



APPENDIX C

References for Wildlife Habitat Figures



- Bathurst Island Land Withdrawl. Map depiction of Northern Bathurst Island National Park of Canada. Shape provided by Parks Canada to Nunami Stantec. July 2009.
- BirdLife International. 2008. Important Bird Area. Accessed: November 2008. Available at: http://www.bsc-eoc.org/iba/spmaps.jsp.
- Coad, B.W. and J.D. Reist. 2004. Annotated List of the Arctic Marine Fishes of Canada. Canadian Manuscript Report of Fisheries and Aquatic Sciences 2674: iv + 112 pp.
- Canadian Circumpolar Institute. 1992. Nunavut Atlas. In R. Riewe (ed.), Canadian Circumpolar Institute and the Tungavik Federation of Nunavut. Edmonton, AB.
- COSEWIC. 2003. Assessment and update status report on the Atlantic cod *Gadus morhua* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa, ON. xi + 76 pp.
- COSEWIC. 2006. Assessment and update status report on the Atlantic walrus *Odobenus rosmarus rosmarus* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa, ON. ix + 65 pp.
- COSEWIC. 2009. COSEWIC assessment and update status report on the bowhead whale *Balaena mysticetus*, Bering-Chukchi- Beaufort population and Eastern Canada-West Greenland population, in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vii + 49 pp.
- CWS. 2010. Canadian Wildlife Service key migratory bird habitat sites in Nunavut. (Amended shape files provided to Nunami Jacques Whitford). March 22, 2010.
- DFO. 2002. Atlantic walrus. Science Stock Status Report E5-21 Department of Fisheries and Oceans.
- Dueck, L., S. Ferguson, B. Wheeler, S.P. Luque and M. Gilbert. (in press). Habitat use by bowhead whales of the eastern arctic Canada. *digitized by Nunami Stantec 2010.
- Ferguson, S.H. 1995. Wildlife areas of special interest to the Department of Renewable Resources. Wildlife Management Division, Department of Renewable Resources, Government of the Northwest Territories. Nunavut Wildlife Management Board version adapted from original 1987 publications. 80 pp. *digitized by Government of Nunavut 2005.
- Government of Nunavut. 2003. In reference to the Consolidation of Wildlife Management Muskox Areas Regulations R.R.N.W.T. 1990, c. W-11, as duplicated for Nunavut by s. 29 of the Nunavut Act. Department of Environment.
- Government of Nunavut. 2004a. Adapted from Uqrquhart, D.R. 1982. Muskox life history and current status of muskoxen in the NWT. Northwest Territories Renewable Resources Wildlife Service. Department of Environment. 39 pp.
- Government of Nunavut. 2004b. Adapted from Fournier, B. and A. Gunn, 1998. Muskox numbers and distribution in the Northwest Territories, 1997. Department of Resources, Wildlife and Economic Development File Report, No. 121. Department of Environment.



- Government of Nunavut. 2005a. Adapted from Case, 1992. Distribution and abundance of Muskoxen on Devon Island, NWT August 1990. Manuscript Report, No. 58. Department of Environment, Government of NWT. Yellowknife, NWT.
- Government of Nunavut. 2005b. Adapted from Case, R. and T. Ellesworth. Government of NWT, Yellowknife, 1991. Distribution and abundance of muskoxen and Peary caribou on Southern Ellesmere Island, NWT, July 1989: Manuscript Report, No. 41.
- Government of Nunavut, Department of Environment 2006. Adapted from the Government of Northwest Territories *Wildlife Act*.
- Government of Nunavut, Department of Environment. 'Caribou cow-calf locations and known calving areas in Nunavut.' Data from Government of Northwest Territories.
- Lancaster Sound Proposed National Marine Conservation Area. Shape provided by Parks Canada to Nunami Stantec. December 2010.
- Latour, P.B., J. Leger, J.E. Hines, M.L. Mallory, D.L. Mulders, H.G. Gilchrist, P.A. Smith and D.L. Dickson. 2006. Key migratory bird terrestrial habitat sites in the Northwest Territories and Nunavut. 3rd Edition. Canadian Wildlife Service Occasional Paper No. 114.
- Mallory, M.L. and A.J. Fontaine. 2004. Key marine habitat sites for migratory birds in Nunavut and the Northwest Territories. Canadian Wildlife Service Occasional Paper No. 109. *digital data provided by CWS, reproduced with permission of Environment Canada.
- Mercier, F., F. Rennie, D. Harvey and C.A. Lewis (Eds.). 1994. Arctic Marine Workshop Proceedings. Winnipeg, Manitoba. Park Establishment Branch, National Parks Directorate, Parks Canada Department of Canadian Heritage.
- National Historic Sites. Shapes provided by Parks Canada to Nunavut Planning Commission.
- National Parks. Shapes extracted by Nunavut Planning Commission from data provided by Parks Canada. 2010.
- Nettleship, D.N. and P.A. Smith. 1975. Ecological sites in northern Canada. Canadian Committee for the International Biological Programme. 330 pp. *digitized by Government of Nunavut 2005.
- Priest, H. and P.J. Usher. 2004. The Nunavut Wildlife Harvest Study. Final Report. Nunavut Wildlife Management Board. 822 pp.
- Richard, P.R., J.R. Orr, R. Dietz, and L. Dueck. 1998. Sightings of belugas and other marine mammals in the North Water, late March 1993. Arctic 51:1-4. *digitized by Nunami Stantec 2010.
- Scott, W.B. and E.J. Crossman. 1973. Freshwater Fishes of Canada. Bulletin of the Fisheries Research Board of Canada 184. xi + 966 pp.
- Stephenson, S.A. and Hartwig, L (Eds.). 2010. The Arctic Marine Workshop. Winnipeg, Manitoba. Freshwater Institute, Fisheries and Oceans Canada. Canadian Manuscript Report of Fisheries and Aquatic Sciences 2934. 67 pp. Shape files provided by DFO to Nunami Stantec. January 20, 2012.



Territorial Parks. Shapes provided by Government of Nunavut, Department of Environment to Nunavut Planning Commission.

Tuktut Nogait Proposed National Park. Shape provided by Parks Canada to Nunami Stantec.

Urquhart, D.R. and R.E. Schweinsburg. 1984. Polar bear life history and known distribution of polar bear in the Northwest Territories up to 1981. Northwest Territories Renewable Resources. Yellowknife NWT. 70 pp. *digitized by Government of Nunavut 2005.



APPENDIX D

Additional Information on Important Bird Habitat Areas from CWS

Appendix D Additional Information on Important Bird Habitat Areas from CWS



Coats Island Lowlands

62°46'N, 82°56'W

Size: 2669 km²

Description: Coats Island is located in northern Hudson Bay, approximately 100 km south of Coral Harbour on Southampton Island and 110 km west of Mansel Island. Coats Island lies at the north end of Hudson Bay, with an area of approximately 5500 km². Exposed outcroppings of Precambrian metamorphic rock dominate the northeast corner, while the remainder of the island is composed primarily of lowland tundra and exposed Palaeozoic sedimentary rocks (Heywood and Sanford 1976). Smaller areas of upland heath tundra, and raised beach deposits are also common across the island.

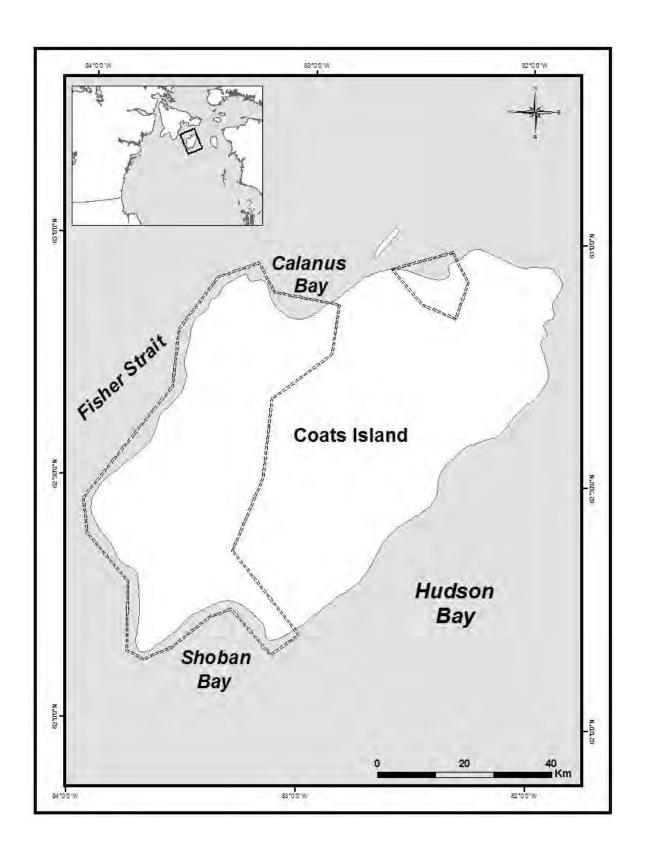
The key terrestrial habitat site comprises large tracts of wetlands on the western and northern parts of the island.

Biological value: A river drainage basin in the northeast, and an extensive area of productive wetlands on the west of the island contain high densities of shorebirds. Nine species of shorebirds and 12 other bird species were recorded during surveys in 2006. Survey results suggest that densities of shorebirds on Coats Island are significantly higher than on nearby Southampton Island. Semipalmated Sandpipers comprised over 50% of the shorebirds recorded; Red Phalaropes and Dunlin were also abundant. Habitat-specific densities show a strong association with wetlands for all species except the White-rumped Sandpiper.

Sensitivities: the well-vegetated wetlands that support the highest bird densities in the area are sensitive to physical disturbance, and recovery would be slow. Most bird species are sensitive to disturbance during nesting season, when human activity could seriously jeopardize their breeding success. Habitat changes due to climate warming in the arctic poses a potential risk to shorebird species that rely on wetlands for both food and nesting habitat.

Potential conflicts: None at the present time. However, moderate to high hydrocarbon potential has been identified in Fisher and Evans Strait, between Coats Island and Southampton Island. The community of Coral Harbour has requested that the current moratorium on oil and gas exploration in that area be lifted. The matter will be discussed in fall 2009 as part of the Nunavut General Land Use Plan planning process.

Status: A proposal to designate all or parts of Coats Island as a National Wildlife Area was turned down by the community of Coral Harbour. There are two bird research stations on the Island, one of which is within CWS' area of interest.



Eastern Axel Heiberg Island

79°52'N, 87°46'W

Size: 2222 km²

Description: The area of interest lies between Skraeling Point and Buchanan Lake, and extends inland from the coast approximately 30 km at its widest point. The area is centred on the Chain of Three Lakes, a lowland valley that lies between two gypsum domes north of Mokka Fiord. To the west is a broad wet north-south valley stretching between Gibs and Mokka fiords. At the watershed in this valley is an extensive area of patterned ground. The area north to the southern tip of the Schei Peninsula is also included.

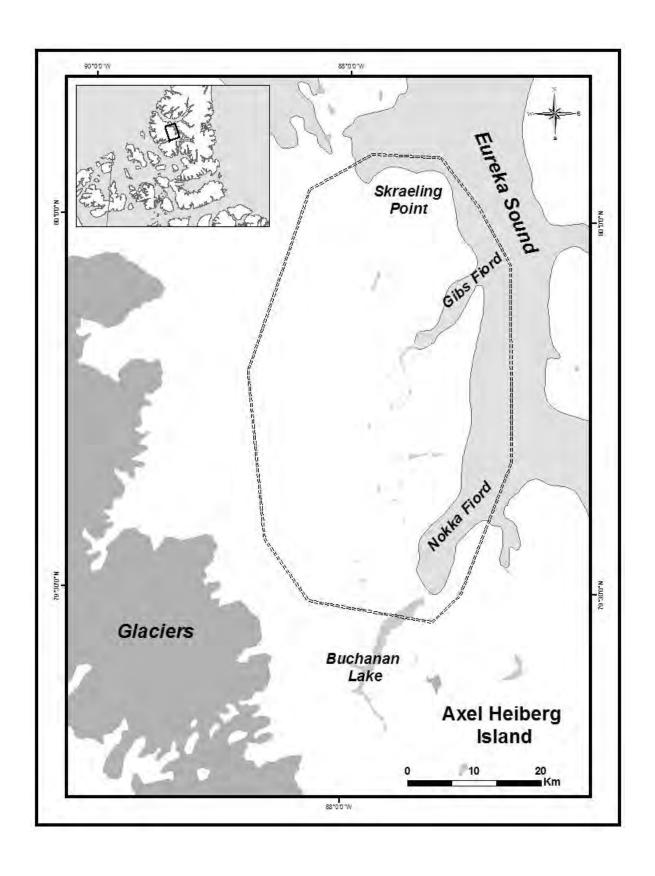
Biological Value: The valleys support rich sedge meadow vegetation. Slope are covedred with a Dryas-Salix community and the upper slopes are barrens. Valleys support a high density of shorebirds, particularly the Red Knot ssp. islandica (classified as 'vulnerable' by the Committee on the Status of Endangered Wildlife in Canada) and the Ruddy Turnstone. Other nesting shorebird species include Sanderling, Purple Sandpiper, and Red Phalarope. Other birds such as Greater Snow Goose, Red-throated Loon, and two species of Jaeger use the area.

The valleys are also extensively used by muskox and Peary caribou.

Sensitivities: Arctic-breeding shorebirds are dependent on wetlands for food and/or breeding habitat. Recent studies have documented drying of ponds on Ellesmere Island that is correlated to local climate warming.

Potential conflicts: none at present.

Status: The core of this area is recognized as the Chain of Three Lakes International Biological Program site.



Melbourne Island

68°29'N, 104°42'W

Size: 447 km²

Description: Melbourne Island is located in the Queen Maud Gulf, approximately 15 km west of the Kent Peninsula. Over 20% of Melbourne Island is covered in flat graminoid (mostly sedge) wetlands that frequently contain ponds and standing water. The rest of the island is dry graminoid or heath tundra and barren tundra.

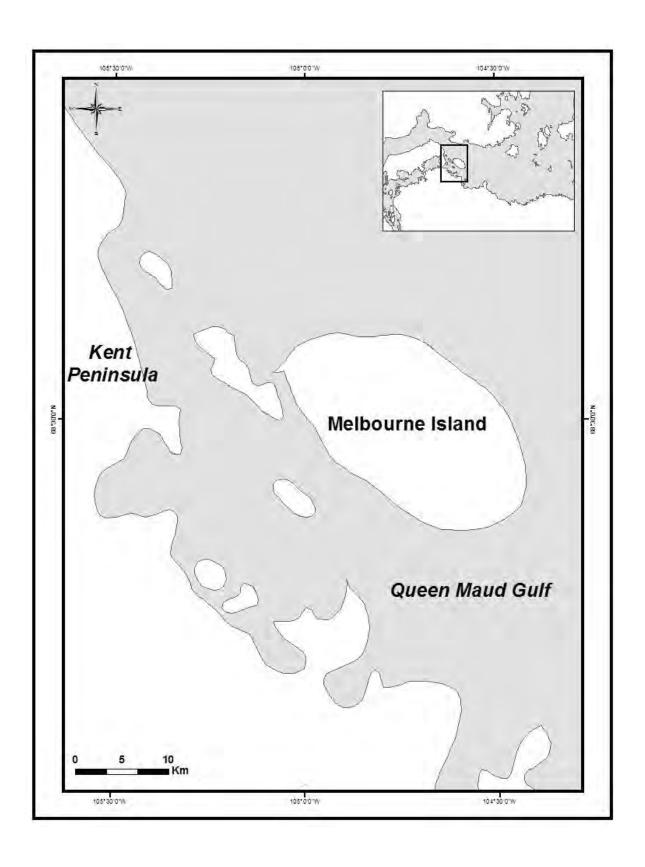
Biological value: The wetlands of Melbourne Island contain large numbers of White-fronted Geese and shorebirds. Twenty species of birds were observed there during surveys in 2001 and 2002, including significant densities of Dunlin, Stilt Sandpipers, and Red Phalaropes. The island's shorebird community is of particular significance because it contains both high- and low-arctic species while the adjacent Kent Peninsula and the Queen Maud Gulf mainland host primarily low arctic species.

Melbourne Island had roughly three times higher density of birds than does the Kent Peninsula or adjacent mainland.

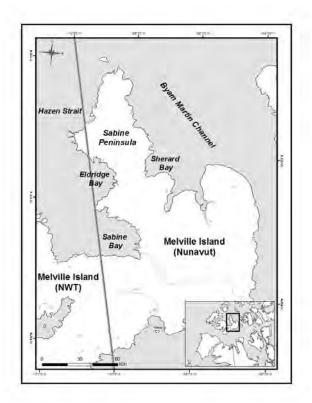
Sensitivities: Melbourne Island is located northeast of an area of intensive mineral exploration and development activity. There is potential for greatly increased ship traffic from the proposed Baffin Inlet Port and Road Project, and from an increasingly lengthy ice-free season in Coronation Gulf and Queen Maud Gulf. This increases the potential for human-induced disturbance to nesting birds, and the potential for marine based pollution (e.g. plastics and petroleum products).

Potential conflicts: An increase in marine ship traffic could impact negatively on the nesting bird population on Melbourne Island.

Status: none



SABINE PENINSULA, Melville Island





What is important here?

- Rich wetland that spans the Peninsula, Sherard Bay to Eldridge Bay
- High numbers and diversity of birds this far north

Why is it important?

 One of a limited number of wetland 'oases' in the High Arctic

Of special consideration

 Intense oil and gas activity on Sabine Peninsula in the past: could it happen again?