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Migratory Bird Terrestrial Habitats – An NWT Overview –



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MIGRATORY BIRD TERRESTRIAL HABITATS

—AN NWT OVERVIEW—

(With Supplemental Maps)

Habitat Management Section

Technical Report No. 84-8

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and

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WESTERN AND NORTHERN REGION
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INTRODUCTION

In 1972, the Canadian Wildlife Service (CWS), concerned about increased exploration and development activities, completed the Arctic Ecology Map Series which compiled information on important wildlife habitats in Canada's North. The data included a review of published literature, unpublished documents, and interviews of individuals having wide arctic experience. The objectives of the Arctic Ecology Map Series were two-fold: "to bring together as much data as possible on habitats utilized by a wide range of species, and to provide a planning tool for both government and industry to help preserve these areas." The Arctic Ecology Map Series has subsequently proven its utility, particularly in the review of Land Use Permits.

This is an update of the Arctic Ecology Map Series. As anticipated, the northern landscape has experienced ever-increasing development pressures over the past decade. In response, there has been a marked increase in field studies which has greatly increased our knowledge of northern habitats. Much of the more recent data is incorporated into this edition. Nevertheless, significant data gaps still exist which impair our ability to evaluate both habitats and development impacts upon them. As noted in the original edition, the evaluation of habitats is an iterative process - new information will be added as it becomes available. It is intended that this revision will:

- 1) provide a convenient document for the review of northern Land Use Permits.
- 2) provide a synoptic overview of migratory bird distribution in the Northwest Territories, and

- 3) highlight areas where further surveys or evaluations are needed.

Considering the extent of the Northwest Territories, few individuals are intimately aware of all its resources and sensitivities. As a result, impact evaluations are often made with less than complete confidence. In recognition of its primary function, a number of changes have been incorporated into this edition which should improve its effectiveness as a preliminary evaluation tool. These changes are discussed below.

Users of this document are invited to contact the Canadian Wildlife Service, Yellowknife regarding any errors or omissions.

METHODOLOGY AND RATIONALE

Unlike the earlier edition, this review addresses only migratory birds (as defined in the Migratory Birds Convention Act) and certain rare or endangered species. In the case of rare or endangered species, however, no attempt has been made to map all known breeding sites. Only published records or notes have been included in this review. Further information, if required, may be obtained by contacting the CWS.

For this review, all freshwater bodies are considered as terrestrial habitats. In the case of marine habitats, however, the distinction is not quite as clear. Information on certain marine habitats has been included where it was felt that these areas could be affected by activities on adjacent lands. A companion document reviewing marine habitats is planned for the near future.

Within the context of development activities a number of assumptions can be made regarding migratory birds:

- 1) Populations that are widespread and occupy a variety of habitats are usually less vulnerable to the effects of a site-specific activity because only a small portion of the population is subjected to the activity.
- 2) Populations that occur as large concentrations (e.g. colonies or moulting aggregations) in restricted areas tend to be more vulnerable to disturbance because a large proportion of the population may be affected.
- 3) Species that have specialized habitat requirements (e.g. cliff-nesting raptors) are more vulnerable to disturbance of their habitat than those with more generalized habitat requirements.

Migratory bird habitats in the NWT have been reviewed within the context of these assumptions.

Environmental impacts have both a spatial and a temporal component. The spatial aspect is addressed through the delineation of migratory bird habitats. Temporally, the use of northern habitats by wildlife is limited mainly to the summer months. The impact of an activity is often a function of timing - when it occurs in relation to a specie's annual cycle. Therefore, wherever possible, site descriptions include information on the annual cycle of wildlife species.

It will be noticed that terms such as "critical", "significant" or "important" have been used when discussing habitats. Despite their semantic limitations, they do provide an intuitive "common denominator" for evaluating and discussing habitat. Subjective evaluations however, are often hard to interpret and harder to defend. Accordingly, quantitative data have been presented where possible. Although it is

recognized that quantitative data for any area are rarely sufficient, it is important that decisions are based on the best available information. Therefore, information on the existence or general location of a colony has been included, even if population data is not available. With such an extensive area under consideration, it would be impractical to compile detailed information on all areas. Hence, the data is consistently referenced so that further information may be easily obtained if necessary.

MAPPING CONVENTIONS

The following symbols are used to depict various features:

1. ● : Ross' goose colony
2. ○ : Lesser snow goose colony
3. ⊙ : Greater snow goose colony
4. ★ : Thick-billed murre colony
5. * : Northern fulmar colony
6. ■ : Black guillemot colony
7. ▲ : Glaucous gull colony
8. △ : Herring and/or California gull colony
9. ☆ : Sabine's gull colony
10. ◆ : Thayer's gull colony
11. ☆ : Ivory gull colony
12. ☆ : Ross' gull colony
13. ★ : Black-legged kittiwake colony
14. ▲ : Arctic tern colony
15. ——— : a legally designated area such as a sanctuary or
 national park

- 16. _____ : a topographically distinguishable area where
species distributions are reasonably well known
- 17. _____ : an area where boundaries are indistinct or
specific locations are poorly defined
- 18. **20** : a specific area on a particular map sheet
- 19. **A** : a specific site within a numerically identified
area

Where an area is well defined physically (i.e. lake, bay, or fiord) no further delineation is added. Because the precise locations of many observations have not been indicated in the literature, the delineation of various habitats and sites involved considerable judgement and interpretation. In most instances, boundaries were constructed on the basis of available topographical information and knowledge of species' biology. Such limitations must be borne in mind when considering the recognition of certain areas.

For ease of handling, information has been portrayed on 1:1,000,000 scale topographic base maps. These maps have been further gridded and coded to indicate 1:250,000 scale topographic map coverage. This will provide a convenient reference for the retrieval of larger scale maps if required.

Topographical map coverage of NWT, at 1:1,000,000 scale, is indicated in Figure 1. Although not apparent on the index map, coverage does extend to the base of James Bay (see Broadback River map sheet). The Hudson Bay map sheet is not included for no land occurs within its boundaries. Despite the recent conversion to the International map numbering system, a more traditional scheme based on National Topographic System enumeration has been retained in this review. The convenience and

availability of these mapping materials outweighed any advantages gained by converting to the new regime. The appropriate map number is indicated in the upper left hand corner of each map sheet (Fig. 1) whereas the relevant NTS number (for locating 1:250,000 scale maps) is indicated at the bottom of each map.

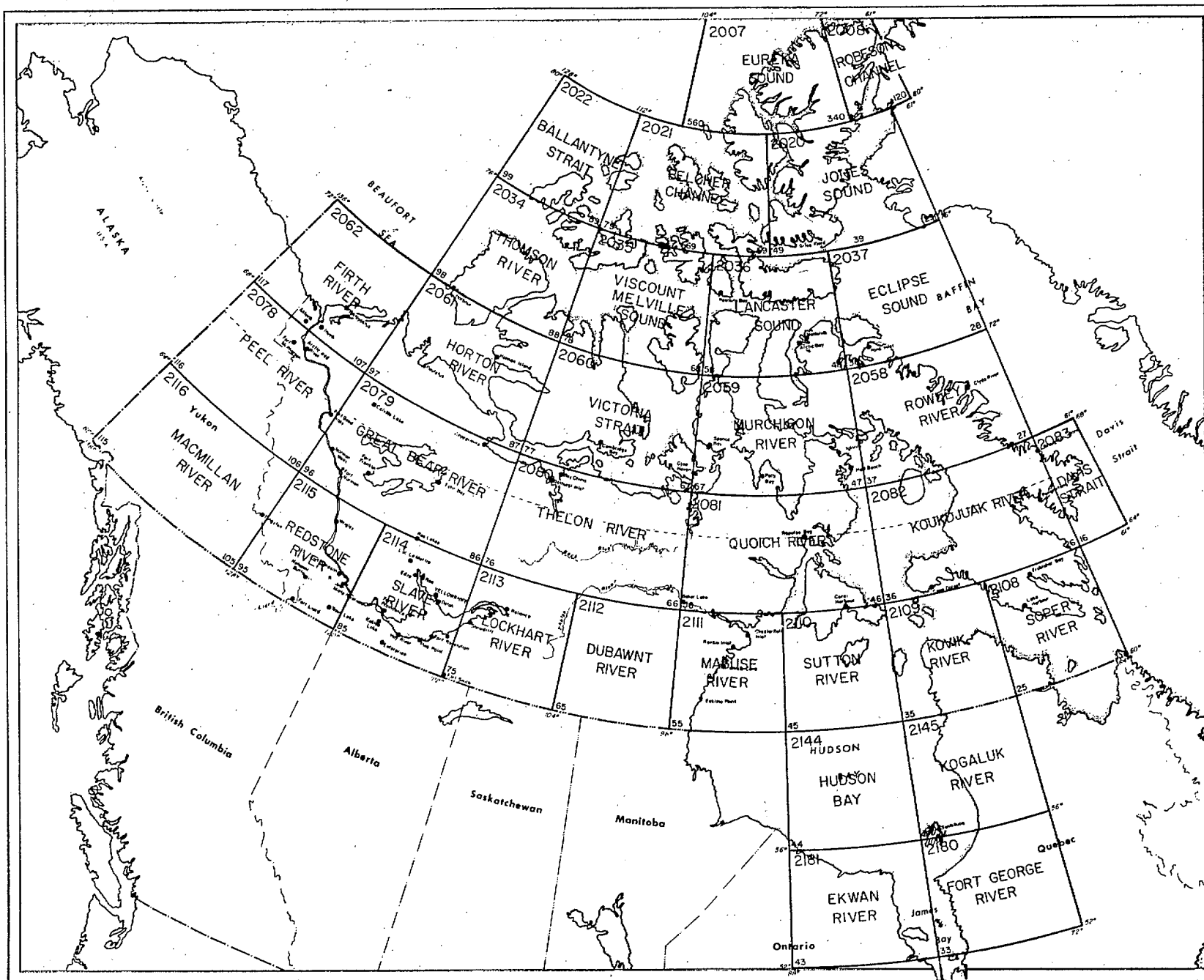


Fig. 1. Index map showing 1:1,000,000 topographic map coverage of N.W.T.

LIST OF MAPS

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EUREKA SOUND (2007)

Map No. 1

LAKE HAZEN (1)

- Greater Snow Goose: - 545 adult birds were noted by Tener (1962).
- 12 nesting pairs and 130 non-breeding birds were recorded by Kerbes (1971).
- for phenological data see Number 5.

CONFEDERATION POINT (2a)

- Greater Snow Goose: - 33 breeding pairs and 70 goslings were present in low-lying areas near the cape (Kerbes 1971).

ATWOOD POINT (2b)

- Greater Snow Goose: - 8 breeding pairs and 14 non-breeders were noted about Atwood Point and Cape Brainard (Kerbes 1971).

GREELY FIORD (2c)

- Greater Snow Goose: - 105 non-breeding geese were recorded in this area (Kerbes 1971).

CANON FIORD (3)

- Greater Snow Goose: - 49 breeding pairs and 14 non-breeders were noted at the head of the fiord (Kerbes 1971).

FOSHEIM PENINSULA (4)

See Map 2020, Number 1.

SCHEI PENINSULA (5)

- Greater Snow Goose: - 200 non-breeders were recorded on the Schei Peninsula plus 18 nesting pairs and 50

- non-breeders in the Nanson Sound area (Kerbes 1971).
- 405 moulting birds were recorded from south of Schei Peninsula to Stang Bay on 2 August 1961 (Tener 1962).
 - over 400 flightless geese were recorded on the Schei Peninsula by Parmalee and MacDonald (1960).
 - 480 non-breeders were noted on the Schei Peninsula by Heyland and Boyd (1970).
 - peak hatching occurs between 12-14 July (Kerbes 1971).
 - moulting of non-breeders is completed by mid-July while breeders complete their moult by the end of July (Kerbes 1971).

Brant: - 40 birds were recorded east of Skraeling Point (Heyland and Boyd 1970).

ROBESON CHANNEL (2008)

Map No. 2

LAKE HAZEN (1)

See Map 2007, Number 1.

FORT CONGER (2)

Greater Snow Goose: - a small number of non-breeders were recorded in these areas (Kerbes 1971).

JONES SOUND (2020)

Map No. 3

FOSHEIM PENINSULA (1)

- Greater Snow Goose: - 1090 geese were noted here (Tener 1962).
- 53 breeding pairs and 254 non-breeders were recorded (Kerbes 1971).

MOKKA FIORD (2)

- Greater Snow Goose: - 310 non-breeders plus 6 nesting pairs were noted by Kerbes (1971). Tener (1962) record similar numbers.

MAY POINT (3)

- Greater Snow Goose: - approximately 90 non-breeders and 14 breeders were recorded (Kerbes 1971).

SAWTOOTH RANGE (4)

- Greater Snow Goose: - 329 non-breeders and 4 nesting pairs were recorded just south of the range and near Canon Fiord (Kerbes 1971).
- 150 moulting birds plus 2 pairs with goslings were noted by Heyland and Boyd (1970) between Bay Fiord and West Fiord.
- peak hatching occurred from July 12-14 in 1971 (Kerbes 1971).
- non-breeders were flightless by July 13 while breeding adults moulted by July 31 (Kerbes 1971).

IRENE BAY (5)

- Greater Snow Goose: - 71 moulting birds were recorded in early August 1961 (Tener 1962).

- approximately the same numbers were present in 1971 (Kerbes 1971).

- for phenological data see number 4.

Brant: - 250 birds were noted in early August (Tener 1962).

COPES BAY (6)

Ivory Gull: - an estimated 80-100 birds occupy a colony on a cliff face above a glacier in this region (Burton n.d. a,b; Williams n.d.).

- egg laying begins from mid to late June (MacDonald 1976).

DOBBIN BAY (7)

Black Guillemot: - a total of 15 colonies are located in this region (Burton n.d.).

- numbers were not recorded for individual colonies but a total of 3,572 birds were noted on offshore waters at colony locations (Burton n.d. b).
- nesting takes place from late June or early July to the end of July (Johnson et al. 1975 - Beaufort Sea data).

RAANES PENINSULA (8)

Greater Snow Goose: - 170 non-breeders were recorded by Kerbes (1971).

- 140 moulting geese were recorded further west along the coast (Tener 1962).

EKBLAW GLACIER (9)

Ivory Gull: - an estimated 60 birds were seen resting on cliff ledges in this area.

- this is considered a probable colony (Frisch and Morgan 1979).

VENDOM FIORD (10)

Greater Snow Goose: - 150 moulting birds plus three pairs with goslings were recorded north of the fiord (Heyland and Boyd 1970).

- a further 90 moulting birds plus 18 pairs were recorded here (Heyland and Boyd 1970).

- non-breeders complete their moult by mid-July while breeding birds have moulted by the end of July (Kerbes 1971).

BAUMANN FIORD (11)

Greater Snow Goose: - 10 pairs with goslings and 10 moulting birds were noted in the fiord (Heyland and Boyd 1970).

MAKINSON INLET (12)

Ivory Gull: - a colony is located on cliff faces in the ice fields near Makinson Inlet (Thomas 1983).

- egg laying occurs toward the end of June (MacDonald 1976).

INGLEFIELD MOUNTAINS (13)

Ivory Gull: - this is reportedly a colony site (Frisch and Morgan (1979).

- 50 birds are estimated to be present.

- nesting has not been confirmed.

CAPE STOKES (14)

Ivory Gull: - an estimated 50 birds were recorded at this location
(Frisch and Morgan 1979).

- breeding has not been confirmed.

SMITH BAY (15)

Ivory Gull: - two colonies are reported for these locations.

- breeding has been confirmed for only the
northeasterly site where 12-15 birds were noted
(Frisch and Morgan 1979).
- approximately 60 individuals were noted at the other
site (Frisch and Morgan 1979).
- for phenological data see Number 6.

GRISE FIORD (16)

Northern Fulmar: - a large colony (numbers unspecified) is located
on the east side of the entrance to the fiord
(Waterston and Waterston 1972).

- the colony includes approximately 2,000 pairs
(S. MacDonald pers. comm.).

BELCHER CHANNEL (2021)

Map No. 4

MEIGHEN ISLAND (1)

Ivory Gull: - in 1916, Stephansson (in MacDonald and Macpherson
1962) reported ivory gulls breeding in this area.

- further confirmation has not yet been made.

ISACHSEN PENINSULA (2)

Brant: - 10 pairs were recorded by Saville (1961).

- 14 individuals were present in early spring and 28 birds were noted in late June (MacDonald 1961).

PEARY CHANNEL (3)

Ivory Gull: - 75-100 pairs were located on a "floating ice island" at this location on 25 June, 1960 (MacDonald and Macpherson 1962).

SOUTH FIORD (4)

Brant: - 65 birds were banded here in 1974 (Maltby-Prevett et al. 1975).

- specific location was not indicated.

SURPRISE FIORD (5)

Brant: - 23 individuals were banded here in 1974 (Maltby-Prevett et al. 1975).

- specific location was not indicated.

NORDSTRAND POINT (6)

Brant: - 50-60 moulting birds were recorded on the shore southeast of Nordstrand Point (Heyland and Boyd 1970).

HELL GATE (7)

Black Guillemot: - approximately 5,000 pairs nest around the coastline of Calf Island (Nettleship 1980).

- three colonies (including 2,000-3,000 pairs) are situated on cliffs at the southern tip and southeast coast of North Kent Island (Nettleship 1980).

CAPE VERA (8)

Northern Fulmar: - a colony containing approximately 25,000 pairs

is located along 5 miles of cliff face
(Nettleship 1980).

- St. Helena Island has a large population of nesting marine species including common eiders, black guillemots and glaucous gulls (Nettleship 1980).

DUNDAS/MARGARET ISLANDS (9)

See Map 2036, Number 8.

CHEYNE ISLANDS (10)

Ross' Gull: - 6 pairs nest on this island (Macey 1981).

PENNY STRAIT (11)

Black Guillemot: - a colony of 200 pairs occurs here (Davis et al. 1974).

Glaucous Gull: - a colony of 20 pairs was noted here (Davis et al. 1974).

SEYMOUR ISLAND (12)

Ivory Gull: - the largest known Canadian colony (150 pairs) occurs on this island (Nettleship 1980).

- breeding season extends from May to September (Nettleship 1980).

ELDRIDGE BAY (13)

Brant: - the coastal area from MacDougall Point to Eldridge Bay reportedly supports a breeding population of brant and eiders (Maltby 1976).

- approximately 50 birds were banded here in 1974 (Maltby 1976).

- 7 birds were also recorded at Eden Bay (76°37'N, 108°34'W).

BALLANTYNE STRAIT (2022)

Map No. 5

POLYNIA ISLANDS/CAPE KRABBE (1)

- Ivory Gull: - reportedly nests in these areas (MacDonald and Macpherson 1962) but breeding has not yet been confirmed.

JAMESON BAY (2)

- delta provides nesting habitat for waterfowl.
- numbers included 42 brant, 38 common eiders, and 80 king eiders (Beak 1975b).

INTREPID INLET (3)

- Brant: - 250 birds were recorded on a pond on the west side of Intrepid Inlet (Tener 1962).
- this is probably a staging area for no evidence of nesting was apparent (Tener 1962).
- approximately 112 breeding birds with non-breeders were recorded here in 1973 (Boyd and Maltby 1979).

MOULD BAY (4)

- Brant: - were observed nesting on the shores of lakes and ponds.
- adults and young move to the bay after hatch.
- 425 brant were recorded by MacDonald (1954).
- 56 brant were noted in 1973 by Maltby (1976).
- over 400 birds were noted here in 1974 (Boyd and Maltby 1979).

- 55 brant were also seen at Disappointment Point (Maltby 1976).
- over 500 individuals were recorded in coastal areas from Green Bay to Disappointment Point (Boyd and Maltby 1979).
- 50 birds were also noted near Snowpatch Point (Tener 1962).
- young were noted at the end of July (MacDonald 1954).

WALKER INLET (5)

See Map 2034, Number 1.

THOMSEN RIVER (2034)

Map No. 6

WALKER INLET (1)

- Brant: - 160 moulting birds were recorded here (Maltby 1976).
- 30 moulting individuals were noted at Wooley Bay in late July (Tener 1962).

DAMES POINT (2)

- Brant: - 200 moulting birds were noted here in 1961 (Tener 1962).
- similar numbers were recorded in the area in 1974 (Boyd and Maltby 1979).

MOULD BAY (3)

See Map 2022, Number 4.

EGLINTON ISLAND (4)

- Brant: - 855 brant were recorded on the island (Boyd and Maltby 1979).

McCORMICK INLET (5)

- Lesser Snow Goose: - 91 geese, mainly non-breeders, were recorded here in 1975 (Boyd and Maltby 1979).

DUNDAS PENINSULA (6)

See Map 2035, Number 2.

CAPE WROTTESLY (7)

Lesser Snow Goose: - over 2,300 geese were noted at the cape and in a river valley just south east of Cape Wrottesly (Beak 1975a).

Thayer's Gull: - a small colony of 14 nests is located at the cape (Manning et al. 1956).

THOMSEN RIVER (8)

- is part of a Migratory Bird Sanctuary.

Lesser Snow Goose: - large numbers (25,000; Beak 1975a) move from the Egg River colony to this area to undergo moult.

- migration occurs from early July to early August (Beak 1975a).

- birds are concentrated in the Thomsen River Valley and Castel Bay (Beak 1975a, Manning et al. 1956).

- surveys in 1974 (Beak 1975a) revealed only 1,200 geese in Castel Bay and 755 birds in the Thomsen River valley.

Canada Goose: - 250 moulting birds were observed in this area.

- a further 2,500 moulting birds were noted in the Muskox River and lower Thomsen River valleys (Beak, 1975a).

Brant: - over 5,000 individuals have been reported to moult in this area (Arctic Ecology Map Series 1972).

- no birds were recorded north of the Bernard River in 1974 (Beak 1975a).

MERCY BAY (9)

Raptors: - a steep bluff known as "Gyrfalcon Bluff", located at the head of the bay, has been in use by either peregrines or gyrfalcons for several years (Bradley 1976).

BERNARD RIVER (10)

Lesser Snow Goose: - nearly 6,000 staging birds were noted on August 9, 1974 at the point where the river bends westward (Beak 1975a).

EGG RIVER (11)

Lesser Snow Goose: - a colony is concentrated around the Egg River/Big River confluence.

- colony estimates (number of birds) are:
 - 120,000 (Manning et al. 1956).
 - 41,000 (McEwen (1958).
 - 165,000 (Kerbes 1983).
 - 200,000 were recorded on June 8, 1981 (Cooch 1982).
 - only 10,000 were present on June 10, 1982 when snow coverage was more extensive than in previous years (Cooch 1982).
 - up to 1,000 pairs are reported to nest intermittently at a colony on the Masik River (Cooch 1982).
 - the lowland area from the Big River to the Adams River in the north, serves as a feeding

and moulting area for snow geese from the Egg River colony (Beak 1975a).

- 4,500 moulting birds were noted in the Storkerson Bay area (Manning 1956).
- 1,000 geese were recorded on the Adams River (Beak 1975a).
- 5,379 geese were recorded between the Big River and the Storkerson River in August (Beak 1975a).
- nesting is initiated between early and mid-June and is dependent upon the weather (Cooch 1982).
- hatching is underway as early as the end of June (McEwen 1958).
- on approximately the second day after the hatch, adults and broods move to moulting and feeding areas (McEwen 1958).

Brant - 350 moulting birds were recorded on the Big River (Beak 1975a).

- 657 brant were noted on the Adams River and its delta (Beak 1975a).

Whistling Swan: - 45 adults with broods were noted moulting at Storkerson Bay (Beak 1975a).

Eider: - a colony of 219 nests was recorded on Moose Island (72°29'N, 125°18'W) (Manning et al. 1956).

- a smaller colony is reported to exist along the coast towards the Kellett River (Barry 1983).

- 26-100 pairs are thought to nest here (Barry 1983).

LENNIE RIVER (12)

Lesser Snow Goose: - approximately 4,000 non-breeding birds were noted along this river on June 28, 1955 (McEwen 1958).

KELLETT RIVER (13)

See Map 2061, Number 1.

DEANS DUNDAS BAY (14)

Common Eider: - large numbers were recorded along this stretch of coastline from Deans Dundas Bay to Berkley Point.
- most of these birds were moulting females with creches of young.
- recorded densities were 89.5 ducks/km² (eiders plus oldsquaws) (Barry et al. 1981).

PRINCESS ROYALE ISLANDS (15)

Peregrine Falcon: - a pair has been reported in this area but breeding has not yet been confirmed (Bradley 1976).

Eider: - 100-500 pairs are reported to nest on the islands (Barry 1983).

- nesting was initiated on July 10 in 1981.

RICHARD COLLINSON INLET (16)

- coastal lowlands in this area support the highest density (7.69 birds/km²) of shorebirds found anywhere on Victoria Island (McLaren and Alliston 1981).

VISCOUNT MELVILLE SOUND (2035)

Map No. 7

SABINE BAY (1)

- Brant: - approximately 300 were banded in 1973 in the area ranging from Sabine Bay to MacDougall Point (Maltby 1976).
- over 200 were banded in 1974 (Maltby 1976).
 - over 800 were noted on an inland lake in 1974 which was a "non-breeding year" (Maltby 1976).
 - these numbers are considered low (Maltby 1976) for the survey was carried out when most non-breeding birds had left the area after the moult.
 - nearly 500 birds were noted in mid-August (Alliston et al. 1976).
 - egg laying commences around the first week of June and lasts till mid-June. Hatching occurs in early July (Alliston et al. 1976).
 - Non-breeders moult from early July to late July or early August. Breeding birds begin to moult in mid-July, soon after the hatch, and continue until mid-August (Alliston et al. 1976).

WINTER HARBOUR (2)

- Peregrine Falcon: - are thought to breed on Dundas Peninsula.
- one pair was recorded at Winter Harbour but nesting was not confirmed (Maltby-Prevett and Finney 1974).
- Gulls: - several small colonies exist in the area (Maltby-Prevett and Finney 1974).

BRIDPORT INLET (3)

- the coastal areas serve as brood-rearing areas for snow geese and brant (Maltby-Prevett and Finney 1974).
- large numbers of oldsquaws moved into the area in July (Maltby-Prevett and Finney 1974).

Brant: - over 100 individuals with young were noted at the cape at the end of July (McLaren and Renaud 1977).

- flocks of 30-40 adult brant with young were noted along the Mecham River and adjacent coastal areas (McLaren and Renaud 1977).
- between 160-435 individuals were noted in the area from the first week of August to September 1, 1977 (McLaren and Renaud 1977).
- 27 birds were noted at Beverly Inlet in 1974 (Maltby 1976).
- 112 moulting birds were also noted here in July (Maltby 1976).

Arctic Tern: - 70 pairs nest in a colony on Dealey Island (McLaren and Renaud (1977)).

- another colony (numbers unspecified) is located on an island east of Cape Bounty (Maltby-Prevett and Finney 1974).

ROBERTSON POINT (4)

Snow Goose: - broods were noted at Nelson Griffith Point in late August (Maltby-Prevett and Finney 1974).

- a density of 3.5 birds/km was recorded in this area (Alliston et al. 1976).

Eider: - 158 birds were recorded in this area in late summer
(Maltby-Prevett and Finney 1974).

Brant: - feed and stage on the coastal tide flats of Byam Martin
Island and the adjacent mainland.
- 280 birds were recorded here in 1973 (Maltby-Prevett and
Finney 1974).

BURNETT POINT (5)

Brant: - occupy the coastal area between Burnett Point and King
Point just before southward migration.
- about 40 birds were recorded in 1973 (Maltby-Prevett and
Finney 1974, and Maltby 1976).

ERSKINE INLET (6)

Glaucous Gull: - 10 pairs nest in this location (Alliston et al.
1976).

POLAR BEAR PASS (7)

- a National Wildlife Area.

Lesser Snow Goose: - about 75 birds were noted in this area in
August 1973.

Glaucous and/or Thayer's Gull: - 26 pairs of glaucous and/or
Thayer's gulls nest in this area
(Alliston et al. 1976).

HOOKER BAY (8)

Brant: - 75 birds were banded here in 1973 (Maltby-Prevett and
Finney 1974).
- this area is a brood rearing and moulting area (Maltby
1976, Alliston et al. 1976).

Snow Goose: - approximately 70 birds were recorded here (Maltby-Prevett and Finney 1974).

CROZIER STRAIT (9)

- the polynya that occurs around this island is important for early migrants.
- approximately 570 eiders were noted here in June (Alliston et al. 1976).
- 215 arctic terns and 84 oldsquaw were recorded on the island in early August 1975 (Alliston et al. 1976).

HOUSTON-STEWART ISLAND (10)

See Map 2036, Number 2.

PULLEN STRAIT (11)

King Eider: - approximately 300 breeding pairs were noted in this area (Alliston et al. 1976).

Red Phalarope: - approximately 1,500 birds were recorded in this area (Alliston et al. 1976).

Oldsquaw: - about 280 moulting birds were noted in August (Alliston et al. 1976).

FREEMANS COVE (12)

Glaucous Gull: - 2 colonies, with a total of 8 pairs, was found here (Davis et al. 1974).

BROWNE ISLAND (13)

Black-legged Kittiwake: - a colony of approximately 2,000 pairs (Davis et al. 1974) is located on the south side of this island.

- only 500 pairs were recorded in 1975 (Alliston et al. 1976).

- late ice break-up and less open water
seemed to reduce the colony size.

Thayer's Gull: - a colony of approximately 100 pairs is located on
the north side of the island (Davis et al. 1974).

GRIFFITH ISLAND (14)

See Map 2036, Number 7.

LOWTHER ISLAND (15)

Glaucous/Thayer's Gull: - 25 pairs nest in a mixed colony on the
island (Davis et al. 1974).

PALMERSTON POINT (16)

Glaucous Gull: - 12 pairs are located here (Davis et al. 1974).

- 30 pairs of gulls were recorded here in 1975
(Alliston et al. 1976).

Black Guillemot: - 5 pairs were recorded in a small colony at this
location (Alliston et al. 1976).

RUSSELL ISLAND (17)

Greater Snow Goose: - a large lake on Russell Island and the
coastal areas of Baring Channel provide brood
rearing and staging habitat for snow geese.
- over 60 birds staged in this area (Alliston
et al. 1976).

Glaucous Gull: - 47 pairs, in two colonies, nest on the island
(Alliston et al. 1976).

BACK BAY (18)

Greater Snow Goose: - approximately 20 birds staged in this bay in
1975 (Alliston et al. 1976).

CAPE BRIGGS (19)

Glaucous Gull: - 32 pairs nest in a colony on the coast (Alliston et al. 1976).

Thayer's Gull: - 11 pairs are found in association with the glaucous gulls (Alliston et al. 1976).

ASTON BAY (20)

Greater Snow Goose: - over 85 adults with young staged in this area in 1975 (Alliston et al. 1976).

- also see Map 2036, Number 23.

SHERARD HEAD (21)

Glaucous Gull: - 13 pairs nest here along with a few Thayer's gulls (Alliston et al. 1976).

- a further 15 pairs were recorded in a colony on an island just northeast of Lock Island (Alliston et al. 1976).

Thayer's Gull: - 8 pairs are found in a mixed colony of Thayer's and glaucous gulls (Alliston et al. 1976).

PRESCOTT ISLAND (22)

Glaucous Gull: - a colony of about 20 pairs is located on the island (Davis et al. 1974).

- 37 pairs (glaucous and/or Thayer's gulls), are located in a colony at Hummock Point (Alliston et al. 1976).

CROOKED LAKE (23)

Snow Goose: - 60 birds, including broods, were noted here in late summer (Alliston et al. 1976).

Oldsquaw: - 2,550 moulting birds were recorded in late summer

(Alliston et al. 1976).

Glaucous Gull: - 50-60 pairs breed in a colony at the lake

(Alliston et al. 1976).

- a total of 85 pairs nest in two colonies on Fisher
Lake (Davis et al. 1974).

STEFANSSON ISLAND (24)

Brant: - a flock of 35 moulting adults have been reported at the
southern tip of Stefansson Island (Heyland and Boyd
1970).

M'CLURE BAY (25)

See Map 2036, Number 24.

LANCASTER SOUND (2036)

Map No. 8

DUNDAS ISLAND/MARGARET ISLAND (1)

Glaucous Gull: - a colony of approximately 100 pairs is located on
Dundas Island (Nettleship 1974).

- approximately 300 pairs occur on Margaret Island
(Nettleship 1974).

Black Guillemot: - was also noted here but nesting has not been
confirmed (Nettleship 1974).

HOUSTON-STEWART ISLAND (2)

Black-legged Kittiwake: - 500 pairs were present (Petro Canada
n.d.).

Black Guillemot: - 20 pairs were noted (Davis et al. 1974).

Thayer's and/or Glaucous Gull: - 30 pairs have been recorded
(Alliston et al. 1976).

BAILLIE-HAMILTON ISLAND (3)

Black-legged Kittiwake: - a colony occurs on the island at

Washington Point. Recorded numbers are:

- 500 pairs (Nettleship 1974).
- 3,000 pairs (Nettleship 1980).

Eiders: - occur in large numbers in spring shore leads (Nettleship 1980, Alliston et al. 1976).

- over 450 birds were recorded at this site during spring (Alliston et al. 1976).

Black Guillemot: - a small colony (15 pairs) is located on the north coast east of Fitzjames Point (Alliston et al. 1976).

CAPE PHILLIPS (4).

Northern Fulmar: - may possibly breed here.

- large concentrations feed in offshore waters around the cape (Davis et al. 1974).

READ BAY (5)

Black-legged Kittiwake: a colony of approximately 125 pairs is located in this area (Brown et al. 1975).

Glaucous Gull: - approximately 45 pairs occur in a colony in this area (Brown et al. 1975, Nettleship 1974).

BARLOW INLET (6)

Glaucous Gull: - 20 pairs occur here (Nettleship 1974).

- 10 pairs nest near Cape Hotham (Nettleship 1974).

Thayer's Gull: - 10 pairs nest in this area (Nettleship 1974).

Black Guillemot: - were noted in the area but nesting has not been confirmed (Nettleship 1974).

GRIFFITH ISLAND (7)

Black Guillemot: - 5-8 pairs nested here in 1974 and 1975 (Alliston et al. 1976).

Thayer's Gull: - 5 pairs nested here in 1974 (Davis et al. 1975) and 1975 (Alliston et al. 1976).

RADSTOCK BAY (8)

Northern Fulmar: - a colony (approximately 10,000 birds) is located at Cape Liddon, about 3 miles east of Cape Ricketts (Nettleship 1980).

Black Guillemot: - approximately 100 pairs breed in this area (Nettleship 1980).

Glaucous Gull: - nests in two colonies (approximately 160 birds) located on the west end and mid-promontory of Radstock Bay (Nettleship 1974).

- more colonies (75 pairs) are located along the coast from Radstock Bay to Beechy Island (Nettleship 1974).

- 2 colonies (20 pairs) are located west of Riley Bay (Davis et al. 1974).

CAPE VERA (9)

Northern Fulmar: - a colony of approximately 25,000 pairs extends for about five miles along the cliff face (Nettleship 1974, Nettleship 1980).

BOAT POINT (10)

Glaucous Gull: - approximately 15 pairs occupy a colony in this location (Nettleship 1974).

SKRUIS POINT (11)

Black Guillemot: - approximately 5,000-10,000 breeding pairs occur on 22 km of cliffs at Skruis Point and along 9 km of the northwest coast of Thomas Lee Inlet. This colony is thought to be the largest in the Canadian Arctic (Nettleship 1974, Nettleship and Smith 1975).

Thayer's Gull: - approximately 50 pairs nest in a colony at this location (Nettleship 1974).

CAPE SVARTEN (12)

Black Guillemot: - approximately 10-100 pairs nest just southeast of Cape Svarten (Nettleship 1974).

Glaucous Gull: - four small colonies, (approximately 10-20 pairs) are located in the general area of the cape and nearby Nookap Island (Nettleship 1974).

MAXWELL BAY (13)

Glaucous Gull: - four colonies, including 120 pairs, are located in the bay area (Nettleship 1974).

STRATTON INLET (14)

Thayer's Gull: - approximately 50 pairs nest at the north end of Stratton Inlet (Nettleship 1974).

Northern Fulmar: - a colony of approximately 75,000 pairs is located along the coast between Hobhouse Inlet and Stratton Inlet (Nettleship 1980).
- nesting takes place from early June to the end of July (Kemper 1976).

CAPE SPARBO (15)

Greater Snow Goose: - moulting birds and birds with young have been reported in this area (deBliequy in Heyland and Boyd 1970).

- an estimated 400 non-breeding geese were noted in this area between 6-11 August, 1966 (Hussell and Holroyd 1974).

Glaucous Gull - 15+ pairs nest southwest of Cape Skogan (Nettleship 1974).

COBURG ISLAND (16)

See Map 2037, Number 4.

CROKER BAY (17)

Glaucous Gull: - a colony of 40 birds exists here (Nettleship 1974).

PHILPOTS ISLAND (18)

See Map 2037, Number 2.

LIMESTONE ISLAND (19)

Black Guillemot: - approximately 10 pairs breed on this island (Alliston et al. 1976).

Black-legged Kittiwake: - although suggested by Barry (1961), that this species may breed on this island, there is no confirmation as yet.

CUNNINGHAM INLET (20)

Black-legged Kittiwake: - a small colony of approximately 30 pairs is located just west of Garnier Bay (Alliston et al. 1976).

- this colony supported 100 pairs in 1974

(Davis et al. 1974).

Black Guillemot: - 5 pairs are known to nest in association with the kittiwakes (Davis et al. 1974).

- 7 pairs were recorded in a small colony near Cape Admiral M'Clintock.

Thayer's Gull: - a colony of 75 pairs was found at the mouth of the Cunningham River (Davis et al. 1974).

Glaucous Gull: - a colony of 7 pairs was located 12 miles east of Cape Rennell (Alliston et al. 1976).

- a mixed colony of glaucous and/or Thayer's gulls was found in the same area (Davis et al. 1974).

Eiders: - approximately 13,000 (mainly king eiders), were noted in July and August along the coastline between Cape Admiral M'Clintock and Cunningham Inlet (Alliston et al. 1976).

Oldsquaw: - gather here in early August to feed (Nettleship and Gaston 1977).

- 700 were recorded here in late July and August 1974.

- over 1,500 were noted in 1975 (Alliston et al. 1976).

PRINCE LEOPOLD ISLAND (21)

This island supports a unique, multi-species community of breeding seabirds. The island is occupied from mid-May to late September. Species estimates (individuals) are:

Northern Fulmar: - 100,000 (40% non-breeders) (Barry 1961).

- 124,000 (Nettleship 1980).

Thick-billed Murre: - 350,000 (Barry 1961).

- 140,000 (Nettleship and Gaston 1977).

- 172,000 (Nettleship 1980).

Black Guillemot: - 4,000 (Barry 1961).

- 8,000 (Nettleship and Gaston 1977).

Black-legged Kittiwake: - 10,000 to 18,000 (Barry 1961).

- 58,000 (Nettleship and Gaston 1977).

Glaucous Gull: - 400 (Nettleship 1980).

CAPE CLARENCE (22)

Black Guillemot: - a colony (200 birds) occurs at the cape
(Nettleship 1980).

Black-legged Kittiwake: - large numbers (945 birds; 85 birds/km²)
were noted in the area and are probably
from the Prince Leopold colony (Alliston
et al. 1976).

Glaucous Gull: - a small colony (approximately 20 pairs) is also
present (Nettleship 1980).

ASTON BAY (23)

Glaucous Gull: - 5 small colonies, totalling 8 pairs, are located
along the Aston River (Davis et al. 1974).

Thayer's Gull: - a colony of 150 pairs is located along the same
river (Davis et al. 1974).

- (also see Map 2035, Number 20).

M'CLURE BAY (24)

Glaucous/Thayer's Gull: - a colony of 25 pairs of glaucous and/or
Thayer's gulls is located south of the
cape (Alliston et al. 1976).

HUMMOCK POINT (25)

See Map 2035, Number 22.

STANWELL FLETCHER LAKE (26)

Greater Snow Goose: - approximately 325 birds have been recorded here.

- the majority were seen in early August suggesting that this site was utilized by geese from other breeding populations for moulting and/or staging (Alliston et al. 1976).
- egg laying was completed by mid-June and hatching occurred in mid-July (Alliston et al. 1976).
- non-breeding geese moult from early July to early August. Breeding geese moult from late July to late August (Alliston et al. 1976).

Glaucous Gull: - 3 colonies totalling 7 pairs are located around the lake (Alliston et al. 1976).

FITZ ROY INLET (27)

Glaucous/Thayer's Gull: - 3 colonies support an estimated 285 pairs of glaucous and/or Thayer's gulls.

- the colonies are located on the north side of the inlet (Patterson and Alliston 1978).

BELLOT STRAIT (28)

See Map 2059, Number 4.

LANG RIVER (29)

Thayer's Gull: - a colony of 200 pairs is located toward the mouth of the Lang River (Alliston et al. 1976).

Greater Snow Goose: - approximately 150 birds were present about the mouth of the Lang River during late summer (Davis et al. 1974).

CRESWELL BAY (30)

Greater Snow Goose: - the sedge meadows around the mouth of the Creswell River are important for nesting, moulting, and staging birds (Davis et al. 1975, Alliston et al. 1976).

- 2,700 moulting birds (primarily non-breeders) were noted (Davis et al. 1974).
- over 800 birds nested in this area (Barry 1972 in Davis et al. 1974).

Eiders: - large numbers nested and staged around the mouth of the Creswell River (Alliston et al. 1976).

- many of the staging birds extensively used the south shore of Creswell Bay.
- many birds were thought to be non-breeding females staging prior to moult (Alliston et al. 1976).
- a peak density of 7,200 eiders/day was noted in early August (Alliston et al. 1976).

Oldsquaw - were common about the mouth of Creswell River.

- up to 4,700 moulting birds were noted in 1975 (Alliston et al. 1976).

Shorebirds - approximately 12,000 birds staged on the beaches and mudflats of Creswell Bay in late summer (Alliston et al. 1976).

Arctic Tern: - three colonies (105+ birds) are located here

(Alliston et al. 1976).

- hatching was completed by July 22 in 1975 (Alliston et al. 1976).

Glaucous Gull: - 40 pairs were noted in association with Thayer's gulls (Alliston et al. 1976).

- 5 more pairs were noted in a colony north of Fury Point (Alliston et al. 1976).

Thayer's Gull: - 60 pairs were recorded here in a mixed colony of Thayer's and glaucous gulls (Alliston et al. 1976).

- 15 pairs nested northwest of Fury Point (Alliston et al. 1976).

BATTY BAY (31)

Black-legged Kittiwake: - are known to nest (2,000+ pairs) in this area (Alliston et al. 1976, Nettleship and Gaston 1977).

- nearly 5,000 birds were noted in late summer (Alliston et al. 1976).
- approximately 1,700 birds/day were seen in June (Alliston et al. 1976).

Black Guillemot: - 1,600 pairs nest along the coast between Batty Bay and Fury Point (Alliston et al. 1976).

ELWIN BAY (32)

Black Guillemot: - approximately 100 pairs occupy a small colony on the southwest coast of Elwin Bay (Alliston et al. 1976).

Glaucous Gull: - 8 pairs occupy a colony on the south side of the bay (Davis et al. 1974).

PORT BOWEN (33)

Ivory Gull: - is thought to breed in the more interior regions of the Brodeur Peninsula. Several sightings have been reported from this area (MacDonald and Macpherson 1962).

CAPE CRAUFORD (34)

Ivory Gull: - a colony is reportedly located in this area.
- population size is unknown (A. Reed pers. comm.).

BAILLARGE BAY (35)

Northern Fulmar: - a large colony stretches along the coast for approximately 10 miles (Nettleship 1980).
- estimated numbers are:
- 500,000 birds (Kemper 1976).
- 25,000+ pairs (Nettleship 1980).

STRATHCONA SOUND (36)

Thayer's Gull: - a colony of 37 pairs occupies this site (Kemper 1976).

WEST BORDEN PENINSULA (37)

Greater Snow Goose: - a total of 365 adults, with over 400 young, were recorded along the shores of Strathcona Sound in late summer surveys in 1975 (Kemper 1976).
- largest concentrations were found along the Strathcona River.

- 30 adult birds, with approximately 35 young, were noted in the Adams Sound area (Kemper 1976).
- 60 adult geese were recorded at Lavesseur Inlet (Kemper 1976).
- 20 individuals were noted at the head of Elwin Inlet.
- over 100 adults, with 61 young, were also noted at Cape Joy and Cape Charles Yorke (Kemper 1976).
- for phenological data see number 40.

DAVIDS ISLAND (38)

- Arctic Tern: - a colony is located on David's Island (Kemper 1976).
- no estimate of numbers is available.
 - a second colony exists near Yoeman Island (Kemper 1976).

CAPE HAY (39)

A large colony located on the cliffs west of Cape Hay extends for approximately 3.6 km. Component species (and their numbers) include:

- Thick-billed Murre: - 140,000 pairs (Nettleship 1980).
- 400,000 pairs \pm (Nettleship and Smith 1975).
- Black-legged Kittiwake: - 20,000 pairs (Nettleship 1980).
- 50,000 pairs \pm (Nettleship and Smith 1975).

- a few hundred have also been reported from the Wollaston Islands (Brown et al. 1975).

Glaucous Gull: - 100 pairs (Nettleship 1980).

Black Guillemot: - 100 pairs (Nettleship 1980).

EAST BORDEN PENINSULA (40)

Greater Snow Goose: - isolated concentrations of geese were noted in lowland areas during late summer surveys in 1975 (Kemper 1976).

- 108 geese were recorded at Bluff Head.
- 94 were seen opposite Canada Point.
- two groups, of 275 and 1,600 geese respectively, were noted at the mouth of the Mala River and northward along the coast.
- 475 non-breeding geese and 26 breeding birds were recorded in the basin of the Mala River between July 7-9, 1979 (Reed et al. 1980).

BYLOT ISLAND (41)

See Map 2037, Number 3.

ECLIPSE SOUND (2037)

Map No. 9

COBURG ISLAND (1)

Two major colonies occur on this island. They are:

- 1) CAMBRIDGE POINT: - known nesting species include:

Black-legged Kittiwake: - 30,000 pairs (Nettleship 1980).

- breed from mid-June to mid-July (Kemper 1976).

Thick-billed Murre - 160,000 pairs (Nettleship 1980).

- breed from late June to late July (Kemper 1976).

Glaucous Gull: - 100 pairs + (Nettleship 1980).

- breed from mid-June to mid-July (Johnson et al. 1975).

Black Guillemot: - 50 pairs (Nettleship 1980).

- breed from late June to end of July (Johnson et al. 1975).

2) PRINCESS CHARLOTTE MONUMENT: - nesting species are:

Northern Fulmar: - 3,000+ pairs (Nettleship 1980).

- peak nesting period was from early June to late July (Kemper 1976).

Black Guillemot: - 200+ pairs (Nettleship 1980).

Glaucous Gull: - 20+ pairs (Nettleship 1980).

- nesting dates are similar to above.

PHILPOTS ISLAND (2)

Glaucous Gull: - approximately 100 pairs breed on the island (Nettleship 1974).

Greater Snow Goose: - marshy lowlands of the island apparently

support nesting populations (Milne and Smiley 1978).

- Heyland and Boyd (1970) recorded 230 moulting birds on the island.

Brant: - 35-40 moulting individuals have been recorded on the island (Heyland and Boyd 1970).

Arctic Tern: - a colony is located at Cape Cockburn (McLaren 1980).

CAPE GRAHAM MOORE (3)

Thick-billed Murre: - estimates of numbers are:

- 5,000 pairs (Ellis 1956).
- 10,000 pairs (Tuck and Lemieux 1959).
- 20,000 pairs (Nettleship 1980).
- peak egg laying occurs about the end of June and hatch occurs around the end of July (Tuck and Lemieux 1959).
- young have left the rookery by early September (Nettleship 1977).

Black-legged Kittiwake: - are associated with the thick-billed murre. Estimated numbers are:

- 1,000 pairs (Ellis 1956).
- 5,000 pairs in 1954 (Tuck and Lemieux 1959).
- 3,000 pairs (Nettleship 1980).
- peak egg laying occurs toward the end of June and hatch occurs in late July (Tuck and Lemieux 1959).
- fledging occurs by the end of August and may last till mid-September (Petro Canada n.d.).

Glaucous Gull: - 50-60 pairs nest south of the murre colony (Renaud et al. 1981).

BYLOT ISLAND (4)

- is a Migratory Bird Sanctuary

Greater Snow Goose: - 15,000 birds were estimated by (Tuck and Lemieux 1959).

- 20,700 geese are estimated to be present at this colony (Heyland and Boyd 1970).
- 1982 surveys revealed:
- 37,500 breeding adults, 39,000 young and 7,000 non-breeding adults (A. Reed pers. comm.).
- a few hundred geese also occurred along the north coast (A. Reed pers. comm.).
- nesting begins during the first week of June and ends about the middle of July (Tuck and Lemieux 1959).
- moulting begins about the middle of July (non-breeders) and finishes about the end of August (Lemieux 1959a,b).
- breeding birds begin moulting two weeks after the young hatch (Tuck and Lemieux 1959).

SALMON RIVER (5)

Greater Snow Goose: - 670 moulting geese were recorded on the Salmon River (Heyland and Boyd 1970).

OLIVER SOUND (6)

Glaucous Gull: - 50 pairs nest on an island in Oliver Sound (Renaud et al. 1981).

COUTTS INLET (7)

See Map 2058, Number 1.

ROWLEY RIVER (2058)

Map No. 10

COUTTS INLET (1)

Northern Fulmar: - are thought to breed in this area although confirmation is not yet available (Tuck 1970).
- an estimated 1,000 to 10,000 birds could be present here (Tuck 1970).

BUCHAN GULF (2)

Northern Fulmar: - approximately 25,000 pairs breed on the steep cliffs known as the "Mitres" and the "Bastions" on the north coast of Buchan Gulf (Brown et al. 1975, Nettleship 1980).

Glaucous Gull: - also breed in the area but the population size has not yet been determined (Brown et al. 1975, Nettleship 1980).
- these birds nest from mid-June to mid-July (Johnson et al. 1975).

SCOTT INLET (3)

Northern Fulmar: - a colony of 25,000 pairs is located on the mainland side of Scott Inlet, just south of Scott Island (Nettleship 1980).
- eggs are laid between late May and early June.

Glaucous Gull: - are scattered throughout the area including a colony of 100 pairs on Scott Island opposite the fulmar colony.

INUKTORFIK LAKE (4)

- Greater Snow Goose: - approximately 530 moulting geese were observed here in 1969.
- 14 pairs with goslings were also noted (Heyland and Boyd 1970).

STEENSBY INLET (5)

- Greater Snow Goose - approximately 1,000 birds were recorded in this area in 1979 (Reed et al. 1980).
- the majority of these birds were non-breeders.
 - nesting generally occurs from mid-June to mid-July (Kemper 1976 - data from Bylot Island).

JENS MUNK ISLAND (6)

- Greater Snow Goose: - breeding birds were concentrated in large numbers on Jens Munk Island (Reed et al. 1980).

GRANT-SUTTIE BAY (7)

- Snow Goose: - a mixture of greater snow geese (107 birds) and lesser snow geese (86 birds) were observed in the area.
- a large percentage of the birds were non-breeders (Reed et al. 1980).

IKPIK BAY (8)

- Snow Goose: - area 8a is a breeding site for greater snow geese (Reed et al. 1980).
- non-breeding lesser snow geese were concentrated in area 8b in July 1979 (Reed et al. 1980).

- 41 greater snow geese were noted at Tikerarsuk Point
(Reed et al. 1980).

- 236 non-breeding lesser snow geese were recorded on
Baird Peninsula and on the southeast shore of Ikpiik
Bay (Reed et al. 1980).

Brant: - 52 breeding birds and a further 100 non-breeders were
noted on Baird Peninsula in area 8c (Reed et al. 1980).
- 69 birds (including 30 breeders) were recorded on Bray
Island (Reed et al. 1980).

NORTH SPICER ISLAND (9)

Brant: - approximately 1,227 adults and 77 young were recorded on
North Spicer Island (Reed and Dupuis 1980).
- nesting probably occurs from mid-June to the third week
of July (Bray 1943 - data from Southampton Island).

PILING BAY/STRAITS BAY (10)

Snow Goose: - approximately 500 greater snow geese and a number of
lesser snow geese were noted at these two bays and
towards Flint Lake (Reed and Dupuis 1980, Reed et al.
1980).
- nesting probably occurs from mid-June to mid-July
(Kemper 1976 - data from Bylot Island).

PRINCE CHARLES/AIR FORCE ISLANDS (11)

See Map 2082, Number 1.

KEKERTAL ISLAND (12)

Black-legged Kittiwake: - breed southeast (68°33'N, 67°28'W), of
this island.

- the colony is estimated to harbour approximately 140 pairs (Brown et al. 1975).
- nesting occurs from mid-June to mid-July.
- fledging occurs toward the end of July or early August (Kemper 1976 - data for Bylot Island).

MURCHISON RIVER (2059)

Map No. 11

BELLOT STRAIT (1)

An area of open water occurs in Bellot Strait in early spring which is very important to migrating waterfowl.

Eiders: - approximately 9,000 birds were recorded here in spring surveys (Alliston et al. 1976).

Thayer's Gull: - three colonies are located on the north side of the strait.

- breeding probably occurs from mid-June to mid-July (Johnson et al. 1975 - data from Beaufort Sea).

Peregrine Falcon: - nests (from early June through September) in this area as well (Alliston et al. 1976).

BRENTFORD BAY (2)

Glaucous Gull: - 25 pairs nest in a colony just east of Nudlukta Inlet (Davis et al. 1974).

Thayer's Gull: - over 400 pairs nest in 4 colonies in this area (Davis et al. 1974).

AMITURYOUAK LAKE (3)

Thayer's Gull: - a colony of 250 pairs is located near the lake
(Davis et al. 1974).

BABBAGE BAY (4)

Greater Snow Goose: - scattered flocks (37 adults plus 55 young)
were observed along this lowland coastal area
(Alliston et al. 1976).

- breeding probably occurs from mid-June to
late July (Kemper 1976 - data for Bylot
Island).

WROTTSLEY RIVER (5)

Glaucous Gull: - a total of 11 pairs is distributed among 5
colonies along the river (Davis et al. 1974).

CAPE PALMERSTON (6)

Thayer's Gull: - 60 pairs of Thayer's gulls and 40 pairs of
glaucous and/or Thayer's gulls were found in two
colonies in this area (Alliston et al. 1976).

SANAGAK LAKE (7)

Glaucous Gull: - 10 pairs are located in a mixed colony of Thayer's
and glaucous gulls (Davis et al. 1974).

Thayer's Gull: - 5 pairs nest in the above colony in association
with glaucous gulls (Davis et al. 1974).

MARY JONES BAY (8)

Glaucous Gull: - a colony of 100 pairs is located here (Alliston
et al. 1976).

- a further 50 pairs of glaucous and/or Thayer's
gulls nest in the above colony.

- 257 pairs nest in two colonies of glaucous and/or Thayer's gulls along the west coast of Mary Jones Bay (Alliston et al. 1976).
- another mixed colony of 12 pairs is located near Cape Margaret (Alliston et al. 1976).

Thayer's Gull: - 325 pairs of gulls nest in a colony located on the mainland west of Martin Island (Davis et al. 1974).

- 100 pairs in the above colony were identified as Thayer's gulls. The remaining individuals were either Thayer's or glaucous gulls.
- 25 gulls nest in a colony on the mainland north of the Copeland Islands (Davis et al. 1974).
- no gulls were recorded at this colony in 1975 (Alliston et al. 1976).

THOM BAY (9)

Glaucous Gull: - 31 pairs are distributed among three colonies in this area (Alliston et al. 1976).

- a further 35 pairs of glaucous and/or Thayer's gulls are located in another colony (Alliston et al. 1976).

LORD MAYOR BAY (10)

Glaucous Gull: - 50 pairs of gulls nest in a colony at the coast (Alliston et al. 1976).

- a further 100 pairs were noted in a mixed colony of glaucous and Thayer's gulls in a more inland location (Alliston et al. 1976).

RASMUSSEN LOWLANDS (11)

The avifauna of this area is considered to be very rich. The following population estimates have been made:

Tundra Swan: - 5,000-6,000 (90% of the eastern Arctic population)
(McLaren et al. 1977).

White-fronted Goose: - 13,000 (Allen and Hogg 1979).

Canada Goose: - 500-1,000 (McLaren et al. 1977).

Lesser Snow Goose: - 5,000-6,000 (Allen and Hogg 1979).

Oldsquaw: - 10,000-15,000 (McLaren et al. 1977).

King Eider: - up to 35,000 (before departure of males) (McLaren
et al. 1977).

Shorebirds: - greater than 496,000 (McLaren et al. 1977).

Lapland Longspur: - 775,000 (McLaren et al. 1977).

Horned Lark: - 40,000 (McLaren et al. 1977).

Most early migrants arrive in the area by mid-late May when most of the major rivers have opened up (McLaren et al. 1977). By mid-August, densities along the coastal areas increase as shorebirds stage on the beaches. Most species have departed by mid-late September. Oldsquaw and king eiders tend to remain in the area, with several duck species, until freeze-up (McLaren et al. 1977).

The different species have preferences for various sites within the area. These are:

Tundra Swan: - densities of breeding birds (5.3-7.5 birds/km²)
were highest in an area of tundra ponds and lakes
just north and south of the Inglis River (McLaren et al. 1977).

- large numbers were noted in the Shepherd Bay area in August (McLaren et al. 1976).
- high densities were also encountered near the Castor and Pollux River (McLaren et al. 1976, 1977).
- non-breeders concentrated in the Arrowsmith Bay area.

White-fronted Goose: - over 800 birds used the Inglis and Murchison rivers in mid-June (McLaren et al. 1977).

- 1,000 moulting birds were recorded on the Inglis River and its tributaries; another 1,300 were noted on the Paquet and Rasmussen rivers (McLaren et al. 1976).
- in 1976, nearly 3,000 birds were noted in the same locations (McLaren et al. 1977).
- over 1,200 moulting birds were noted on the Murchison River (McLaren et al. 1977).
- breeding concentrations were noted in the Inglis River area (McLaren et al. 1977).
- large concentrations were noted just south of Netsilik Lake. More than six birds/km were recorded here (McLaren et al. 1977).
- 220 moulting birds were noted in the upper Murchison River valley (Zdan and Brackett 1978).

Canada Goose: - approximately 700 birds moulted on the Inglis River and its delta in 1975 (McLaren et al. 1976).

- 155 moulting birds were recorded in the upper Murchison River (McLaren et al. 1977).
- 556 moulting birds were recorded in the same area by Zdan and Brackett (1978).
- 21 moulting birds/km² were recorded on the south shore of Murchison Lake (McLaren et al. 1976).
- approximately 50 moulting birds were recorded along the Snow Goose River.

Lesser Snow Goose: - 333 birds staged (spring) on the Inglis River Delta (McLaren et al. 1976).

- colonies (400 nests) were located on small islands in the lakes to the northeast of Shepherd Bay (McLaren et al. 1976, 1977).
- moulting birds (1,500-2,500) also used these lakes in late July and early August (McLaren et al. 1976, 1977).
- a colony (75 nests) exists in the Snow Goose River area.
- non-breeding birds concentrated in the Arrowsmith Bay area.
- approximately 3,000 moulting birds were noted on the Snow Goose River and two lakes north of the river.

Oldsquaw: - hundreds of birds staged (spring) on the Murchison River.

- were common breeders and moulters on the Inglis and Murchison rivers.

- were common breeders in the Netsilik Lake area and the coast of Shepherd Bay (McLaren et al. 1977).
- moulting birds were recorded on inland lakes south of Netsilik Lake and along the Shepherd Bay coast.
- an average of 11.5 moulting birds/km² were noted in Willersted Inlet in 1975.
- in 1976, birds were concentrated along the coastal areas of Spence Bay and within Willersted Inlet (McLaren et al. 1977).
- approximately 600 moulting birds were noted on a large lake between Willersted Inlet and Netsilik Lake (McLaren et al. 1977).

King Eider: - many thousands of birds were noted staging (spring) on the Inglis River and the Murchison River (McLaren et al. 1977).

- moulting birds were common in the Netsilik Lake area and along the coast of Shepherd Bay (McLaren et al. 1977).
- approximately 140 birds were recorded at Netsilik Lake in late August (McLaren et al. 1977).

Shorebirds: - high densities were noted along the coastal areas of Rae Strait in late August (McLaren et al. 1977).

- large numbers of shorebirds were present between 20-21 June 1976 in the upper Murchison River valley possibly due to the early snow melt in these areas (McLaren et al. 1977).

Glaucous Gull: - a colony was noted on a lake between Shepherd Bay and Netsilik Lake (McLaren et al. 1976).

ADMIRALTY INLET (12)

Greater Snow Goose: - according to Reed and Dupuis (1980) a large proportion of the total population of greater snow geese breed in this area. Most of the breeding colonies were noted on areas of grass-sedge tundra and along river valleys (Reed et al. 1980). Large delta formations are preferred habitat (Kemper 1976).

- recorded observations are:
- 1,543 birds were noted on the Admiralty Inlet coastline of Steensby Peninsula (Reed and Dupuis 1980).
- 1,868 geese gathered along the Magda River toward the head of Moffat Inlet in August 1980.
- nearly 2,000 birds were noted along the Jungerson River and the coastline of Jungerson Bay (Reed and Dupuis 1980).
- 1,773 individuals were recorded in lowland areas around Easter Sound, Bell Bay, and along the Saputing River (Reed and Dupuis 1980).
- over 7,500 birds were recorded in the coastal areas of Berlinguet Inlet and Bernier Bay (Reed and Dupuis 1980).

- scattered concentrations were noted along the Gifford River.
- 37 geese were noted at Gifford Fiord (Reed et al. 1980).
- small numbers were also seen at Agu Bay (Reed and Dupuis 1980).
- egg laying is completed by mid-June and hatch occurs around mid-July (Alliston et al. 1976 - data for Creswell Bay).
- non-breeding birds begin moulting in early July and have regained flight by early August.
- breeding birds moult while brood rearing. This is usually complete by late August (Alliston et al. 1976 - data for Creswell Bay).

PHILLIPS CREEK (13)

Greater Snow Goose: - 130 moulting birds plus 12 pairs with young were noted on Phillips Creek (Heyland and Boyd 1970).

INUKTORFIK LAKE (14)

See Map 2058, Number 4.

MURRAY MAXWELL BAY (15)

Greater Snow Goose: - this area seemed to be an important non-breeder staging (and possibly moulting) area (Reed et al. 1980, Reed and Dupuis 1980).

- approximately 735 non-breeders and 25 breeders were noted here (Reed et al. 1980).
For phenological data see Number 12.

JENS MUNK ISLAND (16)

See Map 2058, Number 6.

PARRY BAY (17)

- Greater Snow Goose: - a colony of approximately 400 birds (including 211 non-breeders) was noted here in 1979 (Reed et al. 1980).
- subsequent surveys in 1981 (K. McCormick) and 1982 (C. O'Brien pers. comm.) revealed that no birds were present.
 - nesting occurs from mid-June to mid-July (Kemper 1976 - data from Bylot Island).

VICTORIA STRAIT (2060)

Map No. 12

HADLEY BAY (1)

Oldsquaw: - nearly 400 birds were observed on Hadley Bay in early August (Parmelee et al. 1967).

Eider: - approximately 1,130 king eiders were recorded here in early August surveys (Parmelee et al. 1967).

Sabine's Gull: - approximately 500 were noted in the area. These birds were thought to breed here but they may have been staging in the bay prior to fall departure (Parmelee et al. 1967).

KAGLORYUAK RIVER VALLEY (2)

See Map 2061, Number 9.

PASLEY BAY (3)

Greater Snow Goose: - small numbers (14 adults, 22 young) were noted on the lowland coastal areas ranging from Tasmania Islands to just north of Pasley Bay.

- breeding occurs from mid-July to early August (Alliston et al. 1976).

RICHARDSON ISLANDS (4)

Glaucous Gull: - approximately 50 birds nest on the sea cliffs of these islands.

Thayer's Gull: - a few birds of this species also nest on the sea cliffs.

Peregrine Falcon: - is thought to breed here (Parmalee et al. 1967).

PARRY BAY/WALKER BAY (5)

Some population estimates for birds utilizing these two areas are:

Snow Goose: - over 200 birds (Barry 1958).

White-fronted Goose: - 40-50 individuals (Barry 1958).

Canada Goose: - is known to breed (Barry 1958).

Tundra Swan: - 200 swans (Boreal Institute 1975).

Oldsquaw: - 2,000 birds (Barry 1958).

Eider: - 250 birds (Barry 1958).

WELLINGTON BAY (6)

This bay is a moulting and staging area for several waterfowl species (Parmalee et al. 1967). The following numbers were recorded in early August 1961 (Barry 1961 in Parmalee et al. 1967).

Canada Goose: - 508

Tundra Swan: - 52

Brant: - 400

Peregrine Falcon: - were observed on the rocky cliffs at the west end of Ferguson Lake and probably breed there (Parmalee et al. 1967).

Sabine's Gull: - over 700 were noted in an August survey (Barry 1961 in Parmalee et al. 1967).

FINLAYSON ISLANDS (7)

Glaucous Gull: - approximately 50 birds.

Thayer's Gull: - approximately 40 birds share a colony site with the glaucous gulls.

Peregrine Falcon: - breed on a large outer island of the group and on a rock bluff at Starvation Cove (Parmalee et al. 1967).

Eider: - a colony of 5-25 nests (identity unspecified), exist on the islands (Barry 1983).

CAMBRIDGE BAY (8)

Canada Goose: - flocks of up to 40 birds were noted here in late August and early September 1962 (Parmalee et al. 1967).

Sabine's Gull: - over 200 are estimated to nest in the Cambridge Bay area (Parmalee et al. 1967).

Peregrine Falcon: - are thought to nest near Mount Pelly, Kitiga Lake, and Grenier Lake area (Parmalee et al. 1967).

ANDERSON BAY/STROMNESS BAY (9)

White-fronted Goose: - small numbers of adults and young were seen in these bays. The bays are probably used for brood-rearing and moulting (Parmalee et al. 1967).

Lesser Snow Goose: - are scattered nesters in the area but were noted in significant numbers in these areas (Parmalee et al. 1967).

- birds are probably present from early August to early September.

JENNY LIND ISLAND (10)

Lesser Snow Goose: - 210 birds are estimated to nest on the island (Parmelee et al. 1967).

- 558 birds were recorded in 1971 (Kuyt et al. 1972).

- peak nesting period was mid-June to mid-July (Parmelee et al. 1967).

Canada Goose: - 22 pairs were recorded among other nesting species.

- 100 pairs were noted in 1971 (Kuyt et al. 1972).

- nesting occurred from the first week of June to 10 July in 1962 (Parmelee et al. 1967).

Tundra Swan: - 16 pairs nested on the island (Parmelee et al. 1967).

- nesting takes place from early June to early July (Parmelee et al. 1967).

Eider/Oldsquaw: - were common breeding birds on the island

(Parmelee et al. 1967).

ALBERT EDWARD BAY (11)

During an August 1960 survey, the following species were recorded:

Snow Goose: - over 300 recorded (Parmelee et al. 1967).

Canada Goose: - 264 birds observed (Parmelee et al. 1967).

White-fronted Goose: - 30 birds noted (Parmelee et al. 1967).

Tundra Swan: - approximately 30 birds were observed (Parmelee
et al. 1967).

Brant: - nearly 300 birds recorded (Parmelee et al. 1967).

Oldsquaw: - over 450 birds used the bay in late summer (Parmelee
et al. 1967).

KING WILLIAM ISLAND (12)

The northwestern and southern coastline of the island, as well as the adjacent mainland on Adelaide Peninsula, provide breeding habitat for waterfowl (Barry 1960). The Storis Passage - Simpson Strait area is the main wildfowl hunting area for residents from the community of Gjoa Haven (Boyd et al. 1978). The following populations were noted for the area:

Snow Goose: - 1,000 birds estimated (Barry 1960).

- nesting reportedly takes place in the northern area
of the island (Fraser 1957).

Canada Goose: - 1,000 birds is the estimated population (Barry
1960).

- these birds are reported to nest in the McClintock
Bay area, between Cape John Herschel and Douglas
Bay (Fraser 1957).

Tundra Swan: - 300 birds reportedly utilize the area (Barry 1960).

- are commonly sighted on the southern coast of the island and the adjacent mainland (Fraser 1957).

White-fronted Goose: - 100 birds estimated (Barry 1960).

Brant: - 2,000 birds is the estimated population for the area (Barry 1960).

Oldsquaw: - are common along coastal areas (Fraser 1957).

King Eider: - are commonly found in coastal areas (Fraser 1957).

Glaucous and/or Herring Gull: - colonies are reported on the islands in inlets on Adelaide Peninsula (Fraser 1957).

HORTON RIVER (2061)

Map No.13

CAPE KELLETT (1)

Lesser Snow Goose: - 1,500 birds moulted along the Kellett River (Manning et al. 1956).

- 3,650 birds were noted at Cape Kellett in early June - probably migrants on their way to the Egg River colony (Manning et al. 1956).
- 4,000 birds were seen on the north shore of the Kellett River in early July (McEwen 1958).
- a moult migration (from the Egg River colony) to this area takes place in early July (Beak 1975a).

Tundra Swan: - 400 birds are estimated for southern Banks Island.

- greatest concentrations were recorded in the Sachs River valley (Manning et al. 1956).

Brant: - two colonies, totalling 55 nests, were noted near Sachs Harbour (Manning et al. 1956).

- flocks of up to 350 birds each were noted about the cape in early June (Manning et al. 1956).

Eider: - flocks of 200-500 king eiders were noted at the cape in June 1952 (Manning et al. 1956).

Peregrine Falcon: - known to nest at Cape Kellett.

- noted at the nest site by 15 May.

MASIK RIVER VALLEY (2)

Peregrine Falcon: - is known to nest along this river (Manning et al. 1956).

CAPE QUEENSTON (3)

Glaucous Gull: - seven colonies, of 30-50 gulls each, were located along the coast between Masik River and Cape Lambton (Manning et al. 1956).

CAPE LAMBTON/NELSON HEAD (4)

Peregrine Falcon: - is known to nest at Cape Lambton and at Nelson Head (Manning et al. 1956).

WINDRUM LAGOON (5)

Brant: - a small colony (38 nests) occurs here (Manning et al. 1956)

- nesting takes place from mid-June to early or mid-July (Parmelee et al. 1967).

Glaucous Gull: - a colony (15 nests) was recorded in this area (Manning et al. 1956).

BERKLEY POINT (6)

See Map 2034, Number 14.

RAMSAY ISLAND (7)

- Eider: - a colony of 100-500 pairs of common eiders is located on the island (Barry 1983).
- nesting was initiated by 12 July in 1981 (Barry 1983).
 - the move to nesting sites occurs when ice melt causes water to ring the island (Barry 1983).
 - the hatch takes place between the first week of June and the beginning of August and is dependent upon the latitude of nesting location.

MINTO INLET (8)

Thayer's Gull: - a colony of 20 birds is located at the mouth of the inlet (Allen 1982).

- 4-10 birds nest in another colony on the south coast of the inlet (Allen 1982).
- 15 nests were found at a colony located on the north side of the inlet (McLaren and Alliston 1981).

Glaucous Gull: - 50 nests were located on an island near the mouth of the Kuujjua River (McLaren and Alliston 1981).

- a mixed colony with 12 nests of glaucous and/or Thayer's gulls is located at the head of the inlet (McLaren and Alliston 1981).

Peregrine Falcon: - 31 sites (including 11 occupied) were identified (McLaren and Alliston 1981, Allen 1982).

Eider: - approximately 5,800 birds (including numerous broods) were noted along the coast from Holman Island to the Minto Inlet area (Barry and Barry 1982).

INVESTIGATOR ISLANDS (9)

Eiders: - thousands of birds were noted in this area (Barry et al. 1980, Allen 1982).

- pre-nesting concentrations of up to 5,000 common eiders were noted near Cape Baring (Barry 1983).
- recorded densities from this area were 611.9 birds/km² (Barry et al. 1981).
- two nesting colonies (500-600 pairs and 100 pairs) were also noted (Barry and Barry 1982).
- a smaller colony of 5-25 nests is located in this area (Barry 1983).
- peak numbers were recorded about the end of July.

Glaucous Gull: - a colony of 40 birds was located on one of the islands (Allen 1982).

KAGLORYUAK RIVER VALLEY (10)

Tundra Swan: - approximately 300 were recorded in the Kagloryuak lowlands with an estimated total population of 600 birds for the area.

- densities in the lowlands were comparable to the primary breeding grounds in the Mackenzie Delta.
- egg laying occurs in early-mid June and hatch occurs in early-mid July (Parmalee et al. 1967).

Brant: - a colony of approximately 140 birds is located at the mouth of the Kagloryuak River (McLaren and Alliston 1981).

- nesting occurs from mid-June to early July (Parmalee et al. 1967).

Canada Goose: - a small colony (40 nests) was noted along the Kuuk River (McLaren and Alliston 1981).

- a further 43 birds were also noted in the area.

- egg laying occurs in early to mid-June and hatching occurs in early to mid-July (Parmalee et al. 1967).

Eiders: - a density of 12.79 birds/km² was recorded in coastal surveys of Prince Albert Sound (McLaren and Alliston 1981).

- a colony of 100-500 pairs is reported at the head of Prince Albert Sound (Barry 1983).

- nesting occurs from mid-June to late July (Parmalee et al. 1967).

Oldsquaw: - a density of 4.79 birds/km² were noted in coastal surveys of Prince Albert Sound (McLaren and Alliston 1981).

Glaucous Gull: - a colony was noted on an island between Georges Island and Linaluk Island.

HARROWBY BAY (11)

Lesser Snow Goose: - up to 5,000 geese have nested along the northeast coastline of the bay in seasons when

spring snow conditions are poor on Banks Island (Barry and Barry 1982).

- in the fall, geese from the Banks Island colony stage in this area in large numbers (Barry and Barry 1982).

Canada/White-fronted Goose: - the old Horton River bed is an important moulting and feeding area for non-breeding Canada and white-fronted geese (Barry and Barry 1982).

- up to 20,000 moulting geese may be found in this area between mid-June and early August (Barry and Barry 1982).

- 500-700 white-fronted geese use the area around Ikpisugyuk Point (70°09'N, 128°09'W) as annual moulting grounds (Barry 1982).

Oldsquaw: - approximately 2,200 birds were recorded here in mid-July 1981 (Barry and Barry 1982).

- 200 were recorded here in mid-August (Barry and Barry 1982).

Eider: - between 26-100 pairs of common eiders nest on a barrier beach just east of Maitland Point (Barry 1982, Barry 1983).

Scaup/Scoter: - approximately 1,300 scaup and 2,600 scoters were noted between Maitland Point and Cape Bathurst in mid-July, 1981 (Barry and Barry 1982).

- 1,235 scaup and about 1,000 scoters were recorded in this area in mid-August, 1981 (Barry and Barry 1982).

- nesting for most species occurs from mid-June to mid-July.

- moulting for most ducks takes place from mid-July to the last week of August (Barry et al. 1981).

HORTON RIVER (12)

Peregrine Falcon: - nesting populations occur along the Horton River (Speller 1975).

- additional nesting sites are thought to occur within the Smoking Hills.

- the period from the establishment of territories (March 1) to the fledging of young (July 31) is considered critical (Fyfe and Prescott 1973).

PARRY PENINSULA (13)

Cape Parry is a Migratory Bird Sanctuary.

Thick-billed Murre: - a colony of 830 birds (Ward 1979) nests at Police Point. This is the only colony of this species in the western Arctic.

Black Guillemot: - a few individuals have recently been recorded at the thick-billed murre colony. Barry (1982) has confirmed their breeding here.

- Eiders: - large numbers (20,000+) use the open water near the Fiji Islands, Canoe Island, and Police Point in early June to stage during spring migration (Barry and Barry 1982).
- there is evidence that common eiders may stage near the Fiji Islands in mid-July during their moult migration (Barry and Barry 1982).
 - over 8,000 common eiders were noted in Sellwood Bay (Ward 1979).
 - large numbers of common eiders nested on the Booth Islands (Ward 1979).
 - two colonies supporting 26-100 nests and a smaller colony of 5-25 nests are reported to exist on the western shoreline of Parry Peninsula (Barry 1983).
 - approximately 300 common eiders staged in the cape area, possibly during their moult migration (Ward 1979).
 - over 500 pairs of eiders are reported to nest at the base of the peninsula and at the south end of Darnley Bay (Fraker et al. 1979).
 - 3 colonies, each of 26-100 pairs, reportedly occur along the coastline of Darnley Bay (Barry 1983).

Oldsquaw: - large numbers used the open water near the Fiji Islands, Canoe Island, and Police Point in early June to stage during spring migrations (Barry and Barry 1982).

Tundra Swan: - the southern half of the peninsula is an important nesting, moulting, and staging area.

- Fraker et al. (1979) reported 75 pairs of swans in this area.

Canada Goose: - were noted moulting at Langton Bay.

Lesser Snow Goose: - 75 pairs were noted in Tom Cod Bay (Speller 1975).

Brant: - 250 pairs were recorded in this area (Fraker et al. (1979).

- nesting for most of the above species occurs from early June to the end of July (Barry et al. 1981).
- moulting and brood-rearing for most species occurs from mid-July to mid-August (Barry et al. 1981).

LADY FRANKLIN POINT (14)

The polynya which forms around Camping Island and other islands in the vicinity is very important as a resting and feeding area for many species (Allen 1982, McLaren and Alliston 1981).

Whistling Swan: - a density of 0.62 birds/km² was noted here (McLaren and Alliston 1981).

Canada Goose: - 49 nesting Canada geese were noted on nearby mainland areas (McLaren and Alliston 1981).

Common Eider: - many thousands were noted about the polynya in early June (Allen 1982).

- 70,000 were noted in pre-nesting flocks in Dolphin and Union Strait (Barry 1983).
- were noted to be nesting near Lady Franklin Point in Austin Bay (Barry 1983).
- 319 nests were recorded in 1980 (McLaren and Alliston 1981).

Yellow-billed Loon: - were common in coastal waters (Allen 1982).

- 70 birds were noted near Lady Franklin Point (McLaren and Alliston 1981).

FIRTH RIVER (2062)

Map No. 14

MACKENZIE DELTA (1)

The Mackenzie Delta and the bays and lagoons of the Tuktoyaktuk Peninsula provide breeding, moulting, and feeding habitat for many waterfowl species. Most of the bays east of the settlement of Tuktoyaktuk have been identified as prime moulting and staging areas for sea ducks (Barry and Barry 1982). In the spring and fall, coastal regions are important staging areas for thousands of migrant birds, especially geese. The Kendall Island Migratory Bird Sanctuary is included in this unit.

Due to the extensive utilization of this area by migratory birds, the entire delta and the Tuktoyaktuk Peninsula are considered as a single entity in the following species accounts.

Lesser Snow Goose: - a colony of 4,000-7,000 geese nest on a group of four islands south of Kendall Island (Martell and Casselman 1975).

- 800 birds were present in 1976 (Kerbes 1983).
- 1,000 birds were present at the colony in 1981 (Barry 1982).
- up to 140,000 birds stage during spring migration near Kugmallit Bay and in the lower delta region (Martell and Casselman 1975).

- an estimated 375,000 birds staged between Richards Island and the Blow River from September 13-17, 1975 (Koski 1977).
- 160,000 geese was the estimated peak staging population in this area in the fall of 1974 (Koski 1975).
- nesting in this area takes place from the second week of June to the end of June or early July (Johnson et al. 1975).
- breeding birds begin moulting approximately two weeks after the young hatch (Johnson et al. 1975).

Brant: - 250 pairs nest in coastal areas between Hutchison Bay and Atkinson Point (Martell and Casselman 1975).

- 200 pairs reportedly breed near Liverpool Bay, at the head of the Smoke River (Martell and Casselman 1975).
- 50 pairs nested on Pelly Island in 1981 (Barry 1982).
- 250 pairs are reported nesting on the Pelly Island sandspit (Martell and Casselman 1975). Thirty-eight pairs were recorded here in 1972 (Slaney 1974).
- 14 pairs nested on an island east of Kendall Island (69°32'N, 135°17'W) (Slaney 1974).
- 50 breeding pairs were noted on islets in a bay 10 km south of Atkinson Point in 1981 (Barry 1982).
- 10 nests were reported by Kuyt (1974) near Atkinson Point (specific location not given) and may have been the same colony noted by Barry in 1981.

- 100 pairs nest on the island [(69°31'N, 133°47'W)] in Kidluit Bay (Barry 1982).
- the head of McKinley Bay is used as a moulting area by these birds. Seven hundred pairs were recorded in this area (Martell and Casselman 1975). One hundred and thirty-eight birds were noted in the bay on July 31, 1981 (Scott-Brown et al. 1981).
- nesting takes place towards the beginning of June and may last till the middle of July (Johnson et al. 1975).
- non-breeding brant begin their moult in early July (Johnson et al. 1975).

Tundra Swan: - 22,000 birds is the estimated population for this area (Barry 1974).

- a total of 31,000 birds were estimated to be moulting on waters in and around the Tuktoyaktuk Peninsula in 1972 (Blood 1977).
- 120 birds (including 25 breeding pairs), are found on Pelly Island (Martell and Casselman 1975).
- approximately 40 pairs nest at a coastal area on the delta (69°20'N, 135°30'W), (Martell and Casselman 1975).
- nesting concentrations are found along Moose Channel (Johnson et al. 1975).
- 300 breeding pairs and 1,000 non-breeders are reported for this area (Martell and Casselman 1975).

- 100-500 non-breeding, pre-moulting birds were recorded in Swan Channel (69°27'N, 134°38'W) (Barry and Barry 1982).
- 1,000 birds moulted in the Napoiak Channel area (Martell and Casselman 1975).
- 250 birds used McKinley Bay as a moulting area (Martell and Casselman 1975). Approximately 60 were noted here on July 31, 1981 (Scott-Brown et al. 1981).
- up to 500 non-breeding swans used the flats of Campbell Island and the Kugaluk River to moult in July and early August 1981 (Barry and Barry 1982).
- 12,000 swans were recorded staging on the lower regions of the delta and at Kugmallit Bay during spring migration to nesting areas (Martell and Casselman 1975).
- 3,118 birds was the peak number estimated to be present in the Mackenzie Delta on August 20, 1975 (Koski 1977).
- nesting takes place from the end of May to mid-July (Johnson et al. 1975).
- adult swans moult from mid-July through August (Johnson et al. 1975).

White-fronted Goose: - are widespread nesters in this region (Barry 1982).

- up to 4,000 birds (including 400 breeding pairs), utilize an outer deltaic site

- (69°27'N, 134°35'W) as a breeding and moulting area (Martell and Casselman 1975).
- up to 2,500 non-nesting sub-adults gather at traditional moulting grounds along Harry Channel (69°29'N, 134°50'W) and Denis Lagoon (69°22'N, 134°39'W) (Barry 1982).
 - 7,000 moulting non-breeders were recorded on the flats of Campbell Island and the Kugaluk River in July and early August (Barry and Barry 1982).
 - 25,000 is the estimated population for the Liverpool Bay area (Barry 1974).
 - 87 moulting individuals were recorded in McKinley Bay on July 31, 1981 (Scott-Brown et al. 1981).
 - 1,500 moulting birds were reported at this bay by Martell and Casselman (1975).
 - a lake on Richards Island (69°24'N, 134°40'W) is used by moulting white-fronted geese (Kuyt 1974). Between 715-1,170 individuals were noted here in July 1974 (Searing et al. 1975).
 - up to 40,000 birds stage on the lower delta and at Kugmallit Bay while on spring migration to nesting areas (Martell and Casselman 1975).

- 23,700 was the estimated peak staging population of birds on the delta on September 10, 1975 (Koski 1977).
- nesting occurs from the end of May or early June to the end of June or the first week of July (Johnson et al. 1975).
- breeding adults moult when goslings are two to three weeks old. Non-breeding sub-adults undertake a moult migration to traditional sites on the delta during the later stages of incubation or as the hatch begins and flight is usually regained by early August (Johnson et al. 1975).

Canada Goose: - not common in this area but occurs most abundantly in the Liverpool Bay - Eskimo Lakes area (Searing et al. 1975).

- 20,000 birds (including 100 breeding pairs) are reported to use the Liverpool Bay area to moult (Martell and Casselman 1975).
- 10,000-15,000 moulting geese were reported in this area by Barry (1982).
- the southern shore and tributaries entering McKinley Bay are also utilized by moulting birds (Barry 1982).

Oldsquaw: - coastal areas from Tuktoyaktuk to Atkinson Point, and from McKinley Bay to the Baillie Islands, are important areas for these birds (Barry and Barry 1982).

- 17,000 individuals were recorded in early spring near Cape Dalhousie where open water was available (Barry 1976).
- nearly 2,000 birds were present in McKinley Bay and the surrounding shoreline on July 21, 1981 (Scott-Brown et al. 1981). Approximately 900 of these birds were recorded there on August 10, 1981.
- densities of 21.4 birds/km² (1980) and 89.4 birds/km² (1981) were recorded in and around McKinley Bay in July and August (Barry 1982).

Eiders: - colonies of between 5-25 birds (identity unspecified) are reported at Kugmallit Bay and Russell Inlet. Two more colonies are thought to exist along the coast between McKinley Bay and Nuvorak Point (Barry 1983).

- over 75,000 birds used an area of open water near Liverpool Bay on May 21, 1974 (Searing et al. 1975).

Scoters and Scaup: - large numbers (450 birds per flock), were noted in July, 1974 on the north shore of Liverpool Bay (Searing et al. 1975).

- 1,418 were present in McKinley Bay on July 21, 1981 (Scott-Brown et al. 1981).
- 3,500 scaup were noted in coastal areas between Warren Point and Toker Point in mid-August 1974 (Searing et al. 1975).
- densities of 20.9 scaup/km² and 59.1 scoter/km² were recorded in the Liverpool Bay/Eskimo Lakes area in moulting surveys

during July and August 1980 (Barry and Barry 1982).

- moulting for most duck species begins in mid-July and may extend until the third week of August (Kuyt 1974).

Glaucous Gull: - 100 pairs nest on an island in Kidluit Bay and on Hendrikson Island (Barry 1982).

- 20 pairs nest on an island near the Toker Point side of the entrance to Parlaiyut Bay (69°40'N, 132°38'W) (Barry 1982).
- 55 nests have been reported at this colony (Kuyt 1974).
- 60 pairs are found on a small island in Hutchison Bay (Barry 1982).
- 45-55 adult gulls were present at a colony 23 km east of Parlaiyut Bay (Kuyt 1974).
- 36 pairs, in two colonies, nest on the Pelly Island sandspit (Slaney 1974).
- 85 pairs nest on the shoal south of Hooper Island (Slaney 1974).
- 21 pairs nested on an island northeast of Kendall Island (69°32'N, 135°17'W).
- 9 pairs nested on an island (69°32'N, 135°24'W) to the west of Kendall Island (Slaney 1974).

Sabine's Gull: - 7 pairs nested on the Pelly Island sandspit in 1972 (Slaney 1974).

Arctic Tern - 20 pairs nest in two colonies on the Pelly Island sandspit (Slaney 1974).

- 10 pairs nested on the shoal south of Hooper Island (Slaney 1974).

- a further 4 pairs nested on the island (60°32'N, 235°17'W) northeast of Kendall Island (Slaney 1974).

- 28 pairs nested at the entrance to Parliayut Bay (Barry 1982).

BAILLIE ISLANDS (2)

Oldsquaw: - the open water present between the islands and the mainland is important to these birds in the spring.

- 55,000 birds were recorded offshore near the islands in May 1974 (Barry 1976).

- between 33.2 - 48 birds/km² were recorded here in surveys from mid-July to mid-August 1980 (Barry et al. 1981).

Eiders: - about 50,000 eiders staged in open water present near the Baillie Islands in May 1974 (Barry 1976).

- a density of 77 birds/km² was noted here from July 13 - 17, 1980 (Barry et al. 1981). Numbers had declined significantly by the end of the month.

HARROWBY BAY (3)

See Map 2061, Number 11.

ANDERSON RIVER (4)

Part of this area is included within a Migratory Bird Sanctuary.

The following species occur here:

Lesser Snow Goose: - 2,500-8,000 birds breed on the Anderson River delta (Barry and Barry 1982).

- 3,800 birds were noted in 1976 (Kerbes 1983).

- nesting occurs from early June to early July (Johnson et al. 1975).

- birds also feed and stage in the Anderson River delta and Wood Bay during their moult migration to the coastal areas.

Oldsquaw: - up to 2,300 individuals were noted in Wood Bay (Barry et al. 1981)

- moult occurs from early July to late August (Barry 1976).

Brant: - approximately 2,500 birds nest in the area.

- egg laying commences in early June and hatch occurs about mid-July (Johnson et al. 1975).

Tundra Swan: - 75 breeding pairs and 1,200 non-breeders (Barry and Barry 1982).

- the delta is used for moulting and brood rearing; non-breeders utilize the upper reaches of this river as well as the Moose and Smoke rivers for feeding (Speller 1975).

White-fronted Goose: - moulting flocks totalling 2,000 birds were recorded on the Anderson and Mason rivers.

- non-breeding flocks (500-700 birds) use the delta of the stream entering Ikpisugyuk Bay (70°09'N, 128°09'W) for moulting (Barry and Barry 1982).

CROSSLEY LAKES (5)

This is a breeding, moulting, and staging area for the following:

Tundra Swan: - 100 individuals (including 40 breeding pairs), use these lakes to breed and moult (Martell and Casselman 1975).

Canvasback: - 5,000 moulting individuals were reported at these lakes.

- these birds are also thought to breed here (Martell and Casselman 1975).

Scaup/Scoter: - 3,000-4,000 birds are estimated to be present during moulting and fall staging periods (Martell and Casselman 1975).

KUGALUK RIVER (6)

The following moulting species have been recorded along this river:

Tundra Swan: - 300 birds from mid-July through August (Johnson et al. 1975, Martell and Casselman 1975).

White-fronted Goose: - 4,000 birds were noted here from the end of June to early August (moult migration occurs from mid-late June) (Johnson et al. 1975).

Canada Goose: - 1,000 birds were noted from mid-July to late August (Johnson et al. 1975, Martell and Casselman 1975).

Breeding birds (Martell and Casselman 1975) include:

Tundra Swan: - 25 pairs.

- late May to early July (Johnson et al. 1975).

Canada Goose: - 100 pairs.

- early June to late July (Johnson et al. 1975).

CAMPBELL LAKE HILLS (7)

The hills around Campbell Lake provide nesting habitat for raptor species including peregrine falcons.

Peregrine Falcon: - 14 active nests were recorded in 1973; 9 breeding pairs and 2-3 non-breeding pairs were noted in 1974 (Windsor and Gill 1975).
- critical period for peregrines is from the end of March to the end of July (Fyfe and Prescott 1975).

Tundra Swan: - up to 200 swans have been known to stage in the fall at the Campbell Lake outlet (T. Barry pers. comm.).

PEEL RIVER (2078)

Map No. 15

RAT RIVER (1)

Peregrine Falcon: - the cliffs along the Rat River, provide attractive habitat for breeding raptors including the peregrine falcon (Allison and Neilson 1978).

FORT MACPHERSON (2)

Significant concentrations of moulting waterfowl have been noted in this area. A density of 21.05 birds/km² (54.52 birds/sq. mi.) has been recorded (Salter 1974a). Representative species are:

Scaup/Scoter: - 146 scaup and 217 scoters were recorded in this area in early June 1973.
- 434 scaup were recorded on August 2, 1973 (Salter 1974a).

Unidentified Ducks: - a density of 14.64 birds/sq. mi. was recorded on August 2, 1973 (Salter 1974a).

Tundra Swan: - 13 birds staged in this area in early June (Salter 1974a).

RENGLING RIVER (3)

The area south of the Rengling River supports post-breeding and moulting concentrations of waterfowl. A density of 12.4 waterfowl/km² (32.0 birds/sq. mi.) was recorded on June 2, 1973 (Salter 1974a).

Representative species are:

Scaup: - a density of 4.7 birds/km² (12.3/sq. mi.) was recorded on June 2, 1973 (Salter 1974a).

- a density of 5.6 birds/km² (27.9/sq. mi.) was recorded on August 1, 1973 (Salter 1974a).

Scoter: - a density of 5.6 birds/km² (14.6/sq. mi.) on June 2, 1973, increased to 7.3 birds/km² (18.88/sq. mi.) by August 1, 1973 (Salter 1974a).

TRAVAILLANT LAKE (4)

The southern edge of this lake is an important concentration area for waterfowl, especially male scaup (Salter 1974a). The wetland habitat supports breeding whistling swans and moulting non-breeders and is a spring staging area for this species (Salter 1974a; Martell and Casselman 1975). From 200-500 swans were present at the lake in the fall (T. Barry pers. comm.). A density of 26.7 birds/km² was noted in the south Travaillant Lake area in early July.

FORT GOOD HOPE (5)

The river islands between Fort Good Hope and Arctic Red River are traditional spring staging areas for migrating swans and geese (Barry 1967; Campbell and Shepard 1973). Peak numbers were:

Lesser Snow Goose: - 63,916 were present at Little Chicago on May 25, 1972 (Campbell and Shepard 1973).

- a further 9,335 were noted on the same date near Fort Good Hope.

- over 17,500 have gathered on the Mackenzie River near the Thunder River area (Campbell and Shepard 1973).

- fewer geese were recorded in these areas in 1973 surveys (Salter et al. 1974).

Dark Geese: - 4,771 dark geese were also noted in this area on May 25, 1972 (Campbell and Shepard 1973).

Tundra Swan: - over 7,500 swans were noted here on May 20, 1972 (Campbell and Shepard 1973).

RAMPARTS PLAIN (6)

This area has traditionally been considered the prime waterfowl production area in the Mackenzie Valley (Davis 1974). However, a large fire in 1968 may have temporarily lowered the productivity of the area. Recorded densities are:

10 and 11 June, 1971 - 9.1 birds/km² (Calef and Lortie 1971)

26 May to June 1973 - 8.7 birds/km² (Davis 1974)

11-15 July 1973 - 2.9 birds/km² (Davis 1974)

Nesting: - usually occurs from mid-June to late July.

CHICK LAKE (7)

Peregrine Falcon: - an outcrop known as "Gibson Ridge" is an important raptor breeding area (Fyfe and Prescott 1973; Fyfe and Kemper 1975a). The most critical period for raptors is from 1 March to 31 July which includes territory establishment and brood rearing (Fyfe and Prescott 1973).

SAN SAULT RAPIDS (8)

Virtually all western arctic lesser snow geese migrate along the Mackenzie Valley and in the spring, congregate on river islands where open water is available (Barry 1967, Campbell and Shepard 1973). The open water around these islands provides waterfowl with suitable habitat for feeding, resting, and mating. Peak numbers were:

Lesser Snow Goose: - 6,230 were noted on May 20, 1972 (Campbell and Shepard 1973).

- 1,315 were recorded the following year on May 14. (Salter et al. 1974).

Dark Geese: - 360 were present on May 20, 1972 (Campbell and Shepard 1973).

- 221 were noted on May 14, 1973 (Salter et al. 1974).

GREAT BEAR RIVER (2079)

Map No. 16

REDSTONE RIVER TO PATRICIA ISLAND (1)

These river islands are traditional stopover points for spring migrating swans and geese (Campbell and Shepard 1973, Salter et al.

1974). The rate and duration of migration is dependent upon weather conditions and the availability of open water (Salter et al. 1974). Over 45,000 waterfowl (mainly snow geese) were recorded on the islands near Norman Wells (Campbell and Shepard 1973). On May 9, 1973, 14,590 snow geese moved through this area, and approximately 3,000 ducks were seen at Norman Wells in the first week of May 1973 (Salter et al. 1974).

In 1973, peak migration (Salter et al. 1974) was:

Geese: 9-16 May

Swans: 6-20 May

Ducks: mid-April - 31 May.

NORMAN RANGE (2)

Peregrine Falcon: - this area provides ideal habitat for breeding raptors (Fyfe and Kemper 1975a,b). The period from 1 March to 31 July, which includes territory establishment and brood rearing, is considered the most critical for raptors (Fyfe and Prescott 1973).

BRACKETT LAKE (3)

A dense breeding population of ducks (31 birds/km²) has been recorded for the Brackett Lake area (Davis 1974). Barry (1958) has recorded over 5,000 white-fronted geese and approximately 12,000 ducks on the north and west shores of the lake and at the mouth of the Loche River in early July. These birds were probably undergoing moult. Brackett and Kelly lakes are also heavily utilized as fall staging areas (Davis 1974, Salter 1974c). Salter (1974c) recorded approximately 500 white-fronted geese and over 1,500 tundra swans staging in the area.

Nesting: - occurs between early June and late July.

Migration: - peak migration occurs about mid-September.

TATE/STEWART LAKES (4)

These lakes are heavily utilized as a fall staging area (Davis 1974). Approximately 1,000 loons were noted on Stewart Lake in the third week of September 1971 (Davis 1974). More than 11,000 white-fronted geese plus an additional 9,000 dark geese were observed on Tate Lake (Salter 1974c). Thousands of snow and other geese passed over the lake on their southward migration. An average migration rate of 301.5 birds/hour was noted on migration watches at Tate Lake (Salter 1974c). Peak migration occurs between mid-August and mid-September.

THELON RIVER (2080)

Map No. 17

BATHURST INLET (1)

Peregrine Falcon: - the abundance of nest sites is the exceptional feature of this area (Kingsley 1979). Thirteen of a total of 27 peregrine falcon nests were active.

Geese: - hundreds of Canada geese, snow geese, and white-fronted geese reportedly stage on the Burnside River delta in the spring (Abrahamson, in Kingsley 1979).

QUEEN MAUD GULF (2)

Most of the world's population of Ross' geese nest in association with lesser snow geese in colonies scattered throughout the Queen Maud Gulf lowlands (Kerbes et al. 1979). Snow goose arrival is by mid-May and dispersal to moulting areas near the coast and at inland lakes takes place soon after the hatch. (Beyersbergen 1976). A similar pattern occurs with Ross' geese.

The Queen Maud Gulf Migratory Bird Sanctuary covers much of the goose nesting area. The size of each colony, as recorded by Kerbes et al. (1979), is indicated in Table 1.

FRANKLIN LAKE (3)

See Map 2081, Number 3.

CONTWOYTO LAKE (4)

Peregrine Falcon: - these areas are known to be breeding habitat for raptors (Kuyt 1980).

BAILLIE RIVER/BACK RIVER (5)

Canada Goose: - more than 4,000 moulting Canada geese have been recorded in this area (Sterling and Dzubin 1967).
- moulting occurs from approximately mid-June to mid or late July (Sterling and Dzubin 1967).

BEVERLY/ABERDEEN LAKES (6)

Canada Goose: - the Thelon River as well as Beverly and Aberdeen Lakes is a major moulting area for non-breeding Canada geese from mid-continental breeding grounds (Sterling and Dzubin 1967).
- approximately 2,300 birds have been recorded on this section of the Thelon River (Sterling and Dzubin 1967).
- more than 3,400 geese were recorded in the Beverly/Aberdeen Lakes area (Sterling and Dzubin 1967).
- arrival in the area occurs about mid-June and moulting may begin by the end of June. The timing of the moult migration and moult initiation is directly affected by the phenology of the season (Sterling and Dzubin 1967).

Table 1. Estimated numbers of nesting birds in the colonies of Ross' and Lesser Snow Geese, Queen Maud Gulf, June 1965-67, 1976 and 1982.

Colony No.	1965-67 ¹			1976 ²			1982		
	Ross'	Snow	Total	Ross'	Snow	Total	Ross'	Snow	Total
1	12	0	12	328	241	569	102	101	203
2	1,500	500	2,000	4,436	1,231	5,667	2,503	2,435	4,938
3	12,000	5,160	17,160	32,874	21,663	54,537	55,137	50,446	105,583
4	30	150	180	0	0	0	0	92	92
5	60	40	100	0	0	0	0	0	0
6	200	30	230	0	0	0	246	142	388
7	50	4	54	0	0	0	0	0	0
8	2,600	1,200	3,800	1,628	2,544	4,172	519	316	835
9	6,000	200	6,200	3,650	11,432	15,082	10,799	25,594	36,393
10	5,000	600	5,600	21,009	6,106	27,115	16,123	18,258	34,381
11	40	0	40	0	0	0	22	13	35
12	60	25	85	22	16	38	0	0	0
13	300	60	360	247	181	428	166	298	464
14	60	0	60	241	177	418	19	0	19
15	1,200	300	1,500	710	787	1,497	94	587	681
16	40	0	40	0	0	0	2	35	37
17	20	10	30	361	265	625	0	34	34
18	200	0	200	725	531	1,256	261	2,549	2,810
19	375	75	450	246	181	427	9	0	9
20	50	0	50	308	226	534	34	46	80
21	140	50	190	16	12	28	0	554	554
22	100	25	125	0	0	0	0	0	0
23	*	*	*	477	349	826	316	278	594
24	*	*	*	95	69	164	110	148	258
25	*	*	*	123	90	213	0	126	12
26	*	*	*	0	0	0	5	7	12
27	*	*	*	1,833	2,927	4,760	526	302	828
28	*	*	*	0	0	0	0	0	0
29	*	*	*	4,673	2,651	7,324	652	632	1,284
30	*	*	*	342	251	593	0	254	254
31	*	*	*	0	0	0	56	32	88
32	*	*	*	0	0	0	10	6	16
33	*	*	*	0	0	0	0	0	0
34	*	*	*	62	45	107	37	21	58
35	*	*	*	246	181	427	0	0	0
36	150	250	400	2,014	2,227	4,241	738	596	1,334
37	80	120	200	82	60	142	0	247	247
38				246	181	427	94	102	196
39				30	21	51	34	93	127
40				0	1,519	1,519	0	98	98
41				170	125	295	0	0	0
42				123	90	213	0	40	40
43							65	37	102

Table 1. Continued.

Colony No.	1965-67 ¹			1976 ²			1982		
	Ross'	Snow	Total	Ross'	Snow	Total	Ross'	Snow	Total
44							16	21	37
45							194	112	306
46							1,621	932	2,553
47							78	45	123
48							84	49	133
49							76	44	120
Total	34,000 ³	10,300 ³	44,300 ³	77,317	56,379	133,696	90,748	105,722	196,470

¹From Ryder (1969)

²From Kerbes et al. 1983

³Extrapolated totals from Kerbes et al. 1983.

*Colony occupied by nesting birds but numbers not estimated.

White-fronted Goose: - are known to breed in the Thelon River valley (Kuyt 1962).

- flocks of 5-23 moulting sub-adults were reported between Beverly and Aberdeen Lakes (Dzubin n.d.).
- 146 birds were banded in this area of the Thelon River (Dzubin n.d.).

Tundra Swan: - 20 moulting birds were recorded on July 28, 1963 at Hornby's Bend (64°00'N, 103°55'W) (Dzubin n.d.).

Lesser Snow Goose: - 55 nests (1963) and 97 nests (1964) were located 3-4 miles west of the west end of Aberdeen Lake (Dzubin n.d.). The colonies were located on islands in the Thelon River.

- less than 50 pairs were located in a small colony on a creek southeast of Schultz Lake (Dzubin n.d.).
- an estimated 30-40 pairs nested near the west end of Aberdeen Lake in 1966 (Dzubin n.d.).
- 42 nesting geese were located in 1972 at the junction of the Thelon and the Dubawnt Rivers, near Kazan Falls (Dzubin n.d.).

Raptors: - areas outlined in broken lines along the Thelon River system are known or potential nesting sites for raptors including peregrine falcons (Fyfe et al. 1976, Kuyt 1980).

QUOICH RIVER (2081)

Map No. 18

ARROWSMITH BAY (1)

See Map 2059, Number 11.

MURCHISON RIVER (2)

Canada Goose: - this area serves primarily as a moulting area for the larger races of Canada geese which nest in southern Canada or northern United States (McLaren et al. 1976).

- moulting begins in late June to early July and departure probably occurs in early September (McLaren et al. 1976).

- densities of 58.4 moulting geese per square mile were recorded along the south shore of Murchison Lake (McLaren et al. 1976).

BACK RIVER (3)

The Hayes River and its delta is the most northerly site of open water, south of Bellot Strait, which is available to spring migrant birds (Zdan and Brackett 1978). The lower Back River and its tributaries are prime moulting areas for Canada geese and lesser snow geese (Allen and Hogg 1979). The mouth of the Back River is also a spring staging area.

Spring staging - occurs from late May to early June. Surveys in 1976 and 1977 recorded the following numbers:

Canada Goose: - nearly 800 geese were recorded along the lower Back River as well as the Hayes River and its tributaries (Zdan and Brackett 1978).

- 35 individuals staged in the area between the Thelon River and the Herman River.

Lesser Snow Goose: - approximately 575 individuals were noted in the above areas (Zdan and Brackett 1978).

Tundra Swan: - 245 birds were observed between the Mistake River and the mouth of the Hayes River in 1976 (Zdan and Brackett 1978).

- 409 swans were recorded in 1977 on the lower Back River area between Franklin Lake and the Hayes River (Allen and Hogg 1979).

Brant: - a total of 724 brant were present in this area of the lower Back River and the Hayes River (Zdan and Brackett 1978).

- the majority of these birds were on the Hayes River.

Nesting: - most species nested from the first week of June to the second week of July (McLaren et al. 1976, Allen and Hogg 1979).

Lesser Snow Goose: - a colony is thought to exist in the area of Madam Daly Lake (67°05'N, 95°28'W) (McLaren et al. 1976).

Tundra Swan: - 32 adults with 16 cygnets were noted in the sedge lowlands north of the Mistake River (Zdan and Brackett 1978).

Moulting: - moulting Canada geese and snow geese were noted as early as the first week of July (Zdan and Brackett 1978). Most non-breeding waterfowl moult from mid-July to mid-August (McLaren et al. 1976).

Lesser Snow Goose: - more than 3,500 birds were present in the Hayes River area on July 12, 1976 (McLaren et al. 1976).

- most of these birds were probably moulting non-breeders since very few broods were recorded.
- 1,177 geese were noted on the lower Back River region on the same date (McLaren et al. 1976).

Canada Goose: - nearly 300 geese were recorded between the Meadowbank River and Franklin Lake (Zdan and Brackett 1978).

- approximately 600 geese were recorded on Franklin Lake and north of the lake to Chantrey Inlet (Zdan and Brackett 1978).

White-fronted Goose: - approximately 260 moulting birds were recorded in the Hayes River area (McLaren et al. 1976).

- a further 260 birds were present along the Back River between the Mistake River and the Hayes River (McLaren et al. 1976).

Numbers of all species diminished toward the end of August (Zdan and Brackett 1978).

WAGER BAY (4)

Peregrine Falcon: - the area surrounding Wager Bay is considered as optimum nesting habitat (Fyfe 1968).

- a total of 27 peregrine falcon nests were recorded (Calef and Heard 1979).
- the period 1 March - 31 July is critical for most raptors. This period includes the

establishment of territories and brood
rearing.

REPULSE BAY (5)

Peregrine Falcon: - this general area is considered as optimum
nesting habitat (Fyfe 1968).

Fifteen occupied nests have been recorded
(Calef and Heard 1979).

PARRY BAY (6)

See Map 2059, Number 17.

QUOICH RIVER (7)

Canada Goose: - moulting occurs on this river. The largest numbers
are concentrated between Chesterfield Inlet and
Tehek Lake (McLaren et al. 1976). A survey of the
Quoich River in 1967 recorded 3,200 moulting Canada
geese (Sterling and Dzubin 1967).

- geese leave the area soon after the moult is
completed in the first week of August.

ELL BAY (8)

See Map 2110, Number 1.

EAST BAY (9)

See Map 2110, Number 5.

KOUKDJUAK RIVER (2082)

Map No. 19

AIR FORCE ISLAND/PRINCE CHARLES ISLAND (1)

Lesser Snow Goose: - non-breeding birds from the mainland colony on
the Koukdjuak Plain gather on the coastlines
of these islands (Reed et al. 1980).

- 30 non-breeding birds were also reported in Weeks Bay (Reed et al. 1980).

Brant: - 413 birds (including 136 breeding individuals), were recorded on the southeastern shores of Air Force Island (Reed et al. 1980).

- 514 birds (including 134 breeders), were also noted on the northwestern and southern coastlines of Prince Charles Island (Reed et al. 1980).

KOUKDJUAK PLAIN (2)

The Dewey Soper Migratory Bird Sanctuary covers much of the Koukdjuak Plain. The sedge lowland area from Bowman Bay north to the Koukdjuak River includes the main nesting grounds for thousands of lesser snow geese (Kerbes 1975). Foraging and moulting areas extend from Cory Bay to Taverner Bay, and are delineated by a broken line. Nesting is concentrated in the sub-colonies of Bowman Bay, Cape Dominion, and on the southern shores of the Koukdjuak River. In recent years, non-breeding birds have been recorded on Prince Charles Island and Air Force Islands. Small nesting concentrations of brant and Canada geese are also located here.

Lesser Snow Goose: - 120,000 nests were recorded in the Bowman Bay area in 1966 (Kerbes 1967).

- 92,000 nests were reported in 1973 (Kerbes 1975).
- 60,000 adults and 30,000 sub-adults were reported at the Cape Dominion sub-colony by Cooch (1955).

- estimates of 9,200 nests (1966/67) and 36,000 nests (1973), were reported for the Cape Dominion area by Kerbes (1967, 1973).
- 50,000 adults and 25,000 sub-adults were estimated to have occupied the Koukdjuak River sub-colony in 1955 (Cooch 1955).
- an estimated 95,000 nests were reported in the Koukdjuak River area in 1973 (Kerbes 1975).
- approximately 2,500 birds, mainly non-breeders, were recorded at Cory Bay and Garnet Bay (Kerbes 1967, Reed et al. 1980).
- nesting occurs from approximately mid-June to mid-July (Kerbes 1967).
- non-breeders begin their moult in early July whereas breeding individuals begin in late July (Kerbes 1967).

Brant: - 2,500 birds were recorded in the Bowman Bay area in 1955 (Cooch 1955).

- only 4 birds were noted at the bay in 1979 (Reed et al. 1980).
- 8,000 individuals were noted in the Cape Dominion area by Cooch (1955).
- 800 birds were present in 1975 (Ross 1975).
- 1,579 birds (including 314 breeders), were recorded at Cape Dominion in 1979 (Reed et al. 1980).

- 8,000 brant were reported on the south shore and 1,450 birds were noted on the north shore of the Koukdjuak River in 1955 (Cooch 1955)
- few brant were reported in the Koukdjuak River area in 1979 (Reed et al. 1980).
- in 1979, 114 birds were observed along the coastline of the Foxe Peninsula from Finnie Bay to Cory Bay (Reed et al. 1980).
- nesting probably occurs from mid-June to mid-July (Barry 1956 - data for Southampton Island).
- non-breeders begin moulting by 10 July whereas breeding birds start their moult during the last 10 days of July (Barry 1956 - data for Southampton Island).

Canada Goose: - 3,000 birds were reported at Bowman Bay by Cooch (1955).

- a further 3,000 have also been reported in the Cape Dominion area (Cooch 1955).
- surveys in 1979 reported this species to be "abundant" along the east coast of the Foxe Basin (Reed et al. 1980). No estimate of population size is available, but it is considered to be less than the brant population of the area.

CUMBERLAND SOUND (3)

Several colonies of glaucous and/or Iceland gulls exist in the Cumberland Sound area (MacLaren Marex 1979). Colony locations are indicated on the accompanying map sheet.

CAPE QUEEN (4)

The bays and inlets along the coast from Erukso Point to just north of Harkin Bay provide staging and feeding sites for small numbers of Canada geese, snow geese, and brant (Macpherson and McLaren 1959). Canada geese are common breeding birds between the encampment of Nuwata and Cape Weston (Soper 1946).

CAPE DORSET (5)

The Cape Dorset Migratory Bird Sanctuary is included in this unit. The Sanctuary, which includes the islands in Andrew Gordon Bay, the West Foxe Islands, and Sakkiak Island was established to protect the eider population that breeds on the islands (Cooch 1965).

Eider: - 1,295 nesting common eiders were recorded in this area in 1956 (Abraham and Finney 1983).

- this number was reduced to 367 in 1976 (Abraham and Finney 1983).
- between 50-755 pairs nest on each island within the West Foxe Islands (Abraham and Finney 1983).
- 1,358 active nesting sites were identified in 1955 (Cooch 1965).
- nests and broods were also observed in Andrew Gordon Bay (Macpherson and McLaren 1959).
- nesting generally occurs about the third week of June and continues through the last week of July (Cooch 1965).
- large rafts of flightless young and adults are noted around the Cape Dorset area until mid-September (Macpherson and McLaren 1959).

- thousands of king eiders are regular spring and fall migrants in this area (Macpherson and McLaren 1959).

Oldsquaw: - hundreds of these birds occur in Andrew Gordon Bay in pre-nesting concentrations (Macpherson and McLaren 1959).

Black Guillemot: - an estimated 75 pairs breed on Pitsulak Island ($64^{\circ}11'N$, $76^{\circ}30'W$) and on the islands east of Parketuk Bay ($64^{\circ}17'N$, $76^{\circ}31'W$) (Soper 1946, Macpherson and McLaren 1959).

- a large colony of 3,000 individuals is reported on an island in the West Foxe Islands (Macpherson and McLaren 1959).

Canada Goose: - small numbers were noted in Andrew Gordon Bay (Macpherson and McLaren 1959).

- broods were noted at the end of July.
- small flocks of young and adults were also noted in Korok Inlet near Hobart Island (Macpherson and McLaren 1959).

CHORKBAK INLET (6)

Canada Goose: - one brood, including nine individuals, was noted at the head of this inlet (Macpherson and McLaren 1959).

Eider: - common eiders nested on the islands in the inlet. Flocks of flightless young and adults were noted among the islands in Chorkbak Inlet (Macpherson and McLaren 1959).

DAVIS STRAIT (2083)

Map No. 20

CAPE SEARLE (1)

Northern Fulmar: - estimated colony sizes are:

- 200,000-500,000 birds (Nettleship and Smith 1975).
- 100,000 pairs (Nettleship 1980).

Black Guillemot - small numbers of black guillemots are known to nest in the area (Nettleship 1980).

REID BAY (2)

Thick-billed Murre: - 200,000+ pairs occupy the two northern-most colonies (Brown et al. 1975, Nettleship 1980).

- egg laying begins in the last 10 days of June and fledging occurs by mid-August (Gaston 1980 - data from Digges Island).

Northern Fulmar: - approximately 10,000 pairs occupy the three southern colonies at Reid Bay (Brown et al. 1978, Nettleship 1980).

- egg laying occurs between late May and early June. Hatching takes place in late July with fledging in early September (Kemper 1976).

Black Guillemot: - a small number are found in this area (Nettleship 1980).

EXETER SOUND (3)

Northern Fulmar: - a colony has recently been confirmed at this location.

- estimated numbers are:

2,000 pairs \pm (Brown et al. 1975).

3,000 \pm pairs (MacLaren Marex 1979).

- thick-billed murrees may also breed here (Tuck 1961) but none have been reported in recent years.

CAPE WALSINGHAM (4)

Thick-billed Murre: - Kumlien (1879), reported a colony at this location but this record is unconfirmed (Tuck 1970).

CAPE MERCY (5)

Thick-billed Murre: - Kumlein (1879), reported a colony at this location, but this record is unconfirmed (Tuck 1970).

DAVIS STRAIT (6)

Several colonies of glaucous and/or Iceland gulls exist along the Davis Strait coastline (MacLaren Marex 1979). Colony locations are indicated on the accompanying map sheet.

SOPER RIVER (2108)

Map No. 21

SOPER RIVER (1)

Canada Goose: - breed in the marshy flats of the river valley.

- total population for this area was estimated at a few thousand birds (Kerbes 1967).

- the largest flock (80 birds) was recorded at the Joy River junction.

- moulting for most adults was completed by the end of July.

Black Guillemot: - reportedly breed in large numbers along the coastal cliffs (Soper 1946).

FROBISHER BAY (2)

Scoter: - large numbers are present in the Frobisher Bay area in the spring (MacLaren Marex 1979).

Eider: - large numbers use the coastal areas of southeast Frobisher Bay to moult.

- large numbers breed along the eastern side of Frobisher Bay.

- over 1,600 nests were observed around Hamlen Bay in July, 1966 (Kerbes pers. comm.).

- birds are present from late July through September (MacLaren Marex 1979).

Gulls: - numerous glaucous gull and/or Iceland gull colonies occur along the coastlines of Meta Incognita and Hall peninsulas (MacLaren Marex 1979).

- locations are indicated on the accompanying map sheet.

HALL PENINSULA (3)

Eider: - large numbers moult along the coastal areas of the southeast shore of Frobisher Bay and Hall Peninsula.

- birds are present from late July through September (MacLaren Marex 1979).

Geese: - spring migrating geese, including Canada geese and brant stage along the coastal regions of Hall Peninsula (MacLaren Marex 1979).

LOKS LAND (4)

Black-legged Kittiwake: - 75+ pairs have been recorded on an island off Queen Elizabeth Foreland.

- nearby islands (Lady Franklin Island and Monumental Island) are also suspected colony sites because several hundreds of birds were noted in their general vicinity (Brown et al. 1975).

- 250 birds are located on one of the Harper Islands (Brown et al. 1975).

Common Eider: - breeds on Loks Land (MacLaren Marex 1979).

Razorbill: - approximately 50 pairs breed on Loks Land (Brown et al. 1975).

"HANTSCH" ISLAND (5)

(Northeast of Edgell Island)

Thick-billed Murre: - 50,000+ pairs (Nettleship 1980).

For phenological data see Number 8.

Black-legged Kittiwake: - 3,000+ pairs (Nettleship 1980).

- egg laying begins in mid-June and fledging starts about mid-August, continuing through September (Nettleship 1976 - data from Prince Leopold Island colony).

Black Guillemot: - a colony of 100 pairs is located on the Lower Savage Islands (Wynne-Edwards 1952).

Black guillemots, glaucous gulls, and possibly Atlantic puffins are also among the breeding populations on the island.

HATTON HEADLAND (6)

Black-legged Kittiwake: - 225+ breeding pairs (Brown et al. 1975).

For phenological data see Number 5.

BUTTON ISLANDS (7)

Black-legged Kittiwake: - over 1,400 pairs breed in three colonies located on the Button Islands and on Knight Island (Nettleship 1980).

Black Guillemot: - 10 pairs nest on the Button Islands (Nettleship 1980).

Glaucous Gull: - up to 1,500 pairs are reported to nest here (Nettleship 1980).

AKPATOK ISLAND (8)

Thick-billed Murre: - nest on the north and south cliff faces of this island.

North colony: 450,000+ pairs (Tuck 1970).

200,000+ pairs (Nettleship 1980).

South colony: 150,000+ pairs (Tuck 1970).

100,000+ pairs (Nettleship 1980).

In 1979, egg laying began during the last 10 days of June and the young fledged in mid-August (Gaston 1980 - data from Digges Island colony).

Black Guillemot: - a small number (100+) nest here also (Nettleship 1980).

EIDER ISLANDS (9)

Eider: - the coastal area from Cape Hopes Advance to the Eider Islands provides suitable habitat for large concentrations of eiders.

- a density of 26.6 ducks/sq. mile was recorded (Cooch 1954).
- between 1976 and 1980, 38-58 nests were recorded annually (Abraham and Finney 1983).

KOVIK RIVER (2109)

Map No. 22

NOTTINGHAM ISLAND (1)

Eider: - the southeast coastline of the island is important as eider habitat.

- densities of 18.1 birds/sq. mi. have been recorded (Cooch 1954).

DIGGES SOUND (2)

Thick-billed Murre: - two colonies occur in this area.

Cape Wolstenholme: - 400,000+ pairs (Brown et al. 1975).

- 200,000+ pairs (Nettleship 1980).

Digges Island: - 600,000+ pairs (Brown et al. 1975).

- 100,000+ pairs (Nettleship 1980).

Gaston (1979) suggested that approximately 300,000 pairs were present in both colonies, although 261,000 were actually recorded. Egg laying begins in the last third of June with fledging occurring from mid-late August (Gaston 1979). Murres then abandon the colony.

Glaucous Gull: - several hundred pairs breed in several colonies in Digges Sound (Gaston 1980).

Black Guillemot: - approximately 500 pairs breed in the area.

- reproductive phenology is similar to the thick-billed murres (Gaston 1980).

Puffin: - a colony of 40 pairs occurs in the area.

MANSEL ISLAND (3)0

Tundra Swan: - common (G. Cooch pers. comm.)

SUTTON RIVER

Map No. 23

ELL BAY (1)

Lesser Snow Goose: - approximately 200 nests have been recorded in this area (Kerbes 1975).
- for phenological data see Number 2.

BOAS RIVER (2)

Much of this area is protected by the Harry Gibbons Migratory Bird Sanctuary.

Lesser Snow Goose: - occupy the sedge lowland areas along the Boas River.
- this colony consists of 68,800 breeding pairs (Kerbes 1975).
- birds usually arrive at the colony by late May (Cooch 1968) and soon begin incubation which is generally completed by early July (Harvey 1971).
- the feeding range of this colony and the nearby Ell Bay colony are delineated on the map by a broken line.

Brant: - nest on islands in the Boas River delta, separate from the areas occupied by geese which nest up to a quarter mile inland (Barry 1956).
- 700 breeding pairs plus 400 sub-adults were recorded in 1953 (Barry 1956).

- since brant arrive somewhat later than geese, their incubation period is usually from mid-June to mid-July (Barry 1956).

Canada Goose: - approximately 1,000 individuals were recorded here in 1955 (Cooch 1955).

Several Thayer's and Sabine's gull colonies occur along the Bay of God's Mercy coastline (Bray 1943). Arctic terns and king eiders are also common breeders in the area (Bray 1943).

BEAR COVE (3)

- Lesser Snow Goose: - approximately 2,000 birds were noted in this area (near Bursting Brook), in 1960.
- 400 breeding pairs were recorded in 1973 (Kerbes 1975).
 - for phenological data see Number 2.

WALRUS ISLAND (4)

Black Guillemot: - were reported by Bray (1943) to breed abundantly on this island. No estimate of numbers or details of breeding phenology is available.

EAST BAY (5)

Much of East Bay and its immediate vicinity is a Migratory Bird Sanctuary.

- Lesser Snow Goose: - a small colony has persisted in this area although numbers are on the decline. The following breeding populations have been recorded:
- 1973: 8,500 nests (Kerbes 1975).
 - 1979: 605 nests (Abraham and Ankney 1980).

1980: 74 nests (Abraham and Ankney (1980).

In 1980 there was a large nonbreeding component of 2,000 birds in the population. Foraging areas for this goose colony are bounded by broken lines. For phenological data see Number 1.

Other species in this area include:

Brant: - The most recent population estimates are:

1979: 455 nests (Abraham and Ankney 1980).

1980: 432 nests (Abraham and Ankney 1980).

Brant begin laying between 14-25 June and hatching occurs from 15-21 July (Abraham and Ankney 1980).

Canada Goose: - estimated numbers are:

1979: 35 nests (Abraham and Ankney 1980).

1980: 32 nests (Abraham and Ankney 1980).

Eider: - 316 nests were located in the East Bay area (Abraham and Ankney 1980).

CAPE PEMBROKE (6)

Thick-billed Murre: - two colonies totalling approximately 15,000 birds are located at the northeast corner of the island (Nettleship 1980).

- egg laying probably begins in late June and the chicks have fledged by mid-late August (Gaston 1979 - Digges Island colony).

Glaucous gulls, herring gulls, and peregrine falcons are all thought to nest in the area although breeding has not been confirmed (Nettleship 1980).

MANSEL ISLAND (7)

See Map 2109, Number 3.

MAGUSE RIVER (2111)

Map No. 24

CHESTERFIELD INLET (1)

Canada Goose: - the south shore of Chesterfield Inlet is a staging and moulting area for Canada geese (McLaren et al. 1976).

- late August surveys in 1975 recorded a density of 22 birds/sq. mile along 186 miles of the southern shore (McLaren et al. 1976).

MARBLE ISLAND (2)

Black Guillemot: - a colony of approximately 3,000 birds occurs on this island (Arctic Ecology Map Series 1972).
There has been no further confirmation in recent years.

McCONNELL RIVER (3)

Lesser Snow Goose: - The McConnell River Migratory Bird Sanctuary includes part of a major lesser snow goose colony which has existed since at least 1930 (McInnes et al. 1975). The main area of nesting concentration is at the mouth of the McConnell River (area 3b). Smaller satellite colonies occur at the Tha-anne River (area 3a), Wolf Creek (area 3c) and on the Maguse River (area 3d).

Egg laying usually occurs during the second week of June and incubation is completed by early July (Harvey 1971). Shortly after the hatch, the geese disperse to inland feeding and moulting areas. The broken line indicates the extent of this dispersal. Non-breeding geese from the La Perouse Bay colony to the south are thought to undertake a moult migration to this area in mid-summer (Abraham 1980). By late August - early September, most birds have left the area (Cooch 1968).

Recent colony estimates are:

Tha-anne River (3a)

1973: 3,200 pairs (Kerbes 1975).
1977: 1,500 pairs (Kerbes 1979).
1978: 2,000 pairs (Kerbes 1979).
1980: 1,400 pairs (Kerbes in press).

McConnell River (3b)

1973: 326,000 breeders + 90,000 non-breeders (Kerbes 1975).
1977: 284,677 breeders + 6,986 non-breeders (Kerbes 1979).
1978: 306,392 breeders + 2,090 non-breeders (kerbes 1979).
1980: 101,000 pairs (Kerbes 1982).

Wolf Creek (3c)

1973: 45,000 breeders (Kerbes 1975).
1977: 54,967 breeders + 3,945 non-breeders (Kerbes 1979).
1978: 8,929 breeders + 615 non-breeders (Kerbes 1979).
1980: 23,700 pairs (Kerbes 1982).

Maguse River (3d)

- this colony was concentrated in two nesting areas as indicated on the accompanying map sheet. One was on Austin Island and the other was located on a tributary of the north branch of the Maguse River (Brace et al. 1978). In recent years the Austin island area has not been occupied (Kerbes 1982).

Estimates are:

1973: 500 pairs (Kerbes 1975).
1977: 300 pairs (Kerbes 1979).
1978: 300 pairs (Kerbes 1979).
1980: 5,300 pairs (Kerbes 1982).

DUBAWNT RIVER (2112)

Map No. 25

BISSET LAKE (1)

Peregrine Falcon: - reportedly nests in this area (Kuyt, in Arctic Ecology Map Series 1972).

YATHKYED LAKE (2)

The lakes and river systems between Baker Lake and the Thlewiaza River are important to waterfowl as spring staging areas and as moulting and feeding areas in the fall (Zdan and Brackett 1978, Allen and Hogg 1979). In 1976, migrating snow geese moved into the area in mid-summer and were present on most rivers and lakes (Zdan and Brackett 1978). Other migrating species included tundra swans, Canada geese, and a variety of ducks. The largest densities of birds were noted from mid-August to mid-September (Allen and Hogg 1979).

The following numbers of birds are derived from ornithological surveys of a proposed pipeline route through the area. In view of the abundance of waterbodies in the area, it is likely that such findings can be extrapolated to include the areas both east and west of the pipeline route.

Spring staging: occurs between late May and early June. Surveys were carried out between 4-10 June, 1976. Recorded numbers were:

Lesser Snow Goose: - 40 birds staged on open water on lakes south of Thirty Mile Lake (Zdan and Brackett 1978).
- 1040 birds were recorded between Thirty Mile Lake and Ferguson Lake and along the Kazan River between these two lakes (Zdan and Brackett 1978).

- concentrations of geese were also noted on the open water of the Maguse River (Allen and Hogg 1979).

Canada Goose: - 50 birds were recorded on the southwest shores of Baker Lake in 1976 (Zdan and Brackett 1978).

- 40 birds were noted at Forde Lake (Zdan and Brackett 1978).
- 30 geese were present at Thirty Mile Lake (Zdan and Brackett 1978).

Tundra Swan: - staging swans were noted on Thirty Mile Lake in 1977 (Allen and Hogg 1979).

- 51 birds were counted on ice-free lakes northeast of the Kogotok River (Allen and Hogg 1979).
- 15 birds were noted along the Kazan River in 1976 (Zdan and Brackett 1978).
- 164 birds were scattered along the Tha-anne River just upstream from Thaolintoa Lake in 1977 (Allen and Hogg 1979).

Ducks: - were widely dispersed throughout the area.

- areas of highest concentration were Roseblade Lake, the Tha-anne River east to Thaolintoa Lake, and a section of the Thlewiaza River northeast of Edehon Lake (Allen and Hogg 1979).

Nesting: - numbers of all waterfowl decrease as migrants move out of the area to nesting sites. Brood-rearing and moulting geese were recorded in small numbers on the calmer stretches of rivers (Allen and Hogg 1979). The Maguse, Tha-anne, Thlewiaza, and

Kogotok Rivers harboured the largest numbers of geese. Ducks were well dispersed with the largest concentrations found on the Kogotok River (Allen and Hogg 1979).

Lesser Snow Goose: - a small colony is located northeast of Pitz Lake (Zdan and Brackett 1978).

- 50 adults and 17 juveniles were noted on the McConnell River in July 1976 (Zdan and Brackett 1978).

Canada Goose: - 30 adults and 4 juveniles were noted on the McConnell River in July 1976 (Zdan and Brackett 1978).

- nesting was noted in the area between the Kazan and the Thelon Rivers (Zdan and Brackett 1978).

Moulting/Staging: - the largest numbers of moulting birds were noted in surveys carried out in late August and early September (Zdan and Brackett 1978, Allen and Hogg 1979). Most birds were on pre-migration staging areas (Zdan and Brackett 1978).

Lesser Snow Goose: - 21,146 birds were recorded in the area between the Manitoba border and the Maguse River between 6-7 September, 1977 (Allen and Hogg 1979).

- over 13,000 geese moved into this area in late summer 1976 (Zdan and Brackett 1978).
- over 5,000 geese were recorded on the northeast shores of Roseblade Lake during the

last week of August 1976 (Allen and Hogg 1979).

- 4,668 birds were on Ray Lake and on the Tha-anne River between Roseblade and Thaolintoa Lakes (Allen and Hogg 1979).
- 6,525 geese were present on the Tha-anne wetlands and on Roseblade Lake in late August 1976 (Zdan and Brackett 1978).
- 3,616 birds were seen between Thoalinta and Heninga Lakes in the last week of August 1976 (Zdan and Brackett 1978).
- 850 individuals were noted between the Kazan River and the Thelon River deltas (Zdan and Brackett 1978).

Canada Goose: - 280 individuals were noted at the end of August in the area between the Thelon and the Kazan River deltas (Zdan and Brackett 1978).

- 275 birds were noted in the area between Thirty Mile Lake and the Maguse River in late August 1976 (Zdan and Brackett 1978).
- approximately 210 birds were recorded between the Manitoba border and the Maguse River (Zdan and Brackett 1978).

Tundra Swan: - 750 birds were recorded between the Manitoba border and the Maguse River in early September 1977 (Allen and Hogg 1979).

- only 14 swans were recorded in the same area at the end of August 1976 (Allen and Hogg 1979).
- few birds were noted north of the Maguse River (Allen and Hogg 1979).

White-fronted Goose: - in early August, 38 adults and 20 juveniles were noted on the McConnell River in 1976 (Zdan and Brackett 1978).

- 14 birds were present on Downer and Hopton Lakes in late August of the same year (Zdan and Brackett 1978).
- 18 individuals were recorded between Ray and Corbett Lakes in late summer 1976 (Zdan and Brackett 1978).

Ducks: - 1,252 ducks, including pintails, mergansers, and scaup were recorded in the pipeline area between the Manitoba border and the Maguse River (Zdan and Brackett 1978).

- approximately 500 were noted from north of the Maguse River to Thirty Mile Lake (Zdan and Brackett 1978).
- 175 birds were recorded on the ponds east of Thaolintoa Lake in late summer 1977 (Allen and Hogg 1979).
- 139 were seen on the small lakes north of Corbett Lake in late summer 1977 (Allen and Hogg 1979).

HAWK HILL LAKE (3)

Peregrine Falcon: - the shorelines of this and surrounding lakes are nesting habitat for several species of raptors.

- one pair of nesting falcons was confirmed in this area (LGL Env. Res. Assoc. 1980).

MOSQUITO LAKE (4)

Canada Goose: - approximately 500 moulting birds have been recorded in this area. The arrival of birds is dependent upon the availability of open water and generally occurs around mid-June. Post-moulting flocks have been noted as early as 19 July and departure usually occurs about the first week of August (Sterling and Dzubin 1967).

NICHOLSON LAKE (5)

Peregrine Falcon: - nest in this area (Kuyt, in Arctic Ecology Map Series 1972).

LOCKHART RIVER (2113)

Map No. 26

THELON RIVER (1)

See Map 2080, Number 6.

DICKSON CANYON (2)

These areas have been identified as potential raptor nesting habitat (Kuyt 1980).

THELON/CLARKE RIVERS (3)

Canada Goose: This area is a major moulting area for non-breeding and sub-adult Canada Geese which undergo a moult migration from nesting areas in southern Canada. Approximately 2,100 Canada geese have been noted here (Kuyt 1966, Sterling and Dzubin 1967). Arrival at the area is dependent upon the timing of ice

breakup. Moulting generally occurs between mid-June and mid-July, or late July if the season is late (Sterling and Dzubin 1967).

MOSQUITO LAKE (4)

See Map 2112, Number 4.

GREAT SLAVE LAKE (5)

Gulls: - 24 colonies of herring, California, and mew gulls were recorded on islands in the east arm of Great Slave Lake (Allen and Ealey 1979).

Arctic Tern: - 4 colonies were recorded in this area (Allen and Ealey 1979).

SLAVE RIVER (2114)

Map No. 27

MILLS LAKE (1)

Mills Lake, Mink Lake, Willow Lake, and the lower Horn River are used by ducks and geese for both spring and fall staging (Salter 1974c, Salter et al. 1974).

Spring (peak numbers):

Tundra Swan: - 365 were recorded at Mills Lake on May 9, 1973.

Lesser Snow Goose: - 5,000 were recorded on May 13, 1973 at Mills Lake.

Canada Goose: - over 500 birds were noted at Mills Lake when migration peaked on May 1, 1973.

White-fronted Goose: - 130 birds were observed at Mills Lake on the same date.

Ducks: - over 3,000 staged at Mills Lake on May 5, 1973.

Shorebirds: - 2,207 were recorded at Mills Lake on May 21, 1973.

Fall (peak numbers):

Tundra Swan: - 2,190 were noted at Mills Lake.

- between 230-940 per day were recorded at Mink Lake.

- 10 birds were recorded at Willow Lake.

Lesser Snow Goose: - nearly 4,000 birds were recorded at Mills Lake during the third week of September.

Canada Goose: - 1,390 were observed at Mills Lake.

- 1,120 were recorded at Mink Lake.

- 55 birds were seen at Willow Lake.

White-fronted Goose: - 9,860 were recorded at Mills Lake.

- 240 were seen at Mink Lake.

- 40 birds staged at Willow Lake.

Ducks: - 26,965 was the peak number noted at Mills Lake in late September.

- 1,650 were noted in mid-September at Mink Lake.

- 331 staged at Willow Lake in mid-September.

These numbers were observed, in a single day, during surveys carried out between 14-26 September 1972 (Salter 1974c). The main migration occurred from mid-September to mid-October.

BEAVER LAKE (2)

Significant numbers of waterfowl nest and feed here during spring and fall migrations (Salter 1974c, Salter et al. 1974).

Spring: - 5,000+ ducks, approximately 1,175 swans, and numerous geese have been recorded.

- migration usually occurs from mid-late April to the end of May.

Fall: - 4,000+ swans and more than 10,000 ducks have been recorded here.

- migration and staging may occur from the end of August to the beginning of October.

KAKISA/TATHLINA/BUFFALO LAKES (3)

These lakes support significant numbers of fall migrating geese.

Surveys have recorded the following numbers:

Tundra Swan: - 530 birds were noted on Buffalo Lake on September 16, 1972 (Salter 1974c).

- 35 birds were recorded on Tathlina Lake and 65 were present at Kakisa Lake on the above date (Salter 1974c).

Canada Goose: - 2,460 birds were noted on a partial survey of Buffalo Lake on September 16, 1972 (Salter 1974c).

- on the same date, 320 birds were recorded at Kakisa Lake and 340 geese were noted at Tathlina Lake (Salter 1974c).

White-fronted Goose: - 110 individuals were noted at Buffalo Lake (Salter 1974c).

- 80 birds were seen at Kakisa Lake and 15 more were noted at Tathlina Lake on the above date (Salter 1974c).

DAWSON LANDING (4)

Canada Goose: - low densities breed in this area, with nesting occurring around Dawson Landing and the muskeg

terrain near the Pine Point Mine tailings area
(B.C. Research 1978).

- approximately 40 birds were seen in the area.

Herring Gull: - several colonies occur on Birch Island (61°03'N,
113°54'W), and Colony Island (61°01'N, 114°12'W)
(B.C. Research 1978).

- 76 nests were found on each of the islands.
- nesting begins in early June.
- hatching was expected to take place around July 16
(B.C. Research 1978).

California Gull: - over 6,000 birds nest on Egg Island (61°14'N,
114°03'W) (Soper 1952).

Arctic Tern: - two colonies each with a total of up to 30 pairs
were found along the coastline east of Dawson
Landing (B.C. Research 1978).

- 100 terns were recorded on Egg Island (61°14'N,
114°03'W) (Soper 1952).

SLAVE RIVER DELTA (5)

Although the breeding population is approximately 5,000 birds, its
role as a fall staging area is considered to be as important as Mills
Lake. Population numbers presented below are considered low since the
shoreline bays extending to the Talston River were not surveyed (Thompson
and Quinlan 1979)

Tundra Swans: - 7,700

Dark Geese: - 4,400

Scaup: - 700

The area is most heavily utilized from the third week of August to the end of September. It may also be an important spring staging area for tundra swans.

WEST MIRAGE ISLANDS (6)

Over 65 species of birds are known to breed or visit these islands (Trauger and Bromley 1976). The following are among the most common species on the islands:

Herring Gull: - 40-60 pairs.

California Gull: - 150-200 pairs in four colonies.

Arctic Tern: - 75-100 pairs in three colonies.

Caspian Tern: - 3 pairs

GREAT SLAVE LAKE (7)

See Map 2113, Number 5.

REDSTONE RIVER (2115)

Map No. 28

CAMSELL BEND (1)

During spring migration, this is the most extensively used area of the river between Fort Simpson and Norman Wells. The small ponds, sloughs, and snyes on the islands are valuable resting and feeding areas for early migrants (Salter 1974b). Over 1,000 ducks and 1,117 dark geese were noted here (Geddes and McCourt 1982). The hotspring area at the mouth of the Willowlake River is also an important early source of open water for migrating waterfowl (Allison and Neilson 1978). Spring staging usually occurs from mid-April to the end of May (Salter 1974b and Salter et al. 1974).

TROUT LAKE (2)

Common Loon: - over 150 birds were noted resting and feeding on this lake in September (Davis 1974).

MACMILLAN RIVER (2116)

Map No. 29

- No data available -

KOGALUK RIVER (2145)

Map No. 30

OTTAWA ISLANDS (1)

Black Guillemot: - a colony is located on these islands (numbers unspecified).

- approximately 500 birds were noted at the northeast point of Bronson Island (Manning 1976).

KIDNEY ISLAND (2)

Canada Goose: - 200 birds is the estimated population for the island (Manning 1976).

Oldsquaw/Eider: - are present in large numbers in late summer (Manning 1976).

BELCHER ISLANDS (3)

Canada Goose: - is a common nesting bird among the islands (Freeman 1970).

- an estimated 1,200 birds make up the breeding population on Kugong Island (Manning 1976).

- in 1971, nesting began on May 19 and hatching occurred from June 20-July 3 (Manning 1976).

Lesser Snow Goose: - are abundant spring and fall migrants (Manning 1976).

Oldsquaw: - an estimated 500 birds nest on Kugong Island (Manning 1976).

Eider: - an estimated 35,000 common eiders winter among the islands (Nettleship and Smith 1975).

Glaucous Gull: - common breeders (Manning 1976).

- 300 individuals is the estimated population for Kugong Island (Manning 1976). A small colony was noted east of Tukarak Island (Manning 1976).

Herring Gull: - 300 birds are estimated to nest on Kugong Island (Manning 1976).

Arctic Tern: - 500 birds are estimated to nest on 'Tern Island' (56°31'N, 79°30'W) (Manning 1976).

FORT GEORGE RIVER (2180)

Map No. 31

BELCHER ISLANDS (1)

See Map 2145, Number 3.

LONG ISLAND (2)

This island and adjoining coastal areas are important moulting areas for Canada geese, brant, and lesser snow geese. Tens of thousands of scoters are found in coastal waters (Curtis and Allen 1976). Black guillemot and arctic tern colonies are scattered throughout the area (Curtis and Allen 1976).

SUNDAY ISLAND (3)

See Map 2181, Number 2.

COMB ISLANDS (4)

The coastal islands and the river mouths from the Comb Islands to Goose Bay attract thousands of Canada geese, brant, and ducks in spring and fall (Curtis and Allen 1976).

Brant: - approximately 5,000-15,000 stage at these islands in Dead Duck Bay in the fall (Curtis and Allen 1976).

Canada Goose: - similar numbers of Canada geese use Dead Duck Bay as a fall staging area (Curtis and Allen 1976).

TWIN ISLANDS (5)

See Map 2181, Number 4.

WALTER ISLAND (6)

Black Guillemot: - are reported to nest on Walter and Spencer Islands (Curtis and Allen 1976).

Arctic Tern: - approximately 1,000 nest on Walter Island (Curtis and Allen 1976).

- 400 individuals nest on Spencer Island (Curtis and Allen 1976)

EKWAN RIVER (2181)

Map No. 32

BELCHER ISLANDS (1)

See Map 2145, Number 3.

SUNDAY ISLAND (2)

Black Guillemot: - 700 individuals make up the estimated breeding population on this island (Manning and Coates 1952).

Arctic Tern: - 200 birds were recorded on the island (Manning and Coates 1952).

AKIMISKI ISLAND (3)

The eastern portion of this island is a Migratory Bird Sanctuary. Thousands of shorebirds, geese, and ducks use the island for feeding and staging in the spring and summer (Allison 1977).

Lesser Snow Goose: - up to 250,000 migrating birds have been noted on the north and northeast coast of the island in spring (Allison 1977).

- approximately 2,000 birds was the estimated nesting population on the island in 1976 (Allison 1977).

Canada Goose: - is a common fall migrant to the island (Allison 1977).

Brant: - is a common migrant in the fall and are in largest concentrations near Cape Duncan (Allison 1977).

Ducks: - thousands of black duck are found on the east coast of the island (Allison 1977).

- the southeastern tip of the island is classified as 'critical' to dabbling ducks, and other species (Allison 1977).

TWIN ISLANDS (4)

During spring and fall migrations, large numbers of waterfowl stage at these islands (Curtis and Allen 1976). Estimated numbers are:

Canada Goose: - 2,500.

Lesser Snow Goose: - small numbers.

Ducks: - number in the thousands.

Oldsquaw: - 1,000 birds.

All of these birds nest on these islands in small numbers (Curtis and Allen (1976)).

GASKET ISLAND (5)

Eiders: - 200 nests were recorded in 1949.

- nesting began in mid-June and hatching was completed by 12 July 1949 (Manning and Coats 1952).

Arctic Tern: - 2,000-3,000 nested on Gasket Island in 1949 (Manning and Coats 1952).

Herring Gull: - in 1949 the Gasket Island population was estimated at 300 (Manning and Coats 1952).

BROADBACK RIVER (2221)

Map No. 33

HANNAH BAY (1)

Hannah Bay is the site of a Migratory Bird Sanctuary. Waterfowl use the bay to stage during spring and fall migrations (Allison 1977).

Lesser Snow Goose: - 14,000-64,000 birds staged here in September and October 1972 (Allison 1977).

Other representative species include Canada geese, ducks, and shorebirds.

BOATSWAIN BAY (2)

A Migratory Bird Sanctuary is located here. The open water in spring is important to migrating Canada geese (Allison 1977). In the fall, thousands of lesser snow geese, Canada geese, and Atlantic brant use the bay as a resting and feeding area (Allison 1977). Ducks, (primarily the black duck), feed here in the fall in large numbers (Curtis and Allen 1976).

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