

Appendices

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APPENDIX 1 BENTHIC, MULTICELLULAR ALGAE REPORTED FROM HUDSON BAY AND JAMES BAY

Footnotes and symbol explanations are located at the end of Appendix 1 on page A-6.

SPECIES	JAMES BAY MARINE REGION		HUDSON BAY MARINE REGION	COMMENTS ON OCCURRENCE
	James Bay	southeastern Hudson Bay		
Cl. Chlorophyceae (green algae) - multicellular, attached and macroscopic				
<i>Chlorochytrium dermatocolax</i> Reinke	L			
<i>Chlorochytrium moorei</i> Gard			BC	
<i>Chaetomorpha melagonium</i> (Web. and Mohr) Kütz			BC	intertidal to 25 m depth, attached to rocks or loose-lying.
<i>Cladophora</i> sp.	BC,La	BC		at depths of 2-15 m on rocks or loose-lying, sometimes with eelgrass.
<i>Cladophora kuetzingiana</i> Grunow in Rabenhorst		BC	Wc	brackish lagoon.
<i>Enteromorpha ahlnerana</i> Blid.	*			
<i>Enteromorpha clathrata</i> (Roth) Grev.		BC		
<i>Enteromorpha compressa</i> (L.) Grev.		S	BM	enclosed bays or tidal estuaries.
<i>Enteromorpha crinita</i> (Roth) J. Ag.	SC			
<i>Enteromorpha flexuosa parasoxa</i> (Dillw.) Blid.	H,L			intertidal at Ekwan R.,subtidal at the 5-6 m depth at Charlton I.
<i>Enteromorpha groenlandica</i> (J. Ag.) Setch.& Gard.		BC		
<i>Enteromorpha intestinalis</i> (L.) Link.	SC,BM,BC,L	BC	BM,Wc	on intertidal boulders at Ekwan R.; enclosed bays or tidal estuaries.
<i>Enteromorpha prolifera</i> (O.F. Müll.) J. Ag.	H,BM,BC,L	BC		on intertidal boulders and free-floating at Ekwan R.
<i>Percursaria percursa</i> (C. Ag.) Rosenv.		BC		intertidal on rocks.
<i>Rhizoclonium riparium</i> (Roth.) Harv.	*,D,La			intertidal on cobbles pebbles often with eelgrass.
<i>Spongomorpha arcta</i> (Dillw.) Kütz.	BC			
<i>Ulothrix</i> sp.	BC	BC		
<i>Ulva flacca</i> (Dillw.) Thuret in Le Jolis			Wc	rocky tidal pools.
<i>Ulva lactuca</i> L.	SC,BC			
Cl. Phaeophyceae (brown algae) - largest algae, multicellular, superficially resemble higher plants.				
<i>Agarum cribrosum</i> (Mert.) Bory	SC			on rocks at 5-35 m depth [O].
<i>Agarum turneri</i> Post. And Rupr.			BM,SC	deep water.
<i>Alaria esculenta</i> (L.) Grev.	*		BM,Wc,Ws	sublittoral zone, 3-20 m depth on rocks and shells [O].
<i>Asperococcus fistulosus</i> (Huds.) Hook.	BC			
<i>Ascophyllum nodosum</i> (L.) Le Jol.	D,La			
<i>Chaetopteris plumose</i> Kütz.			SC	deep water.
<i>Chorda filum</i> (L.) Stackh.	SC,D,La	H,BC		2-9 m depth on rocks and bivalves, often with eelgrass [O].
<i>Chorda tomentosa</i> Lyngb.		H,BC		2-9 m depth on rocks, <i>Fucus</i> , and bivalves.
<i>Chordaria flagelliformis</i> (O.F. Müll.) C. Ag.	SC,H,BC,La	H,BC		low intertidal to 18 m depth on rocks, bivalves, other algae and eelgrass.
<i>Cladosiphon zosterae</i> (J. Ag.) Kylin	BC			
<i>Coilodesme bulligera</i> Strömf.		BC		
<i>Desmarestia aculeata</i> (L.) Lamour.	SC	BC	BM,Wc,SC	1-25 m depth on rocks or loose-lying on mud; in Hudson Bay deep water, common.

SPECIES	JAMES BAY MARINE REGION		HUDSON BAY MARINE REGION	COMMENTS ON OCCURRENCE
	James Bay	southeastern Hudson Bay		
<i>Desmotrichum undulatum</i> (J. Ag.) Rinncke	H			2-15 m depth on rocks or other algae [R].
<i>Dictyosiphon foeniculaceus</i> (Huds.) Grev.	H,BC	BC	BM	2-18 m depth on rocks, other algae, and possibly as loose-lying populations [F].
<i>Dictyosiphon chordaria</i> Aresch		BC		
<i>Ectocarpus siliculosus</i> (Dillw.) Lyngb.	H,BC	H,BC		at depth of 2-9 m on <i>Fucus</i> [F].
<i>Elachista fucicola</i> (Vell.) Aresch.	SC,BC	H,BC,L		2-30 m depth, epiphytic on other algae [F].
<i>Elachista lubrica</i> Rupr.	*	BC		
<i>Eudesme virescens</i> (Carm. ex Harv. in Hook) J. Ag.		H,BC		2-6 m depth on rocks [R].
<i>Fucus distichus</i> (L.)	D, La			
<i>Fucus distichus edentatus</i> (Pyl.) Powell	SC,S,BC	RI,BC		intertidal on rocks [F].
<i>Fucus distichus evanescens</i> (C. Ag.) Powell	H,BC,L	H,BC	BM,SC	intertidal to 10 m depth on rocks [F]; dwarf form.
<i>Fucus vesiculosus</i> (L.)			BM,Ws	
<i>Halopteris scoparia</i> (L.) Sauv.		BC		
<i>Haplospora globosa</i> Kjellm.		H		floating in Long Island Sound, generally loose-lying or attached to rocks at depth of 2-20 m.
<i>Laminaria agardhii</i> Kjellm.			BM	sublittoral zone to deep water.
<i>Laminaria digitata</i> Lamour.			BM	deep water.
<i>Laminaria longicuris</i> Pyl.		BC	BM	3-14 m depth on rocks [O]; in Hudson Bay deep water in sheltered places.
<i>Laminaria saccharina</i> (L.) Lamour	BM,BC	BC		3-14 m on rocks, pebbles, and shells [F].
<i>Lithoderma</i> sp.		BC		
<i>Litosiphon filiformis</i> (Reinke) Batt.		BC		epiphytic on <i>Laminaria</i> .
<i>Myriomema strangulans</i> Grev.	H			18 m depth at Grey Goose I.
<i>Pylaiella littoralis</i> (L.) Kjellm.	BC,L	BC,L	BM,Wc	intertidal to 15 m depth on rocks, ascidians, and other algae (e.g., <i>Fucus</i>) [F].
<i>Ralfsia fungiformis</i> (Gunn.) Setch. and Gard.	H			3-10 m depth on rocks and <i>Laminaria</i> .
<i>Petalonia fascia</i> (O.F. Müll.) Kuntze	H	H		5-18 m depth in James Bay.
<i>Scytosiphon lomentaria</i> (Lyngb.) Link		BC		
<i>Sphacelaria cirrosa</i> (Roth) C. Ag.		H		18 m depth at Grey Goose I.
<i>Sphacelaria plumosa</i> Lyngb.	SC,H,BC,L	H,BC		20-30 m depth on rocks, <i>Ahnfeltia plicata</i> , and <i>Laminaria</i> , also intertidal on pebbles [F].
<i>Sphacelaria radicans</i> (Dillw.) C. Ag.		H		at 18 m depth in SE. Hudson Bay.
<i>Sphaerotrichia divaricata</i> (C. Ag.) Kylin		BC		
<i>Stictosiphon subsimplex</i> Hold		BC		
<i>Stictosiphon tortilis</i> (Rupr.) Reinke	H	H		4-20 m depth, loose-lying or on rocks, <i>Laminaria</i> , or <i>Fucus</i> [F].
Cl. Rhodophyceae (red algae) - multicellular, attached, relatively large.				
<i>Ahnfeltia plicata</i> (Huds.) Fries	SC,H,BM,BC	H,S,BC		3-18 m depths on rocks and loose-lying, also intertidal in Hudson Bay.
<i>Antithamnion</i> sp.			BM	
<i>Antithamnion boreale</i> (Gobi) Kjellm	SC,H	H		2-15 m depths on rocks, hydroids, and other algae [O].

SPECIES	JAMES BAY MARINE REGION		HUDSON BAY MARINE REGION	COMMENTS ON OCCURRENCE
	James Bay	southeastern Hudson Bay		
<i>Clathromorphum compactum</i> (Kjellm.) Foslie		H		2-15 m depths on rocks and shells of limpets and bivalves [O].
<i>Clathromorphum circumscriptum</i> (Strömf.)		BC		
<i>Delesseria sinuosa</i> (Good and Wood.)			BM	
<i>Dumontia incrassata</i> (O.F. Müll.) Lamour.	H			3-5 m depths on mud [R].
<i>Erythrotrichia carnea</i> (Dillw.) J. Ag.	H			5-6 m depths at Charlton I.
<i>Euthora cristata</i> (L.) J. Ag.			SC	
<i>Harveyella mirabilis</i> (Dillw.) J. Ag.	SC			2-35 m depths, parasitic on <i>Rhodomela lycopodioides</i> [O].
<i>Lithothamnium</i> sp.			BM	
<i>Lithothamnium glaciale</i> Kjellm.		H		2-15 m on rocks [O].
<i>Lithothamnium lemoineae</i> Adey		BC		
<i>Membranoptera alata</i> Huds.) Stackh.	SC			
<i>Neodilsea integra</i> Kjell.,) A. Zin.	BC,L	H,BC		2-25 m on rocks or loose-lying on mud [F].
<i>Odonthalia dentata</i> (L.) Lyngb.	H,BM,BC,L	H,BC	BM,SC	15 m to shallower depths on rocks and loose-lying on mud [O].
<i>Odonthalia floccosa</i> (Esper.) Falk.	*			
<i>Palmaria palmata</i> (L.) O. Kuntze	SC,H,BM,BC			2-5 m on rocks, <i>Fucus</i> , and <i>Laminaria</i> [O].
<i>Peyssonelia johansenii</i> Howe	H			"on stones at low tide".
<i>Phycodrys rubens</i> (L.) Batt.	SC,H,BM,BC	H,BC		2-25 m depths on rocks or other algae.
<i>Phyllophora brosiaei</i> f. pygmaea Darb.?			BM	
<i>Phyllophora truncata</i> (Pallas) A. Zin.	SC	H		2-25 m depths loose-lying on mud or attached to rocks, <i>Laminaria</i> , or polychaete cases, usually in dense populations [F].
<i>Phymatolithon laevigatum</i> (Fosl.) Fosl.		H		
<i>Polyides rotundus</i> (Huds.) Grev.	BC			
<i>Polysiphonia</i> sp.			BM	
<i>Polysiphonia arctica</i> J. Ag.	H,BC	H,BC		2-30 m depths on rocks, other algae, or loose-lying on mud [F].
<i>Polysiphonia nigrescens</i> (Huds.) Grev.	BC	BC		
<i>Polysiphonia ureolata</i> (Light. ex Dillw.) Grev.	H,BC	BC	BM	5 m depths at Charlton Island.
<i>Porphyra laciniata</i> (Lightf.) Ag.			BM	
<i>Ptilota pectinata</i> (Gunn.) Kjellm. = <i>P. serrata</i>	SC		BM,SC	
<i>Rhodochorton</i> sp.	BC			
<i>Rhodomela confervoides</i> (Huds.) Silva	BC	BC		
<i>Rhodomela lycopodioides</i> (L.) C. Ag.	SC,H,BC,L	H,BC		2-35 m depths on rocks or, less commonly, other algae, or loose-lying on mud [F].
<i>Rhodomela subfusca</i> (Woodw.) Ag.			SC	
<i>Rhodymenia palmate</i> (L.) Grev.			BM	
<i>Turnerella pennyi</i> (Harv.) Schm.		H		7-25 m on rocks [O].
Cl. Xanthophyceae (yellow-green algae) filamentous				
<i>Vaucheria</i> sp.		BC		

References and collections:

SC = Setchell and Collins 1908 (JAMES BAY: general area; HUDSON BAY: Depot Island).

H = Howe 1927 (JAMES BAY: Charlton Island, Grey Goose Island, Old Factory Bay, Halfway Point; SOUTHEASTERN HUDSON BAY: Richmond Gulf, between Richmond Gulf and Great Whale River, between Otsaka Harbour and Black Whale Harbour, and Long Island Sound).

BM = Bell and MacFarlane 1933 (JAMES BAY: Charlton Island; HUDSON BAY: no specific locations).

W = Whelden 1947 (HUDSON BAY: Chesterfield Inlet=Wc, Southampton Island=Ws).

BC = Breton-Provencher and Cardinal 1978 (JAMES BAY: Rupert Bay, Eastmain Estuary; SOUTHEASTERN HUDSON BAY: Manitounuk Sound).

* = Breton-Provencher and Cardinal 1978 (JAMES BAY: general area; collector not listed).

L = Lee 1980 (JAMES BAY: Ekwan River, Moose River, and Swan River).

La = Lalumière et al. 1994 (JAMES BAY: La Grande River area).

S = Savile in Lee 1980 (SOUTHEASTERN HUDSON BAY: Great Whale River area).

RI = Riley in Lee 1980 (JAMES BAY: Moose River area).

D = Dignard et al. 1991 (JAMES BAY: eastern James Bay).

Frequency of occurrence in collections:

Designations follow Lee (1980) except where Breton-Provencher and Cardinal (1978) found species to occur in more than 40% of the stations sampled in the region, in which case the frequency of occurrence was changed from occasional to frequent.

[R] = rare

[O] = occasional

[F] = frequency

**APPENDIX 2 A PARTIAL LISTING OF INVERTEBRATES AND UROCHORDATES OF
THE JAMES BAY, HUDSON BAY, HUDSON STRAIT, AND FOXE BASIN MARINE
REGIONS. UPDATED FROM STEWART et al. (1993).**

Symbols are explained, and references listed, at the end of the Appendix 2 on page A-28.

Species	James Bay (includes S.E. Hudson Bay)	Hudson Bay	Hudson Strait	Foxe Basin
ANNELIDA: Oligochaeta				
<i>Amphichaeta leydigi</i>	-	P	-	-
<i>Bratislavia unidentata</i>	-	P	-	-
<i>Chaetogaster diaphanus</i>	-	P	-	-
¹ <i>Limnodrilus hoffmeisteri</i>	-	P	-	-
¹ <i>Limnodrilus udekemaianus</i>	-	P	-	-
<i>Limnodrilus profundicola</i>	-	P	-	-
<i>Nais behningi</i>	-	P	-	-
<i>Nais communis</i>	-	P	-	-
<i>Nais pseudobtusa</i>	-	P	-	-
<i>Nais simplex</i>	-	P	-	-
<i>Nais variabilis</i>	-	P	-	-
<i>Paranais litoralis</i>	-	P	-	-
<i>Pristina aequisetata</i>	-	P	-	-
<i>Slavina appendiculata</i>	-	P	-	-
<i>Specaria josinae</i>	-	P	-	-
<i>Tasserkidrilus kessleri</i>	-	P	-	-
<i>Tubifex tubifex</i>	-	P	-	-
<i>Uncinaiis uncinata</i>	-	P	-	-
<i>Vejdovskyella intermedia</i>	-	P	-	-
ANNELIDA: Polychaeta				
<i>Aglaophamus malmgreni</i> Theel	P	-	P	-
<i>Aglaophamus neotenus</i> Noyes	P	-	-	-
<i>Aglaophamus rubella</i> (Hartman)	P	-	-	-
<i>Ammotrypane aulogaster</i>	-	P	P	P
<i>Ammotrypane breviata</i>	-	-	P	-
<i>Ammotrypane cylindricaudatus</i>	-	P	-	-
<i>Ampharete acutifrons</i>	P	P	P	-
<i>Ampharete goesi</i>	-	-	P	-
<i>Amphicteis sundevalli</i>	P	-	-	-
<i>Amphitrite cirrata</i>	-	P	P	-
<i>Amphitrite groenlandica</i>	-	P	-	-
<i>Amphitrite johnstoni</i>	-	P	-	-
<i>Anobothrus gracilis</i>	-	P	-	-
<i>Antinoella badia</i>	P	P	-	-
<i>Antinoella sarsi</i>	P	-	-	P
<i>Arenicola marina</i> (Linnaeus)	-	P	P	-
<i>Aricidea catherinae</i> (McIntosh)	-	-	P	-
<i>Aricidea suecica</i> Eliason	P	-	P	-
<i>Artacama proboscidea</i>	P	P	P	-
<i>Asabellides sibirica</i>	P	-	P	-
<i>Asabellides</i> sp.	-	P	-	-
<i>Autolytus alexandri</i>	-	P	-	-
<i>Autolytus prismaticus</i> O.F. Muller	P	-	-	-
<i>Autolytus prolifer</i>	-	-	P	-
<i>Axiiothella catenata</i>	-	P	P	-

Species	James Bay (includes S.E. Hudson Bay)	Hudson Bay	Hudson Strait	Foxe Basin
<i>Capitella capitata</i> (Fabricius)	P	P	P	-
<i>Ceratocephala loveni</i> Malmgren	-	-	P	-
<i>Chaetozone setosa</i>	P	-	P	P
<i>Chaetozone</i> sp.	-	P	-	-
<i>Chitinopoma fabricii</i>	-	-	P	P
<i>Chone duneri</i> Malmgren	-	-	P	-
<i>Chone infundibuliformis</i> Kroyer	-	P	P	-
<i>Chone</i> sp.	P	-	-	P
<i>Cirratulus cirratus</i>	-	P	-	-
<i>Cossura longocirrata</i>	P	P	-	-
<i>Diplocirrus glaucus</i>	P	-	-	-
<i>Ephesiella minuta</i>	-	-	P	-
<i>Ephesiella peripatus</i>	P	-	-	-
<i>Eteone flava</i> (Fabricius)	-	-	P	-
<i>Eteone longa</i> (Fabricius)	P	P	P	P
<i>Euchone analis</i>	-	P	-	P
<i>Euchone incolor</i> Hartman	-	-	P	-
<i>Euchone papillosa</i>	P	P	P	P
<i>Eucranta villosa</i>	-	P	-	-
<i>Eulalia</i> sp.	-	P	-	-
<i>Eumida</i> sp.	-	P	-	-
<i>Euphrosine borealis</i> Oersted	-	P	P	-
<i>Eusyllis blomstrandii</i>	-	P	P	P
<i>Exogone verugera</i> (Claparede)	P	-	P	-
<i>Fabricia sabella</i>	-	-	P	-
<i>Flabelligera affinis</i> M. Sars	-	P	-	P
<i>Gattyana cirrosa</i>	-	P	P	P
<i>Glycera capitata</i> Oersted	-	-	P	-
<i>Harmothoe extenuata</i> (Grube)	P	P	P	P
<i>Harmothoe imbricata</i> (Linnaeus)	P	P	P	P
<i>Harmothoe nodosa</i> (G.O. Sars)	-	P	P	P
<i>Heteromastus</i> sp.	P	-	-	-
<i>Lagisca rarispina</i> (G.O. Sars)	-	P	-	-
<i>Lanassa venusta</i>	P	P	P	P
<i>Laonice cirrata</i>	-	P	-	-
<i>Laonome kroyeri</i>	P	-	-	-
<i>Leaena abbranchiata</i>	-	-	-	P
<i>Leiochone polaris</i>	P	-	-	-
<i>Lepidametria commensalis</i>	-	P	-	-
<i>Lepidonotus</i> sp.	-	P	-	-
<i>Lumbrineris fragilis</i> (O.F. Muller)	P	P	P	-
<i>Lumbrineris impatiens</i> (Claparede)	-	-	P	-
<i>Lumbrineris latreilli</i> (Audouin & Milne-Edwards)	-	-	P	-
<i>Lumbrineris minuta</i> Theel	P	P	P	-
<i>Lysilla loveni</i>	-	P	-	-
<i>Lysippe labiata</i>	-	-	P	-
<i>Maldane sarsi</i> Malmgren	P	P	P	-
<i>Manayunkia aestuarina</i>	-	P	-	-
<i>Melinna cristata</i> (M. Sars)	P	P	-	-
<i>Micronephthys minuta</i>	P	-	P	P
<i>Myriochele heeri</i>	-	P	-	-
<i>Myriochele oculata</i> Zachs	P	P	P	-
<i>Mystides borealis</i>	P	-	-	P

Species	James Bay (includes S.E. Hudson Bay)	Hudson Bay	Hudson Strait	Foxe Basin
<i>Nephtys ciliata</i> O.F. Muller	P	P	P	P
<i>Nephtys longosetosa</i> Oersted	-	P	-	-
<i>Nephtys paradoxa</i>	-	P	-	-
<i>Nereimyra aphroditoides</i>	P	-	P	P
<i>Nereis pelagica</i> (Linnaeus)	-	P	P	P
<i>Nereis virens</i>	-	P	-	-
<i>Nereis zonata</i> Malmgren	-	P	P	-
<i>Nichomache lumbricalis</i> (Fabricius)	-	P	P	-
<i>Nichomache quadrispinata</i>	-	P	-	-
<i>Nicolea zostericola</i>	P	P	P	-
<i>Notomastus latericeus</i>	P	P	-	-
<i>Onuphis conchylega</i> (M. Sars)	-	P	P	P
<i>Ophelia aulogaster</i> Rathke	-	-	P	-
<i>Ophelia cylindrocaudata</i> A. Hansen	-	-	P	-
<i>Ophelia limacina</i> (Rathke)	-	P	P	-
<i>Ophryotrocha littoralis?</i>	-	P	-	-
<i>Owenia fusiformis</i>	-	P	P	-
<i>Owenia oculata</i> Zachs	-	-	P	-
<i>Paraonis</i> sp.	P	-	P	-
<i>Pectinaria granulata</i> (Linnaeus)	P	P	P	-
<i>Pectinaria hyperborea</i> Malmgren	P	P	P	P
<i>Petaloproctus tenuis</i>	P	P	P	-
<i>Pherusa plumosa</i>	-	P	-	-
<i>Pholoe minuta</i>	P	P	P	P
<i>Phyllodoce groenlandica</i> Oersted	-	P	P	-
<i>Phyllodoce mucosa</i>	-	-	P	-
<i>Pionosyllis compacta</i>	-	P	P	P
<i>Pista maculata</i> (Dalyell)	P	P	-	P
<i>Polycirrus medusa</i>	-	-	P	P
<i>Polydora caeca</i>	P	-	-	-
<i>Polydora caulleryi</i>	-	-	P	-
<i>Polydora quadrilobata</i>	-	-	P	-
<i>Polydora</i> sp.	-	P	-	P
<i>Potamilla neglecta</i> (Sars)	-	-	P	-
<i>Praxillella praetermissa</i> (Malmgren)	-	P	P	-
<i>Prionospia cirrifera</i> Wiren	-	-	P	-
<i>Prionospia steenstrupi</i> Malmgren	P	-	P	-
<i>Proceraea</i> sp.	-	P	-	-
<i>Proclea graffi</i>	-	-	-	P
<i>Pygospio elegans</i>	-	P	P	P
<i>Rhodine gracilior</i> (Tauber)	P	-	P	-
<i>Sabella crassicornis</i>	P	-	P	-
<i>Sabellides borealis</i>	P	P	-	-
<i>Sabellides octocirrata</i>	P	-	P	P
<i>Scalibregma inflatum</i> Rathke	P	P	P	-
<i>Scolecopsis</i> sp.	P	-	-	-
<i>Scoloplos armiger</i> (O.F. Muller)	P	P	P	-
<i>Sphaerodorium gracile</i> (Rathke)	-	-	P	-
<i>Spio</i> sp.	-	P	-	-
<i>Spio filicornis</i>	P	-	-	-
<i>Spirorbis granulatus?</i>	-	P	-	-
<i>Spirorbis spirillum</i> (Linnaeus)	-	P	P	P
<i>Stauronereis caecus</i>	-	-	P	-

Species	James Bay (includes S.E. Hudson Bay)	Hudson Bay	Hudson Strait	Foxe Basin
<i>Syllis cornuta</i> Rathke	-	-	P	-
<i>Syllis fasciata</i>	-	P	P	P
<i>Syllis gracilis</i> Grube	-	-	P	-
<i>Tauberia gracilis</i> Tauber	-	-	P	-
<i>Terebellides stroemi</i> M. Sars	P	P	P	-
<i>Tharyx acutus</i>	P	P	P	P
<i>Thelepus cincinnatus</i>	-	-	P	P
<i>Travisia forbesi</i>	-	-	P	-
<i>Travisia</i> sp.	-	P	-	-
ARTHROPODA: Amphipoda				
<i>Acanthonotozoma cristatum</i>	-	-	-	P
<i>Acanthonotozoma inflatum</i> (Kroyer)	P	P	P	P
<i>Acanthonotozoma serratum</i> (O. Fabr.)	-	-	P	P
<i>Acanthonotozoma</i> sp.	-	P	-	-
<i>Acanthostepheia malmgreni</i>	P	P	P	P
<i>Aceroides latipes</i> G.O. Sars	P	-	P	P
<i>Aceros phyllony</i>	P	-	-	-
<i>Andaniexis abyssii</i>	-	P	-	-
<i>Aeginina longicornis</i> (Kroyer)	-	-	P	P
<i>Ampelisca eschrichti</i> Kroyer	P	P	P	P
<i>Ampelisca latipes</i> Stephensen	-	-	P	-
<i>Ampelisca macrocephala</i> Lilljeborg	P	P	P	-
<i>Amphithopsis longicaudata</i> Boeck	P	-	P	-
<i>Anonyx affinis</i>	-	-	P	P
<i>Anonyx compactus</i> Gurjanova	-	P	-	-
<i>Anonyx laticoxae</i> Gurjanova	-	P	P	P
<i>Anonyx lilljeborgi</i> Boeck	-	P	P	P
<i>Anonyx makarovi</i>	P	-	P	P
<i>Anonyx nugax</i> (Phipps)	P	P	P	P
<i>Anonyx pacificus</i> Gurjanova	-	P	-	-
<i>Anonyx sarsi</i> Steele and Brunel	P	P	P	P
<i>Apherusa glacialis</i> H.J. Hansen	-	P	P	P
<i>Apherusa megalops</i> (Buchholtz)	-	P	P	P
<i>Arctopleustes glabricauda</i>	-	P	P	-
<i>Argissa hamatipes</i>	-	-	-	P
<i>Aristias tumidus</i> (Kroyer)	-	-	P	P
<i>Arrhinopsis longicornis</i>	-	-	-	P
<i>Arrhis phyllonyx</i> (M. Sars)	P	-	P	-
<i>Atylus carinatus</i> (Fabricius)	P	-	P	P
<i>Atylus smitti</i>	-	-	P	P
<i>Atylus</i> sp.	-	P	-	-
<i>Bathymedon obtusifrons</i> (H.J. Hansen)	-	-	P	P
<i>Boeckosimus affinis</i>	P	-	P	-
<i>Boeckosimus edwardsi</i> (Kroyer)	P	P	P	P
<i>Boeckosimus normani</i>	-	P	-	-
<i>Boeckosimus plautus</i>	P	P	P	P
<i>Byblis gaimardi</i> (Kroyer)	P	P	P	P
<i>Calliopius laeviusculus</i> (Kroyer)	P	P	P	-
<i>Calliopius rathkei</i>	P	P	-	-
<i>Caprella linearis</i>	-	-	-	P
<i>Caprella septentrionalis</i> (Kroyer)	P	P	P	P
<i>Caprella</i> sp.	-	P	-	-

Species	James Bay (includes S.E. Hudson Bay)	Hudson Bay	Hudson Strait	Foxe Basin
<i>Centromedon pumilus</i>	-	-	-	P
<i>Corophium clarencense</i>	-	P	-	-
<i>Corophium crassicorne</i> Burzelius	P	-	-	-
<i>Dulichia arctica</i>	P	-	-	-
<i>Dulichia porrecta</i> (Bate)	P	P	P	-
<i>Dulichia spinosissima</i> Kroyer	P	-	-	P
<i>Dulichia ? tuberculata</i> Boeck	-	-	P	-
<i>Dyopedos hirticornis</i>	-	-	-	P
<i>Dyopedos monacanthus</i>	P	-	-	-
<i>Dyopedos porrectus</i>	P	P	P	-
<i>Erichthonius tolli</i> Bruggen	P	P	P	P
<i>Eurystheus melanops</i> (G.O. Sars)	-	P	P	P
<i>Eusirus cuspidatus</i> Kroyer	P	P	P	P
<i>Gammaracanthus loricatus</i> (Sabine)	P	P	P	P
<i>Gammarellus homari</i> (J.C. Fabr.)	-	P	P	-
<i>Gammaropsis maculata</i>	-	P	P	P
<i>Gammarus oceanicus</i> Segerstrale	P	P	P	P
<i>Gammarus setosus</i> Dementieva	P	P	P	P
<i>Gammarus wilkitzkii</i> Birula	P	P	P	P
<i>Gitanopsis arctica</i> G.O. Sars	-	P	P	-
<i>Goesia depressa</i> (Goes)	-	-	P	-
<i>Guernia nordenskioldi</i> (H.J. Hansen)	-	-	P	-
<i>Halegonis</i> sp.	-	P	P	-
<i>Halirages fulvocinctus</i> (M. Sars)	P	P	P	P
<i>Halirages mixtus</i> Stephensen	-	-	P	-
<i>Halirages nilssoni</i>	P	-	P	P
<i>Haliragoides inermis</i> (Sars)	P	P	-	-
<i>Haploops laevis</i>	P	-	-	-
<i>Haploops setosa</i> Boeck	P	-	P	P
<i>Haploops tubicola</i> Lilljeborg	P	P	P	P
<i>Harpinia serrata</i>	-	P	-	-
<i>Hippomedon abyssii</i>	P	P	-	-
<i>Hippomedon propinquus</i>	P	-	-	-
<i>Hyperia galba</i> (Montague)	P	P	P	-
<i>Hyperia medusarum</i> (O.F. Muller)	P	-	P	-
<i>Hyperia spingera</i> Bovallius	-	-	P	-
<i>Hyperoche medusarum</i> (Kroyer)	P	P	P	-
<i>Ischyrocerus anguipes</i> Kroyer	P	P	P	P
<i>Ischyrocerus assimilis</i>	P	-	-	-
<i>Ischyrocerus commensalis</i> Chevreux	P	-	P	-
<i>Ischyrocerus inaequistylis</i>	-	P	-	-
<i>Ischyrocerus latipes</i> Kroyer	P	P	P	P
<i>Ischyrocerus latipes</i> var <i>assimilis</i>	-	-	P	-
<i>Ischyrocerus megacheir</i> (Boeck)	-	P	P	-
<i>Ischyrocerus megalops</i> G.O. Sars	P	P	P	P
<i>Ischyrocerus nanoides</i> (H.J. Hansen)	-	-	P	-
<i>Ischyrocerus stephenseni</i>	-	-	-	-
<i>Jassa</i> sp.	P	-	-	-
<i>Laetmatophilus armatus</i> (Norman)	-	-	P	-
<i>Lysianopsis</i> sp.	-	P	-	-
<i>Maera loveni</i>	-	-	-	P
<i>Melita formosa</i>	P	-	-	P
<i>Melita dentata</i> (Kroyer)	P	P	P	-

Species	James Bay (includes S.E. Hudson Bay)	Hudson Bay	Hudson Strait	Foxe Basin
<i>Melita quadrispinosa</i>	-	-	-	P
<i>Melphidippa goesi</i>	-	P	-	P
<i>Melphidippa</i> sp.	P	-	-	-
<i>Mesometopa neglecta</i>	-	-	P	P
<i>Metacaprella horrida</i>	-	-	-	P
<i>Metopa alderi</i> (Sp. Bates)	-	-	P	-
<i>Metopa borealis</i> (G.O. Sars)	-	P	P	-
<i>Metopa bruzelii</i> (Goes)	P	P	P	P
<i>Metopa cariana</i> Gurjanova	-	-	P	-
<i>Metopa clypeata</i>	-	-	P	-
<i>Metopa glacialis</i>	-	-	P	P
<i>Metopa hearni</i> Dunbar	-	-	P	-
<i>Metopa invalida</i> G.O. Sars	P	P	P	-
<i>Metopa longicornis</i> Boeck	-	-	P	-
<i>Metopa longirama</i> Dunbar	-	-	P	-
<i>Metopa nordmanni</i> Stephensen	-	-	P	-
<i>Metopa norvegica</i> (Lillj.)	-	-	P	-
<i>Metopa propinqua</i> G.O. Sars	-	-	P	-
<i>Metopa robusta</i>	-	-	P	-
<i>Metopa sinuata</i> G.O. Sars	-	-	P	-
<i>Metopella angusta</i>	-	P	-	-
<i>Metopella carinata</i> (H.J. Hansen)	-	-	P	P
<i>Metopella longimana</i> (Boeck)	-	-	P	P
<i>Metopella nasuta</i> (Boeck)	-	-	P	-
<i>Metopella neglecta</i> (H.J.Hansen)	-	-	P	-
<i>Metopelloides micropalma</i>	-	-	P	-
<i>Metopelloides zernovi</i>	-	-	P	-
<i>Monoculodes boeckii</i>	-	-	-	P
<i>Monoculodes borealis</i>	-	P	-	P
<i>Monoculodes edwardsi</i> Holmes	P	-	P	-
<i>Monoculodes intermedius</i>	-	-	-	P
<i>Monoculodes latimanus</i> (Goes)	-	P	P	P
<i>Monoculodes longirostris</i> (Goes)	-	-	P	-
<i>Monoculodes schneideri</i>	-	-	-	P
<i>Monoculodes simplex</i>	-	-	-	P
<i>Monoculodes tuberculatus</i> Boeck	-	-	P	P
<i>Monoculodes vabei</i>	-	P	-	P
<i>Monoculodes zernovi</i>	-	-	-	P
<i>Monoculopsis longicornis</i>	P	P	-	P
<i>Neohela maxima</i>	P	P	-	-
<i>Neopleustes assimilus</i>	P	-	-	-
<i>Neopleustes boeckii</i>	-	-	P	-
<i>Neopleustes pulchellus</i>	-	P	P	-
<i>Odius carinatus</i> (Sp. Bate)	-	-	P	-
<i>Oediceros saginatus</i> Kroyer	P	P	P	P
<i>Onisimus affinis</i> H.J. Hansen	-	-	P	-
<i>Onisimus edwardsi</i> (Kroyer)	-	-	P	-
<i>Onisimus glacialis</i> G.O. Sars	P	P	P	P
<i>Onisimus litoralis</i> (Kroyer)	P	P	P	P
<i>Onisimus nanseni</i> G.O. Sars	-	P	P	P
<i>Onisimus plautus</i> (Kroyer)	-	-	P	-
<i>Opisa eschrichti</i>	-	-	P	-
<i>Oradarea longimana</i>	-	-	P	-

Species	James Bay (includes S.E. Hudson Bay)	Hudson Bay	Hudson Strait	Foxe Basin
<i>Orchomene macroserrata</i> Shoemaker	-	P	P	P
<i>Orchomenella groenlandica</i> (H.J. Hansen)	-	P	P	-
<i>Orchomenella minuta</i> (Kroyer)	P	P	P	P
<i>Orchomenella pinguis</i> (Boeck)	P	P	P	P
<i>Paradalisca cuspidata</i> Kroyer	-	-	P	-
<i>Paramphithoe hystrix</i> (J.C. Ross)	-	P	P	P
<i>Parapleustes assimilis</i> (G.O. Sars)	P	P	P	P
<i>Parapleustes bicuspis</i> (Kroyer)	-	P	P	P
<i>Parapleustes boeckii</i> (H.J. Hansen)	-	-	P	-
<i>Parapleustes glabricauda</i> Dunbar	-	-	P	-
<i>Parapleustes gracilis</i>	-	-	-	P
<i>Parapleustes pulchellus</i> (Kroyer)	-	-	P	-
<i>Parapleustes ramyslovi</i>	-	-	-	P
<i>Parapleustes sinuipalma</i> Dunbar	-	-	P	-
<i>Pardalisca cuspidata</i>	P	-	P	P
<i>Paroedicerus lynceus</i> (M. Sars)	P	P	P	P
<i>Paronesimus barentsi</i> Stebbing	P	-	P	P
<i>Photis tenuicornis</i> G.O. Sars	-	-	P	-
<i>Photis</i> sp.	-	-	-	P
<i>Phoxocephalus holbolli</i> (Kroyer)	-	-	P	-
<i>Pleustes medius</i> (Goes)	-	-	P	P
<i>Pleustes panoplus</i> (Kroyer)	P	-	P	P
<i>Pleusymtes buttoni</i>	-	-	P	-
<i>Pleusymtes glabroides</i>	-	-	P	-
<i>Pontogeneia inermis</i> (Kroyer)	P	P	P	P
<i>Pontoporeia affinis</i> Lindstrom	-	P	P	-
<i>Pontoporeia femorata</i> (Kroyer)	P	P	P	P
<i>Protomedeia fasciata</i> Kroyer	-	P	P	-
<i>Protomedeia grandimana</i> Bruggen	-	-	P	P
<i>Pseudalibrotus glacialis</i> G.O. Sars	-	-	P	-
<i>Pseudalibrotus litoralis</i> Kroyer	P	-	P	-
<i>Pseudalibrotus nansenii</i> G.O. Sars	-	-	P	-
<i>Rhachotropis aculeata</i> (Lepechin)	P	P	P	P
<i>Rhachotropis inflata</i> (G.O. Sars)	-	-	P	-
<i>Rhachotropis oculata</i>	P	P	P	P
<i>Rozinante fragilis</i> (Goes)	P	-	-	P
<i>Siphonoecetes typicus</i> Kroyer	-	-	P	-
<i>Sivladia arctica</i>	-	-	-	P
<i>Socarnes bidenticulatus</i> (Bate)	-	-	P	P
<i>Socarnes vahli</i> (Kroyer)	-	P	P	P
<i>Stegocephalopsis ampulla</i> (Phipps)	-	-	P	-
<i>Stegocephalus inflatus</i> (Kroyer)	P	-	P	P
<i>Stenopleustes olriki</i>	-	-	-	P
<i>Stenopleustes pulchellus</i>	P	-	-	-
<i>Stenothoe brevicornis</i> G.O. Sars	-	-	P	-
<i>Stenula nordmanni</i>	-	-	P	-
<i>Stenula</i> sp.	P	-	-	-
<i>Sympleustes buttoni</i> Dunbar	-	-	P	-
<i>Sympleustes olriki</i> H.J. Hansen	-	-	P	-
<i>Sympleustes glabroides</i> Dunbar	-	-	P	-
<i>Syrrhoe crenulata</i> Goes	P	P	P	P
² <i>Themisto abyssorum</i> (Boeck)	P	P	P	-
² <i>Themisto compressa</i> Goes	-	P	-	-

Species	James Bay (includes S.E. Hudson Bay)	Hudson Bay	Hudson Strait	Foxe Basin
² <i>Themisto gaudichaudi</i>	-	-	P	P
² <i>Themisto gracipiles</i>	-	-	P	-
² <i>Themisto libellula</i> (Lichtenstein)	P	P	P	P
<i>Tiron spiniferum</i> (Stimpson)	-	-	P	-
<i>Tmetonyx acutus</i>	-	P	-	-
<i>Tmetonyx cicada</i> (Fabricius)	P	P	-	-
<i>Tmetonyx orchomenoides</i> Stephensen	-	-	P	-
<i>Tryphosa marina</i>	-	-	P	P
<i>Tryphosella orchomenoides</i>	-	P	P	-
<i>Tryphosella triangula</i>	-	P	-	-
<i>Unicola laticornis</i> Hansen	-	-	P	-
<i>Unicola leucopsis</i> (Kroyer)	P	P	P	P
<i>Westwoodilla brevicalar</i> (Goes)	-	-	P	P
<i>Westwoodilla megalops</i> (G.O. Sars)	P	P	P	P
<i>Weyprechtia pinguis</i> (Kroyer)	P	P	P	P
ARTHROPODA: Cirripedia				
<i>Balanus balanoides</i>	P	P	P	P
<i>Balanus balanus</i> (Linnaeus)	P	P	P	P
<i>Balanus crenatus</i> Burguiere	P	P	P	P
<i>Cypris</i> sp.	P	-	-	-
<i>Scalpellum cornutum</i>	-	-	P	P
<i>Scalpellum hamatum</i>	-	-	-	P
ARTHROPODA: Copepoda				
<i>Acartia bifilosa</i> (Giesbrecht)	-	P	-	-
<i>Acartia clausi</i> Giesbrecht	P	P	-	-
<i>Acartia longiremis</i> (Lilljeborg)	P	P	P	-
<i>Ameira longipes</i> Boeck	P	P	-	-
<i>Bradyidius similis</i>	-	P	P	-
<i>Bradyopontius magniceps</i> (Brady)	-	P	-	-
<i>Calanus finmarchicus</i> (Gunnerus)	-	P	P	P
<i>Calanus glacialis</i> Yaschnov	P	P	P	P
<i>Calanus hyperboreus</i> Kroyer	P	P	P	P
<i>Calanus plumchrus</i> Marukawa	-	P	-	-
<i>Centropages abdominalis</i> Sato	P	P	-	-
<i>Centropages hamatus</i>	P	P	P	-
<i>Clausocalanus arcuicornis</i> (Dana)	-	P	-	-
<i>Corycaeus anglicus</i> Lubbock	-	P	-	-
<i>Cyclopina gracilis</i> Claus	P	P	-	-
<i>Cyclopina</i> sp.	P	-	P	-
<i>Dactylopodia tisboides</i> (Claus)	-	P	-	-
<i>Dactylopodia vulgaris</i> (G.O. Sars)	-	P	-	-
<i>Danielssenia</i> sp.	P	-	-	-
<i>Derjuginia tolli</i> (Linko)	P	P	-	-
<i>Dermatomyzon nigripes</i> (Brady)	P	-	-	-
<i>Diaptomus pribilofensis</i>	-	P	-	-
<i>Diaptomus</i> sp.	P	-	-	-
<i>Ectinosoma melaniceps</i> Boeck	P	-	-	-
<i>Epischura lacustris</i>	-	P	-	-
<i>Epischura nevadensis</i>	-	P	-	-
<i>Euchaeta arctica</i>	-	-	P	-
<i>Euchaeta glacialis</i> Hansen	P	-	-	-

Species	James Bay (includes S.E. Hudson Bay)	Hudson Bay	Hudson Strait	Foxe Basin
<i>Euchaeta norvegica</i> Boeck	P	P	P	-
<i>Euryte longicaudata</i> Philippi	P	-	-	-
<i>Eurytemora affinis</i>	-	P	-	-
<i>Eurytemora americana</i> Williams	P	P	-	-
<i>Eurytemora herdmani</i> Thompson and Scott	P	P	-	-
<i>Eurytemora raboti</i>	-	P	-	-
<i>Halectinosoma</i> sp.	P	-	-	-
<i>Harpacticus chelifera</i>	-	P	-	-
<i>Harpacticus superflexus</i> Willey	P	-	-	-
<i>Harpacticus uniremus</i> Kroyer	P	P	-	-
<i>Heterolaophonte discophora</i> (Willey)	P	-	-	-
<i>Laophonte elongata</i> Boeck	-	P	-	-
<i>Laophonte</i> sp.	P	-	-	-
<i>Limnocalanus macrurus</i> G.O. Sars	-	P	-	-
<i>Metridia lucens</i>	-	P	-	-
<i>Metridia longa</i> (Lubbock)	P	P	P	-
<i>Microcalanus</i> sp.	-	-	P	-
<i>Microcalanus pygmaeus</i> (G.O. Sars)	P	P	-	-
<i>Macrocherion</i> sp.	-	P	-	-
<i>Monstrilla</i> sp.	-	P	-	-
<i>Monstrilla dubia</i> Scott	P	-	-	-
<i>Nitocra spinipes</i>	P	-	-	-
<i>Oithona similis</i> Claus	P	P	P	-
<i>Oithona spinirostris</i> Claus	-	P	-	-
<i>Oncaea borealis</i> G.O. Sars	P	P	-	-
<i>Oncaea venusta</i> Philippi	-	P	-	-
<i>Onchocamptus horrida</i> (Norman)	P	-	-	-
<i>Paracalanus parvus</i> (Claus)	-	P	-	-
<i>Paralaophonte perplexa</i> (Scott)	-	P	-	-
<i>Parartotrogus arcticus</i> Scott	P	-	-	-
<i>Parathalestris croni</i> (Kroyer)	P	-	-	-
<i>Platychelipus littoralis</i> Brady	P	-	P	-
<i>Pseudalibrotus minutus</i>	-	-	-	P
<i>Pseudobradya minor</i> (T. and A. Scott)	-	P	-	-
<i>Pseudobradya</i> sp.	P	-	-	-
<i>Pseudocalanus acuspes</i>	P	-	-	-
<i>Pseudocalanus minutus</i> (Kroyer)	P	P	-	-
<i>Pseudocalanus newmani</i>	P	-	-	-
<i>Pseudocalanus</i> sp.	-	-	P	-
<i>Pseudocyclops obtusatus</i> (Brady and Robertson)	-	P	-	-
<i>Rhynchothalestris helgolandica</i> (Claus)	P	-	-	-
<i>Robertsonia tenuis</i> Brady	-	P	-	-
<i>Stenhelia gibba</i> Boeck	P	-	-	-
<i>Stephos sinuatus</i> Willey	P	-	-	-
<i>Tachidius discipes</i> Giesbrecht	P	-	-	-
<i>Tegastes falcatus</i> (Norman)	P	-	-	-
<i>Tegastes nanus</i> G.O. Sars	P	-	-	-
<i>Thalestris brunnea</i> G.O. Sars	P	-	-	-
<i>Tisbe furcata</i> (Baird)	P	P	-	-
<i>Tisbe gracilis</i> (Scott)	-	P	-	-
<i>Tortanus discaudatus</i> (Thompson and Scott)	P	P	-	-
<i>Undinula darwini</i> (Lubbock)	-	P	-	-
<i>Xanthocalanus</i> sp.	-	-	P	-

Species	James Bay (includes S.E. Hudson Bay)	Hudson Bay	Hudson Strait	Foxe Basin
<i>Zaus abbreviatus</i> G.O. Sars	-	P	-	-
<i>Zaus spinatus</i> Goodsir	P	P	-	-
<i>Zoisme typica</i> Boeck	-	P	-	-
ARTHROPODA: Cumacea				
<i>Brachydiastylis resima</i> (Kroyer)	P	P	-	P
<i>Campylaspis rubicunda</i> (Lilljeborg)	-	-	P	-
<i>Cumella carinata</i> (Hansen)	-	-	P	-
<i>Cumella</i> sp.	-	-	-	P
<i>Diastylis edwardsi</i> (Kroyer)	P	-	-	-
<i>Diastylis goodsiri</i> (Bell)	P	P	P	P
<i>Diastylis quadrispinosa</i>	-	P	-	-
<i>Diastylis rathkei</i> (Kroyer)	P	P	P	P
<i>Diastylis scorpioides</i> (Lepechin)	P	P	P	P
<i>Diastylis spinulosa</i>	P	-	-	P
<i>Diastylis sulcata</i> Calman	P	-	-	-
<i>Eudorella emarginata</i> (Kroyer)	P	-	-	-
<i>Hemilamprops cristata</i> G.O. Sars	P	-	-	-
<i>Hemilamprops uniplicata</i> (G.O. Sars)	-	-	P	-
<i>Lamprops fuscata</i> G.O. Sars	P	P	-	P
<i>Lamprops quadriplicata</i>	-	P	-	-
<i>Leptostylis ampullacea</i>	-	-	-	P
<i>Leucon nasica</i> (Kroyer)	P	-	-	-
<i>Leucon nasicooides</i> (Lilljeborg)	-	P	P	-
<i>Leucon pallidus</i> G.O. Sars	-	-	P	-
<i>Leucon</i> sp.	-	-	-	P
<i>Platyspis typica</i> (G.O. Sars)	-	-	P	-
ARTHROPODA: Decapoda				
<i>Argis dentata</i> (Rathbun)	P	P	P	P
<i>Atelecyclus</i> sp.	-	P	-	-
<i>Eualus fabricii</i> (Kroyer)	P	P	P	P
<i>Eualus gaimardi</i> (H. Milne-Edwards)	P	P	P	P
<i>Eualus gaimardi belcheri</i>	-	P	P	-
<i>Eualus macilentus</i> (Kroyer)	P	-	P	-
<i>Hyas coarctatus</i> Leach	P	P	P	P
<i>Lebbeus groenlandicus</i> (Fabricius)	P	P	P	P
<i>Lebbeus microceros</i>	-	-	-	P
<i>Lebbeus polaris</i> (Sabine)	P	P	P	P
<i>Pagurus pubescens</i> (Kroyer)	P	P	P	P
<i>Pandalus borealis</i> Kroyer	-	-	P	-
<i>Pandalus montagui</i> Leach	P	P	P	-
<i>Pasiphaea tarda</i> Kroyer	-	-	P	-
<i>Sabinea septemcarinata</i> (Sabine)	P	P	P	P
<i>Sclerocrangon boreas</i> (Phipps)	P	P	P	P
<i>Sergestes arcticus</i> Kroyer	-	-	P	-
<i>Spirontocaris lilljeborgi</i> (Danielssen)	-	-	P	-
<i>Spirontocaris phippii</i> (Kroyer)	P	P	P	P
<i>Spirontocaris spinus</i> (Sowerby)	P	P	P	P
ARTHROPODA: Euphausiacea				
<i>Meganyctiphanes norvegica</i> M. Sars	-	-	P	-
<i>Thysanoessa inermis</i> (Kroyer)	-	-	-	P

Species	James Bay (includes S.E. Hudson Bay)	Hudson Bay	Hudson Strait	Foxe Basin
<i>Thysanoessa longicaudata</i> (Kroyer)	?	P	-	-
<i>Thysanoessa raschii</i> (M. Sars)	P	P	P	-
ARTHROPODA: Isopoda				
<i>Aega psora</i>	-	-	P	-
<i>Arcturus baffini</i> (Sabine)	-	P	P	P
<i>Bopyroides hippolytes</i>	-	-	P	-
<i>Calathura brachiata</i>	-	-	-	P
<i>Ilyarachna hirticeps</i> G.O. Sars	-	-	P	-
<i>Janira tricornis</i>	-	-	P	P
<i>Mesidotea entomon</i> (Linnaeus)	-	-	P	-
<i>Mesidotea sabini</i> (Kroyer)	P	P	P	P
<i>Munna fabricii</i>	-	P	-	-
<i>Munna kroyeri</i>	-	P	-	-
<i>Munnopsis typica</i>	P	P	P	P
<i>Munnopsurus giganteus</i>	P	-	-	P
<i>Phryxus abdominalis</i>	-	-	-	P
<i>Synidotea marmorata</i>	-	-	P	P
<i>Synidotea nodulosa</i> (Kroyer)	P	-	-	-
ARTHROPODA: Mysidacea				
<i>Boreomysis nobilis</i> G.O. Sars	-	-	P	-
<i>Erythrops erythrophalma</i>	-	P	P	-
<i>Meterythrops robusta</i>	P	P	P	-
<i>Mysis litoralis</i> (Banner)	P	P	P	-
<i>Mysis mixta</i> Lilljeborg	P	-	P	-
<i>Mysis oculata</i> (Fabricius)	P	P	P	P
<i>Mysis polaris</i> Holmquist	-	-	P	-
ARTHROPODA: Nebaliacea				
<i>Nebalia bipes</i>	P	-	P	P
ARTHROPODA: Ostracoda				
<i>Acetabulostomata</i> sp.	-	P	P	-
<i>Conchoecia</i> sp.	P	P	P	-
<i>Cyprideis sorbyana</i>	P	-	-	-
<i>Cythereis dunelmensis</i>	P	-	-	-
<i>Hemicythere quadridentata</i>	-	-	P	-
<i>Philomedes</i> sp.	-	P	-	-
<i>Philomedes globosus</i> (Lilljeborg)	P	-	P	P
ARTHROPODA: Pycnogonida				
<i>Boreonymphon abyssorum</i>	-	-	-	P
<i>Colossendeis proboscidea</i> (Sabine)	-	-	-	P
<i>Eurycyde hispida</i> (Kroyer)	-	P	-	-
<i>Nymphon brevitarse</i> Kroyer	P	P	P	P
<i>Nymphon elegans</i> Hansen	-	-	-	P
<i>Nymphon grossipes</i> Kroyer	-	-	P	P
<i>Nymphon hirtipes</i> Bell	P	P	P	P
<i>Nymphon hirtum</i> Kroyer	-	-	-	P
<i>Nymphon longitarse</i> Kroyer	-	-	P	P
<i>Nymphon megalops</i> Sars	-	-	-	P
<i>Nymphon robustum</i> Bell	-	-	P	P

Species	James Bay (includes S.E. Hudson Bay)	Hudson Bay	Hudson Strait	Foxe Basin
<i>Nymphon rubrum</i> Hodge	-	P	-	-
<i>Nymphon serratum</i> Sars	P	P	P	P
<i>Nymphon stromi</i> Kroyer	-	-	P	P
<i>Pseudopallene circularis</i> (Goodsir)	-	P	P	P
<i>Pseudopallene spinipes</i> (Fabricius)	-	-	P	-
ARTHROPODA: Tanaidacea				
<i>Leptognathia longiremis</i> (Lilljeborg)	P	-	-	-
<i>Leptognathia sarsi</i>	P	-	-	-
<i>Sphyrapus anomalus</i> G.O. Sars	P	-	-	-
<i>Typhlotanais finmarchicus</i> G.O. Sars	P	-	-	-
ASCHELMINTHES: Nematoda				
<i>nematode</i>	P	P	P	P
BRACHIOPODA				
<i>Atretia gnomon</i>	P	P	P	P
<i>Hemithiris psittacea</i> (Gmelin)	P	P	P	P
BRYOZOA				
<i>Alcyonidium gelatinosum</i> (Linnaeus)	P	P	P	-
<i>Bidenkapia spitzbergensis</i> (Bidenkap)	-	-	P	P
<i>Bugula simpliciformis</i> Osburn	-	P	-	-
<i>Caberea ellisii</i> (Fleming)	-	P	P	-
<i>Callopora craticula</i> (Alder)	-	P	P	-
<i>Callopora lineata</i> (Linnaeus)	-	P	P	P
<i>Callopora whiteavesi</i> Norman	-	P	-	-
<i>Carbasea carbasea</i> (Ellis and Solander)	-	P	-	-
<i>Cauloramphus cymbaeformis</i> (Hincks)	-	P	P	-
<i>Celleporella (Hippothoa) hyalina</i> (Linnaeus)	-	P	-	-
<i>Celleporina surcularis</i> (Packard)	-	P	P	P
<i>Celleporina ventricosa</i> (Lorenz)	-	P	P	P
<i>Cheilopora sincera</i> (Smitt)	-	-	P	P
<i>Copidozoum smitti</i> (Kluge)	-	-	P	-
<i>Cribrilina annulata</i> (Fabricius)	-	-	P	P
<i>Cribrilina punctata</i> (Hassall)	-	P	-	-
<i>Crisia</i> sp.	-	P	-	-
<i>Cylindroporella tubulosa</i> (Norman)	P	-	P	-
<i>Cystisella elegantula</i> (d' Orbigny)	-	P	P	-
<i>Cystisella saccata</i> (Busk)	P	P	P	P
<i>Dendrobeania murrayana</i> (Johnston)	-	P	P	P
<i>Diplosolen obelia</i> (Johnston)	-	P	P	P
<i>Doryporella spathulifera</i> (Smitt)	-	-	P	-
<i>Electra arctica</i> (Borg)	P	-	P	-
<i>Escharella abyssicola</i> (Norman)	-	-	P	-
<i>Escharella connectens</i> (Ridley)	-	-	P	-
<i>Escharella immersa</i> (Fleming)	-	-	P	-
<i>Escharella thompsoni</i> (Kluge)	-	-	P	-
<i>Escharella ventricosa</i> (Hassall)	-	P	P	P
<i>Escharoides jacksoni</i> (Waters)	-	P	P	P
<i>Eucratea loricata</i> (Linnaeus)	-	P	P	P
<i>Gemmellaria loricata</i> (van Beneden)	P	-	-	-
<i>Harmeria scutulata</i> (Busk)	-	-	P	-

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<i>Hincksina nigrans</i> (Hincks)	-	P	P	P
<i>Hincksipora spinulifera</i> (Hincks)	-	-	P	-
<i>Hippoporella hippopus</i> (Smitt)	P	-	P	P
<i>Hippoporina cancellata</i> (Smitt)	-	-	P	-
<i>Hippoporina propinqua</i> (Smitt)	P	P	P	P
<i>Hippoporina reticulatopunctata</i> (Hincks)	-	-	P	-
<i>Hippothoa divaricata</i> (Lamouroux)	-	P	-	-
<i>Hippothoa expansa</i> Dawson	-	P	P	-
<i>Hippothoa hyalina</i> (Linnaeus)	-	-	P	P
<i>Idmonea atlantica</i> Johnston	-	-	P	P
<i>Kinetoskias arborescens</i> Danielssen	P	-	P	-
<i>Lepraliella contigua</i> (Smitt)	-	-	P	-
<i>Lichenopora hispida</i> (Fleming)	-	-	P	-
<i>Lichenopora verrucaria</i> (Fabricius)	-	P	P	-
<i>Membranipora serrulata</i> (Busk)	-	P	P	P
<i>Membraniporella crassicosta</i> Hincks	-	-	P	-
<i>Microporella ciliata</i> (Pallas)	-	-	P	-
<i>Microporina articulata</i> (Fabricius)	-	-	P	P
<i>Myriapora coarctica</i> (M. Sars)	-	-	P	-
<i>Myriapora subgracila</i> (d' Orbigny)	-	P	P	P
<i>Myrzoella plana</i> (Dawson)	P	P	P	P
<i>Parasmittina jeffreysi</i> (Norman)	P	-	P	P
<i>Phidolopora elongata</i> (Smitt)	-	-	P	P
<i>Porella acutirostris</i> Smitt	-	-	P	P
<i>Porella compressa</i> (Sowerby)	-	P	P	P
<i>Porella concinna</i> (Busk)	-	P	P	-
<i>Porella minuta</i> Norman	-	-	P	-
<i>Porella smitti</i> Kluge	P	P	P	-
<i>Porella struma</i> (Norman)	-	P	P	-
<i>Posterula sarsi</i> (Smitt)	-	P	P	P
<i>Pseudoflustra solida</i> (Stimpson)	-	P	P	P
<i>Reginella spitzbergensis</i> (Norman)	-	-	P	-
<i>Rhamphostomella bilaminata</i> (Hincks)	-	-	P	-
<i>Rhamphostomella costata</i> Lorenz	-	P	P	P
<i>Rhamphostomella hincksi</i> Nordgaard	-	-	P	P
<i>Rhamphostomella ovata</i> (Smitt)	-	P	P	P
<i>Schismopora nodulosa</i> (Lorenz)	-	-	P	P
<i>Schizomavella auriculata</i> (Hassall)	-	-	P	-
<i>Schizomavella porifera</i> (Smitt)	-	-	P	-
<i>Schizoporella obesa</i> (Waters)	-	-	P	-
<i>Schizoporella stylifera</i> (Levinsen)	-	-	P	P
<i>Scrupocellaria scabra</i> (van Beneden)	P	P	P	P
<i>Securiflustra securifrons</i> (Pallas)	P	P	P	P
<i>Smittina groenlandica</i> (Norman)	-	-	P	-
<i>Smittina majuscula</i> (Smitt)	-	P	P	-
<i>Smittina mucronata</i> (Smitt)	-	-	P	-
<i>Smittina porifera</i> (Smitt)	-	P	-	-
<i>Smittina rigida</i> (Lorenz)	-	-	P	-
<i>Smittina trispinosa</i> (Verrill)	-	P	-	-
<i>Stephanosella biaperta</i> (Michelin)	-	-	P	-
<i>Stomachetosella cruenta</i> (Busk)	P	-	P	-
<i>Stomachetosella limbata</i> (Lorenz)	-	-	P	-
<i>Stomachetosella sinuosa</i> (Busk)	-	-	P	-

Species	James Bay (includes S.E. Hudson Bay)	Hudson Bay	Hudson Strait	Foxe Basin
<i>Tegella arctica</i> (d'Orbigny)	-	-	P	P
<i>Tegella armifera</i> (Hincks)	-	P	P	-
<i>Terminoflustra membranaceotruncata</i> (Smitt)	-	P	P	P
<i>Tricellaria gracilis</i> (van Beneden)	-	P	P	-
<i>Tricellaria peachi</i> (Busk)	P	P	P	P
<i>Tricellaria ternata</i> (Ellis and Solander)	-	-	P	P
<i>Tubulipora</i> sp.	-	P	-	-
<i>Umbonula arctica</i> (M. Sars)	-	-	P	P
CHAETOGNATHA				
<i>Eukrohnia hamata</i> Mobius	-	P	P	-
<i>Sagitta elegans</i> Verrill	P	P	P	-
<i>Sagitta elegans arctica</i>	-	P	P	-
<i>Sagitta maxima</i>	P	-	-	-
CHORDATA: UROCHORDATA: Ascidiacea				
<i>Aplidium glabrum</i> Verrill	-	P	P	P
<i>Ascidia callosa</i> Stimpson	P	P	P	P
<i>Ascidia obliqua</i> Alder	P	-	-	-
<i>Ascidia prunum</i> O.F. Muller	-	P	P	P
<i>Boltenia echinata</i> (Linnaeus)	P	P	P	P
<i>Boltenia ovifera</i> (Linnaeus)	P	P	P	P
<i>Botrylloides aureum</i> Sars	-	-	P	P
<i>Bostichobranthus pilularis</i>	-	P	-	-
<i>Chelyosoma macleayanum</i>	-	-	P	-
<i>Ciona intestinalis</i>	P	-	-	P
<i>Cnemidocarpa finmarkiensis</i> (Kiaer)	-	-	P	P
<i>Cnemidocarpa mollis</i>	P	-	-	-
<i>Cnemidocarpa rhizopus</i> (Redikorzev)	P	P	P	-
<i>Dendrodoa aggregata</i> (Rathke)	P	P	P	P
<i>Dendrodoa grossularia</i> (van Beneden)	-	-	P	-
<i>Didemnum albidum</i> (Verrill)	-	P	P	P
<i>Distaplia clavata</i> (Sars)	-	-	P	-
<i>Halocynthia pyriformis</i> (Rathke)	-	P	P	P
<i>Kukenthalia borealis</i> (Boldschaldt)	-	-	P	-
<i>Lissoclinum aureum</i> (Verrill)	-	-	-	P
<i>Molgula griffithsi</i> (MacLeay)	P	P	P	P
<i>Molgula retortiformis</i> (Verrill)	-	P	P	-
<i>Molgula septentrionalis</i>	P	-	-	-
<i>Molgula siphonalis</i> (Sars)	P	P	P	P
<i>Pelonaia corrugata</i> Goodsir and Forbes	P	-	P	P
<i>Polycitor vitreus</i> (Sars)	-	-	P	P
<i>Rhizomolgula globularis</i> (Pallas)	P	-	P	P
<i>Styela coriacea</i> (Alder and Hancock)	P	P	P	P
<i>Styela rustica</i> (Linnaeus)	P	P	P	P
<i>Synoicum pulmonaria</i> (Ellis and Solander)	-	P	P	P
CHORDATA: UROCHORDATA: Larvacea				
<i>Fritillaria borealis</i> Lohmann	P	P	-	P
<i>Fritillaria</i> sp.	-	-	P	-
<i>Oikopleura labradoriensis</i> Lohmann	P	-	-	-
<i>Oikopleura vanhoeffeni</i> Lohmann	P	P	-	P
<i>Oikopleura</i> sp.	-	-	P	-

Species	James Bay (includes S.E. Hudson Bay)	Hudson Bay	Hudson Strait	Foxe Basin
CNIDARIA: Anthozoa				
<i>Actinauge borealis</i>	P	-	-	-
<i>Actinauge rugosa</i>	P	-	-	-
<i>Actinostola groenlandica</i>	-	P	-	-
<i>Actinostola spetsbergensis</i>	P	P	P	P
<i>Allantactis parasitica</i>	P	P	-	-
<i>Bicidiopsis arctica</i>	P	-	-	-
<i>Bunodactis stella</i>	P	P	-	-
<i>Campanularia</i> sp.	-	P	-	-
<i>Drifa glomerata</i>	-	-	P	P
<i>Gersemia rubiformis</i> Pallas	P	P	P	-
<i>Halcampa arctica</i>	-	-	P	P
<i>Hippopodius hippopus</i>	-	P	-	-
<i>Hormathia digitata</i>	-	-	P	-
<i>Hormathia nodosa</i>	-	P	P	P
<i>Metridium senile</i>	-	-	-	P
<i>Stomphia coccinea</i>	-	P	P	P
<i>Tealia felina</i>	P	P	P	P
<i>Tealiopsis stella</i>	P	-	-	-
CNIDARIA: Hydrozoa				
<i>Abietinaria abietina</i>	-	-	P	-
<i>Aeginopsis laurenti</i> (Brandt)	P	P	P	-
<i>Aglantha digitale</i> (O.F. Muller)	P	P	P	-
<i>Aurelia aurita</i> (Linnaeus)	P	-	-	-
<i>Bougainvillia</i> sp.	P	-	-	-
<i>Bougainvillia principis</i>	-	P	-	-
<i>Bougainvillia superciliaris</i> (L. Agassiz)	-	P	P	-
<i>Calycella syringa</i> (Linnaeus)	P	P	P	P
<i>Campanularia groenlandica</i>	-	-	P	-
<i>Campanularia integra</i>	P	P	P	P
<i>Campanularia speciosa</i>	-	-	P	-
<i>Campanularia verticillata</i> (Linnaeus)	-	P	P	P
<i>Campanularia volubilis</i> (Linnaeus)	P	P	P	P
<i>Catablema vesicaria</i> A. Agassiz	-	-	P	-
<i>Coryne hincksi</i>	P	-	-	-
<i>Coryne pusilla</i>	-	P	P	P
<i>Cuspidella humilis</i>	P	-	P	P
<i>Cuspidella procumbens</i>	-	P	-	P
<i>Diphasia pulchra</i> Nutting	P	P	-	-
<i>Eudendrium arbusculum</i>	-	P	P	-
<i>Eudendrium capillare</i>	-	P	P	-
<i>Eudendrium rameum</i> (Pallas)	P	P	-	P
<i>Eudendrium tenellum</i>	-	P	P	-
<i>Eudendrium vaginatum</i> Allman	-	-	P	-
<i>Euphysa</i> sp.	-	-	P	-
<i>Euphysa flammea</i>	-	P	-	-
<i>Filellum serpens</i>	-	P	P	P
<i>Gonothyrea loveni</i>	P	-	P	P
<i>Grammaria abietina</i>	-	-	P	P
<i>Grammaria immersa</i>	-	-	-	P
<i>Halecium curvicaule</i>	-	-	P	P

Species	James Bay (includes S.E. Hudson Bay)	Hudson Bay	Hudson Strait	Foxe Basin
<i>Halecium groenlandicum</i>	P	P	P	-
<i>Halecium labrosum</i>	-	P	P	-
<i>Halecium minutum</i>	P	P	P	P
<i>Halecium muricatum</i>	-	P	P	P
<i>Halecium speciosum</i>	-	P	P	P
<i>Halecium undulatum</i>	P	P	P	-
<i>Halitholus cirratus</i> Hartlaub	-	P	P	-
<i>Halitholus pauper</i> Hartlaub	P	-	P	-
<i>Hartlaubella gelatinosa</i> (Pallas)	-	P	-	-
<i>Hebella pocillum</i> Hincks	-	P	-	-
<i>Hybocodon prolifer</i> L. Agassiz	-	-	P	-
<i>Hydractina carica</i>	-	-	-	P
<i>Lafoea fruticosa</i>	-	-	P	-
<i>Lafoea gracillima</i> (Alder)	P	P	P	P
<i>Lafoeina maxima</i>	-	P	P	-
<i>Leuckartiara brevicornis</i> ? Murbach & Shearer	-	-	P	-
<i>Leuckartiara nobilis</i>	-	P	-	-
<i>Monocoryne gigantea</i>	-	-	P	-
<i>Myriothela phrygia</i>	-	-	P	-
<i>Obelia geniculata</i>	-	-	P	-
<i>Obelia</i> sp.	P	-	-	-
<i>Opercularella lacerata</i> (Johnston)	-	P	-	P
<i>Phialidium languidum</i>	-	P	-	-
<i>Posterula sarsi</i>	-	-	-	P
<i>Ptychogastria polaris</i> Allmann	-	-	P	-
<i>Rathkea octopunctata</i> (M. Sars)	P	-	P	-
<i>Rhizorhagium roseum</i>	P	P	-	-
<i>Sarsia eximia</i> (Allman)	P	-	-	-
<i>Sarsia princeps</i> (Haeckel)	P	P	P	-
<i>Sarsia tubulosa</i> L. Agassiz	-	P	P	-
<i>Sertularella pinnata</i>	-	-	P	-
<i>Sertularella polyzonias</i> (Linnaeus)	P	P	P	P
<i>Sertularella tenella</i>	-	P	-	-
<i>Sertularella tricuspida</i> (Alder)	P	P	P	-
<i>Sertularia mirabilis</i>	-	P	P	-
<i>Sertularia plumosa</i>	-	-	P	-
<i>Sertularia robusta</i>	-	P	P	P
<i>Sertularia schmidtii</i>	P	P	P	P
<i>Sertularia similis</i>	P	P	P	P
<i>Sertularia tenera</i>	-	P	-	P
<i>Staurophaura mertensi</i>	P	-	-	-
<i>Stegopoma plicatile</i> (G.O. Sars)	P	P	-	-
<i>Tetrapoma quadridentatum</i>	-	P	P	-
<i>Thuiaria carica</i>	-	P	-	-
<i>Thuiaria lonchitis</i>	-	P	-	-
<i>Thuiaria thuja</i>	-	-	P	P
<i>Tima formosa</i>	-	P	-	-
CNIDARIA: Scyphozoa				
<i>Cyanea capillata</i>	-	P	-	-
<i>Cyanea</i> sp.	P	-	P	-

Species	James Bay (includes S.E. Hudson Bay)	Hudson Bay	Hudson Strait	Foxe Basin
CTENOPHORA				
<i>Beroe cucumis</i> Fabricius	-	P	P	-
<i>Mertensia ovum</i> (Fabricius)	-	P	P	-
<i>Mertensia</i> sp.	P	-	-	-
<i>Pleurobrachia pileus</i>	-	P	-	-
ECHINODERMATA: Asteroidea				
<i>Asterias vulgaris</i>	-	P	-	-
<i>Ctenodiscus crispatus</i> (Retzius)	P	P	P	P
<i>Henricia eschrichti</i> (Muller and Troschel)	P	P	P	P
<i>Henricia sanguinolenta</i> (O.F. Muller)	-	P	P	P
<i>Henricia scabrior</i> (Mikhailovskii)	-	-	P	P
<i>Hippasteria phrygiana</i>	-	P	-	-
<i>Icasterias panopla</i> (Stuxberg)	P	-	-	-
<i>Leptasterias floccosa</i> (Levinsen)	-	P	-	-
<i>Leptasterias groenlandica</i> (Steenstrup)	P	P	P	P
<i>Leptasterias polaris</i> (Muller and Troschel)	P	P	P	P
<i>Lophaster furcifer</i> (Duben and Koren)	P	P	P	P
<i>Poraniomorpha tumida</i> (Stuxberg)	-	P	-	-
<i>Pteraster militaris</i> (O.F. Muller)	P	P	P	P
<i>Pteraster obscurus</i> (Perrier)	-	P	P	P
<i>Pteraster pulvillus</i> M. Sars	-	P	P	P
<i>Solaster endeca</i> (Linnaeus)	-	P	P	P
<i>Solaster papposus</i> (Linnaeus)	P	P	P	P
<i>Solaster syrtensis</i> Verrill	-	-	P	P
<i>Stephanasterias albula</i> (Stimpson)	-	P	P	P
<i>Urasterias lincki</i> (Muller and Troschel)	P	P	P	-
ECHINODERMATA: Crinoidea				
<i>Heliometra glacialis</i> (Leach)	P	P	P	P
ECHINODERMATA: Echinoidea				
<i>Strongylocentrotus droebachiensis</i> (O.F. Muller)	P	P	P	P
ECHINODERMATA: Holothuroidea				
<i>Chiridata</i> sp.	-	P	-	-
<i>Cucumaria calcigera</i>	P	-	-	P
<i>Cucumaria frondosa</i>	P	P	P	P
<i>Myriotrochus rinki</i> Steenstrup	P	P	P	P
<i>Psolus fabricii</i> (Duben and Koren)	-	P	P	P
<i>Psolus peronii</i> Bell	-	P	-	-
<i>Psolus phantapus</i> (Strussenfelt)	P	P	P	P
<i>Thyonidium</i> sp.	P	-	P	P
ECHINODERMATA: Ophiuroidea				
<i>Amphipholis squamata</i> (Delle Chiaje)	-	-	P	-
<i>Amphiura fragilis</i> Verrill	-	-	P	-
<i>Amphiura sundevalli</i> (Muller and Troschel)	-	P	P	P
<i>Gorgonocephalus arcticus</i> Leach	P	P	P	P
<i>Gorgonocephalus eucnemis</i>	P	P	-	-
<i>Ophiacantha bidentata</i> (Retzius)	P	P	P	P
<i>Ophiocten sericeum</i> (Forbes)	P	P	P	P
<i>Ophiomusium lymani</i>	-	P	-	-

Species	James Bay (includes S.E. Hudson Bay)	Hudson Bay	Hudson Strait	Foxe Basin
<i>Ophiopholis aculeata</i> (Linnaeus)	P	P	P	P
<i>Ophiopus arcticus</i>	P	P	P	P
<i>Ophiura robusta</i> (Ayres)	P	P	P	P
<i>Ophiura sarsi</i> Lutken	P	P	P	P
<i>Stegophiura nodosa</i> Lutken	P	-	P	P
MOLLUSCA: Cephalopoda				
<i>Gonatus fabricii</i> (Lichtenstein)	-	-	P	-
<i>Rossia mollerii</i>	-	-	-	P
<i>Rossia palpebrosa</i>	-	-	P	-
MOLLUSCA: Gastropoda				
<i>Acanthodoris pilosa</i>	-	P	-	-
<i>Acirsa costulata</i> (Mighels and Adams)	-	X	-	-
<i>Acmaea rubella</i>	-	-	P	P
<i>Acmaea testudinalis</i> (O.F. Muller)	P	P	P	-
<i>Acteocina</i> sp.	-	P	-	-
<i>Admete couthouyi</i> (Jay)	P	P	-	P
<i>Aladaria harvardiensis</i>	-	P	-	-
<i>Alvania</i> cf. <i>mighelsi</i>	-	-	P	-
<i>Aquilonaria turneri</i> Dall	-	X	-	-
<i>Beringius ossiani</i>	-	-	-	P
<i>Boreotrophon clathratus</i> Linnaeus	-	X	-	P
<i>Boreotrophon fabricii</i> (Moller)	-	P	P	P
<i>Boreotrophon truncatus</i> (Strom)	P	-	P	P
<i>Buccinum ciliatum</i> (Fabricius)	-	P	P	-
<i>Buccinum cyaneum</i>	-	-	P	P
<i>Buccinum finmarkianum</i>	-	-	P	-
<i>Buccinum glaciale</i> Linnaeus	-	P	P	P
<i>Buccinum hydrophanum</i> Hancock	P	P	P	P
<i>Buccinum micropoma</i>	-	-	-	P
<i>Buccinum moerchi</i> Friele	-	-	P	-
<i>Buccinum scalariforme</i>	P	P	P	P
<i>Buccinum sericatum</i>	-	-	P	P
<i>Buccinum tenu</i>	-	P	-	-
<i>Buccinum totteni</i>	P	-	P	P
<i>Buccinum undatum</i>	-	-	P	P
<i>Buccinum undatum belcheri</i>	-	P	-	P
<i>Capulacmaea radiata</i>	-	-	P	P
<i>Cingula arenaria</i>	-	-	P	-
<i>Cingula castanea</i> (Moller)	-	-	P	-
<i>Cingula</i> cf. <i>globula</i>	-	-	P	-
<i>Cingula</i> sp.	X	-	-	-
<i>Clione limacina</i> Phipps	P	P	P	-
<i>Colus islandicus</i> (Gmelin)	P	X	-	P
<i>Colus pubescens</i> (Verrill)	-	P	-	P
<i>Colus spitzbergensis</i>	-	-	-	P
<i>Colus tortuosus</i> (Reeve)	-	-	P	P
<i>Coryphella salmonacea</i>	-	-	P	-
<i>Cylichna alba</i> (Brown)	P	P	P	P
<i>Cylichna magna</i>	P	-	-	-
<i>Cylichna occulta</i>	P	-	P	P
<i>Dendronotus frondosus</i>	-	-	-	P

Species	James Bay (includes S.E. Hudson Bay)	Hudson Bay	Hudson Strait	Foxe Basin
<i>Diaphana minuta</i>	-	-	-	P
<i>Gyraulus parvus</i>	-	P	-	-
<i>Gyraulus</i> sp.	X	-	-	-
<i>Haminoea solitaria</i> (Say)	-	X	-	-
<i>Hydrobia minuta</i> (Totten)	P	-	-	-
<i>Lacuna glacialis</i>	-	-	-	P
<i>Lepeta caeca</i> (O.F. Muller)	P	P	P	P
<i>Littorina obtusata</i> (Linnaeus)	P	P	P	-
<i>Littorina saxatilis</i> (Olivi)	P	P	P	P
<i>Limacina helicina</i>	-	P	P	-
<i>Lunatia pallida</i> (Broderip and Sowerby)	P	P	P	P
<i>Margarites costalis</i> (Gould)	P	P	P	P
<i>Margarites groenlandicus</i> (Gmelin)	P	P	P	-
<i>Margarites helycinus</i> (Phipps)	P	P	P	P
<i>Margarites olivaceus</i> (Brown)	P	P	P	P
<i>Margarites umbilicalis</i> (Broderip and Sowerby)	P	P	P	P
<i>Margarites vahli</i> (Moller)	-	P	-	P
<i>Marsenina glabra</i>	-	-	P	-
<i>Mohnia</i> sp.	-	P	-	-
<i>Natica clausa</i> Broderip and Sowerby	-	P	-	P
<i>Neptunea despecta</i> (Linnaeus)	-	P	P	P
<i>Oenopota arctica</i>	-	-	-	P
<i>Oenopota bicarinata</i> (Couthouy)	-	P	P	P
<i>Oenopota</i> sp. (cf. <i>cinerea</i>)	-	-	P	-
<i>Oenopota declivis</i> (Loven)	-	-	P	P
<i>Oenopota incisula</i> (Verrill)	P	P	-	P
<i>Oenopota pyramidalis</i> (Strom)	-	X	P	P
<i>Oenopota reticulata</i>	P	-	P	-
<i>Oenopota turricula</i> (Montagu)	-	P	P	P
<i>Omalyogyra</i> sp.	-	P	-	-
<i>Onchidiopsis glacialis</i>	-	-	P	P
<i>Onchidiopsis kingmaruensis</i>	-	-	-	P
<i>Philine finmarchia</i>	P	-	-	-
<i>Philine lima</i>	-	-	-	P
<i>Plicifusus kroeyeri</i> (Moller)	P	P	P	-
<i>Propebela</i> sp.	-	P	-	-
<i>Puncturella noachina</i> (Linnaeus)	-	-	P	P
<i>Retusa obtusa</i>	P	-	P	-
<i>Solariella obscura</i>	-	P	-	-
<i>Spiratella helicina</i> (Phipps)	P	P	P	-
<i>Stobilops labyrinthica</i>	-	P	-	-
<i>Tachyrhynchus erosus</i> (Couthouy)	-	X	-	-
<i>Tachyrhynchus reticulatus</i> (Mighels and Adams)	P	P	P	P
<i>Trichotropis bicarinata</i>	-	-	-	P
<i>Trichotropis borealis</i> (Broderip and Sowerby)	P	X	P	P
<i>Trichotropis conica</i>	-	-	P	P
<i>Trophonopsis</i> sp.	-	P	-	-
<i>Vallonia gracilicosta</i>	-	P	-	-
<i>Velutina plicatilis</i>	-	-	-	P
<i>Velutina undata</i>	P	-	P	P
<i>Velutina velutina</i> (O.F. Muller)	P	P	P	P
<i>Volutopsius norvegicus</i>	-	-	P	P

Species	James Bay (includes S.E. Hudson Bay)	Hudson Bay	Hudson Strait	Foxe Basin
MOLLUSCA: Pelecypoda				
<i>Astarte arctica</i> (Gray)	-	-	P	-
<i>Astarte borealis</i> (Schumacher)	P	P	P	P
<i>Astarte crenata crenata</i> (Gray)	P	P	-	-
<i>Astarte crenata crebricostata</i> (McAndrews and Forbes)	P	P	-	-
<i>Astarte elliptica</i> (Brown)	-	-	P	-
<i>Astarte montagui</i> Dillwyn	P	P	P	P
<i>Astarte striata</i> (Leach)	P	P	P	P
<i>Astarte warhami</i> Hancock	P	P	P	P
<i>Axinopsida orbiculata</i> (G.O. Sars)	P	P	P	P
<i>Bathyarca glacialis</i> (Gray)	P	P	P	-
<i>Chlamys islandica</i> (Muller)	P	P	P	-
<i>Clinocardium ciliatum</i> (Fabricius)	P	P	P	P
<i>Congerina conradi</i>	-	P	-	-
<i>Crenella decussata</i> (Montagu)	P	P	P	-
<i>Crenella faba</i> (O.F. Muller)	P	P	P	P
<i>Crenella glandula</i>	-	P	-	-
<i>Cuspidaria glacialis</i> (G.O. Sars)	-	X	-	-
<i>Cuspidaria subtorta</i> (G.O. Sars)	P	-	-	-
<i>Cyclocardia borealis</i> (Conrad)	-	-	P	-
<i>Cyrtodaria kurriana</i> Dunker	-	P	P	-
<i>Dacrydium vitreum</i> (Moller)	P	-	-	-
<i>Delectopecten greenlandicus</i> (Sowerby)	P	P	P	P
<i>Entodesma</i> sp.	P	-	-	-
<i>Hiatella arctica</i> (Linnaeus)	P	P	P	P
<i>Limatula hyperborea</i> (Jensen)	-	-	P	-
<i>Limatula subauriculata</i> (Smith)	-	-	P	-
<i>Lyonsia arenosa</i> (Moller)	P	X	P	P
<i>Macoma balthica</i> (Linnaeus)	P	P	P	-
<i>Macoma calcarea</i> (Gmelin)	P	P	P	P
<i>Macoma loveni</i> (Steenstrup)	P	-	P	P
<i>Macoma moesta</i> (Deshayes)	P	P	P	P
<i>Macoma torelli</i> (Steenstrup)	P	-	P	P
<i>Musculus corrugatus</i> (Stimpson)	P	P	P	P
<i>Musculus discors</i> (Linnaeus)	P	P	P	P
<i>Musculus niger</i> (Gray)	P	P	P	P
<i>Mya arenaria</i>	-	P	-	-
<i>Mya pseudoarenaria</i> Schlesch	P	-	-	-
<i>Mya truncata</i> Linnaeus	P	P	P	P
<i>Mytilus edulis</i> Linnaeus	P	P	P	-
<i>Nucula belloti</i> Adams	P	P	P	P
<i>Nucula delphinodonta</i> Mighels and Adams	P	-	P	-
<i>Nuculana minuta</i> (Fabricius)	P	P	P	P
<i>Nuculana pernula</i> (O.F. Muller)	P	P	P	P
<i>Nuculana tenuisulcata</i> (Couthouy)	-	P	-	-
<i>Pandora glacialis</i> Leach	P	P	P	P
<i>Periploma abyssorum</i> Verrill	P	P	P	-
<i>Pisidium casertanum</i> (Poli)	P	-	-	-
<i>Portlandia arctica arctica</i> (Gray)	P	P	-	P
<i>Portlandia arctica portlandica</i> (Hitchcock)	P	P	-	-
<i>Portlandia arctica siliqua</i> (Reeve)	-	-	-	P
<i>Portlandia lenticula</i> (Moller)	P	P	P	P
<i>Serripes groenlandicus</i> (Bruguere)	P	P	P	P

Species	James Bay (includes S.E. Hudson Bay)	Hudson Bay	Hudson Strait	Foxe Basin
<i>Sphaerium simile</i> (Say)	X	-	-	-
<i>Thracia devexa</i> G.O. Sars	P	-	-	-
<i>Thracia myopsis</i> Moller	P	X	P	-
<i>Thracia septentrionalis</i> Jeffreys	P	-	-	-
<i>Thyasira equalis</i> Verrill and Bush	?	-	-	-
<i>Thyasira flexuosa</i>	-	P	-	-
<i>Thyasira gouldi</i> (Philippi)	P	P	P	P
<i>Yoldia amygdalea</i> Valenciennes	-	-	P	-
<i>Yoldia hyperborea</i> (Loven)	P	P	P	P
<i>Yoldia myalis</i> (Couthouy)	-	-	P	-
<i>Yoldiella intermedia</i> (M. Sars)	P	-	-	-
<i>Yoldiella lucida</i> Loven	-	-	P	-
MOLLUSCA: Polyplacophora				
<i>Ischnochiton albus</i> (Linnaeus)	P	P	P	P
<i>Tonicella marmorea</i> (Fabricius)	P	P	P	P
<i>Tonicella blaneyi</i>	-	P	-	-
MOLLUSCA: Scaphopoda				
<i>Siphonodentalium lobatum</i> (Sowerby)	-	P	-	-
NEMERTEA				
Nemerteans	P	P	P	P
<i>Tubulanus</i> sp.	-	P	-	-
PHORONIDA				
"horse shoe fan worm"	-	P	-	-
PORIFERA				
<i>Biemna</i> (?) sp.	P	-	-	-
<i>Echinoclathria</i> (?) sp.	-	-	P	-
<i>Gellius varius</i>	-	-	P	-
<i>Grayella pyrula</i>	-	-	P	-
<i>Halichondria disparilis</i>	-	-	P	-
<i>Halichondria panicea</i>	P	-	-	-
<i>Halichondria sitiens</i>	-	-	P	-
<i>Haliclona ventilabrum</i>	-	-	P	-
<i>Hymeniacion heliophila</i>	-	P	-	-
<i>Isodictya palmata</i>	-	-	-	P
<i>Leucandra</i> sp.	P	-	-	-
<i>Mycale lingua</i>	-	-	P	-
<i>Myxilla incrustans</i>	-	-	P	-
<i>Phakettia bowerbanki</i>	P	-	-	-
<i>Phakettia ventilabrum</i>	P	-	-	-
<i>Stelodoryx pluridentata</i>	-	-	P	-
<i>Suberites domocula ficus</i>	P	-	-	-
<i>Tetilla polyura</i>	P	-	-	-
<i>Tetilla sibirica</i>	P	-	-	-
<i>Tylodesma</i> (?) sp.	P	-	-	-
PRIAPULIDA				
<i>Halicryptus spinulosus</i>	-	-	P	-
<i>Priapulus caudatus</i> (Linnaeus)	P	P	P	P

Species	James Bay (includes S.E. Hudson Bay)	Hudson Bay	Hudson Strait	Foxe Basin
<i>Priapulus humanus</i> Chamberlin	-	P	-	-
SIPUNCULA				
<i>Golfingia eremita</i>	-	-	P	-
<i>Golfingia lilljeborgi</i>	-	P	P	-
<i>Golfingia margaritacea</i>	-	P	P	P
<i>Phascolion strombi</i>	P	-	P	-
<i>Phascolosoma hudsonianum</i> Chamberlin	-	P	-	-
<i>Themiste alutacea</i>	-	P	-	-

¹ = probable identification

² = *Themisto* = *Parathemisto*; *T. compressa*, *T. gaudichaudi* and *T. gracipiles* may be synonymous.

Species Occurrence:

P = species occurrence reported in the published literature, or in unpublished consulting reports by Baker (1989, 1996), Baker et al. (1993, 1994), Byers (1993), Lawrence and Baker (1995), or Zrum (2000).

X = mollusc species records based on recently dead animals and/or empty shells only (Wagner 1968; Macpherson 1971). Lubinsky (1980) did not indicate whether some of her records were based on empty shells.

? = probable occurrence in the James Bay marine region.

Organisms identified only to genus were only included where the genus was not otherwise reported from the region.

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- | | |
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| Hedgpeth 1963 | Trason 1964 |
| Holmquist 1959 | Verrill 1922 |
| Hsiao et al. 1984 | Vladykov 1933 |
| Hudon 1994 | Wacasey et al. 1976 |
| Huntsman 1922 | Wagner 1968 |
| Jamieson 1986 | Willey 1931 |
| Johnson 1964 | Zrum 2000. |
| Kerswill 1940 | |

APPENDIX 3 MARINE, ESTUARINE AND ANADROMOUS FISHES REPORTED FROM THE JAMES BAY, HUDSON BAY, AND HUDSON STRAIT MARINE REGIONS (SEE MAP FIGURE 1-1).

The James Bay marine region includes southeastern Hudson Bay (Figure 1-1). The table is organized phylogenetically following Nelson et al. (2004). Nomenclature also follows Nelson et al. (2004) except for a few rare or deep-sea species (*) where it follows Coad and Reist (2004). Symbols are explained, and references listed, at the end of Appendix 3 on page A-40.

Species Name		Marine Region			Occurrence	Importance
Latin	Common	James Bay	Hudson Bay	Hudson Strait		
CLASS CHONDRICHTHYES: cartilaginous fishes						
Family Somniosidae: sleeper sharks						
<i>Somniosus microcephalus</i> (Block and Schneider, 1801)	Greenland Shark	M	M	M	Large, pelagic shark common in Hudson Strait. Anecdotal reports from Hudson Bay and Foxe Basin. May grow to 7 m total length and inhabit depths to at least 1200 m.	Harvested for skin, oil and meat in Greenland. By-catch in Baffin turbot fishery. Eats fish, seals, whales, and birds.
Family Rajidae: skates						
<i>Amblyraja jenseni</i> (Bigelow and Schroeder, 1950)	shorttail skate	-	-	M	Small skate found at depths of 640-2300 m at temperatures of 3-4°C. Reported from eastern Hudson Strait and Ungava Bay.	Reported infrequently in Canadian Atlantic waters. Eats planktonic crustaceans and small fishes (e.g., <i>Sebastes</i> spp.).
<i>Amblyraja radiata</i> (Donovan, 1808)	thorny skate	M	?	M	Medium-sized skate found on hard and soft bottoms at depths of 18-996 m. Has been captured near Kuujjuarapik.	By-catch in Atlantic commercial fisheries, used for fish meal. Eats benthic invertebrates and small fishes.
<i>Bathyraja spinicauda</i> (Jensen, 1914)	spinytail skate	-	-	M	Large, cold-water skate generally found at bottom temperatures of -1.5 to 3.3°C and depths below 185 m. Occurs in Ungava Bay	Infrequently reported from Canadian Atlantic waters. Eats capelin and thorny skate.
CLASS ACTINOPTERYGII: RAY-FINNED FISHES						
Family Acipenseridae: sturgeons						
<i>Acipenser fulvescens</i> Rafinesque, 1817	lake sturgeon	S	?	-	Benthic omnivore found in rivers that drain into southern Hudson and James bays. Enters estuaries in James Bay. Hydroelectric developments can alter spawning habitat. Juveniles and adults can tolerate salinities up to 15 ppt (=psu)(LeBreton and Beamish 1998).	Smoked and eaten by subsistence fishers.

Species Name		Marine Region			Occurrence	Importance
Latin	Common	James Bay	Hudson Bay	Hudson Strait		
Family Clupeidae: Herrings						
<i>Clupea harengus</i> Linnaeus, 1758	Atlantic herring	M	M	M	Small, primarily pelagic, schooling marine fish found inshore or offshore from surface to depths of 200m. Occurs in the Innuksuak and Maquatua river estuaries (Morin et al. 1980, 1982)	Canadian and World fisheries harvest herring for flesh, oil, and roe.
Family Cyprinidae: minnows						
<i>Couesius plumbeus</i> (Agassiz, 1850)	lake chub	S	?	-	Small, freshwater, pelagic fish present in mainland coastal river systems north to Little Whale River. Occasionally enters weak brackish waters.	Forage fish.
<i>Notropis atherinoides</i> Rafinesque, 1818	emerald shiner	?	S	-	Small, freshwater, pelagic fish present in the lower Churchill and Nelson rivers. Common in nearshore brackish water of the Nelson River estuary in summer (Baker 1989).	Forage fish.
Family Catostomidae: suckers						
<i>Catostomous catostomous</i> (Forster, 1773)	longnose sucker	S	S	S	Benthic, freshwater fish found in mainland drainages south of the Arctic Circle. Occasionally enters brackish coastal waters. Brackish nearshore waters of the Nelson River estuary are important summer feeding habitat for juveniles from the lower Nelson River (Baker 1989, 1990).	Harvested by subsistence fisheries—mainly for dog food.
<i>Catostomous commersonii</i> (Lacepède, 1803)	white sucker	S	?	-	Benthic, freshwater fish found in mainland drainages south of the Arctic Circle. Occasionally enters brackish coastal waters.	Harvested by subsistence fisheries—mainly for dog food.
<i>Moxostoma macrolepidotum</i> (Leseur, 1817)	shorthead redhorse	?	-	-	Benthic, freshwater fish found in mainland drainages of southern Hudson Bay and James Bay. Rarely enters brackish coastal waters.	Unknown.
Family Esocidae: pikes						
<i>Esox lucius</i> Linnaeus, 1758	northern pike	S (rare)	S (rare)	S (rare)	Freshwater, pelagic fish uncommon in drainages north of the treeline. Occasionally enters weak brackish waters.	Harvested by subsistence and sport fisheries.

Species Name		Marine Region			Occurrence	Importance
Latin	Common	James Bay	Hudson Bay	Hudson Strait		
Family Osmeridae: smelts						
<i>Mallotus villosus</i> (Müller, 1776)	capelin	B	B	B	Small pelagic marine fish of cold deep waters. Also found in brackish coastal waters. Locally and sporadically abundant in Hudson Bay; occurs in James Bay south to (51°53'N, 80°45'W) (Zalewski and Weir 1981) and in Richmond Gulf (Dutil and Power 1980). Capelins spawn along shoreline in the Belchers (M. Dunbar, pers. comm.). Larvae are abundant in summer in the Churchill, Nelson, and Great Whale estuaries (Ponton et al. 1993; Lawrence and Baker 1995; Zrum 2000).	Food for many species of fish, birds and marine mammals (Fleming and Newton 2003). Harvested by subsistence fisheries during spawning.
<i>Osmerus mordax</i> (Mitchill, 1814)	rainbow smelt	-	A (rare)	-	This small, pelagic, anadromous, schooling fish is a recent immigrant to Hudson Bay, having passed quickly down the Nelson River system and from there to the lower Churchill River via the coastal waters of Hudson Bay (D. Remnant, North/South cons. Ltd., Winniepg, pers. comm. 2003). Its spread may harm the quality of commercially harvested freshwater and anadromous species that prey upon it.	Eaten by northern pike in the lower Churchill and Nelson rivers (Zrum 1999; D. Remnant, North/South Cons. Inc, Winniepeg, pers. comm. 2003).
Family Salmonidae: whitefishes, grayling, salmon, trout, and charrs						
<i>Coregonus artedii</i> Le Sueur, 1818	lake cisco	A	A	A	Pelagic, freshwater fish found in mainland drainages south of the Arctic Circle. Anadromous in James Bay where it can be abundant in eelgrass beds. Migrate along the Hudson Bay coast between the Churchill and Nelson rivers (Lawrence and Baker 1994).	Harvested for subsistence.
<i>Coregonus clupeaformis</i> (Mitchill, 1818)	lake whitefish	A	A	A	Pelagic, freshwater fish found in mainland drainages of the region. Occasionally enters brackish coastal waters in summer.	Harvested for subsistence.
<i>Prosopium cylindraceum</i> (Pennant, 1784)	round whitefish	A	A	A	Anadromous pelagic fish found in mainland drainages of the region and in the brackish coastal waters of eastern James Bay and southeastern Hudson Bay in summer. May be less common in brackish water along the southwest coast of Hudson Bay.	Harvested for subsistence.

Species Name		Marine Region			Occurrence	Importance
Latin	Common	James Bay	Hudson Bay	Hudson Strait		
<i>Salmo salar</i> Linnaeus, 1758	Atlantic salmon	D	D	D	Anadromous pelagic fish that winters at sea but returns to fresh water to spawn. Uncommon in the region but common in the Ungava Bay area—taken in Innuksuak River estuary (Morin et al. 1980).	Harvested as a by-catch of coastal fisheries except in Ungava Bay where it is harvested by subsistence, commercial, and sport fisheries.
<i>Salvelinus alpinus</i> (Linnaeus, 1758)	Arctic charr	A	A	A	Anadromous pelagic fish common in coastal waters of the region in summer. Uncommon in James Bay and along the southern coast of Hudson Bay.	Harvested in quantity by subsistence, commercial and sport fisheries. Economically and culturally important.
<i>Salvelinus fontinalis</i> (Mitchill, 1814)	brook trout	A	A	A	Anadromous, pelagic fish common in coastal waters of southern Hudson and James bays in summer. Rare north of Churchill or Povungnituk.	Harvested by subsistence and sport fisheries.
<i>Salvelinus namaycush</i> (Walbaum, 1792)	lake trout	S	S	S	Freshwater, pelagic fish common in mainland drainages north to Fury and Hecla Strait. Occasionally enters brackish coastal waters. Uncommon on Southampton Island (Stewart and Bernier 1984).	Harvested by subsistence, commercial and sport fisheries.
<i>Thymallus arcticus</i> (Pallas, 1776)	Arctic grayling	-	S?	S?	Pelagic, freshwater fish found in drainages along the west coast of Hudson Bay. May enter brackish waters of western Hudson Strait and Hudson Bay on rare occasions (Pfaff 1937; D. McGowan, DFO Winnipeg, pers. comm.).	Excellent sport fish.
Family Paralepididae: barracudinas						
<i>Arctozenus risso</i> (Bonaparte, 1840)	white barracudina	-	-	M	Small, pelagic, deepwater, marine fish eaten by cod in Ungava Bay. <i>Formerly known as Notolepis rissor kroeyeri</i> (Lütken, 1892) (Coad and Reist 2004).	Food for many larger predatory fishes and seals.
Family Balthylagidae: blacksmelts						
<i>Bathylagus euryops</i> Goode and Bean, 1896	goitre blacksmelt	-	-	M	Small deepwater pelagic fish. Generally found in the North Atlantic at depths of 548 to 1352 m.	Unknown.
Family Myctophidae: lanternfishes						
<i>Benthoosema glaciale</i> (Reinhardt, 1837)	glacier lanternfish	-	-	M	Small mesopelagic marine fish that occurs from the surface to a depth of 503 m. Found in Ungava Bay and the North Atlantic.	Unknown.
<i>Lampanyctus crocodilus</i> (Risso, 1810)	jewel lanternfish	-	-	M	Small epipelagic to benthopelagic fish found from the surface to depths of 1000 m, eats zooplankton.	Unknown.

Species Name	Common	Marine Region			Occurrence	Importance
		James Bay	Hudson Bay	Hudson Strait		
<i>*Lampanyctus macdonaldi</i> (Goode and Bean, 1896)	rakery lanternfish	-	-	M	Small mesopelagic marine fish found from the surface to depths of over 1000 m.	Eaten by cod in Ungava Bay.
<i>*Notoscopelus kroeyerii</i> (Malm, 1861)	Krøyer's lanternfish	-	-	M	Small mesopelagic marine fish found from the surface to depths of over 1000 m.	Eaten by many commercially harvested fishes.
<i>*Symbolophorus veranyi</i> (Moreau, 1868)	largescale lanternfish	-	-	M	Mesopelagic marine fish found from the surface at night to depths of over 800m during the day. Grows to 1.3 m. Found in Ungava Bay.	Eaten by swordfish.
Family Percopsidae: trout perches						
<i>Percopsis omiscomaycus</i> (Walbaum, 1792)	trout-perch	S	?	-	Small, freshwater, bottom feeder found in shallow mainland streams and lakes north to Little Whale River. Occasionally enters weak brackish water.	Eaten by predatory fishes and fish-eating birds.
Family Macrouridae: grenadiers						
<i>Macrourus berglax</i> Lacepède, 1801	roughhead grenadier	-	-	M	Pelagic, deep water, marine fish found along the coasts near the bottom at depths of 200 to 1000 m.	Eaten by cod.
Family Moridae: moras						
<i>*Antimora rostrata</i> Günther, 1878	blue antimora (blue hake)	-	-	M	Small, mainly benthic, marine fish found at depths of 457 to 3277 m.	Unknown.
Family Phycidae: Phycid hakes						
<i>*Gaidropsarus ensis</i> (Reinhardt, 1837)	threebeard rockling	-	-	M	Small, pelagic, marine fish that occurs to a depth of 1600 m.	Unknown.
<i>Urophycis chesteri</i> (Goode and Bean, 1878)	longfin hake	-	-	M	Small, deepwater, demersal, marine fish most abundant at depths of 300-450 m in temperatures of 1.6 to 9.7°C. Occurs in Ungava Bay.	By-catch of Atlantic commercial fisheries used for fish meal and oil. Eaten by Atlantic cod and white hake.
Family Gadidae: codfishes						
<i>Arctogadus glacialis</i> (Peters, 1872)	polar cod	-	M	M	Small, cryopelagic or eponitic marine fish widely distributed in the Arctic. Occurs from the surface to depths of 930 m.	Important forage fish for many larger predatory fishes, seabirds, and marine mammals. Sometimes fished for subsistence.
<i>Boreogadus saida</i> (Lepechin, 1774)	Arctic cod	M	M	M	Small, pelagic, schooling, marine fish widely distributed in the Arctic. Locally and sporadically abundant. Larvae typically avoid the brackish water of the under-ice river plumes (Ponton and Fortier 1992; Ponton et al. 1993).	Important forage fish for many larger predatory fishes, seabirds, and marine mammals. Sometimes fished for subsistence.

Species Name		Marine Region			Occurrence	Importance
Latin	Common	James Bay	Hudson Bay	Hudson Strait		
<i>Gadus morhua</i> Linnaeus, 1758	Atlantic cod	-	-	M	Pelagic marine fish that can grow to 90 kg. Occurs from the surface to depths of 457 m.	Harvested by subsistence and commercial fisheries on a small scale within the region. Eaten by many predatory fishes and marine mammals.
<i>Gadus ogac</i> Richardson, 1836	Greenland cod	B	B	B	Demersal, non-schooling fish widespread in coastal inlets of the region where it is evenly distributed to a depth of 35 m (Mikhail and Welch 1989). Common in brackish estuaries of James Bay in winter. May spawn in estuaries (Morin et al. 1991). Eat capelin and benthic crustaceans.	Harvested by subsistence and commercial fisheries on a small scale within the region. Eaten by seals.
<i>Lota lota</i> (Linnaeus, 1758)	burbot	S	S	S	Freshwater omnivore that sometimes enters brackish estuaries. Larvae are present in weakly brackish water of the Great Whale River estuary in spring (Ponton et al. 1993).	Occasionally harvested for subsistence. The rich livers are prized by Inuit.
Family Gasterosteidae: sticklebacks						
<i>Culaea inconstans</i> (Kirtland, 1840)	brook stickleback	S	-	-	Small benthic or pelagic freshwater fish that occasionally enter weakly brackish estuaries.	Important forage, when abundant, for predatory fishes and fish-eating birds.
<i>Gasterosteus aculeatus</i> (Linnaeus, 1758)	threespine stickleback	A	A	A	Small, anadromous, benthic or pelagic fish that occasionally enter brackish coastal waters in summer. Not reported from the islands of northern Hudson Bay.	Important forage, when abundant, for predatory fishes and fish-eating birds.
<i>Pungitius pungitius</i> (Linnaeus, 1758)	ninespine stickleback	A	A	A	Small, anadromous benthic or pelagic fish that occasionally enter brackish coastal waters in summer. Not reported from Coats or Mansel islands.	Important forage, when abundant, for predatory fishes and fish-eating birds.
Family Scorpaenidae: scorpionfishes						
<i>Sebastes mentella</i> Travin, 1951	deepwater redfish	-	-	M	Marine fish weighing up to 8.5 kg. Benthic on rocky or muddy bottom during the day and pelagic at night.	Harvested commercially on the Atlantic coast. Eaten by large cod and halibut. Eat small pelagic fishes and invertebrates.
<i>Sebastes norvegicus</i> (Ascanius, 1772)	golden redfish	-	-	M	Marine fish weighing up to 8.5 kg. Benthic on rocky or muddy bottom during the day and pelagic at night. Usually found in water temperatures of 3-8°C at depths less than 290 m. Formerly <i>S. marinus</i> .	Harvested commercially on the Atlantic coast. Eaten by large cod and halibut. Eat small pelagic fishes and invertebrates.

Species Name		Marine Region			Occurrence	Importance
Latin	Common	James Bay	Hudson Bay	Hudson Strait		
Family Cottidae: sculpins						
<i>Arctiellus scaber</i> Knipowitsch, 1907	rough hookear, hamecon	-	-	M	Small, benthic marine fish found in coastal regions and to depths of 290m.	Unknown.
<i>Arctiellus uncinatus</i> (Reinhardt, 1835)	Arctic hookear sculpin	-	-	M	Small, benthic marine fish found in coastal regions and to depths of 400m.	Unknown.
<i>Cottus cognatus</i> Richardson, 1836	slimy sculpin	S	S	S	Small, benthic freshwater fish that inhabits cool stream or lake waters from near shore to a depth of 125 m. Occasionally enters brackish water.	Eaten by lake trout and northern pike.
<i>Cottus ricei</i> (Nelson, 1876)	spoonhead sculpin	S	S	-	Small, benthic freshwater fish that inhabits cool stream or lake waters from near shore to a depth of 135 m. Occasionally enters brackish water.	Eaten by lake trout and burbot.
<i>Gymnocanthus tricuspis</i> (Reinhardt, 1830)	Arctic staghorn sculpin	B	B	B	Small benthic marine fish found in cold waters from the intertidal zone to a depth of 174 m over rocky and/or sand bottom. Larvae are present in brackish water of the Great Whale River plume in spring and summer (Ponton et al. 1993).	Eaten by seals and seabirds.
<i>Icelus bicornis</i> (Reinhardt, 1840)	twohorn sculpin	M	M	M	Small benthic marine fish found in cold waters from the surface to a depth of 180 m.	Unknown.
<i>Icelus spatula</i> Gilbert and Burke, 1912	spatulate sculpin	M	M	M	Small, benthic marine fish found in Arctic waters from the shallows to 125 m depth.	Eaten by cod.
<i>Myoxocephalus aeneus</i> (Mitchill, 1814)	grubby	-	-	B	Small, benthic marine fish found in coastal waters or estuaries. Abundant in eelgrass beds. Occur in depths of less than 95 m in protected areas. Found in eastern Hudson Strait and Ungava Bay.	Eaten by Atlantic cod.
<i>Myoxocephalus octodecemspinus</i> (Mitchill, 1814)	longhorn sculpin	-	-	M	Small, benthic marine fish found in coastal waters. Moves into deeper water in winter, returns to shallows in spring. Preferred depth range 53-90 m. Occurs in eastern Hudson Strait.	Eats carbs and amphipods. Eaten by cormorants. By-catch of Atlantic commercial fishery.
<i>Myoxocephalus quadricornis</i> (Linnaeus, 1758)	fourhorn sculpin	E	E	E	Small, benthic marine fish found in Arctic coastal waters and brackish estuaries. Common in tidal pools and eelgrass beds, which may provide rearing habitat. Seldom descends below 20 m.	Eaten by may larger marine and anadromous fishes and by birds and marine mammals. Occasionally caught for sport, seldom eaten.

Species Name		Marine Region			Occurrence	Importance
Latin	Common	James Bay	Hudson Bay	Hudson Strait		
<i>Myoxocephalus scorpioides</i> (Fabricius, 1780)	Arctic sculpin	B	B	B	Small, benthic marine fish found in northern coastal waters over smooth or weedy bottom from shallows to 110 m depth—usually just below the intertidal zone.	Eaten by larger fishes and by seabirds.
<i>Myoxocephalus scorpius</i> (Linnaeus, 1758)	shorthorn sculpin	B	B	B	Benthic marine fish that grows to a length of 1 m. Found in cold northern coastal and shoal waters to a depth of 100 m. Spectacular breeding colouration.	Eaten by seabirds. Occasionally caught for sport, seldom eaten.
<i>Triglops murrayi</i> Günther, 1888	moustache sculpin	M	M	M	Small benthic marine fish usually found at depths of 18 to 110 m, but occurring to 320 m.	Eaten by cods and seabirds.
<i>Triglops nybelini</i> Jensen, 1944	bigeye sculpiin	-	-	M	Small benthic marine fish found at depths of 30 to 930, usually in 200 to 600 m; occasionally inshore.	Eaten by seabirds.
<i>Triglops pingelii</i> Reinhardt, 1837	ribbed sculpin	M	M	M	Small benthic marine fish usually found at depths of 10 to 110 m, occurs to 930 m.	Eaten by cod and seabirds.
Family Agonidae: poachers						
<i>Aspidophoroides monopterygius</i> (Bloch, 1786)	alligatorfish	-	-	M	Small, slender, bottom-living marine fish usually found at depths of 18 to 192 m over sand or mud bottom. Occurs to a depth of 320 m.	Eaten by cod, haddock, and halibut.
<i>Leptagonus decagonus</i> ³ (Bloch and Schneider, 1801)	Alligator poacher	M	M	M	Small, slender, benthic marine fish found in Arctic waters at depths of 28 to 290 m over sand or mud bottom. Pelagic larvae.	Unknown.
<i>Ulcina olriki</i> (Lütken, 1876)	Atlantic alligatorfish	M	M	M	Small, slender, bottom-living marine fish usually found at depths of 18 to 110 m over a sand mud or rocky bottom. Formerly <i>Aspidophoroides olriki</i> .	Eaten by halibut.
Family Psychrolutidae: fathead sculpins						
<i>Cottunculus microps</i> Collett, 1875	polar sculpin	-	-	M	Small, benthic marine fish found at depths of 201-896 m in water temperatures of about 1.3-4°C. Occurs in Ungava Bay.	Unknown.
Family Cyclopteridae: lumpfishes						
* <i>Cyclopteropsis jordani</i> Soldatov in Soldatov and Popov, 1929	smooth lumpfish	-	-	M	Marine fish reported from Ungava Bay (Hunter et al. 1984)	Unknown.
<i>Cyclopterus lumpus</i> Linnaeus, 1758	lumpfish	M	M	M	Largely benthic marine fish found on rocky bottom from near surface to 329 m. Grow to 9.5 kg. Move shoreward in April to spawn in shallower water and seaward in late autumn.	Eaten by seals, sperm whales, and Greenland shark. Harvested by the Atlantic commercial fisheries for roe and flesh.

Species Name		Marine Region			Occurrence	Importance
Latin	Common	James Bay	Hudson Bay	Hudson Strait		
<i>Eumicrotremus derjugini</i> Popov, 1926	leatherfin lumpsucker	-	M	M	Small, benthic marine fish found in Arctic waters at depths of 54 to 150 m on mud, gravel or stony bottom.	Eaten by cod and seabirds.
<i>Eumicrotremus spinosus</i> (Fabricius in Müller, 1776)	Atlantic spiny lumpsucker	M	M	M	Small, benthic marine fish found in Arctic waters on mud, gravel, or rocky bottom at depths of 5 to 82 m.	Eaten by cod and seabirds.
Family Liparidae: snailfishes						
<i>Careproctus longipinnis</i> Burke, 1912	longfin snailfish	-	-	M	Small, epibenthic marine fish found in deep waters to 800 m.	Unknown.
<i>Careproctus reinhardti</i> (Krøyer, 1862)	sea tadpole	M	M	M	Small, benthic, deep-sea fish found in Arctic waters down to 1250 m.	Unknown.
<i>Liparis atlanticus</i> (Jordan and Evermann, 1898)	Atlantic snailfish	-	-	M	Small benthic marine fish found in shallow inshore waters, including tidal pools, usually at depths less than 2 m. Spawn in intertidal zone.	Unknown.
<i>Liparis fabricii</i> Krøyer, 1847	gelatinous snailfish	M	M	M	Small, benthic and pelagic, marine fish found in Arctic waters, often over muddy waters, at depths of 40 to 600 m.	Eaten by Atlantic cod, seals, terns, and murre.
<i>Liparis gibbus</i> Bean, 1881	dusky snailfish	M	M	M	Small, largely benthic, marine fish found over rock, sand, and mud bottoms to a depth of 364 m, likely most common between 100 and 200 m.	Eaten by Atlantic cod.
<i>Liparis tunicatus</i> Reinhardt, 1837	kelp snailfish	M	M	M	Small, largely benthic, marine fish found in Arctic and Subarctic waters generally at depths of less than 50 m and associated with kelp, sometimes in tidal pools or attached to <i>Laminaria</i> fronds.	Eaten by seals.
Family Percidae: perch						
<i>Sander vitreus</i> (Mitchill, 1818)	walleye	S	-	-	Freshwater fish found in James Bay drainages. Occasionally enters brackish water. Formerly <i>Stizostedion vitreum</i>	Harvested by subsistence, sport and commercial fisheries.
Family Zoarcidae: eelpouts						
* <i>Gymnelus barsukovi</i> Chernova, 1999	Barsukov's pout	-	-	M	Small, rare, benthic marine fish found in from the shallows to 51 m depth.	Unknown.
<i>Gymnelus viridis</i> (Fabricius, 1780)	fish doctor	-	M	M	Small, benthic marine fish that is common and widespread in Arctic coastal waters.	Eaten by cods and sculpins.
* <i>Lycenchelys kolthoffi</i> Jensen, 1904	wolf eel	-	-	M	Small, benthic, marine fish.	Unknown.
<i>Lycenchelys paxillus</i> (Goode and Bean, 1879)	common wolf eel	-	-	M	Small, benthic, marine fish. Found on mud or sand at depths of 46 to 1097 m. Occurs in Ungava Bay.	Unknown.
<i>Lycenchelys verrilli</i> (Goode and Bean, 1877)	wolf eelpout	-	-	M	Small, benthic marine fish. Found at depths of 46 to 1097 m. Occurs in Ungava Bay.	Unknown.

Species Name	Common	Marine Region			Occurrence	Importance
		James Bay	Hudson Bay	Hudson Strait		
<i>Lycodes esmarkii</i> Collett, 1875	greater eelpout	-	-	M	Small, benthic, marine fish found on mud bottoms at depths of 151 to 500 m in -0.4 to 5.0°C water. Occurs in Hudson Strait and Ungava Bay.	Unknown.
<i>Lycodes lavalaei</i> Vladykov and Tremblay, 1936	Newfoundland eelpout	-	-	M	Small, benthic marine fish. Found on mud, and mud and sand, bottoms at depths of 57 to 535 m. Occurs in Ungava Bay.	Unknown.
<i>Lycodes mucosus</i> Richardson, 1855	saddled eelpout	-	-	M	Small, benthic, marine fish found in coastal waters.	Unknown.
<i>Lycodes pallidus</i> Collett, 1879	pale eelpout	M	?	M	Small, benthic marine fish that occurs over mud bottoms from 11 to 1750 m.	Unknown.
<i>Lycodes polaris</i> (Sabine, 1824)	polar eelpout	-	-	M	Small, benthic marine fish found in coastal waters.	Unknown.
<i>Lycodes reticulatus</i> Reinhardt, 1835	Arctic eelpout	M	M	M	Small benthic marine fish found over mud bottoms at depths of 55 to 229 m. Reported from stations in mid-Hudson Bay.	Unknown.
<i>Lycodes vahlii</i> Reinhardt, 1831	checker eelpout	-	-	M	Small benthic marine fish found in depths of 201-600 m and in temperatures of 2.0 to 4.5°C. Occurs in eastern Hudson Strait and Ungava Bay	Unknown.
Family Stichaeidae: shannies						
<i>Anisarchus medius</i> ¹ (Reinhardt, 1837)	stout eelblenny	M	M	M	Small benthic inshore marine fish found in Arctic seas over sandy-mud bottom at depths of 16 to 119 m.	Eaten by cod.
<i>Eumesogrammus praecisus</i> (Krøyer, 1837)	fourline snakeblenny	M	M	M	Small benthic marine fish found in inshore waters of Arctic seas to a depth of 400 m over mud and rock bottom.	Eaten by cod and seabirds.
<i>Leptoclinus maculatus</i> ¹ (Fries, 1837)	daubed shanny	M	?	M	Small benthic inshore marine fish found in Arctic seas, usually on shoals, at depths of 2 to 91 m below low tide.	Eaten by seabirds and commercially harvested fishes.
<i>Lumpenus fabricii</i> (Reinhardt, 1836)	slender eelblenny	B	B	M	Small benthic inshore marine fish found in Arctic seas over rock bottom at depths of 3 to 183 m. Occasionally enters brackish estuaries.	Eaten by cod, charr, and seabirds.
<i>Lumpenus lampretaeformis</i> (Walbaum, 1792)	snake blenny	-	-	M	Small benthic marine fish found in shoal waters over muddy or hard bottom to 90 m below tide line.	Eaten by cod, Pollock, halibut, and other larger fishes.

Species Name		Marine Region			Occurrence	Importance
Latin	Common	James Bay	Hudson Bay	Hudson Strait		
<i>Stichaeus punctatus</i> (Fabricius, 1780)	Arctic shanny	B	B	B?	Small benthic marine fish found in inshore waters of Arctic seas over cobble or boulder bottom to a depth of 55 m. Larvae are present in brackish water of the Great Whale River plume in spring and summer (Ponton et al. 1993).	Eaten by cod, Greenland halibut and seabirds. Important link in the food web between crustacean zooplankton and polychaetes and the black guillemot (Keats et al. 1993)
Family Pholidae: gunnels						
<i>Pholis fasciata</i> (Bloch and Schneider, 1801)	banded gunnel	M	M	M	Small inshore marine fish found from the intertidal zone to a depth of 28 m; usually at or near bottom over rocky substrate.	Eaten by Arctic cod, sculpins, and seabirds.
Family Anarhichadidae: wolffishes						
<i>Anarhichas lupus</i> Linnaeus, 1758	Atlantic wolffish	-	-	M	Benthic marine fish lives in moderately deep water (5-350 m), over hard bottom. Grows to 19.5 kg.	Commercially harvested in Atlantic Canada. Eats mollusks, crabs, urchins, and starfish. Eaten by cod.
<i>Anarhichas minor</i> Olafsen, 1772	spotted wolffish	-	-	M	Benthic marine fish that usually occurs at depths of 50 to 475 m. Can grow to a length of 2 m.	Harvested in Greenland for meat and leather. Not harvested in this region. Eats mollusks, crabs, urchins, and starfish. Eaten by Greenland sharks and cods.
Family Ammodytidae: sand lances						
<i>Ammodytes dubius</i> Reinhardt, 1837	northern sand lance	B	B	B	Small bottom-dwelling marine fish found inshore or offshore on banks at depths less than 91 m over sand. They burrow into the sand when not schooling.	Important food for larger fishes, marine mammals, and seabirds.
<i>Ammodytes hexapterus</i> ² Pallas, 1814	stout sand lance	B	B	B	Small bottom-dwelling marine fish usually found inshore or on offshore banks at depths of 6-20 m. They burrow into the sand when not schooling. Larvae are common in brackish water of the Nelson River estuary in June and early July (Baker 1996; Horne 1997).	Important forage fish.
Family Pleuronectidae: righteye flounders						
<i>Hippoglossoides platessoides</i> (Fabricius, 1780)	Canadian plaice	B	?	B	Benthic marine fish that can grow to 6 kg. Found on fine sand or soft mud bottom at depths of 36 to 713 m. Occasionally enter brackish water: most common at depths of 73 to 274 m.	Eaten by many larger predatory fishes.

Species Name		Marine Region			Occurrence	Importance
Latin	Common	James Bay	Hudson Bay	Hudson Strait		
<i>Reinhardtius hippoglossoides</i> (Walbaum, 1792)	Greenland halibut (turbot)	-	?	M	Benthic marine fish that can grow to 25 kg. Found on soft bottoms, mostly between the depths of 200 to 600 m but sometimes to 1600 m. Undertake extensive migrations.	Eaten by many larger predatory fishes, seals, belugas, and narwhals. Commercially harvested in Hudson and Davis straits and along the Atlantic coast. eat many smaller commercially harvested fishes.
COUNT:		53	49	89		

¹ Some authors place these species in the genus *Lumpenus*.

² Scott and Scott (1988) consider *Ammodytes hexapterus* and *A. americanus* to be synonymous and use the latter name to refer to the species.

³ Some authors place *Leptagonus decagonus* in the genus *Agonus*.

* deep-sea species where nomenclature follows Coad and Reist (2004).

Species Occurrence:

Species listed have been reported in the published literature, from reliable grey literature, or are listed in National Museum of Natural Sciences (NMNS), Ottawa, or Royal Ontario Museum (ROM), Toronto, collections. Letter codings identify habitat use by each species:

M marine species that do not frequent brackish estuaries or enter fresh water.

B marine species that use brackish estuaries on a seasonal basis, often for nursery grounds.

E estuarine species that can live in brackish water throughout their lives.

D diadromous species that spawn in freshwater but can winter in salt water.

A anadromous species that spawn and winter in fresh water but enter coastal marine waters in summer to feed.

S semi-anadromous species that are primarily freshwater but occasionally enter weakly brackish water.

? that may occur in the marine region as they have been collected from adjacent marine regions or, in the case of freshwater species that enter brackish coastal waters, from coastal drainages. A question mark has also been used to indicate uncertainty in the habitat coding (e.g., *Stichaeus punctatus* in Hudson Strait are coded B? as they occur in the strait but their presence in brackish water, while likely based on other areas, has not been confirmed)

References:

General area - many species: Vladykov 1933, 1934; Dunbar 1970; Scott and Crossman 1973; Lee et al. 1980; Hunter et al. 1984; Crossman and McAllister 1986; McAllister et al. 1987; Scott and Scott 1988; Coad and Reist 2004; ROM; NMNS.

General area - few species: Manning 1942; McAllister 1963a+b; McPhail 1961, 1963; Lindsey 1964; Khan and Quadri 1971; Coad 1973, 1974, 1983; Salenius 1973; McAllister and Aniskowicz 1976; Able and McAllister 1980; Johnson 1980; Martin and Olver 1980; Power 1980.

James Bay and southeastern Hudson Bay: Cox 1921; Dymond 1933; Edwards 1961; McAllister 1964; Hunter 1968; Dadswell 1974; Hunter et al. 1976; Greendale and Hunter 1978; Magnin and Clement 1979; Dutil and Power 1980; Morin et al. 1980, 1981, 1982; Simard et al. 1980; Zalewski and Weir 1981; Lambert and Dodson 1982; Lejeune and Shooner 1982; Ochman and Dodson 1982; St.-Arsenault et al. 1982; Dodson et al. 1985; Morin and Dodson 1986; Kemp et al. 1989; Lambert and Dodson 1990a+b; SEBJ 1990; Doyon et al. 1991; Drolet et al. 1991; Ponton and Fortier 1992; Ponton et al. 1993; Lalumière et al. 1994; Whoriskey et al. 1994.

Hudson Bay: Bean 1881; Dymond 1933; Walters 1953; Hunter 1968; Cowan 1972; Gaboury 1980; Morin and Dodson 1986; Baker 1989, 1990; Mikhail and Welch 1989; Baker et al. 1994; Lawrence and Baker 1995; Baker 1996; Horne 1997; Horne and Bretcher 1998; Zrum 1999, 2000; Stewart and Watkinson 2004; D. Remnant, pers. comm. 2003.

Hudson Strait: Richardson 1855; Turner 1885; Johansen 1927a-c; Henn 1932; Pfaff 1937; Hildebrand 1939; Dunbar 1947, 1952; Dunbar and Hildebrand 1952; Kennedy 1953; Tuck and Squires 1955; Templeman 1963; Patriquin 1967; Boulva 1972; Stewart and Bernier 1983, 1988; Sutcliffe et al. 1983; Gaston et al. 1985; Sopuck 1987; Taggart et al. 1989; Hudon 1990; Gaston et al. 2003.

APPENDIX 4 BIRD SPECIES THAT USE THE SHORELINES AND WATERS OF JAMES BAY AND HUDSON BAY (SEE EXPLANATORY NOTES BELOW).

Footnotes and symbol explanations are located at the end of Appendix 4 on page A-45, reference citations on page A-46.

SPECIES NAME		EASTERN HUDSON BAY			JAMES BAY		WESTERN HUDSON BAY			NORTHERN ISLANDS
		Northern Quebec	Hudson Bay/Arc	Belcher Islands	Eastern	Western	Ontario	Manitoba	Nunavut mainland	
Common	Latin									
Family Gaviidae: Loons										
red-throated loon	<i>Gavia stellata</i> (Pontoppidan, 1763)	C +	C +	C +	U +	U +	U +	U +	C +	C +
Pacific loon	<i>G. pacifica</i> (Lawrence)	U +	U ?	C +	U +	U +	U +	C +	C +	C +
common loon	<i>G. immer</i> (Brünnich)	U +	C +	C +	C +	C +	U +	R +	U +	R ?
yellow-billed loon	<i>G. adamsii</i> (Gray)							R -	R -	
Family Podicipedidae: Grebes										
pieb-billed grebe	<i>Podilymbus podiceps</i> (Linnaeus)					R +		R +		
horned grebe	<i>Podiceps auritus</i> (Linnaeus)				R -	U ?	R +	R +		
Family Procellariidae: Fulmars										
northern fulmar	<i>Fulmarus glacialis</i> (Linnaeus)					R -				R -
Family Hydrobatidae: Storm-petrels										
Leach's storm-petrel	<i>Oceanodroma leucorhoa</i> (Viellot)		R -							
Family Pelecanidae: Pelicans										
American white pelican	<i>Pelecanus erythrorhynchos</i> Gmelin				R -			R -		
Family Sulidae: Gannets										
northern gannet	<i>Sula bassanus</i> (Linnaeus)					R -		R -		
Family Phalacrocoracidae: Cormorants										
double crested cormorant ³	<i>Phalacrocorax auritus</i> (Lesson)				U +			U -		
Family Ardeidae: Herons and Bitterns										
American bittern	<i>Botaurus lentiginosus</i> (Rackett)		R -		C +	C +	U +	R +		
great blue heron	<i>Ardea herodias</i> Linnaeus				R -	U ?				R -
snowy egret	<i>Egretta thula</i> (Molina)					R -				
little blue heron	<i>E. caerulea</i> (Linnaeus)							R -		
tricolor heron	<i>E. tricolor</i> (Müller)							R -		
black-crowned night heron	<i>Nycticorax nycticorax</i> (Linnaeus)							R -		
Family Anatidae: Geese, Swans, and Ducks										
greater white-fronted goose	<i>Anser albifrons</i> (Scopoli)		U -		R ?	U -		R -	U +	R -
snow goose ⁴	<i>Chen caerulescens</i> (Linnaeus)	U +	C -	C -	C -	C +	C +	C +	C +	C +
Ross's goose	<i>C. rossii</i> (Cassin)				U -	U +	R +	C +	U +	U +
Canada goose	<i>Branta canadensis</i> (Linnaeus)	C +	C +	C +	C +	C +	C +	C +	C +	C +

SPECIES NAME		EASTERN HUDSON BAY			JAMES BAY		WESTERN HUDSON BAY			NORTHERN ISLANDS
Common	Latin	Northern Quebec	Hudson Bay Arc	Belcher Islands	Eastern	Western	Ontario	Manitoba	Nunavut mainland	
brant	<i>B. bernicla</i> (Linnaeus)	U -	C -	U -	C -	C -	U -	U -	U -	C +
trumpeter swan	<i>Cygnus buccinator</i> Richardson							R -		
tundra swan	<i>C. columbianus</i> (Ord)	U +	U +	U +	R -	U +	U +	C +	U +	C +
gadwall	<i>Anas strepera</i> Linnaeus				R -	R ?		R ?		
Eurasian widgeon	<i>A. penelope</i> Linnaeus							R -		
American widgeon (baldpate)	<i>A. americana</i> Gmelin		R -		U +	C +	C +	U +	R +	R -
American black duck	<i>A. rubripes</i> Brewster		C +	U -	C +	C +	C +	C ?	R -	
mallard	<i>A. platyrhynchos</i> Linnaeus		U -		C +	C +	C +	U +	U +	R -
blue winged teal	<i>A. discors</i> Linnaeus				U +	C +	U +	U +		
northern shoveler	<i>A. souchet</i> Linnaeus				R -	C +	U +	U +		R -
northern pintail	<i>A. acuta</i> Linnaeus	C +	C +	C +	C +	C +	C +	C +	C +	C +
green-winged teal	<i>A. crecca</i> Linnaeus		U +	R -	C +	C +	C +	C +	U +	U -
canvasback	<i>Aythya valisineria</i> (Wilson)							R +		
redhead	<i>A. americana</i> (Eyton)							R -		
ring-necked duck	<i>A. collaris</i> (Donovan)				U +	U +	R +	R +		
greater scaup	<i>A. marila</i> (Linnaeus)		U +		U +	C +	C +	C +	U +	R -
lesser scaup	<i>A. affinis</i> (Eyton)				C +	C +	U +	R +	R -	
king eider	<i>Somateria spectabilis</i> (Linnaeus)	U +	U -	U +	U +	U +	U +	U +	U +	C +
common eider ⁵	<i>S. mollissima</i> (Linnaeus)	C +	C +	C +	C +	C +	C +	C +	C +	C +
harlequin duck ⁶	<i>Histrionicus histrionicus</i> (Linnaeus)	R ?	U +	R -	R ?	R -		R -		
surf scoter	<i>Melanitta perspicillata</i> (Linnaeus)	U -	C -	C -	C +	C -	C +	U +		
white-winged scoter	<i>M. fusca</i> (Linnaeus)	U -	C ?	C -	C +	C -	U ?	C +	U +	R -
black scoter (common scoter)	<i>M. nigra</i> (Linnaeus)	R -	C -	U -	C -	C -	C +	C +		R -
long-tailed duck (oldsquaw)	<i>Clangula hyemalis</i> (Linnaeus)	C +	C +	C +	C +	U +	C +	C +	C +	C +
bufflehead	<i>Bucephala albeola</i> (Linnaeus)					R -	R +	R +		R -
common goldeneye	<i>B. clangula</i> (Linnaeus)	R -	C ?	C -	C +	C +	U +	C +	R +	R -
Barrow's goldeneye	<i>B. islandica</i> (Gmelin)	R ?	R ?			R -		R -		
hooded merganser	<i>Lophodytes cucullatus</i> (Linnaeus)				R -	R ?		R -		
common merganser	<i>Mergus merganser</i> Linnaeus	C -	C -	C +	C ?	C ?	U +	U -		
red-breasted merganser	<i>M. serrator</i> Linnaeus	U +	U +	U ?	C +	C +	C +	C +	C +	U ?
ruddy duck	<i>Oxyura jamaicensis</i> (Gmelin)							R -		R -
Family Accipiteridae: Ospreys, Eagles, Hawks, and Allies										
osprey	<i>Pandion haliaetus</i> (Linnaeus)		R +		U +	U +	U +	R +		
bald eagle	<i>Haliaeetus leucocephalus</i> (Linnaeus)		R -		R -	R -	R -	U +		
northern harrier (marsh hawk)	<i>Circus cyaneus</i> (Linnaeus)		U -		C ?	C +	U +	U +		
northern goshawk	<i>Accipiter gentilis</i> (Wilson)		R ?		R ?	R +				
sharp-shinned hawk	<i>A. striatus</i> Vieillot				R +	U +		R -		

SPECIES NAME		EASTERN HUDSON BAY			JAMES BAY		WESTERN HUDSON BAY			NORTHERN ISLANDS
Common	Latin	Northern Quebec	Hudson Bay Arc	Belcher Islands	Eastern	Western	Ontario	Manitoba	Nunavut mainland	
rough-legged hawk	<i>Buteo lapopus</i> (Gmelin)		U +	U +	U +	U +		U +	U +	U ?
golden eagle	<i>Aquila chrysaetos</i> (Linnaeus)		R +	R +	R +	R +	R +	R -		
Family Falconidae: Falcons										
merlin	<i>Falco columbarius</i> Linnaeus		U +		U +	C +	U +	U +	U +	R -
peregrine falcon ⁷	<i>F. peregrinus</i> Tunstall	R +	R +	U +	R ?	R -	R ?	R +	C +	R +
gyrfalcon	<i>F. rusticolus</i> Linnaeus	U +		R -	R -			R -	R +	U +
prairie falcon	<i>F. mexicanus</i> Schlegel							R -		
Family Rallidae: Rails, Gallinules, and Coots										
yellow rail ⁸	<i>Coturnicops noveboracensis</i> (Gmelin)				C ?	C +	U +	U +		
sora	<i>Porzana carolina</i> (Linnaeus)		U +		C +	C +	R +	R +		
American coot	<i>Fulica americana</i> Gmelin					U ?		R +		
Family Gruidae: Cranes										
sandhill crane	<i>Grus canadensis</i> (Linnaeus)			U -	U +	C +	U +	R +	U +	U +
Family Charadriidae: Plovers										
black-bellied plover	<i>Pluvialis squatarola</i> (Linnaeus)	R -	U -	U -	U -	C -	R -	U -	R -	U +
American golden-plover	<i>P. dominica</i> (Muller)	R -	R -	U -	U -	C +	U +	C +	U +	C +
semipalmated plover	<i>Charadrius semipalmatus</i> Bonaparte	C +	C +	C +	C +	C +	C +	C +	C +	C +
killdeer	<i>C. vociferus</i> Linnaeus				U +	C +	U +	U +		
Family Scolopacidae: Sandpipers, Phalaropes, and allies										
greater yellowlegs	<i>Tringa melanoleuca</i> (Gmelin)	C -	C -	C -	C ?	C +	C +	C +		R -
lesser yellowlegs	<i>T. flavipes</i> (Gmelin)				C +	C +	C +	U +	U -	
solitary sandpiper	<i>T. solitaria</i> Wilson				U +	U +	U +	R +	R -	
spotted sandpiper	<i>Actitis macularia</i> (Linnaeus)		U +		C +	C +	C +	U +	R +	
whimbrel ⁹	<i>Numenius phaeopus</i> (Linnaeus)		U -		U -	C +	C +	C +	C +	C ?
Hudsonian godwit ¹⁰	<i>Limosa haemastica</i> (Linnaeus)		U -		U -	C +	C +	C +		R ?
marbled godwit	<i>L. fedoa</i> (Linnaeus)				U -	C +				
ruddy turnstone	<i>Arenaria interpres</i> (Linnaeus)	C -	U -	C -	C -	C -	C +	C -	U ?	C +
red knot ¹⁰	<i>Calidris canutus</i> (Linnaeus)		U -	U -	U -	C -	C -	C -	R -	U +
sanderling	<i>C. alba</i> (Pallas)		U -	R -	U -	C -	C -	C -	C +	U +
semipalmated sandpiper	<i>C. pusilla</i> (Linnaeus)	C +	U +	C +	C +	C +	C +	C +	C +	C +
little stint	<i>C. minuta</i> (Leisler)					R -				
least sandpiper	<i>C. minutilla</i> (Vieillot)	U +	C +	R +	C +	C +	C +	C +	C +	R +
white-rumped sandpiper	<i>C. fuscicollis</i> (Vieillot)	C -	C -	C -	C -	C -	C -	C -	C +	C +
Baird's sandpiper	<i>C. bairdii</i> (Coues)		U -	U -	U -	U -	R -	U ?	U +	U +
pectoral sandpiper	<i>C. melanotos</i> (Vieillot)	C -	U -	U -	U -	C +	C +	U -	U +	U +

SPECIES NAME		EASTERN HUDSON BAY			JAMES BAY		WESTERN HUDSON BAY			NORTHERN ISLANDS
Common	Latin	Northern Quebec	Hudson Bay Arc	Belcher Islands	Eastern	Western	Ontario	Manitoba	Nunavut mainland	
purple sandpiper	<i>C. maritima</i> (Brunnich)		U +	C +	U +	U ?	R ?	R -	U +	U +
dunlin	<i>C. alpina</i> (Linnaeus)		U -	U -	C +	C +	C +	C +	U +	U +
stilt sandpiper	<i>C. himantopus</i> (Bonaparte)					U ?	U +	U +	R +	R -
buff-breasted sandpiper	<i>Tryngites subruficollis</i> (Vieillot)							U -	U -	R -
short-billed dowitcher	<i>Limnodromus griseus</i> (Gmelin)				U +	C +	U +	U +	R -	
Wilson's snipe	<i>Gallinago delicata</i> Ord		U +		C +	C +	C +	C +	R -	R -
Wilson's phalarope	<i>Phalaropus tricolor</i> (Vieillot)				R -	U +				
red-necked phalarope (or northern phalarope)	<i>P. lobatus</i> (Linnaeus)	C +	C +	C +	C +	C +	C +	C +	C +	R +
red phalarope	<i>P. fulicaria</i> (Linnaeus)	R ?				R -		R -	U +	C +
Family Laridae: Jaegers, Gulls, and Terns										
Pomeranian jaeger	<i>Stercorarius pomarinus</i> (Temminck)	U +	R +					R -	U -	U +
parasitic jaeger	<i>S. parasiticus</i> (Linnaeus)	C -	U -	U +	U -	U +	C +	C +	C +	C +
long-tailed jaeger	<i>S. longicaudus</i> Vieillot	C +	R +	U -		R -	U -	U -	U +	U +
laughing gull	<i>Larus atricilla</i> Linnaeus							R -		
Franklin's gull	<i>L. pixican</i> Wagler							R -		
little gull	<i>Larus minutus</i> Pallas					U +	R ?	R +		
black-headed gull	<i>L. ridibundus</i> Linnaeus							R -		
Bonaparte's gull	<i>L. philadelphia</i> (Ord)				C +	C +	U ?	C +		R -
mew gull	<i>L. canus</i> Linnaeus							R +		
ring-billed gull	<i>L. delawarensis</i> Ord		U ?		U +	U +				R -
California gull	<i>L. californicus</i> Lawrence					R -		R -		
herring gull	<i>L. argentatus</i> Pontoppidan	C -	C +	C +	C +	C +	C +	C +	C +	C +
Iceland gull	<i>L. glaucooides</i> Meyer	U +		R -		R -	R -	U -	U -	R +
lesser black-backed gull	<i>L. fuscus</i> Linnaeus							R -	R -	R -
glaucous -winged gull	<i>L. glaucescens</i> Naumann							R -		
glaucous gull	<i>L. hyperboreus</i> Gunnerus	C -	U +	C +	R -	R -	R ?	U -	C -	C +
great black-backed gull	<i>L. marinus</i> Linnaeus		R -				R -	R -	R -	R -
black-legged kittiwake	<i>Rissa tridactyle</i> (Linnaeus)							R -	R -	U -
Ross's gull ¹¹	<i>Rodostethia rosea</i> (MacGillivray)						R -	R +		
Sabine's gull	<i>Xema sabini</i> (Sabine)				R -	R -	R -	U -	U -	C +
ivory gull ¹²	<i>Pagophila eburnea</i> (Phipps)		R -		R -	R -		R -		R -
Caspian tern	<i>Sterna caspia</i> Pallas					U +	R ?	R -		C +
common tern	<i>S. hirundo</i> Linnaeus				C +	C +				
Arctic tern	<i>S. parasisaea</i> Pontoppidan	C +	C +	C +	C +	U +	C +	C +	C +	C +
Forster's tern	<i>S. forsteri</i> Nuttall							R -		
white-winged tern	<i>Chlidonias leucopterus</i> (Temminck)							R -		

SPECIES NAME		EASTERN HUDSON BAY			JAMES BAY		WESTERN HUDSON BAY			NORTHERN ISLANDS
		Northern Quebec	Hudson Bay Arc	Belcher Islands	Eastern	Western	Ontario	Manitoba	Nunavut mainland	
Common	Latin									
black tern	<i>C. niger</i> (Linnaeus)				R -	U +		R ?		
Family Alcidae: Auks, Murres, and Puffins										
dovekie	<i>Alle alle</i> (Linnaeus)	R ?	R -	R -						U -
thick-billed murre	<i>Uria lomvia</i> (Linnaeus)	C +	C -	R -	U -				U -	
black guillemot	<i>Cephus grylle</i> (Linnaeus)	C +	C +	C +	C +	U ?	U +	R ?	C +	C +
Family Strigidae: Typical owls										
snowy owl	<i>Nyctea scandiaca</i> (Linnaeus)	U +	U ?	C +	U -	U -	R -	U +	C +	C +
short-eared owl ¹²	<i>Asio flammulus</i> (Pontoppidan)	R -	U +	R -	C +	C +	U +	U +	U +	R ?
Family Alcedinidae: Kingfishers										
belted kingfisher	<i>Ceryle alcyon</i> (Linnaeus)		R +		U +	U +	U +	R -		
Family Corvidae: Crows and Ravens										
American crow	<i>Corvus brachyrhynchos</i> Brehm				U +	U +	U +	U +		
common raven	<i>C. corax</i> Linnaeus	C +	C +	C +	C +	C +	C +	C +	U +	U +
Family Alaudidae: Larks										
horned lark	<i>Eremophila alpestris</i>	C +	C +	C +	C +	C +	C +	C +	C +	C +
Family Motacillidae: Pipits										
American pipit	<i>Anthus rubescens</i> (Tunstall)	C +	C +	C +	C +	C +	C +	C +	C +	C +
	Number of confirmed species:	47	73	54	93	105	82	121	69	74
	Number of confirmed breeding species:	27	36	27	53	67	63	68	49	43

¹ **Occurrence** : C = Common, U = Uncommon, R = Rare.

² Species that breed in an area are marked (+). Those for which breeding is suspected but not proven are marked (?), and those for which breeding is neither known nor suspected are marked (-). Where the latter are common they are generally summering non-breeders or abundant transients.

³ The only known breeding colony of double crested cormorant on Canada's arctic coast is located at Way Rock in southeastern James Bay.

⁴ The Hudson Bay coasts support half the eastern arctic breeding population of the lesser snow goose *C. c. caerulescens* (Linnaeus).

⁵ The Hudson Bay subspecies of the common eider inhabits the region year-round and is not found elsewhere.

⁶ The Atlantic population of the harlequin duck is considered a population of "Special Concern" in Canada by COSEWIC.

⁷ South of Rankin Inlet there is an exceptional breeding concentration of the tundra subspecies *F. p. tundrius* of peregrine falcon, considered a species of "special concern" in Canada (COSEWIC).

⁸ The yellow rail is considered a species of "special concern" in Canada (COSEWIC)

⁹ The region is one of two disjunct breeding areas for the whimbrel in Canada.

¹⁰ The Ontario coast of James Bay is a major a major fall flyway and resting area for the Hudsonian godwit and red knot. The latter areas are of Critical International Importance to the well-being of both species (Morrison 1983). A significant fraction of the breeding range of the Hudsonian godwit is located along the coast of Hudson Bay.

¹¹ The only known mainland nesting site for Ross's gull, which is considered "Threatened" in Canada (COSEWIC) and breeds mainly in the high Arctic, is located at Churchill.

¹² The Ivory gull and shorteared owl are considered species of "special concern" in Canada (COSEWIC).

References and Personal Communications:

- General area-all species:** Shortt and Peters 1942; Snyder 1957; Cooch 1968; Abraham and Finney 1986; Godfrey 1986; Morrison and Gaston 1986; Alsop 2002.
- General area-few species:** Cooch 1954, 1961; MacInnes and Cooch 1963; Lumsden 1975, 1984a; Bellrose 1976; Hanson and Jones 1976; Boyd et al. 1982; Abraham and Finney 1986; Reed 1986; Reed and Erskine 1986.
- Northern Quebec (Quebec coast of Hudson Bay north of Inukjuaq):** Bell 1884; Manning 1946; Todd 1963; Heyland et al. 1970; Gaston et al. 1985; Birt and Cairns 1986; Chapdelaine et al. 1986; Gaston and Cooch 1986; Nakashima 1988; Nakashima and Murray 1988; A. Reed, formerly Env. Can., Quebec, pers. comm.).
- Hudson Bay Arc (Quebec coast of Hudson Bay from James Bay to Inukjuaq):** Manning 1946; Nakashima and Murray 1988; Menkens and Malecki 1991.
- Belcher Islands:** Twomey and Herrick 1942; Manning 1946, 1976; Freeman 1970a+b; Menkens and Malecki 1991; Gilchrist and Robertson 1999, 2000.
- Eastern James Bay:** East 1938; Shortt and Peters 1942; Savile 1950; Manning and Coates 1952; Manning and Macpherson 1952; Curtis 1973a+b, 1976; Ouellet and Bourget 1975; Curtis et al. 1976; Manning 1981; Berkes 1982; Ross 1983; Dignard et al. 1991.
- Western James Bay:** Lewis and Peters 1941; Hope and Shortt 1944; Manning 1952; Cooch 1961; Peck 1972; Curtis 1973a+b; Curtis et al. 1976; Morrison and Harrington 1979; Martini et al. 1980b; Thomas and Prevett 1982; Craven and Rusch 1983; Morrison 1983; Prevett et al. 1983; Ross 1983, 1984; Abraham 1984; Lumsden 1984b; Cadman et al. 1987; Gillespie et al. 1991; Menkens and Malecki 1991; OMNR 1991; Savard and Dupuis 1999.
- Ontario (Hudson Bay coast):** Peck 1972; Hanson and Jones 1976; Lumsden 1959, 1975, 1984 a+b; Thomas and Prevett 1982; Ross 1982, 1983, 1984; Ross and North 1983; Cadman et al. 1987; Tacha et al. 1988).
- Manitoba:** Taverner and Sutton 1934; Jehl and Smith 1970; Evans and McNichol 1972; Ryder and Cooke 1973; Lumsden 1975, 1984a; Cooke et al. 1975; Hanson and Jones 1976; Chartier and Cooke 1980; Thomas and Prevett 1982; Lane and Chartier 1983; Schmutz et al. 1983; McRae 1984; Davis et al. 1985; Reynolds 1986; Byrkjedal 1987, 1989; Moser and Rusch 1988, 1989; Tacha et al. 1988; Jehl 1996; MARC 2003; P. Taylor, Pinawa, MB, pers. comm. 1991).
- Nunavut mainland:** Bell 1884; Low 1906; Sutton 1931; Hohn 1950; Savile 1951; MacInnes 1962; Maher 1967; Allen and Hogg 1978; Kerbes 1982; MacInnes and Kerbes 1987; Court et al. 1988, 1989; Korol 1989; R. Bromley, GNWT, Yellowknife, pers. comm. 1991; R. Kerbes, Env. Can., Saskatoon, pers. comm. 1990; C. Schenk, pers. comm.; C. Machtans, Env. Can., Yellowknife, pers. comm. 2004).
- Northern Islands (Southampton, Bencas, Coats, and Mansel islands—including areas north of the Hudson Bay marine ecosystem boundaries, and the Ottawa islands):**
- Southampton Island:** Low 1906; Sutton 1932; Bray 1943; Parker and Ross 1973; Brown et al. 1985; Gaston and Decker 1985; Gaston et al. 1986; Reed et al. 1987; A. Reed, formerly Env. Can. Quebec, pers. comm. 1993; C. Machtans, Env. Can., Yellowknife, pers. comm. 2004).
- Coats and Mansel islands:** Manning 1949; Gaston 1982; Gaston and Cooch 1986; Gaston et al. 1986; Gaston and Ouellet 1997; C. Machtans, Env. Can. Yellowknife, pers. comm. 2004).

**APPENDIX 5 SAMPLES FOR WHICH METALS WERE DETERMINED SHOWING
GEOGRAPHIC COORDINATES, DEPTH (m) AND PROPORTIONS OF PARTICLES
OF SIZE >2mm, SAND, SILT AND CLAY (FROM HENDERSON 1989).**

Sample No.	Longitude	Latitude	Depth (m)	Larger than 2mm (%)	Sand (%)	Silt (%)	Clay (%)
65TH 0046	-84.66706	61.79018	179	4.29	7.33	54.37	38.3
65TH 0055	-86.71702	61.44817	225	0.10	2.52	34.36	63.12
65TH 0064	-88.71697	61.10117	195	7.18	7.57	83.07	9.35
65TH 0066	-89.15796	61.01816	157	10.74	17.98	59.52	22.50
65TH 0080	-91.40804	60.94816	108	16.34	15.36	54.01	30.59
65TH 0082	-91.35003	61.17817	115	11.79	54.73	31.94	13.34
65TH 0086	-91.23705	61.62617	143	0	2.36	73.23	24.41
65TH 0088	-91.20805	61.85618	130	0.18	3.70	77.22	19.08
65TH 0090	-91.15004	62.08519	113	11.47	27.08	51.74	21.18
65TH 0120	-91.95004	60.50615	122	8.58	12.13	59.06	28.81
65TH 0130	-93.30000	59.54813	62	48.81	50.52	41.10	8.38
65TH 0132	-92.73301	59.09012	77	7.67	16.46	52.02	31.52
65TH 0134	-92.65801	58.85612	75	21.84	9.21	60.35	30.44
65TH 0137	-92.25003	58.65609	70	10.02	54.99	39.32	5.69
65TH 0146	-91.20003	59.13112	102	5.00	24.48	44.57	30.95
65TH 0150	-90.35005	59.14813	137	0	2.29	47.65	50.06
65TH 0152	-89.39997	59.31512	128	10.72	38.09	29.80	32.09
65TH 0166	-87.06700	60.50615	197	0	1.83	32.64	65.54
65TH 0174	-87.54999	61.59018					
65TH 0178	-89.39996	62.24819	170	0	6.27	64.25	29.48
65TH 0180	-89.42497	62.51520	170	2.29	9.90	69.57	20.53
65TH 0186	-90.25007	62.99821	102	17.60	59.81	28.79	11.40
65TH 0191	-90.56706	62.51520	106	16.70	39.6	47.61	12.79
65TH 0218	-90.18807	63.29021	55	42.42	60.66	28.87	10.47
65TH 0224	-89.56697	61.73118	164	10.66	20.11	60.83	19.06
65TH 0226	-88.69999	62.06519	154	0	8.15	60.90	30.95
65TH 0228	-88.49998	61.44817	163				
65TH 0229	-87.20000	61.26484	178	0.17	0.50	64.89	34.61
65TH 0230	-87.89199	60.84816	200				
65TH 0232	-87.60001	60.58116	201				
65TH 0234	-87.23300	60.09014	210				
65TH 0236	-86.82502	59.68114	216				
65TH 0238	-86.85802	59.44013	210				
65TH 0244	-85.30003	59.56513	180				
65TH 0245	-84.92505	59.56513	144	11.49	13.58	25.30	61.12
65TH 0250	-84.55005	59.59813	154	0.23	11.70	57.58	30.72
65TH 0252	-83.56696	59.64813	135				
65TH 0254	-82.44998	59.65613	190				
65TH 0258	-82.15000	59.22313	140	11.35	31.40	27.65	40.95
65TH 0260	-82.15800	59.59813	152				

Sample No.	Longitude	Latitude	Depth (m)	Larger than 2mm (%)	Sand (%)	Silt (%)	Clay (%)
65TH 0268	-80.37503	60.09815	155				
65TH 0272A	-79.19657	60.07904	143	0	16.22	34.67	49.11
65TH 0272B	-79.19657	60.07904	143	0	1.78	49.32	48.90
65TH 0274	-78.83305	59.97314	128				
65TH 0280	-80.35002	60.60615	140				
65TH 0282	-80.91701	59.81514	159				
65TH 0284	-81.58300	59.79813	143				
65TH 0288	-82.36698	59.19813	148				
65TH 0290	-82.96698	59.24813	200	8.37	29.30	68.95	1.75
65TH 0292	-82.73297	59.54813	255	0.92	1.37	27.06	71.56
65TH 0296	-83.89997	59.28113	137	3.99	21.67	48.69	29.63
65TH 0300	-84.56705	59.19812	121	7.70	38.74	32.34	28.92
65TH 0302	-85.26705	59.54813	155				
65TH 0304	-86.35802	59.51813	199	0	1.45	43.82	54.73
65TH 0320	-91.76703	59.16512	106	7.64	21.38	57.36	21.26
65TH 0326	-91.76704	59.68114	140	0.92	1.58	61.89	36.53
65TH 0328	-91.76704	60.01014	132				
65TH 0330	-92.43303	59.99814	101	8.37	12.35	54.72	32.93
65TH 0332	-92.09202	60.18114	123				
65TH 0336	-90.44205	60.06514	157	0.15	1.06	41.41	57.53
65TH 0338	-89.74996	60.03115	134	16.65	36.40	36.75	26.62
65TH 0340	-89.11697	60.06014	150	1.00	12.77	39.15	48.08
65TH 0342	-88.77498	60.22615	146	19.01	28.68	27.82	43.5
65TH 0344	-88.78298	60.58115	161	7.05	16.08	52.33	31.6
65TH 0348	-89.06996	60.84016	155	0.48	18.80	55.34	25.85
65TH 0352	-87.35001	60.74815	201	1.44	21.59	14.71	63.70
65TH 0354	-86.64202	60.75616	212	4.12	12.34	30.11	57.55
65TH 0360	-85.68704	59.77613	180	0	0.84	69.27	29.89
65TH 0362	-85.54204	60.08115	183	0.14	2.26	81.99	15.75
65TH 0366	-86.06703	61.12617	249	0.20	1.26	80.75	17.99
65TH 0370	-86.60002	61.11816	220	1.46	2.21	30.53	67.26
65TH 0371	-86.33303	61.33117	220	10.54	34.77	50.78	14.45
65TH 0382	-87.80000	62.48520	118	20.30	31.42	48.20	20.38
65TH 0398	-81.97500	63.13121	223	41.60	12.36	52.83	34.81
65TH 0402	-81.80000	62.70821	205	0	6.09	71.45	22.47
65TH 0406	-80.53302	62.09819	137	0.22	6.32	40.70	52.98
65TH 0408A	-80.90000	61.78118	148	0	2.43	58.98	38.51
65TH 0410	-81.18701	61.82618	181	0.22	1.39	62.75	35.86
65TH 0412	-80.96702	62.11519	185	10.20	1.66	65.17	33.17
65TH 0418	-81.90000	61.81818	229	0.21	0.28	34.41	65.31
65TH 0420	-82.44198	61.74818	227	0.54	3.07	66.64	30.29
65TH 0426	-82.92497	61.73518	229	0.24	13.33	63.38	23.29
65TH 0434	-83.93296	60.77616	190	11.59	13.54	52.17	34.29

Sample No.	Longitude	Latitude	Depth (m)	Larger than 2mm (%)	Sand (%)	Silt (%)	Clay (%)
65TH 0436	-84.47005	60.99816	215				
65TH 0438	-84.48706	61.24017	210	1.04	3.82	47.15	49.03
65TH 0440	-83.94995	61.01517					
65TH 0444	-84.50005	60.49015		0	16.81	41.32	41.87
65TH 0448	-86.13303	59.95114					
65TH 0452	-84.53305	58.72112		0	54.79	26.63	18.58
65TH 0454	-84.43005	59.03113		0	50.37	30.16	19.47
65TH 0458	-83.63297	58.58611		0	7.51	34.58	57.91
65TH 0462	-81.97499	58.10111	150	14.29	35.96	23.33	40.71
65TH 0464	-81.95799	57.74810					
65TH 0466	-83.06698	57.60110		0	5.15	31.4	63.45
65TH 0468	-82.94198	57.91511		0	6.04	42.54	51.42
65TH 0470	-82.84198	57.24810	165	0	0.51	31.65	67.83
65TH 0474	-82.91698	56.75109		0	2.98	33.28	63.74
65TH 0480	-86.51702	57.96510		0	1.35	53.64	45.01
65TH 0482	-87.13301	58.00111	159	3.14	2.61	44.81	52.58
65TH 0484	-87.73700	58.07310		0.09	4.06	51.81	44.13
65TH 0486	-87.44200	58.22511	167	7.56	22.36	34.13	43.51
65TH 0488	-86.81702	58.28111		0	0.50	51.45	48.05
65TH 0490	-88.00000	57.99810		0	27.33	45.72	26.95
65TH 0498	-90.49505	57.99810					
65TH 0500	-91.08304	57.99811					
65TH 0502	-91.71702	57.98111	55	62.29	63.54	21.96	14.5
65TH 0508	-92.01703	58.85612	84	31.18	44.22	49.58	6.20
65TH 0514	-93.30001	59.24813	51	12.11	65.19	20.95	13.86
65TH 0523	-88.41698	63.33122	177	9.00	4.47	74.39	21.14
65TH 0538	-85.36705	62.04819	165	8.51	2.69	65.68	31.63
65TH 0548	-82.66699	61.34817	212	2.95	0.42	47.09	52.49
65TH 0550	-81.94998	61.34817	194	0	0.55	43.28	56.17
65TH 0560	-79.08304	60.99816	137	0.24	5.15	47.88	46.97
65TH 0566	-78.43306	61.76518	104	49.47	34.36	20.98	44.66

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**APPENDIX 6 CONCENTRATIONS OF METALS IN SAMPLES OF CLAY-SIZE SEDIMENT
FROM HUDSON BAY (DATA FROM HENDERSON 1989).**

Sample No	As ppm	Cr ppm	Cu ppm	Pb ppm	Zn ppm	Al pct	Ca pct	Co ppm	Mg pct	Mn ppm	Fe pct	K pct	Ni ppm
65TH 0046	2	171	36	42	173	5.35	2.25	27	2.20	0.07	4.70	3.06	76
65TH 0055	2	169	40	38	203	7.71	1.59	30	2.84	0.09	5.45	3.41	83
65TH 0064	2	170	75	44	183	7.08	2.11	28	2.89	0.06	5.36	3.51	77
65TH 0066	2	205	47	41	182	6.71	1.99	27	2.92	0.05	5.17	3.41	76
65TH 0080	2	186	70	43	168	6.03	1.07	22	2.45	0.05	4.92	3.29	74
65TH 0082	2	164	37	36	157	6.58	1.10	21	2.70	0.05	4.96	3.26	79
65TH 0086	2	159	45	30	155	6.03	1.24	22	2.55	0.05	4.82	3.19	69
65TH 0088	2	158	36	30	151	6.19	1.25	21	2.50	0.05	4.70	3.00	67
65TH 0090	2	153	50	40	154	8.30	1.25	26	2.30	0.06	5.08	3.50	77
65TH 0120	2	133	68	32	147	5.42	1.03	19	2.36	0.05	4.50	3.14	64
65TH 0130	2	163	28	41	164	5.89	1.91	21	2.15	0.06	5.03	3.27	69
65TH 0132	2	169	170	40	178	6.38	1.49	20	2.36	0.05	4.63	3.32	68
65TH 0134	2	167	90	40	182	6.12	1.38	24	2.70	0.05	5.08	3.42	70
65TH 0137	2	168	58	37	170	5.76	1.65	23	2.61	0.06	5.17	3.18	80
65TH 0146	2	166	122	40	181	5.25	1.09	22	2.57	0.05	5.15	3.30	72
65TH 0150	2	164	56	38	159	5.71	1.24	21	2.46	0.05	4.76	3.30	68
65TH 0152	2	155	53	44	163	8.54	1.83	29	2.31	0.14	5.38	3.28	71
65TH 0166	2	119	38	37	168	5.24	1.46	35	2.33	0.45	4.95	3.17	85
65TH 0174	2	154	47	35	157	6.86	1.94	22	2.61	0.05	4.64	3.10	65
65TH 0178	2	123	59	31	135	6.93	2.02	16	2.62	0.04	4.17	2.68	56
65TH 0180	2	122	33	35	130	9.40	1.88	16	2.62	0.05	4.20	2.66	69
65TH 0186	2	164	33	41	175	5.73	1.49	23	2.51	0.06	4.92	3.07	77
65TH 0191	2	236	58	41	178	7.85	1.20	30	3.08	0.07	6.34	3.73	96
65TH 0218	2	99	22	32	112	6.08	2.14	13	2.16	0.05	3.34	2.26	51
65TH 0224	2	108	37	46	158	7.63	2.62	21	3.93	0.06	5.13	3.21	69
65TH 0226	2	157	84	43	177	5.76	2.77	26	2.49	0.05	4.92	3.55	71
65TH 0228	2	151	41	34	171	6.50	1.39	32	2.36	0.14	4.62	3.18	73
65TH 0229	2	120	33	34	133	6.68	2.02	18	2.3	0.04	4.09	2.72	55
65TH 0230	2	154	37	40	168	6.82	2.18	29	2.69	0.08	5.08	3.21	74
65TH 0232	2	148	39	44	188	8.27	2.08	28	3.86	0.10	5.73	3.36	77
65TH 0234	2	144	41	44	156	7.72	1.62	38	2.57	0.45	4.92	3.35	98
65TH 0236	2	150	39	55	166	8.90	1.58	37	2.38	0.42	4.84	3.41	103
65TH 0238	7	130	36	44	196	7.69	1.72	30	3.00	0.21	5.75	3.48	85
65TH 0244	17	142	31	51	159	7.68	2.19	47	2.88	0.51	5.60	3.51	86
65TH 0245	8	145	36	49	193	6.31	1.45	31	3.08	0.17	6.10	3.77	88
65TH 0250	10	141	34	43	184	6.88	1.57	31	2.99	0.17	5.87	3.84	85
65TH 0252	7	122	34	35	165	5.90	1.46	26	2.63	0.12	5.21	3.30	64

Sample No	As ppm	Cr ppm	Cu ppm	Pb ppm	Zn ppm	Al pct	Ca pct	Co ppm	Mg pct	Mn ppm	Fe pct	K pct	Ni ppm
65TH 0254	5	141	43	40	185	7.13	1.70	26	2.90	0.07	5.37	3.55	72
65TH 0258	10	135	29	36	174	6.24	1.45	25	2.66	0.06	5.08	3.39	66
65TH 0260	2	148	30	34	180	5.00	1.36	27	2.50	0.12	5.19	3.42	66
65TH 0268	2	112	24	34	140	6.35	4.20	14	2.25	0.04	3.90	2.15	58
65TH 0272A	2	152	35	30	170	5.83	1.33	30	2.40	0.07	4.55	3.13	71
65TH 0272B	2	157	35	39	166	6.10	1.55	27	2.77	0.08	5.77	3.63	76
65TH 0274	2	138	31	27	149	6.43	1.31	23	2.30	0.06	4.51	3.01	66
65TH 0280	2	150	36	32	161	5.67	1.70	26	2.74	0.07	4.92	3.16	69
65TH 0282	2	153	35	31	181	6.03	1.39	31	2.56	0.09	4.94	3.21	75
65TH 0284	5	142	33	32	188	5.64	1.41	27	2.58	0.06	4.85	3.43	71
65TH 0288	2	137	38	29	179	6.25	1.70	27	2.69	0.07	4.87	3.33	67
65TH 0290	5	159	33	41	196	6.71	1.46	33	2.83	0.16	5.76	3.78	77
65TH 0292	2	124	35	37	187	6.82	1.52	29	2.85	0.06	5.49	3.41	79
65TH 0296	2	162	39	55	185	5.72	1.49	34	3.12	0.16	5.90	3.53	88
65TH 0300	2	145	38	41	161	6.30	1.80	30	2.77	0.17	5.43	3.70	85
65TH 0302	7	137	49	39	168	5.72	1.59	27	2.69	0.10	6.30	3.53	75
65TH 0304	8	128	35	36	177	5.85	1.4	30	2.62	0.16	5.48	3.43	75
65TH 0320	2	167	38	36	161	5.81	1.05	21	2.65	0.06	5.13	3.34	70
65TH 0326	7	170	35	41	157	5.69	1.11	21	2.60	0.05	5.09	3.35	64
65TH 0328	6	183	70	81	158	5.94	1.17	22	2.68	0.05	4.91	3.38	65
65TH 0330	2	158	32	84	142	6.16	1.24	18	2.68	0.06	4.88	3.14	64
65TH 0332	2	173	43	37	159	5.90	1.12	22	2.83	0.06	5.36	3.33	66
65TH 0336	2	150	38	35	162	4.90	1.73	24	2.77	0.06	5.13	3.35	62
65TH 0338	5	156	28	52	167	6.23	1.76	28	2.97	0.07	5.82	3.20	64
65TH 0340	2	148	40	34	174	6.80	1.82	26	3.16	0.06	5.50	3.22	64
65TH 0342	5	153	36	40	165	6.70	1.86	30	3.10	0.12	5.83	3.32	65
65TH 0344	9	154	42	48	170	6.34	1.97	26	3.07	0.08	5.41	3.43	64
65TH 0348	2	161	39	38	164	5.11	1.56	25	2.64	0.05	4.55	2.96	67
65TH 0352	2	156	60	49	204	6.42	1.79	32	2.89	0.20	5.91	3.58	81
65TH 0354	2	146	38	47	173	6.75	2.02	33	2.82	0.22	5.93	3.43	78
65TH 0360	2	130	32	137	171	3.15	0.80	28	1.37	0.07	2.68	1.69	79
65TH 0362	7	140	37	52	168	6.79	1.47	53	2.65	1.00	5.65	3.52	107
65TH 0366	2	126	35	42	165	6.43	1.68	39	2.71	0.79	5.44	3.27	85
65TH 0370	9	150	50	44	191	6.46	1.69	30	2.80	0.10	5.23	3.43	86
65TH 0371	2	127	29	35	137	4.79	3.30	16	2.20	0.04	3.94	2.88	51
65TH 0382	2	112	38	38	120	7.30	5.54	15	3.31	0.04	3.29	2.54	54
65TH 0398	2	163	39	43	137	5.28	3.68	16	2.44	0.04	4.19	2.76	57
65TH 0402	2	166	36	44	150	4.95	3.22	19	2.36	0.05	4.50	3.00	58
65TH 0406	2	155	36	44	163	5.80	2.21	26	2.59	0.07	4.77	3.11	70

Sample No	As ppm	Cr ppm	Cu ppm	Pb ppm	Zn ppm	Al pct	Ca pct	Co ppm	Mg pct	Mn ppm	Fe pct	K pct	Ni ppm
65TH 0408A	2	139	31	42	143	5.06	3.40	20	2.44	0.05	4.66	2.91	59
65TH 0410	2	144	36	44	167	6.23	2.08	30	2.77	0.08	5.10	3.19	71
65TH 0412	2	145	34	92	159	6.28	2.33	26	2.7	0.06	4.79	3.00	67
65TH 0418	2	147	36	50	161	6.58	2.21	28	2.95	0.12	5.28	3.18	68
65TH 0420	2	153	36	49	157	5.97	2.26	26	2.76	0.08	4.85	3.09	67
65TH 0426	2	156	38	42	161	6.40	2.50	27	2.83	0.07	5.14	3.36	69
65TH 0434	11	148	36	45	164	6.63	1.63	31	2.64	0.21	5.44	3.49	83
65TH 0436	2	142	37	42	181	6.09	1.63	31	2.86	0.12	5.63	3.41	79
65TH 0438	2	143	38	48	175	5.95	1.79	28	2.71	0.07	5.06	3.36	78
65TH 0440	2	152	37	54	177	6.59	1.69	34	2.75	0.20	5.42	3.63	84
65TH 0444	2	129	35	48	155	5.98	1.49	39	2.41	0.35	4.53	3.61	96
65TH 0448	8	181	37	73	210	9.79	1.77	38	3.44	0.40	6.75	4.96	90
65TH 0452	2	155	34	58	109	6.42	1.21	38	2.25	0.29	4.74	3.93	99
65TH 0454	2	146	35	60	180	6.07	1.22	37	2.28	0.25	4.68	3.86	95
65TH 0458	2	127	36	50	170	6.43	0.99	38	2.26	0.27	4.96	3.86	89
65TH 0462	2	125	27	39	143	6.27	1.18	23	1.97	0.08	4.00	3.37	62
65TH 0464	2	152	32	49	160	6.52	1.20	27	2.18	0.06	4.39	3.71	73
65TH 0466	77	149	35	51	174	5.91	0.96	27	2.19	0.06	4.76	3.76	81
65TH 0468	2	145	31	50	172	5.67	0.89	27	2.18	0.05	4.61	3.81	76
65TH 0470	2	150	36	62	180	5.45	0.96	32	2.21	0.09	4.88	3.82	84
65TH 0474	2	170	37	45	182	8.89	1.48	26	2.71	0.07	5.89	3.74	80
65TH 0480	2	164	34	55	168	7.73	1.54	28	2.60	0.06	5.59	3.56	79
65TH 0482	2	175	38	59	181	7.45	1.21	29	2.58	0.06	5.31	3.69	79
65TH 0484	2	176	30	48	172	7.12	1.13	24	2.58	0.06	5.22	3.67	63
65TH 0486	2	160	35	51	179	7.65	2.67	31	2.24	0.07	5.52	3.78	82
65TH 0488	2	171	35	54	196	7.28	1.08	35	2.53	0.09	5.32	3.91	83
65TH 0490	2	166	35	50	174	7.12	1.18	26	2.57	0.06	5.15	3.79	74
65TH 0498	2	162	29	52	156	7.01	1.69	22	2.47	0.06	5.03	3.58	72
65TH 0500	2	174	35	55	156	7.40	1.54	21	2.41	0.05	4.78	3.42	73
65TH 0502	2	143	29	64	150	7.71	4.11	23	2.29	0.06	5.17	3.22	69
65TH 0508	9	274	47	87	227	7.75	2.09	30	3.92	0.08	7.50	3.66	97
65TH 0514	2	163	33	49	159	8.32	2.43	24	2.51	0.06	5.33	3.58	72
65TH 0523	2	124	29	31	121	6.86	3.31	15	2.33	0.04	3.67	2.78	52
65TH 0538	2	153	35	43	166	7.30	2.12	26	2.62	0.05	4.47	3.35	71
65TH 0548	2	161	37	46	179	7.92	1.93	31	2.85	0.08	5.12	3.48	79
65TH 0550	2	161	36	45	179	7.57	1.68	33	2.78	0.10	5.40	3.28	79
65TH 0560	2	155	28	37	150	6.60	1.54	24	2.55	0.07	4.87	3.48	60
65TH 0566	2	159	36	48	161	7.36	1.86	27	2.75	0.12	5.34	3.27	73

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