THE NATIONAL PARKS AND
NATIONAL HISTORIC SITES OF CANADA

Canada

LES PARCS NATIONAUX ET LES
LIEUX HISTORIQUES NATIONAUX DU CANADA

THE birds *of* Tuktut Nogait

NATIONAL PARK OF CANADA

by **John and Mary Theberge**
for PARKS CANADA

ILLUSTRATED BY MARY THEBERGE

Parks Canada Parcs Canada

Canada

Acknowledgements

Parks Canada would like to recognize the following people for their assistance in making this booklet a reality.

Foremost we would like to thank John and Mary Theberge for having volunteered, following their 2001 visit to the park, to write this summary on the birds of Tuktut Nogait National Park. A big thank you to Mary for the wonderful illustrations. Without their contribution this publication would not have been possible.

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ISBN: R63-305/2004E 0-660-19273-X

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Tuktut Nogait National Park of Canada

Introduction

The arctic is a land of contrasts, at times appearing desolate, at times resonating with life – mammals, birds, insects, plants.

Winters are severe with biting winds and blowing snows; summer days are endless and fleeting. Yet, raw beauty and the power of time are on display here, in the expansive vistas that stretch to distant horizons, in the ephemeral flowers subtly adapted to withstand the extremes of weather, in the dramatic beauty in caribou ebbing and flowing along ancient migration routes; in the power of grizzlies who stitch the riverbanks with their tracks.

The diversity of wildlife and plants is low. Cold and wind are a dominant environmental influence, and the species that live here show a host of vital adaptations to this harsh climate. Few birds are capable of overwintering.

Snowy owls are among those few. Generally, summer is a time of plenty for them. Perched like a sentinel on the crest of a hill, the bird becomes animated, spreads its wings and flaps slowly across the plains. Like a white apparition, it wafts over the hilltop, under an overwhelming expanse of sky.

The delicate sculptural powers of water have carved the canyons of the Hornaday River into dramatic displays

of erosion. With geological time on display, these canyons stimulate the imagination and lift the spirit. Speeding above the canyons, silhouetted against the clouds, a peregrine wheels and darts in the vast expanse of sky. Wings beating rapidly, the bird mounts so high it becomes only a distant speck. Then with wings retracted, body slanting down, it drops into a dive, plummeting behind a distant precipice.

Time gets tangled in the clouds in the arctic, when fingers of fog cling to the hillsides. But the inhabitants – temporary or year-round, creatures whose lives are inextricably bound to the vagaries of weather, adapt – or perhaps they only endure. Strung out along the river, the soft chatter of the long-tailed ducks (formerly called oldsquaws) fill the air. Calling loudly and with a whirring of wings, they lift off, skimming the water. Their long tails streaming behind add elegance to their flight.

Wandering away from the canyon one becomes lost in this land of distant horizons and large, clear skies. The mournful yodels of pacific loons echo across lakes nestled amongst rolling hills. Their calls seem to silence the lapping of the small waves against a distant shore and conjure up a bittersweet sadness that somehow epitomizes wilderness in expansive places like Tuktut Nogait.

Suddenly the wide silence of the endless and unfolding landscape is broken by "tulik, tulik," the urgent cry of the golden plover. Its flecked plumage and golden hue camouflage it in the vegetation when it descends onto the plains. From distant folds of the tundra hills floats the music of the sandhill cranes travelling to or from their nesting grounds on the arctic islands.

Basking in the mutable warmth of the sun, horned larks scurry about in the short grasses foraging continuously during these brief days of summer. American pipits pour out their tinkly, thin, short, song as they are blown by the capricious wind, in complete harmony with the expansiveness of this theatre.

The arctic is a land both strange and wondrous. The birds of the arctic give one the privilege of viewing wild drama of unequalled beauty.

The birds of Tuktut Nogait National Park, like plants, mammals and insects, conform to the continental pattern of low numbers of species in the north. This condition is a result of harsh climate, ground-hugging vegetation, and the limited time for new species to form because of the recent retreat of the glaciers. Summers are short, but the productivity pulse driven by photosynthesis 24 hours a day, is strong. Plants bloom and set seed quickly, and insects race through their life cycles. Winters are long and cold. The bird life of Tuktut Nogait is adapted to these ecological extremes. More species find it a better strategy to maintain themselves as generalists, eating a wide variety of foods which enables them to withstand a wide variation in habitat and climate. So, birds of the tundra generally eat any insect or spider that they can catch, and sample a wide variety of seeds or other plant parts.

Tuktut Nogait National Park falls within the Southern Arctic Ecozone, which runs in an ever-broadening band across the mainland from the northern Yukon to Hudson Bay. It is a transitional ecosystem, distinctive from the Northern Arctic Ecozone to the north by the presence of shrubs, and

from the Taiga Plains Ecosystem to the south by its lack of trees. However, much of the park is more characteristic of the Northern Arctic Ecozone, being shrubless, with grasses, sedges and herbaceous plants predominating. Permafrost confines water to the surface or upper soil levels resulting in many ponds and sedge meadows. Recent glacial activity has left rolling uplands with drumlins and broken rock, isostatic rebound has isolated inland sea-beaches, and erosion by the Hornaday and Brock rivers has resulted in spectacular canyons and sculpted scarps.

Ecological conditions in any environment cause bird species to be structured into "guilds," which are ways of making a living shared by a number of species. Guilds influence where birds can live. In the arctic there are 5 basic guilds: the seed/invertebrate eaters of the open forb/grassland/sedge tundra, the seed/invertebrate eaters of the shrub tundra, the invertebrate eaters of the mudflats and shorelines, the off-shore feeders in lakes and ponds, and the predators. Obviously lacking are species like woodpeckers, and small passerine birds that nest in tree canopies. Missing, too, are aerial insect eaters like flycatchers, because to do their job they need tree perches.

In their guilds, while going about their driving purpose of survival and reproduction, birds inadvertently play important roles in the arctic ecosystem. They both disperse seeds and transport nutrients through their droppings. "Bird perches" become nutrient enriched resulting in little hilltop islands of luxuriant grasses and other flowering plants. The grasses decompose, and over time may build up a deep soil that provides a place for a colony of arctic

ground squirrels to live, who in turn add decomposed matter and eventually the knoll has enough soil for an arctic fox or wolf den. Life is linked to life in the arctic, as it is everywhere.

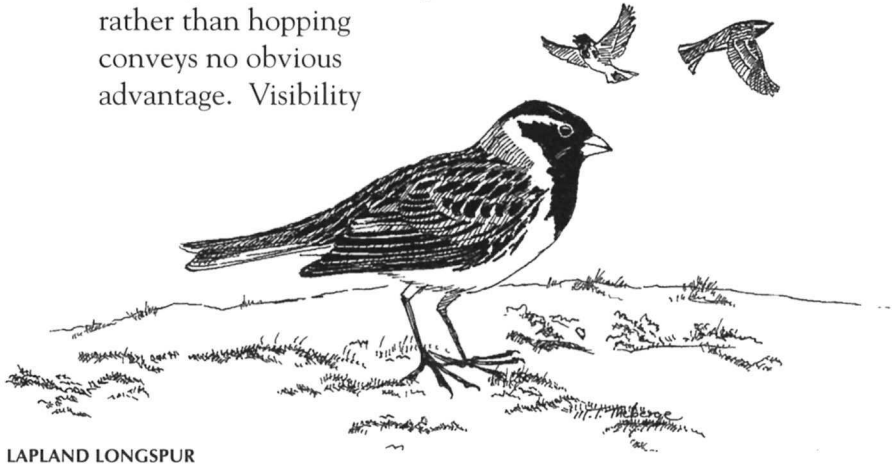
Energy moves from plants up to birds– not much – less than one percent of the energy in plants, because birds normally can utilize only highly condensed packets of energy in seeds, and because much energy is wasted in the transformation from plant tissue to animal tissue. Low plant productivity typical of the arctic limits the biomass (living weight) of birdlife, coupled with soils typically low in nitrogen. That is why plants grow more luxuriantly where birds defecate. In the arctic, the economy of nature is lean.

Insect species in the arctic are comparatively few, but numbers are generally abundant, so plentiful that feeding by birds would rarely influence their numbers in any significant way. Long-legged crane flies are an obvious attraction to birds, as are various types and sizes of wolf spiders that scuttle over rocks. In still water, mosquito larvae feed shorebirds, as do various non-insect arthropods such as snails or tubular worms.

The Guilds

Seed/Invertebrate Eaters of the Open Forb/ Grassland/Sedge Tundra.

A survey of notes left by ornithologists who have travelled in Tuktut Nogait National Park shows that a few species make up the majority of individuals of this guild. Most common are American pipit, horned lark, Lapland longspur and snow bunting. One or another of these birds regularly flies up in front of you while you hike across the tundra, even though each species is spread out on individual pair-territories for the June breeding season. All four species share two behavioural traits in common: singing on the wing, and walking rather than hopping. Singing on the wing is a form of territorial advertisement that makes up for a lack of elevated singing perches used by birds in forested or shrubby habitats. Walking rather than hopping conveys no obvious advantage. Visibility



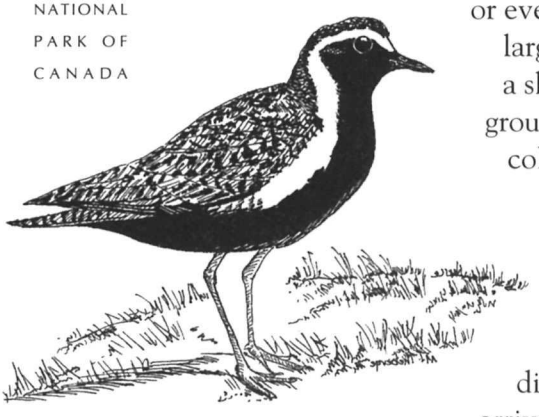
LAPLAND LONGSPUR

to predators cannot be a reason, because other open-country small birds hop, and conversely, ovenbirds and waterthrushes, birds of closed forests, walk.

One well-known principle in ecology is that more than one species cannot occupy the same environmental and food niche, because invariably one species will outcompete the other. Subtle habitat differences may characterize these four species, such as a tendency for pipits to use more rocky, rugged terrain or sandy beach ridges compared to horned larks in dry uplands and Lapland longspurs in low, hummocky tundra. However, considerable overlap occurs. Pipits eat primarily insects, spiders and other invertebrates while horned larks and snow buntings are primarily seedeaters and Lapland longspurs consume both.

All four nest widely and are circumpolar in the arctic, although in the highest arctic islands only Lapland longspurs and snow buntings occur. Of the four species, American pipit, Lapland longspur and snow bunting are tundra nesters only, either on arctic tundra or alpine tundra south through the western cordillera. Horned larks, in contrast, nest not only on the tundra but on grasslands and agricultural fields throughout North America right down to Mexico.

Another common species in this guild is the savannah sparrow, and like the horned lark inhabits open country throughout North America. But equally as common on the grass/forb tundra are two species classed as shorebirds – not all "shorebirds" nest in shoreline environments. One of the most beautiful and characteristic sounds of the arctic is the "tulik – tulik" of the golden plover, as it calls from a hummock



GOLDEN PLOVER

or even on the wing. This large plover lays its eggs in a slight hollow in the ground, its nest only a sparse collection of moss or leaves at most. Golden plovers fly swiftly, sometimes low to the ground, sometimes high in display flight. They arrive in late May or early June, and begin moving south in early August. They are one of the great, long-distance migrants, leaving their breeding grounds to stage at rich feeding areas around Hudson Bay and in Labrador, then fly 4,000 km nonstop over the Atlantic Ocean to the southern half of South America. Their northern migration follows the mainland through Central America and across the mid-west United States.

Another "shorebird" of this environment is the diminutive least sandpiper, smallest of its family. It typically nests on moist tundra near sedge meadows or ponds. Unlike the other birds mentioned, this species does not inhabit the arctic islands to the north. As late as the mid 1950s there was little evidence that it bred at all in the North American arctic, but more recent range maps show it all across the mainland from the western arctic to Hudson Bay. Least sandpipers are difficult to distinguish from semipalmated sandpipers, which also inhabits the same environment. The former have yellow legs whereas the latter have black ones.

Typical of the low-vegetation and wide-open tundra are rock ptarmigan. Closely related willow ptarmigan prefer shrub tundra, so the ranges of the two species are largely discreet except when they flock up in the fall. The spring display flight of both species is spectacular, especially the fast, high-flying rock ptarmigan that rises to a peak, sets its wings, utters a guttural call, then drops to the ground. Both species are protectively coloured, molting from white in winter to brown in summer.

Then there are the unusual species in this guild, the ones that are especially exciting to find, like the buff-breasted sandpiper, a "shorebird" of the dry, upland tundras. It has one of the smaller breeding ranges of North American birds, nesting only on a few of the most central arctic islands like Victoria and Devon as well as the western coastal fringes of the arctic ocean. The single observation of this species in the park was made in August and consisted of three birds, likely migrants. Buff-breasted sandpipers are the only North American shorebird to form leks, otherwise found only in a few species of grouse (sharp-tailed, greater and lesser prairie-chicken, sage grouse). Assemblages of up to 20 male buff-breasted sandpipers may gather at a site to display for females who select the "best."

Northern wheatear is another rare species, a member of the thrush family. It breeds in two disjunct populations in North America, one in the high eastern arctic and one in Alaska and the Yukon. Although out of its breeding range, a pair with young was seen in the Hornaday Canyon in 1988. The western population of northern wheatears migrates to Eurasia for the winter.

Wheatears in the arctic prey primarily on large bumblebees.

Flocks of sandhill cranes have been observed on a few occasions, usually in September. While the park lies within its extensive breeding range, observations have been of migratory birds, likely from Banks and Victoria islands to the north where they are common nesters.

The Seed/Invertebrate Eaters of the Shrub Tundra.

Shrub tundra fingers its way into Tuktut Nogait National Park both along its rivers and in sheltered valleys right to the coast. In these places, willows and balsam poplars grow up to a few meters high. Dwarf birches hug the ground. Patches of sedges, grasses and wildflowers commonly are interspersed with shrubs. These places are typically well watered due to late snowmelt, or as a result of running water or ponds. Also, shrubs may line the margins of talus slopes where deep taproots buttress them against rock movement. These shrubby places add vertical dimension to the vegetation, and with it, different birds.

The three bird species that predominate in shrublands are: tree sparrow, common redpoll and hoary redpoll, with roughly equal numbers of each, although they are about one-third less common than the big three species of the open tundra. Common and hoary redpolls take careful observation to distinguish – the latter are somewhat paler and shorter billed than the former. Their songs are indistinguishable although they have measurable differences with sound analysis. Recent

genetic studies have shown no difference between the two "species" of redpolls.

Textbooks describe both species as absent in winter from the arctic islands. The hoary redpoll stays year round on the mainland tundra, while the common redpoll retreats to the subarctic as the northern extent of its winter range. Some of both species migrate south throughout Canada and the northern United States. On their breeding range they both occupy the same habitats and eat the same thing – primarily seeds. Thus they may violate the ecological principle mentioned earlier that two species cannot occupy the same niche. There are two possible explanations for this. One is that they are really one species, as mentioned. The other is that the shrub tundra is so full of seeds that the two species never really have to compete. Abundant food is often cited as an explanation for other species co-inhabiting the same niche.

Less common birds of the shrublands are white-crowned sparrows, whose melodious songs are an integral part of this environment. They, like tree sparrows, nest only on the arctic mainland or the subarctic. A surprising bird of the shrub tundra is the well-known American robin, possibly becoming more abundant in the arctic due to climate warming. Residents of Paulatuk do not remember robins in the past, although as recently as 1957 it was described by L.L. Snyder in his book "Arctic Birds" as "an inhabitant of tree-line areas and penetrates the rim of the Arctic where nesting situations such as the taller shrub willow are available." He sites Vilhjalmur Stefansson who reported a breeding pair in the vicinity of Coronation Gulf, east of Tuktut Nogait, in 1913.

Other rarities that have shown up in the shrub tundra at Tuktut Nogait include Harris' sparrow at the extreme northwest of its breeding range, yellow-rumped warbler and Say's pheobe, all more typical of the Taiga Plains Ecoregion to the south.

The Invertebrate Eaters of the Mudflats and Shorelines.

Not a lot of this habitat exists in Tuktut Nogait National Park for this guild of birds – the true shorebirds. Ponds are generally filled with water to their sedge-lined margins. But the shorebirds find places to poke at the mud or wade in the shallows searching for worms or invertebrates – mollusks, crustaceans, insect larvae, especially those of midge flies and crane flies. Baird's sandpiper is one of the more common species, nesting primarily on the arctic islands but also the northern arctic mainland. Although it feeds around the borders of arctic ponds, it also inhabits dry upland plateaus and rocky slopes. Recorded observations in Tuktut Nogait made from mid June to early July indicate that it breeds there, but it migrates from the arctic early as shown by a pre-migratory flock of 20 birds seen as early as July 16 and no observations of it made in August. It spends the winters in southern South America.

Semipalmated plovers also show the same dual habitat preferences, although exhibiting a wider breeding range on the mainland arctic. Like other plovers, especially the well-known killdeer, it goes into a broken wing display to distract intruders from its nest, so is conspicuous if encountered in

that situation. Semipalmated sandpipers are about equally abundant, but spend their time in closer association with shorelines. Semipalmated plover is distinguishable by its single thick black neck band; semipalmated sandpiper is distinguished from least by its black legs, and Baird's by its more slouched posture and smaller size.

Lesser yellowlegs makes it as far north as the arctic coast only from Coronation Gulf to the Mackenzie Delta. It has been recorded as a breeding bird in Tuktut Nogait, at its northern limit. The closely related but larger greater yellowlegs nests far to the south, barely making it into the Northwest Territories.

Stilt sandpiper has been recorded, a bird with nesting grounds on the fringes of the arctic sea, and whimbrel near the eastern edge of its western arctic breeding grounds.

Red-necked phalarope is uncommon. Phalaropes exhibit a role reversal whereby the drab-coloured male does the egg incubation while the brightly coloured female engages in territorial defense.

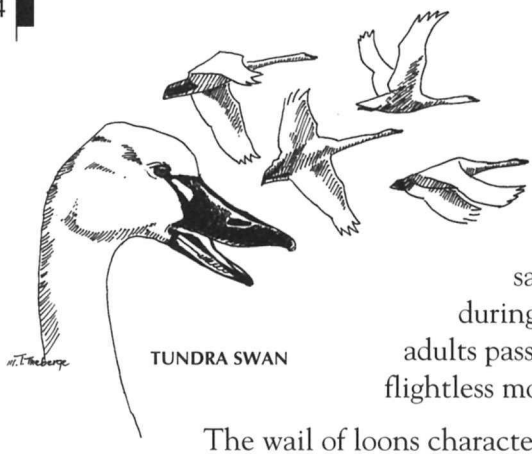
Long-billed dowitcher, dunlin, red phalarope and sanderling have not been recorded but according to range maps should be there. White-rumped sandpiper has been recorded nearby but not in the park. Nearby, so possible too, are common snipe, red knot and wandering tattler.

The Offshore Feeders in Ponds and Lakes.

Geese, swans, loons, and a handful of species of ducks find their ecological requirements for

nesting in the arctic. Three subspecies of Canada geese nest in the park, including the largest – common – and the smallest – Richardson's. Large numbers sometimes molt on Bluenose Lake, and more of them likely move through on migration. Also nesting in the park are greater white-fronted geese. Passing through on migration to and from their arctic island nesting grounds are large masses of snow geese, seen primarily in May and again in August or September. Brant frequent the seacoast nearby.

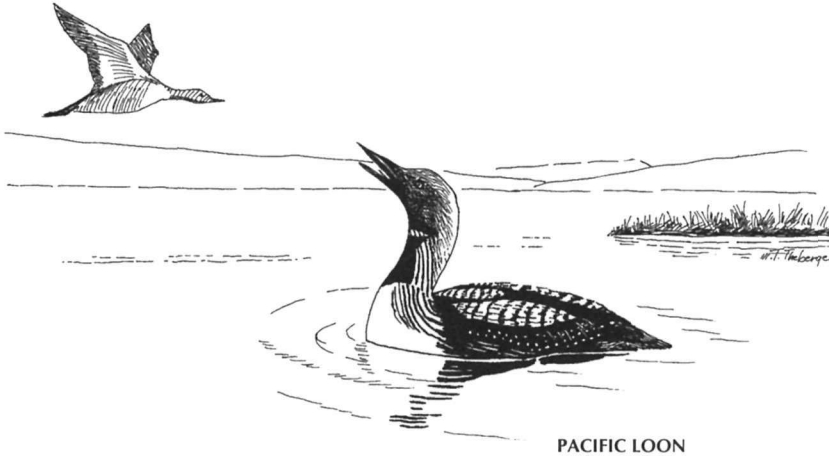
Tundra swans nest on islands in ponds and lakes, like other species of waterfowl. These places are less apt to be visited by ermine or Arctic fox. Swans float as white "icebergs" on blue water, sometimes with their heads lowered to their backs while resting, other times tipped up to feed. In the late summer, tundra swans seek the safety of larger waters during which time the adults pass through the flightless molting period.



TUNDRA SWAN

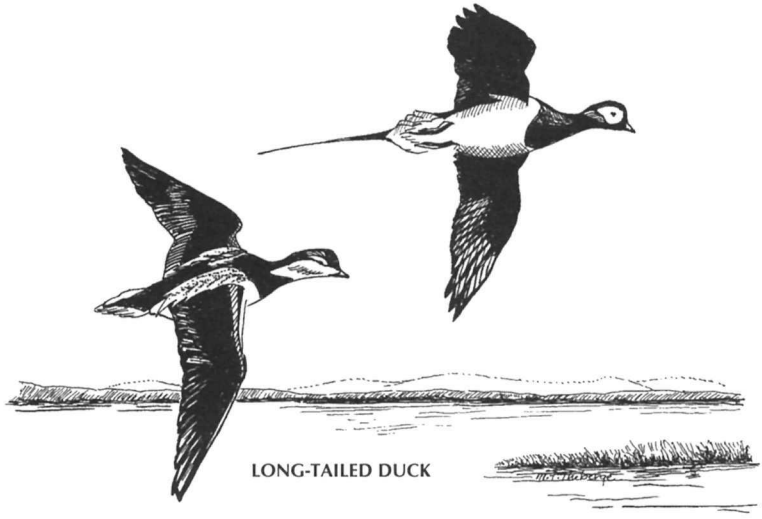
The wail of loons characterizes tundra ecosystems everywhere, and no sight is as characteristic as a red-throated loon, or a Pacific loon floating on a sedge-lined pond in the slanting light of the midnight sun. Yellow-billed loons replace common loons along the western arctic

seacoast and areas immediately inland like Tuktut Nogait, although common loons have been reported at Paulatuk. This pair of birds is sometimes considered a "superspecies," that is, two or more species that have had a relatively recent common ancestor and diverged because of recent isolation. The same is true for Pacific and Arctic loons, the later having more white on its flanks. Arctic loons breed primarily in the Old World, and in North America are known to breed only in a tiny area of coastal Alaska. Some taxonomists do not differentiate Arctic from Pacific loons. The name "Pacific" is somewhat inappropriate for a bird that nests not only throughout Alaska and the Yukon but all the way east to Hudson Bay and Baffin Island. Despite the controversy, the greyish-white back of the head typifies this northern loon, and its high, mournful and plaintive calls float over great distances when the arctic winds of late evening are calm.



PACIFIC LOON

Most species of ducks in the arctic are divers, feeding upon mollusks, crustaceans, insect larva or fish. The long-tailed duck breeds only in Alaska or the Canadian arctic although it is seen throughout North America on migration or in winter. The melodious yodeling of males mixes with the calls of loons to give arctic ponds a haunting quality. Long-tailed ducks are commonly seen along the Hornaday River. Companion diving ducks are surf scoter and white-winged scoter, birds often seen in flocks and distinctive by the knobby shape of their bills.



LONG-TAILED DUCK

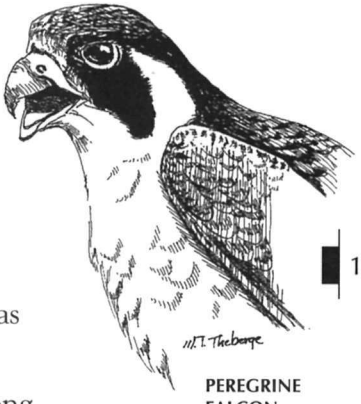
Common eiders have been reported in the park, too. They nest on the margins of the arctic sea from west to east, and rarely nest very far inland. The same is true of the more spectacularly coloured king eider, but it has not yet been reported in the park. Red-breasted mergansers, and to a lesser extent common mergansers nest along the park's rivers and scuttle across the water, chicks flopping behind their mother

when disturbed. Lesser scaup are common nesters, greater scaup less common.

Even a few "puddle ducks," or dabblers" (that tip up rather than dive) make it to the arctic. These are primarily plant eaters. Green-winged teal, American widgeon, mallard and northern pintail have been recorded in the park, with northern shoveler and canvasback known not far to the south.

The Predators.

Tuktut Nogait is well endowed with dramatic avian predators. Two species of eagles, one buteo, two falcons, two owls and all three species of jaegers are found within the park. Three species of gulls, because of their predatory habits on eggs, can be added to this list as well, as is the Arctic tern.



PEREGRINE FALCON

The cliffs and canyons that line long stretches of the Hornaday, Brock, and Roscoe rivers, provide nesting sites for one of the greatest concentrations of peregrine falcons and gyrfalcons in the Northwest Territories. In prime habitat in the Hornaday Canyon, the distance between their nests averages approximately one per 1.5 km of river canyon. Considered with the other canyon raptors, golden eagles and rough-legged hawks, the average distance between occupied aeries found in surveys in 1988 and 1990 was only 1,050 m.

Peregrine falcons and gyrfalcons can be differentiated by the distinctiveness of their head helmets, their calls as they course their territorial

cliffs or declare their perch places, their colouration in some phases such as the white adult gyrfalcon (although in the park gyrfalcons tend to be the grey phase), and their size - gyrfalcons are almost twice as heavy. They both are master fliers among the big birds, the peregrine capable of attaining estimated speeds of 160 km/hr in dives. Peregrines migrate in winter, while gyrfalcons mainly tough it out in the arctic, although wintering gyrfalcons have not been recorded in the park. Gyrfalcon prey species stay in the arctic, such as ptarmigan and lemmings (both brown and collared lemmings live in the park) whereas the principal prey of peregrines leaves, such as songbirds and waterfowl. Despite this generalization, a 1988 study of food remains at peregrine nests showed that ptarmigan made up more than half of their avian prey biomass. Shorebirds made up more than one third, principally American golden plover, passerines 13% with horned larks, Lapland longspurs and snow buntings most common, and ducks 12%. Mammals made up 22%.

By early August, the upland tundra is purging itself of pipits, larks, longspurs, sparrows and shorebirds. Often, the nestling falcons are not old enough to fly, and food scarcity could occur. Only the wide-ranging capability of the parent falcons may alleviate this threat. Redpolls almost seem designed as falcon food, sitting up in shrubs or flying between them, often in flocks that enhance predator success.

Peregrines and gyrfalcons present a management challenge in the park, because hikers

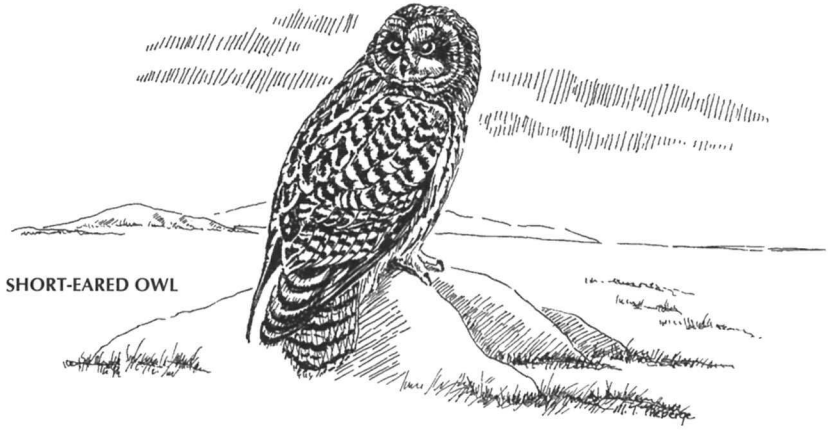
following the cliff tops along the Hornaday or Brock rivers invariably elicit disturbance behaviour from the adults who fly off the nest, circle and call repeatedly. While such behaviour, if brief, may be no more than an inconsequential diversion for the birds, if people prolong their stay, brooding time for the eggs or foraging time to bring back food to the chicks may be reduced. Hikers have an obligation to be aware of this problem and keep visits short – five to ten minutes - and resist the temptation of climbing to close vantage places for pictures.

Rough-legged hawks are the only buteo found in the park, but they are common, taking advantage of the abundant cliff environments for nesting. They soar for hours on the thermals, sometimes low to the tundra, sometimes high above. While exclusively an arctic breeder (or subarctic in Alaska), in many years they migrate, but the degree is tied to food scarcity, particularly lows in the lemming cycle. Like owls, eagles and other raptors, the eggs of rough-legged hawks hatch a day or two apart, in the sequence laid. Normally, birds do not begin brooding a clutch of eggs until all the eggs are laid. The advantage of staggered hatch dates to raptors is that when food is scarce, the largest and strongest chicks receive it, assuring some survival. A more equitable distribution of food may mean death for all.

Golden eagles nest on the canyon cliffs too and their presence here is likely a result of the excellent cliff nesting sites. While elsewhere they are another successful ptarmigan hunter, here they prey almost exclusively on arctic ground

squirrels. Bald eagles, primarily fish eaters, are rare in the park or around Paulatuk. Bald eagles are not really tundra birds, their nesting distribution falling to the south in the taiga ecosystem. Bald eagles nest mostly in trees.

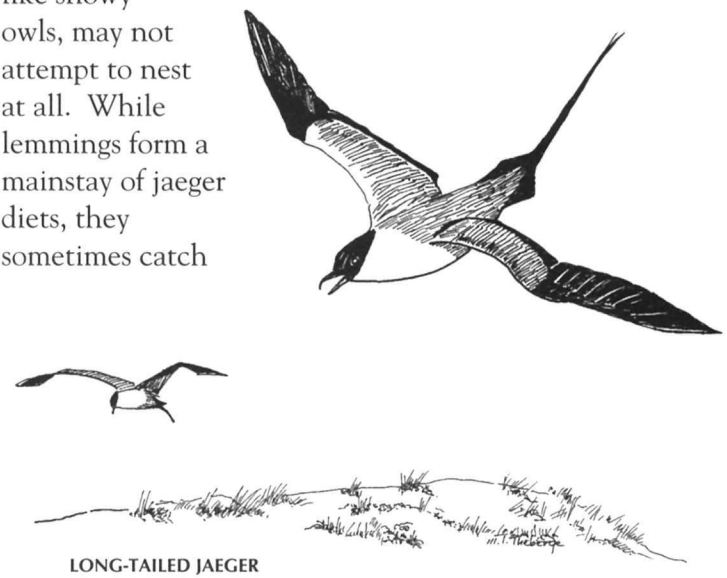
Snowy owls and short-eared owls are open-country species, the former an arctic specialist, the latter nesting not only in the mainland arctic and southern Baffin Island but across the Canadian and United States prairies and in open places throughout the mountain cordillera. For unknown reasons, snowy owls are rare in the park, but occasionally they have been seen. Owls perch on knolls, their regurgitated pellets helping to build up soils there. On rocks their droppings, like those of other birds, provide a nitrogen basis for the growth of colourful orange, xanthoria lichens. Both species of owls hunt lemmings, but anything small that moves can be a target, including another lemming-hunter, the ermine. In that case the owl is a predator of a predator, or a second-level carnivore (vegetation, herbivore, carnivore, carnivore).



SHORT-EARED OWL

Short-eared owls abandon the north in the winter: snowy owls stay on although they are well known for their eruptive movements to the south every few years when lemming numbers are low.

Jaegers are large, long-winged predatory birds that sweep the tundra like huge moths. They are primarily sea birds, spending all but the breeding season offshore. Most commonly seen at Tuktut Nogait is the long-tailed jaeger, distinctive with its long tail feathers, followed by the parasitic jaeger, and seen only infrequently is the pomarine jaeger. All three are offshore migrants down both coasts as least as far as Mexico. Pomarine has the most constricted breeding range, the western population along the arctic coast and on Banks, Victoria and nearby smaller islands only. An eastern breeding population nests on southern Baffin Island and northern coastal Hudson Bay. Nest productivity in jaegers is quite dependent on the abundance of lemmings, and in years of low numbers, jaegers, like snowy owls, may not attempt to nest at all. While lemmings form a mainstay of jaeger diets, they sometimes catch



LONG-TAILED JAEGER

small birds, even on the wing, as well as eat voles, insects and bird eggs. Their food choices overlap but parasitic jaegers feed more heavily on birds.

The gulls of Tuktut Nogait are mostly glaucous and herring, with a few sightings of the smaller mew gull, the latter typically not an arctic gull. Sabine gull is within range, but stays chiefly along the coast. Glaucous and herring gulls hybridize commonly, and because they share a limited arctic breeding ground along the arctic coast from Inuvik to approximately the Coronation Gulf, they likely hybridize in Tuktut Nogait. They share more breeding range, across the arctic islands, if you consider the Thayer's gull to be a herring gull, as it recently was, but it is also considered a hybrid between herring and Iceland gulls. Hybridization is so common among most of the "white-headed gulls" of the genus *Larus* that it challenges the species concept, based as it is on a lack of substantial hybridization as a fundamental criterion. Isolation among these species of gulls has not been long enough, in an evolutionary sense, for them to have developed morphological or behavioural barriers to interbreeding, although leg and bill colour serve that purpose to some degree. Herring gulls have increased in numbers and extended their range over the past 80 years; for example they were unknown in Iceland prior to the 1900s, opening the way for more hybridization.

Arctic tern is the only species of tern found in the arctic, and can be seen commonly hovering over water, then diving and emerging with a small silvery fish in its beak. It nests throughout the arctic. Arctic terns are the champion long-distance migrants, flying to wintering grounds that extend to the Antarctic pack ice, a journey of some 20,000 km each way. They can live up to 25 years, which translates into one million kilometers flown in migration over a lifetime!

And then there is the ubiquitous raven, a predator on lemmings and voles, but also a scavenger on caribou or other carcasses, with its population numbers bolstered by garbage around even distant communities. In the treeless arctic ravens nest on cliffs, and because of limited scavenging opportunities, are more of a predator there than elsewhere over their broad breeding range. Ravens are not common in the park.

Birds in Winter

Only five species of birds overwinter in Tuktut Nogait National Park: rock ptarmigan, willow ptarmigan, raven, redpoll and snowy owl. Each has special adaptations. Rock and willow ptarmigan have feathered feet and toes, and at times burrow into the snow for warmth, redpolls have a crop-like structure in the esophagus that allows them to store seeds and swallow and digest them later at a sheltered spot. Snowy owls are covered in downy feathers. Gyrfalcons specialize on ptarmigan in winter, snowy owls specialize on lemmings, and ravens specialize on voles. Gyrfalcons appear to leave the park, possibly searching out better ptarmigan hunting grounds. Willow ptarmigan tend to flock and move greater distances than do rock ptarmigan.

SNOWY OWL

Still to Discover

Many mysteries still surround arctic birds. For example, still unresolved after decades of study are the causes of the 10-year cycle of abundance in ptarmigan. Research on this subject points to differences in the quality of the birds themselves – an ability to withstand different environmental conditions at times, or an ability to outcompete neighbours at other times, depending upon population highs and lows. Another unknown is how to resolve the taxonomic uncertainties between species groupings like the gulls and the pair of redpolls, and the ecological conditions that lead to hybridization. An emerging area of study is the influence of wintering ranges on the condition, and hence subsequent breeding success of birds, especially relevant to the park's migratory raptors. The birds of Tuktut Nogait National Park and vicinity are known only in a cursory way. Much is still there to discover.

The arctic birds of Tuktut Nogait National Park attest to the resilience of life. But there are limits. The importance of arctic parks like this one lies in their very existence, hoping that with careful stewardship they will persist.

The Northwest Territories – Nunavut Bird Checklist Survey Form

Observations are important in monitoring changes in bird populations as a result of human activity or climate change.

We urge you to take detailed notes of your observations and fill out a Northwest Territories - Nunavut Bird Checklist Survey Form. The Survey is part of a national effort to collect valuable scientific data on the geographic distribution, abundance and breeding status of birds species. These data can be used for conservation purposes. The survey is administered by the Canadian Wildlife Service of Environment Canada, in cooperation with Parks Canada and the Governments of the Northwest Territories and Nunavut.

You can also report unusual sightings to a Parks Canada official.

How to Contact Us

For further information on the birds of Tuktut Nogait or to obtain Northwest Territories - Nunavut Bird Checklist Survey Forms contact one of the following:

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Inuvik, NT X0E 0T0
Canada
Tel: 867-777-8800

NWT-Nunavut Bird Checklist Survey
Canadian Wildlife Service
Suite 301, 5204-50th Avenue
Yellowknife, NT X1A 1E2
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Or visit:

www.parkscanada.gc.ca/tuktutnogait
www.pnr-rpn.ec.gc.ca/checklist

THE BIRDS OF TUKTUT NOGAIT NATIONAL PARK OF CANADA