

Canadian Wildlife Service
Arctic Ecology Map Series
Critical Wildlife areas

Descriptive report

The lon River

THELON RIVER
(Sheet #2080)

The Thelon River map sheet (scale 1:1,000,000) encompasses an area of some 137,000 square miles of mainland tundra between longitudes 96° West and 112° West. It is bounded on the north by Coronation and Queen Maud Gulfs and extends south to 64° North latitude.

With the exception of the small forest extension along the Thelon River Valley, the arctic coast and the western upland, the area is ecologically, quite uniform. The eastern two thirds of the region is generally flat to gently rolling tundra interspersed with eskers and low hills.

The western third of the region is much higher and is typified by several large plateau-like areas, rocky hills and outcrops, and deep river valleys.

The chief features of the eastern region are the north half of the Thelon Game Sanctuary, the lower two thirds of the Thelon River system, all of the Back River system and the headwaters of the Coppermine River. Like most tundra regions, the landscape is dotted with a multitude of lakes. The most dominant are, Beverly Lake, Aberdeen Lake and Contwoyto Lake.

An abundance of resident and migratory wildlife utilizes the eastern and coastal areas of the sheet. The

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region also includes the summer and calving ranges of two large Barren-Ground Caribou populations, a substantial portion of the Arctic mainland Muskoxen range, and the major breeding range of the Ross' Goose. Several important molting areas for Canada Geese occur in the vicinity of the Thelon River. Other important species found within the map sheet include the Barren-Ground Grizzly, White Fox and several species of migratory waterfowl. The coastal and offshore areas contain large seal populations and breeding and staging areas for several waterfowl species.

A summer tourist-outfitting camp used primarily for Arctic Char fishing has recently been established at the original Bathurst Inlet trading post.

Streams running into Bathurst Inlet presently have an annual commercial fishing harvest quota of 25,000 pounds of Arctic Char. However, the sport fishing potential of these systems is considerably greater (double the commercial quota) since more streams may be utilized for sport fishing than commercial fishing.

The Thelon River system, Bathurst Inlet region and the high country to the south and west of Bathurst Inlet contain excellent Barren-Ground Grizzly habitat.

Human residents are for the most part Eskimos who are scattered along the Arctic coasts or in semi-permanent camps at Contwoyto Lake and Aberdeen-Schultz Lake. Baker Lake

is the only large permanent settlement of the region although semi-permanent villages are still to be found at Bay Chimo (Bathurst Inlet) and Perry River.

A great deal of mineral exploration and some mining has been carried on in the western part of the region although the only producing mine (Tundra Mine) is now closed.

The following is the descriptive text for units mapped on this sheet.

UNIT NUMBER

DESCRIPTION

1 Queen Maud Gulf Migratory Bird Sanctuary. Within this critical unit, 22 Ross' Geese nesting colonies (a total of 30,000 geese) and three non-nesting groups (2,000) of geese were recorded in a 1965 survey (Ryder). These populations of Ross' Geese represent the only major breeding area for this species in North America. The small Ross' Geese nest in association with Snow and Blue Geese along the rivers, river islands and small lake islands within the sanctuary. Nesting and molting, which also occurs in the area, take place from approximately May 25 to August 10. (Barry)

Sixteen Lesser Snow and Blue Geese nesting colonies (8,429) were recorded in the 1965 survey by Ryder. An additional 13 colonies were found in 1966 and two more found in 1967. Total populations of Snow Geese are now estimated at approximately 20,000, of which about 10 per cent are blue phase. (Barry)

Nesting colonies of Lesser Snow Geese (size undetermined) are also reported on the southeast side of Sherman Basin, and geese have been observed with young on such rivers as the Kaleet. Portions of these colonies may be outside the Queen Maud Gulf Sanctuary, however exact locations are unknown. (Macpherson and Manning 1959)

Both Pacific and Atlantic Black Brant nest along coastal plains and islands of Queen Maud Gulf. Generally, Pacific Brant (3,500) are found west of the McTavish Point while Atlantic Brant (1,500) are found to the east. (Barry) The birds have been noted to overlap in range, and interchange breeding areas.

Canada Geese (20,000) of which there are two races, nest throughout the Sanctuary, according to Barry. Macpherson and Manning (1959) also observed Canada Geese on the Adelaide Peninsula and nesting at Red Bay (north side of Sherman Basin), on the Kaleet River, and in the pre-cambrian area south of Sherman Basin.

UNIT NUMBER

DESCRIPTION

1
(continued)

Most of the larger Canada Geese molt along the shore of the Gulf while the large non-breeders and smaller Canadas molt along the rivers throughout the sanctuary. One of the largest molting concentrations of Canadas may be found along the shore of Campbell Bay to Atkinson Point further east. (Barry)

Some 10,000 White-Fronted Geese nest within the sanctuary from May 25th to August 10th approximately. (Barry)

They are also found at the base of Adelaide Peninsula, but their present breeding status is unknown. (Macpherson and Manning 1959)

White-Fronted Geese are commonly found nesting amongst Canada Geese along the small streams and rivers. (Barry)

In addition to the many thousands of geese nesting within the sanctuary, Whistling Swans (300) and Sandhill Cranes (1,000) are also common nesters. King Eiders (8,000) and Old Squaws (12,000) both nesting, are dispersed throughout the sanctuary. Both species molt in the offshore regions in July. (Ryder)

Approximately 2,000 ducks mostly Pintails also nest throughout the area. (Barry)

Barry suspects that the Tule Goose may nest in this area, but information is not well documented.

Ryder has observed Muskoxen about fifty miles inland within the sanctuary boundary, and suspects some may calve. Herds are generally small, numbering about 20 in each. Peregrine Falcons have been observed nesting along the Perry River by Ryder and at the base of the Klutschak Peninsula by Macpherson.

Arctic Char are abundant in such river systems as the Perry, Armark, Simpson and the Kaleet, as well as most of the smaller streams running into Queen Maud Gulf. (Hunter, Barry)

Macpherson notes that caribou are found within the sanctuary in late summer and fall. The area consists of a late summer grazing area. The caribou are hunted by King William Island Eskimos during the latter part of the summer. This is a resident herd. No population data is available.

UNIT NUMBER	DESCRIPTION
2	A good population of Ringed Seals is found in the Queen Maud Gulf. (Mansfield)
3	Lake Trout, Arctic Char, Whitefish and Herring are found in this region. Expected productivity for fresh water lakes is $\frac{1}{2}$ pound per acre, and for rivers, 1 pound per acre. (Hunter) No further information available.
4	This is a critical breeding area for Peregrine Falcons. Up to 15 eyries have been observed here. (Macpherson)
5	Arctic Char run into Franklin Lake and continue up the Back River for some distance inland. (Barry) The Back River system is used by migrating fishes as well as resident populations. It is highly productive for a wide variety of species including Lake Trout, Arctic Char, Whitefish, Lake Herring, Pike, and Grayling. Productivity in the Back River approaches one pound per acre annually. (Hunter)
6	The Deep Rose Lake region is a denning area for Arctic Fox. (Macpherson)
7	The Baker Lake system has an annual harvest quota of 50,000 pounds including mixed Lake Trout, Whitefish, and Arctic Char. Baker Lake contains a relict salt bottom. (Hunter) Baker Lake natives harvest the Lake Trout here and catch approximately 1,000 fish per year. (Macpherson)
8	These three units are critical summer nesting areas for Gyrfalcons and Peregrine Falcons. (Kuyt)

UNIT NUMBER	DESCRIPTION
9	Gyrfalcons and Peregrine Falcons nest along the northeastern side of Aberdeen and Schultz Lakes, and along the Thelon River to near Baker Lake. (Kuyt)
10	An ancestral migration of caribou occurs within this unit. This is a post-calving migration route for the Beverly Herd and the animals range in this region at the end of summer. It is here they are hunted by the Eskimos from Baker Lake. (Kuyt) The whole complex of Schultz, Aberdeen, and Beverly Lake contains critical water crossings for caribou both during spring and fall migrations. The narrow portions of this complex are of course the most important, however on some occasions animals may cross on the wide areas of the lakes. (Kelsall)
11	Arctic Fox den on the north side of Aberdeen Lake. 78+ dens found here. (Macpherson)
12	A large Herring Gull Colony (approximately 100 nests) is located here. (Macpherson)
13	A molting area for large numbers (10,000) of Canada Geese (chiefly <u>Branta canadensis maxima</u>) on the island area between Beverly and Aberdeen Lakes. (Sterling) Snow and Blue Geese nest and molt in this region as well. (Barry, Macpherson) No population sizes available.
14	Gyrfalcons and Peregrine Falcons nest in the Marjorie Hills. (Kuyt) Pruitt states that Grizzly Bear denning is frequent here also.

UNIT NUMBER

DESCRIPTION

15

This unit, which is largely within the Thelon Game Sanctuary, is a Barren-Ground Caribou calving area. These animals form the Beverly Herd and migrate into this region from the wintering grounds southeast of Great Slave Lake. The movement, which occurs in April and May is generally concentrated in an area along the Thelon River, and between the Thelon and Dubawnt Rivers. (Kuyt, Loughrey, Pruitt, Macpherson, Kelsall, McEwan)

The calving peak occurs approximately June 12th (Kuyt). The population size for the complete herd is estimated at 159,000. (Thomas) The animals tend to use the areas of higher elevation during the calving period (Kelsall) Calving takes place all around Beverly Lake including the north side. Caribou occasionally calve in large numbers on the south side of the lake if they have been delayed in their migration. (Kuyt, Kelsall)

The spring migration into the calving area is more accelerated than the fall. Caribou arrive on the calving grounds in large numbers. During this migration there are water crossings which the herd must make, and which are all critical. Some of the most important spring crossings are along the Thelon River, and between Beverly and Aberdeen Lake. (Macpherson, Loughrey, Kelsall, Kuyt, McEwan)

Summer range for this herd of Caribou extends from the calving area east to the adjacent unit. The fall migration, which is more leisurely, generally begins at the end of July and lasts to mid August. (Kuyt)

Grizzly Bear are reported denning on the north side of Beverly Lake. (Pruitt) The entire unit is considered ecologically important, especially in terms of its wooded valleys. (Loughrey)

UNIT NUMBER

DESCRIPTION

- 16 Caribou winter in this region south of Gary Lakes occasionally. They number approximately 10,000 at present. (Loughrey)
Little is known of this population, but they have been observed moving south across the Thelon River during the spring. (Kelsall)
- 17 The Back River system is an important molting area for large Canada Geese during the period June 15th to July 30th. Population estimates for the whole system place the number of Canada Geese found here between 5,000 and 10,000. The carrying capacity is unknown, but it is considered to be greater than represented by existing populations. The geese graze the river banks for a few hundred yards from the water edge, but do not range much further. Human disturbance is a critical factor since the birds are extremely wary and influenced by the slightest disruption during the molt. If disturbed, they run inland, leaving the safety of the water, making them vulnerable to predation as a result. (Sterling)
- 18 Fox dens are found along the sandy areas of the Back River. Peregrine Falcons and Gyrfalcons nest along this region of the river as well. (Kuyt)
- 19 During the period July 20th to 30th caribou move southerly along the Back River. Some of this group drift southwesterly toward Aylmer Lake thence south to wintering grounds. Many split and go south across the Thelon River. This is a minor movement, and not as large as the main Beverly Herd. (Kuyt)
- 20 Barren-Ground Grizzly Bears frequent the entire Thelon River valley from Beverly Lake upstream to the edge of the map sheet. (Kuyt, Pruitt)
Kuyt feels that they may move with the caribou at times.

UNIT NUMBER

DESCRIPTION

20
(continued)

Muskoxen are found on both sides of the Thelon River. They are also observed on many of the smaller rivers in this region with the exception of the Finnie River. (Kuyt, Tener, Pruitt)

A large pingo, 102° 45' West longitude 64° 20' North latitude (Muskox Pingo) is a common place for Muskoxen during the summer. (Kuyt, Pruitt) As many as 102 Muskoxen have been observed near the Pingo at one time. (Kuyt)

Kuyt suspects that there is a movement of Muskoxen eastward along a route similar to that of the Caribou in the summer, with animals returning to wintering grounds along Baillie River in the fall. Some 500 Muskoxen were reported in the Thelon Game Sanctuary in 1958. (Tener, Kuyt)

The Thelon River from the border of the map sheet to Lookout Point (the confluence of the Finnie and Thelon Rivers) is a critical area for nesting Gyrfalcons and Peregrine Falcons. They nest in the cliffs along minor drainages of this system as well as up the Finnie River and its tributaries for some distance. Gyrfalcons are also common from the Lookout Point-Finnie River region up to Beverly Lake. Peregrine Falcons are common northwest of Beverly Lake. (Kuyt)

Canada Geese, White-Fronted Geese, and Swans are commonly found nesting on the Thelon River. (Barry)

Some of the Canada Geese nesting here are of the giant Canada Goose sub-race. They are generally found in the vicinity of Ursus Island and along the Thelon into Beverly Lake. (Ryder, Barry) Giant Canada Geese (70,000) as well as other races of Canadas, molt along the Thelon River near Ursus Island. (Macpherson, Sterling, Kuyt)

In addition, an important molting area for non-breeding giant Canada Geese is the channels in the mouth of the Dubawnt River between Beverly Lake and Aberdeen Lake. (Macpherson, Sterling, Kuyt)

UNIT NUMBER

DESCRIPTION

- 20 A small colony of breeding Snow Geese exists in the Ursus Island complex. They number 100 to 150 pairs, but should be on the increase at the present time. A few Blue Geese are also seen in the area. (Sterling)
- The Thelon River-Beverly Lake complex has an annual production of $\frac{1}{2}$ pound of fish per acre. (Hunter)
- Pruitt states that Lake Trout are found in the Thelon River.
- Red Foxes are found denning along the Thelon River below Beverly Lake. (Kuyt)
- 21 This migration route is a branch of the main migration route of the Beverly Herd. (Kuyt, Kelsall)
- 22 Peregrine Falcons and Gyrfalcons nest in cliffs. (Kuyt)
- 23 This migration route is the spring movement of a small portion of the Beverly Herd. (McEwan)
- 24 Muskoxen frequent the uplands and the plateaus on both sides of Bathurst Inlet and north of the Back River during winter, and river valleys in summer. (Hall)
- 25 Approximately 25 Muskoxen have been observed wintering on the southwest side of Beechey Lake. (Hall)
- 26 This unit illustrates a migration route of Barren-Ground Caribou from Bathurst Inlet through the Contwoyto Lake-Kathawachaga Lake area, to the wintering grounds along the shores of Great Bear Lake. (Hall)
- This fall migration occurs during August and October. (Loughrey)

UNIT NUMBER	DESCRIPTION
26 (continued)	A spring migration also occurs through this area toward lower Bathurst Inlet. The spring migration takes place approximately May 25th to June 10th. (Kuyt, Loughrey)
27	Gyrfalcons are found nesting in the Peacock Hills. (Kuyt)
28	Approximately 40 Muskoxen have been observed wintering here. (Hall)
29	Caribou utilize all of this area above the 1,000 foot contour. The herds naturally funnel into both of the calving grounds previously mentioned, as well as this unit. Many calve here while some move across the Western River. Many caribou calve on the Kent Peninsula itself in good weather. (Kelsall)
30	This is the most critical calving area for the Bathurst Herd. Barren-Ground Caribou may use areas west of the Inlet during certain years in addition. The higher plateaus and ridges are the most important areas for calving. (Kelsall)
31	The Hiuktak River system is important for Arctic Char, Lake Trout and Grayling. (Hunter)
32	Another area commonly used for calving is the upland plateau region northeast of Bathurst Inlet. (Williams, Kelsall) Calving takes place in May and June. Williams reports that in 1964 there were approximately 100,000 animals utilizing this and nearby areas, consisting of cows, calves and some yearlings.
33	Bathurst Inlet is important for Ringed Seals during the spring (May and June), primarily. (Williams)

UNIT NUMBER	DESCRIPTION
33 (continued)	An annual quota of 25,000 pounds of fish has been established for the Bathurst Inlet. This quota includes all species. (Hunter)
34	Muskoxen occur along the coast and up the James River and Hood River valleys. Groups of 10 to 30 animals are scattered all through the area. Smaller numbers may also be found west of this unit. (Kelsall) No detailed population data are available.
35	Scattered groups of Muskoxen are found here in the winter. (Kelsall)
36	The Tree River produces 15,000 pounds of Arctic Char per year, at the rate of 15 pounds per acre. This is considered extremely high productivity for Arctic Char. (Hunter)

REFERENCES

Personal Communications

T. W. Barry
J. P. Kelsall
E. Kuyt
A. G. Loughrey (Canadian Wildlife Service)
E. McEwan
A. H. Macpherson
J. S. Tener

J. P. Ryder Lakehead University, Thunder Bay, Ontario

Tom Sterling Ducks Unlimited

R. B. Hall
R. Williams (Northwest Territories, Game Branch)

J. G. Hunter Fisheries Research Board of Canada

W. O. Pruitt University of Manitoba

Reports and Publications

- BANFIELD, A.W.F., 1954. Preliminary Investigation of the Barren-Ground Caribou. Wildl. Mgt. Bull. Series 1 No. 10A, Can. Wildl. Svs.
- HOARE, W.H.G., 1930. Conserving Canadas Muskoxen - Being an Account of an Investigation of the Thelon Game Sanctuary 1928-29. Report of the Dept. of Interior, Northwest Territories and Yukon Branch.
- KELSALL, J. P., 1958. The Barren-Ground Caribou, Cooperative Investigation 1957-58, Report No. 1, Canadian Wildlife Service, Ottawa.
- KELSALL, J. P. and A. G. LOUGHREY, 1955. Barren-Ground Caribou Resurvey 1955. Canadian Wildlife Service, Ottawa. Restricted, Not for Publication.

- MACPHERSON, A. H. and T. H. MANNING, 1959. The Birds and Mammals of Adelaide Peninsula, N.W.T. National Museum of Canada, Bull. 161, Ottawa.
- MANNING, T. H., E. O. HOHN, and A. H. MACPHERSON, 1956. The Birds of Banks Island. National Museum of Canada. Bull. No. 3, Ottawa.
- RUTTAN, R. A., 1969. Observations of Muskox in Bathurst Inlet, Back and Burnside River Areas. Type-script report, Game Division, Gov't of Northwest Territories.
- RYDER, J. P., 1969. Nesting Colonies of Ross' Goose. The Auk, Vol. 86, No. 2, April 21, 1968, pp 282-292.
- RYDER, J. P., 1969. The Lesser Snow Goose in Central Arctic Canada. Manuscript Unpublished, Canadian Wildlife Service.
- RYDER, J. P., 1967. The Breeding Biology of Ross Geese in the Perry River Region Northwest Territories. Canadian Wildlife Service, Report Series No. 3, 1967.
- STERLING, THOMAS and ALEX DZUBIN, 1967. Goose Molt Migrations to the Northwest Territories. Report from Trans. 32nd N. A. Wildl. and Nat. Res. Conf. March 13, 14, 15, 1967.
- TENER, J. S., 1965. Muskoxen in Canada - A Biological and Taxonomic Review. Monograph by Dept. of N. Affairs and National Resources, Canadian Wildlife Service.
- TENER, J. S., 1958. The Distribution of Muskoxen in Canada. Reprinted from Journ. Mamm. Vol. 39, No. 3, August 1958.
- THOMAS, D. C., 1967. Population Estimates of Barren-Ground Caribou, March to May 1957. Canadian Wildlife Service Report Series No. 9. Ottawa.