

# THE ROCK PTARMIGAN, *LAGOPUS MUTUS RUPESTRIS*, IN ONTARIO AND MANITOBA

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FOR SOME YEARS Indians in Northern Ontario have reported the occurrence of Rock Ptarmigan on the Ontario coast of Hudson Bay. The purpose of this paper is to place on record the recent information on the status of the bird in Ontario and Manitoba and to summarize the history of its discovery in the Hudson Bay area.

## EARLY RECORDS

The earliest mention of the occurrence of Rock Ptarmigan on the southwestern Hudson Bay coast is that of Isham who completed his *Observations on Hudson's Bay* in 1743 (Rich and Johnson, 1949). He describes wood partridges (Spruce Grouse *Canachites canadensis*), willow partridges (Willow Ptarmigan *Lagopus lagopus*) and rock partridges saying that the last are smallest and are white with black from the eye to the bill and with 14 black tail feathers.

Isham was stationed at York Factory and Churchill during his years of service with the Hudson's Bay Company in Canada, and probably became familiar with the bird during its winter invasions of that area.

There is another early mention of the occurrence of Rock Ptarmigan on the south shore of Hudson Bay in another manuscript titled *Observations on Hudson's Bay* (about 1782). This manuscript has been attributed to Dr. Thomas Hutchins, but Glover (*in* Rich and Johnson, 1951), has pointed out that it is in all probability by Andrew Graham. Glover wrote as follows about this manuscript "... long attributed to Thomas Hutchins ... is in many places identically worded with other versions of Graham's "Observations" and contains internal evidence showing that Hutchins could not have written it. To Graham, then, is due the credit for the information on birds and animals for which naturalists using this manuscript have made acknowledgement to Hutchins."

The first of those who used this manuscript was probably Pennant who quoted part of Graham's section on the Rock Ptarmigan almost verbatim in the second edition of his *Arctic Zoology* (1792). (First edition 1784-87 not seen.) He then clearly had access to Graham's manuscript.

At the time that Pennant was preparing and publishing the first edition of his work, Dr. Thomas Hutchins was the corresponding secretary of the Hudson's Bay Company in London; it is very likely that Pennant met him because in the second edition of his *Arctic Zoology* he wrote that: "I was unspeakably obliged for his [Hutchins] judicious remarks made during 16 years residence in Hudson's Bay of which he most liberally indulged me with the perusal." This is clearly an acknowledgement of the loan of a manuscript. Could this have been the one by Graham? The warmth of his remarks suggest



a personal acquaintanceship. Pennant's acknowledgement of help from Andrew Graham is far less warm, it merely mentions "numbers of observations" and "the use of multitudes of specimens of animals transmitted by him to the late Museum of the Royal Society."

Graham (about 1782) had this to say about the Rock Ptarmigan. "Us-cathachish. Is a bird of the Grouse Genus and denominated by us the rock partridge. At all seasons of the year it frequents dry rocky ground and Juniper plains. Its natural history corresponds with the Ptermigan only it is a size smaller; has a black line under each eye and makes a croaking noise which is performed with a stretched neck and seeming difficulty. They are numerous on the extremes of the Bay and never visit our middle settlements but when the Ptermigans are scarce and too truly denotes a hard winter with the poor natives."

Manning (1952) has pointed out that Pennant's description of the Rock Ptarmigan (which was really Graham's) was the basis for Gmelin's (1789 not seen) formal description of *Tetrao rupestris*. The type locality was given as "in borealibus oris ad sinum Hudsonis = shores of Hudson Bay" (American Ornithologists Union Check List, 1957). Graham encountered the southern race of the Rock Ptarmigan, now known as *Logopus mutus rupestris* some time during his service on Hudson Bay. The only trading posts at which he served in Canada, prior to the completion of his *observations*, according to A. M. Johnson (Archivist, Hudson's Bay Company, *pers. com.*) were Fort Prince of Wales, at the mouth of the Churchill River and opposite the present site of Churchill, York Factory, and Fort Severn. Rock Ptarmigan are likely to occur at all three of these localities (see below) but are far more regular in occurrence and more abundant in the Churchill area. It is reasonable then to restrict the type locality of this form to "Fort Prince of Wales, Manitoba".

Swainson and Richardson (1831) in listing two species of Rock Ptarmigan did not recognize as we do today a single species with a circumpolar distribution. They quoted Graham with the credit again going to Hutchins under the heading *Tetrao rupestris* and added "... is found on Melville peninsula and the barren grounds seldom going further south in winter than Latitude 63° in the interior but descending along the coast of Hudson's Bay to Latitude 58° and in severe seasons still further southward." Under the heading *Tetrao mutus* they list "... a specimen in summer plumage sent to Sir John Franklin from Churchill river [which] was identified by John Sabine esq. with the Scotch Ptarmigan thus establishing it as an inhabitant of the American continent."

Hellmayr and Conover (1942) state that Audubon gave the range for his *Lagopus americanus* as "Melville Island, Churchill River", and further remark that Audubon later quoted Richardson as his authority for the Churchill River locality. Today we recognize that different races of Rock Ptarmigan occur at these two localities. Hellmayr and Conover (1942) therefore recognize the priority of Audubon's name for the northern race with the type locally "Melville Island". Gmelin's name *rupestris*, however, applies to the southern race which occurs at "Churchill River" with the type locality restricted here to "Fort Prince of Wales, Manitoba".



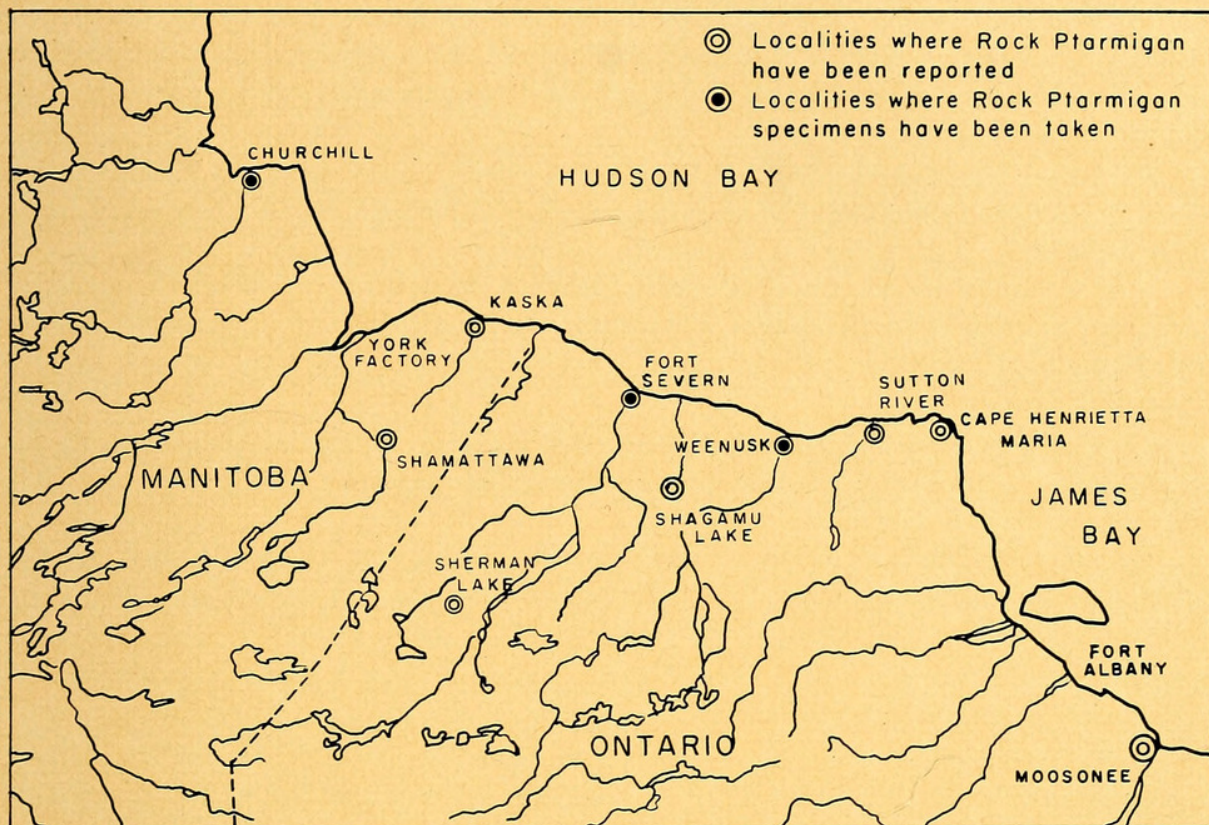


FIGURE 1. Localities in Ontario and Manitoba mentioned in the text.

In 1845 Dr. Gillespie Jr. of the Hudson's Bay Company presented a collection of birds to the Edinburgh Museum among which was a pair of Rock Ptarmigan in winter plumage (Clarke, 1890). They were collected by him during his residence at Fort Churchill.

Macoun (1900) wrote somewhat inconsistently that: "No authentic records of its being taken in Ontario or southern Quebec have been seen and the same statement may be made of Manitoba and westward." However, he later quotes Richardson's statement that they descend along the Hudson's Bay coast to Lat.  $58^{\circ}$  (which would include the Churchill area), and in severe seasons to Lat.  $55^{\circ}$ . This latitude was actually not mentioned by Swainson and Richardson (1831); it does, however, include the whole Hudson Bay coast of Ontario.

According to Preble (1902) the people of Fort Churchill say that the species occurs at that post regularly in winter.

#### RECENT RECORDS AND REPORTS FROM MANITOBA

Taverner and Sutton (1934) reported that: "Lloyd, who was stationed at Churchill for several years, saw Rock Ptarmigan every winter, but he was of the opinion that the species never occurs regularly in summer." They found Rock Ptarmigan rather numerous at Churchill in May and early June, 1931. They recorded their last observation of the species on July 10. In 1930 the only one they collected was an autumn plumaged bird taken on August 19 near



Fort Prince of Wales. They reported this to be a female but W. E. Godfrey, Curator of Birds, National Museum of Canada, in a personal communication states that the only specimen in the National Museum taken on that date at that locality was an adult male.

Figure 1 shows the localities round the Hudson Bay coast of Ontario and Manitoba mentioned in the text and the places from which Rock Ptarmigan have been reported.

There seems to be no specimen evidence at present of Rock Ptarmigan breeding anywhere in Manitoba, although the Manitoba Department of Mines and Natural Resources (1945) suggests that the species may breed in the Churchill area.

In the Registered Trapline annual reports for Manitoba there are three recent references to the occurrence of Rock Ptarmigan in that province. All refer to the winter season.

Mr. T. M. Nichol (1954) then with the Manitoba Game Branch in his 1953-54 report mentions that: "... The Kaska trappers reported an increase in rock ptarmigan." Again in his 1954-55 report he states that: "... A few rock ptarmigan were reported from the Kaska group." The Kaska Indians occupy the coastal area east of Cape Tatnum adjacent to the Ontario Boundary.

The third reference to the species was made by Mr. W. R. Burns (1957) Manitoba Game Branch in his 1956-57 report for the Churchill area. He states that both Willow and Rock Ptarmigan were found in the Churchill area but the latter were scarce.

Sometimes Rock Ptarmigan may penetrate inland south of the area occupied by the Kaska Indians. At Shamattawa, Mr. Stephen Redhead told me that he saw a flock of three during the winter of 1961-62 about five miles northwest of the village on the God's River.

#### RECENT RECORDS AND REPORTS FROM THE HUDSON BAY AREA OF ONTARIO

The Indians living in the northern part of the Patricia portion of Ontario know the Rock Ptarmigan well and call the bird "Apistabemish". They say that flocks appear on their traplines in winter only, at intervals of six or eight years. Unless otherwise stated, the reports on the distribution of the Rock Ptarmigan in Ontario which follow were derived from personal communications.

Mr. Joseph Chokomolin told me that during the hard winter of 1935 his brother John killed six small ptarmigan, at the mouth of the Sutton River. He said that they all had black feathers between the eye and the bill.

During the winter of 1956-57, Conservation Officer T. M. Nichol, then with the Ontario Department of Lands and Forests, reported a single Rock Ptarmigan on the airport at Weenusk.

During the winter of 1960-61, a small flight of Rock Ptarmigan penetrated as far as the region of Shagamu Lake ( $55^{\circ}05'N$ ,  $87^{\circ}05'W$ ). Mr. Michel Hunter, the chief of the Weenusk Indian band, shot about 15 Rock Ptarmigan there on his trapline. He also killed over 100 Willow Ptarmigan during the same winter. He saved one Rock Ptarmigan and took it to Weenusk as a specimen but it was later destroyed in error.



The winter of 1961-62 was marked by a major flight of both Willow and Rock ptarmigan into the Hudson Bay area of Ontario. Rock Ptarmigan were most abundant close to the coast but one Ontario report refers to birds in the interior. Mr. Joseph Morris, the chief of the Big Trout Lake Indian band, told me that he saw a flock of about 30 Rock Ptarmigan ten miles north of Sherman Lake at  $54^{\circ}38'N$ ,  $91^{\circ}25'W$ ; which is about 180 miles from the Hudson Bay coast.

At Fort Severn Willow Ptarmigan were extremely abundant and both Mr. Fred Close of the Hudson's Bay Company and Mr. Angus Miles reported that many thousands were killed for food by the villagers during the winter. Mr. Close told me that about one in fifty was a Rock Ptarmigan. He personally killed three Rock Ptarmigan in one day but kept no record of the total number he killed during the winter.

Mr. Mason Koostachin reported that there were about 20 Rock Ptarmigan among the Willow Ptarmigan he killed near Fort Severn during the winter of 1961-62.

At Weenusk also, Rock Ptarmigan were abundant and Mr. Michel Hunter said he saw flocks numbering from 25 to 60 birds. They fed in the willows along the coast and frequently flew out onto the sea ice where he saw them while trapping arctic foxes. He killed 30-35 Rock Ptarmigan and 60-70 Willow Ptarmigan during the winter while trapping west of the mouth of the Weenusk River. He reported that they arrived just before Christmas, 1961, and did not leave until the snow began to thaw at the end of March, 1962.

Mr. Moses Koostachin reported that Rock Ptarmigan were present on his trapline, which lies east of the mouth of the Weenusk River, during the winter of 1961-62. His son John George Koostachin killed two there that winter.

Mr. Xavier Sutherland told me that Rock Ptarmigan occur regularly in winter on Cape Henrietta Maria and birds were present in 1960-61 and 1961-62.

Seven specimens were preserved from the 1961-62 flight, one is in the Royal Ontario Museum of Zoology and Palaeontology and six are at the Southern Research Station, Maple. There were three males and one female killed in January, 1962 by Mr. Elijah Stoney and Mr. Peter Patrick at Fort Severn; and two males and one female killed on March 25, 1962 by Mr. Michel Hunter at Weenusk.

#### RECENT REPORTS FROM THE JAMES BAY AREA

Baillie (1956) has suggested, on the basis of a report from Mr. Sam Waller, who lived at Moosonee for some years, that Rock Ptarmigan might be found some winters in the James Bay region. According to Mr. Simeon Scott and other Indians, who were present at Fort Albany when I enquired, Rock Ptarmigan are never found north of Moosonee on the west side of James Bay. They all said that Cape Henrietta Maria was the nearest place where the species might be found.

In Qubec, on the east side of James Bay, however, the situation is quite different. Mr. Josie Sim at Fort George said that both species of ptarmigan



occur there. The Rock Ptarmigan appear only in winter, they come every year and occasionally in great numbers.

Farther south at Rupert House, Mr. Willie Weestchee and Mr. Isiah Salt told me that the Rock Ptarmigan, which they call "Skangish", appear nearly every winter.

Rupert House lies about 80 miles east and a little north of Moosonee on the southern end of James Bay. It seems likely then that if Rock Ptarmigan do occur at Moosonee, they come from the Québec side of James Bay and not from the west.

Taverner and Sutton's (1934) summary of the status of the Rock Ptarmigan in the Churchill area of Manitoba as "a winter visitor irregularly common", can probably not be improved. In Ontario the species should be regarded as a periodic winter visitor in the extreme north occurring sometimes in substantial numbers, and of hypothetical occurrence at the southern end of James Bay.

#### ACKNOWLEDGMENTS

I should like to acknowledge the help of Miss A. M. Johnson, Archivist and Mrs. S. S. Smith, Librarian of the Hudson's Bay Company, who supplied me with biographical sketches of Thomas Hutchins and Andrew Graham and drew my attention to the correct authorship of the manuscript "Observations on Hudson's Bay". The quotation on Rock Ptarmigan from this manuscript is published by permission of the Governor and Committee of the Hudson's Bay Company. Dr. E. F. Bossenmaier sent unpublished references on the occurrence of Rock Ptarmigan in Manitoba and gave permission for publication. Finally, I am grateful to Mr. M. Hunter, Mr. E. Stoney and Mr. P. Patrick who collected specimens and preserved them for me.

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## FISH COLLECTIONS FROM EASTERN HUDSON BAY

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### INTRODUCTION

FEW COLLECTIONS have been made in the eastern waters of Canada's inland sea, Hudson Bay. Vladykov (1933) and Dymond (1933) describe the marine fish and summarize past literature. Dunbar and Hildebrand (1952) describe the fishes of Ungava Bay. The only further marine ichthyofaunal study has been that of Edwards (1961) on the fishes of Richmond Gulf. However, reports on single species have appeared: McPhail (1961) on Arctic charr and (1963) on ninespine stickleback, Legendre (1961) on the Greenland cod and Scott (1960) on the round whitefish. McAllister (1960) provided a key to the marine Arctic Canadian fishes, including Hudson Bay. References to the literature up to 1960 on freshwater fishes may be obtained from Harper (1961) and Fowler (1961). Power and Oliver (1961) give freshwater records from the southern Ungava Bay drainage.

The area must still be considered poorly known as each study has revealed further species. In Richmond Gulf, for example, the National Museum of Canada expedition in only ten marine stations was able to add four species to Edward's (1961) list—the lumpfish, round whitefish, lake whitefish, and the Arctic sculpin. One collection by the Fisheries Research Board in 1959 has been found to contain a further species, the American plaice, *Hippoglossoides platessoides*. Further work would be worthwhile, particularly in the deeper waters.

This paper briefly reports on marine and freshwater fishes collected by the National Museum of Canada expedition to eastern Hudson Bay in the summer of 1963. The author and Dr. A. H. Clarke, Jr., assisted by Mr. H. D. Athearn, collected fishes, molluscs, and other invertebrates from Port Harrison in the north to Moosonee, James Bay, in the south. Additional collections made by John G. Robertson at Povungnituk in 1963 are also reported on. Figure 1 shows the locality of the collecting sites; Table 1 presents the field data.

### ITINERARY

The author left Ottawa on July 7, by train and arrived at Moosonee July 8. On July 10 he took off by Canso aircraft for Port Harrison and en route picked





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