



# **Parc national Kuururjuaq**

## **Koroc River Map**

**November 2013**



## General Information

Of all the rivers of the Ungava Basin, the Koroc has retained a human dimension. With a “small” 4000 km<sup>2</sup> watershed, the Koroc has a flow rate equivalent to the Rouge River. But because it is located in the tundra, with the presence of continuous permafrost, and considering the impressive topography of the area, the flow rate can fluctuates greatly according to rain, which is frequent.

Starting at the base of mount d'Iberville, this 165 km expedition on the Koroc River can be divided into three sections. The first section (68 km) does not present great difficulties, but because of the numerous rock gardens it is best to paddle this section in July (at high water). The second section (52 km) with a river gradient of 0.2 % is the most interesting for white water and offers 12 RII/III + RIII and five bigger sets of rapids, including the beautiful Korluktok falls. The third section (45 km) is mostly flat water, except for the last few km before the Ungava Bay.

The time frame to paddle the first section of the Koroc River (km 165 to km 97) is between June 20<sup>th</sup> and July 20<sup>th</sup>. After that, unless there is heavy rainfalls, you will have to be very creative to find a vein of water deep enough to float in. The last two sections of the Koroc River (km 97 to km 0) can be paddled all summer (even September) and can be accessed by Twin Otter at km 93.

The survey has been completed between July 4th and July 22nd 2012. The first 30 km (km 165 to km 132) was done at low water level (EB). From there (after 3.5 days of rain) we paddled the river at an intermediate water level (EM) all the way down (km 132 to km 0). The only time we had a high water level (EH) was between km 80 to km 50 (after an other 2.5 days of rain).

The river map below reflects this reality, except for the section surveyed at EH between km 80 to km 50 for which we made some adjustment to represent the entire leg between km 132 to km 0 at EM on the river map. But if you are travelling at EH, you could add half a class to some rapids especially for those (km 97 to km 45) located after a big tributary comes in. Make sure to have a look at the **Safety Protocol** which must be used with this river map and details every big rapid.

**The Koroc River is open to intermediate paddlers (RIII) or novice paddlers (RII) under the supervision of an experimented guide in remote areas.** Even though the Koroc River may seems easy at first, remember that you will be travelling in various river settings, at various water levels, which requires a variety of skills and experience. This river is not to be underestimated.

This river map is to be used with the Koroc Safety Protocol. Detailed technical information is provided for each section of this river, including specific information for each tricky section or rapid. Make sure to have a look at it and remember that good scouting is always advisable !!

**Word of caution :** There is no guarantee that these maps do not contain errors. Use the information provided here with caution. YOU are the only one responsible for your own decisions and for your own safety. Parcs Nunavik and its consultant do not take responsibility for the information provided here or for your safety. Any pertinent observation or request for modifications about those documents shall be sent to the Kuururjuaq National Park Director.

This document was produced by Eric Leclair.

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## Water Level

The River Maps, from km 165 to km 132, represent the Koroc River at a low water level (EB). From km 132 to km 0, the River Maps represent the Koroc River at an intermediate water level (EM). Therefore, the river maps produced here are very accurate at those particular water levels.

But because the Koroc River is located in the tundra (continuous permafrost) and considering the impressive topography of the area, precipitations often result in quick water level rise, which in turn increase the difficulty of some rapids, especially those located after a big tributary comes in.

The water level on the Koroc can come up about one foot for each day of rain. It is therefore very important to know at which water level you are travelling, to adjust your river map reading and correctly assess the difficulty of the rapids in front of you.

### Criteria used to define the various water levels

The main criteria used here is the vertical distance between the water level and the vegetation. Eroded riverbank steps are another important criteria, but most importantly you should assess the water level at various locations and riverbank shapes in your descent (over a few kilometres).

Water Levels	Visible Riverbanks (between water and vegetation just outside riverbed)
Low (EB)	Vegetation is 4 vertical feet above water level.
Intermediate (EM)	Vegetation is 2 vertical feet above water level.
High (EH)	Water level is flush to vegetation, no riverbanks.
Flood (Crue)	Vegetation is in the water (about 1 foot or more).

**Note :** Even though a high water level usually means more difficult rapids, the opposite is not necessarily true for the Koroc River at low water level (especially for the upper part) as many boulders will create congested rapids, which will require precise manoeuvring to avoid them.

### Which rapids should be considered harder at high water level (EH) ??

Between km 97 and 45, you could add half a class to some rapids if you are travelling at EH, especially for those located right after a big tributary comes in, like the RII-III at km 97 and the ones located between km 78.5 and km 77. Also, at EH, be cautious about this long RIII at km 55.

Those rapids, as well as a full description of this entire river, are described in details in the **Safety Protocol** which must be used with this river map. Make sure to have a look at it !!

# Rapid Ratings

## General Ratings

**R I : Easy.** Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little training. Risk to swimmers is slight; self-rescue is easy.

**R II : Novice.** Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and assistance seldom needed.

**R III : Intermediate.** Rapids with moderate, irregular waves which may be difficult to avoid and which can swamp an open canoe. Complex maneuvers in fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy but group assistance may be required to avoid long swims.

**R IV : Advanced.** Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require “must” moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. Limit of open top canoes.

## Intermediate Ratings

**R II - III :** The difficulty is in the middle of the two class (2.5).

**R II + III :** 50% of RII and 50% of RIII.

## Other Symbols

The letter « **M** » means shallow water (Maigre). The river looks like a rock garden. There is barely enough water to go through without scratching your boat against every rock.

The letters « **RR** » refers to River Right and « **RL** » refers to River Left (looking downstream).

The letters « **MB** » refers to low tide (Marée Basse).

**Note :** Sometimes the river splits in two or three channels. If no information appear for a particular channel, it is because no scouting has been done for it. Do your own scouting!

**Important Notice:** This river map is to be used with the Koroc Safety Protocol. Technical information is provided for each section of this river, including comments on every major rapid.

## River Map Legend

The river maps are made from top to bottom. As a result, when you look at them while going down the river, what is on the right on your river map, is also on the right in front of you. All the corresponding topographical maps numbers (1:50 000) are written on the top end left of the map. The scale of the river maps are identical to the topographical maps and is 1 : 50 000.

When switching maps, you can refer to the wide grey line that crosses the river, which is at the exact same location on both maps. The overlapping distance on each map is approximately 1 km.



Indicate the number of kilometers to reach the mouth of the Koroc at Ungava Bay.

**R II - III** The definition of each class of rapids is done in detail in the above page.



Full Service Camp



Park Shelter



Private Inuit Camp (Note : Bears also knows these locations ...)



Campsite



Sandbar/gravel bar (brown color) might be used as campsite at EB/EM.



Twin Otter airstrip (Park can provide dates for other groups incoming flights)



Emergency Box (List of content will be given at the pre-visit orientation session)

## UTM Coordinates

The UTM (Transverse Mercator Projection) grid used for these river maps is NAD 83 (WGS 84). But the UTM grid used for paper topographical maps (available in store) which cover the Koroc River area are in NAD 27. You should adjust your GPS to the correct UTM grid you are using !!

**To fit with these river maps you must adjust your GPS unit system into NAD 83 (WGS 84).**

**Note:** If you wish to use both set of maps, most GPS device can translate each waypoint you take into whatever UTM grid reference units you choose, just set your parameters menu accordingly. If not available, here is the conversion scale to switch from NAD 83 (WGS 84) into NAD 27:

Grid:	Northing	Subtract	225 m
	Easting	Subtract	57 m























































