

SOUTH NAHANNI RIVER

Length of Trip

- A. 21 days from Moose Ponds to Fort Simpson
- B. 18 days from Island Lake to Fort Simpson
- C. 14 days from Rabbitkettle Lake to Fort Simpson

Total Distance

- A. 517 km (324 mi) from Moose Ponds to Nahanni Butte
- B. 610 km (381 mi) from Island Lake to Nahanni Butte
- C. 184 km (114 mi) from Nahanni Butte to Fort Simpson

Average Gradient

The gradient from Rabbitkettle Lake to Virginia Falls is .7m/km. The drop in the river from Virginia Falls to Kraus Hot Springs is 1.7m/km, and the average gradient from Kraus Hotsprings to the Splits is 1.1m /km.

Start

- A. Moose Ponds at the headwaters of the S. Nahanni.
- B. Island Lake at 62 degrees 21'N Long. and 128 degrees 12'W Latitude
- C. Rabbitkettle Lakes
- D. Little Nahanni River 62 degrees 5'N 128 degrees 25'W

Finish

- A. Nahanni Butte
- B. Blackstone Territorial Park
- C. Fort Simpson

Accessibility

In the NWT, the Mackenzie Highway provides road access to Fort Simpson, while in the Yukon, the Alaska Highway goes as far as Watson Lake. The newly opened Liard Highway provides a link from British Columbia to the NWT, bypassing Fort Liard and Blackstone Territorial Park. It then forms a junction with the Mackenzie Highway which leads to Fort Simpson. Canoeists can charter float planes from Fort Simpson, Blackstone Territorial Park, Fort Liard, Watson Lake or Fort Nelson to reach the S Nahanni River.

Fort Simpson is about 308km (185mi) east of Rabbitkettle Lake and Watson Lake is about 224km (135mi) to the southwest.

On the upper reaches of the river, common float plane landing areas are the Moose Ponds and Broken Skull. Lower down, landings are usually made at Island or Rabbitkettle Lakes; in both cases a portage is required. Also in the park, fixed wing aircraft may land at Virginia Falls. Canoeists with limited time may consider a shorter trip from Virginia Falls to Nahanni Butte. This option will take approximately five days.

Access to the South Nahanni watershed is also possible by means of two overland and river

routes, one which follows the Little Nahanni from tungsten, NWT and the other which beings at the Canol Road crossing on the MacMillan River. Although these alternatives reduce the cost of an air charter, they involve vehicle shuttles, and extremely difficult navigation through shallow, rocky water on the upper stretches.

Maps Required:

(1:250,000) scale

Nahanni	105 I
Glacier	95 L
Flat River	95 E
Virginia	95 F*
Falls	95G
Sibbeston Lake	95 H
Fort Simpson	

* Hell's Gate is not indicated on the second edition Map series.

River Notes

Introduction

The South Nahanni River flows eastward from its source in the glaciers and snowfields of the Ragged Range in the MacKenzie Mountains. its mouth at the Liard River is found 33 km downstream of the east boundary of the Nahanni National Park Reserve at Nahanni Butte. The Liard then empties into the mighty MacKenzie River at Fort Simpson and eventually the Arctic Ocean. Since this trip occurs almost entirely within the boundary of a National Park, paddlers must observe park regulations as well as the usual rules of river and camping safety. A list of park regulations is found at the end of this South Nahanni River write-up. Because of its rapids and rugged wilderness, the South Nahanni trip is not for beginners. Nevertheless, it remains very popular among canoeists for its diversity of landforms, spectacular scenery and relative accessibility.

Some of the more outstanding features of this trip include the 90 metre (294 foot) drop at Virginia Falls, Hell's Gate rapids, the Gate, Deadmen Valley, the three canyons and the natural hot springs. Hiking along any of the tributary valleys are fascinating sidetrips recommended for canoeists.

The character of the South Nahanni River varies drastically through out the paddling season. River hazards such as sweepers, deadheads, sand bars and raids may appear and disappear between June and August. High water levels result from the spring runoff in mid-June. Summer rainstorms also cause extreme fluctuations of the water levels. rainfall on the Nahanni's upper reaches or tributaries can increase the water level by several feet in a few hours. Prolonged storms on the river may produce flood conditions, making it impossible to canoe. Canoeists should therefore carefully choose their campsites in a safe location, well above the river. They should also be prepared to alter paddling schedules when the river is flooded.

Spray decks are recommended for open boats to reduce the risks of swamping in the major rapids.

Frequent valley winds can also create hazardous paddling conditions. Most of these winds are funnelled upstream in the last afternoon.

Climate

The weather in this mountainous region is unpredictable. Moisture fueled air masses from the Pacific collide with the MacKenzie Mountains throughout the canoeing season, crating heavy summer rain storms. Low lying clouds may prevent fixed winged aircraft from reaching the river valleys for several days. canoeists should therefore have flexible schedules to accommodate such delays. During the summer season, temperatures rise to the mid twenties centigrade during the day and can drop below freezing at night. In lower temperatures, snow and hail are possible. Canoeists should thus have raingear, a good sleeping bag, and warm clothing for this trip.

Geography

The South Nahanni river begins in the MacKenzie Mountains, descends through canyons and gorges, and ends in the wide valley flats near its mouth. Geographers describe it as an antecedent river, meaning thereby one which preceded the mountains. Before mountains were created in this area, the South Nahanni meandered across a wide plain. When rock uplifts occurred, the river maintained itself by cutting down through the rising rock strata. This resulted in the formation of several canyons which scientists believe were formed about 1.4 million years ago. The great curves in the canyons were crated by the entrenchment of the meandering channel.

Unlike most of the rest of Canada, this region was not covered by ice during the last of the four glacial advances. Although the area was cold enough, there was not enough precipitation to allow the formation of glaciers. This mountain valley has not been affected by glaciation for at least 100,000 years. It is believed that the scouring of the river valley was caused by advancing glaciers about two million years ago.

Fauna

Moose, woodland caribou, Dall's sheep, grizzly and black bears frequent the South Nahanni River Valley. Some of the more common smaller mammals inhabiting this area are porcupine, beaver, and a number of smaller rodents. The abundance of fish is limited when the river becomes silty, however, fishing for Dolly varden, lake trout and grayling is reasonably good in the clearer waters of the many tributaries. One hundred and seventy species of birds have been recorded in the park including Trumpeter Swan, Bald Eagle, Golden Eagle, Gyrfalcon and Peregrine Falcon.

Flora

The flora of Nahanni National Park may be more diverse than that of any other area of comparable size in the continental Northwest Territories. Although black and white spruce predominate, there is a fascinating variety of other vegetation in the Nahanni regions. The main reason for this variety is the existence of highly specialized habitats along the course of the river. For example, there are hot and cold mineral springs, mist zones at the waterfalls, unglaciated terrain, and areas of discontinuous permafrost.

Human History

In the early 1700's, Athapaskan speaking tribes travelled through and hunted in this area. The word "Nahanni" was used by the Athapaskans to refer to people in areas seldom visited. A literal translation of the word is "People-over-there-far-away".

Most of the legends from this region stem from the search for gold. Most of the prospecting took place between the years 1900 and 1940. Shortly after the gruesome deaths of the McLeod brothers, several other prospectors and trappers were attracted to the river valley - Field, Jorgenson, Faille, Patterson, and Kraus. Many more myths and legends arose when several of these men died under suspicious circumstances.

Most of the prospecting activity occurred along the tributaries of the Flat River - Caribou River, and McLeod, Moose, Bennett and Borden Creeks. Although the lure of gold was strong, there is no record of anyone striking it rich. Frequently men didn't make enough to cover operating expenses.

River Notes

Although there are several starting points, this report describes a 510 km (319 mile) trip from Rabbitkettle Lake to Fort Simpson on the MacKenzie River. Because most of this trip occurs within the confines of a National Park, canoeists must register with park officials before entering, and return registration forms upon leaving the park. Paddlers may register at the park office at Rabbitkettle Lake. For parties beginning at Virginia Falls, registration may be completed at the Fort Simpson office. At Rabbitkettle Lake and Virginia Falls, camping is permitted only at designated areas. However, between these two points, canoeists may camp anywhere. Those wishing to fish must obtain a national park fishing permit. Visitors must ensure that they have been licensed by the park superintendent. Finally, the removal of natural or historical objects from the park is strictly prohibited. This includes small fossils and antlers.

Moose Ponds to Rabbitkettle Lake

Moose Ponds, at the headwaters of the Nahanni, is one of the more popular starting points for experienced whitewater paddlers. Numerous class two and three rapids characterize the 190 km (119 mile) stretch to the confluence of Rabbitkettle River and the South Nahanni. Spray covers are recommended for open canoes. A minimum of one week is required to complete this section, while ten days will allow sufficient time for parties planning to explore and hike the high country above the river valley.

Rabbitkettle Lake to Fort Simpson

A clearly visible sign indicates the location of Rabbitkettle Lake. Parties may land and hike into the lake on a 600 m portage trail to complete the mandatory park registration. The nearby hot springs and tufa mounds may be visited with park personnel only. The park warden at Rabbitkettle Lake will take groups into the area after they have registered. The wardens are very knowledgeable and enhance the tour considerably. These hot springs are multi-coloured structures of tufa (calcium carbonate), created by means of evaporation. The North Mound is 27 metres high (90 feet) and is found nearest the river. The average water temperature of the water in these springs is 21 degrees celsius. At the tufa mounds, people must remove their footwear so as to avoid leaving footprints that may take hundreds of years to mend. Swimming is prohibited.

Below Rabbitkettle River, the South Nahanni widens slightly and several different channels appear. Meanders, vegetated islands and shoals characterize this section and the paddler who strays into a lesser channel must be ready for shallows and weepers. The valley broadens beyond Flood Creek, and bog and marsh areas encroach upon the river. Roughly 40 km (25 miles) below Flood Creek, two waves are encountered where the Nahanni turns sharply to the left.

Sixty two kilometres (39 miles) below Flood Creek is Virginia Falls, one of the most spectacular water falls in Canada. The river drops 90 metres (294 feet), twice the height of Niagara Falls. There are actually two falls, 91.5 and 55 metres in height, split in mid-channel by a massive rock channel. The upriver approach to the falls is a wide and quiet stretch of river at the base of the Sunblood Mountain. Care must be taken to stay on river right where the park kiosk and campground are located. The portage trail begins 300 metres downstream from these buildings, just before the left hand turn in the river. The 1,250 metre trail is fairly easy, except for the last section in which can be slippery. It comes out on the cobblestone beach at the foot of the falls. Canoeists should be warned that 30 metres below the trail the

river enters a tumultuous cataract (the sluice box) which funnels down to Virginia Falls.

Just below Virginia Falls is the entrance to Five Mile Canyon, a several mile long gorge lined attractively with yellow and orange coloured vertical rock cliffs. The current here is very swift and turbulent, with large standing waves. Rapids are almost continuous through the canyon, with a range of difficulty from Class 1 to 3. These increase in difficulty during higher water levels. Fortunately, the gorge also contains several small beaches, where rest stops can safely be made. Five Mile Canyon ends at Marengo Creek, but the river remains rough until Clearwater Creek.

Two large, vegetated islands are located in mid-stream just below Clearwater Creek. These are well-situated as vantage points from which paddlers can plot their course through Hell's Gate or Figure 8 rapids. Located at the next right angled bend in the river, Hell's Gate contains the best known and most difficult rapids on the South Nahanni. At the start of the rapids, the river turns to the right and comes up against a cliff face, crating irregular standing waves of up to 1.5 metres (3 - 6 feet) in height. The channel then makes a sharp, left angled turn, and enters a short gorge. The current, however, doesn't make the turn and continues across the channel to pile up against a rock wall. Large eddies are thereby created on either side of the main current. At high water levels, even experienced paddlers are required to portage here. Since these rapids vary in difficulty from Class 2 to 4, all canoeists must exercise good judgement when deciding whether to run them or not. The short portage trail runs along the right bank and provides an excellent vantage point to scout the river.

After Hell's Gate, the 17 km (10.5 miles) stretch of river down to the Mary River seems tame by comparison. It is initially shallow and braided, then narrows part way down with short stretches of rapids. Paddlers should be wary of the tricky currents, whirlpools and boils at the Wrigley Creek confluence. Just past the mouth of the Mary River, the landscape changes dramatically as the South Nahanni begins a journey through 48 km (30 miles) of canyons. Through both the Third and Second Canyons the river is bounded by 100 metre (300 feet) sheer rock cliffs. These are backed in turn by the 700 - 1000 metre (2 - 3000 feet) high mountains of the Funeral and Headless Ranges.

While the river is only an average of 150 metres (150 yards) wide in this section and the current is fairly swift, paddlers will encounter little whitewater. Several small beaches can be found at the foot of the cliffs and used as temporary resting places. At the Gate, a point situated about 13 km (9 miles) into Third Canyon, the water is essentially flat. Here the Nahanni makes a sharp, hairpin turn and flows through a narrow gap flanked by two vertical rock faces, each of 300 metres (1000 feet) high. Surprisingly, the waves created are no more than 30 cm (1 foot) high, except in periods of extreme highwater. The river will try to push the canoe into the rock wall on the river left. A main attraction here is Pulpit Rock, a thumb shaped pinnacle standing approximately 100 metres (300 feet) out of the water.

One of the most famous Nahanni legends was born as a result of the mysterious deaths of two brothers in Deadman Valley. After three years of prospecting along the tributaries of the Flat River, the headless bodies of Frank and Willie McLeod were found at the mouth of the Headless Creek in the early 1900's. Soon after, the entire area was named Headless Valley.

Beyond Headless Creek, the river leaves the canyons and enters a broad river valley. Affectionately known as Deadmen Valley, this area provides a respite for paddlers before they tackle the next section of canyon. The current slows considerably and care must be taken to avoid running aground on the many shoals and sandbars, particularly below the Meilleur River junction. The surrounding countryside is marshy, with many deciduous trees. Good campsites abound on either side of the river. The valley's dominant feature is the great alluvial fan created by Prairie Creek. An abundance of wildlife including Dall's sheep is attracted to the salt licks here. Canoeists are advised to avoid disturbing these animals.

At the Sheaf Creek junction, only a few rotting base logs of three cabins remain as evidence of previous inhabitants. Raymond Patterson and his partner built the first structure in the 1920's, and two prospectors built the others in 1939-40. Behind the old Northwest Lands and Forest cabin are the remains of another cabin built by a party of trappers in 1945.

Deadmen Valley offers prime hiking opportunities providing access to the Tlogotsho Plateau from Sheaf Creek. Dry Canyon Creek also offers hiking access to a spectacular tundra-like plateau.

A short distance past Dry Canyon Creek, the entrance to First Canyon is encountered. For the next 9 km (14 miles) the Nahanni winds through a spectacular river canyon, flanked by 1000 to 1300 metre (3-4000 foot) limestone and dolomite cliffs. Unlike the Third and Second Canyons which were backed by mountains, the First Canyon has been deeply incised in a plateau. The current is swift here and paddlers must navigate carefully through the entire length of the canyon.

Paddlers are almost immediately greeted at the canyon's entrance by George's Riffle (a.k.a. the Cache Rapids). A cobble island diverts most of the river's flow to the right side of the channel. High standing waves are created by a low band of rock extending into the channel. Since there is no established portage around these Class III to IV rapids, they must be run with caution. At high water levels, the best route is along the north channel, while at lower levels the south channel should be taken.

Another very hazardous stretch occurs about 13 km (8 miles) downstream, where the river turns to the left. Paddlers are faced with negotiating a very tricky current where the two channels meet at the apex of an island, and create whirlpools. Canoeists are greeted by one final challenge as they exit the canyon just past Lafferty Creek. Lafferty's Riffle consists of high standing waves on the south/right side of the channel, created by outwash material from the creek. At all water levels, the waves can be skirted by running along the north/left shore.

After the first canyon, the river slows in its descent towards the Yohin Ridge. The presence of riffles in the main channel indicate shoals and sand bars.

Paddlers will encounter the Kraus Hot Springs on river right immediately after leaving the First Canyon. The main springs are 300 metres (1/4 mile) south of the river and are detectable from some distance away, by their sulphurous odours. Warm water of 35 degrees celsius bubbles up through fine mud forming two source pools. Gus and Mary Kraus resided here intermittently between 1940 and 1971.

Beyond the Yohin Ridge, the river is predominately braided, shallow and slow. For this reason, this section is known as "The Splits". The river drops over an average gradient of 1.1 m/km.

Ten km (6 miles) south of Twisted Mountain is the southeastern boundary of the park, at latitude 61 08'N and longitude 123 27'W. The distance from here to Nahanni Butte is 33 km (53 miles), where the South Nahanni enters the Liard River. The main part of the Nahanni Butte settlement is on the right bank of the river. A National Park warden station is located on the left shore opposite the settlement. The South Nahanni enters the Liard in a mountainous area dominated by the dolomite and limestone outcrops of the Nahanni Butte Mountain.

Canoeists can finish their journey here, by pre-arranging a pick-up with an air charter company. Other options include finishing at Blackstone Territorial Park, 40 km downstream from Nahanni Butte, or continuing down the Liard to where it meets the MacKenzie River at the settlement of Fort Simpson. Three to five days should be allowed for travelling the 184 km (114 miles) from Nahanni Butte to Fort Simpson. If canoeists choose to paddle the Liard, caution is advised when negotiating the Beaver Dam Rapids. These are a series of limestone

ledges extending across the 1 km width of the river in four distinct sets. Starting three km east of Polar River, they extend some 20 km in length. At moderate water levels, they can be classed II to III and must be approached with caution given the width of the river, and power of the current. The preferred route is as close as possible to river right.

Fort Simpson was established in 1804 and is the oldest continuously occupied trading post on the MacKenzie River. There is a National Park office here, as well as a visitor information centre, accommodations and a community campground. Blackstone Territorial Park, adjacent to the Liard Highway is located 150 km (240 miles) south of Fort Simpson.

List of Park Regulations

Canoeists travelling through the parks must obtain a backcountry permit from park officials at the start of the trip. Travel registration is free and performs a service similar to the Royal Canadian Mounted Police's (RCMP) Wilderness trip registration. At the completion of the trip, paddlers are required to notify the park office or warden.

A national park fishing permit must be obtained if you plan to fish within the park boundary. It is valid in all national parks for one season. Fishing regulations, as well as information on other park regulations are given out by a park warden at the administration office in Fort Simpson, or any other national park information office.

Firearms must be broken down, cased and stowed with other gear. Hunting or discharging firearms is strictly prohibited.

Removal of natural or historical objects from the park is prohibited. This includes small fossils and antlers.

Ministry of Transport regulations require that one approved life jacket must accompany each paddle. Spare paddles should always be carried.

Camping is permitted at any suitable site along the rivers, except where there are designated sites. In Nahanni National Park, there are designated sites at Rabbitkettle Lake, Virginia Falls and Kraus Hotsprings.

Access to the caves is prohibited for environmental and public safety reasons.

It is incumbent on visitors to ensure prospective guides have been duly licensed by the Nahanni National Park Superintendent.

Motor boats are permitted only on the South Nahanni River between the east park boundary and Virginia Falls.

Source Information

- Parks Canada, South Nahanni Canoe Trip Report (from Glacier Creek to the Liard River)
- Parks Canada Superintendent, Nahanni National Park, Personal Communications
- Neil Hartling, Nahanni River Adventures, Personal Communications
- Guide to South Nahanni and Flat Rivers, Parks Canada Brochure, 1980