

Canadian Wildlife Service  
Arctic Ecology Map Series  
Critical Wildlife areas

Descriptive report

Ballantyne Strait

BALLANTYNE STRAIT  
(Sheet #2022)

The Ballantyne Strait map sheet encompasses a total land and sea area of 106,000 square miles in the Queen Elizabeth Islands region of the High Arctic. The major part of this area is marine. The principle islands included on the map sheet are Prince Patrick, Brock, and Emerald; along with portions of Borden, Mackenzie King, and Melville Islands.

More than half of Prince Patrick Island (the northwestern portion) is covered by unconsolidated sands and gravel of the Beaufort formation. This formation supports very little vegetation and consequently receives very little use by herbivorous wildlife. The remainder of the island has a more diverse topography which reflects more diverse plant and animal life.

The northern portion of Borden Island is characterized by the Beaufort formation with the consequence that vegetation and dependent wildlife are primarily restricted to the southern portion. Brock Island and Emerald Isle are low and rather featureless although the fact that Emerald Isle was named for its vegetation indicates more plentiful vegetation here than in surrounding areas. Mackenzie King Island has a more varied topography than Borden or Brock.

The portion of Melville Island included on this map sheet is primarily the northern lowlands although a portion more rugged folded upland occurs in the southwestern

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The most important wildlife in the area are Peary Caribou and Muskoxen. Both Caribou and Muskoxen are found on suitable range on the eastern uplands of Prince Patrick Island and on Melville Island. Caribou also occur on Emerald, Borden, and Mackenzie King Islands. Brant make use of the coastal lowlands of Prince Patrick Island for nesting and moulting. A breeding area for a population of the rare Ivory Gull occurs in the Polynia Islands.

Polar Bear are widely distributed throughout the area. Other wildlife occurring on Prince Patrick Island and vicinity include Arctic Fox, Arctic Wolf, Ringed Seal and Bearded Seal.

Following is the descriptive text for units mapped on this sheet.

UNIT NUMBER

DESCRIPTION

- 1            On the basis of observations made by R. Thorsteinsson and E.T. Tozer of the Geological Survey of Canada, Macpherson (1958) estimated the Peary Caribou population of Borden Island at 1,200 animals.  
  
              Tener (1963) who noted that Caribou on Borden Island avoid the unvegetated Beaufort formation and are found only on the southern late Paleozoic and early Tertiary formation estimated the Caribou population at 1,630 animals.
  
- 2            R. Thorsteinsson and E.T. Tozer have observed Peary Caribou in this region of MacKenzie King Island. (Macpherson, 1958) On the basis of these observations, Macpherson estimated the caribou population of the island at 882 animals.
  
- 3            The Ivory Gull which is a rare species of Gull breeds on the Polynia Islands. (Macpherson)
  
- 4            The coastal area of Moore Bay is a breeding area for Brant. (Barry)
  
- 5            Peary Caribou occur on Emerald Island. (Macpherson)  
  
              On the basis of observations made by R. Thorsteinsson and E.T. Tozer of the Geological Survey of Canada Macpherson (1958) estimated the population of Caribou on Emerald Island to be 450 animals. Tener (1963) estimated the Caribou population at 161 and noted that they were mainly concentrated along the coast or along the coastal plain at the western tip.
  
- 6            This area contains important Muskox and Peary Caribou range. (MacDonald, Macpherson, Barry, Jonkel) Macpherson (1958) estimated the population of Muskoxen in this northern lowland region of Melville Island at 266 and the Caribou population at 141.

UNIT NUMBER	DESCRIPTION
7	In this Folded Upland area of Melville Island, Peary Caribou are more plentiful than Muskoxen. (Macpherson, 1958)
8	This is a Black (Pacific) Brant nesting area. (Barry)
9	This area supports Peary Caribou and Muskoxen. (MacDonald, Harington, Macpherson) Macpherson (1958) estimated the Caribou population of this area to be 1,342 animals and the Muskoxen population at 34 animals. Tener (1963) reported a total population of 2,254 Caribou on Prince Patrick Island. Although Tener observed no Muskoxen here during his game survey, as many as 56 animals of this species have been observed in one day by MacDonald (1954). This area is suspected to be important for Polar Bear denning since there are many Polar Bears offshore. There is as yet, however, no concrete information. (Jonkel, Stirling)
10	Approximately 100 Pacific Brant nest in the vicinity of Mould Bay. (Barry) MacDonald (1954) reported both Atlantic and Black Brant nesting and moulting in the area. MacDonald also reported that Arctic Hare were common in the area.

REFERENCES

Personal Communications

T.W. Barry  
C.J. Jonkel  
A.H. Macpherson (Canadian Wildlife Service)  
I. Stirling

S.D. MacDonald  
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MacDonald, S.D. 1954. Report on Biological Investigations at Mould Bay, Prince Patrick Island, N.W.T. Bulletin No. 132, Ann. Rep. National Museum of Canada.

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