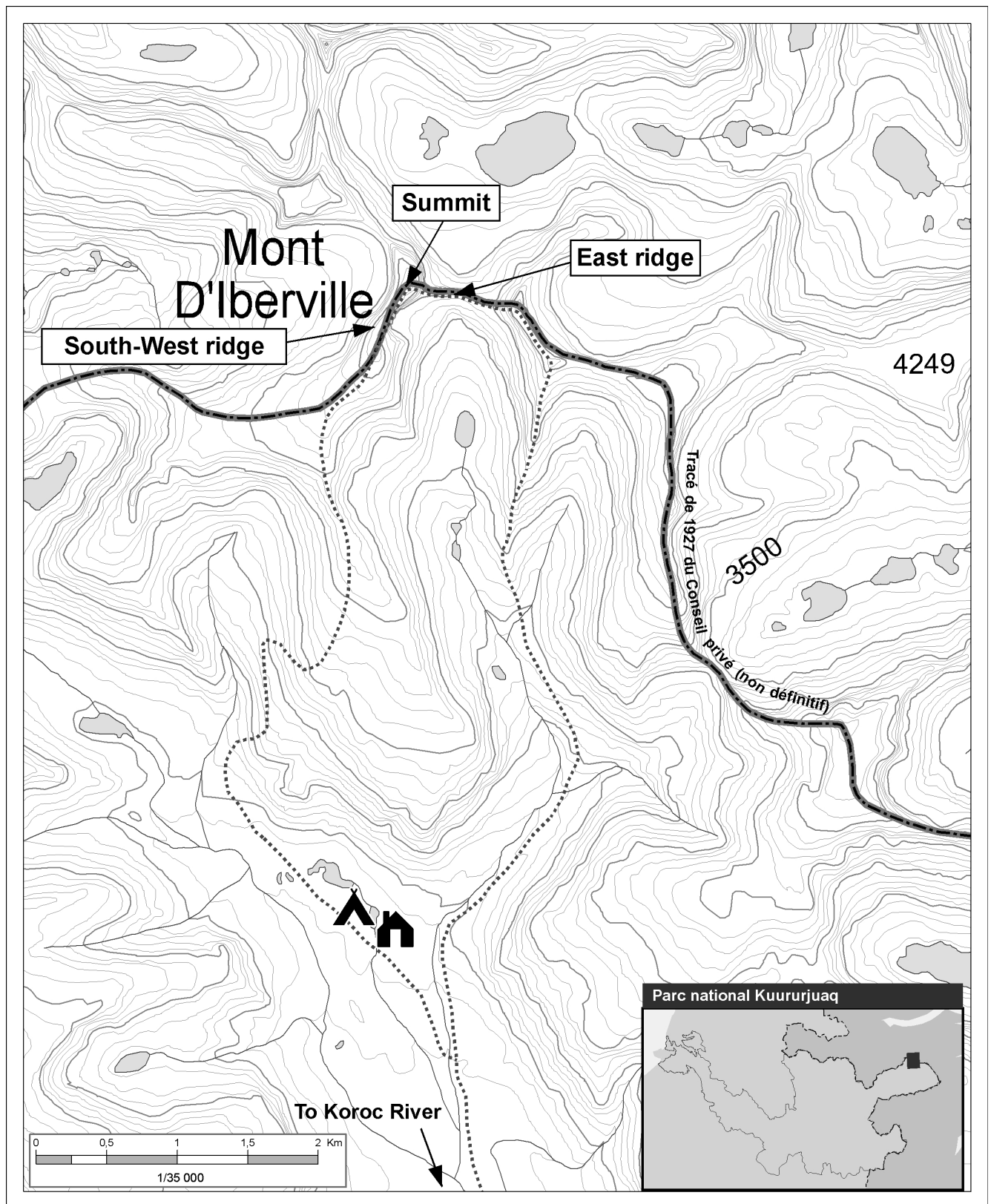
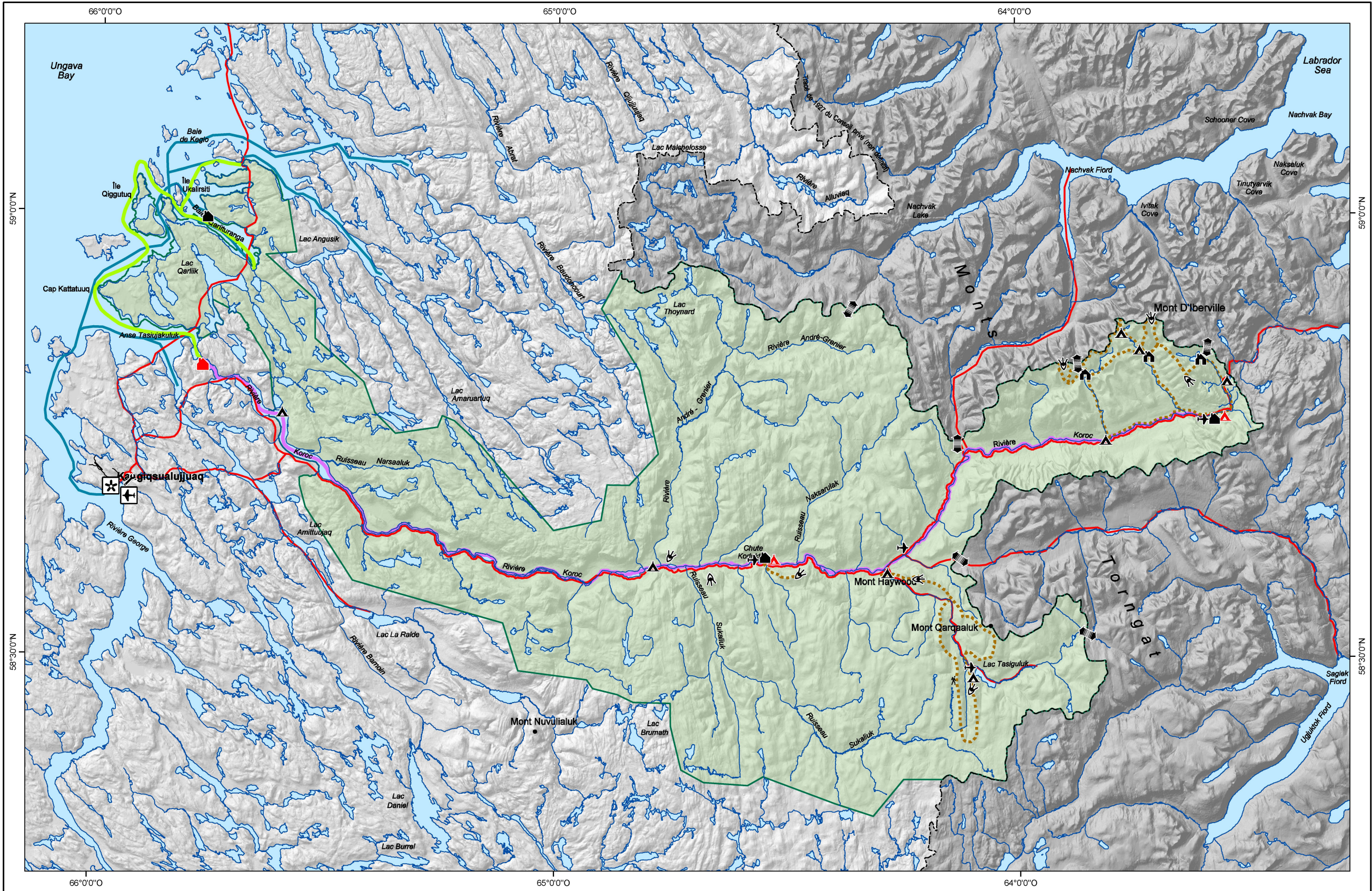


Figure 1
Recommended path to
climb Mont D'Iberville

Map 6
Development concept

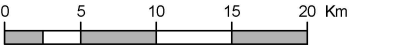


- Acces**
- Boat
 - Snowmobile
 - Airstrip
 - Potential pedestrian access to Torngat Mountain National Park Reserve of Canada
- Services**
- Visitors center
 - Airport
 - Warehouse

- Lodging**
- Destination campground
 - Primitive campground
 - Hut
 - Camp
 - Aventures Alummi
- Activities**
- Observation point
 - Hiking
 - Canoe-camping
 - Sea kayak
 - Park boundary

Metadata

Geodetic reference system: NAD 83 compatible with the World system WGS 84
Coordinate system: Modified Transverse Mercator (MTM), zone 5



1/500 000

Source

Data
Base de données topographiques et administratives (BDTA) à l'échelle de 1/250 000

Organization
Ministère des Ressources naturelles

Realization
Direction du patrimoine écologique et des parcs
Service des parcs
Division de la géomatique et de l'infographie
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Parc national Kuururjuaq





Other activities

Requests concerning activities other than those mentioned earlier will be examined on a case-by-case basis. However, in the case of so-called “extreme” activities, they will be handled according to the guidelines defined by the activities and services section of the *Politique sur les parcs*.

3.3.4 ACCOMMODATION

Accommodation in Parc national Kuururjuaq is geared to distances, climatic conditions, modes of transportation, the activities carried out, the target clientele, the support capacity of the environment, and the safety of users. All accommodation, regardless of the formula, must harmonize with the surrounding landscape and rely as much as possible on ecological and ecoenergetic construction techniques. To ensure that the sites remain in good condition, the conservation plan establishes strict rules of conduct concerning, among other things, the use of drinking water and waste and wastewater management.

During winter excursions, visitors using the services of a local guide may learn how to build an igloo to spend the night. This activity marks a high point in the northern experience.

Full-service camps

A full-service camp is infrastructure that has been designed for parks in Nunavik and is similar to the camps established in outfitting operations. Such a camp can comprise units with different functions, e.g. a kitchen, washroom facilities, dormitories and a storage area. This type of camp offers the advantage of concentrating similar equipment in a single unit and being readily adaptable depending on the number of users.

The park will have three full-service camps, the first one located in the service zone in the Torngat Mountains area, the second one in the service zone near Chute Korluktok, and the third one in the Baie Qarlitiranga service zone.

Huts

Communal huts will serve the areas farthest from the service zones. The huts offer minimal comfort to users who sleep in a single unit, where they can prepare their meals. Huts are planned all along the long hike route proposed in the Torngat

Mountains. They will be located at strategic sites such that they can be reached in a day’s hiking.

Emergency shelters

As is the case in the national parks in the Arctic, emergency shelters will be built at sites far from other infrastructure or at sites that are critical for visitor safety. The very modest, one-room facilities will also house an emergency radio. The shelters will protect visitors from potential threats such as bad weather, dangerous animals, extreme fatigue, hypothermia, and so on.

Campgrounds

There are two types of campgrounds in Parc national Kuururjuaq, i.e. destination campgrounds and primitive campgrounds associated with long hikes or canoe-camping. Destination campgrounds are located near full-service camps at Chute Korluktok and the Torngat Mountains. The campgrounds will offer users basic comforts, including washroom facilities, a shelter and several tables.

Primitive camping will be possible in most of the territory, except in maximum preservation zones and on high peaks, because of the high winds that can occur there. Campers will be asked to choose campsites with a durable surface or a site that has already been used and they must not leave any trace of their passage, in keeping with the ethical outdoor principles of the Leave No Trace Canada program (www.leavenotrace.ca). Along the suggested long hike routes and on the canoe-camping route, campsites are proposed with a view to reducing the degradation of the landscape along the routes. Proper signage will indicate their location. If need be, wood platforms and lean-tos could be built. What is more, depending on changes in the number of visitors and bearing in mind the harsh climatic conditions, the establishment of additional huts along the long hike routes and the canoeable route might be contemplated.

3.3.5 INFRASTRUCTURE IMPLEMENTATION PRIORITIES

Considering the infrastructure to be built, local constraints related to the transportation of materials and the short period during which construction is feasible, it was impossible to put everything in place during the first years. Accordingly, in the short term, attention will focus on:

- the completion of the marking of landing strips;
- the establishment a full-service camp near Chute Korluktok;
- the establishment a full-service camp at the headwaters of the Koroc River;
- the construction of a tent platform and huts;
- the construction of a hut near Mont D'Iberville.

The equipment will make it possible to offer park visitors an array of services. In the medium and long term, other facilities will round out accommodation offerings, depending on growth in visitor numbers.



4 Conclusion

The creation of Parc national Kuururjuaq has significantly enriched Québec's park network both from the standpoint of their representative nature and the grandiose nature of the park's scenery. The park has an area of 4 460.8 km² and protects a significant portion of Québec's territory and natural and cultural heritage.

This park located east of Ungava Bay, preserves substantially all of the Koroc River valley, which presents ecosystems that are specific to this latitude in Québec. By the same token, the neighbouring Torngat Mountains National Park of Canada ensures the protection of a large portion of the Torngat Mountains that cover the Ungava-Labrador Peninsula.

Accordingly, this magnificent valley, which has served as a link between Ungava Bay and the Labrador Sea, will continue

to sustain ancient legends and perpetuate traditional Inuit activities. The outstanding scenery and specific traits of the region's physiography promote an array of discovery activities, linked to an educational program that develops the diversity of the natural and cultural heritage found there.

This master plan is respectful of the fragility of the region's ecosystems and the traditional activities that the Inuit carry on and advocates a cautious development approach. However, by entrusting the park's management to the Inuit of Nunavik, the Québec government is ensuring that the development of Parc national Kuururjuaq respects their perspective and deeply-rooted values.





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