



REPORT

Chapter 8.0 Non-Indigenous Species and Aquatic Invasive Species (NIS/AIS) Monitoring Program

2024 Milne Port Marine Environmental Effects Monitoring Program (MEEMP) and Non-Indigenous Species/Aquatic Invasive Species (NIS/AIS) Monitoring Program

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DEFINITIONS, ACRONYMS, AND ABBREVIATIONS

Acronym or Abbreviation	Definitions
AIS	Aquatic Invasive Species
ArcOD	Arctic Ocean Diversity
ARMS	Arctic Register of Marine Species
Biologica	Biological Environmental Services Ltd.
BOLD	Barcode of Life Database
CBDD	Convention of Biological Diversity Decision VI/23
CCDB	Canadian Centre for DNA Barcoding
CD	Chart Datum
c.f.	Compare with (taxonomy)
DFO	Fisheries and Oceans Canada
DNA	Deoxyribonucleic Acid
EEM	Environmental Effects Monitoring
EOL	Encyclopedia of Life
GBIF	Global Biodiversity Information Facility
GISD	Global Invasive Species Database
Indet.	Indeterminate (taxonomy)
ISSG	Invasive Species Specialist Group
IUCN	International Union for Conservation of Nature
Laval	Benthic Ecology Lab at Université Laval
MEEMP	Marine Environmental Effects Monitoring Program
MEWG	Marine Environment Working Group
NCCOS	National Centers for Coastal Ocean Science
NEMESIS	National Exotic Marine and Estuarine Species Information System
NextGen or NGS	Next Generation Sequencing
NIS	Non-Indigenous Species
OBIS	Ocean Biogeographic Information System
PC	Project Certificate
sp.	Species (taxonomy)
sp. nr.	Species near (taxonomy)
UNB	University of New Brunswick
WoRMS	World Register of Marine Species
WRIMS	World Register of Introduced Marine Species

8.0 NON-INDIGENOUS SPECIES/AQUATIC INVASIVE SPECIES (NIS/AIS)

This chapter presents the results of the Non-Indigenous Species (NIS) and Aquatic Invasive Species (AIS) monitoring program as a part of the larger Marine Environmental Effects Monitoring Program (MEEMP) conducted at Milne Port and in Milne Inlet during the 2024 open-water season. This monitoring component was developed to achieve the requirements outlined in the Project Certificate (PC) Conditions described in Chapter 1.0, Table 1-2, and specifically PC Conditions No. 76, 87, 89, 91, 99 (a), and 99 (c).

8.1.1 Objectives

The MEEMP objectives are outlined in Section 1.3 for the overall program. The objectives specific to the NIS/AIS monitoring program include the following:

- Sample marine environment to screen for potential Project-related introductions of taxa that are invasive or non-indigenous.
- Update taxonomic inventory of marine biota (i.e., list of organisms observed) for Milne Inlet.
- Communicate outcomes for specimens sent for independent verification.

8.1.2 Definitions

Definitions are provided below for technical terms used throughout this chapter. Definitions are written to align with federal and international standards, based on the Convention of Biological Diversity Decision VI/23 (CBDD) and Invasive Alien Species Strategy for Canada (Government of Canada 2004).

Aquatic invasive species (AIS): harmful non-indigenous species whose introduction or spread threatens the environment, the economy, or society (Government of Canada 2004).

cf.: “compare with”, in taxonomy refers to a taxonomic designation that indicates an inexact match to the indicated taxon. The specimen may represent a similar related species, an undescribed morph, or the specimen may be lacking characteristics (due to damage, lack of development of the features, or immaturity) that allow for a positive identification.

Conspecific: organisms belonging to the same species. Often used when there are two or more taxonomic names to describe the same currently accepted species.

Cryptogenic: a species that is not demonstrably native or introduced, a species with an obscure or unknown natural range (Carlton 1996).

forma (f.): or form, indicating a secondary rank classification that designates a group with a noticeable morphological deviation.

Genetic species: a term used to describe a taxon that is identifiable by DNA as a distinctly separate species from the described species within a genus, but a morphological description of that species does not yet exist.

Homotypic synonym: where there is more than one species name on record based on the same type taxon or species description. May occur when the taxon is independently described by separate taxonomists, or when species are renamed (e.g., moved from one genus to another).

indet.: “indeterminate”, used to indicate the specimen can be identified only to the listed taxonomic level, used for indeterminate taxonomic designations above genus. This is typically used for samples that were damaged, juvenile, or missing features preventing a conclusive identification beyond the indicated taxonomic level.

Morphospecies: A taxonomic species that is defined based solely on morphological characteristics. The term is often used when there are indications (i.e., through molecular means) of multiple species within the group.

Morphotype: An individual or specimen that displays a distinct morphological trait or form within a species.

Non-indigenous species (NIS): species introduced by human action outside their natural past or present distribution (Government of Canada 2004).

Representative species: or representative taxa/taxon. A described species from a genus or higher-level taxonomic group where only the higher-level taxonomic designation was identified in Milne Port. Where species level identifications are not made (i.e., “indet.” or “sp.” identifications), literature and database searches for the NIS/AIS monitoring program include all representative species.

sp.: “species”, used to indicate the species name is indeterminate. This is typically used for samples identifiable to genus that were damaged, juvenile, or missing features preventing a conclusive identification to species level.

sp. nr.: “species near”, similar to “cf.”, but representing a species that is similar to the described species, however there are indications that the species is not a correct match. This may occur in poorly or newly described taxonomic groups where a specimen clearly matches the genus description but does not necessarily match the described species within it. May indicate a species that is new to science and lacks a description on record.

Species complex: A term used to describe a group of related organisms for which species boundaries are uncertain. Commonly, members of the group may appear to be morphologically the same species but there are indications of separate species (i.e., by molecular means), or there are indications of close relationships between species (i.e., the complex may be subspecies or forms under the same species name).

Other terms used throughout the report include the following:

Flagged taxa: Taxa are flagged where there is low confidence in their identifications, uncertainties in the range on record, or presence on any of the AIS databases.

High risk: A species is considered “High Risk” if it is:

- not reported to be present in the Canadian Arctic, or reported with high uncertainty
- capable of using shipping vectors
- listed as an AIS in other areas
- well-documented as having potentially serious invasive behaviours in ecosystems similar to Milne Inlet, and/or has shown invasive behaviours in Milne Inlet.

Low risk: A species is considered “Low Risk” if it is:

- not reported from the Canadian Arctic, or reported with high uncertainty, or species is not associated with shipping vectors (e.g., species presence is likely due to range expansion related to climate change)

- not listed on AIS databases, or if listed (or in the case of higher taxon identification, with one or more representative species listed on an AIS database) the representative species is/are unlikely to establish in the Arctic (e.g., tropical/subtropical), or, if listed as introduced to an area with similar conditions, the species is cryptogenic to the area of potential introduction
- not showing invasive behaviours in Milne Inlet

Moderate risk: A species is considered “Moderate Risk” if it is:

- not reported to be present in the Canadian Arctic, or reported with high uncertainty
- capable of using shipping vectors
- listed as an AIS in other areas, with no potentially serious behaviours reported in ecosystems similar to Milne Port
- has shown no invasive behaviours in Milne Inlet

No risk: A species is considered “No Risk” if it is:

- present in the Canadian Arctic prior to Project operations (2015). A species may also be considered “No Risk” where records exist from the Canadian Arctic in areas outside the Project’s area of influence, or distribution in waters adjacent to the Canadian Arctic provides high certainty that its range includes the Canadian Arctic
- not listed on AIS databases, or if listed, it is native to Canadian Arctic or the representative species is/are unlikely to establish in the Arctic (e.g., exclusively tropical/subtropical)

Trigger List: a list of High-Risk taxa that have been confirmed to be present in Milne Inlet and are showing invasive behaviour in Milne Inlet or have shown invasive behaviour in similar ecosystems; and, species not confirmed to occur in Milne Inlet that have been added to the Watch List in the High Risk category based on Project-specific risk assessment. Responsive actions will be species specific and proportional to the risk. There are currently no species on the Trigger List and, therefore, no species-specific response or action plans have been developed to date. Should a species be added to the Trigger List, a species-specific response plan would be developed in consultation with Fisheries and Oceans Canada (DFO).

Watch List: a list of taxa identified in Milne Inlet that are classified as Low Risk, Medium Risk or High Risk and are consequently subject to a heightened level of monitoring, which may include targeted sampling for DNA analysis or population assessment, and species not confirmed to occur in Milne Inlet that have been classified as Low, Moderate or High risk based on Project-specific risk assessment.

8.2 Study Design

NIS/AIS monitoring is conducted annually. Annual monitoring increases the data available for Milne Port, and is also important from a regional perspective, as this program currently represents the most intensive sampling for NIS/AIS in the Canadian Arctic and has contributed to filling regional knowledge gaps on biodiversity.

The NIS/AIS monitoring program is designed to detect potential introductions of non-indigenous and/or invasive species from potential Project-related vectors such as ballast water discharges or ship hull biofouling. Since ballast water releases only occur at the Ore Dock and anchorages in Milne Port, sampling conducted to date has largely focused on southern Milne Inlet as the area with highest likelihood of a potential marine invasion. Sampling

of all survey components is conducted in southern Milne Inlet annually. Sampling has been conducted opportunistically in northern Milne Inlet at Ragged Island; however no ballast water is released at the Ragged Island anchorages.

NIS/AIS monitoring involves a combination of dedicated surveys as well as screening all specimens caught during surveys for all MEEMP components.

Dedicated surveys (Figure 8-1) conducted for the NIS/AIS program involve the following:

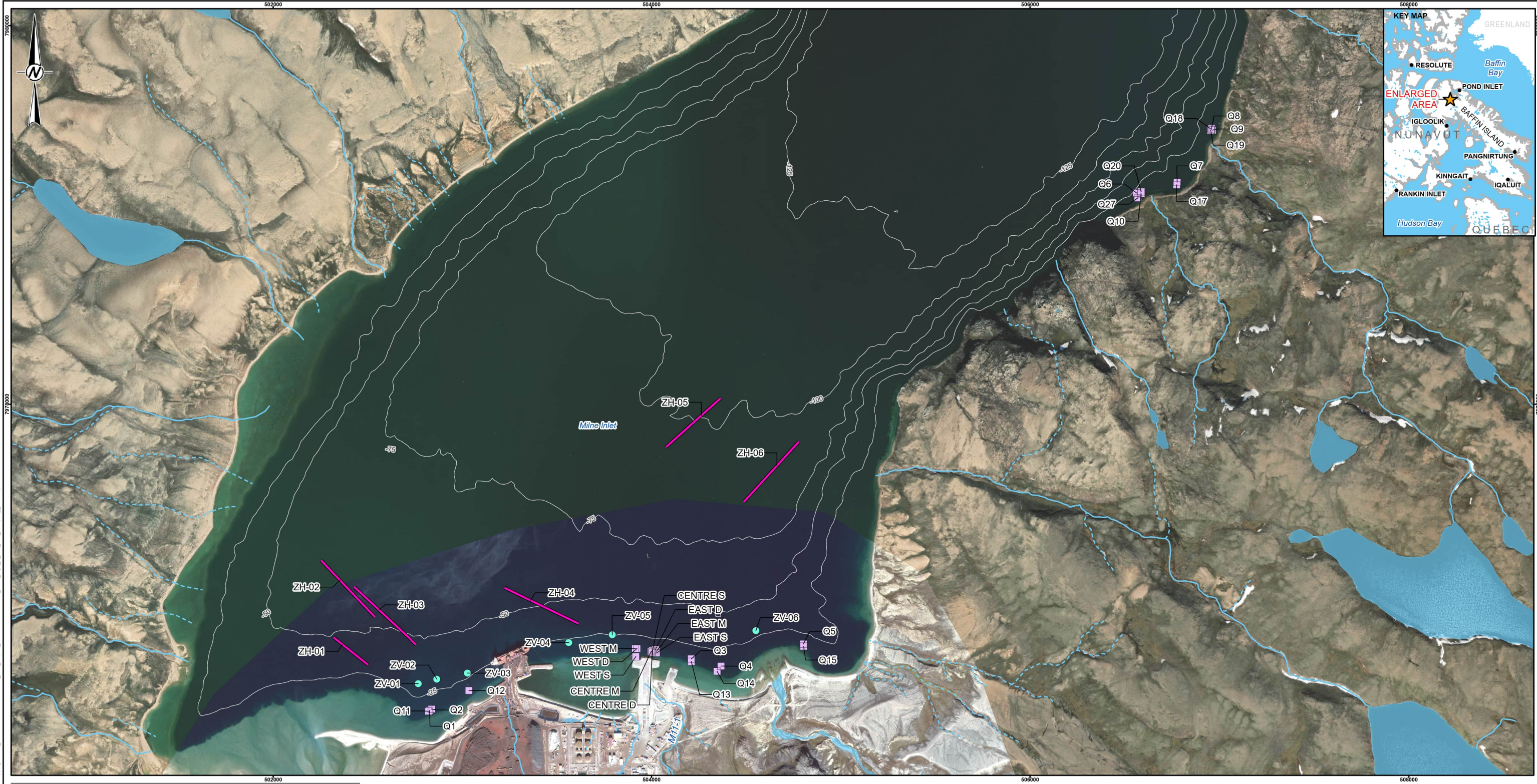
- i) Zooplankton sampling
- ii) Recruitment surveying using deployed settlement substrates
- iii) Benthic infauna collection for DNA analysis if required to supplement the identification of taxa from the MEEMP benthic infaunal survey

Specimens collected during the following MEEMP components (Figure 8-2) are screened for the NIS/AIS monitoring program:

- i) Benthic infaunal survey (Chapter 4.0)
- ii) Epifaunal and macroalgal survey (Chapter 5.0)
- iii) Fish community survey (Chapter 6.0), including opportunistically collected macroalgae and invertebrates
- iv) Fish health survey (i.e., taxa found in fish stomachs, fish parasites) (Chapter 7.0)

In years when Habitat Offsetting Monitoring Programs are conducted for the Milne Inlet Freight Dock, data obtained during epifaunal, macroalgal and fish transect surveys of the Freight Dock are also screened for the NIS/AIS monitoring program.

NIS/AIS monitoring therefore involves data collection across multiple trophic levels – marine vegetation, invertebrates, zooplankton, and fish – to establish a comprehensive inventory of existing marine biota in the Project area that serves as a point of reference for any new species/taxa identified (herein referred to as the “Milne Inlet Taxonomic Inventory”). The Milne Inlet Taxonomic Inventory was initially populated with the list of organisms identified during baseline studies in 2008 through 2014 and has been updated annually since 2015 with new records collected during MEEMP surveys.



SETTLEMENT SUBSTRATE

ZOOPLANKTON

VERTICAL TOW

HORIZONTAL TOW

BATHYMETRIC CONTOUR (25 m INTERVAL)

INTERMITTENT WATERCOURSE

WATERCOURSE

WATERBODY

CLIENT
BAFFINLAND IRON MINES CORPORATION

CONSULTANT	YYYY-MM-DD	2025-04-24
	DESIGNED	CB
	PREPARED	AA
	REVIEWED	CB
	APPROVED	AL

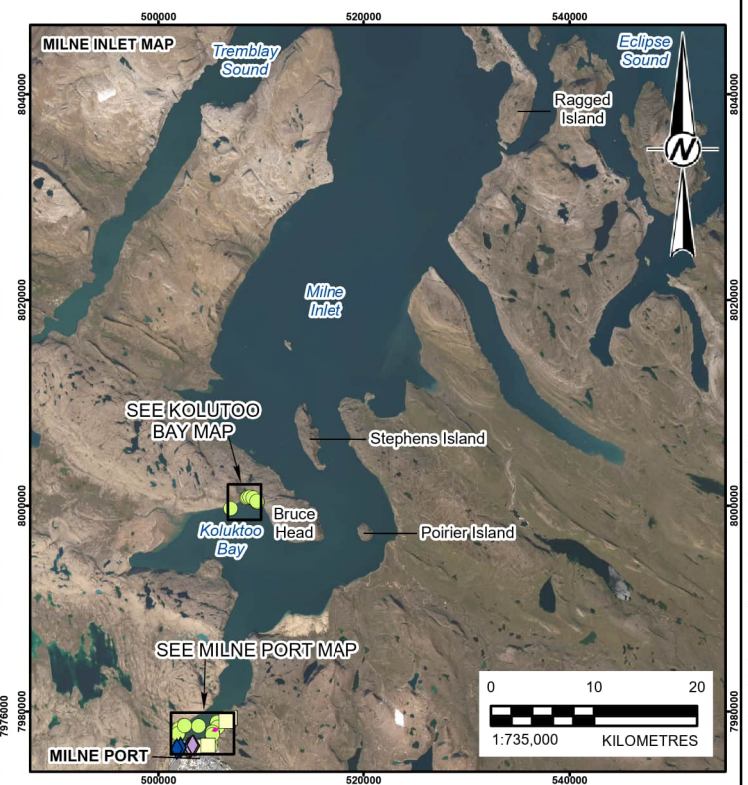
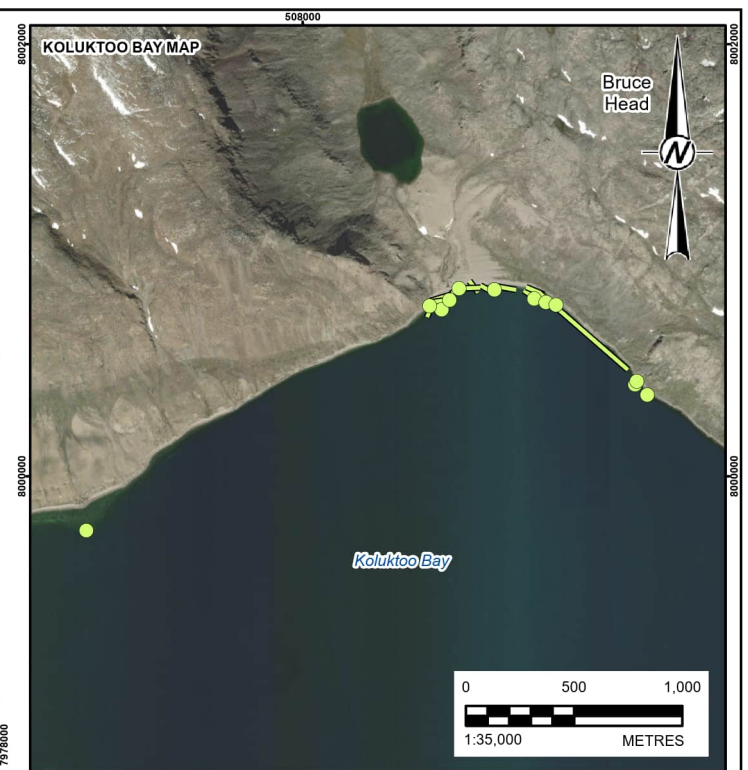
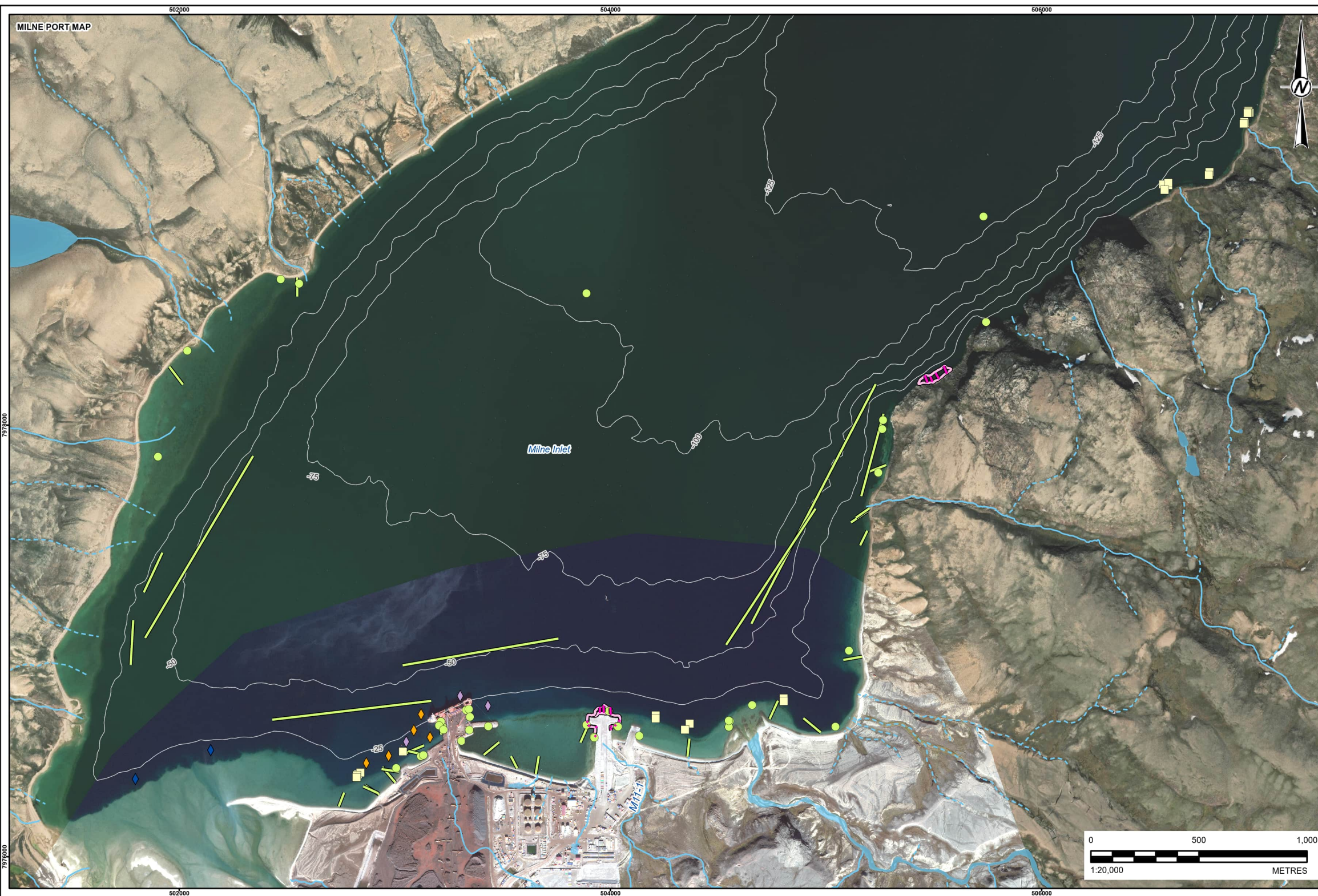
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PROJECTION: UTM ZONE 17 DATUM: NAD 83

PROJECT
MARY RIVER PROJECT













TITLE SPECIFIC NONINDIGENOUS SPECIES/ AQUATIC INVASIVE SPECIES (NIS/AIS) SAMPLING LOCATIONS IN MILNE PORT, 2024			
PROJECT NO.	CONTROL	REV.	FIGURE
CA0026317.6821	86200.04	0	8-1

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25mm IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: A151 B



LEGEND

	BENTHIC INFAUNA		BATHYMETRIC CONTOUR (25 m INTERVAL)
	BENTHIC INFAUNA/DNA ARCHIVE		INTERMITTENT WATERCOURSE
	DNA ARCHIVE		WATERCOURSE
	FISHING EFFORT		WATERBODY
	QUADRAT		
	FISHING EFFORT		
	FREIGHT DOCK OFFSET HABITAT MONITORING		
	FREIGHT DOCK OFFSET HABITAT PERIMETER SURVEY		

CLIENT
BAFFINLAND IRON MINES CORPORATION

CONSULTANT



YYYY-MM-DD	2025-04-24
DESIGNED	CB
PREPARED	AA
REVIEWED	CB
APPROVED	AL

REFERENCE(S)
BATHYMETRY CREATED BY GOLDER FROM MULTIPLE DATA SOURCES. HYDROGRAPHY DATA OBTAINED FROM GEOGRATIS, © DEPARTMENT OF NATURAL RESOURCES CANADA. ALL RIGHTS RESERVED. MILNE PORT IMAGERY CAPTURED AUGUST 2020 © 2020 DIGITAL GLOBE, INC. ADDITIONAL IMAGERY COPYRIGHT © 20240718 ESRI AND ITS LICENSORS. SOURCE: MAXAR VIVID. USED UNDER LICENSE. ALL RIGHTS RESERVED.
PROJECTION: UTM ZONE 17 DATUM: NAD 83

PROJECT
MARY RIVER PROJECT

TITLE
MEEMP SAMPLING LOCATIONS IN MILNE INLET USED TO
INFORM NON-INDIGENOUS SPECIES / AQUATIC INVASIVE
SPECIES (NIS/AIS) PROGRAM TAXONOMIC INVENTORY, 2024

PROJECT NO.	CONTROL	REV.	FIGURE
CA0026317.6821	86200.04	0	8-2

8.2.1 Modifications to the Program (2024)

Sampling locations used for the 2024 NIS/AIS monitoring program are shown in Figure 8-1 (dedicated surveys of settlement substrates, zooplankton, and benthic infaunal samples for DNA analysis) and Figure 8-2 (MEEMP components presented in detail in Chapters 3.0 through 7.0). In 2024, samples from the Freight Dock Offset Habitat Monitoring Program (including samples from the Freight Dock and from a reference area located 2.25 km north of the dock in Milne Inlet) were also screened for potential NIS/AIS.

Program delays and time constraints in 2021 through 2023 had prevented collection of annual settlement substrates on the planned schedule at several stations. All annual samples intended for collection in 2024 and all multi-year substrates were collected, regardless of the year in which they were deployed, to align the program with the intended rotation. Substrates that had been deployed for longer than a year were preserved as a source of additional DNA samples. Freight Dock multi-year substrates were redeployed to align with the quadrat co-located substrates.

Zooplankton sampling was conducted in two events over the field season to capture variability in zooplankton populations. Six oblique (horizontal) and six vertical zooplankton samples were collected in Milne Port during each collection event.

Additional benthic infauna samples were collected and archived specifically for potential DNA analysis. Collection of archived DNA samples occurred at five stations in Milne Port selected for previous observations of Watch List taxa. Results for benthic specimens collected by MEEMP and NIS/AIS field programs in 2023 and provided to the Canadian Centre for DNA Barcoding (CCDB) at the University of Guelph for barcoding are presented in this report.

A collaboration with Dr. Gary Saunders and graduate student Olivia Reeves at the University of New Brunswick (UNB) to conduct a study of macroalgae collected during Baffinland's monitoring programs commenced in 2023. The archived macroalgae specimens that were collected by MEEMP and NIS/AIS field programs prior to 2024 were provided to Dr. Saunders and Ms. Reeves for confirmation of identification by molecular and/or microscopic taxonomic methodologies, as appropriate. The results of this review are presented in Appendix 8B-5. Macroalgae specimens collected in 2024 as part of the MEEMP, NIS/AIS and the concurrently conducted Milne Port Freight Dock Offset Habitat Monitoring field programs were preserved for molecular and microscopic taxonomic analysis by UNB and are presented in this report.

Benthic infauna sampling in 2024 focused on monitoring of eight "Capesize" stations adjacent to the Ore Dock (Chapter 4.0), which were screened for the presence of NIS/AIS. The "Capesize" sampling program relates to Baffinland's commitment that stations SW-1 through SW-4, SE18-1, SNW-1, and two new stations (SCV-1 and SCV-2) would be monitored for scouring effects on sediment and benthic infauna for three years after the initial use of large (Baby Cape and Capesize) ore carriers in fall 2023 (Commitment 10, SOP Technical Comment QIA ME-7(3); NIRB 2023). The radial transect sampling program for benthic infauna, which is conducted with a monitoring frequency of every three years, was not carried out in 2024 as it had been conducted in 2023.

The 2024 epifauna and macroflora survey was conducted as planned except that two quadrats located in Milne Inlet near the mouth of Phillips Creek could not be located by the dive team (Chapter 5.0). This did not affect the number of settlement substrates surveyed as substrates were not co-located with these quadrats. Additionally, Q16, dragged to deeper water in 2022 and therefore not sampled in 2022 or 2023, was relocated to its approximate original depth and subsequently renamed and surveyed as Q27. Its applicable associated substrates were collected in 2024, and redeployed substrates were aligned with the intended rotation.

In 2024, methods used for monitoring of the fish community were refined by focusing on angling (jigging), gill nets, hoop nets, and trawling, while the use of Fukui traps and angling (trolling) were discontinued (Chapter 6.0). Fishing efforts on the western and northwestern shores near Phillips Creek were increased in 2024 to further characterize the marine fish community in Milne Port.

In addition to gut contents of Four-Horned Sculpin and incidental mortalities of Arctic Char collected for fish health monitoring, parasites found on and in fish specimens were collected from Milne Port and Koluktoo Bay (Chapter 7.0).

8.2.2 Indicators and Thresholds

The NIS/AIS monitoring program was initially designed as a surveillance survey but over time has developed into an adaptive NIS/AIS management process. The process described below has been adjusted to align with terminology in Baffinland's Trigger Action Response Plan (TARP) (Baffinland 2021; Baffinland 2023).

The performance indicator of this program is "occurrence of an NIS/AIS in the Milne Inlet environment". Detection of a new taxonomic record that could potentially represent introduction of an NIS or AIS will initiate a response protocol aimed to assess the risk and determine the appropriate course of action.

Terminology for risk categories used in the NIS/AIS monitoring program was updated in the 2023 MEEMP report (WSP 2024) and was edited to improve clarity in 2024. The former risk categories for the NIS/AIS Monitoring Program were Low Risk / High Risk / Trigger List, but these have now been renamed to align with the risk categories used for other indicators in the TARP. Levels of risk are now named No Risk / Low Risk / Moderate Risk / High Risk.

Details of the risk condition categories, thresholds and pre-defined responses are presented in section 8.3.3.1.

8.3 Materials and Methods

8.3.1 Sample Collection for Taxonomic Identification

Sampling for the 2024 MEEMP and NIS/AIS monitoring programs was conducted between July 28 and August 19 by a field team composed of ten WSP or IMG WSP biologists including biologist/SCUBA divers, a BIM vessel operator, and two local Inuit field technicians from Pond Inlet and Igloolik, NU, respectively (BIM employees). Sampling was conducted from a 9.75-m aluminum vessel (research vessel) in addition to two inflatable tender vessels (6.1 m) based at the Milne Port facility.

8.3.1.1 *Benthic Infauna, Macroflora and Benthic Epifauna, Fish and Incidentals*

Screening to determine NIS/AIS status was conducted for all specimens caught or observed during surveys for MEEMP components, including benthic infaunal and epifaunal invertebrates (Chapter 4.0 and Chapter 5.0, respectively), macroflora (Chapter 5.0), fish species (Chapter 6.0), fish parasites and taxa found in fish stomachs (Chapter 7.0). Methodologies for these collections are described in the respective chapters of this report.

Screening to determine NIS/AIS status was also carried out for all specimens caught or observed during surveys conducted for the Milne Port Freight Dock Offset Habitat Monitoring Program (WSP 2025).

Incidental samples were collected opportunistically during SCUBA surveys for macroflora and epifauna as well as during fishing efforts. Specimens of collected incidental taxa except for macroalgae were preserved in 10% formalin and submitted to Biologica Environmental Services Ltd. (henceforth referred to as “Biologica”; a Canadian marine and freshwater taxonomy laboratory) for taxonomic identification. Macroalgae specimens were provided to UNB preserved in silica gel for taxonomic identification by UNB using molecular (DNA) methodologies, with a corresponding morphological voucher specimen preserved in 10% formalin.

8.3.1.2 Settlement Substrates

Settlement substrates deployed from 2020 to 2023 in various locations throughout Milne Port were sampled in 2024 to monitor for recruitment of fouling taxa. Stations were located between -5 and -11 m water depth, along the east, north, and west faces of the Freight Dock as well as various depths co-located with the quadrats for epifauna and macroalgal monitoring (Figure 8-1, Table 8-1, Chapter 5.0). Three stations situated at the Ragged Island anchorage were not sampled in 2024 due to logistical constraints.

Each station was configured as four to five settlement baskets (filled with locally sourced cobble) and four to five settlement plates (each comprised of a 20 L plastic bucket lid oriented horizontally) attached to a line with a subtidal buoy (Figure 8-3). Settlement baskets and plates are sampled on annual and multi-year (ideally, three-year) schedules. Sampling involved retrieval of one settlement basket and one settlement plate that was deployed for multiple years, and their replacement with a clean settlement basket and plate. In subsequent years, the next settlement basket and plate in the series will be collected, which will have been deployed for (ideally) three years to represent short to medium term colonization. An additional plate and basket were collected annually and replaced with a new plate and basket to represent immediate term colonization.

The first settlement substrates were deployed in 2020 at the Freight Dock and quadrats Q1-Q10. Due to supply chain limitations associated with COVID-19 in 2020, the addition of new stations in 2021, the loss of some sampling locations in 2021 and 2022, and logistical issues and ice preventing access to all sampling locations in 2023, full sets of annual and multi-year plates and baskets were not available for all stations. Deployment year and soak time at recovery for all settlement substrates recovered in 2024 are described in Table 8-1. Due to the large number of collected substrates, a subset of collected substrates was submitted for analysis and the remainder were archived for potential future DNA analysis. Due to low colonization observed on annual substrates in previous years, the annual substrates were archived. Archived substrates are indicated in Table 8-1.

Plates were cut underwater to detach from the center line and placed within a collection bag and brought to the surface where they were placed in a clean sandbag with ambient water (to separate samples) and then placed in a tote of water. An internal label was created for each sample and placed with the substrate for later identification. The plates were photographed prior to processing. Samples intended for morphological identification were cut into quarters using a knife and then placed in a 4 L sample bucket. Samples intended for the DNA analysis archive were scraped using clean paint putty knives and/or clean butter knives, with scraped samples placed into appropriate jars (e.g., 52 mL vials, 120 mL glass jars, 500 mL plastic jars).

Baskets were brought to the surface and placed in clean 4 L buckets with ambient water. The cobbles were removed from the basket and photographed prior to processing. Samples intended for morphological identification were placed into a 4 or 8 L sample bucket, as necessary. As possible, visible macroalgae were removed with forceps and placed into labelled vials with silica gel for genetic and microscopic identification at UNB. Samples intended for the DNA analysis archive were scraped using clean paint putty knives and/or clean butter knives, with scraped samples placed into appropriate jars (e.g., 52 mL vials, 120 mL glass jars, 500 mL plastic jars).

Samples intended for morphological identification were preserved with 10% formalin while samples intended for DNA analysis were preserved with 80% ethanol. The sample containers were sealed and inverted several times to promote homogenization with the preservative. The containers were labelled internally and externally with water-resistant labels and sent to Biologica for morphological identification and/or DNA analysis of attached and motile invertebrates.



Figure 8-3: Quadrat settlement baskets and plates at Centre D, settlement plates with bobtail squid eggs at Q12, and settlement baskets at Centre S in 2024.

Table 8-1: Summary of Settlement Basket and Plate Stations

Station	Location (NAD 83 UTM 17W)		Depth (m below CD)	Substrate Sample Collected	Status	Year Deployed ¹	Date Retrieved
	Easting (m)	Northing (m)					
West S	503917	7976667	-5.3	Annual Basket and Plate	Archived	2023	Aug 6, 2024
				Multi-year Basket and Plate	Archived	2020	
West M ²	503915	7976710	-9.1	Annual Basket and Plate	Archived	2023	Aug 6, 2024
				Multi-year Basket and Plate	Archived	2020	
West D ²	503923	7976710	-9.1	Annual Basket and Plate	Archived	2023	Aug 6, 2024
				Multi-year Basket and Plate	Archived	2020	
Centre S	504003	7976689	-5.4	Annual Basket and Plate	Archived	2023	Aug 1, 2024
				Multi-year Basket and Plate	Archived	2020	
Centre M	503998	7976694	-8.2	Annual Basket and Plate	Archived	2023	Aug 1, 2024
				Multi-year Basket and Plate	Submitted	2020	
Centre D	504004	7976700	-11.2	Annual Basket and Plate	Archived	2023	Aug 1, 2024
				Multi-year Basket and Plate	Archived	2020	
East S	504026	7976686	-8.1	Annual Basket and Plate	Archived	2023	Aug 1, 2024
				Multi-year Basket and Plate	Archived	2020	

Station	Location (NAD 83 UTM 17W)		Depth (m below CD)	Substrate Sample Collected	Status	Year Deployed ¹	Date Retrieved
	Easting (m)	Northing (m)					
East M	504026	7976695	-9.6	Annual Basket and Plate	Archived	2023	Aug 1, 2024
				Multi-year Basket and Plate	Submitted	2020	
East D	504021	7976705	-11.3	Annual Basket and Plate	Archived	2023	Aug 1, 2024
				Multi-year Basket and Plate	Archived	2020	
Q1	502828	7976382	-8.8	Annual Basket and Plate	Archived	2023	Jul 31, 2024
				Multi-year Basket and Plate	Submitted	2020	
Q2	502839	7976390	-10.3	Annual Basket ³ and Plate ³	Archived	2022	Jul 31, 2024
				Multi-year Basket ³ and Plate ³	Submitted	2022	
Q3	504210	7976655	-10.3	Annual Basket and Plate	Archived	2023	Aug 1, 2024
				Multi-year Basket and Plate	Submitted	2020	
Q4	504367	7976617	-11.7	Annual Basket and Plate	Archived	2023	Aug 1, 2024
				Multi-year Basket and Plate	Submitted	2020	
Q5	504802	7976734	-11.5	Annual Basket and Plate	Archived	2023	Aug 6, 2024
				Multi-year Basket and Plate	Submitted	2020	
Q6	506562	7979116	-15.7	Annual Plate ^{3,4}	Archived	2022	Aug 8, 2024
				Multi-year Basket and Plate	Submitted	2020	
Q7	506776	7979173	-9.1	Annual Basket and Plate	Archived	2023	Aug 6, 2024
				Multi-year Basket and Plate	Submitted	2020	
Q8	506957	7979457	-9.9	Annual Basket and Plate	Archived	2023	Jul 29, 2024
				Multi-year Basket and Plate	Submitted	2020	
Q9	506962	7979448	-8.3	Annual Basket and Plate	Archived	2023	Jul 29, 2024
				Multi-year Basket and Plate	Submitted	2022, 2020	
Q10	506586	7979112	-6.4	Annual Basket and Plate	Archived	2023	Aug 6, 2024
				Multi-year Basket and Plate	Submitted	2020	
Q11	502823	7976378	-7.5	Annual Basket and Plate	Archived	2023	Jul 31, 2024
				Multi-year Basket and Plate	Submitted	2022, 2021	
Q12	503036	7976488	-11.4	Annual Basket and Plate	Archived	2023	Jul 31, 2024
				Multi-year Basket and Plate	Submitted	2022, 2021	
Q13	504210	7976641	-6.7	Annual Basket and Plate	Archived	2023	Aug 1, 2024
				Multi-year Basket and Plate	Submitted	2022, 2021	
Q14	504346	7976589	-7.7	Annual Basket and Plate	Archived	2023	Aug 1, 2024
				Multi-year Basket and Plate	Submitted	2022, 2021	
Q15	504803	7976721	-9.0	Annual Basket and Plate	Archived	2023	Aug 6, 2024
				Multi-year Basket and Plate	Submitted	2022, 2021	
Q17	506773	7979159	-8.6	Annual Basket and Plate	Archived	2023	Aug 6, 2024
				Multi-year Basket and Plate	Submitted	2022, 2021	

Station	Location (NAD 83 UTM 17W)		Depth (m below CD)	Substrate Sample Collected	Status	Year Deployed ¹	Date Retrieved
	Easting (m)	Northing (m)					
Q18	506956	7979452	-9.8	Annual Basket and Plate	Archived	2023	Jul 29, 2024
				Multi-year Basket and Plate	Archived	2022, 2021	
Q19	506953	7979447	-9.6	Annual Basket and Plate	Archived	2023	Jul 29, 2024
				Multi-year Basket and Plate	Archived	2022, 2021	
Q20	506586	7979123	-10.0	Annual Basket and Plate	Archived	2023	Aug 6, 2024
				Multi-year Basket and Plate	Archived	2022, 2021	
Q27 ⁵	506569	7979090	-5.0	Multi-year Plate ⁶	Archived	2021	Aug 8, 2024

¹ Two listed years indicates the year of deployment of the basket and plate (respectively), if different.

² West M and D Stations are co-located.

³ Substrate was out of sync due to collected and/or redeployment issues in previous years.

⁴ Annual basket was lost from Q6 during collection and could not be sampled.

⁵ Q16 was repositioned to its approximate original depth (-5.0 m CD) after having been moved into deeper water (-9.1 m CD) in 2022 due to vessel anchor dragging the quadrat. This quadrat was removed from analysis/discontinued and renamed Q27 with a new time series.

⁶ Baskets and annual plates were not attached to Q16 before it was dragged. A new set of baskets was added to Q27 in 2024 with an annual plate.

8.3.1.3 Zooplankton

Zooplankton samples were collected using vertical and horizontal oblique tows over two sampling events in the middle of the open water season (Figure 8-1, Table 8-2). Vertical hauls were conducted at six sampling stations in Milne Port by lowering a 0.3 m diameter (64 µm mesh size) plankton net to a depth of 1 m to 3 m above the bottom and then raising the net by hand to the surface at a rate of approximately 1 m/s (visually estimated). Three replicate hauls were conducted at each station and combined into a single composite sample following methodology from previous years (WSP 2024).

Oblique tows were conducted by towing a 0.5 m diameter net (250 µm mesh size) for a period of 10-12 minutes per tow. The net was towed in a sinusoidal fashion by means of regular transitions in tow speed (1-minute towing at a speed of 8-10 km/h, 1-minute idling), which allowed the weighted net to periodically sink and rise during active sampling. This helped avoid sampling only in the upper few metres of the water column. The sinusoidal oblique tow approach and larger mesh size is used to help catch a more representative sample of larger zooplankton in the water column and to catch faster moving larvae (e.g., fish larvae, larger crustaceans) than is possible with the vertical tow method. Where required, transects were towed in sections to allow for clearing of the plankton net, and samples were carefully flushed into a sample container as a single composite sample for each transect.

Once the sample was transferred to the sample container, ambient seawater was splashed or sprayed on the outside of the net to rinse any remaining sample into the container. Between each tow, the nets and bottles were rinsed (either flushed with sea water or by using a spray bottle filled with sea water through the net mesh to exclude organisms). All zooplankton samples were preserved in 5% formalin and submitted to Biologica for taxonomic identification. Laboratory methodologies are detailed in Appendix 8D-3.

Table 8-2: Zooplankton Sampling Locations 2024

Station Name	Sampling Dates (2024)	UTM Coordinates			
		Start		End	
		Easting	Northing	Easting	Northing
Horizontal ObliqueTows ¹					
ZH-01	August 2, August 17	502500	7976624	502319	7976768
ZH-02	August 2, August 17	502253	7977175	502537	7976876
ZH-03	August 2, August 17	502427	7977036	502755	7976731
ZH-04	August 6, August 17	503615	7976841	503224	7977030
ZH-05	August 6, August 17	504364	7978031	504077	7977774
ZH-06	August 6, August 17	504778	7977802	504487	7977484
Vertical Tows					
ZV-01	August 2, August 17	502768	7976524	-	-
ZV-02	August 2, August 17	502866	7976548	-	-
ZV-03	August 2, August 17	503028	7976580	-	-
ZV-04	August 2, August 17	503563	7976741	-	-
ZV-05	August 2, August 17	503793	7976782	-	-
ZV-06	August 2, August 17	504551	7976804	-	-

¹Waypoints for horizontal oblique tows are targeted coordinates. Actual survey track varied between each survey event.

8.3.2 Samples Collected for Genetic Analysis

In 2024, targeted benthic infaunal sampling occurred at five stations in Milne Port where potential high-risk taxa that were placed on the program Watch List had been collected in previous years (Table 8-3).

Table 8-3: Benthic Stations Selected for DNA Barcoding and Targeted Taxa (Putative Identifications)

Station	UTM Coordinates (17W)		Taxa of Interest
	Easting	Northing	
SW-2	503064	7976526	<i>Marenzelleria</i> sp.
SW-11	502146	7976494	<i>Marenzelleria</i> sp.
SW-14	501797	7976360	<i>Marenzelleria</i> sp.
SE18-1	503433	7976699	<i>Paramphitrite birulai</i>
SNW-1	503303	7976751	<i>Paramphitrite birulai</i> <i>Hesperonoe</i> sp.

These samples were collected and processed in a manner similar to the other benthic infauna samples (Chapter 4.0), however, the samples were preserved in 95% ethanol, rather than formalin, to allow for DNA analysis should specimens resembling the flagged taxa be identified.

Settlement substrates that were otherwise not required for 2024 sampling were preserved as a source of additional DNA samples (Table 8-4). DNA sample substrates were ‘scraped’ as follows:

- Identifiable larger epifauna taxa were picked off the substrate and added to 52 mL vials and preserved with 95% ethanol. These samples, and “preserved whole” samples were reviewed by Biologica for target taxa (as described above). Additionally, to help address difficulties in monitoring for introductions of biofouling organisms and to further build the taxonomic inventory, specimens from encrusting-type taxa (i.e., tunicates and bryozoans) or difficult to identify taxa were selected for DNA analysis. Morphological identification prior to preparation for DNA analysis was only performed on large or robust specimens to prevent the loss of viable material.
- Macroalgae was separated, when possible, by taxonomic group (brown, red and green algae if identifiable) and placed in labelled 1.5 mL centrifuge tubes with silica gel. These samples were sent to UNB for microscopic and genetic identification.
- The remainder of the sample was scraped with a paint scraper into 52 mL vials and preserved with 95% ethanol. These samples were archived. Future analysis of these samples may include targeted analysis for sequences of interest, or broader meta-barcoding.

Any whole specimen or tissue samples of taxa required for DNA verification, other than macroalgae, were sent to CCDB for barcoding. Macroalgae were sent to UNB for barcoding.

Table 8-4: Settlement Substrates Collected for Genetic Analysis

Station	Substrate Sample Collected	Preservation Method ¹	Preservative
East S	Annual Basket and Plate	Scraped – Annual FD Composite	Ethanol (80%)
	Multi-year Basket and Plate	Scraped – Multi-Year FD Composite	Ethanol (80%)
East M	Annual Basket and Plate	Scraped – Annual FD Composite	Ethanol (80%)
East D	Annual Basket and Plate	Scraped – Annual FD Composite	Ethanol (80%)
	Multi-year Basket and Plate	Scraped – Multi-Year FD Composite	Ethanol (80%)
Center S	Annual Basket and Plate	Scraped – Annual FD Composite	Ethanol (80%)
	Multi-year Basket and Plate	Scraped – Multi-Year FD Composite	Ethanol (80%)
Center M	Annual Basket and Plate	Scraped – Annual FD Composite	Ethanol (80%)
Center D	Annual Basket and Plate	Scraped – Annual FD Composite	Ethanol (80%)
	Multi-year Basket and Plate	Scraped – Multi-Year FD Composite	Ethanol (80%)
West S	Annual Basket and Plate	Scraped – Annual FD Composite	Ethanol (80%)
	Multi-year Basket and Plate	Scraped – Multi-Year FD Composite	Ethanol (80%)
West M	Annual Basket and Plate	Scraped – Annual FD Composite	Ethanol (80%)
	Multi-year Basket and Plate	Scraped – Multi-Year FD Composite	Ethanol (80%)
West D	Annual Basket and Plate	Scraped – Annual FD Composite	Ethanol (80%)
	Multi-year Basket and Plate	Scraped – Multi-Year FD Composite	Ethanol (80%)
Q1	Annual Plate	Scraped	Ethanol (80%)
	Annual Basket	Scraped	Ethanol (80%)

Station	Substrate Sample Collected	Preservation Method ¹	Preservative
Q2	Annual Plate	Scraped	Ethanol (80%)
	Annual Basket	Scraped	Ethanol (80%)
Q3	Annual Plate	Scraped	Ethanol (80%)
	Annual Basket	Scraped	Ethanol (80%)
Q4	Annual Plate	Scraped	Ethanol (80%)
	Annual Basket	Scraped	Ethanol (80%)
Q5	Annual Plate	Scraped	Ethanol (80%)
	Annual Basket	Scraped	Ethanol (80%)
Q6	Annual Plate	Scraped	Ethanol (80%)
Q7	Annual Plate	Scraped	Ethanol (80%)
	Annual Basket	Scraped	Ethanol (80%)
Q8	Annual Plate	Scraped	Ethanol (80%)
	Annual Basket	Scraped	Ethanol (80%)
Q9	Annual Plate	Scraped	Ethanol (80%)
	Annual Basket	Scraped	Ethanol (80%)
Q10	Annual Plate	Scraped	Ethanol (80%)
	Annual Basket	Scraped	Ethanol (80%)
Q11	Annual Plate	Scraped	Ethanol (80%)
	Annual Basket	Scraped	Ethanol (80%)
Q12	Annual Plate	Scraped	Ethanol (80%)
	Annual Basket	Scraped	Ethanol (80%)
Q13	Annual Plate	Scraped	Ethanol (80%)
	Annual Basket	Scraped	Ethanol (80%)
Q14	Annual Plate	Scraped	Ethanol (80%)
	Annual Basket	Scraped	Ethanol (80%)
Q15	Annual Plate	Scraped	Ethanol (80%)
	Annual Basket	Scraped	Ethanol (80%)
Q17	Annual Plate	Scraped	Ethanol (80%)
	Annual Basket	Scraped	Ethanol (80%)
Q18	Annual Plate	Scraped	Ethanol (80%)
	Annual Basket	Scraped	Ethanol (80%)
	Multi-year Plate	Scraped – Multi-Year Q-P Composite	Ethanol (80%)
	Multi-year Plate	Scraped – Multi-Year Q-B Composite	Ethanol (80%)
Q19	Annual Basket	Scraped	Ethanol (80%)
	Annual Basket	Scraped	Ethanol (80%)
	Multi-year Plate	Scraped – Multi-Year Q-P Composite	Ethanol (80%)

Station	Substrate Sample Collected	Preservation Method ¹	Preservative
	Multi-year Basket	Scraped – Multi-Year Q-B Composite	Ethanol (80%)
Q20	Annual Plate	Scraped	Ethanol (80%)
	Annual Basket	Scraped	Ethanol (80%)
	Multi-year Plate	Scraped	Ethanol (80%)
	Multi-year Basket	Scraped	Ethanol (80%)
Q27	Multi-year Plate	Scraped	Ethanol (80%)

¹ Substrate samples were composited for listed samples. Composites were separated by annual and multi-year samples and contained both plates and baskets within the composites. FD = Freight Dock, indicating only Freight Dock samples were included in that composite. Q = Quadrat, indicating only quadrat samples (plates [P] or baskets [B]) were included in that composite.

In 2024, results from analysis of specimens collected for DNA in 2023 were not available at the time of report submission. These results are presented in this report. Methodologies for analysis of the 2023 specimens are available in Appendix 8B-9.

8.3.3 Data Analysis

8.3.3.1 Risk Condition Categories, Thresholds, and Responses

Definitions of the risk condition categories, thresholds, and pre-defined responses are as follows (Table 8-5):

Table 8-5: Risk Condition Categories and Responses to Detections of New Taxa Records in the NIS/AIS Monitoring Program

(a) No Risk

Description of Risk Condition	Response
<p>Taxon was previously reported in Canadian Arctic prior to Project operations, and/or in the Canadian Arctic outside of the Project's area of influence¹.</p> <p>AND</p> <p>The identified species or representative species² of the taxon are not listed in an Aquatic Invasive Species database.</p>	<p>Taxon is added to the taxonomic inventory for Milne Inlet.</p>
OR	
<p>Taxon was reported in Canadian Arctic prior to Project Operations and/or in the Canadian Arctic outside of the Project's area of influence³.</p>	<p>Targeted literature review is conducted.</p> <p>Taxon is added to the taxonomic inventory for Milne Inlet.</p>

¹ Area of influence is considered to include Milne Inlet and areas potentially influenced by Project shipping routes (including, but not limited to, areas of Baffin Bay and Eclipse Sound).

² Representative species are used in the case where identification of a collected organism to the species level has not been possible. If, at the level to which the organism is identifiable, any species in the taxon are listed in an invasive species database, a targeted literature review will be conducted for all listed species (i.e., these listed species are considered representative species for this taxon).

³ Area of influence is considered to include Milne Inlet and areas potentially influenced by Project shipping routes (including, but not limited to, areas of Baffin Bay and Eclipse Sound).

Description of Risk Condition	Response
<p>AND</p> <p>Species or representative species are listed in an Aquatic Invasive Species database but the native range (or range prior to Project operations) includes the Project area OR targeted literature review has determined that the AIS-listed species (including representative species) is unlikely to establish in the ecosystem conditions of the Project area.</p> <p>AND</p> <p>Targeted literature review of the taxon has determined low likelihood of identification matching the list of known AIS and/or low likelihood of establishment of the listed AIS in the Project area.</p>	

(b) Low Risk

Description of Risk Condition	Response
<p><u>At least one of the following must be met.</u></p> <p>Taxon is not reported as present in Canadian Arctic or there is low certainty as to its presence.</p> <p>OR</p> <p>There is low confidence in the identification (includes species pending verification), where related species are listed in AIS databases and there is potential for survival in the Project area.</p> <p>OR</p> <p>Taxon is undergoing range expansion into Milne Inlet that is attributed to factors or vectors unrelated to Project shipping (e.g., climate change).</p>	<p>Specimens are sent for independent taxonomic verification, and if possible, DNA analysis.</p> <p>Targeted literature review of the taxon (when first detected, and updated in subsequent years when taxon is detected).</p> <p>Ongoing monitoring, including routine sampling in MEEMP with attention to areas where the taxon was previously detected, to determine if it is established in Milne Inlet, and detect any indicators of invasive behaviour (e.g., from community metrics and distribution data).</p> <p>Taxon is added to Project Watch List.</p> <p>The risk status of the taxon will be reassessed each year it is detected.</p>

(c) Moderate Risk

Description of Risk Condition	Response
<p>Taxon is not reported as present in Canadian Arctic, or reported with high uncertainty.</p> <p>AND</p> <p>Taxon is capable of using shipping vector(s).</p>	<p>Specimens are sent for independent taxonomic verification, and if possible, DNA analysis.</p> <p>Targeted literature review (when first detected and repeated annually, even if not detected in that year).</p>

Description of Risk Condition	Response
AND Taxon is listed as an AIS in other locations, with no potentially serious behaviours reported in ecosystems similar to Milne Port.	Heightened monitoring (i.e., annual targeted sampling at sites where taxon has been previously observed, to monitor for changes in community metrics and distribution data).
AND Taxon is not yet confirmed to show those behaviours in Milne Inlet.	Taxon is added to Project Watch List. The risk status of the taxon will be reassessed each year it is detected

(d) High Risk

Description of Risk Condition	Response
Taxon is not reported as present in Canadian Arctic, or reported with high uncertainty.	Specimens are sent for independent taxonomic verification, and if possible, DNA analysis.
AND Taxon is capable of using shipping vector(s).	Targeted literature review (when first detected and repeated annually, even if not detected in that year).
AND Taxon is listed as an AIS in other locations.	Heightened monitoring (i.e., annual targeted sampling at sites where taxon has been previously observed, to monitor for changes in community metrics and distribution data).
AND <u>At least one of the following</u>	The risk status of the taxon will be reassessed each year even it is not detected.
Taxon or closely related species has well-documented and potentially serious invasive behaviours (e.g., habitat disruption or displacement of native species) in other areas.	Taxon is added to Project Watch List and is considered for addition to Trigger List.
OR Taxon shows evidence of invasive behaviour in Milne Inlet including but not limited to the species dominating the relative abundance, or reductions in species diversity and richness at sites where the species occurs; competition or predation on native taxa; habitat destruction; and/or dispersal/establishment from site of initial detection.	Taxon will be added to Trigger List if it shows invasive behaviours in Milne Port. Addition to the Trigger List triggers development of a Rapid Response Plan for the taxon, to be determined in consultation with DFO in accordance with the most updated version of Canadian Rapid Response Framework for Aquatic Invasive Species (i.e., updates to Locke et al. 2011).

8.3.3.2 Detection

Data analysis focused on taxa presence, rather than enumeration. Should a potential NIS/AIS be detected, relative abundance and related metrics will be examined as part of heightened monitoring.

All specimens except for macroalgae were initially sent to Biologica for taxonomic identification, with specimens identified to the lowest possible taxonomic level. Macroalgal specimens removed from samples sorted by Biologica or those sorted in the field will be sent to UNB for identification.

Detection involved screening the taxonomic list received from annual survey efforts against the Milne Inlet Taxonomic Inventory (all taxa observed across all baseline and monitoring surveys) to identify new records (taxa that have not been observed previously) and taxa that have been previously flagged for heightened monitoring which would require an updated review. Taxa are subjected to a process of investigation to assess risk as outlined in Table 8-5.

8.3.3.3 Literature Review

Taxa were assessed further through literature review to determine if their known distributions and ranges included North Atlantic, Arctic and/or Canadian Arctic waters, whether the taxon had a history as an AIS somewhere else in the world, and to check for changes in the taxonomic nomenclature. The Milne Port Taxonomic Inventory was updated to include any new or updated accepted species names for any previously identified species.

Information on general species biology and distributions for the literature review was sourced from the following:

- World Register of Marine Species (WoRMS 2025)
- Global Biodiversity Information Facility (GBIF 2025)
- AlgaeBase (Guiry and Guiry 2025)
- Arctic Register of Marine Species (ARMS) compiled by the Arctic Ocean Diversity (ArcOD 2025, Sirenko et al. 2025)
- Arctic species inventories published or accessed through the Ocean Biogeographic Information System (UNESCO 2025)

In addition, specimens were also compared against the following global and domestic AIS databases and resources:

- Global invasive species database (Molnar et al. 2008)
- National Exotic Marine and Estuarine Species Information System (NEMESIS; Fofonoff et al. 2018)
- Global Invasive Species Database (GISD) published by the IUCN Invasive Species Specialist Group (ISSG 2025)
- Known invasive species list within the National Risk Assessment for Introduction of Aquatic Nonindigenous Species to Canada by Ballast Water (Casas-Monroy et al. 2014)
- High-risk AIS in the Hudson Bay Region and Canadian Arctic identified using the Canadian Marine Invasive Screening Tool (CMIST) (Goldsmit et al. 2021)
- World Register of Introduced Marine Species (WRIMS; Costello et al. 2025)
- Invasive Species Compendium published by CABI (Centre for Agriculture and Bioscience International; CABI 2025)

- AquaNIS information system on aquatic non-indigenous and cryptogenic species (CRPI 2025)
- The Arctic Invasive Alien Species: Strategy and Action Plan developed by CAFF (Conservation of Arctic Flora and Fauna) and PAME (Protection of the Arctic Marine Environment) (CAFF and PAME 2017)
- Regional specific invasive species Watch List informational brochure (Government of Nunavut 2016).

8.3.3.3.1 Distribution Categories

Based on the range on record for each taxon, a value was assigned to each new observation to express the distance to the closest record as a descriptor of distribution. Methods for describing the distribution categories followed those of Goldsmit et al. (2014), adjusted for the Project location (Figure 8-4). Each taxon was assigned a value of 1 to 5 based on the locations of the closest records to the project area, where:

- A value of 1 indicated there were previous records “Within the Region”. The region was defined as Milne Inlet between the Milne Port Site and Ragged Island⁴.
- A value of 2 indicated that there was no record within the immediate region, however there was a record from the “Surrounding Region”. Boundaries for the surrounding region included the Eastern Canadian Arctic and Davis Strait.
- A value of 3 indicated that records existed for the taxon in other regions of the Canadian Arctic, or “Arctic Outside Region”. Boundaries included the Western Canadian Arctic and Hudson Bay.
- A value of 4 indicated the taxon had a “Circumpolar/Circumboreal Distribution” on record, indicating the taxon was recorded in other locations within the Arctic, or had a generally described Arctic distribution, with no georeferenced collections in the Arctic Outside Region.
- A value of 5 indicated the taxon had a “Wider Distribution” on record that did not clearly include records within circumpolar or circumboreal regions.

Supporting information on distribution for each taxon (as requested by MEWG members) was summarized by indicating the closest Marine Ecoregions of the World (MEOW; Spalding et al. 2007) where specimens had been recorded in the scientific literature or databases listed above. Based on biology or ecosystem connectivity, species in nine Arctic ecoregions listed below were considered to have a reasonable probability of having a natural range that would include Milne Port. All ecoregions represent coastal and shelf waters shallower than 200 m, with seaward boundaries extending 370 km (200 nautical miles) offshore or to 200 m depth (whichever is further offshore). Relevant Arctic Ecoregions applicable to MEEMP surveys are as follows (in approximate order of proximity to the Project area):

- **Baffin Bay–Davis Strait** – Davis Strait north of Cape Dyer to the northern extent of Baffin Bay, including the eastern extent of Lancaster Sound. Milne Port is located within this ecoregion. This ecoregion falls within the boundaries of distribution categories 1 and 2.

⁴ Due to the limited number of species surveys that have occurred in this region in comparison to MEEMP survey efforts, it is anticipated that most new observations in the program will not fall into this category.

- **Lancaster Sound** – The Lancaster Sound region of the southern Arctic Archipelago, including Devon Island, Sommerset Island, Cornwallis Island, as well as the eastern and southern coastlines of Prince of Wales Island and Bathurst Island. This ecoregion falls within the boundaries of distribution categories 1, 2 and 3.
- **High Arctic Archipelago** – The Arctic Archipelago north of Lancaster Sound and Viscount Melville Sound. This ecoregion falls within the boundaries of distribution categories 2, 3 and 4.
- **Northern Labrador** – Northern Labrador Sea at Davis Inlet to Southern Davis Strait at Cape Dyer, including the eastern extent of Hudson Strait. This ecoregion includes Iqaluit and Frobisher Bay. This ecoregion falls within the boundaries of distribution categories 2 and 4.
- **Hudson Complex** – Includes the waters of Hudson Bay, James Bay, Hudson Strait, and Foxe Basin, as well as the eastern extent of Fury and Hecla Strait. This ecoregion falls within the boundaries of distribution category 3.
- **West Greenland Shelf** – Coastal and shelf waters of Western Greenland approximately between Cape York and Nûk. This ecoregion falls within the boundaries of distribution categories 2 and 4.
- **North Greenland** – Coastal and shelf waters of North Greenland approximately between Cape York and Danmarkshavn. This ecoregion falls within the boundaries of distribution categories 2 and 4.
- **East Greenland Shelf** – Coastal and shelf waters of North Greenland approximately between Danmarkshavn and Nûk. This ecoregion falls within the boundaries of distribution category 4.
- **Beaufort–Amundsen–Viscount Melville–Queen Maud** – The southern Arctic Archipelago west of the Lancaster Sound ecoregion, extending west past Cape Perry. This ecoregion falls within the boundaries of distribution category 3.

An uncertainty value was also provided to indicate the confidence in the available data used to place the specific taxon within the appropriate distribution category.

- **Low uncertainty** indicates that the available data are robust and well reviewed. It is assumed that the range on record is an accurate description for the taxon.
- **Moderate uncertainty** indicates that there is some uncertainty in the range on record or limited collection records, and that there is a reasonable probability that range may be broader or narrower than described in the available literature.
- **High uncertainty** indicates that the range on record is likely incomplete and not representative of the probable range. High uncertainty will be more likely for newly described species, or rarer species that are underrepresented in collections.

Taxa with distribution categories of 1 and 2 were generally assumed to be “No Risk” and were not subjected to further review. Further review of taxa with a value of 3 may occur where there is moderate to high uncertainty in the range on record. Taxon with a distribution category value of 4 was flagged for further literature review, and potential independent external review. Taxon with a distribution category value of 5 was automatically flagged for independent external review. Moderate to High uncertainty scores were applied to uncertain taxonomic designations (i.e., “cf.” taxa) or where genetic species have not yet been described.

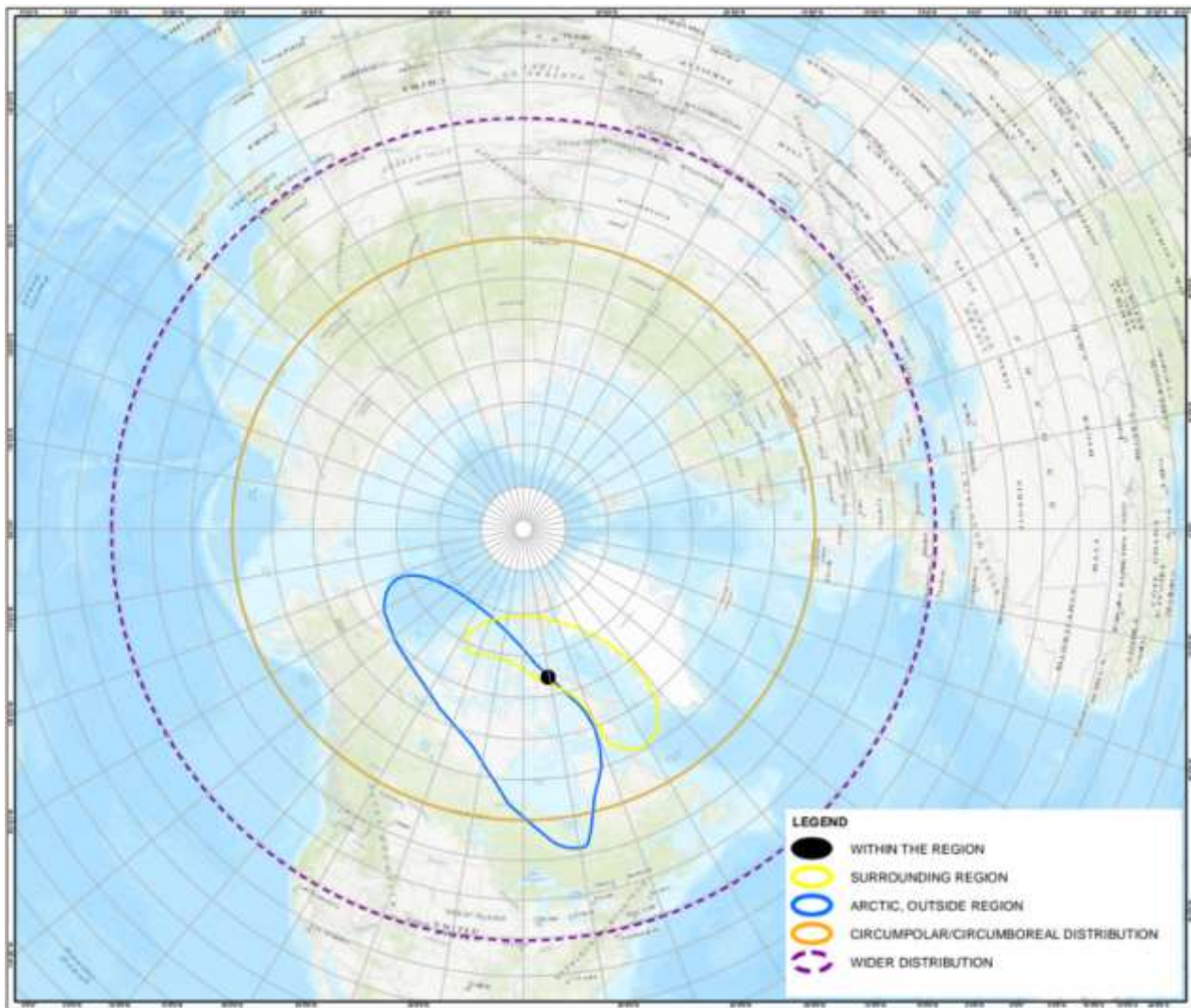


Figure 8-4: Approximate regions for taxonomic distribution categories used to define closest records. Adapted from Goldsmit et al. (2014).

8.3.3.3.2 Limitations

Specimens were not always identified to the species level due to a variety of limitations such as incomplete or disputed morphological descriptions available for some taxonomic groups, missing or undeveloped (juvenile) features, or damage to specimens. These specimens were recorded to the lowest practical taxonomic level as indet. (indeterminate) or sp. (species) when identifiable to the genus level. When an inexact match to a species was made, the designations cf. (compare with) and sp. nr. (species near) were used to indicate the specimen was similar to or represented an unknown species near to the indicated taxon, respectively (see Section 8.1.2 Definitions). For literature review, where taxa were not identifiable to the species level, the distribution or range of the higher taxon to which the specimen was identified was examined. For example, if a specimen from Milne Inlet could only be identified to genus, and the databases revealed that no species within that genus had ranges that included the Canadian Arctic, the specimen was flagged for further review.

Determining the status of some taxa was complicated by lack of data as well as poor or unreliable records. Biodiversity and species assemblages in the Canadian Arctic are not well studied, particularly in comparison to the Eurasian Arctic (Sirenko et al. 2025, Figure 8-5). Surveys and species inventories in the Canadian Arctic are not exhaustive, and species descriptions may not include a comprehensive description of range. Rarer and more recently described taxa may not have a report of occurrence or range on record within Canadian Arctic waters despite having the potential to be present. In many areas of the Canadian Arctic, much of the survey effort was undertaken in the 1970s or 1980s, and species inventories reflect the taxonomy of the time which may have changed due to subsequent taxonomic revisions, sometimes leading to uncertainty as to which species was recorded.

Species where the native range is unknown, disputed, or uncertain are considered cryptogenic, being unable to be classified as native or introduced in a given region (Carlton 1996). The introduction status of these species is unknown either due to lack of information or disagreement among multiple lines of evidence and may represent a substantial proportion of species in an area, for example, cryptogenic species in San Francisco Bay, California, represented 37% of the total of introduced and cryptogenic species, despite over 30 years of study of NIS in the area (Carlton 1996). In this study, a species may be considered cryptogenic to the Project area if the described range includes the Western North Atlantic and Arctic waters outside of the Eastern Canadian Arctic.

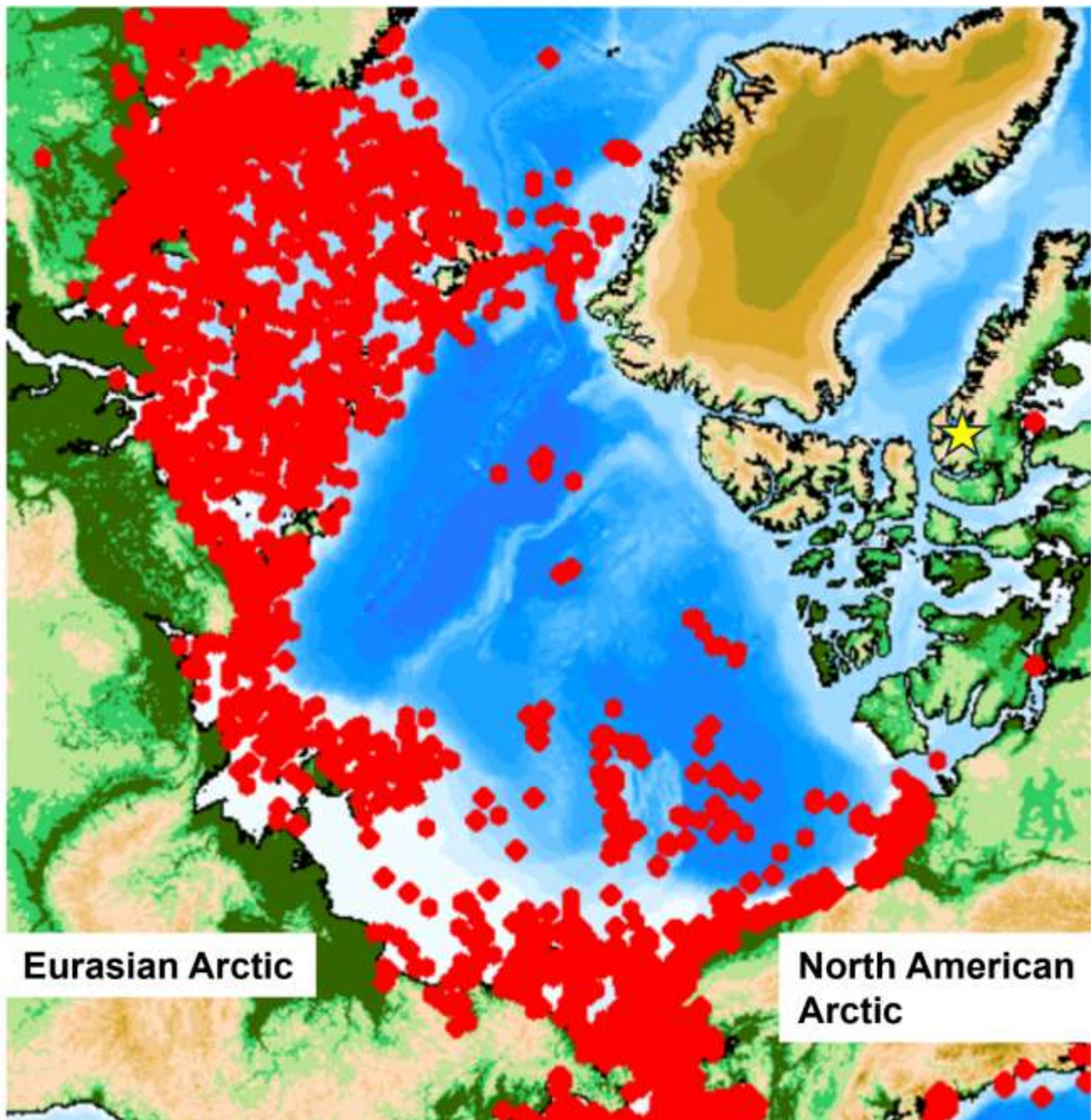


Figure 8-5: Arctic species datasets available through ArcOD (the centralized international database and species inventory of Arctic Ocean Diversity, www.arcodiv.org), one of the sources of information reviewed for species records, illustrating the discrepancy between the number of published studies in Canadian waters (right side) compared to other areas of the Arctic Ocean (left side). Image produced by ArcOD (2025). Yellow star indicates Project area.

8.3.3.4 Independent Verification of Identification

Following literature review, specimens that are flagged as requiring closer examination would undergo secondary taxonomic review by Biologica and would in most cases be sent for independent verification to the Benthic Ecology Lab at Université Laval (Laval). Where taxa are flagged due to being obscure or newly described, specimens may be sent for verification with the specialist who made the initial taxonomic description, or a related expert in the taxonomic group instead of to Laval. Following a review by Laval, specimens would be forwarded to specialists in specific taxonomic groups if further clarification was required.

Samples are sent for independent verification if they are flagged as potential non-indigenous or invasive species. Other reasons for independent verification included the existence of a new species description in the scientific literature that might affect a previous identification, limited information on the distribution, or uncertainty in the identification.

8.4 Results

8.4.1 Taxonomic Identification

8.4.1.1 Benthic Infauna

Benthic infaunal sampling in 2024 was conducted at eight stations in Milne Port, yielding a total abundance of 22,457 infaunal organisms representing 157 taxa, or 124 unique taxa (i.e., where a higher taxonomic level was not also represented by a lower taxon) (Appendix 8A-1, 8A-2). Of these, one taxon was considered a “new record”, meaning it was not found in previous surveys in Milne Inlet; the new record is presented in Table 8-6, along with a description of the distribution on record.

Chaetozone anasima was a tentative identification given to a terebellid specimen from benthic infaunal samples. *Chaetozone anasima* is a relatively recently described species with no described range on record. Currently, the species is only known to occur in two locations in the northeastern USA: Massachusetts Bay and Georges Bank (Gulf of Maine) (Doner and Blake 2006, Blake 2022). Morphologically similar to *C. setosa* and *C. curvata*, *C. anasima* may be misidentified as either of these species (Doner and Blake 2006, Blake 2022). Specimens identified as *Chaetozone* sp., and as part of the *Chaetozone setosa* complex have been identified in Milne Port since baseline surveys, however, the specimens identified in 2024 had distinct features that differentiated them from the *Chaetozone setosa* complex. The specimens collected in 2024 and identified as *Chaetozone anasima* may represent a refining of *Chaetozone* sp., rather than a new identification for Milne Port.

Additionally, one taxon from the Watch List was collected. Two specimens of the terebellid polychaete *Paramphitrite birulai* were collected in 2024 at two stations. Collection records for this species indicated a broad range including the European North Atlantic, the Western North American Arctic, and the European Arctic (WoRMS 2025; GBIF 2025, Jirkov 2020), as well as indications of a cryptogenic presence in the Adriatic Sea, (Costello et al. 2025, Loia et al. 2017), which led to the species being placed as Low Risk on the Watch List in 2020. Independent review of specimens in 2023 by Dr. Julio Parapar, a specialist in terebellid polychaetes, concluded that while the specimen closely matched the most recent descriptions for *P. birulai*, features required for positive identification were missing (Parapar 2023, pers. comm.). Additionally, Dr. Parapar noted features on the third segment that are not described for any of the known species in this genus, indicating further review is required to determine whether these specimens represent an undescribed species.

Table 8-6: List of Newly Recorded Taxa Identified In Quadrat Surveys at Milne Inlet in 2024, with Description of Distribution on Record

Phylum (Division) Class/Order	Family	Taxon	Description	Distribution References	Distribution Category ^(a)	Relevant Ecoregions on Record ^(b)	Uncertainty ^(c)
Polychaeta							
Sedentaria / Terebellida	Cirratulidae	<i>Chaetozone anasima</i>	Specimens were a close match to a recently described species that has no range description. Known only from initial area of collection.	1, 2	5 Wider Distribution	-	High

Notes: Taxa identified to the lowest practical taxonomic level; *indicates non-unique taxa; indet.= indeterminate (taxa which could not be identified beyond the taxonomic level listed); sp.=species.

^(a) Distribution categories indicate the proximity to the Project of the closest georeferenced collection of the taxon, where category 1: Within the Region, 2: Surrounding Region, 3: Arctic, Outside Region, 4: Circumpolar/Circumboreal Distribution, 5: Wider Distribution. Distribution categories are defined in Section 8.3.2.1.1

^(b) Ecoregion are delineated in Spalding et al. 2007 and herein refer to 1. Baffin Bay-Davis Strait; 2. Lancaster Sound; 3. High Arctic Archipelago; 4. Northern Labrador; 5. Hudson Complex; 6. West Greenland Shelf; 7. North Greenland Shelf; 8. East Greenland Shelf; 9. Beaufort-Amundson-Viscount Melville-Queen Maud

^(c) Uncertainty indicates confidence in the data available for the range on record. Uncertainty categories (Low, Moderate, and High) are described in Section 8.3.2.1.1

Taxa distribution references: 1: Donner and Blake 2006; 2: Blake 2022.

All taxa cross-referenced with NIS/AIS resources: Fofonoff et al. 2018, ISSG 2025, Costello et al. 2025, Molnar et al. 2008, Casas-Monroy et al. 2014.

8.4.1.2 Macroflora and Benthic Epifauna

In 2024, a review of the existing macroalgal collection was conducted by Dr. Gary Saunders at UNB. The results of this review are presented in Appendix 8B-5. Additional macroalgal collections were performed opportunistically during quadrat surveys, collection of settlement substrates (see Section 8.3.1.2), and during monitoring of offset habitat at the Freight Dock (WSP 2025).

A total of 54 distinct macroflora and epifauna taxa were recorded during quadrat surveys in Milne Inlet in 2024, 20 of which were identifiable to the species level. Of these, only one taxon (*Pandalus montagui*) was considered a new record for Milne Port surveys; the new record is presented in Table 8-7, along with a description of the distribution on record.

A total of 68 macroalgae taxa were identified in Milne Port surveys, this included 42 taxa identifiable to described species, in addition to 19 taxa that were considered to have distinct features or sequences, but did not match known descriptions of any species or matched sequences of currently undescribed species. The remaining seven taxa were lacking features to resolve the identification to lower taxonomic levels. Readable sequences were not able to be generated for all specimens. Where sequences were obtained, molecular data was compared to publicly available sources. Of these macroalgae taxa, 48 were considered new records for Milne Port. These new records are presented in Table 8-7, along with descriptions of the distribution on record. The complete list of identified taxa is presented along with the fish and incidental taxa in Appendix 8B-1.

No taxa from the Program Watch List were detected during permanent quadrat surveys and four taxa were flagged for review (*Chaetomorpha* sp. 3GWS, *Desmarestia ligulata*, *Antithamnion* cf. *sparsum*, and *Polysiphonia kapraunii*).

Table 8-7: List of Newly Recorded Taxa Identified In Quadrat Surveys at Milne Inlet in 2024, with Description of Distribution on Record

Phylum (Division) Class/Order	Family	Taxon	Description	Distribution References	Distribution Category ^(a)	Relevant Ecoregions on Record ^(b)	Uncertainty ^(c)
Arthropoda							
Malacostraca / Decapoda	Pandalidae	<i>Pandalus montagui</i>	A cold-water shrimp species with a well-established presence in the North Atlantic and Canadian Arctic.	1, 2, 3, 4	2 Surrounding Region	1, 4, 5	Low
(Chlorophyta)							
Chlorophyceae / Acrosiphoniales	Acrosiphoniaceae	<i>Acrosiphonia</i> sp. 3GWS**	A genetic species that has not been described. Collections indicate a potential North Atlantic range, including Churchill.	5, 6	3 Arctic, Outside Region	5	High
Chlorophyceae / Acrosiphoniales	Acrosiphoniaceae	<i>Acrosiphonia</i> sp. 6GWS	A genetic species that has not been described. Collection records indicate a North Atlantic range, including Churchill.	5, 6, 7, 8	3 Arctic, Outside Region	5	High
Chlorophyceae / Acrosiphoniales	Acrosiphoniaceae	<i>Acrosiphonia</i> sp. 8GWS**	A genetic species that has not been described. Collection records indicate a North Atlantic range, including Baffin Island and Churchill.	7, 8	2 Surrounding Region	1, 5	High
Ulvophyceae / Cladophorales	Cladophoraceae	<i>Chaetomorpha</i> <i>brachygona</i>	Broadly distributed but with no clear Arctic record. Northern records may be underrepresented due to morphological similarities with other species.	25	4 Circumpolar / Circumboreal Distribution	-	Moderate
Ulvophyceae / Cladophorales	Cladophoraceae	<i>Chaetomorpha</i> sp. 3GWS	A genetic group with a single collection from Maine. Flagged for review.	8	5 Wider Distribution	-	High

Phylum (Division) Class/Order	Family	Taxon	Description	Distribution References	Distribution Category ^(a)	Relevant Ecoregions on Record ^(b)	Uncertainty ^(c)
Ulvophyceae / Cladophorales	Cladophoraceae	<i>Rhizoclonium riparium</i>	A broadly distributed species, with collection records in the Eastern Canadian Arctic, including Ragged Island.	1, 2, 8, 10, 12, 13, 14, 18, 23	1 Within Region	1, 2, 5, 6, 8, 9	Low
Ulvophyceae / Ulotrichales	Ulotrichaceae	<i>Ulothrix flacca</i>	A broadly distributed species, with collection records in the Eastern Canadian Arctic.	1, 2, 5, 9, 10, 11, 12, 13, 14, 15	2 Surrounding Region	1, 2, 3, 4, 5, 6, 8, 9	Low
Ulvophyceae / Ulotrichales	Ulotrichaceae	<i>Ulothrix subflaccida</i>	A broadly distributed species, with collection records in the Eastern Canadian Arctic.	2, 10, 13, 14, 23	2 Surrounding Region	1, 2, 3, 5, 6, 8, 9	Low
Ulvophyceae / Ulotrichales	Ulotrichaceae	<i>Ulothrix</i> sp. 1Nunavut**	A genetic species within the genus <i>Ulothrix</i> , the specimens were not a match to any described species or sequences on record.	-	-	-	High
Ulvophyceae / Ulotrichales	Ulotrichaceae	<i>Urospora penicilliformis</i>	A broadly distributed species, with collection records in the Eastern Canadian Arctic.	1, 2, 10, 12, 13, 14, 15, 23	2 Surrounding Region	1, 2, 4, 5, 6, 8, 9	Low
Ulvophyceae / Ulvaes	Ulvaceae	<i>Ulvaria splendens</i>	A broadly distributed species, with collection records in the Eastern Canadian Arctic.	1, 2, 5, 10	2 Surrounding Region	4, 5, 6	Low
Heterokontophyta							
Bacillariophyceae / Naviculales	Berkeleyaceae	<i>Berkeleya</i> sp.	Diatom genus with an uncertain taxonomic record. Collection records indicate that taxa matching the morphological description of this genus are present in the Canadian Arctic.	1, 2, 13, 15, 16, 17, 18, 19	1 Within Region	1, 3, 5, 8	Moderate

Phylum (Division) Class/Order	Family	Taxon	Description	Distribution References	Distribution Category ^(a)	Relevant Ecoregions on Record ^(b)	Uncertainty ^(c)
Bacillariophyceae / Naviculales	Berkeleyaceae	<i>Parlibellus</i> sp.	Diatom genus with an uncertain taxonomic record. Collection records indicate that taxa matching the morphological description of this genus are present in the Canadian Arctic.	20	2 Surrounding Region	2	High
(Ochrophyta)							
Phaeophyceae / Desmarestiales	Desmarestiaceae	<i>Desmarestia ligulata</i>	Broadly distributed species with Arctic records limited to the European Arctic. Flagged for review.	1, 2	4 Circumpolar / Circumboreal Distribution	-	Low
Phaeophyceae / Desmarestiales	Desmarestiaceae	<i>Desmarestia</i> sp. 1Arctic	Specimens were not a morphological match for any described species, but matched an unidentified <i>Desmarestia</i> sequenced from collections at Ragged Island in 2009. Considered a novel species from the Arctic.	18	1 Within Region	1	High
Phaeophyceae / Ectocarpales	Acinetosporaceae	Acinetosporaceae_Gen sp. 1AP2016	Specimens were not a morphological match for any described species, but matched unidentified sequences from collections at Ragged Island in 2004.	6, 18	1 Within Region	1, 4	High

Phylum (Division) Class/Order	Family	Taxon	Description	Distribution References	Distribution Category ^(a)	Relevant Ecoregions on Record ^(b)	Uncertainty ^(c)
Phaeophyceae / Ectocarpales	Chordariaceae	<i>Ascoseiophila</i> sp. 1violodora**	Genetic species. Sequencing places this specimen as a sister species to the only described species in the genus.	-	-	-	High
Phaeophyceae / Ectocarpales	Chordariaceae	<i>Chordaria</i> <i>chordaeformis</i>	Relatively newly described species with a broad range and a clear Eastern Canadian Arctic record.	5, 7, 8, 10, 14	2 Surrounding Region	1, 4, 5, 7	Low
Phaeophyceae / Ectocarpales	Chordariaceae	<i>Chordaria flagelliformis</i>	A broadly distributed species, with collection records in the Eastern Canadian Arctic.	1, 2, 5, 8, 10, 11, 12, 13, 14, 23	2 Surrounding Region	1, 2, 3, 4, 5, 6, 8, 9	Low
Phaeophyceae / Ectocarpales	Chordariaceae	<i>Elachista</i> sp. 1Arctic	Genetic species identified from Churchill and James Bay.	12	3 Arctic, Outside Region	5	High
Phaeophyceae / Ectocarpales	Chordariaceae	<i>Litosiphon</i> sp. 1Arctic	Morphologically placed within the genus, but distinct from the only described <i>Litosiphon</i> species. Considered a novel species.	-	-	-	High
Phaeophyceae / Ectocarpales	Chordariaceae	<i>Microspongium</i> sp. 4GWS	A genetic group with collections from British Columbia and Alaska	6, 8	4 Circumpolar / Circumboreal Distribution	-	High
Phaeophyceae / Ectocarpales	Chordariaceae	<i>Polycerea borealis</i>	A boreal and Arctic species with limited collection records	8, 10, 12, 26	4 Circumpolar / Circumboreal Distribution	4	Moderate

Phylum (Division) Class/Order	Family	Taxon	Description	Distribution References	Distribution Category ^(a)	Relevant Ecoregions on Record ^(b)	Uncertainty ^(c)
Phaeophyceae / Ectocarpales	Chordariaceae	<i>Punctaria</i> sp.	A genus with multiple species recorded in the Eastern Canadian Arctic	1, 2, 5, 7, 8, 10, 13, 14, 15, 16, 18, 23	1 Within Region	1, 2, 3, 4, 5, 6, 8, 9	Low
Phaeophyceae / Ectocarpales	Chordariaceae	<i>Saundersella doloresiae</i>	Newly described species with collections from Northern Labrador and indications of potential range to Greenland	10, 12, 26	4 Circumpolar / Circumboreal Distribution	4	Moderate
Phaeophyceae / Ectocarpales	Ectocarpaceae	<i>Ectocarpus</i> sp.	Unknown species matching sequences collected in the Bay of Fundy and Greenland. Genus has multiple species with Eastern Canadian Arctic ranges.	1, 2, 8, 10, 13, 14, 18, 23	1 Within Region	1, 3, 4, 5, 6, 8, 9	Low
Phaeophyceae / Ectocarpales	Ectocarpaceae	<i>Ectocarpus</i> sp. 1siliculosus	Unknown species matching sequences collected in Northern Labrador and Hudson Bay	2, 8	3 Arctic, Outside Region	4, 5	Moderate
Phaeophyceae / Ectocarpales	Scytosiphonaceae	<i>Petalonia arctica</i>	Newly described species from the Eastern Canadian Arctic.	8, 10, 12, 26	3 Arctic, Outside Region	4, 5	Low
Phaeophyceae / Ectocarpales	Scytosiphonaceae	<i>Petalonia fascia</i>	Cold water species with a well-documented presence in the Eastern Canadian Arctic	1, 2, 5, 7, 8, 10, 13, 14, 15, 23	2 Surrounding Region	1, 2, 3, 4, 5, 6, 8, 9	Low
Phaeophyceae / Ectocarpales	Scytosiphonaceae	<i>Planosiphon filiformis</i>	Cold water species with a documented presence in the Eastern Canadian Arctic	1, 2, 7, 8, 10, 12	3 Arctic, Outside Region	4, 5	Low
Phaeophyceae / Ectocarpales	Scytosiphonaceae	<i>Scytosiphon shibazakiorum</i> **	A recently described species that may be	10, 12, 21, 22	3	5	Moderate

Phylum (Division) Class/Order	Family	Taxon	Description	Distribution References	Distribution Category ^(a)	Relevant Ecoregions on Record ^(b)	Uncertainty ^(c)
			misidentified as morphologically similar species. Considered to have a broad range that includes the Eastern Canadian Arctic.		Arctic, Outside Region		
Phaeophyceae / Ectocarpales	Scytosiphonaceae	<i>Scytosiphon</i> sp. 1crust	Unknown species matching sequences collected in Churchill	6, 8	3 Arctic, Outside Region	5	High
Phaeophyceae / Ralfsiales	Ralfsiaceae	<i>Ralfsia</i> sp.	A genus of crustose brown algae with a broad global range. Records include multiple species within the Eastern Canadian Arctic.	1, 2, 5, 10, 11, 12, 13, 14, 15, 23	2 Surrounding Region	1, 2, 3, 4, 5, 6, 8, 9	Low
Phaeophyceae / Ralfsiales	Ralfsiaceae	<i>Ralfsia</i> sp. 1Arctic	Genetically placed within the genus, but distinct from the described and sequenced <i>Ralfsia</i> species. Considered a novel species.	-	-	-	High
Phaeophyceae / Sphacelariales	Stypocaulaceae	<i>Protohalopteris radicans</i>	Crustose species with a documented range that includes the Eastern Canadian Arctic	1, 2, 5, 8, 10, 11, 13, 14, 23	3 Arctic, Outside Region	4, 5, 6, 8	Low
Phaeophyceae / Tilopteridales	Halosiphonaceae	<i>Halosiphon</i> sp. 2tomentosus	Genetic species documented in the Eastern Canadian Arctic	5, 7, 8	3 Arctic, Outside Region	4, 5	High
Phaeophyceae / Tilopteridales	Phyllariaceae	<i>Saccorhiza dermatodea</i>	A North Atlantic and Arctic Ocean species that is well documented in the Eastern Canadian Arctic.	1, 2, 10, 13, 14, 23	2 Surrounding Region	1, 2, 3, 5, 6, 8	Low

Phylum (Division) Class/Order	Family	Taxon	Description	Distribution References	Distribution Category ^(a)	Relevant Ecoregions on Record ^(b)	Uncertainty ^(c)
Phaeophyceae / Tilopteridales	Tilopteraceae	<i>Haplospora globosa</i>	A northern species that is documented in the Eastern Canadian Arctic.	1, 2, 5, 7, 8, 10, 13, 16, 23	1 Within Region	1, 2, 4, 5, 8, 9	Low
Phaeophyceae / Tilopteridales	Tilopteraceae	Tilopteridalean sp. 2GWS	A genetic species documented from Baffin Island and north Alaska	7, 8	2 Surrounding Region	1	High
Phaeophyceae / Tilopteridales	Tilopteraceae	Tilopteridalean sp. 3GWS	A genetic species documented from Alaska	7, 8	4 Circumpolar / Circumboreal Distribution	-	High
(Rhodophyta)							
Florideophyceae / Acrochaetiales	Acrochaeticeae	<i>Grania efflorescens</i>	Genetic match to sequences thought to be this species. Broadly distributed with Eastern Canadian Arctic range.	1, 2, 10, 13, 14, 15, 23, 26	2 Surrounding Region	1, 2, 3, 5, 6, 8, 9	Low
Florideophyceae / Ceramiales	Ceramiaceae	<i>Antithamnion</i> cf. <i>sparsum</i>	Suspected false positive. Match to sequences thought to be an NIS to Nova Scotia. Flagged for review.	27	5 Wider Distribution	-	High
Florideophyceae / Ceramiales	Rhodomelaceae	<i>Polysiphonia kapraunii</i>	Species limited to warmer temperate and sub-tropical waters. Potential mismatch due to method limitations. Flagged for review.	10	5 Wider Distribution	-	High
Florideophyceae / Ceramiales	Rhodomelaceae	<i>Rhodomela sibirica</i> **	Arctic species with records in Milne Inlet prior to Project operations.	1, 2, 7, 10, 12, 26	1 Within Region	1, 3, 5	Low

Phylum (Division) Class/Order	Family	Taxon	Description	Distribution References	Distribution Category ^(a)	Relevant Ecoregions on Record ^(b)	Uncertainty ^(c)
Florideophyceae / Corallinales	Lithophyllaceae	<i>Titanoderma pustulatum</i>	Suspected false positive. Broadly distributed species with a range that includes the European Arctic and the western North Atlantic	1, 2, 12	4 Circumpolar / Circumboreal Distribution	-	High
Florideophyceae / Hapalidiales	Hapalidiaceae	<i>Boreolithothamnion lemoineae</i> **	Recent redescription. Collection records indicate species present in Eastern Canadian Arctic prior to Project operations.	8, 10, 12, 24	2 Surrounding Region	1, 4, 9	Low
Florideophyceae / Hapalidiales	Hapalidiaceae	<i>Leptophytum foecundum</i> **	Genus has undergone recent revision and taxonomy is uncertain. Specimens matching the description have a range including the Eastern Canadian Arctic.	1, 2, 7, 10, 13, 18, 23	1 Within Region	1, 2, 3, 4, 6, 8, 9	Moderate
Florideophyceae / Hapalidiales	Hapalidiaceae	<i>Leptophytum laeve</i> **	Genus has undergone recent revision and taxonomy is uncertain. Specimens matching the description have a range including the Eastern Canadian Arctic.	1, 2, 10, 13, 23	2 Surrounding Region	1, 2, 3, 4, 5, 6, 8, 9	Moderate

Notes: Taxa identified to the lowest practical taxonomic level; *indicates non-unique taxa; **indicates readable sequences were generated for the specimens collected in 2024; indet.= indeterminate (taxa which could not be identified beyond the taxonomic level listed); sp.=species.

^(a) Distribution categories indicate the proximity to the Project of the closest georeferenced collection of the taxon, where category 1: Within the Region, 2: Surrounding Region, 3: Arctic, Outside Region, 4: Circumpolar/Circumboreal Distribution, 5: Wider Distribution. Distribution categories are defined in Section 8.3.2.1.1

^(b) Ecoregion are delineated in Spalding et al. 2007 and herein refer to 1. Baffin Bay-Davis Strait; 2. Lancaster Sound; 3. High Arctic Archipelago; 4. Northern Labrador; 5. Hudson Complex; 6. West Greenland Shelf; 7. North Greenland Shelf; 8. East Greenland Shelf; 9. Beaufort-Amundson-Viscount Melville-Queen Maud

^(c) Uncertainty indicates confidence in the data available for the range on record. Uncertainty categories (Low, Moderate, and High) are described in Section 8.3.2.1.1

Taxa distribution references: 1: WoRMS 2025; 2: GBIF 2025; 3: OBIS 2011; 4: Roy et al. 2015; 5: Saunders and McDevit 2013; 6: NLM 2024; 7: Bringloe 2018; 8: BOLD 2025; 9: Charette et al. 2020; 10: Guiry and Guiry 2025; 11: Ellis and Wilce 1961; 12: Saunders 2023; 13: Mathieson et al. 2010; 14: Lund 1959; 15: Wilce and Dunton 2014; 16: Cross et al. 1987; 17: Snow et al. 1987; 18: Küpper et al. 2016; 19: Lobban 1984; 20: Conlan and Kvitek 2005; 21: McDevit and Saunders 2017; 22: Hoshino et al. 2021; 23: Lee 1980; 24: Gabrielson et al. 2023. 25: Blair 1983, 26: Saunders 2024, 27: Brooks and Krumhansl 2023.

All taxa cross-referenced with NIS/AIS resources: Fofonoff et al. 2018, ISSG 2025, Costello et al. 2025, Molnar et al. 2008, Casas-Monroy et al. 2014.

8.4.1.3 Settlement Substrates

A total of 16 plates and 16 baskets were submitted for analysis. The remaining substrates, including all annual deployments, were scraped and preserved in ethanol to be archived for potential future molecular analysis.

A total of 107 invertebrate taxa were identified on settlement substrates (Appendix 8C-1). None of these taxa were considered new records, meaning each taxon, or representative taxa had been observed in previous surveys in Milne Inlet. No taxa from the Program Watch List were detected and no taxa were flagged for review. Macroalgae identifications from settlement substrates are described along with collections from quadrat surveys in Section 8.4.1.2.

8.4.1.4 Zooplankton

Taxonomic data of zooplankton collected from 12 stations in Milne Port are presented in Appendix 8D-2. Zooplankton taxa presence/absence from baseline years to 2024 is presented below in Table 8-8, with a complete list provided in Appendix 8D-1. A total of 60 zooplankton taxa were observed in the 2024 samples, all of which had been detected previously in Project monitoring and were known to have natural ranges that include the Project area.

Two taxa (*Gammarus* sp. and Stichaeidae indet.) were observed for the first time in zooplankton samples in 2024, but these taxa, or representative lower taxonomic levels, have been observed previously in other survey methods in Milne Port. No new taxa were observed, no taxa from the Program Watch List were detected and no taxa were flagged for review.

Table 8-8: Zooplankton Taxa Presence in Milne Inlet During NIS/AIS Monitoring in 2024 Compared to Previous Survey Years (Baseline years, 2016-2020, 2022, 2023)

Taxa	Baseline ^(a)	2016	2017	2018	2019	2020	2022	2023	2024
Polychaeta indet.*	x	x	x	x	x	x	x	x	x
Oweniidae indet.*								x	x
Acari indet.*								x	x
Crustacea indet.*			x	x	x		x	x	x
Bosminidae indet.**			x			x	x	x	x
<i>Chydorus sphaericus</i>		x							x
<i>Daphnia</i> sp.***	x					x	x	x	x
Copepoda indet.*	x	x		x	x	x	x	x	x
Calanoida indet.*	x		x	x	x	x	x	x	x
<i>Acartia longiremis</i>	x	x	x		x	x	x	x	x
<i>Acartia</i> sp.*	x	x	x	x	x	x		x	x
<i>Calanus finmarchicus</i>	x	x	x	x	x	x	x	x	x
<i>Calanus glacialis</i>	x	x	x	x	x	x	x	x	x
<i>Calanus hyperboreus</i>	x	x	x	x	x	x	x	x	x
<i>Calanus</i> sp.*			x	x	x	x	x	x	x
<i>Centropages</i> sp.	x			x				x	x

Taxa	Baseline ^(a)	2016	2017	2018	2019	2020	2022	2023	2024
<i>Microcalanus</i> sp.			x	x	x	x	x		x
<i>Pseudocalanus</i> sp. complex *	x	x	x	x	x	x	x	x	x
<i>Scolecithricella</i> sp.			x	x					x
Cyclopoida indet.*			x	x	x	x	x	x	x
<i>Cyclops</i> sp. *								x	x
<i>Oithona</i> sp. *	x	x	x	x	x	x	x	x	x
Oncaeidae indet.*		x	x					x	x
<i>Triconia borealis</i>		x	x					x	x
Harpacticoida indet.*		x		x	x	x	x	x	x
<i>Microsetella norvegica</i>	x	x	x	x	x	x	x	x	x
<i>Gammarus</i> sp.*									x
Hyperiididae indet.*				x	x		x	x	x
<i>Themisto libellula</i>			x	x	x	x	x		x
<i>Themisto</i> sp.	x		x	x			x	x	x
<i>Onisimus</i> sp.				x			x		x
Crangonidae indet.				x					x
<i>Sabinea septemcarinata</i>			x	x			x	x	x
Isopoda indet.*			x	x	x	x	x	x	x
<i>Erythrops</i> sp.				x					x
Balanomorpha indet.*			x	x	x	x	x	x	x
Chironomidae indet.***						x		x	x
Chaetognatha indet.		x						x	x
<i>Parasagitta elegans</i>	x		x	x	x	x	x	x	x
<i>Fritillaria</i> sp. *	x	x		x	x	x		x	x
<i>Oikopleura</i> sp. *	x		x	x	x	x	x		x
Gadidae indet.			x	x	x		x		x
<i>Ammodytes</i> sp.*				x		x	x	x	x
Stichaeidae indet.*									x
Hydrozoa indet.*								x	x
<i>Euphysa</i> sp.	x			x	x		x	x	x
Pandaeidae indet.*						x	x	x	x
<i>Aeginopsis laurentii</i>			x	x	x		x	x	x
<i>Aglantha digitale</i>	x		x	x	x	x	x	x	x
Ctenophora indet.	x				x		x	x	x
<i>Beroe</i> sp. *				x			x	x	x
Echinoidea indet.*			x	x	x	x		x	x

Taxa	Baseline ^(a)	2016	2017	2018	2019	2020	2022	2023	2024
Ophiuroidea indet.*							X	X	X
Bivalvia indet.*	X	X	X	X	X	X	X	X	X
Gastropoda indet.*			X	X	X	X	X	X	X
<i>Clione</i> sp.*								X	X
<i>Clione limacina</i>	X		X	X	X	X	X	X	X
<i>Limacina helicina</i>	X		X	X	X	X	X	X	X
<i>Limacina</i> sp.*	X	X	X			X	X	X	X
Nemertea indet.			X					X	X

Notes: Taxa in bold indicate the first observation of the taxa during MEEMP and NIS/AIS surveys. Taxa identified to the lowest practical taxonomic level; presence/absence for previous years taken from SEM 2015, 2016, 2017, Golder 2018, Golder 2019, Golder 2020, Golder 2021, WSP 2023, WSP 2024. *=Species or taxa from lower taxonomic levels identified in other survey years and/or in other survey methods; **=Freshwater taxon; ***= Incidental (benthic or terrestrial taxa or life stages); indet.= indeterminate (taxa could not be identified beyond the taxonomic level listed); sp.=species.

(a) Baseline includes zooplankton observations in 2008, 2010, 2014, and 2015.

8.4.1.5 Fish and Incidentals

Throughout fish surveys at Milne Inlet, some species were targeted and caught intentionally (such as fish sampled for fish community and fish health monitoring; reported in Chapters 6.0 and 7.0) while other species were collected or observed incidentally (such as taxa observed during monitoring of offset habitat; see WSP 2025). In 2024 MEEMP surveys, 91 taxa were collected, captured, or observed incidentally and of these, four taxa were newly recorded in MEEMP surveys (Table 8-9). The full list of incidental taxa (also including macroflora and epifauna described in Section 8.4.1.2) is available in Appendix 8B-1; laboratory results are in Appendices 8B-2 and 8B-3.

The taxa observed or caught incidentally in MEEMP and NIS/AIS surveys were screened against a global database of marine invasive species and none of the taxa were identified as a globally-recognized invasive species (Molnar et al. 2008) or an invasive species in Canada according to the National Risk Assessment for Introduction of Aquatic Nonindigenous Species to Canada by Ballast Water (Casas-Monroy et al. 2014). In addition to these databases, each taxon was researched independently in the literature for their known habitats and distributions to detect taxa that may be considered non-native to the Arctic region. For taxa that were not identified to the species level, it was confirmed that the identified higher-level taxa had at least one representative species with a distribution that included Arctic waters.

Table 8-9: Newly Recorded Incidental Taxa Identified in Milne Inlet in 2024

Phylum Class/Order	Family	Taxa	Capture Method	Description	Distribution References	Distribution Category ^(a)	Relevant Ecoregions on Record ^(b)	Uncertainty ^(c)
Brachiopoda								
Rhynchonellata / Rhynchonellida	Hemithirididae	<i>Hemithiris psittacea</i>	Incidentals (DNA Specimens)	Morphological ID of specimen archived for DNA analysis. A northern species that is well documented in the Eastern Canadian Arctic.	1, 2, 3, 4, 5, 6, 7, 8, 9	1, 4, 5, 6, 8, 9	2 Surrounding Region	Low
Bryophyta								
Bryopsida / Hypnales	Amblysteigaceae	<i>Pseudocalliergon brevifolium</i>	Incidentals	North American Arctic species, well documented in the Eastern Canadian Arctic	2, 18, 19	1, 2, 3, 5, 6, 7, 8, 9	2 Surrounding Region	Low
Mollusca								
Cephalopoda / Sepiida	-	Sepiolina indet.	Incidentals (DNA Specimens)	Morphological ID of specimen archived for DNA analysis. Eggs likely to be from a bobtail squid. Suborder has a global distribution.	1, 2, 3, 5, 10	1, 2, 3, 4, 5, 6, 7, 8, 9	2 Surrounding Region	Moderate
Rhodophyta								
Florideophyceae / Ahnfeltiales	Ahnfeltiaceae	<i>Ahnfeltia plicata</i>	Offset Habitat Monitoring	Red algae with a well documented presence in the Eastern Canadian Arctic.	1, 2, 11, 12, 13, 14, 15, 16, 17	1, 2, 4, 5, 8, 9	1 Within Region	Low

Notes: Taxa identified to the lowest practical taxonomic level; *indicates non-unique taxa; indet.= indeterminate (taxa which could not be identified beyond the taxonomic level listed); sp.=species.

^(a) Distribution categories indicate the proximity to the Project of the closest georeferenced collection of the taxon, where category 1: Within the Region, 2: Surrounding Region, 3: Arctic, Outside Region, 4: Circumpolar/Circumboreal Distribution, 5: Wider Distribution. Distribution categories are defined in Section 8.3.2.1.1

^(b) Ecoregion are delineated in Spalding et al. 2007 and herein refer to 1. Baffin Bay-Davis Strait; 2. Lancaster Sound; 3. High Arctic Archipelago; 4. Northern Labrador; 5. Hudson Complex; 6. West Greenland Shelf; 7. North Greenland Shelf; 8. East Greenland Shelf; 9. Beaufort-Amundson-Viscount Melville-Queen Maud

^(c) Uncertainty indicates confidence in the data available for the range on record. Uncertainty categories (Low, Moderate, and High) are described in Section 8.3.2.1.1

Taxa distribution references: 1: WoRMS 2024; 2: GBIF 2024; 3: Miller and Nozères 2024; 4: Goldsmit 2016; 5: Cusson 2018; 6: Chapman and Kostylev 2008; 7: NSC 2006; 8: Goldsmit et al. 2014; 9: Dale and Leontowich 2006; 10: DFO 2019; 11: Cross et al. 1987; 12: Lee 1980; 13: Saunders and McDevit 2013; 14: Mathieson et al. 2010; 15: Lund 1959; 16: Wilce and Dunton 2014; 17: Küpper et al. 2016, 18. BOLD 2025, 19. Tropicus 2025.

All taxa cross-referenced with NIS/AIS resources: Fofonoff et al. 2018, ISSG 2025, Costello et al. 2025, Molnar et al. 2008, Casas-Monroy et al. 2014.

8.4.2 Genetic Identification

Samples collected for DNA analysis in 2024 are in the process of being sorted by Biologica for taxa of interest. Taxa of interest include general fouling, attached, and encrusting taxa such as macroalgae, bryozoans and tunicates where morphological identification may be generally challenging, in addition to Watch List taxa (Appendix 8E-3). Results of morphological identification of the individual specimens collected in 2024 are presented as incidental taxa in Section 8.4.1.5, as well as Appendix 8B-1 and Appendix 8B-2. Benthic infaunal samples preserved for potential molecular analysis have been archived pending the future identification of flagged taxa that may be potentially resolved by molecular analysis. Results of sequencing of 2024 macroalgae specimens is presented in Section 8.4.1.2.

No taxa in 2024 were flagged for further DNA identification. Should this status change, updated taxonomic information will be presented in the 2025 monitoring report and, in the event that a potential NIS/AIS taxon is found in the pending data before the publication of the 2025 report, it will be presented to MEWG.

Samples collected in 2023 were processed and sent to CCDB for sequencing using COI Geller primers. Target specimens included tunicates and bryozoans in addition to two annelids that were morphologically identified as *Marenzelleria* sp. CCDB were successful in amplifying annelid and ascidian DNA but failed for bryozoans. Next Generation (NextGen) Sequencing was used to improve sequence recovery for bryozoans, while this method was able to generate sequences for bryozoans, it also generated potential contaminants (Appendix 8B-9).

The two annelid specimens matched sequences for an undescribed species collected in Canada and Norway that was designated a *Spio* sp (matches to specimen GBMND30277-21, collected from Svalbard in 2018 and CCANN317-08, collected from Churchill in 2008; BOLD 2025). However, the phylogenetic tree indicates that the sequences for the Milne Port specimens and the putative *Spio* specimens are more closely related to *Marenzelleria* than to *Spio* (Appendix 8B-9). The sequences did not match exactly the sequences on record for *Marenzelleria arctica* or *M. viridis*. It is considered likely that these specimens belong to *Marenzelleria*, a genus already confirmed to occur in Milne Port, with representative taxa on the Project Watch List.

Six tunicate specimens were submitted, with four resulting in readable sequences. These were identified as *Ascidia callosa* (three specimens) and *Boltenia echinata* (one specimen). Both species have been observed previously in Milne Port surveys, including in baseline years.

NextGen Sequencing was able to generate sequences for only five of the twenty-six bryozoan specimens that were submitted following failure in Sanger Sequencing. Of these, one specimen returned two sequences, indicating potential amplification of environmental DNA or contamination of the sample. The generated sequences were compared to publicly available reference sequences however results were not conclusive. No specimens were able to be resolved further than the phylum level.

8.4.3 Independent Verification and Identifications

One species (*Chaetozone anasima*) in 2024 was flagged for further review due to lack of information on its range on record. There were no concerns about NIS/AIS status for this taxon. Macroalgae placed on the Watch List in 2024 were flagged by the independent reviewer and are not being sent for further verification. One taxon from the Watch List was identified again in benthic samples (*Paramphitrite birulai*). This taxon had previously been sent for independent review with a specialist in the taxonomic group and the identification was not able to be resolved. The literature review for this taxon was updated for 2024, and its Watch List status was reviewed.

Updates to specimens flagged for verification from 2022 surveys are provided. A reviewer for *Hesperonoe* could not be identified and the available specimens were determined to be lacking features that would be required for identification (Macdonald 2025, pers. comm.). A bryophyte specimen was sent to Dr. Terry McIntosh, a consulting bryophyte expert with the UBC Herbarium, Beaty Biodiversity Museum in 2023; results of the independent review remain pending.

Macroalgae specimens collected from Milne Port in previous years were sent to UNB. Results of this independent review are presented in Appendix 8B-5. A review of the macroalgae taxa placed on the Watch List remains pending.

Table 8-10: Record of Results of Independent Review of Taxa Collected in Milne Port

Biologica's Identification	Reviewer	Result of Verification	Description	Reference
Annelida				
<i>Hesperonoe</i> sp.	TBD	TBD	TBD	TBD
<i>Chaetozone anasima</i>	TBD	TBD	TBD	TBD
Bryophyta				
Bryophyta indet.	Dr. Terry McIntosh, UBC Herbarium, Beaty Biodiversity Museum	TBD	TBD	TBD
Ochrophyta				
cf. <i>Punctaria latifolia</i>	Dr. Gary Saunders, UNB	TBD	TBD	TBD
cf. <i>Stictyosiphon soriferus</i>	Dr. Gary Saunders, UNB	TBD	TBD	TBD

8.5 Discussion

8.5.1 Limitations

It is not always possible to identify specimens to the species level due to a variety of limitations. Species descriptions used for identification based on morphology are often based on adult stages, and immature specimens may lack the features present in the adult that are required for specific identification (Steinerstauch 2019, pers. comm.). Fragmented samples, or samples damaged during collection, may also be missing identifying features that would be used to determine species. Incomplete species records and descriptions also lead to limitations in species identification (Steinerstauch 2019, pers. comm.).

The level of resolution possible for identifications may be dependent also on the number of individual specimens of the same type that are collected. This is for two general reasons: first, higher incidence of a type of specimen often translates to a higher incidence of specimens with diagnostic characters, and thus improved identification resolution; and second, the increase in incidence of identifiable taxa allows for more distinctions to be made about like and unlike taxa. For example, with bryozoans, a single incidence of a small colony or fragment observed in a sample is less likely to be identified to genus than it would be in a sample with a high incidence, in which opportunities to compare and contrast morphologies are greater (Macdonald 2022a, pers. comm.).

Availability of publications may further impact descriptions, more recently published works may not be readily available or accepted by the larger taxonomic community, and updates may not be reflected in the identification keys used by the taxonomic labs.

Flora and fauna of the Canadian Arctic are not thoroughly described, and surveys of species in the Canadian Arctic are severely lacking relative to surveys in other Arctic and sub-Arctic regions, particularly those in Northern Europe. Figure 8-5 shows the large gap in the Canadian Arctic where few datasets are represented in ArcOD, the international Arctic Ocean biodiversity database. Even for megabenthos, arguably one of the better sampled components of Arctic Canadian marine biota, 42% of the taxa in Baffin Bay and 59% in the Eastern Archipelago are estimated to remain undocumented, while even the Beaufort Sea (relatively well-studied for the Canadian Arctic) is estimated to have 34% of its benthic megafaunal taxa undocumented (Roy et al. 2015). Surveys in the Canadian Arctic are also frequently limited by methodology, focusing on methods such as benthic grabs and zooplankton tows that exclude larger hard substrates. Encrusting or fouling taxa such as bryozoans and some tunicate species may be underrepresented in the datasets due to these methodological biases. Relatively inconspicuous taxa such as smaller epiphytic algae attached to macroalgae may also be underrepresented

Identification of species by genetic means is often suggested as an alternative to traditional taxonomic methods but requires reliable, accurate reference sequences in an accessible DNA database such as the Barcode of Life Database (BOLD). Currently, there are some barriers slowing the process of populating reference databases. First, obtaining quality DNA sequences reliably can be difficult. Macroalgae, for example, are a diverse taxonomic group, and many taxa require specialized extraction protocols and primer design. The second barrier to progress is that once the sequences are obtained, the rigour of the original identification for reference specimens must be considered, as this can often be misleading due to the limitations of morphological identifications, as discussed above. Therefore, improvement is an iterative process, with understanding of molecular and morphological diversity developing hand in hand (Macdonald 2022a, pers. comm.). Limitations to the identification of species by molecular, genetic methods are discussed in Appendices 8B-6, 8B-8 and 8B-9, and are briefly summarized below.

Molecular methods are considered a valuable tool for identification and may be particularly appropriate for macroalgae due to the ability of macroalgae to change vegetative morphology in different environments (Zuccarello and Paul 2019). However, both false positive and false negative errors can occur with any molecular method of identification and data resulting from the high-throughput NextGen sequencing method in particular are more prone to error and should be used more conservatively than those from Sanger sequencing (Saunders 2025, pers. comm.). False positives are especially likely with small-volume samples, as with little material of the true sample in the tube to compete for the reagents, even the smallest amount of contaminant is likely to be amplified. The NextGen data from UNB were provided at two levels of confidence. Records with 'T4' in the accession number indicates a higher likelihood of the species being present than those ending in 'T1' which have a much lower threshold of recovery and may represent potential false positives (Saunders 2025, pers. comm.). An additional caveat was provided with results of analyses with the LSU D2 marker (Saunders 2025, pers. comm.). This marker is conservative and cannot discriminate among closely related species. Thus a 100% match could be correct or belong to a different species that is closely related to the match but not yet in the genetic database. Secondary lineage-specific markers are used in part to augment this shortcoming and improve the resolution that can be provided in these metabarcoding lists.

DNA sequencing of invertebrate specimens, conducted on polychaetes, bryozoans and tunicates collected in 2023, shares similar limitations to those described for macroalgae. The quality of the results varied according to the taxon studied. Sanger sequencing using COI Geller primers successfully amplified the DNA from polychaetes and most tunicates, however limitations in the available DNA library (in particular, the scarcity or lack of morphological taxonomic identifications linked to DNA sequences, and limited number of reference sequences) reduced confidence in the results. Further, the Sanger sequencing method failed to recover any bryozoan sequences and NextGen sequencing was attempted to try to improve bryozoan results. This led to some success

with sequences recovered for five of the 26 specimens, but no matches in the DNA library were close enough to identify the taxa beyond the phylum level. As with the macroalgae, issues encountered in extracting sequences from invertebrate specimens could be attributed to multiple factors, potentially including a need for additional refinement of DNA extraction protocols and development of more effective primers. The difficulty of sequencing bryozoans was notable, and while universal primers have been successfully used for bryozoans in some studies, their use may also result in binding to multiple locations within the genome which creates non-specific products (Porter et al, 2001). Additional issues with bryozoan sequencing include the potential for retention of DNA from other organisms such as algae and bacteria on the colony surface (Porter et al. 2001) and the occurrence of multiple haplotypes within a colony (Lee et al. 2011). Each of these scenarios could potentially lead to the amplification and subsequent joining of DNA sequences from different sources, which may be interpreted as novel organisms. Intraspecific variation within bryozoans is very high (Gómez et al. 2007, Lee et al. 2011) which can make it difficult to interpret results based on DNA barcoding, particularly in the present case where the reference library of Arctic species is limited.

Ranges on record are another constraint to determining the status of detected species as an NIS as distribution ranges are not completely described for all taxa. In particular, recently described or uncommon taxa may have a limited range description based on a few sites where specimens have been found, with a broader range inferred based on biological characteristics and tolerances. Additionally, with some taxa it can be difficult to determine if a species is originally from the area in which it is found, or if it was introduced from another location. In cases where the original native range cannot be conclusively determined, a species is considered cryptogenic.

These limitations in Arctic sampling lower the confidence in the ranges on record, particularly for less common or recently described species that may be cryptogenic to a broader area, but which, due to their rarity and the relative survey effort, have not yet been described outside the range on record.

Difficulties in determining the historic range of a species may also be related to changes or inconsistencies in species descriptions. The range on record may be linked to a previous name or description and databases are not always updated as new descriptions are accepted. Alternatively, multiple conflicting descriptions or names for the same taxa may further confound records. New species descriptions occur when an update to the taxonomic record is accepted. This may be due to a variety of reasons including acceptance of a more senior description, DNA analysis combining (two species merging under one species name) or separating species descriptions (one species being divided into two distinct species or subspecies), or reclassification due to the identification of features that match a different taxonomic group (such as reclassification to a different genus). These limitations may be more pronounced in certain taxonomic groups such as bryozoans and marine algae (i.e., macroflora) where there are fewer experts focused on refining the taxonomy or more variation in reporting relative to other more well-defined groups.

8.5.2 Taxonomic Identification

8.5.2.1 Benthic Infauna

A total of 157 taxa were identified in benthic samples in Milne Inlet, including one taxon that was a new species record for the Project, meaning it had not been observed in previous surveys in Milne Inlet. Watch List taxa collected in benthic samples are discussed in Section 8.5.4.

- *Chaetozone anasima* is a relatively recently described species with no defined range on record. The range is tentatively described as from the Northeastern United States, based on collections from two locations (Massachusetts and the Gulf of Maine) and likely does not reflect the complete range (Doner and Blake 2006, Blake 2022). *Chaetozone anasima* is morphologically similar to *C. setosa* and *C. curvata*, and collections in other locations may be misidentified as either of these species (Doner and Blake 2006, Blake 2022).

Specimens identified as *Chaetozone* sp. and as part of the *Chaetozone setosa* complex have been identified in Milne Port since baseline surveys. This indicates that specimens similar to, but not necessarily exactly matching the description of *C. setosa* have been present in Milne Port prior to project operations. The specimens collected in 2024 and identified as *Chaetozone anasima* had distinct features that differentiated them from the *Chaetozone setosa* complex but could be a refining of the *Chaetozone* sp. result, rather than a new identification for Milne Port. Previous collections may not have been identified confidently to species due to the rarity of *C. anasima* records (Macdonald 2025, pers. comm.). *Chaetozone anasima*, *C. curvata*, and *C. setosa* are not listed in available NIS/AIS databases.

Due to the lack of a range description that includes the North Atlantic or Eastern Canadian Arctic, *Chaetozone anasima* has been precautionarily flagged for independent verification and is placed on the Watch List as a “Low Risk” taxon.

- ***Chaetozone anasima* is designated Low Risk and will be placed on the Watch List.**

8.5.2.2 Macroflora and Benthic Epifauna

Dive surveys of the permanent quadrats, performed to assess for presence of macroflora and epifauna species, included collection of algae and invertebrate specimens for taxonomic assessment. Dive surveys also including opportunistic collection of macroflora. Among the 108 distinct macroflora and epifauna taxa recorded during quadrat surveys and opportunistic algal collections in Milne Inlet in 2024, the following were new records for Milne Inlet:

- The striped shrimp, *Pandalus montagui* is a commercially targeted species in Eastern Canada in the Labrador Sea. Recent assessments by DFO indicates northern stocks of this species are considered to be healthy (Le Corre et al. 2024). Records included Baffin Bay, Northern Labrador, and the Hudson Complex (WoRMS 2025, GBIF 2025).
 - ***Pandalus montagui* is not considered a taxon of concern for Milne Port.**
- *Acrosiphonia* is a genus of filamentous algae that often form mossy structures. This genus requires taxonomic revision and genetic work on Canadian collections indicates there are multiple genetic species that are not yet described. In 2024, specimens collected in Milne Port were morphologically identified as *Acrosiphonia* sp. 3GWS and *Acrosiphonia* sp. 8GWS. These identifications were confirmed by molecular examination and results also indicated the presence of *Acrosiphonia* sp. 6GWS. The original collections of the genetic species

designated *Acrosiphonia* sp. 3GWS and *Acrosiphonia* sp. 6GWS were collected in Churchill and the North Atlantic (Saunders and McDevit 2013, NLM 2025, Bringloe 2018, BOLD 2025) and *Acrosiphonia* sp. 8GWS specimens were collected in Baffin Bay, Churchill and the North Atlantic (Bringloe 2018, BOLD 2025). Collections of these genetic species in the Canadian Arctic predate Project operations.

- ***Acrosiphonia* sp. 3GWS, *Acrosiphonia* sp. 6GWS, and *Acrosiphonia* sp. 8GWS are not considered taxa of concern for Milne Port.**
- In general, *Chaetomorpha* species may be hard to distinguish morphologically and may be difficult to resolve genetically. Previous efforts to sequence specimens from Churchill and Milne Port failed to generate barcode data or readable sequences (Saunders and McDevit 2013, Golder 2022a). In 2024, sequences were able to be generated for several specimens that resolved to *Chaetomorpha*, including two new observations for Milne Port (*Chaetomorpha brachygona* and *Chaetomorpha* sp. 3GWS). *Chaetomorpha brachygona* is a filamentous green algae with a broad global distribution that includes the North Pacific and North Atlantic, as well as the Subantarctic Islands (WoRMS 2025, GBIF 2025). However, records in the Arctic are currently limited to the North Pacific around Alaska. Due to a lack of scale provided in illustrations in the original description of this species, this species was misidentified as *Chaetomorpha capillare* and *Chaetomorpha cannabina* in more northern latitudes (Blair 1983) and records of those species may actually represent *Chaetomorpha brachygona*. Records of these other two species extend the potential range to the North Atlantic and Arctic waters in Western Greenland (GBIF 2025). This potential broader range is supported by a natural range that extends to nearby waters with no barriers preventing natural expansion, as well as indications of tolerance of colder waters. Despite the current lack of Arctic records, Dr. Saunders considered it possible this was a natural occurrence (Appendix 8B-8).

Chaetomorpha sp. 3GWS is an undescribed taxon initially sequenced from samples collected in Maine. No further information is available for this taxon. Specimens in collected in 2024 were morphologically similar to previous unidentified specimens collected in Milne Inlet (Appendix 8B-8). Due to the lack of a range description that includes the North Atlantic or Eastern Canadian Arctic, *Chaetomorpha* sp. 3GWS has been precautionarily flagged for further review and is placed on the Watch List as a “Low Risk” taxon.
- ***Chaetomorpha brachygona* is not considered a taxon of concern for Milne Port.**
- ***Chaetomorpha* sp. 3GWS is designated Low Risk and will be placed on the Watch List.**
- *Rhizoclonium riparium* is a filamentous and mat-forming species of green algae with a broad global distribution (WoRMS 2025, GBIF 2025). Records in the Eastern Canadian Arctic prior to Project operations include collections at Ragged Island (Küpper et al. 2016). *Rhizoclonium riparium* was tentatively identified in Milne Port in 2021, however a positive match could not be confirmed based on the features of the specimen at the time (Golder 2022). *Rhizoclonium riparium* is listed on an AIS database as alien to Japan and Mediterranean waters (Costello et al. 2025), however this species has been confirmed to occur in the Project area prior to Project operations and therefore is not considered a taxon of concern for Milne Port.
- ***Rhizoclonium riparium* is not considered a taxon of concern for Milne Port.**
- *Ulothrix* is a genus of filamentous green algae. This genus requires taxonomic revision, for example, the species *Ulothrix flacca* may represent a genetic group or species complex (Saunders and McDevit 2013). Collections of this morphospecies indicate a broad range that includes the Eastern Canadian Arctic (WoRMS 2025, GBIF 2025). Collections in the Canadian Arctic include observations under the unaccepted name

Ulothrix pseudoflacca (Ellis and Wilce 1961). In 2024, molecular examination of macroalgae specimens confirmed the identification of *Ulothrix flacca* and also identified *Ulothrix subflaccida*. *U. subflaccida* also has a broad range that includes the Eastern Canadian Arctic (GBIF 2025) with records predating Project operations.

- ***Ulothrix flacca* and *Ulothrix subflaccida* are not considered taxa of concern for Milne Port.**

- *Ulothrix* is a genus of filamentous green algae that requires taxonomic revision. There are indications the described species may represent more than one genetic species (Saunders and McDevit 2013). Specimens collected in 2024 in Milne Port were morphologically and genetically in the genus *Ulothrix* but were not a match to any described species or sequences on record. These specimens were given the designation *Ulothrix* sp. 1Nunavut to indicate they represent a unique and currently undescribed species. Due to the lack of collections outside of the Project area and the limited descriptions of Canadian Arctic flora (see Section 8.5.1), it is considered likely that this genetic species naturally occurs in the Eastern Canadian Arctic and may be endemic to the region.

- ***Ulothrix* sp. 1Nunavut is not considered a taxon of concern for Milne Port.**

- *Urospora penicilliformis* is a species requiring genetic work to clarify its range on record due to morphological similarities between various species (Saunders 2023). Collection records of this taxa, including under the former name *Codiolum gregarium* indicate the natural range likely includes the Eastern Canadian Arctic (GBIF 2025, Lee 1980, Maitheson et al. 2010).

- ***Urospora penicilliformis* is not considered a taxon of concern for Milne Port.**

- *Ulvaria splendens* is a somewhat cryptic species, that may get misidentified as *Ulva* species (Saunders 2023). It has a relatively broad northern distribution with records in the Eastern Canadian Arctic and Western Greenland (GBIF 2025). *Ulvaria splendens* is listed on an AIS database, however no details are provided on the location of introduction (AquaNIS 2015). As this species has been confirmed to occur in the Project area prior to Project operations it is not considered a taxon of concern for Milne Port.

- ***Ulvaria splendens* is not considered a taxon of concern for Milne Port.**

- *Berkeleya* is a genus of tube dwelling diatoms that requires taxonomic revision. Currently there are only two accepted species within the genus, with at least seven more species considered uncertain or unassessed (WoRMS 2025). Where range information exists for the uncertain and unassessed species, the range on record is limited to the location of collection and does not indicate the probable extent. Records indicate there is at least one species of *Berkeleya* in the Canadian Arctic, including observations at Cape Hatt (WoRMS 2025, GBIF 2025, Küpper et al. 2016, Lobban 1984).

- ***Berkeleya* sp. is not considered a taxon of concern for Milne Port.**

- *Parlibellus* is a genus of tube dwelling diatoms described in 1988 following review of the genus *Navicula* (Cox 1988). The accepted species within the genus vary between sources (WoRMS 2025, Guiry and Guiry 2025). Records are limited for this genus, however these include observations of unidentified species in the Eastern Canadian Arctic prior to Project operations (Conlan and Kvitek 2005).

- ***Parlibellus* sp. is not considered a taxon of concern for Milne Port.**

- *Desmarestia ligulata* is a largely temperate species, with Arctic records limited to southern Alaska and Scandinavia (WoRMS 2025, GBIF 2025). This species is listed as introduced to China, via either shipping vectors or accidentally through aquaculture of *Undaria pinnatifida* (Xiong et al. 2017, Lutaenko et al. 2013). Due to the lack of a range description that includes the North Atlantic or Eastern Canadian Arctic, as well as being listed on AIS databases (AquaNIS 2015, Costello et al. 2025), *Desmarestia ligulata* has been precautionarily flagged for further review and is placed on the Watch List as a “Low Risk” taxon.
 - ***Desmarestia ligulata* is designated Low Risk and will be placed on the Watch List.**
- Arctic records of *Desmarestia* are uncertain with molecular work indicating currently described morphospecies may resolve to multiple genetic species (Saunders and McDevitt 2013). The genus is confirmed to occur in the Eastern Canadian Arctic, and its presence in Milne Port is established within the literature. Specimens collected previously in Milne Port and examined by Dr. Saunders included specimens that were a morphological match for an undescribed *Desmarestia* species that is known to occur in the region and had been previously sequenced from collections at Ragged Island (Saunders 2024, pers. comm., Küpper et al. 2016, Appendix 8B-5). Specimens collected in 2024 were a morphological and molecular match for this undescribed *Desmarestia* and were given the name *Desmarestia* sp. 1Arctic.
 - ***Desmarestia* sp. 1Arctic is not considered a taxon of concern for Milne Port.**
- In 2004, Küpper et al. (2016) isolated macroalgal DNA sequences from substrata collected around Ragged Island. Among isolates from these substratum collections were several unidentified species from the *Hincksia* cluster. Specimens collected in 2024 included matches for two of these sequences (Acinetosporaceae gen. sp. 1AP-2016 and Acinetosporaceae gen. sp. 3AP-2016). Acinetosporaceae gen. sp. 3AP-2016 was previously confirmed to occur in Milne Port (see Appendix 8B-5). Acinetosporaceae gen. sp. 1AP-2016 has also been collected in Northern Labrador (NLM 2025).
 - **Acinetosporaceae gen. sp. 1AP-2016 is not considered a taxon of concern for Milne Port.**
- The Antarctic endophyte *Ascoseiophila violodora* is currently the only described species in its genus. Molecular results indicate that the specimens collected in Milne Port in 2024 are a separate, but closely related species. Therefore, the specimens were designated *Ascoseiophila* sp. 1*violodora*. It is considered likely that this genetic species naturally occurs in the Eastern Canadian Arctic and may be endemic to the region.
 - ***Ascoseiophila* sp. 1*violodora* is not considered a taxon of concern for Milne Port.**
- *Chordaria* is a genus of filamentous brown algae with a broad distribution. Molecular examination of 2024 Milne Port specimens identified two species. *Chordaria chordaeformis* is relatively newly described with limited georeferenced records. Records of this species may be confused with *C. flagelliformis* or *C. flagelliformis* f. *chordaeformis* due to morphological similarities in more northern latitudes (Sanders 2023). *Chordaria flagelliformis* has a broader range and is present throughout the Canadian Arctic (WoRMS 2025, GBIF 2025, Lee 1980). Records in the Eastern Canadian Arctic for both species are genetically verified and were collected prior to Project operations (Saunders and McDevitt 2013, Bringloe 2018).
 - ***Chordaria chordaeformis* and *Chordaria flagelliformis* are not considered taxa of concern for Milne Port.**

- *Elachista* sp. 1Arctic is an epiphytic alga sequenced from specimens collected in Churchill and James Bay. Based on morphology, this taxon may be misidentified as *Leptonematella fasciculata*, which is a species recorded in the Eastern Canadian Arctic (GBIF 2025, Saunders 2023). Records of *L. fasciculata* may include this undescribed *Elachista* species.
 - ***Elachista* sp. 1Arctic is not considered a taxon of concern for Milne Port.**
- The endophytic *Litosiphon laminariae* is currently the only accepted species in its genus. Specimens from Milne Port were morphologically similar, yet distinct from this species, indicating that the specimens collected in Milne Port in 2024 are a separate, but closely related species. Therefore, the specimens were designated *Litosiphon* sp. 1Arctic. It is considered likely that this genetic species naturally occurs in the Eastern Canadian Arctic and may be endemic to the region.
 - ***Litosiphon* sp. 1Arctic is not considered a taxon of concern for Milne Port.**
- *Microspongium* sp. 4GWS is an undescribed epiphytic alga initially sequenced from samples collected in British Columbia in 2006 and Alaska in 2017 (NLM 2025, BOLD 2025). No further information is available for this taxon. Based on a broad range implied by the two collections, including a record in the North American Arctic, as well as the cryptic nature of epiphytic algae, it is considered probable that this taxon would have a range that could include the Eastern Canadian Arctic.
 - ***Microspongium* sp. 4GWS is not considered a taxon of concern for Milne Port.**
- *Polycerea borealis* is a cryptic filamentous species originally described from the Bering Sea. Later collections in the Canadian Arctic and Northern Labrador indicate the range is much broader (BOLD 2025, Saunders 2023, Saunders 2024).
 - ***Polycerea borealis* is not considered a taxon of concern for Milne Port.**
- *Punctaria* is a genus with multiple species with documented ranges that include the Eastern Canadian Arctic (WoRMS 2025, GBIF 2025). Sequences collected in 2024 were not resolved to species. Canadian Arctic observations of species within this genus include *P. glacialis*, which was observed in Steensby Inlet during baseline surveys and presumed to be present in Milne Port (SEM 2010), as well as *P. tenuissima*, observed at Ragged Island (Küpper et al. 2016). There are indications *P. glacialis* in the Eastern Canadian Arctic may represent a currently undescribed species, designated *Punctaria* sp. 2GWS (Saunders and McDevit 2013, Wilce and Bradley 2019). *Punctaria latifolia* and *P. tenuissima* are listed on AIS databases, *P. latifolia* was placed on the Project Watchlist in 2022 as a precaution, although there are indications the range could include the Eastern Canadian Arctic (WoRMS 2025, GBIF 2025, Guiry and Guiry 2025). *Punctaria tenuissima* has been recorded in the Project area prior to Project operations and is not considered a taxon of concern (Küpper et al. 2016).
 - ***Punctaria* sp. is not considered a taxon of concern for Milne Port.**
- *Saundersella doloresiae* was described in 2024 based on specimens collected from Northern Labrador where it was epiphytic on *Chordaria chordaeformis*. Due to the recent description, there is little information available for this species. However, there are indications that some records of *Saundersella simplex* outside of the Pacific (where it appears to be an obligate epiphyte to *Analipus japonicus*) may actually be *Saundersella doloresiae*, which could extend the range to Greenland (where *S. simplex* was reported as epiphytic on *Chordaria flagelliformis*) (Saunders 2023, 2024).
 - ***Saundersella doloresiae* is not considered a taxon of concern for Milne Port.**

- *Ectocarpus* is a genus with a well documented presence in the Eastern Canadian Arctic (WoRMS 2025, GBIF 2025). Genetic work reveals that significant taxonomic revision required indicated by DNA resolving to more species than are currently described (Saunders 2023). Specimens collected in Milne Port in 2024 were matches to an unknown species of *Ectocarpus* found in the Bay of Fundy and Greenland (Appendix 8B-8), as well as to *Ectocarpus* sp. 1siliculosus, which was found in Northern Labrador and Hudson Bay (GBIF 2025, BOLD 2025).
 - ***Ectocarpus* sp. and *Ectocarpus* sp. 1siliculosus are not considered taxa of concern for Milne Port.**
- A specimen collected in 2024 matched sequences for either *Petalonia arctica* or *Petalonia fascia*. *Petalonia fascia* is a species with a well documented presence in the Eastern Canadian Arctic (WoRMS 2025, GBIF 2025), however genetic work indicates that some of these records may instead be the morphologically similar *Petalonia arctica* (Saunders 2024), which was described in 2024. Both species are accepted as occurring in the Eastern Canadian Arctic, with *P. arctica* being more limited to cold waters (Saunders 2023, 2024).
 - ***Petalonia arctica* and *Petalonia fascia* are not considered taxa of concern for Milne Port.**
- *Planosiphon filiformis* was previously accepted as *Petalonia filiformis* and records in the Eastern Canadian Arctic are mostly under the former species name (GBIF 2025, Saunders and McDevit 2013). This species has been recorded in the Eastern Canadian Arctic under both species designations prior to Project operations. Genetic work at the type locality indicates there may be two genetic species under this morphospecies, one of which is present in the NW Atlantic (Saunders 2024).
 - ***Planosiphon filiformis* is not considered a taxon of concern in Milne Port.**
- *Scytosiphon shibazakiorum* is a recently described species, which was previously misidentified alternatively as *Scytosiphon canaliculatus*, *Hapterophycus canaliculatus*, and *Melanosiphon intestinalis* (McDevit and Saunders 2017, Saunders 2023, Hoshino et al. 2021). *S. shibazakiorum* is considered to have a broad distribution that includes Canadian waters, and collections include specimens from Churchill (McDevit and Saunders 2017, Hoshino et al. 2021). This identification was confirmed by molecular analysis that also revealed sequences for *Scytosiphon* sp. 1crust, an unidentified species with one previous collection from Churchill (BOLD 2025, NLM 2025, Bringloe 2018).
 - ***Scytosiphon shibazakiorum* and *Scytosiphon* sp. 1crust are not considered taxa of concern for Milne Port.**
- *Ralfsia* is a genus of crustose brown algae with a broad global distribution. Canadian Arctic records include at least three accepted species, and there are records of a potentially undescribed species in Churchill (WoRMS 2025, GBIF 2025, Lee 1980, Saunders and McDevit 2013). Specimens from Milne Port did not match any sequences on record for any species in this genus, indicating that the specimens collected in Milne Port in 2024 were likely a yet undescribed species. Therefore, the specimens were designated *Ralfsia* sp. 1Arctic. It is considered likely that this genetic species naturally occurs in the Eastern Canadian Arctic and may be endemic to the region.
 - ***Ralfsia* sp. and *Ralfsia* sp. 1Arctic are not considered taxa of concern for Milne Port.**
- *Halosiphon tomentosus* is generally accepted as a species that has a range that extends into the Eastern Canadian Arctic (Saunders and McDevit 2013). However, genetic work revealed the Canadian Arctic collections were genetically distinct from Atlantic ones, indicating this was a species group of at least two

distinct species (Saunders and McDevit 2013). Specimens collected in 2024 were a match to the genetically distinct Arctic species collected in Churchill and designated *Halosiphon* sp. 2tomentosus (Saunders and McDevit 2013, BOLD 2025, Bringloe 2018).

- ***Halosiphon* sp. 2tomentosus is not a taxon of concern for Milne Port.**

- *Saccorhiza dermatodea* is a species of bladed brown algae with a North Atlantic and Arctic distribution. This species is well documented through out the Canadian Arctic and is confirmed as present in the Eastern Canadian Arctic prior to Project Operations (WoRMS 2025, GBIF 2025, Lee 1980).

- ***Saccorhiza dermatodea* is not considered a taxon of concern for Milne Port.**

- *Haplospora globosa* is a northern species primarily found in the Eastern Canadian Arctic and North Atlantic (WoRMS 2025, GBIF 2025). Records in the Eastern Canadian Arctic include observations near Pond Inlet and at Ragged Island (Lee 1980, Küpper et al. 2016).

- ***Haplospora globosa* is not considered a taxon of concern for Milne Port.**

- Specimens collected in 2024 were identified as possibly one or both of *Tilopteridalean* sp. 2GWS and *Tilopteridalean* 3GWS, as the method used would not distinguish between the two genetic groups. Both *Tilopteridalean* species are considered to be Arctic, with collections of T. sp. 2GWS from Baffin Island and North Alaska, and T. sp. 3GWS from North and West Alaska.

- ***Tilopteridalean* sp. 2GWS and *Tilopteridalean* sp. 3GWS are not considered taxa of concern for Milne Port.**

- Specimen collected in 2024 were a genetic match to sequences on record from the UNB that were thought to belong to *Grania efflorescens* (Appendix 8B-8). *Grania efflorescens* is a northern species with a recorded range that includes the Eastern Canadian Arctic under its current accepted name as well as the former name *Audouinella efflorescens*, including genetically verified specimens (Saunders 2024, Guiry and Guiry 2024, Lee 1980).

- ***Grania efflorescens* is not considered a taxon of concern for Milne Port.**

- *Antithamnion sparsum* is an Asian species of diminutive filamentous red algae that is considered alien to Nova Scotia (Fofonoff et al. 2018, Costello et al. 2025, Brooks and Krumhansl 2023). In 2021, specimens were collected in Nova Scotia that were a molecular match to sequences assumed to belong to *A. sparsum*, indicating a potential range expansion for this taxon (Brooks and Krumhansl 2023). The specimens were morphologically distinct from *A. cruciatum*, which naturally occurs in the area and is found in the Eastern Canadian Arctic (Lee 1980). *Antithamnion sparsum* is not known to have a range that includes the Arctic. In the 2024 Milne Port NIS/AIS Monitoring Program, sequences were generated from scrapings of settlement substrates and rocks rather than whole specimens, therefore morphological confirmation could not be made. UNB considered these results as a potential false positive (see Section 8.5.1). *Antithamnion* cf. *sparsum* has been precautionarily flagged for further review and is placed on the Watch List as a “Low Risk” taxon.

- ***Antithamnion* cf. *sparsum* is designated Low Risk and will be placed on the Watch List.**

- *Polysiphonia kapraunii* is a recently described species from North Carolina (WoRMS 2025). Records indicate this species is limited to warmer water and may not naturally occur in the Arctic (Guiry and Guiry 2025). Genetic work reveals some uncertainty in the taxonomic designation, indicating that it forms a clade with at

least one closely related species with a broader range, and may not be its own species (Diaz-Tapia et al. 2018). While the identification in 2024 was not considered a false positive, the result was flagged as uncertain due to the method being limited in distinguishing between closely related species (Appendix 8B-8). *Polysiphonia kapraunii* has been precautionarily flagged for further review and is placed on the Watch List as a "Low Risk" taxon.

- ***Polysiphonia kapraunii* is designated Low Risk and will be placed on the Watch List.**

- *Rhodomela sibirica* is a species of red algae with an Arctic distribution. This species is well documented through out the Canadian Arctic and is confirmed as present in the Eastern Canadian Arctic prior to Project operations (GBIF 2025, Bringloe 2018). *R. sibirica* was identified in baseline surveys in Steensby Inlet and was presumed to be among the red algae observed in ROV surveys at Milne Port (SEM 2010).

- ***Rhodomela sibirica* is not considered a taxon of concern for Milne Port.**

- *Titanoderma pustulatum* is a crustose coralline species with a broad global range (WoRMS 2025, GBIF 2025, Guiry and Guiry 2025). Although this species has not been recorded in the Canadian Arctic, records in the North Atlantic and the European Arctic indicate that the natural range could include the Project Area. The identification within Milne Port is not fully resolved as UNB suspected the result was a false positive (Appendix 8B-8).

- ***Titanoderma pustulatum* is not considered a taxon of concern for Milne Port.**

- *Boreolithothamnion* is recently described following molecular examinations of the genus *Lithothamnion* (Gabrielson et al 2023). While the genus is currently accepted, *B. lemoineae* is currently unresolved and not fully accepted within the available literature (Guiry and Guiry 2025, WoRMS 2025). Specimens collected in Milne Port in 2024 are a genetic match for specimens designated *B. lemoineae* that were collected from Baffin Island and Northern Labrador prior to project operations (BOLD 2025). Despite the uncertainty in the taxonomy, it is considered probable the specimens collected in 2024 represent a species that was present in the Eastern Canadian Arctic prior to Project operations.

- ***Boreolithothamnion lemoineae* is not considered a taxon of concern for Milne Port.**

- The taxonomy for *Leptophytum* is currently not fully resolved (WoRMS 2025, Guiry and Guiry 2025). Records of the species *L. foecundum* and *L. laeve* under the current and former names indicates broad ranges that include the Canadian Arctic and the North Atlantic (Lee 1980, Mathieson et al. 2010, Küpper et al. 2016). Despite the uncertainty in the taxonomy, it is considered probable the specimens collected in 2024 represent species that were present in the Eastern Canadian Arctic prior to Project operations.

- ***Leptophytum foecundum* and *Leptophytum laeve* are not considered taxa of concern for Milne Port.**

8.5.2.3 Settlement Substrates

Previous experience with settlement substrates in Milne Port indicated that deployment duration is a large factor in the ability to detect organisms (WSP 2024). In most years, a single year of deployment resulted in few successful identifications of organisms using visual taxonomic methods. The program was adjusted in 2020 to focus on longer term deployments, with plates and baskets soaking for three years prior to recovery. Plates and

baskets submitted for analysis in 2024 were deployed for a minimum of three years. Annually deployed substrates, along with certain multi-year substrates were scraped and preserved in ethanol to be archived for potential future molecular analysis, if required (see Table 8-1 for details).

A total of 107 invertebrate taxa were identified on settlement substrates. None of these taxa were considered new records, meaning each taxon, or representative taxa had been observed in previous surveys in Milne Inlet. Macroalgae identifications from settlement substrates are discussed along with macroalgal collections from quadrat surveys in Section 8.5.2.2.

8.5.2.4 Zooplankton

A total of 60 zooplankton taxa were observed in 2024 samples. The 60 taxa had been observed in previous surveys in Milne Port and were known to have natural ranges that include the Project area. No taxa from the Program Watch List were detected and no taxa were flagged for review.

8.5.2.5 Fish and Incidentals

The taxa observed during marine surveys at Milne Port are considered under the NIS/AIS program. This includes fish captures, non-targeted captures during fishing efforts, taxa found in stomach contents, specimens collected for DNA archive, and taxa observed during monitoring of offset habitat in Milne Port. Of the 91 taxa collected, captured, or observed incidentally, four taxa were newly recorded in MEEMP surveys (i.e., not previously reported in the Milne Inlet Taxonomic Inventory).

The taxa observed incidentally in MEEMP and NIS/AIS surveys were cross-checked against marine invasive species databases. None of the taxa observed were identified as globally recognized invasive species (Molnar et al. 2008) or as domestically recognized invasive species according to the National Risk Assessment for Introduction of Aquatic Nonindigenous Species to Canada by Ballast Water (Casas-Monroy et al. 2014). In addition to these databases, the distribution and habitat preferences of each taxon was researched independently in the literature for signs of NIS status in the Arctic region. For specimens that could not be resolved to species, review efforts focused on confirming that the higher-level classification (e.g., genus) had at least one species with a distribution that included Arctic waters.

The following were new records:

- *Hemithiris psittacea*, was a brachiopod collected during surveys of the reference site during offset habitat monitoring. The specimen was preserved in ethanol for potential molecular identification, however the identification was made morphologically and the specimen was archived. *H. psittacea* is a species with a well-documented presence in the Eastern Canadian Arctic (WoRMS 2025; GBIF 2025).
 - ***Hemithiris psittacea* is not considered a taxon of concern for Milne Port.**
- *Pseudocalliergon brevifolium*, also accepted as *Drepanocladus brevifolius* is a North American Arctic species of Bryophyte, with a well document distribution in the Eastern Canadian Arctic (GBIF 2025, Tropicos 2025). Specimens observed in 2024 were morphologically similar to the unidentified species of bryophyte identified in 2022 (see Section 8.5.4.6).
 - ***Pseudocalliergon brevifolium* is not considered a taxon of concern for Milne Port.**

- Sepiolina is a superorder that contains the bobtail squids. Eggs identified as belonging to an unknown species of bobtail squid were collected off a cluster of settlement plates at the Freight Dock. Sepiolina is a global suborder that contains multiple species with ranges that include the Eastern Canadian Arctic (WoRMS 2025; GBIF 2025). No species within the suborder Sepiolina are recorded in available NIS/AIS databases.
 - **Sepiolina indet. is not considered a taxon of concern for Milne Port.**
- *Ahnfeltia plicata* is a species of red algae with a well documented presence in the Canadian Arctic (WoRMS 2025, GBIF 2025). However, older records of this species may be unreliable due to morphological similarities between *A. plicata* and *A. borealis*, which is recently described and also has an Arctic range (Saunders and McDevit 2013). *A. plicata* records in the Eastern Canadian Arctic (which may potentially represent misidentified *A. borealis*) include Lancaster Sound and Eclipse Sound, including Pond Inlet and Ragged Island (Lee 1980, Cross et al. 1987, Küpper et al. 2016).
 - ***Ahnfeltia plicata* is not considered a taxon of concern for Milne Port.**

8.5.3 Genetic Identification

Invertebrate specimens collected in 2023 were processed and sent to CCDB for sequencing using COI Geller primers. Target specimens included tunicates and bryozoans in addition to two annelids identified by morphological methods as potential *Marenzelleria* sp. CCDB were successful in amplifying annelid and ascidian DNA but failed for bryozoans. NextGen Sequencing was used to improve sequence recovery for bryozoans, while this method was able to generate sequences for bryozoans, it also generated potential contaminants (Appendix 8B-9).

Genetic sequencing of the two annelid specimens was not able to confirm the tentative morphological identification of *Marenzelleria* sp. Results suggested they were in the genus *Spio*, based on matches to sequences from Canada (Churchill) and Norway (Svalbard) that were described as unidentified species in this genus. *Spio* species have been observed in Milne Port since baseline surveys. However, the phylogenetic tree indicated that the specimens are more closely related to *Marenzelleria* than to *Spio*, and Biologica speculated this may be a result of a misidentified reference specimen in the CCDB database (Appendix 8B-9). The sequences did not match the sequences on record for *Marenzelleria arctica*, a species that has been confirmed to occur in Port, or *M. viridis*, which is on the Program Watch List (Figure 1 in Appendix 8B-9). Further review may be required. The Milne Port sequences were closely matched to specimen GBMND30277-21, which was collected from Svalbard in 2018 and CCANN317-08, which was collected from Churchill in 2008 (BOLD 2025). The close genetic match to specimens collected in the eastern Canadian Arctic/subarctic prior to Project operations suggest that these Milne Port specimens would not represent a taxon of concern for Milne Port regardless of a confirmed identification of *Spio* sp. or *Marenzelleria* sp.

Tunicate specimens resulted in the identification of two species: *Ascidia callosa* (three specimens) and *Boltenia echinata* (one specimen). *Ascidia callosa* and *Boltenia echinata* have been documented in the Eastern Canadian Arctic (WoRMS 2025, GBIF 2025). *Ascidia callosa* was identified based on a match to a single collection from Alaska resulting in a relatively low confidence in the introduction. Confidence in the identification of *B. echinata* was higher, based on matches with fourteen specimens, including specimens from the Canadian Arctic (Appendix 8B-9). However, phylogenetic results also indicated that *B. echinata* may represent a species complex, with a distinct genetic group found in Newfoundland. *Ascidia callosa* and *Boltenia echinata* have been observed previously in Milne Port surveys, including in baseline years (SEM 2016) and are not considered taxa of concern for Milne Port.

While NextGen Sequencing was able to generate sequences for five of the bryozoan specimens, results were inconclusive, reflecting limitations in the methods and with DNA identification for Arctic bryozoans (see discussion in Section 8.5.1, and Appendix 8B-9). Of the five bryozoans, one specimen returned two sequences, indicating potential amplification of environmental DNA or contamination of the sample. The generated sequences were compared to publicly available reference sequences, which yielded matches below the required 97% threshold to be considered a matched identification. The closest matches were 80.27% similarity to sequences for *Bugula migottoi*. As a result, no specimens were able to be resolved further than the phylum level and the comparative taxa are not considered potential identifications for Milne Port.

8.5.4 Independent Verifications and Updates to Program Watch List

Results of independent verification through morphological assessment are pending and will be updated as reviews become available. Updated results will be presented in revisions to the 2024 report and, in the event that updated information alters the NIS/AIS status of a taxon found at Milne Port such that it could be added or removed from the Watch List or Trigger List, will be presented to MEWG. The NIS/AIS program is conducted at a surveillance level and designed to flag potential invasive or non-indigenous species; the independent verification process is a crucial element of the program, ensuring third party review by global specialists in particular taxa. A summary of specimens flagged for review is provided in Table 8-11 and results of verifications will be updated as they become available. A summary of the newly recorded taxa in 2024 and their risk statuses is presented in Appendix 8E-1, and the record of verifications is available in Appendix 8E-2. A complete list of the Project Watch List for Milne Port is included in Appendix 8E-3.

Table 8-11: Summary of External Taxa Verifications (2022 to 2024) and Updates to Program Watchlist

Initial ID	Year(s) Present	Verification Method	Independent ID (Reviewer)	Risk ¹	Action	Rationale
Annelida						
<i>Hesperonoe</i> sp.	2020, 2022, 2023	Morphological assessment	TBD	TBD	TBD	Unidentified species from the genus <i>Hesperonoe</i> were flagged in 2020 due to <i>Hesperonoe</i> being a poorly described genus with limited georeferenced collection records. Specimens were collected again in 2022 and 2023. Flagged for external review, however the specimens were lacking features required for verification. Currently the identification is considered unresolved, and the taxon remains on the Watch List as Low Risk.
<i>Chaetozone anasima</i>	2024	Morphological assessment	TBD	TBD	TBD	Morphological match to a relatively new species description with no range on record apart from two surveys in NE USA. Flagged for external review, with reviewer to be identified.
<i>Paramphitrite birulai</i>	2020, 2021, 2023, 2024	N/A	N/A	N/A	N/A	Taxon currently on Watch List as Low Risk due to being a poorly described species with a limited range on record and a potential NIS/AIS occurrence in the Adriatic Sea. Observed in 2024 in benthic samples. No change to status following updated literature review.
Bryophyta						
Bryophyta indet.	2022	Morphological assessment	TBD (UBC)	TBD	TBD	Global phylum of mosses, collection records include specimens from the Eastern Canadian Arctic, including Baffin Island in close proximity to Milne Port and at Ragged Island. Sent for independent review with a specialist at University of British Columbia to further resolve the identification. Results of review remain pending.
Chlorophyta						
<i>Chaetomorpha</i> sp. 3GWS	2024	N/A	N/A	N/A	N/A	Reviewed by specialist in 2024. Specimen did not morphologically match any known species. Genetic match to a single specimen collection of an undescribed species from Maine. Further resolution considered unlikely. Flagged for further literature review.

Initial ID	Year(s) Present	Verification Method	Independent ID (Reviewer)	Risk ¹	Action	Rationale
Ochrophyta						
<i>Desmarestia ligulata</i>	2024	N/A	N/A	N/A	N/A	Genetic match to <i>Desmarestia ligulata</i> , a species recorded as AIS to China and with no clear Eastern Canadian Arctic records. Result was flagged as a potential lab contamination.
cf. <i>Punctaria latifolia</i>	2022	Morphological assessment	TBD (UNB)	TBD	TBD	Specimen was an inexact match to <i>Punctaria latifolia</i> , a filamentous brown alga that has no records of occurrence in the Canadian Arctic. Listed on an AIS database as cryptogenic in Australia. Currently the identification is considered unresolved, and the taxon has been precautionarily placed on the Watch List as Low Risk. Specimens will be sent to UNB for verification.
cf. <i>Stictyosiphon soriferus</i>	2022	Morphological assessment	TBD (UNB)	TBD	TBD	Specimen was an inexact match to <i>Stictyosiphon soriferus</i> , a brown alga that has a single record of occurrence in the Canadian Sub-Arctic (Churchill). Listed on an AIS database as introduced in Australia. Currently the identification is considered unresolved, and the taxon has been precautionarily placed on the Watch List as Low Risk. Specimens will be sent to UNB for verification.
Rhodophyta						
<i>Antithamnion</i> cf. <i>sparsum</i>	2024	N/A	N/A	N/A	N/A	Genetic match to presumed <i>Antithamnion sparsum</i> , an Asian species recorded as NIS to Nova Scotia and with no Arctic records. Result was flagged as a potential false positive.
<i>Polysiphonia kapraunii</i>	2024	N/A	N/A	N/A	N/A	Genetic match to a species presumed to be limited to warmer waters. Limitations with the methods may have resulted in an inexact match.

¹ TBD: To be determined. Risk category and action will be determined for the taxonomic description following independent verification.

8.5.4.1 *Hesperonoe* sp.

Unidentified species from the genus *Hesperonoe* were flagged in benthic infauna samples in 2020 due to a limited range on record. Generally, the genus is considered Arctic-Boreal; however, collections are limited to Arctic waters near Alaska and Russia and the Pacific Ocean (GBIF 2025, WoRMS 2025).

In 2020, independent verification by Laval University was requested as a precaution due to uncertainty in the taxonomic record and Laval indicated that the specimens could instead be from the genus *Bylgides*, which had been observed previously in the Milne Port baseline and MEEMP surveys (WoRMS 2025, GBIF 2025, Golder 2020). However, Biologica disagreed with the corrected identification, believing the specimens to have visible characteristics that differentiated them from the genus *Bylgides* and were consistent with *Hesperonoe* (Macdonald 2021, pers. comm.). The identification was considered unresolved.

No species of *Hesperonoe* are listed in AIS databases. However, *Hesperonoe* was placed on the Watch List as a Low Risk taxon due to uncertainties in its identification, in the range on record and because it does not have a documented distribution in the Canadian Arctic.

Hesperonoe specimens identified in 2022 and 2023 surveys were flagged for verification, however, the specimens were missing elytra, features that would be required to resolve the identification (Macdonald 2025, pers. comm.). *Hesperonoe* sp. will be sent for verification should complete specimens be found in future survey years. Results of independent review will be presented when available.

- ***Hesperonoe* sp. was designated Low Risk and was placed on the Watch List in 2020, the status remains unchanged pending independent verification.**

8.5.4.2 *Chaetozone anasima*

Chaetozone anasima is a relatively recently described species with no defined range on record. The range is tentatively described as from the Northeastern United States, but this is based on collections from two locations (Massachusetts and Gulf of Maine) and may not reflect the complete range (Doner and Blake 2006, Blake 2022). *Chaetozone anasima* is morphologically similar to *C. setosa* and *C. curvata*, and collections in other locations may be misidentified as either of these species (Doner and Blake 2006, Blake 2022).

Specimens identified as *Chaetozone* sp. and as part of the *Chaetozone setosa* complex have been identified in Milne Port since baseline surveys. The specimens collected in 2024 had a distinctive recurved tip on the posterior spines that is not present in *Chaetozone setosa*, indicating the 2024 collections are not a refining of the species within the complex. The description of *Chaetozone anasima* is relatively new and has undergone a more recent refinement based on only a few collections (Doner and Blake 2006, Blake 2022). Similar specimens collected in previous surveys, including baseline surveys, may not have been able to be resolved past genus level and would have been left as *Chaetozone* sp. (Macdonald 2025, pers. comm.). The specimens collected in 2024 and identified as *Chaetozone anasima* are potentially a refinement of the taxonomy, rather than a new identification for Milne Port. *Chaetozone anasima*, *C. curvata*, and *C. setosa* are not listed in available NIS/AIS databases.

Due to the lack of a range description that includes the Eastern Canadian Arctic, *Chaetozone anasima* has been precautionarily flagged for independent verification and is placed on the Watch List as a “Low Risk” taxon.

- ***Chaetozone anasima* was designated Low Risk and has been placed on the Watch List.**

8.5.4.3 *Paramphitrite birulai*

When first identified in Milne Port in 2020, the terebellid polychaete *Paramphitrite birulai* was flagged and placed on the Watch List as Low Risk due to being a poorly described taxon with a limited taxonomic record. There were also potential indications of introductions in the Adriatic Sea, where it is described as non-indigenous, but not invasive (Costello et al. 2025, Loia 2017). Uncertainty in the range of this taxa was compounded by disagreement in the accepted name, with some sources indicating the species was *Amphitrite birulai*, which had a narrower range on record, with type localities in Scandinavian waters (WoRMS 2025). Collection records in North America were limited to a single specimen collected off the coast of Labrador in 1987 (Gagnon and Torgersen 2021) and in Yukon/Alaska under the junior synonym *P. tetrabanchiata* (GBIF 2025). There are also indications that the taxonomic record for *Paramphitrite* species is incomplete and requires further review (LaVesque et al. 2021). Further updates to collection records indicate the range may be wide and include the North Atlantic and high Arctic oceans (WoRMS 2025, GBIF 2025; Jirkov 2020).

In 2023, the specimens were forwarded to Dr. Julio Parapar, a specialist in terebellid polychaetes who originally described *P. tetrabanchiata*, for further review. Dr. Parapar concluded the specimens closely matched the most recent descriptions for *P. birulai*, however, features required for positive identification were missing (Parapar 2023, pers. comm.). Additionally, Dr. Parapar noted features on the third segment that are not described for any of the known species in this genus, indicating that these specimens may represent a currently undescribed species, highlighting the requirement for further review of *Paramphitrite*. *P. birulai* will remain on the Watch List pending further review of the genus. In 2024, two adult specimens of *P. birulai* were found in low abundances at stations on the eastern and northwestern transects in close proximity to the Ore Dock, indicating no meaningful trend in abundance or distribution has been observed in Milne Port since the genus was first recorded in 2020.

- ***Paramphitrite/Amphitrite birulai* is designated Low Risk and will remain on the Watch List.**

8.5.4.4 *Marenzelleria* sp.

Marenzelleria is a spionid polychaete genus with a representative species (i.e., *M. viridis*) on the Watch List. *Marenzelleria* sp. were first recorded in Milne Port in 2016 but were not flagged for review until the tentative identification of *M. viridis* in 2018. Specimens from 2018 through 2021 were subsequently corrected to the Arctic species *M. wireni* and potentially *M. arctia* and *M. neglecta* by a specialist in the taxonomic group, with the identification of *M. wireni* further confirmed through DNA analysis. The correction was further supported by environmental conditions at Milne Port matching habitat preferences for *M. wireni*, *M. neglecta*, and *M. arctia*.

Benthic sampling stations are focussed on repetitive sampling in the same locations to detect changes in abundances or diversity at specific locations. In years where a limited sampling program occurs, station selection includes specific stations targeted where Watch List taxa have previously been observed. In 2023 samples, two potential *Marenzelleria* specimens were found, however genetic results were not conclusive. The specimens matched sequences for a *Spio* species, however the phylogenetic tree indicated the designation of *Spio* might be a misidentification as the phylogenetic tree indicated a close relation to the genus *Marenzelleria* (Appendix 8B-9). No *Marenzelleria* sp. were detected in Milne Port samples in 2024. Since its first detection in 2016, *Marenzelleria* remains difficult to resample, with sporadic collections in low abundances despite targeted sampling, reinforcing the observation that invasive behaviour is not apparent in *Marenzelleria* in Milne Port. No meaningful trend in abundance or distribution has been observed in Milne Port since the genus was first recorded in 2016.

Marenzelleria has an established presence in the Eastern Canadian Arctic, prior to project operations.

Marenzelleria wireni was documented at Philpots Island, Lancaster Sound and Scott Inlet, Baffin Island in 1978 (Thomson 1982; Thomson and Cross 1980) in samples that were verified by a polychaete expert at the Canadian Museum of Nature. More recently, a DFO report appears to indicate the genus was detected by genetic means in Lancaster Sound in 2017 and in Hudson Bay in 2016, although supporting information on these detections is not provided by the authors (Morrison et al. 2023). *Marenzelleria* (as *M. viridis*) was also detected in Churchill using metabarcoding in 2011 (Chain et al. 2016), as well as morphology-based identifications in Gjoa Haven (Brown et al. 2011) and in Davis Strait (reported as *Scolecipides viridis* and later updated to *M. viridis*, Stewart et al. 1985).

In the Western Canadian Arctic, *M. arctia* has been found in DFO surveys of Tuktoyaktuk Harbour and Mason Bay, NT in 1980, 1982, 1985, and 1986 (Hopky et al., 1992; Canadian Museum of Nature collections). Specimens from the 1982 surveys were also documented as *Marenzelleria* cf. *viridis*, with the 'c.f.' designation indicating uncertainty that this was the correct nomenclature at the species level (ZSRO 2024). The type specimen of *M. arctia* (as *Scolecipides arctius*) was collected in Collinson Point, Alaska (approximately 170 km west of the Canadian border), by the Canadian Arctic Expedition in 1913 (Chamberlin, 1920). The California Academy of Sciences collection contains *M. arctia* and *M. wireni* specimens from multiple sites along the Alaska coast of the Beaufort Sea collected in the 1970s and for which the species identity was verified to modern taxonomic descriptions in 2015.

The genus *Marenzelleria* appears from these historical records to have been widely established in the Canadian Arctic, including the Eastern Canadian Arctic, well before the commencement of Baffinland's operations, and the evidence points to at least some members of the genus (*M. arctia*, *M. wireni*) being native to the region. The status of *M. viridis* in the Canadian Arctic is less clear, as its native range is evidently the Atlantic coast of North America. However, there is a strong possibility it has been misidentified in a number of instances. Identification to the genus level is more certain than identification to species for polychaetes in the genus *Marenzelleria*.

Taxonomic keys published for the northeastern coast of North America, commonly used for identification of Arctic species in the absence of keys to Arctic species, identify all members of *Marenzelleria* genus as the species *M. viridis*. Thus, there is a risk that morphological identifications of *M. viridis* represent potentially misidentified specimens of *M. wireni* or *M. arctia*. *Marenzelleria* sp. can be difficult to distinguish based simply on morphology due to a combination of limited descriptions, overlapping morphological traits, lack of differentiating features in immature specimens, and hybridization between species (Sikorski and Bick 2004; Bick 2005; Blank et al. 2008). *M. viridis*, *M. neglecta*, and *M. arctia* in particular are morphologically similar, resulting in the three species being part of a cryptic sibling species complex (Sikorski and Bick 2004, Bick 2005, Green 2015). The redescrptions of the genus, descriptions of new species based on historical collections (*M. bastropi* and *M. neglecta*), incorrect species nomenclature used in reporting, and synonymization of the former description of *M. jonesi* with *M. viridis* lead to uncertainty in the historical specimen records, particularly where distributions overlap (Blank et al. 2008, Sikorski and Bick 2004). As many historically collected specimens are no longer available, there is an inherent uncertainty as to which species may be represented by these original collections.

Marenzelleria species are known successful invaders to European waters, mediated by ballast water, and thus this genus is listed in AIS databases. Accordingly, this genus is designated as High Risk. However, biogeographic evidence suggests multiple species are indigenous to the Canadian Arctic or may be cryptogenic, while ecological evidence indicates the genus is not showing invasive behaviour in Milne Port. Further, documented occurrences of the genus in waters around Baffin Island prior to the commencement of shipping operations confirm this is not a Project-related introduction (if it is to be considered an introduction at all). For these reasons, *Marenzelleria wireni* and *Marenzelleria arctia* were designated No Risk and were not placed on the Program Watch List, however,

other members of the genus *Marenzelleria*, in particular *M. viridis*, are on the Watch List and subject to heightened monitoring efforts, as a precaution.

- ***Marenzelleria wireni* and *Marenzelleria arctica* are designated No Risk and are not considered taxa of concern in Milne Port.**
- ***Marenzelleria viridis* and *Marenzelleria* sp. remain on the Watch List as High Risk Taxa**

8.5.4.5 *Crassikorophium* sp./*Monocorophium* sp.

An amphipod crustacean was identified in 2013 and 2017 samples as *Monocorophium insidiosum* (2013 specimens were identified as *Corophium insidiosum* but corrected to *M. insidiosum* in 2017; Golder 2018). In 2018, individuals from the same genus were found with their identifying features missing and therefore only identified to the genus level. No species within this genus have confirmed distributions that include Arctic waters. *M. insidiosum* is a tube-building gammarid amphipod and a well-known fouling invasive species with a wide global distribution that is possibly non-indigenous to the Canadian Arctic (Molnar et al. 2008). Vectors for introduction and spread are through biofouling of ship hulls and hard substrates in harbours and ports and possibly also through accidental transplant (Fofonoff et al. 2018, Molnar et al. 2008).

Independent review by Laval University of *Monocorophium* specimens suggested that the specimens identified in Milne Port may have been *Crassikorophium bonellii* or *Crassikorophium* sp., although the identification was considered uncertain by Biologica (Macdonald 2020, pers. comm.). This genus naturally occurs in the Canadian Arctic and was first identified in baseline surveys (*C. bonellii*, as *Corophium bonellii*) at Milne Port. *C. bonellii* has a known range similar to *M. insidiosum*, covering Eastern North America and the Northeastern Atlantic Ocean, but is not considered invasive in these locations (GBIF 2025, Sirenko et al. 2025). The genus *Crassikorophium* contains at least two species (*C. clarencense* and *C. crassicorne*) with a native range that includes Arctic Canada (GBIF 2025, WoRMS 2025).

In 2021, specimens tentatively identified as *Crassikorophium bonellii* were collected for molecular analysis. Results were inconclusive, but indicated the specimens were not *Monocorophium* species or *Crassikorophium bonellii*. The closest match was to unidentified specimens collected from Victoria Island in Nunavut, which were thought to be *C. clarencense* (Macdonald 2022b, pers. comm.). Specimens were also sent to Dr. Craig Straude at Friday Harbor Laboratories at the University of Washington for morphological assessment. Dr. Straude confirmed the identification for *C. clarencense* for specimens analysed based on several validating features (Macdonald 2022c, pers. comm.).

Crassikorophium sp. and *Monocorophium* sp. were not observed in Milne Port in 2024.

- ***Monocorophium* sp. remains on the Watch List as a High Risk taxon**

8.5.4.6 *Bryophyta* indet.

An unidentified bryophyte specimen was collected from quadrats located at the mouth of Phillips Creek in 2022. Bryophytes are generally terrestrial and freshwater organisms, and Biologica was unable to definitively identify the species. The bryophyte specimen was set aside to be sent for independent review by a specialist. Results of the independent review remain pending.

In 2024, additional bryophyte specimens that were morphologically similar to those collected in 2022 were examined in the field by the macroflora specialist from UNB and identified as *Pseudocalliergon brevifolium* (alternatively called *Drepanocladus brevifolius*), a Canadian Arctic species. There are hundreds of potential species of bryophyte with well-documented natural ranges that include northern Baffin Island (GBIF 2025), including records from terrestrial locations within the region near Ragged Island and Milne Port. Therefore, Bryophyta indet. is tentatively considered to not be a taxon of concern, pending independent review.

- **Bryophyta indet. is designated No Risk and is not considered a taxon of concern in Milne Port.**

8.5.4.7 *Chaetomorpha* sp. 3GWS

The genus *Chaetomorpha* was first identified in Milne Port in 2021 (as *Chaetomorpha melagonium*). This genus includes multiple species with accepted ranges that include the Canadian arctic. In general, *Chaetomorpha* species may be hard to distinguish morphologically (see discussion of *Chaetomorpha brachygona* in Section 8.5.2.2) and may be difficult to resolve genetically. Specimens collected in 2024 included matches to a single specimen collection from Maine that was designated *Chaetomorpha* sp. 3GWS, which has no available description. As the only record for this taxon is located outside of the Arctic, *Chaetomorpha* sp. 3GWS was precautionarily flagged for further review and is placed on the Watch List as a “Low Risk” taxon. Due to the lack of species description for this genetic group, it is not anticipated that further review will resolve this identification. In subsequent surveys, this taxon will be monitored for any indicators of invasive behaviour.

- ***Chaetomorpha* sp. 3GWS was designated Low Risk and has been placed on the Watch List.**

8.5.4.8 *Desmarestia ligulata*

Molecular examination of Milne Port specimens indicated the presence of *Desmarestia ligulata*. The identification was flagged by UNB as being a potential laboratory contamination and the quality of the result is uncertain (Appendix 8B-8). Despite the uncertainty of the identification, *Desmarestia ligulata* was flagged due to collection records indicating this species is largely temperate, with Arctic records limited to southern Alaska and Scandinavia (WoRMS 2025, GBIF 2025). Additionally, *D. ligulata* is listed as introduced to China, via either shipping vectors or accidentally through aquaculture of *Undaria pinnatifida* (Xiong et al. 2017, Lutaenko et al. 2013).

- ***Desmarestia ligulata* was designated Low Risk and has been placed on the Watch List.**

8.5.4.9 cf. *Punctaria latifolia*

In 2022, specimens tentatively classified as cf. *Punctaria latifolia* were identified on settlement substrates. While the specimens were an inexact match to the species, *P. latifolia* is a species of bladed brown algae with a broad global range that includes records from the North Atlantic and Greenland Sea (WoRMS 2025, GBIF 2025, Guiry and Guiry 2025). No records of this species exist in the Canadian Arctic, and it was present on at least one AIS database as cryptogenic in Australia (Costello et al. 2025, Hewitt et al. 2004). Due to the limitations in algal taxonomy and Canadian Arctic surveys described in Section 8.3.3.3.2, there is uncertainty in whether this species can be considered alien to the Canadian Arctic, however, the specimens were flagged for further review as a precaution.

As the specimens were not an exact match to *P. latifolia*, it may be that these specimens are of a morphologically related species that is not yet described. Notably, DNA barcoding of algae collected in Churchill identified the presence of a *Punctaria* species that was not able to be matched to any currently described species, resulting in the authors suggesting that it may be a new species (Saunders and McDevit 2013). Specimens will be sent to UNB for verification.

- ***Punctaria latifolia* is designated Low Risk and will remain on the Watch List.**

8.5.4.10 cf. *Stictyosiphon soriferus*

In 2022, cf. *Stictyosiphon soriferus* was tentatively identified on the settlement substrates. While the specimens were an inexact match to the species, *Stictyosiphon soriferus* is a species of brown algae with a broad range on record throughout the North Atlantic and Greenland Sea (WoRMS 2025, GBIF 2025, Guiry and Guiry 2025). However, although there is a single record of occurrence record in the surrounding region (Churchill), no records exist for this species in the Eastern Canadian Arctic (Saunders and McDevit 2013). Additionally, this species has been recorded as introduced to Australia, likely through the vector of hull fouling (Hewitt et al. 2004).

As the specimens were not an exact match to *S. soriferus*, it may be that these specimens are of a morphologically related species that is not yet described. Due to the limitations in algal taxonomy and Canadian Arctic surveys described in Section 8.3.3.3.2, there is uncertainty in whether this species can be considered alien to the Canadian Arctic, however, the specimens were flagged for further review as a precaution. Specimens will be sent to UNB for verification.

- ***Stictyosiphon soriferus* is designated Low Risk and will remain on the Watch List.**

8.5.4.11 *Antithamnion cf. sparsum*

In the 2024 Milne Port NIS/AIS Monitoring Program, sequences generated from scrapings of settlement substrates and rocks were tentatively matched to *Antithamnion sparsum*, an Asian species that is considered NIS to Nova Scotia and does not have an Arctic range on record (Fofonoff et al. 2018, Costello et al. 2025, Brooks and Krumhansl 2023). Due to the method of sample collection, morphological confirmation could not be made. Additionally, UNB considered these results as a potential false positive (see Section 8.5.1). However, *Antithamnion cf. sparsum* was precautionarily flagged for further review and was placed on the Watch List as a Low Risk taxon.

- ***Antithamnion cf. sparsum* was designated Low Risk and has been placed on the Watch List.**

8.5.4.12 *Polysiphonia kapraunii*

A scraping from a settlement plate in 2024 samples was a genetic match to *Polysiphonia kapraunii*, which is a recently described species from North Carolina that may not naturally occur in the Arctic (Guiry and Guiry 2025). Genetic work reveals some uncertainty in the taxonomic designation, indicating that it forms a clade with at least one closely related species with a broader range, and may not be its own species (Diaz-Tapia et al. 2018). While the identification in 2024 was not considered a false positive, the result was flagged as uncertain due to the method being limited in distinguishing between closely related species (Appendix 8B-8). Due to the lack of a range description that includes Arctic waters, *Polysiphonia kapraunii* was flagged for further review and was placed on the Watch List as a Low Risk taxon as a precaution.

- ***Polysiphonia kapraunii* was designated Low Risk and has been placed on the Watch List.**

8.6 Conclusions and Recommendations

The NIS/AIS program addresses Project Terms and Conditions Nos. 87, 89, and 91. Detection is conducted at a surveillance level and designed to flag potential invasive or non-indigenous species introduced through Project-related vectors. Approximately 1,204 taxa (including 499 identifiable to species) have been observed in Milne Inlet through monitoring surveys to date, including 54 new additions to the taxonomic inventory in 2024. The taxonomic inventory was also updated in 2024 following re-examination of macroalgal specimens (Appendix 8B-5). The majority of taxa have been designated as “No Risk” and are not considered to be of concern. Taxonomic sampling at Milne Port remains one of the most comprehensive multi-trophic level species inventory programs in the Canadian Arctic, a region historically under-sampled in comparison to Eurasian Arctic and Sub-Arctic regions.

Directed literature review of newly observed taxa in 2024 has resulted in five taxa being added to the Project Watch List for increased monitoring effort, such as review by specialists or DNA analysis. Independent taxonomic verifications for several 2023 and 2024 specimens remain pending.

The complete program Watch List, consisting of 13 taxa, is presented in Appendix 8E-3. As yet, there has not been confirmation of Project-related introduction of an NIS/AIS species documented at Milne Port and no species have been placed on the Trigger List to initiate rapid response. Based on the number of specimens flagged and sent for independent verification, monitoring is considered to be effective and is functioning as intended.

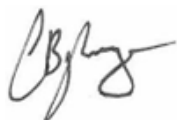
The following are recommendations for the ongoing NIS/AIS program:

- **Continue sampling across multiple trophic levels in 2025.**
- **Continue expanding the Milne Inlet Taxonomic Inventory.**
- **Continue screening flagged specimens for known geographic ranges and NIS/AIS status.**
- **Continue collecting and reviewing genetic evidence for *Marenzelleria* sp. and *Monocorophium* sp., in addition to macroflora, bryozoan, and tunicate taxa in general, including targeted sampling to obtain specimens for DNA barcoding to further resolve these taxonomic groups in Milne Port.**

8.7 Closure

We trust this information is sufficient for your needs at this time. Should you have any questions or concerns, please do not hesitate to contact Phil Rouget, on behalf of the undersigned, at +1 250 419 4945.

WSP Canada Inc.



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APPENDIX 8A-1

**Benthic Infauna Presence/Absence
from Survey Years 2010-2024**

Phylum	Subphylum	Class	Subclass	Order	Family	Subfamily	Taxa	2010	2013	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Acanthonotozomatidae	-	Acanthonotozoma inflatum	-	-	-	-	-	-	X	-	-	-	-	-
Arthropoda	Chelicerata	Arachnida	Acari	-	-	-	Acari indet.	X	X	-	-	-	-	X	X	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Oedicerotidae	-	Aceroides latipes	-	-	-	-	-	-	X	X	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Oedicerotidae	-	Aceroides sp.	-	-	-	-	-	X	-	-	-	-	-	-
Arthropoda	Chelicerata	Pycnogonida	-	Pantopoda	Ammonotheidae	-	Achelia sp.	-	-	-	-	X	-	-	-	-	-	-	-
Arthropoda	Chelicerata	Pycnogonida	-	Pantopoda	Ammonotheidae	-	Achelia spinosa	-	-	-	X	-	-	-	-	-	-	-	-
Mollusca	-	Gastropoda	Heterobranchia	Cephalaspidea	Tornatinidae	-	Acteocina canaliculata	X	-	-	-	-	-	-	-	-	X	-	-
Mollusca	-	Gastropoda	Heterobranchia	Cephalaspidea	Tornatinidae	-	Acteocina sp.	-	-	-	-	X	-	X	X	-	-	-	X
Cnidaria	-	Anthozoa	Hexacorallia	Actiniaria	-	-	Actiniaria indet.	-	-	-	-	-	-	-	Y	-	-	X	-
Mollusca	-	Gastropoda	Caenogastropoda	Neogastropoda	Cancellariidae	Admetinae	Admete viridula	-	-	-	X	-	X	X	X	-	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Nephtyidae	-	Aglaophamus malmgreni	-	-	-	-	-	-	X	X	-	X	X	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Nephtyidae	-	Aglaophamus sp.	-	-	-	-	-	X	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Tanaidacea	Akanthophoreidae	-	Akanthophoreidae indet.	-	-	-	-	-	-	-	-	-	-	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Tanaidacea	Akanthophoreidae	-	Akanthophoreus gracilis	-	-	-	-	X	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Tanaidacea	Akanthophoreidae	-	Akanthophoreus sp.	-	-	-	-	Y	X	Y	X	Y	X	-	X
Bryozoa	-	Gymnolaemata	-	Ctenostomatida	Alcyonidiidae	-	Alcyonidium sp.	-	-	-	-	-	X	X	X	X	-	X	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Terebellidae	Terebellinae	Amaeana sp.	-	-	-	-	-	X	-	-	-	-	-	-
Bryozoa	-	Gymnolaemata	-	Ctenostomatida	Vesiculariidae	-	Amathia sp.	-	-	-	-	X	-	X	-	-	-	-	-
Chordata	Vertebrata	Teleostei	-	Perciformes	Ammodytidae	-	Ammodytes sp.	-	-	-	-	-	-	-	-	-	-	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Ampeliscidae	-	Ampelisca eschrichtii	-	-	X	X	X	X	X	X	X	X	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Ampeliscidae	-	Ampelisca sp.	-	-	X	X	-	-	Y	-	-	X	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Ampeliscidae	-	Ampeliscidae indet.	-	-	-	X	-	X	-	X	-	X	-	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Ampharetidae	Ampharetinae	Ampharete borealis	-	-	-	-	-	-	X	X	-	X	X	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Ampharetidae	Ampharetinae	Ampharete finmarchica	-	-	-	-	-	-	-	X	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Ampharetidae	Ampharetinae	Ampharete oculata	-	-	X	-	-	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Ampharetidae	Ampharetinae	Ampharete petersenae	-	-	-	-	-	-	-	X	X	-	X	X
Annelida	-	Polychaeta	Sedentaria	Terebellida	Ampharetidae	Ampharetinae	Ampharete sp.	-	X	-	X	Y	X	Y	X	Y	X	X	X
Annelida	-	Polychaeta	Sedentaria	Terebellida	Ampharetidae	Ampharetinae	Ampharete vega	-	-	-	-	X	X	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Ampharetidae	Ampharetinae	Ampharetid sp. B	-	-	-	X	-	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Ampharetidae	Ampharetinae	Ampharetid sp. E	-	-	-	X	-	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Ampharetidae	-	Ampharetidae indet.	X	X	X	X	Y	-	Y	X	Y	X	X	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Ampharetidae	Ampharetinae	Amphicteis gunneri	-	X	X	X	-	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Ampharetidae	Ampharetinae	Amphicteis sundevalli	X	-	-	-	X	X	X	X	X	-	X	-
Echinodermata	Asterozoa	Ophiuroidea	Myophiuroidea	Amphilepidida	-	-	Amphilepidida indet.	-	-	-	-	-	-	-	X	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Amphilochidae	-	Amphilochidae indet.	-	-	-	-	Y	-	-	X	-	X	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Amphilochidae	-	Amphilochus hamatus	-	-	-	-	X	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Amphilochidae	-	Amphilochus sp.	-	-	-	-	-	X	-	-	-	-	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	-	-	Amphipoda indet.	X	X	X	X	Y	X	X	X	Y	X	X	-
Nemertea	-	Hoplonemertea	-	Monostilifera	Amphiporidae	-	Amphiporus sp.	-	-	-	-	-	-	-	X	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Terebellidae	Terebellinae	Amphitrite cirrata	-	-	-	-	-	-	-	X	X	X	X	-
Chordata	Vertebrata	Teleostei	-	Perciformes	Stichaeidae	Lumpeninae	Anisarchus medius	-	-	-	-	-	-	-	-	-	-	X	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Ampharetidae	Ampharetinae	Anobothrus gracilis	-	-	-	X	-	-	-	X	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Uristidae	-	Anonyx laticoxae	-	-	-	-	-	-	X	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Uristidae	-	Anonyx lilljeborgi	-	-	-	-	-	-	-	X	X	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Uristidae	-	Anonyx nugax	X	X	X	X	X	-	X	X	-	-	-	X
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Uristidae	-	Anonyx ochoticus	-	-	-	X	-	-	-	X	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Uristidae	-	Anonyx pacificus	-	-	-	X	-	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Uristidae	-	Anonyx sarsi	-	-	X	X	X	X	-	X	-	-	X	X
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Uristidae	-	Anonyx sp.	-	X	X	X	Y	X	Y	X	Y	X	X	X
Cnidaria	-	Hydrozoa	Hydroidolina	Anthoathecata	-	-	Anthoathecata indet.	-	-	-	-	-	-	Y	X	-	X	X	X
Cnidaria	-	Anthozoa	-	-	-	-	Anthozoa indet.	-	-	-	-	-	-	-	Y	-	-	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Aoridae	-	Aoridae indet.	-	-	-	-	-	-	-	X	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Cirratulidae	-	Aphelocheata marioni	-	X	-	-	-	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Cirratulidae	-	Aphelocheata sp.	-	-	-	-	X	X	Y	X	Y	X	X	X
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Calliopiidae	-	Apherusa jurinei	-	X	-	-	-	-	-	-	-	-	-	-

Phylum	Subphylum	Class	Subclass	Order	Family	Subfamily	Taxa	2010	2013	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Calliopidae	-	<i>Apherusa megalops</i>	-	X	-	-	-	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Aphroditidae	-	Aphroditidae indet.	-	X	-	-	-	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Spionida	Apistobranchidae	-	<i>Apistobranchus</i> sp.	-	-	-	-	X	X	X	X	X	X	X	X
Mollusca	Aculifera	Aplacophora	-	-	-	-	Aplacophora indet.	-	-	-	-	X	X	-	-	-	-	-	-
Chordata	Tunicata	Ascidacea	-	Aplousobranchia	-	-	Aplousobranchia indet.	-	-	-	-	-	X	X	X	-	-	-	-
Echinodermata	Echinozoa	Holothuroidea	Paractinopoda	Apodida	-	-	Apodida indet.	-	-	-	-	-	-	Y	Y	-	-	-	-
Arthropoda	Chelicerata	Arachnida	-	-	-	-	Arachnida indet.	-	-	-	-	-	-	-	-	-	-	X	-
Annelida	-	Polychaeta/Archiannelida	Polychaeta incertae sedis	Archiannelida	-	-	Archiannelid indet.	-	X	-	-	-	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Decapoda	Crangonidae	-	<i>Argis dentata</i>	-	-	-	-	-	-	-	-	-	-	X	-
Mollusca	-	Gastropoda	Caenogastropoda	Littorinimorpha	Capulidae	-	<i>Ariadnaria borealis</i>	-	-	X	X	X	X	X	X	X	X	X	-
Annelida	-	Polychaeta	Sedentaria	-	Paraonidae	-	<i>Aricidea (Acmira) catherinae</i>	-	-	-	-	-	-	X	-	-	-	X	X
Annelida	-	Polychaeta	Sedentaria	-	Paraonidae	-	<i>Aricidea (Aricidea) minuta</i>	-	-	-	-	X	X	X	X	X	X	X	X
Annelida	-	Polychaeta	Sedentaria	-	Paraonidae	-	<i>Aricidea (Strelzovia) antennata</i>	-	-	-	-	-	-	X	X	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	-	Paraonidae	-	<i>Aricidea catherinae</i>	-	X	-	-	X	-	-	X	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	-	Paraonidae	-	<i>Aricidea hartmanae</i>	-	-	-	-	X	X	X	X	X	X	X	X
Annelida	-	Polychaeta	Sedentaria	-	Paraonidae	-	<i>Aricidea nolani</i>	-	X	-	-	X	X	X	X	X	X	X	X
Annelida	-	Polychaeta	Sedentaria	-	Paraonidae	-	<i>Aricidea</i> sp.	X	X	-	X	Y	X	Y	X	Y	X	X	X
Annelida	-	Polychaeta	Sedentaria	-	Paraonidae	-	<i>Aricidea</i> sp. A	-	-	-	X	-	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Oedicerotidae	-	<i>Arrhis</i> sp.	-	-	-	-	-	X	X	-	-	-	X	-
Chordata	Tunicata	Ascidacea	-	Phlebobranchia	Asciidae	-	<i>Ascidia callosa</i>	-	X	-	-	-	-	-	-	-	-	-	-
Chordata	Tunicata	Ascidacea	-	Phlebobranchia	Asciidae	-	<i>Ascidia</i> sp.	-	X	X	-	X	X	Y	X	Y	-	X	-
Chordata	Tunicata	Ascidacea	-	-	-	-	Ascidacea indet.	-	-	-	-	Y	-	X	X	Y	X	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Isopoda	-	-	<i>Asellota</i> indet.	-	-	-	-	Y	-	-	-	-	-	-	-
Mollusca	-	Bivalvia	Autobranchia	Carditida	Astartidae	-	<i>Astarte borealis</i>	X	X	X	X	X	X	X	X	X	X	X	X
Mollusca	-	Bivalvia	Autobranchia	Carditida	Astartidae	-	<i>Astarte montagui</i>	X	-	X	X	X	X	X	X	X	X	X	X
Mollusca	-	Bivalvia	Autobranchia	Carditida	Astartidae	-	<i>Astarte</i> sp.	X	X	X	X	Y	X	Y	X	Y	X	X	X
Echinodermata	Asterozoa	Asteroidea	-	Forcipulata	Asteriidae	-	Asteriidae indet.	-	-	X	-	-	-	-	-	-	-	-	-
Echinodermata	Asterozoa	Asteroidea	-	-	-	-	Asteroidea indet.	-	-	-	-	-	-	-	-	-	-	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Atylidae	Atylinae	<i>Atylus carinatus</i>	X	X	X	X	X	X	X	X	-	-	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Atylidae	Atylinae	<i>Atylus</i> sp.	-	-	-	-	-	-	-	Y	-	-	X	-
Mollusca	-	Bivalvia	Autobranchia	Lucinida	Thyasiridae	-	<i>Axinopsida serricata</i>	-	-	-	-	X	-	X	-	-	X	-	-
Mollusca	-	Bivalvia	Autobranchia	Lucinida	Thyasiridae	-	<i>Axinopsida</i> sp.	-	-	-	-	-	-	Y	X	Y	-	X	-
Annelida	-	Polychaeta	Sedentaria	-	Maldanidae	Euclymeninae	<i>Axiothella</i> sp.	-	-	-	-	-	-	-	X	-	X	-	-
Arthropoda	Crustacea	Hexanauplia	Thecostraca	Sessilia	-	-	Balanomorpha indet.	-	-	-	-	X	X	X	X	X	X	X	X
Arthropoda	Crustacea	Hexanauplia	Thecostraca	Sessilia	Balanidae	Balaninae	<i>Balanus</i> sp.	X	-	-	X	-	-	-	-	-	-	-	-
Entoprocta	-	-	-	Coloniales	Barentsiidae	-	<i>Barentsia</i> sp.	-	-	-	-	-	-	-	X	-	-	-	-
Mollusca	-	Bivalvia	Autobranchia	Arcida	Arcidae	-	<i>Batharca glacialis</i>	-	-	-	-	-	X	X	X	X	X	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Oedicerotidae	-	<i>Bathymedon obtusifrons</i>	-	-	-	X	X	-	-	X	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Oedicerotidae	-	<i>Bathymedon</i> sp.	-	-	-	-	-	-	-	Y	-	X	-	-
Annelida	-	Polychaeta	Sedentaria	Sabellida	Sabellidae	Sabellinae	<i>Bispira</i> sp.	-	-	-	-	-	X	-	-	-	-	-	X
Mollusca	-	Bivalvia	-	-	-	-	Bivalvia indet.	-	X	X	X	Y	-	X	X	X	X	X	X
Mollusca	-	Bivalvia	-	-	-	-	Bivalvia sp. A	-	-	-	X	-	-	-	-	-	-	-	-
Chordata	Tunicata	Ascidacea	-	Stolidobranchia	Pyuridae	-	<i>Boltenia echinata</i>	-	-	X	-	X	X	X	X	-	X	X	-
Chordata	Tunicata	Ascidacea	-	Stolidobranchia	Pyuridae	-	<i>Boltenia</i> sp.	-	-	-	-	-	-	-	Y	-	-	-	-
Mollusca	-	Gastropoda	Caenogastropoda	Littorinimorpha	Rissoiidae	-	<i>Boreocingula castanea</i>	-	X	-	X	-	X	X	X	X	X	X	X
Cnidaria	-	Hydrozoa	Hydroidolina	Anthoathecata	Bougainvilliidae	-	Bougainvilliidae indet.	-	-	-	-	X	X	-	X	-	X	X	-
Brachiopoda	-	-	-	-	-	-	Brachiopoda indet.	-	-	-	-	-	-	-	-	X	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Cumacea	Diastylidae	-	<i>Brachydiastylis resima</i>	X	X	X	X	X	X	X	X	X	X	X	X
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Cumacea	Diastylidae	-	<i>Brachydiastylis</i> sp.	-	-	-	-	-	-	-	-	-	-	X	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Flabelligeridae	-	<i>Brada villosa</i>	-	X	-	-	-	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Sabellida	Sabellidae	Sabellinae	<i>Branchiomma</i> sp.	-	-	-	-	X	X	-	X	-	-	X	X
Bryozoa	-	-	-	-	-	-	Bryozoa indet.	-	-	-	-	Y	X	-	X	Y	-	-	-
Mollusca	-	Gastropoda	Caenogastropoda	Neogastropoda	Buccinidae	-	Buccinidae indet.	-	-	-	-	Y	X	Y	-	Y	X	-	-
Mollusca	-	Gastropoda	Caenogastropoda	Neogastropoda	Buccinidae	-	<i>Buccinum ciliatum</i>	-	-	-	-	-	-	X	-	-	X	-	-
Mollusca	-	Gastropoda	Caenogastropoda	Neogastropoda	Buccinidae	-	<i>Buccinum hydrophanum</i>	-	-	-	-	-	X	X	X	-	-	-	-

Phylum	Subphylum	Class	Subclass	Order	Family	Subfamily	Taxa	2010	2013	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Mollusca	-	Gastropoda	Caenogastropoda	Neogastropoda	Buccinidae	Buccininae	<i>Buccinum</i> sp.	-	-	-	-	-	-	-	-	-	-	X	-
Bryozoa	-	Gymnolaemata	-	Cheilostomatida	-	-	Buguloidea indet.*	-	-	-	-	-	-	-	-	-	X	-	-
Mollusca	-	Gastropoda	Caenogastropoda	Littorinimorpha	Naticidae	Polinicinae	<i>Bulbus</i> sp.	-	X	-	-	-	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Sabellida	Serpulidae	Spirorbinae	<i>Bushiella (Jugaria) quadrangularis</i>	-	-	-	-	X	-	-	X	-	-	X	-
Annelida	-	Polychaeta	Sedentaria	Sabellida	Serpulidae	Spirorbinae	<i>Bushiella</i> sp.	-	-	-	-	-	-	-	-	Y	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Ampeliscidae	-	<i>Byblis gaimardii</i>	X	-	-	-	-	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Ampeliscidae	-	<i>Byblis</i> sp.	-	-	X	X	X	X	Y	X	Y	-	X	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Polynoidae	Polynoinae	<i>Bylgides groenlandicus</i>	X	-	-	-	-	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Polynoidae	Polynoinae	<i>Bylgides promamme</i>	-	-	-	-	-	-	-	X	-	-	X	X
Annelida	-	Polychaeta	Errantia	Phyllodocida	Polynoidae	Polynoinae	<i>Bylgides sarsi</i>	-	X	X	X	X	X	-	X	X	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Polynoidae	Polynoinae	<i>Bylgides</i> sp.	-	-	-	-	-	Y	-	-	-	-	X	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Polynoidae	Polynoinae	<i>Bylgides</i> sp. A	-	-	-	X	-	-	-	-	-	-	-	-
Arthropoda	Crustacea	Hexanauplia	Copepoda	Calanoida	-	-	Calanoida indet.	-	-	-	-	-	-	-	-	Y	X	-	-
Porifera	-	Calcarea	-	-	-	-	Calcarea indet.*	-	-	-	-	X	X	X	X	-	-	X	X
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Calliopiidae	-	Calliopiidae indet.	-	-	-	-	X	X	-	-	-	-	X	-
Bryozoa	-	Gymnolaemata	-	Cheilostomatida	Calloporidae	-	<i>Callopora</i> sp.	-	-	-	-	-	-	-	-	X	-	-	-
Bryozoa	-	Gymnolaemata	-	Cheilostomatida	Calloporidae	-	Calloporidae indet.	-	-	-	-	-	X	X	X	Y	-	-	-
Cnidaria	-	Hydrozoa	-	Leptothecata	Campanulinidae	-	<i>Calycella</i> sp.	-	-	-	-	-	-	-	-	X	-	-	-
Cnidaria	-	Hydrozoa	-	Leptothecata	Campanulariidae	-	Campanulariidae indet.	-	-	-	-	-	-	-	-	Y	X	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Cumacea	Nannastacidae	-	<i>Campylaspis rubicunda</i>	-	-	-	-	X	X	X	X	X	X	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Cumacea	Nannastacidae	-	<i>Campylaspis</i> sp.	-	-	-	-	Y	-	-	-	-	X	-	-
Bryozoa	-	Gymnolaemata	-	Cheilostomatida	Candidae	-	Candidae indet.	-	-	-	-	-	-	-	-	Y	-	-	-
Annelida	-	Polychaeta	Sedentaria	-	Capitellidae	-	<i>Capitella capitata</i> complex	X	X	-	-	X	X	X	X	X	X	X	X
Annelida	-	Polychaeta	Sedentaria	-	Capitellidae	-	Capitellidae indet.	-	-	-	X	Y	-	Y	X	-	-	X	-
Mollusca	-	Bivalvia	Autobranchia	Cardiida	Cardiidae	-	Cardiidae indet.	-	-	-	-	Y	-	-	X	Y	-	X	-
Nemertea	-	Palaeonemertea	-	Carinomiformes	Carinomidae	-	<i>Carinoma</i> sp.	-	-	-	-	-	X	-	X	-	-	X	-
Mollusca	-	Caudofoveata	-	-	-	-	Caudofoveata indet.	-	-	-	-	-	-	-	Y	Y	-	-	-
Bryozoa	-	Gymnolaemata	-	Cheilostomatida	Calloporidae	-	<i>Cauloramphus</i> sp.	-	-	-	-	-	-	-	-	X	-	-	-
Bryozoa	-	Gymnolaemata	-	Cheilostomatida	Hippothoidae	-	<i>Celleporella hyalina</i>	-	-	-	-	X	-	-	-	-	-	-	-
Mollusca	-	Gastropoda	Heterobranchia	Cephalaspidea	-	-	Cephalaspidea indet.	-	-	-	-	Y	X	Y	X	Y	X	X	-
Nemertea	-	Palaeonemertea	-	Archinemertea	Cephalotrichidae	-	<i>Cephalothrix</i> sp.	-	-	-	-	X	X	X	X	X	X	X	X
Nemertea	-	Pilidiophora	-	Heteronemertea	Lineidae	-	<i>Cerebratulus</i> sp.	-	X	X	-	X	X	X	X	-	-	-	-
Cnidaria	-	Anthozoa	Ceriantharia	Spirularia	Cerianthidae	-	<i>Cerianthus lloydii</i>	-	-	-	-	-	-	-	X	-	-	-	-
Mollusca	-	Caudofoveata	-	Chaetodermatida	Chaetodermatidae	-	<i>Chaetoderma nitidulum</i>	-	-	-	-	-	-	-	-	-	-	X	-
Mollusca	-	Caudofoveata	-	Chaetodermatida	Chaetodermatidae	-	<i>Chaetoderma</i> sp.	-	-	X	X	X	X	X	X	X	X	X	-
Mollusca	-	Caudofoveata	-	Chaetodermatida	Chaetodermatidae	-	Chaetodermatidae indet.	-	-	-	-	-	-	-	-	-	-	X	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Cirratulidae	-	<i>Chaetozone anasima</i>	-	-	-	-	-	-	-	-	-	-	-	X
Annelida	-	Polychaeta	Sedentaria	Terebellida	Cirratulidae	-	<i>Chaetozone bathyala</i>	-	-	-	-	X	X	X	X	X	X	X	X
Annelida	-	Polychaeta	Sedentaria	Terebellida	Cirratulidae	-	<i>Chaetozone careyi</i>	-	-	-	-	X	X	-	X	X	X	X	X
Annelida	-	Polychaeta	Sedentaria	Terebellida	Cirratulidae	-	<i>Chaetozone pigmentata</i>	-	-	-	-	X	X	X	X	X	X	X	X
Annelida	-	Polychaeta	Sedentaria	Terebellida	Cirratulidae	-	<i>Chaetozone setosa</i> complex	-	X	X	X	X	X	X	X	X	X	X	X
Annelida	-	Polychaeta	Sedentaria	Terebellida	Cirratulidae	-	<i>Chaetozone</i> sp.	-	-	-	-	Y	X	Y	X	Y	X	X	X
Bryozoa	-	Gymnolaemata	-	Cheilostomatida	-	-	Cheilostomatida indet.	-	-	-	-	-	-	Y	X	Y	X	X	X
Arthropoda	Crustacea	Hexapoda	Insecta	Chironomidae	Diptera	-	Chironomidae indet.	X	-	-	-	-	X	-	-	-	-	X	-
Arthropoda	Crustacea	Hexapoda	Insecta	Diptera	Chironomidae	Chironominae	Chironominae indet.	X	-	-	-	-	-	-	-	-	-	-	-
Mollusca	-	Bivalvia	Autobranchia	Pectinida	Pectinidae	Pedinae	<i>Chlamys islandica</i>	-	-	X	X	X	X	X	X	X	-	-	-
Arthropoda	Crustacea	Hexapoda	Insecta	Plecoptera	Chloroperlidae	-	Chloroperlidae indet.	-	-	-	-	-	-	-	-	-	-	X	-
Annelida	-	Polychaeta	Sedentaria	Sabellida	Sabellidae	Myxicolinae	<i>Chone duneri</i>	-	-	-	-	X	X	-	X	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Sabellida	Sabellidae	Myxicolinae	<i>Chone</i> sp.	X	-	-	-	-	-	-	-	X	-	-	-
Mollusca	-	Bivalvia	Autobranchia	Cardiida	Cardiidae	Clinocardiinae	<i>Ciliatocardium ciliatum</i>	X	-	X	X	X	X	X	X	X	X	X	X
Annelida	-	Polychaeta	Sedentaria	Terebellida	Cirratulidae	-	Cirratulidae indet.	X	X	X	X	Y	X	Y	X	Y	X	X	X
Annelida	-	Polychaeta	Sedentaria	Terebellida	Cirratulidae	-	Cirratulidae sp. A	-	-	-	X	-	-	-	-	-	-	-	-
Arthropoda	Crustacea	Hexanauplia	-	-	-	-	Cirripedia indet.	-	-	X	X	-	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Pectinariidae	-	<i>Cistenides granulata</i>	X	X	X	X	X	X	X	X	X	X	X	X
Annelida	-	Polychaeta	Sedentaria	Terebellida	Pectinariidae	-	<i>Cistenides hyperborea</i>	X	-	-	-	-	-	-	-	-	X	X	-

Phylum	Subphylum	Class	Subclass	Order	Family	Subfamily	Taxa	2010	2013	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Annelida	-	Polychaeta	Sedentaria	Terebellida	Pectinariidae	-	<i>Cistenides sp.*</i>	-	-	-	-	-	-	-	-	-	X	-	-
Arthropoda	Crustacea	Hexapoda	Insecta	Diptera	Chironomidae	Chironominae	<i>Cladopelma sp.</i>	-	-	-	-	-	-	-	-	-	-	X	-
Mollusca	-	Bivalvia	Autobranchia	Cardiida	Cardiidae	Clinocardiinae	Clinocardiinae indet.	-	-	-	-	-	-	Y	-	-	-	-	-
Arthropoda	Crustacea	Hexapoda	Insecta	Diptera	Empididae	Clinocerinae	<i>Clinocera sp.</i>	-	-	-	-	-	-	-	X	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	-	Maldanidae	Euclymeninae	<i>Clymenura polaris</i>	-	-	-	-	-	-	X	X	-	X	X	X
Annelida	-	Polychaeta	Sedentaria	-	Maldanidae	Euclymeninae	<i>Clymenura sp.</i>	-	-	-	-	X	X	Y	X	Y	-	-	-
Mollusca	-	Gastropoda	Caenogastropoda	Neogastropoda	Columbellidae	-	Columbellidae indet.	-	-	-	-	-	X	-	-	-	-	-	-
Mollusca	-	Gastropoda	Caenogastropoda	Neogastropoda	Buccinidae	-	Colus sp.	-	-	-	-	X	X	-	-	-	-	-	-
Arthropoda	Crustacea	Hexanauplia	Copepoda	-	-	-	Copepoda indet.	-	-	-	-	-	-	-	Y	-	-	X	X
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Corophiidae	-	Corophiidae indet.	-	-	-	X	-	X	Y	X	Y	X	-	X
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Corophiidae	Corophiinae	<i>Corophium sp.</i>	X	X	-	-	-	-	-	-	-	-	-	-
Cnidaria	-	Hydrozoa	Hydroidolina	Anthoathecata	Corynidae	-	Corynidae indet.	-	-	-	-	-	-	X	-	-	-	-	-
Arthropoda	Crustacea	Hexapoda	Insecta	Diptera	Chironomidae	Chironominae	<i>Corynocera sp.</i>	-	-	-	-	-	-	-	-	-	-	X	-
Annelida	-	Polychaeta	Sedentaria	-	Cossuridae	-	<i>Cossura longocirrata</i>	-	X	-	-	-	-	X	X	X	X	X	X
Annelida	-	Polychaeta	Sedentaria	-	Cossuridae	-	<i>Cossura sp.</i>	X	-	X	X	X	X	-	-	-	-	-	-
Chordata	Vertebrata	Actinopterygii	-	Scorpaeniformes	Cottidae	-	Cottidae indet.	-	-	-	-	-	-	X	X	-	-	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Decapoda	Crangonidae	-	Crangonidae indet.	-	-	-	-	-	-	-	Y	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Corophiidae	Corophiinae	<i>Crassikorophium bonellii</i>	-	X	-	-	X	X	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Corophiidae	Corophiinae	<i>Crassikorophium clarencense</i>	-	-	-	-	-	-	-	X	X	X	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Corophiidae	Corophiinae	<i>Crassikorophium sp.</i>	-	-	-	-	-	-	-	-	Y	-	X	-
Mollusca	-	Bivalvia	Autobranchia	Mytilida	Mytilidae	Crenellinae	<i>Arvella faba</i>	X	X	X	X	X	X	-	-	-	-	-	X
Mollusca	-	Bivalvia	Autobranchia	Mytilida	Mytilidae	Crenellinae	<i>Crenella sp.</i>	-	X	-	-	-	-	-	-	-	-	-	-
Bryozoa	-	Gymnolaemata	-	Cheilostomatida	Cribriliidae	-	<i>Cribrilina sp.</i>	-	-	-	-	-	-	-	-	X	-	-	-
Arthropoda	Crustacea	Hexapoda	Insecta	Diptera	Chironomidae	Orthoclaadiinae	<i>Cricotopus/Orthocladus sp. Complex</i>	-	-	-	-	-	-	-	X	-	-	X	-
Bryozoa	-	Stenolaemata	-	Cyclostomatida	Crisiidae	-	<i>Crisia sp.</i>	-	-	-	-	X	X	X	X	X	-	-	-
Bryozoa	-	Stenolaemata	-	Cyclostomatida	Crisiidae	-	Crisiidae indet.*	-	-	-	-	-	-	-	-	-	X	-	-
Mollusca	-	Gastropoda	Caenogastropoda	Littorinimorpha	Naticidae	Naticinae	<i>Cryptonatica affinis</i>	-	-	X	X	X	X	-	-	X	-	X	X
Echinodermata	Asterozoa	Asteroidea	Ambuloasteroidea	Paxillosida	Ctenodiscidae	-	<i>Ctenodiscus crispatus</i>	-	-	-	-	-	-	-	-	-	-	X	-
Ctenophora	-	-	-	-	-	-	Ctenophora indet.	-	-	-	-	-	-	-	-	-	-	X	-
Bryozoa	-	Gymnolaemata	-	Ctenostomatida	-	-	Ctenostomatida indet.	-	-	-	-	X	X	-	-	-	-	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Cumacea	-	-	Cumacea indet.	-	X	X	X	Y	X	-	X	-	-	X	-
Arthropoda	Crustacea	Hexapoda	Insecta	Coleoptera	Curculionidae	-	Curculionidae indet.	-	-	-	-	-	X	-	-	-	-	-	-
Mollusca	-	Bivalvia	Autobranchia	-	Cuspidariidae	-	<i>Cuspidaria arctica</i>	-	-	X	-	-	-	-	-	-	-	-	-
Mollusca	-	Bivalvia	Autobranchia	-	Cuspidariidae	-	<i>Cuspidaria sp.</i>	X	-	-	-	-	X	-	X	Y	-	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Cumacea	Bodotriidae	Bodotriinae	<i>Cyclaspis longicaudata</i>	X	-	-	-	-	-	-	-	-	-	-	-
Arthropoda	Crustacea	Hexanauplia	Copepoda	Cyclopoida	-	-	Cyclopoida indet.	-	-	-	-	X	X	X	X	X	X	-	-
XXXX	-	-	-	-	-	-	Cyclostomatida indet.	-	-	-	-	-	-	Y	-	-	-	X	-
Mollusca	-	Gastropoda	Heterobranchia	Cephalaspidea	Cylichnidae	-	<i>Cylichna alba</i>	X	-	X	X	-	X	X	X	X	-	X	-
Mollusca	-	Gastropoda	Heterobranchia	Cephalaspidea	Cylichnidae	-	<i>Cylichna gouldi</i>	-	-	X	X	-	-	-	-	-	-	-	-
Mollusca	-	Gastropoda	Heterobranchia	Cephalaspidea	Cylichnidae	-	<i>Cylichna sp.</i>	-	-	-	-	X	X	Y	X	Y	-	-	-
Mollusca	-	Gastropoda	Heterobranchia	Cephalaspidea	Cylichnidae	-	Cylichnidae indet.	-	-	-	-	Y	X	Y	X	Y	X	X	X
Mollusca	-	Gastropoda	Heterobranchia	Cephalaspidea	Cylichnidae	-	<i>Cylichnoides occultus</i>	X	-	-	-	X	X	X	X	-	-	-	X
Arthropoda	Crustacea	Ostracoda	Podocopa	Podocopida	Cytheridae	-	Cytheridae indet.	-	-	-	-	-	-	X	-	X	-	-	-
Mollusca	-	Bivalvia	Autobranchia	Mytilida	Mytilidae	Dacrydiinae	<i>Dacrydium vitreum</i>	X	-	-	-	-	X	-	X	-	-	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Oedicerotidae	-	<i>Deflexilodes sp.</i>	-	-	-	-	-	-	-	Y	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Oedicerotidae	-	<i>Deflexilodes tessellatus</i>	-	X	-	-	-	-	-	-	-	-	-	-
Porifera	-	Demospongiae	-	-	-	-	Demospongiae indet.	-	-	-	-	-	-	-	X	X	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Isopoda	Desmosomatidae	Desmosomatinae	<i>Desmosoma sp.</i>	-	X	-	-	-	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Isopoda	Desmosomatidae	-	Desmosomatidae indet.	-	-	-	-	X	-	-	X	Y	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Dexaminidae	Dexamininae	<i>Dexamine sp.</i>	-	-	-	-	X	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Sabellida	Sabellidae	Sabellinae	<i>Dialychone sp.</i>	-	-	-	-	X	X	X	X	-	-	X	X
Annelida	-	Polychaeta	Sedentaria	Sabellida	Sabellidae	Sabellinae	<i>Dialychone sp. 1</i>	-	-	-	-	-	-	X	X	X	X	X	X
Annelida	-	Polychaeta	Sedentaria	Sabellida	Sabellidae	Sabellinae	<i>Dialychone sp. 3</i>	-	-	-	-	-	-	-	Y	-	-	X	X
Annelida	-	Polychaeta	Sedentaria	Sabellida	Sabellidae	Sabellinae	<i>Dialychone sp. A</i>	-	-	-	-	Y	X	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Sabellida	Sabellidae	Sabellinae	<i>Dialychone sp. B</i>	-	-	-	-	X	X	-	-	-	-	-	-

Phylum	Subphylum	Class	Subclass	Order	Family	Subfamily	Taxa	2010	2013	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Arthropoda	Crustacea	Hexapoda	Insecta	Diptera	Chironomidae	Diamesinae	<i>Diamesa</i> sp.	-	-	-	-	-	-	-	X	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Cumacea	Diastylidae	-	Diastylidae indet.	-	-	-	-	Y	X	Y	-	Y	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Cumacea	Diastylidae	-	<i>Diastylis alaskensis</i>	-	-	-	-	X	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Cumacea	Diastylidae	-	<i>Diastylis bradyi</i>	-	-	-	-	X	X	-	X	-	-	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Cumacea	Diastylidae	-	<i>Diastylis echinata</i>	-	-	X	X	-	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Cumacea	Diastylidae	-	<i>Diastylis goodsiri</i>	X	-	X	-	X	X	X	X	X	X	X	X
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Cumacea	Diastylidae	-	<i>Diastylis lucifera</i>	-	-	X	-	X	X	-	X	X	-	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Cumacea	Diastylidae	-	<i>Diastylis rathkei</i>	X	X	X	-	X	X	X	X	X	X	X	X
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Cumacea	Diastylidae	-	<i>Diastylis scorpioides</i>	X	-	X	X	X	X	X	X	X	X	X	X
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Cumacea	Diastylidae	-	<i>Diastylis sculpta</i>	-	X	-	-	-	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Cumacea	Diastylidae	-	<i>Diastylis</i> sp.	-	X	-	X	Y	X	Y	X	X	X	X	X
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Cumacea	Diastylidae	-	<i>Diastylis spinulosa</i>	X	-	X	-	X	X	X	X	X	X	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Cumacea	Diastylidae	-	<i>Diastyloides biplicatus</i>	-	-	-	-	X	X	-	-	X	-	-	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Flabelligeridae	-	<i>Diplocirrus hirsutus</i>	-	-	X	X	-	X	X	X	X	X	X	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Flabelligeridae	-	<i>Diplocirrus</i> sp.	-	-	-	-	-	-	-	-	-	-	X	-
Annelida	-	Polychaeta	Sedentaria	Spionida	Spionidae	-	<i>Dipolydora caulleryi</i>	-	-	-	-	X	X	X	X	-	-	X	-
Annelida	-	Polychaeta	Sedentaria	Spionida	Spionidae	-	<i>Dipolydora concharum</i>	-	-	-	-	-	X	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Spionida	Spionidae	-	<i>Dipolydora quadrilobata</i>	-	-	-	-	X	X	X	X	X	X	X	-
Annelida	-	Polychaeta	Sedentaria	Spionida	Spionidae	-	<i>Dipolydora socialis</i>	-	-	-	-	-	X	X	-	-	-	X	-
Annelida	-	Polychaeta	Sedentaria	Spionida	Spionidae	-	<i>Dipolydora</i> sp.	-	-	-	-	Y	X	-	X	-	X	X	-
Arthropoda	Crustacea	Hexapoda	Insecta	Diptera	-	-	Diptera indet.	-	-	-	-	Y	-	-	-	-	-	X	-
Annelida	-	Polychaeta	Errantia	Eunicida	Dorvilleidae	-	Dorvilleidae indet.	-	-	-	-	-	-	-	-	-	-	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Dulichidae	-	<i>Dulichia</i> sp.	-	-	-	-	-	-	-	X	-	-	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Dulichidae	-	Dulichidae indet.	-	-	-	-	-	-	-	-	Y	-	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Dulichidae	-	<i>Dyopedos</i> sp.	-	-	-	-	X	X	-	X	-	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Chrysopetalidae	Dysponetinae	<i>Dysponetus</i> sp.	-	-	-	-	-	-	-	-	-	-	X	-
Annelida	-	Polychaeta	Echiura	Echiuroidea	Echiuridae	-	<i>Echiurus echiurus</i>	-	X	X	-	X	X	-	X	-	-	X	-
Cnidaria	-	Anthozoa	Hexacorallia	Actiniaria	Edwardsiidae	-	Edwardsiidae indet.	-	-	-	-	-	-	X	X	-	-	X	-
Annelida	-	Clitellata	Oligochaeta	Enchytraeida	Enchytraeidae	-	Enchytraeidae indet.	X	-	-	-	X	X	X	X	X	X	X	-
Mollusca	-	Bivalvia	Protobranchia	Nuculida	Nuculidae	-	<i>Ennucula tenuis</i>	X	-	-	-	X	X	X	X	X	X	X	X
Hemichordata	-	Enteropneusta	-	-	-	-	Enteropneusta indet.	-	-	-	-	-	-	-	X	-	-	X	-
Entoprocta	-	-	-	-	-	-	Entoprocta indet.	-	-	-	-	-	-	-	X	-	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Sphaerodoridae	-	<i>Ephesiella</i> sp.	-	-	-	-	-	-	-	X	-	X	X	-
Mollusca	-	Gastropoda	Patellogastropoda	-	Lottiidae	-	<i>Erginus rubellus</i>	-	-	-	-	-	-	X	-	-	-	-	-
Annelida	-	Polychaeta	Errantia	-	-	-	Errantia indet.	-	-	-	-	Y	-	-	-	-	-	-	-
Bryozoa	-	Gymnolaemata	-	Cheilostatida	Escharellidae	-	<i>Escharella</i> sp.	-	-	-	-	-	-	X	X	X	X	X	-
Bryozoa	-	Gymnolaemata	-	Cheilostatida	Exochellidae	-	<i>Escharoides</i> sp.	-	-	-	-	-	-	-	-	X	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Phyllodocidae	Eteoninae	<i>Eteone barbata</i>	X	-	-	-	X	X	X	-	-	-	X	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Phyllodocidae	Eteoninae	<i>Eteone flava</i>	-	-	-	-	X	X	X	X	-	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Phyllodocidae	Eteoninae	<i>Eteone longa</i> complex	-	X	X	X	X	X	X	X	X	X	X	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Phyllodocidae	Eteoninae	<i>Eteone</i> sp.	X	X	X	X	Y	X	Y	X	Y	X	X	X
Annelida	-	Polychaeta	Errantia	Phyllodocida	Phyllodocidae	Eteoninae	<i>Eteone spilotus</i>	-	-	-	-	-	X		-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Sabellida	Sabellidae	Sabellinae	<i>Euchone analis</i>	-	-	-	-	-	-	X	X	-	X	-	-
Annelida	-	Polychaeta	Sedentaria	Sabellida	Sabellidae	Sabellinae	<i>Euchone incolor</i>	-	X	-	-	X	X	X	X	X	X	X	X
Annelida	-	Polychaeta	Sedentaria	Sabellida	Sabellidae	Sabellinae	<i>Euchone papillosa</i>	X	-	-	-	-	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Sabellida	Sabellidae	Sabellinae	<i>Euchone rubrocincta</i>	-	-	-	-	X	X	X	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Sabellida	Sabellidae	Sabellinae	<i>Euchone</i> sp.	-	-	X	X	-	X	Y	X	Y	X	X	-
Annelida	-	Polychaeta	Sedentaria	Sabellida	Sabellidae	Sabellinae	<i>Euchone</i> sp. 1	-	-	-	-	-	-	-	Y	-	-	X	-
Annelida	-	Polychaeta	Sedentaria	-	Maldanidae	Euclymeninae	<i>Euclymene</i> sp.	-	-	-	-	X	X	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	-	Maldanidae	Euclymeninae	Euclymeninae indet.	-	-	-	-	Y	X	Y	X	Y	X	X	X
Bryozoa	-	Gymnolaemata	-	Cheilostatida	Eucrateidae	-	<i>Eucratea</i> sp.	-	-	-	-	-	-	-	X	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Cumacea	Leuconidae	-	<i>Eudorella emarginata</i>	-	-	X	X	-	-	X	X	X	-	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Cumacea	Leuconidae	-	<i>Eudorella</i> sp.	X	-	X	X	Y	-	Y	X	Y	-	X	X
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Cumacea	Leuconidae	-	<i>Eudorella truncatula</i>	-	-	X	X	X	X	X	X	X	X	X	X
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Cumacea	Leuconidae	-	<i>Eudorellopsis</i> sp.	X	-	-	-	-	-	-	-	-	-	-	-

Phylum	Subphylum	Class	Subclass	Order	Family	Subfamily	Taxa	2010	2013	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Isopoda	Desmosomatidae	Desmosomatinae	<i>Eugerda</i> sp.	X	-	-	-	-	-	-	-	-	-	-	-
Arthropoda	Crustacea	Hexapoda	Insecta	Diptera	Chironomidae	Orthoclaadiinae	<i>Eukiefferiella</i> sp.	-	-	-	-	-	-	-	X	-	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Phyllodocidae	Eteoninae	<i>Eulalia bilineata</i>	-	-	-	-	-	-	-	X	-	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Phyllodocidae	Eteoninae	<i>Eulalia</i> sp.	-	-	-	-	-	X	-	-	-	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Phyllodocidae	Eteoninae	<i>Eumida</i> sp.	-	-	-	-	-	-	X	-	-	-	-	-
Echinodermata	Echinozoa	Holothuroidea	Actinopoda	Molpadida	Eupyrgidae	-	<i>Eupyrgus scaber</i>	-	-	-	-	-	-	X	X	-	-	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Munnopsidae	Eurycopinae	<i>Eurycope</i> sp.	-	-	-	-	-	X	-	-	-	-	-	-
Mollusca	-	Gastropoda	Caenogastropoda	Littorinimorpha	Naticidae	Naticinae	<i>Euspira pallida</i>	X	-	-	-	X	X	X	X	X	X	X	X
Annelida	-	Polychaeta	Errantia	Phyllodocida	Syllidae	Eusyllinae	Eusyllinae indet.	-	-	-	-	-	-	-	-	-	-	X	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Syllidae	Eusyllinae	<i>Eusyllis</i> sp.	-	-	-	-	-	X	-	-	-	-	X	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Syllidae	Exogoninae	<i>Exogone naidina</i>	-	-	-	-	-	-	X	X	X	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Syllidae	Exogoninae	<i>Exogone</i> sp.	-	X	-	-	X	X	-	-	-	X	X	X
Annelida	-	Polychaeta	Errantia	Phyllodocida	Syllidae	Exogoninae	<i>Exogone verugera</i>	X	X	-	-	-	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Sabellida	Fabriciidae	-	Fabriciidae indet.	-	-	-	-	X	-	Y	X	Y	X	-	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Flabelligeridae	-	<i>Flabelligera affinis</i>	-	-	-	X	-	-	X	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Flabelligeridae	-	Flabelligeridae indet.	-	-	X	-	-	-	-	-	-	-	-	-
Bryozoa	-	Gymnolaemata	-	Cheilostomatida	-	-	Flustrina indet.	-	-	-	-	-	-	-	-	-	-	X	-
Mollusca	-	Scaphopoda	-	Gadilida	Gadilidae	-	Gadilidae indet.	-	-	-	-	-	-	Y	X	-	-	-	-
Annelida	-	Polychaeta	Polychaeta incertae sedis	-	Oweniidae	-	<i>Galathowenia oculata</i>	-	-	X	-	X	X	X	X	X	X	X	X
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Gammaridae	-	<i>Gammarus oceanicus</i>	-	X	-	-	X	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Gammaridae	-	<i>Gammarus setosus</i>	-	-	-	X	-	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Gammaridae	-	<i>Gammarus</i> sp.	-	X	X	X	-	X	-	-	-	-	-	-
Mollusca	-	Gastropoda	-	-	-	-	Gastropoda indet.	-	-	X	-	Y	X	Y	X	Y	X	X	X
Mollusca	-	Gastropoda	-	-	-	-	Gastropoda sp. A	-	-	-	X	-	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Polynoidae	Polynoinae	<i>Gattyana cirrhosa</i>	X	X	X	-	X	X	X	X	X	X	X	X
Annelida	-	Polychaeta	Errantia	Phyllodocida	Glyceridae	-	<i>Glycera capitata</i>	-	-	-	-	X	X	X	-	-	-	X	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Glyceridae	-	<i>Glycera</i> sp.	-	-	-	-	Y	X	Y	X	Y	-	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Isopoda	Gnathiidae	-	<i>Gnathia maxillaris</i>	-	-	-	X	-	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Isopoda	Gnathiidae	-	<i>Gnathia</i> sp.	X	X	-	-	X	-	Y	X	Y	X	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Isopoda	Gnathiidae	-	Gnathiidae indet.	-	-	-	-	Y	X	Y	X	-	-	X	X
Sipuncula	-	Sipunculidea	-	Golfingiida	Golfingiidae	-	<i>Golfingia</i> sp.	-	-	-	-	X	X	X	X	X	-	X	-
Sipuncula	-	Sipunculidea	-	Golfingiida	Golfingiidae	-	Golfingiidae indet.	-	-	-	-	-	-	Y	X	Y	X	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Tryphosidae	-	<i>Gronella groenlandica</i>	-	X	-	X	X	X	-	X	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Dexaminidae	Prophliantinae	<i>Guernea nordenskioldi</i>	X	X	X	X	X	X	X	X	X	X	X	X
Chordata	Vertebrata	Teleostei	-	Perciformes	Zoarcidae	Gymnelinae	<i>Gymnelus</i> sp.	-	-	-	-	-	-	-	-	-	-	X	-
Bryozoa	-	Gymnolaemata	-	-	-	-	Gymnolaemata indet.	-	-	-	-	-	-	Y	-	-	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Hesionidae	Ophiodrominae	<i>Gyptis</i> sp.	-	-	-	-	-	X	-	-	-	-	-	-
Arthropoda	Chelicerata	Arachnida	Acari	Trombidiformes	Halacaridae	-	Halacaridae indet.	-	-	-	-	X	X	X	X	-	-	X	-
Cnidaria	-	Anthozoa	Hexacorallia	Actiniaria	Halcampidae	-	<i>Halcampa</i> sp.	-	-	-	-	-	-	-	X	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Ampeliscidae	-	<i>Haploops</i> sp.	-	-	X	X	-	-	-	X	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Ampeliscidae	-	<i>Haploops tubicola</i>	X	X	-	X	X	X	X	X	X	X	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Stenothoidae	-	<i>Hardametopa nasuta</i>	-	-	-	-	X	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Polynoidae	Polynoinae	<i>Harmothoe extenuata</i>	-	X	X	X	X	X	-	-	-	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Polynoidae	Polynoinae	<i>Harmothoe fragilis</i>	-	X	-	-	-	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Polynoidae	Polynoinae	<i>Harmothoe imbricata</i>	X	X	X	X	X	X	X	X	X	X	X	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Polynoidae	Polynoinae	<i>Harmothoe propinqua</i>	-	-	-	-	-	-	-	X	-	X	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Polynoidae	Polynoinae	<i>Harmothoe rarispinia</i>	-	-	-	-	-	-	X	X	X	X	X	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Polynoidae	Polynoinae	<i>Harmothoe</i> sp.	X	X	X	X	Y	X	Y	X	Y	X	X	X
Arthropoda	Crustacea	Hexanauplia	Copepoda	Harpacticoida	-	-	Harpacticoida indet.	X	X	-	X	X	X	X	X	X	X	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Phoxocephalidae	Harpiniinae	<i>Harpinia serrata</i>	X	-	X	X	X	X	-	X	X	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Phoxocephalidae	Harpiniinae	<i>Harpinia</i> sp.	-	-	X	X	Y	X	X	-	-	X	X	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Polynoidae	Polynoinae	<i>Hartmania moorei</i>	-	-	-	-	X	X	-	-	-	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Polynoidae	Polynoinae	<i>Hartmania</i> sp.	-	X	-	-	-	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Cumacea	Lampropidae	-	<i>Hemilamprops cristatus</i>	-	-	-	-	X	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Hesionidae	-	Hesionidae indet.	-	-	-	-	Y	-	Y	-	Y	-	-	-

Phylum	Subphylum	Class	Subclass	Order	Family	Subfamily	Taxa	2010	2013	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Annelida	-	Polychaeta	Errantia	Phyllodocida	Polynoidae	Polynoinae	<i>Hesperonoe</i> sp.	-	-	-	-	-	-	-	X	-	X	X	-
Annelida	-	Polychaeta	Sedentaria	-	Maldanidae	Euclymeninae	<i>Heteroclymene robusta</i>	-	-	X	-	-	-	-	-	-	-	-	-
Nemertea	-	Pilidiophora	-	Heteronemertea	-	-	Heteronemertea indet.	-	-	-	-	-	-	Y	-	Y	X	-	X
Arthropoda	Crustacea	Hexapoda	Insecta	Diptera	Chironomidae	Orthoclaadiinae	<i>Heterotrissocladius</i> sp.	-	-	-	-	-	-	-	-	-	-	X	-
Mollusca	-	Bivalvia	Autobranchia	Adapedonta	Hiatellidae	-	<i>Hiatella arctica</i>	X	X	X	X	X	X	X	X	X	X	X	X
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Tryphosidae	-	<i>Hippomedon denticulatus</i>	-	-	X	-	-	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Tryphosidae	-	<i>Hippomedon propinqvus</i>	-	-	-	-	-	-	-	-	X	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Tryphosidae	-	<i>Hippomedon serratus</i>	-	-	-	X	-	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Tryphosidae	-	<i>Hippomedon</i> sp.	-	-	-	-	-	-	Y	X	-	-	-	-
Annelida	-	Clitellata	Hirudinea	-	-	-	Hirudinea indet.	-	-	-	-	-	-	Y	-	-	X	-	X
Echinodermata	Echinozoa	Holothuroidea	-	-	-	-	Holothuroidea indet.*	-	-	-	-	-	-	-	-	-	X	-	-
Echinodermata	Echinozoa	Holothuroidea	-	-	-	-	Holothuroidea sp. A	-	-	-	-	X	X	-	-	-	-	-	-
Nemertea	-	Hoplonemertea	-	-	-	-	Hoplonemertea indet.	-	-	-	-	-	-	Y	X	Y	-	X	X
Cnidaria	-	Anthozoa	Hexacorallia	Actiniaria	Hormathiidae	-	<i>Hormathia digitata</i>	-	-	-	-	X	-	-	-	-	-	-	-
Arthropoda	Crustacea	Hexapoda	Insecta	Diptera	Chironomidae	Orthoclaadiinae	<i>Hydrosmittia</i> sp.	-	-	-	-	-	-	-	-	-	-	X	-
Cnidaria	-	Hydrozoa	-	-	-	-	Hydrozoa indet.	-	-	-	-	Y	-	Y	X	-	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Phyllodocidae	Eteoninae	<i>Hypereteone</i> sp.	-	-	-	-	X	X	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Sabellida	Sabellidae	Sabellinae	<i>Hypsicomus</i> sp.	-	-	-	-	X	-	-	-	-	-	-	-
Arthropoda	Crustacea	Hexapoda	Insecta	-	-	-	Insecta indet.	-	-	-	-	-	-	-	-	-	-	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Isaeidae	-	Isaeidae indet.	-	-	-	-	-	-	-	-	-	-	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Ischyroceridae	-	Ischyroceridae indet.	X	-	-	-	-	-	-	X	-	-	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Ischyroceridae	Ischyrocerinae	<i>Ischyrocerus anguipes</i>	-	X	X	-	-	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Ischyroceridae	Ischyrocerinae	<i>Ischyrocerus</i> sp.	-	-	X	-	-	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Isopoda	-	-	Isopoda indet.	-	-	-	-	-	-	-	Y	-	-	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Isopoda	-	-	Isopoda sp. A	-	-	-	X	-	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Cirratulidae	-	<i>Kirkegaardia</i> sp.	-	-	-	-	-	X	-	X	X	-	-	X
Cnidaria	-	Hydrozoa	Hydroidolina	Leptothecata	Lafoeidae	-	<i>Lafoea</i> sp.	-	-	-	-	-	-	X	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Cumacea	Lampropidae	-	Lampropidae indet.	-	-	X	-	Y	X	-	-	-	-	X	X
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Cumacea	Lampropidae	-	<i>Lamprops fuscatus</i>	X	X	X	X	X	X	X	X	X	X	X	X
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Cumacea	Lampropidae	-	<i>Lamprops</i> sp.	-	-	X	X	-	-	-	X	-	X	-	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Terebellidae	Terebellinae	<i>Lanassa</i> sp.	-	-	-	-	-	-	Y	-	-	-	X	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Terebellidae	Terebellinae	<i>Lanassa venusta venusta</i>	-	-	-	-	X	X	X	X	X	X	X	-
Annelida	-	Polychaeta	Sedentaria	Spionida	Spionidae	-	<i>Laonice cirrata</i>	-	-	-	-	-	X	X	X	-	-	X	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Terebellidae	Terebellinae	<i>Laphania boeckii</i>	-	-	-	X	X	X	X	X	X	X	X	X
Mollusca	-	Bivalvia	-	Galeommatida	Lasaeidae	-	Lasaeidae indet.	-	-	-	-	-	-	-	-	X	-	-	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Terebellidae	Terebellinae	<i>Leaena ebranchiata</i>	-	-	-	-	X	X	X	X	X	X	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Decapoda	Thoridae	-	<i>Lebbeus polaris</i>	X	-	-	-	-	X	X	X	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Decapoda	Thoridae	-	<i>Lebbeus</i> sp.	-	-	-	-	-	-	Y	-	-	-	-	-
Bryozoa	-	Gymnolaemata	-	Cheilostomatida	Myriaporidae	-	<i>Leieschara</i> sp.	-	-	-	-	-	X	-	X	-	-	X	-
Annelida	-	Polychaeta	Sedentaria	-	Orbiniidae	Orbiniinae	<i>Leitoscoloplos acutus</i>	-	X	X	X	X	X	X	-	-	-	X	X
Annelida	-	Polychaeta	Sedentaria	-	Orbiniidae	Orbiniinae	<i>Leitoscoloplos</i> sp.	X	-	-	-	X	X	-	X	Y	X	X	X
Mollusca	-	Gastropoda	Patellogastropoda	-	Lepetidae	-	<i>Lepeta caeca</i>	X	X	X	X	X	X	X	X	X	X	X	-
Cnidaria	-	Hydrozoa	Hydroidolina	Leptothecata	-	-	Leptothecata indet.	-	-	-	-	-	-	-	Y	Y	X	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Cumacea	Leuconidae	-	<i>Leucon nasica</i>	-	-	-	-	-	-	X	X	X	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Cumacea	Leuconidae	-	<i>Leucon nasicoides</i>	X	X	X	X	X	-	X	X	X	X	X	X
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Cumacea	Leuconidae	-	<i>Leucon</i> sp.	-	-	X	-	Y	X	Y	X	Y	X	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Cumacea	Leuconidae	-	Leuconidae indet.	-	-	-	-	Y	X	Y	-	Y	X	-	-
Mollusca	-	Bivalvia	Autobranchia	Cardiida	Tellinidae	Macominae	<i>Limecola balthica</i>	-	-	X	X	X	X	X	-	-	-	-	-
Nemertea	-	Pilidiophora	-	Heteronemertea	Lineidae	-	Lineidae indet.	-	-	-	-	-	-	Y	X	Y	X	X	X
Nemertea	-	Pilidiophora	-	Heteronemertea	Lineidae	-	<i>Lineus</i> sp.	-	-	-	-	-	-	X	X	-	-	-	-
Mollusca	-	Gastropoda	Patellogastropoda	-	Lottiidae	-	Lottiidae indet.	-	-	-	-	X	X	-	-	-	-	-	-
Annelida	-	Polychaeta	Errantia	Eunicida	Lumbrineridae	-	Lumbrineridae indet.	-	-	-	-	-	-	Y	X	Y	X	X	X
Annelida	-	Polychaeta	Errantia	Eunicida	Lumbrineridae	-	<i>Lumbrineris fauchaldi</i>	-	-	-	-	-	-	-	-	X	-	X	-
Annelida	-	Polychaeta	Errantia	Eunicida	Lumbrineridae	-	<i>Lumbrineris</i> sp.	X	X	X	X	-	X	-	-	-	-	-	-
Mollusca	-	Bivalvia	Autobranchia	-	Lyonsiidae	-	<i>Lyonsia arenosa</i>	-	-	-	-	X	X	X	-	X	-	-	-

Phylum	Subphylum	Class	Subclass	Order	Family	Subfamily	Taxa	2010	2013	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Lysianassidae	-	Lysianassidae indet.	X	-	X	-	Y	-	Y	-	Y	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Lysianassidae	-	Lysianassoidea indet.	-	-	-	-	Y	X	Y	X	X	X	X	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Ampharetidae	Ampharetinae	<i>Lysippe labiata</i>	-	-	X	X	X	X	X	X	-	X	X	X
Mollusca	-	Bivalvia	Autobranchia	Cardiida	Tellinidae	Macominae	<i>Macoma calcarea</i>	X	X	X	X	X	X	X	X	X	X	X	X
Mollusca	-	Bivalvia	Autobranchia	Cardiida	Tellinidae	Macominae	<i>Macoma moesta</i>	-	-	-	-	X	X	X	X	X	X	X	X
Mollusca	-	Bivalvia	Autobranchia	Cardiida	Tellinidae	Macominae	<i>Macoma</i> sp.	-	-	-	-	Y	X	-	-	Y	-	X	-
Mollusca	-	Bivalvia	Autobranchia	Cardiida	Tellinidae	Macominae	Macominae indet.	-	-	-	-	-	-	Y	Y	Y	X	X	X
Annelida	-	Polychaeta	Sedentaria	-	Maldanidae	Maldaninae	<i>Maldane sarsi</i>	X	X	X	X	X	X	X	X	X	X	X	X
Annelida	-	Polychaeta	Sedentaria	-	Maldanidae	-	Maldanidae indet.	X	X	X	X	Y	X	Y	Y	Y	X	-	-
Annelida	-	Polychaeta	Sedentaria	-	Maldanidae	-	Maldanidae sp. A	-	-	-	X	-	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	-	Maldanidae	-	Maldanidae sp. B	-	-	-	X	-	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	-	Maldanidae	-	Maldanidae sp. C	-	-	-	X	-	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Sabellida	Fabriciidae	-	<i>Manayunkia aesturiana</i>	-	-	-	-	-	X	-	-	-	-	-	-
Mollusca	-	Gastropoda	Caenogastropoda	Neogastropoda	Mangeliidae	-	Mangeliidae indet.	-	-	-	-	-	-	Y	X	Y	X	X	X
Annelida	-	Polychaeta	Sedentaria	Spionida	Spionidae	-	<i>Marenzelleria</i> sp.	-	-	-	X	X	X	-	-	Y	X	X	-
Annelida	-	Polychaeta	Sedentaria	Spionida	Spionidae	-	<i>Marenzelleria viridis</i>	-	-	-	-	-	-	X	X	-	-	-	-
Mollusca	-	Gastropoda	Vetigastropoda	Trochida	Margaritidae	-	<i>Margarites groenlandicus</i>	-	X	X	X	X	X	X	-	X	-	X	-
Mollusca	-	Gastropoda	Vetigastropoda	Trochida	Margaritidae	-	<i>Margarites helcinus</i>	-	-	-	-	X	X	X	X	-	-	X	-
Mollusca	-	Gastropoda	Vetigastropoda	Trochida	Margaritidae	-	<i>Margarites olivaceus</i>	X	-	-	-	-	X	-	X	-	-	-	-
Mollusca	-	Gastropoda	Vetigastropoda	Trochida	Margaritidae	-	<i>Margarites</i> sp.	-	-	-	-	Y	X	Y	Y	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	-	Capitellidae	-	<i>Mediomastus ambiseta</i>	-	X	-	X	X	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	-	Capitellidae	-	<i>Mediomastus</i> sp.	X	-	-	-	Y	X	Y	X	Y	X	X	X
Annelida	-	Polychaeta	Errantia	Phyllodocida	Polynoidae	Polynoinae	<i>Melaenis loveni</i>	-	-	-	-	-	X	-	X	-	X	X	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Melinnidae	-	<i>Melinna elisabethae</i>	X	X	X	X	X	X	X	X	X	X	X	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Melinnidae	-	<i>Melinna</i> sp.	X	-	-	-	-	X	-	-	-	X	X	X
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Melphidippidae	-	<i>Melphidippa</i> sp.	-	-	-	-	-	-	-	X	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Uristidae	-	<i>Menigrates obtusifrons</i>	-	-	-	-	X	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Stenothoidae	-	<i>Metopa</i> sp.	-	X	-	-	-	-	X	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	-	Maldanidae	Euclymeninae	<i>Microclymene</i> sp.	-	-	-	-	X	X	X	X	X	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Nephtyidae	-	<i>Micronephthys cornuta</i>	-	-	-	-	X	X	X	X	X	X	X	X
Annelida	-	Polychaeta	Errantia	Phyllodocida	Microphthalmidae	-	<i>Microphthalmus</i> sp.	-	-	-	-	-	X	-	X	-	-	X	X
Mollusca	-	Gastropoda	Vetigastropoda	Trochida	Colloniidae	Moelleriinae	<i>Moelleria costulata</i>	-	-	-	-	X	X	-	X	-	-	-	-
Chordata	Tunicata	Ascidiacea	-	Stolidobranchia	Molgulidae	-	<i>Molgula</i> sp.	-	X	-	-	-	X	X	-	-	-	-	-
Echinodermata	Echinozoa	Holothuroidea	Actinopoda	Molpadida	-	-	Molpadida indet.	-	-	-	-	X	X	-	-	-	-	-	-
Cnidaria	-	Hydrozoa	Trachylinae	Limnomedusae	Monobrachiidae	-	<i>Monobrachium parasitum</i>	-	-	-	-	X	X	X	X	X	X	X	X
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Corophiidae	Corophiinae	<i>Monocorophium insidiosum</i>	-	X	-	-	X	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Corophiidae	Corophiinae	<i>Monocorophium</i> sp.	-	-	-	-	Y	X	Y	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Oedicerotidae	-	<i>Monoculodes latimanus</i>	-	X	-	-	X	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Oedicerotidae	-	<i>Monoculodes</i> sp.	X	X	X	X	Y	X	Y	X	Y	-	X	X
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Oedicerotidae	-	<i>Monoculopsis longicornis</i>	-	X	-	X	X	-	X	-	X	-	X	X
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Oedicerotidae	-	<i>Monoculopsis</i> sp.	-	-	-	-	-	-	Y	X	Y	X	-	X
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Pontoporeiidae	-	<i>Monoporeia affinis</i>	X	X	X	X	X	X	X	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Pontoporeiidae	-	<i>Monoporeia</i> sp. *	-	-	-	-	-	-	-	-	-	X	-	-
Mollusca	-	Bivalvia	Autobranchia	Mytilida	Mytilidae	Musculinae	<i>Musculus discors</i>	X	X	X	X	X	X	X	X	X	X	X	X
Mollusca	-	Bivalvia	Autobranchia	Mytilida	Mytilidae	Musculinae	<i>Musculus niger</i>	-	X	-	-	X	-	X	X	-	X	-	-
Mollusca	-	Bivalvia	Autobranchia	Mytilida	Mytilidae	Musculinae	<i>Musculus</i> sp.	X	-	-	-	Y	-	Y	X	Y	X	X	-
Mollusca	-	Bivalvia	Autobranchia	Myida	Myidae	-	<i>Mya arenaria</i>	-	-	X	X	-	-	-	-	-	-	-	-
Mollusca	-	Bivalvia	Autobranchia	Myida	Myidae	-	<i>Mya</i> sp.	-	-	-	-	Y	X	Y	Y	Y	X	X	X
Mollusca	-	Bivalvia	Autobranchia	Myida	Myidae	-	<i>Mya truncata</i>	X	X	X	X	X	X	X	X	X	X	X	X
Arthropoda	Crustacea	Ostracoda	Myodocopa	-	-	-	Myodocopa indet.	X	X	X	X	-	-	-	-	-	-	-	-
Annelida	-	Polychaeta	-	Phyllodocida	Syllidae	Autolytinae	<i>Myrianida</i> sp.*	-	-	-	-	-	-	-	-	-	X	-	-
Annelida	-	Polychaeta	Polychaeta incertae sedis	-	Oweniidae	-	<i>Myriochele danielsseni</i>	-	-	-	-	X	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Polychaeta incertae sedis	-	Oweniidae	-	<i>Myriochele heeri</i>	-	-	-	-	X	X	X	X	X	X	X	X
Annelida	-	Polychaeta	Polychaeta incertae sedis	-	Oweniidae	-	<i>Myriochele</i> sp.	-	-	-	-	Y	-	-	-	Y	X	X	-
Echinodermata	Echinozoa	Holothuroidea	Paractinopoda	Apodida	Myriotrochidae	-	<i>Myriotrochus rinkii</i>	-	-	-	X	-	-	X	X	X	X	X	X

Phylum	Subphylum	Class	Subclass	Order	Family	Subfamily	Taxa	2010	2013	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Mysida	Mysidae	-	Mysida indet.	-	-	-	-	Y	-	-	-	-	-	-	-
Annelida	-	Clitellata	Hirudinea	Rhynchobdellida	Piscicolidae	Platybdellinae	<i>Mysidobdella</i> sp.	-	-	-	-	X	-	-	X	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Mysida	Mysidae	Mysinae	<i>Mysis mixta</i>	-	X	-	X	X	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Mysida	Mysidae	Mysinae	<i>Mysis</i> sp.	-	X	-	-	-	X	-	-	-	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Phyllodocidae	Eteoninae	<i>Mystides borealis</i>	-	-	-	-	-	-	-	-	-	-	X	-
Mollusca	-	Bivalvia	Autobranchia	Mytilida	Mytilidae	-	Mytilidae indet.	X	-	-	-	Y	X	Y	Y	Y	-	X	-
Mollusca	-	Bivalvia	Autobranchia	Mytilida	Mytilidae	Mytilinae	<i>Mytilus edulis</i>	-	X	-	-	-	-	-	-	-	-	-	-
Mollusca	-	Bivalvia	Autobranchia	Mytilida	Mytilidae	Mytilinae	<i>Mytilus</i> sp.	-	-	-	-	X	-	-	-	-	-	-	-
Annelida	-	Clitellata	Oligochaeta	Tubificida	Naididae	-	Naididae indet.	-	-	-	-	-	-	-	-	X	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Cumacea	Nannastacidae	-	Nannastacidae indet.	-	-	-	-	-	-	-	Y	-	-	-	-
Mollusca	-	Gastropoda	Caenogastropoda	Littorinimorpha	Naticidae	-	<i>Naticidae (juvenile)</i>	-	-	X	-	-	-	-	-	-	-	-	-
Mollusca	-	Gastropoda	Caenogastropoda	Littorinimorpha	Naticidae	-	Naticidae indet.	-	-	-	-	-	Y	X	Y	-	X	-	-
Arthropoda	Crustacea	Malacostraca	Phyllocarida	Nebaliacea	Nebaliidae	-	<i>Nebalia</i> sp.	-	-	-	-	-	-	-	-	-	-	X	-
Nematoda	-	-	-	-	-	-	Nematoda indet.	-	-	-	-	-	-	-	X	-	-	X	X
Nemertea	-	-	-	-	-	-	Nemertea indet.	-	X	X	X	Y	X	Y	X	Y	X	X	X
Annelida	-	Polychaeta	Sedentaria	Terebellida	Terebellidae	Terebellinae	<i>Neoamphitrite affinis</i>	-	-	-	-	X	X	X	-	-	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Polynoidae	Polynoinae	<i>Neobylgides</i> sp.	-	-	-	X	-	-	-	-	-	-	-	-
Sipuncula	-	Sipunculidea	-	Golfingiida	Golfingiidae	-	<i>Nephasoma</i> sp.	-	-	-	-	X	-	X	X	-	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Nephtyidae	-	<i>Nephtys bucera</i>	-	-	-	-	-	X	-	-	-	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Nephtyidae	-	<i>Nephtys ciliata</i>	X	-	X	X	X	X	X	X	X	X	X	X
Annelida	-	Polychaeta	Errantia	Phyllodocida	Nephtyidae	-	<i>Nephtys paradoxa</i>	-	-	-	-	-	X	X	-	-	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Nephtyidae	-	<i>Nephtys</i> sp.	X	X	X	X	-	X	Y	Y	Y	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Nereididae	-	Nereididae indet.	X	-	-	-	Y	X	Y	X	-	-	X	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Hesionidae	Psamathinae	Nereimyra aphroditoides	-	-	-	X	X	X	X	X	X	X	X	X
Annelida	-	Polychaeta	Errantia	Phyllodocida	Nereididae	Nereidinae	<i>Nereis</i> sp.	-	-	-	X	Y	-	Y	-	-	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Nereididae	Nereidinae	<i>Nereis zonata</i>	-	X	X	X	X	X	X	X	X	X	X	X
Nemertea	-	Nemertea incertae sedis	-	-	-	-	Nermertea incertae sedis indet. (Anopla)	-	-	-	-	Y	X	-	-	-	-	-	-
Nemertea	-	Nemertea incertae sedis	-	-	-	-	Nermertea incertae sedis indet. (Enopla)	-	-	-	-	Y	X	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Terebellidae	Terebellinae	<i>Nicolea venustula</i>	-	X	-	-	-	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	-	Maldanidae	Nicomachinae	<i>Nicomache lumbricalis</i>	-	-	X	X	X	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	-	Maldanidae	Nicomachinae	<i>Nicomache</i> sp.	-	-	-	-	-	X	Y	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	-	Maldanidae	Nicomachinae	Nicomachinae indet.	-	-	-	-	-	-	Y	X	-	X	X	-
Annelida	-	Polychaeta	Errantia	Eunicida	Onuphidae	Hyalinoeciinae	<i>Nothria conchylega</i>	X	-	-	-	-	X	X	X	X	X	X	-
Annelida	-	Polychaeta	Sedentaria	-	Capitellidae	-	<i>Notomastus latericeus</i>	-	-	-	-	X	X	X	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	-	Capitellidae	-	<i>Notomastus</i> sp.	-	-	-	-	-	-	-	Y	Y	X	X	X
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Atylidae	Nototropiinae	<i>Nototropis</i> sp.	-	-	X	-	-	-	-	-	-	-	-	-
Mollusca	-	Bivalvia	Protobranchia	Nuculida	Nuculidae	-	<i>Nucula</i> sp.	-	-	X	-	-	-	-	-	-	-	-	-
Mollusca	-	Bivalvia	Protobranchia	Nuculanida	Nuculanidae	Nuculaninae	<i>Nuculana minuta</i>	-	X	X	X	X	X	X	X	X	X	X	X
Mollusca	-	Bivalvia	Protobranchia	Nuculanida	Nuculanidae	Nuculaninae	<i>Nuculana pernula</i>	X	X	X	X	X	X	X	X	X	X	X	X
Mollusca	-	Bivalvia	Protobranchia	Nuculanida	Nuculanidae	Nuculaninae	<i>Nuculana</i> sp.	-	-	X	-	Y	X	Y	Y	Y	X	X	-
Mollusca	-	Bivalvia	Protobranchia	Nuculanida	-	-	Nuculanida indet.	-	-	-	-	-	-	Y	-	-	-	-	-
Mollusca	-	Bivalvia	Protobranchia	Nuculanida	Nuculanidae	-	Nuculanidae indet.	-	-	-	-	-	-	-	-	-	-	X	-
Mollusca	-	Bivalvia	Protobranchia	Nuculanida	-	-	Nuculanoidea indet.	-	-	-	-	Y	X	-	X	Y	X	X	-
Arthropoda	Chelicerata	Pycnogonida	-	Pantopoda	Nymphonidae	-	<i>Nymphon hirtipes</i>	-	-	-	-	-	-	X	X	-	-	-	-
Arthropoda	Chelicerata	Pycnogonida	-	Pantopoda	Nymphonidae	-	<i>Nymphon</i> sp.	-	-	-	-	X	X	-	X	Y	X	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Oedicerotidae	-	<i>Oediceros borealis</i>	-	X	X	X	-	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Oedicerotidae	-	Oedicerotidae indet.	X	X	X	X	Y	X	Y	X	Y	X	X	X
Mollusca	-	Gastropoda	Caenogastropoda	Neogastropoda	Mangeliidae	-	<i>Oenopota</i> sp.	-	-	-	X	-	X	-	-	-	-	-	-
Mollusca	-	Gastropoda	Caenogastropoda	Neogastropoda	Mangeliidae	-	<i>Oenopota violacea</i>	-	X	X	X	-	-	-	-	-	-	-	-
Annelida	-	Clitellata	Oligochaeta	-	-	-	Oligochaete indet.	-	X	-	-	-	-	-	-	-	-	-	-
Bryozoa	-	Stenolaemata	-	Cyclostomatida	Oncousoeciidae	-	<i>Oncousoecia</i> sp.	-	-	-	-	-	-	X	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Uristidae	-	<i>Onisimus barentsi</i> Group	-	-	-	-	X	X	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Uristidae	-	<i>Onisimus brevicaudatus</i>	-	-	-	-	-	X	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Uristidae	-	<i>Onisimus litoralis</i>	-	-	X	-	-	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Uristidae	-	<i>Onisimus normani</i>	-	-	X	-	-	-	-	-	-	-	-	-

Phylum	Subphylum	Class	Subclass	Order	Family	Subfamily	Taxa	2010	2013	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Uristidae	-	<i>Onisimus plautus</i>	-	-	-	X	-	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Uristidae	-	<i>Onisimus</i> sp.	X	-	-	-	Y	X	Y	Y	-	X	X	-
Annelida	-	Polychaeta	Sedentaria	-	Opheliidae	Opheliinae	<i>Ophelia limacina</i>	X	X	X	X	X	-	X	-	-	-	X	X
Annelida	-	Polychaeta	Sedentaria	-	Opheliidae	Opheliinae	<i>Ophelia</i> sp.	-	-	-	-	-	-	-	-	Y	X	-	-
Annelida	-	Polychaeta	Sedentaria	-	Opheliidae	-	Opheliidae indet.	X	-	-	-	-	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	-	Opheliidae	Ophelininae	<i>Ophelina acuminata</i>	X	-	X	X	X	X	X	X	-	-	X	-
Annelida	-	Polychaeta	Sedentaria	-	Opheliidae	Ophelininae	<i>Ophelina cylindricaudata</i>	-	-	-	-	-	X	X	X	-	X	X	-
Annelida	-	Polychaeta	Sedentaria	-	Opheliidae	Ophelininae	<i>Ophelina</i> sp.	-	-	-	-	Y	X	Y	Y	Y	-	-	-
Echinodermata	Asterozoa	Ophiuroidea	Myophiuroidea	Ophiurida	Ophiuridae	Ophiurinae	<i>Ophiecten affinis</i>	-	-	-	-	-	X	X	X	X	X	-	X
Echinodermata	Asterozoa	Ophiuroidea	Myophiuroidea	Ophiurida	Ophiuridae	Ophiurinae	<i>Ophiocten sericeum</i>	X	X	-	-	-	-	-	-	-	-	X	-
Echinodermata	Asterozoa	Ophiuroidea	Myophiuroidea	Ophiurida	Ophiuridae	-	<i>Ophiopleura borealis</i>	-	-	-	-	-	-	X	X	-	-	X	-
Echinodermata	Asterozoa	Ophiuroidea	Myophiuroidea	Ophiurida	Ophiuridae	Ophiurinae	<i>Ophiura robusta</i>	X	-	X	X	X	X	X	X	X	X	X	X
Echinodermata	Asterozoa	Ophiuroidea	Myophiuroidea	Ophiurida	Ophiuridae	Ophiurinae	<i>Ophiura sarsii</i>	X	X	X	X	X	X	X	X	X	X	X	X
Echinodermata	Asterozoa	Ophiuroidea	Myophiuroidea	Ophiurida	Ophiuridae	Ophiurinae	<i>Ophiura</i> sp.	-	-	X	-	Y	-	Y	Y	Y	X	X	X
Echinodermata	Asterozoa	Ophiuroidea	Myophiuroidea	Ophiurida	Ophiuridae	-	Ophiuridae indet.	-	-	-	-	-	-	Y	Y	Y	X	-	-
Echinodermata	Asterozoa	Ophiuroidea	-	-	-	-	Ophiuroidea indet.	-	-	X	-	-	-	Y	Y	Y	X	X	-
Annelida	-	Polychaeta	Errantia	Eunicida	Dorvilleidae	-	<i>Ophryotrocha</i> sp.	-	-	-	-	-	-	-	X	-	X	X	X
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Opisidae	-	<i>Opisa eschrichti</i>	-	-	-	X	-	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Opisidae	-	<i>Opisa</i> sp.	-	-	-	-	-	-	-	-	Y	-	-	-
Annelida	-	Polychaeta	Sedentaria	-	Orbiniidae	-	Orbiniidae indet.	-	-	-	-	Y	X	Y	X	-	X	X	X
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Tryphosidae	-	<i>Orchomene macroserratus</i>	X	-	-	-	-	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Tryphosidae	-	<i>Orchomene</i> sp.	-	-	-	-	X	X	Y	Y	Y	X	X	X
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Tryphosidae	-	<i>Orchomenella minuta</i>	-	X	-	X	-	X	X	X	X	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Tryphosidae	-	<i>Orchomenella pinguis</i>	-	-	-	X	X	X	-	X	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Tryphosidae	-	<i>Orchomenella</i> sp.	-	X	-	X	-	-	Y	Y	-	-	-	-
Arthropoda	Crustacea	Hexapoda	Insecta	Diptera	Chironomidae	Orthocladiinae	Orthocladiinae indet.	X	-	-	-	X	X	-	X	-	-	X	-
Arthropoda	Crustacea	Ostracoda	-	-	-	-	Ostracoda indet.	-	-	-	-	Y	-	-	Y	-	-	X	X
Annelida	-	Polychaeta	Polychaeta incertae sedis	-	Oweniidae	-	<i>Owenia fusiformis</i>	X	X	X	X	X	X	X	X	X	X	X	X
Annelida	-	Polychaeta	Polychaeta incertae sedis	-	Oweniidae	-	<i>Owenia</i> sp.	-	-	-	-	-	-	-	-	-	-	X	-
Annelida	-	Polychaeta	Polychaeta incertae sedis	-	Oweniidae	-	Oweniidae indet.	-	-	X	X	-	X	Y	-	Y	X	-	-
Nemertea	-	Palaeonemertea	-	-	-	-	Palaeonemertea indet.*	-	-	-	-	-	-	-	-	-	X	-	-
Annelida	-	Polychaeta	Sedentaria	Sabellida	Sabellidae	Sabellinae	<i>Paradialychone harrisae</i>	-	-	-	-	X	-	-	-	-	-	-	-
Arthropoda	Crustacea	Hexapoda	Insecta	Diptera	Chironomidae	Orthocladiinae	<i>Parakiefferiella</i> sp. A	-	-	-	-	-	-	-	-	-	-	X	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Terebellidae	Terebellinae	<i>Paramphitrite birulai</i>	-	-	-	-	-	-	-	X	X	-	X	X
Annelida	-	Polychaeta	Sedentaria	-	Paraonidae	-	Paraonidae indet.	-	X	X	X	Y	X	Y	Y	-	X	-	-
Annelida	-	Polychaeta	Sedentaria	-	Paraonidae	-	<i>Paraonides</i> sp.	-	-	-	-	-	-	-	X	-	-	X	-
Annelida	-	Polychaeta	Sedentaria	-	Paraonidae	-	<i>Paraonis</i> sp.	X	-	-	-	-	-	-	-	-	-	-	-
Arthropoda	Crustacea	Hexapoda	Insecta	Diptera	Chironomidae	Chironominae	<i>Paratanytarsus</i> sp.	-	-	-	-	-	-	-	-	-	-	X	-
Cnidaria	-	Anthozoa	Hexacorallia	Zoantharia	Parazoanthidae	-	<i>Parazoanthus</i> sp.	-	-	-	-	X	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Syllidae	Exogoninae	<i>Parexogone hebes</i>	-	X	-	-	-	X	X	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Oedicerotidae	-	<i>Paroediceros lynceus</i>	X	X	X	X	X	X	X	X	X	X	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Oedicerotidae	-	<i>Paroediceros</i> sp.	-	X	-	-	-	-	-	Y	-	-	X	-
Annelida	-	Polychaeta	Errantia	Eunicida	Dorvilleidae	-	<i>Parougia caeca</i>	-	-	-	-	-	X	X	X	-	X	X	-
Mollusca	-	Gastropoda	Patellogastropoda	-	-	-	Patellogastropoda indet.	-	-	X	X	-	Y	-	-	X	Y	X	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Pectinariidae	-	<i>Pectinaria</i> sp.	X	X	-	-	-	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Pectinariidae	-	Pectinariidae indet.	-	-	-	-	-	-	-	-	-	-	X	-
Mollusca	-	Bivalvia	Autobranchia	Pectinida	Pectinidae	-	Pectinidae indet.	-	-	-	-	Y	X	-	X	-	-	-	-
Mollusca	-	Bivalvia	Autobranchia	Pectinida	-	-	Pectinoidea indet.	-	-	-	-	Y	-	-	-	Y	X	X	-
Arthropoda	Crustacea	Hexapoda	Insecta	Diptera	Chironomidae	Tanypodinae	Pentaneurini indet.	-	-	-	-	-	-	-	-	-	-	X	-
Mollusca	-	Bivalvia	Autobranchia	-	Periplomatidae	-	<i>Periploma aleuticum</i>	X	-	-	-	X	X	X	X	X	X	X	-
Annelida	-	Polychaeta	Sedentaria	-	Maldanidae	Nicomachinae	<i>Petaloproctus</i> sp.	-	-	-	-	-	-	Y	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	-	Maldanidae	Nicomachinae	<i>Petaloproctus tenuis</i>	-	-	-	-	-	-	X	X	-	X	X	-
Mollusca	-	Gastropoda	Heterobranchia	Cephalaspidea	Philinidae	Philininae	Philininae indet.	-	-	-	-	-	-	X	X	-	X	X	-
Arthropoda	Crustacea	Ostracoda	Myodocopa	Myodocopida	Philomedidae	Philomedinae	<i>Philomedes</i> sp.	-	-	-	-	X	X	X	X	X	X	X	X
Annelida	-	Polychaeta	Errantia	Phyllodocida	Pholoidae	-	<i>Pholoe longa</i>	X	X	-	-	-	-	X	X	X	X	X	X

Phylum	Subphylum	Class	Subclass	Order	Family	Subfamily	Taxa	2010	2013	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Annelida	-	Polychaeta	Errantia	Phyllodocida	Pholoidae	-	<i>Pholoe minuta</i>	-	-	X	X	X	X	X	X	X	X	X	X
Annelida	-	Polychaeta	Errantia	Phyllodocida	Pholoidae	-	<i>Pholoe</i> sp.	X	X	X	X	Y	X	Y	Y	Y	X	X	X
Annelida	-	Polychaeta	Errantia	Phyllodocida	Pholoidae	-	<i>Pholoe tecta</i>	X	X	X	X	X	X	X	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Phoxocephalidae	-	Phoxocephalidae indet.*	-	-	-	-	-	-	-	-	-	X	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Phoxocephalidae	Phoxocephalinae	<i>Phoxocephalus holbolli</i>	-	-	-	X	-	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Phyllodocidae	Phyllodocinae	<i>Phyllodoce groenlandica</i>	X	-	X	X	X	X	X	X	X	-	X	X
Annelida	-	Polychaeta	Errantia	Phyllodocida	Phyllodocidae	Phyllodocinae	<i>Phyllodoce mucosa</i>	-	-	X	X	X	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Phyllodocidae	Phyllodocinae	<i>Phyllodoce</i> sp.	-	-	-	-	Y	X	Y	-	Y	X	X	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Phyllodocidae	-	Phyllodocidae indet.	-	-	X	X	Y	-	-	-	Y	-	X	-
Annelida	-	Polychaeta	Sedentaria	Sabellida	Serpulidae	Spirorbinae	<i>Pileolaria</i> sp.	-	-	-	-	X	X	-	-	X	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Syllidae	Eusyllinae	<i>Pionosyllis compacta</i>	-	-	-	-	-	-	X	X	-	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Syllidae	Eusyllinae	<i>Pionosyllis</i> sp.	-	-	-	-	-	X	-	Y	Y	-	X	-
Chordata	Vertebrata	-	-	-	-	-	Pisces indet.	-	-	-	-	X	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Terebellidae	Terebellinae	<i>Pista cristata</i>	-	-	-	X	-	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Terebellidae	Terebellinae	<i>Pista maculata</i>	X	X	X	X	X	X	X	X	X	X	X	X
Platyhelminthes	-	-	-	-	-	-	Platyhelminthes indet.	-	-	-	-	X	X	-	-	-	-	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Isopoda	Paramunnidae	-	<i>Pleurogonium rubicundum</i>	-	-	-	-	X	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Isopoda	Paramunnidae	-	<i>Pleurogonium</i> sp.	-	-	-	-	Y	-	-	-	-	X	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Isopoda	Paramunnidae	-	<i>Pleurogonium spinosissimum</i>	X	-	-	-	X	X	-	-	X	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Podoceridae	-	Podoceridae indet.	-	-	-	-	-	-	-	X	-	-	X	-
Arthropoda	Crustacea	Ostracoda	Podocopa	Podocopida	-	-	Podocopida indet.	-	-	-	-	-	-	-	-	-	-	X	-
Chordata	Tunicata	Ascidacea	-	Stolidobranchia	Styelidae	-	<i>Polycarpa fibrosa</i>	-	-	-	-	X	X	-	X	-	X	X	-
Chordata	Tunicata	Ascidacea	-	Stolidobranchia	Styelidae	-	<i>Polycarpa</i> sp.	-	-	-	-	-	-	Y	Y	Y	X	-	-
Annelida	-	Polychaeta	-	-	-	-	Polychaeta indet.	-	X	X	X	Y	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Terebellidae	Terebellinae	<i>Polycirrus medusa</i>	-	-	-	-	-	-	X	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Terebellidae	Terebellinae	<i>Polycirrus</i> sp. complex	X	X	-	X	X	X	Y	Y	X	X	X	X
Annelida	-	Polychaeta	Sedentaria	Spionida	Spionidae	-	<i>Polydora</i> sp. complex	X	X	-	-	X	X	-	-	-	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Polynoidae	-	Polynoidae indet.	X	X	X	X	Y	X	-	X	-	-	X	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Polynoidae	Polynoinae	Polynoinae indet.	-	-	-	-	Y	-	Y	Y	Y	X	X	-
Annelida	-	Polychaeta	Sedentaria	-	Scalibregmatidae	-	<i>Polyphysia baffinensis</i>	X	-	-	-	-	-	-	X	X	-	X	-
Annelida	-	Polychaeta	Sedentaria	-	Scalibregmatidae	-	<i>Polyphysia crassa</i>	-	-	-	-	X	X	-	X	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	-	Scalibregmatidae	-	<i>Polyphysia</i> sp.	-	-	-	-	-	-	Y	-	-	-	-	-
Mollusca	-	Polyplacophora	-	-	-	-	Polyplacophora indet.	-	-	-	-	Y	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Pontoporeiidae	-	<i>Pontoporeia femorata</i>	X	X	X	X	X	X	X	X	X	X	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Pontoporeiidae	-	Pontoporeiidae indet.	-	-	-	-	Y	-	-	-	-	-	-	-
Mollusca	-	Bivalvia	Protobranchia	Nuculanida	Yoldiidae	-	<i>Portlandia arctica</i>	X	X	X	X	X	-	X	X	-	X	-	-
Annelida	-	Polychaeta	Sedentaria	Sabellida	Sabellidae	Sabellinae	<i>Potamilla neglecta</i>	-	-	X	X	-	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	-	Maldanidae	Euclymeninae	<i>Praxillella gracilis</i>	-	-	-	-	-	X	X	X	X	X	X	-
Annelida	-	Polychaeta	Sedentaria	-	Maldanidae	Euclymeninae	<i>Praxillella praetermissa</i>	-	-	-	-	X	X	X	X	-	-	X	-
Annelida	-	Polychaeta	Sedentaria	-	Maldanidae	Euclymeninae	<i>Praxillella</i> sp.	-	-	-	X	Y	-	-	-	-	-	X	-
Annelida	-	Polychaeta	Sedentaria	-	Maldanidae	Lumbriclymeninae	<i>Praxillura</i> sp.	-	-	-	-	-	-	-	-	-	-	X	-
Priapulida	-	-	-	-	-	-	Priapulida indet.	-	X	-	-	-	-	Y	Y	Y	X	X	-
Priapulida	-	-	-	Prapulomorpha	Priapulidae	-	<i>Priapulus caudatus</i>	X	-	X	X	X	X	-	X	-	X	X	X
Priapulida	-	-	-	Prapulomorpha	Priapulidae	-	<i>Priapulus</i> sp.	-	-	-	-	Y	X	Y	Y	Y	X	-	-
Annelida	-	Polychaeta	Sedentaria	Spionida	Spionidae	-	<i>Prionospio (Prionospio)</i> sp.	-	-	-	-	-	-	-	Y	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Spionida	Spionidae	-	<i>Prionospio cirrifera</i>	-	-	-	-	X	X	-	X	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Spionida	Spionidae	-	<i>Prionospio</i> sp.	-	-	-	-	Y	X	Y	Y	Y	X	X	X
Annelida	-	Polychaeta	Sedentaria	Spionida	Spionidae	-	<i>Prionospio steenstrupi</i>	-	X	X	X	X	X	X	-	-	-	X	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Terebellidae	Terebellinae	<i>Proclea graffii</i>	-	-	-	-	-	X	-	-	-	-	X	-
Mollusca	-	Bivalvia	Protobranchia	Nuculida	Nuculidae	-	<i>Pronucula tenuis</i>	-	X	X	X	-	-	-	-	-	-	-	-
Mollusca	-	Bivalvia	Autobranchia	Pectinida	Propeamussiidae	-	Propeamussiidae indet.	-	-	-	-	Y	X	Y	Y	Y	-	-	-
Mollusca	-	Gastropoda	Caenogastropoda	Neogastropoda	Mangeliidae	-	<i>Propebela</i> sp.	-	-	-	-	X	-	-	-	-	-	-	-
Mollusca	-	Gastropoda	Caenogastropoda	Neogastropoda	Mangeliidae	-	<i>Propepela nobilis</i>	-	-	-	X	-	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Polychaeta incertae sedis	-	Protodrilidae	-	<i>Protodrilus</i> sp.	-	-	-	-	-	X	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Corophiidae	Protomedeiinae	<i>Protomeдея fasciata</i>	-	X	-	X	-	-	-	-	-	-	-	-

Phylum	Subphylum	Class	Subclass	Order	Family	Subfamily	Taxa	2010	2013	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Corophiidae	Protomedeiinae	<i>Protomeдея</i> sp.	-	-	-	-	X	-	-	X	-	-	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Corophiidae	Protomedeiinae	Protomedeiinae indet.	-	-	-	-	-	-	-	-	-	-	X	-
Annelida	-	Polychaeta	Sedentaria	Sabellida	Fabriciidae	-	<i>Pseudofabricia</i> sp.	-	-	-	-	-	-	-	-	-	X	-	-
Annelida	-	Polychaeta	Sedentaria	Sabellida	Fabriciidae	-	<i>Pseudofabricia</i> sp. nr. <i>aberrans</i>	-	-	-	-	-	-	X	X	X	-	X	X
Bryozoa	-	Gymnolaemata	-	Cheilostomatida	Smittinidae	-	<i>Pseudoflustra</i> sp.	-	-	-	-	-	-	-	-	X	-	-	-
Arthropoda	Crustacea	Hexapoda	Insecta	Diptera	Chironomidae	Diamesinae	<i>Pseudokiefferiella</i> sp.	-	-	-	-	-	-	-	-	-	-	X	-
Annelida	-	Polychaeta	Sedentaria	Sabellida	Sabellidae	Sabellinae	<i>Pseudopotamilla reniformis</i>	-	-	-	X	-	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Tanaidacea	Sphyrapodidae	Pseudosphyrapodinae	<i>Pseudosphyrapus anomalus</i>	X	-	-	X	X	X	X	X	X	X	X	X
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Tanaidacea	Sphyrapodidae	Pseudosphyrapodinae	<i>Pseudosphyrapus</i> sp.	-	-	-	-	-	-	-	-	-	-	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Tanaidacea	Pseudotanaididae	Pseudotanaidinae	<i>Pseudotanais</i> sp.	-	-	-	-	X	X	Y	Y	X	X	X	X
Echinodermata	Echinozoa	Holothuroidea	Actinopoda	Dendrochirotida	Psolidae	-	<i>Psolus phantapus</i>	-	-	-	-	X	X	-	-	-	X	-	-
Echinodermata	Echinozoa	Holothuroidea	Actinopoda	Dendrochirotida	Psolidae	-	<i>Psolus</i> sp.	-	-	-	-	-	-	Y	-	-	-	-	-
Arthropoda	Chelicerata	Pycnogonida	-	-	-	-	Pycnogonida indet.	X	-	X	-	X	-	-	-	-	-	X	X
Annelida	-	Polychaeta	Sedentaria	Spionida	Spionidae	-	<i>Pygospio elegans</i>	-	-	-	-	-	-	X	X	X	X	X	X
Annelida	-	Polychaeta	Sedentaria	Spionida	Spionidae	-	<i>Pygospio</i> sp.	-	X	-	-	X	X	-	-	-	-	-	-
Mollusca	-	Gastropoda	Heterobranchia	Cephalaspidea	Retusidae	-	<i>Retusa obtusa</i>	-	X	-	-	-	-	-	-	-	-	-	-
Mollusca	-	Gastropoda	Heterobranchia	Cephalaspidea	Retusidae	-	<i>Retusa</i> sp.	-	-	-	-	-	-	-	Y	-	-	X	-
Mollusca	-	Gastropoda	Heterobranchia	Cephalaspidea	Retusidae	-	Retusidae indet.	-	X	-	-	-	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Eusiridae	-	<i>Rhachotropis aculeata</i>	X	-	-	-	-	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Eusiridae	-	<i>Rhachotropis helleri</i>	-	-	-	-	X	X	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Eusiridae	-	<i>Rhachotropis oculata</i>	-	X	-	-	-	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Eusiridae	-	<i>Rhachotropis</i> sp.	-	-	-	-	Y	-	-	-	-	-	-	-
Arthropoda	Crustacea	Hexapoda	Insecta	Diptera	Chironomidae	Chironominae	<i>Rheotanytarsus</i> sp.	-	-	-	-	-	-	-	-	-	-	X	-
Annelida	-	Polychaeta	Sedentaria	-	Maldanidae	Rhodinae	<i>Rhodine bitorquata</i>	-	-	-	-	-	X	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	-	Maldanidae	Rhodinae	<i>Rhodine gracilior</i>	-	-	-	-	-	X	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	-	Maldanidae	Rhodinae	<i>Rhodine loveni</i>	-	-	-	-	X	-	X	X	-	X	-	-
Annelida	-	Polychaeta	Sedentaria	-	Maldanidae	Rhodinae	<i>Rhodine</i> sp. *	-	-	-	-	-	-	-	-	-	X	-	-
Mollusca	-	Gastropoda	Caenogastropoda	Littorinimorpha	Rissoiidae	-	Rissoiidae indet.	-	-	-	-	X	X	Y	Y	Y	X	X	-
Arthropoda	Crustacea	Ostracoda	Podocopa	Podocopida	Trachylenerididae	-	<i>Robertsonites tuberculatus</i>	-	-	-	-	X	-	-	-	-	-	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Oedicerotidae	-	<i>Rostriculodes borealis</i>	-	-	X	-	X	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Oedicerotidae	-	<i>Rostriculodes kroyeri</i>	-	-	X	X	-	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Oedicerotidae	-	<i>Rostriculodes longirostris</i>	-	-	-	-	X	-	-	-	X	X	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Oedicerotidae	-	<i>Rostriculodes</i> sp.	-	-	-	-	Y	X	Y	Y	Y	X	X	X
Annelida	-	Polychaeta	Sedentaria	Sabellida	Sabellidae	-	Sabellid sp. A	-	-	-	X	-	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Sabellida	Sabellidae	-	Sabellid sp. B	-	-	-	X	-	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Sabellida	Sabellidae	-	Sabellid sp. F	-	-	-	X	-	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Sabellida	Sabellidae	-	Sabellid sp. G	-	-	-	X	-	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Sabellida	Sabellidae	-	Sabellidae indet.	-	X	X	X	Y	X	Y	Y	Y	X	X	X
Annelida	-	Polychaeta	Sedentaria	Sabellida	Sabellidae	-	Sabellidae sp. 3	-	-	-	-	-	-	Y	Y	X	X	X	-
Annelida	-	Polychaeta	Sedentaria	Sabellida	Sabellidae	-	Sabellidae sp. 4	-	-	-	-	-	-	Y	Y	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Sabellida	Sabellidae	-	Sabellidae sp. H	-	-	-	-	X	X	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Sabellida	Sabellidae	-	Sabellidae sp. I	-	-	-	-	X	X	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Sabellida	Sabellidae	-	Sabellidae sp. J	-	-	-	-	X	X	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Decapoda	Crangonidae	-	<i>Sabinea septemcarinata</i>	X	-	X	-	X	X	X	X	X	-	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Decapoda	Crangonidae	-	<i>Sabinea</i> sp.	-	-	-	-	-	-	-	-	Y	-	-	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Ampharetidae	Ampharetinae	<i>Samytha</i> sp.	-	-	-	X	-	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	-	Scalibregmatidae	-	<i>Scalibregma inflatum</i>	X	X	X	X	X	X	X	X	X	X	X	X
Annelida	-	Polychaeta	Sedentaria	-	Scalibregmatidae	-	Scalibregmatidae indet.	-	-	-	-	Y	-	-	-	-	-	X	-
Bryozoa	-	Gymnolaemata	-	Cheilostomatida	Bitectiporidae	-	<i>Schizomavella</i> sp.	-	-	-	-	-	-	-	-	X	-	-	-
Bryozoa	-	Gymnolaemata	-	Cheilostomatida	-	-	Schizoporelloidea indet.	-	-	-	-	-	-	-	-	X	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Decapoda	Crangonidae	-	<i>Sclerocrangon boreas</i>	-	-	-	X	X	X	-	-	-	X	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Decapoda	Crangonidae	-	<i>Sclerocrangon</i> sp.	-	-	-	-	-	-	-	Y	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Spionida	Spionidae	-	<i>Scoletopsis</i> sp.	-	-	-	-	-	X	-	X	X	X	-	-
Annelida	-	Polychaeta	Errantia	Eunicida	Lumbrineridae	-	<i>Scoletoma fragilis</i>	X	-	X	X	X	X	X	X	X	X	X	X
Annelida	-	Polychaeta	Errantia	Eunicida	Lumbrineridae	-	<i>Scoletoma laurentiana</i>	-	-	-	X	X	X	X	X	X	X	X	X

Phylum	Subphylum	Class	Subclass	Order	Family	Subfamily	Taxa	2010	2013	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Annelida	-	Polychaeta	Errantia	Eunicida	Lumbrineridae	-	<i>Scoletoma</i> sp.	-	-	-	-	-	X	Y	Y	Y	X	X	X
Annelida	-	Polychaeta	Errantia	Eunicida	Lumbrineridae	-	<i>Scoletoma tenuis</i>	-	X	-	X	-	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	-	Orbiniidae	Orbiniinae	<i>Scoloplos armiger</i>	X	-	-	-	X	X	X	X	X	X	X	X
Annelida	-	Polychaeta	Sedentaria	-	Orbiniidae	Orbiniinae	<i>Scoloplos</i> sp.	-	X	X	-	Y	X	Y	Y	Y	X	X	X
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Scopelocheiridae	Scopelocheirinae	<i>Scopelocheirus hopei</i>	-	-	-	X	-	-	-	-	-	-	-	-
Bryozoa	-	Gymnolaemata	-	Cheilostomatida	Candidae	-	<i>Scrupocellaria</i> sp.	-	-	-	-	-	X	-	-	-	-	-	-
Arthropoda	Crustacea	Hexanauplia	Thecostraca	Sessilia	Archaeobalanidae	Semibalabinae	<i>Semibalanus balanoides</i>	X	-	-	-	-	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Sabellida	Serpulidae	-	Serpulidae indet.	X	X	X	X	-	-	Y	-	-	-	X	-
Mollusca	-	Bivalvia	Autobranchia	Cardiida	Cardiidae	Clinocardiinae	<i>Serripes groenlandicus</i>	-	X	X	X	X	X	X	X	X	X	X	X
Mollusca	-	Bivalvia	Autobranchia	Cardiida	Cardiidae	Clinocardiinae	<i>Serripes</i> sp.	-	X	-	-	-	-	-	-	-	-	-	-
Mollusca	-	Bivalvia	Autobranchia	Pectinida	Propeamussiidae	-	<i>Similipecten greenlandicus</i>	X	-	X	X	X	X	X	X	X	X	-	X
Mollusca	-	Scaphopoda	-	Gadilida	Gadiliidae	-	<i>Siphonodentalium lobatum</i>	-	-	-	-	-	-	X	X	X	X	-	-
Arthropoda	Crustacea	Copepoda	-	Siphonostomatoida	-	-	Siphonostomatoida indet.	-	-	-	-	-	-	-	-	-	-	X	-
Sipuncula	-	-	-	-	-	-	Sipuncula indet.	-	-	X	X	-	-	-	-	-	-	-	-
Mollusca	-	Gastropoda	Caenogastropoda	Littorinimorpha	Skeneopsidae	-	<i>Skeneopsis planorbis</i>	-	X	-	-	-	-	-	-	-	-	-	-
Bryozoa	-	Gymnolaemata	-	Cheilostomatida	Smittinidae	-	<i>Smittina</i> sp.	-	-	-	-	-	-	-	-	X	-	-	-
Echinodermata	Asterozoa	Asteroidea	Ambuloasteroidea	Valvatida	Solasteridae	-	Solasteridae indet.	-	-	-	-	-	-	-	-	-	-	X	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Ampharetidae	Ampharetinae	<i>Sosane wireni</i>	-	-	-	-	-	-	X	X	-	-	X	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Sphaerodoridae	-	Sphaerodoridae indet.	-	-	-	-	-	-	-	-	-	-	X	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Sphaerodoridae	-	<i>Sphaerodoridium minutum</i>	-	-	-	-	-	-	-	-	-	-	X	X
Annelida	-	Polychaeta	Errantia	Phyllodocida	Sphaerodoridae	-	<i>Sphaerodoropsis biserialis</i>	-	-	-	-	-	-	X	X	X	X	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Sphaerodoridae	-	<i>Sphaerodoropsis minuta</i>	X	-	-	-	X	X	-	X	X	X	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Sphaerodoridae	-	<i>Sphaerodoropsis minutum</i>	-	-	-	-	-	-	X	-	-	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Sphaerodoridae	-	<i>Sphaerodorum gracilis</i>	-	-	-	-	-	-	-	-	-	-	X	-
Annelida	-	Polychaeta	Sedentaria	Spionida	Spionidae	-	<i>Spio filicornis</i>	X	X	X	X	X	X	X	X	X	-	-	-
Annelida	-	Polychaeta	Sedentaria	Spionida	Spionidae	-	<i>Spio</i> sp.	-	-	-	-	-	-	-	Y	Y	X	X	X
Annelida	-	Polychaeta	Sedentaria	Spionida	Spionidae	-	Spionidae indet.	X	X	X	X	Y	X	Y	Y	Y	X	X	X
Annelida	-	Polychaeta	Sedentaria	Sabellida	Serpulidae	Spirorbinae	Spirorbinae indet.	-	-	-	-	X	X	-	X	-	-	X	-
Bryozoa	-	Stenolaemata	-	-	-	-	Stenolaemata indet.	-	-	-	-	-	-	Y	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Stenothoidae	-	Stenothoidae indet.	X	-	-	X	Y	X	X	X	Y	-	X	X
Arthropoda	Crustacea	Hexapoda	Insecta	Diptera	Chironomidae	Chironominae	<i>Stictochironomus</i> sp.	-	-	-	-	-	-	-	-	-	-	X	-
Chordata	Tunicata	Ascidacea	-	Stolidobranchia	-	-	Stolidobranchia indet.	-	-	-	-	-	-	-	Y	-	-	X	-
Bryozoa	-	Gymnolaemata	-	Cheilostomatida	Fatkullinidae	-	<i>Stomacrustula pachystega</i>	-	-	-	-	-	-	-	-	X	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Syllidae	Anoplosyllinae	<i>Streptospinigera niuqtuut</i>	-	-	-	-	-	X	X	X	-	X	X	X
Echinodermata	Echinozoa	Echinoidea	Euechinoidea	Camarodonta	Strongylocentrotidae	-	<i>Strongylocentrotus droebachiensis</i>	X	-	X	X	X	X	X	X	X	X	X	X
Echinodermata	Echinozoa	Echinoidea	Euechinoidea	Camarodonta	Strongylocentrotidae	-	<i>Strongylocentrotus pallidus</i>	-	-	-	-	-	-	-	X	-	-	-	-
Echinodermata	Echinozoa	Echinoidea	Euechinoidea	Camarodonta	Strongylocentrotidae	-	<i>Strongylocentrotus</i> sp.	-	X	-	-	Y	X	Y	Y	Y	X	X	-
Chordata	Tunicata	Ascidacea	-	Stolidobranchia	Styelidae	-	Styelidae indet.	-	-	-	-	-	-	Y	-	-	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Syllidae	-	Syllidae indet.	X	X	X	X	Y	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Errantia	Phyllodocida	Syllidae	Anoplosyllinae	<i>Syllides</i> sp.	-	-	-	-	X	X	-	X	-	-	-	-
Bryozoa	-	Gymnolaemata	-	Cheilostomatida	Epistomiidae	-	<i>Synnotum</i> sp.	-	-	-	-	X	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Tanaidacea	-	-	Tanaidacea indet.	X	X	X	X	Y	X	Y	Y	-	X	X	X
Annelida	-	Polychaeta	Sedentaria	Terebellida	Terebellidae	-	Terebellidae indet.	-	X	X	X	Y	X	Y	Y	Y	X	X	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Trichobranchidae	-	<i>Terebellides reishi</i>	-	-	-	-	X	-	-	-	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Trichobranchidae	-	<i>Terebellides</i> sp.	-	-	-	-	Y	X	Y	Y	Y	X	X	X
Annelida	-	Polychaeta	Sedentaria	Terebellida	Trichobranchidae	-	<i>Terebellides stroemii</i>	X	X	X	X	X	-	X	-	-	-	-	-
Mollusca	-	Gastropoda	Patellogastropoda	-	Lottiidae	-	<i>Testudinalia testudinalis</i>	X	X	X	-	-	X	-	-	-	-	-	-
Nemertea	-	Hoplonemertea	-	Monostilifera	Tetrastemmatidae	-	<i>Tetrastemma</i> sp.	-	-	-	-	X	-	X	-	-	-	-	-
Nemertea	-	Hoplonemertea	-	Monostilifera	Tetrastemmatidae	-	Tetrastemmatidae indet.	-	-	-	-	-	-	-	Y	-	-	X	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Cirratulidae	-	<i>Tharyx</i> sp.	-	-	-	-	X	X	X	X	-	X	X	X
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Hyperiididae	-	<i>Themisto libellula</i> *	-	-	-	-	-	-	-	X	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Hyperiididae	-	<i>Themisto</i> sp.	-	-	-	X	-	-	-	-	-	-	-	-
Arthropoda	Crustacea	Hexapoda	Insecta	Diptera	Chironomidae	Tanypodinae	<i>Thienemannimyia</i> group sp.	-	-	-	-	-	-	-	-	-	-	X	-
Mollusca	-	Bivalvia	Autobranchia	-	Thraciidae	-	<i>Thracia myopsis</i>	-	-	X	X	X	X	X	X	X	X	X	-
Mollusca	-	Bivalvia	Autobranchia	-	Thraciidae	-	<i>Thracia</i> sp.	-	-	-	-	Y	X	Y	-	Y	X	X	-

Phylum	Subphylum	Class	Subclass	Order	Family	Subfamily	Taxa	2010	2013	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Mollusca	-	Bivalvia	Autobranchia	-	Thraciidae	-	Thraciidae indet.	-	-	-	-	-	-	-	-	-	-	X	-
Mollusca	-	Bivalvia	Autobranchia	Lucinida	Thyasiridae	-	<i>Thyasira flexuosa</i>	-	X	X	X	-	-	-	-	-	-	-	-
Mollusca	-	Bivalvia	Autobranchia	Lucinida	Thyasiridae	-	<i>Thyasira gouldi</i>	X	-	-	-	-	-	-	-	-	-	-	-
Mollusca	-	Bivalvia	Autobranchia	Lucinida	Thyasiridae	-	<i>Thyasira</i> sp.	-	-	-	-	X	X	Y	Y	Y	X	X	-
Mollusca	-	Bivalvia	Autobranchia	Lucinida	Thyasiridae	-	Thyasiridae indet.	-	-	-	-	Y	X	Y	Y	Y	X	X	X
Arthropoda	Crustacea	Hexapoda	Insecta	Diptera	Tipulidae	Tipulinae	<i>Tipula (Arctotipula)</i> sp.	-	-	-	-	-	-	-	-	-	-	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Synopiidae	-	<i>Tiron spiniferus</i>	-	-	-	-	-	-	-	X	-	-	-	-
Mollusca	-	Polyplacophora	Neoloricata	Chitonida	Tonicellidae	Tonicellinae	<i>Tonicella marmorea</i>	X	-	X	X	X	X	X	X	X	X	-	-
Bryozoa	-	Gymnolaemata	-	Cheilostomatida	Candidae	-	<i>Tricellaria</i> sp.	-	-	-	-	-	-	-	-	X	-	-	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Trichobanchidae	-	Trichobanchidae indet.	X	-	-	-	-	-	-	Y	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Trichobanchidae	-	<i>Trichobanchus glacialis</i>	X	-	-	-	X	X	X	X	-	-	-	-
Annelida	-	Polychaeta	Sedentaria	Terebellida	Trichobanchidae	-	<i>Trichobanchus</i> sp.	-	-	-	-	-	-	-	-	-	-	X	-
Bryozoa	-	Gymnolaemata	-	Ctenostomatida	Triticellidae	-	<i>Triticella</i> sp.	-	-	-	-	-	X	-	-	-	-	-	-
Mollusca	-	Gastropoda	Vetigastropoda	Trochida	Trochidae	-	Trochidae indet.	X	-	-	-	X	X	-	-	-	-	X	-
Annelida	-	Polychaeta	Sedentaria	Spionida	Trochochaetidae	-	<i>Trochochaeta watsoni</i>	-	-	-	-	X	-	-	-	-	-	-	-
Mollusca	-	Gastropoda	Vetigastropoda	Trochida	-	-	Trochoidea indet.	-	-	-	-	-	-	-	-	-	-	X	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Tryphosidae	-	Tryphosidae indet.	-	-	-	-	-	-	Y	Y	-	X	X	-
Nemertea	-	Palaeonemertea	-	Tubulaniformes	Tubulanidae	-	<i>Tubulanus</i> sp.	-	-	-	-	-	X	X	X	-	-	-	-
Bryozoa	-	Stenolaemata	-	Cyclostomatida	Tubuliporidae	-	<i>Tubulipora</i> sp.	-	-	-	-	-	-	X	X	X	-	-	-
Chordata	Tunicata	-	-	-	-	-	Tunicata indet.	-	-	-	X	-	-	-	-	-	-	-	-
Mollusca	-	Gastropoda	Caenogastropoda	Neogastropoda	Turridae	-	Turridae indet.	X	-	-	-	X	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Tanaidacea	Typhlotanaidae	-	Typhlotanaidae indet.	-	-	-	-	-	-	-	-	-	-	X	X
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Tanaidacea	Typhlotanaidae	-	<i>Typhlotanais</i> sp.	-	-	-	-	X	X	X	X	-	-	X	X
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Uristidae	-	Uristidae indet.	-	-	-	-	Y	-	-	X	-	-	-	-
Cnidaria	-	Anthozoa	Hexacorallia	Actiniaria	Actiniidae	-	<i>Urticina</i> sp.	-	-	-	-	X	-	-	-	-	-	-	-
Mollusca	-	Gastropoda	Caenogastropoda	Littorinimorpha	Velutinidae	-	Velutinidae indet.	-	-	-	-	X	X	-	-	-	-	-	-
Mollusca	-	Gastropoda	Caenogastropoda	Neogastropoda	Buccinidae	-	<i>Volutopsius norwegicus</i>	-	-	-	-	X	X	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Oedicerotidae	-	<i>Westwoodilla caecula</i>	-	-	X	-	-	-	-	-	-	-	-	-
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Oedicerotidae	-	<i>Westwoodilla</i> sp.	-	X	-	X	X	X	-	X	Y	X	X	X
Mollusca	-	Bivalvia	Protobranchia	Nuculanida	Yoldiidae	-	<i>Yoldiella frigida</i>	-	-	-	-	-	X	X	X	X	X	X	-
Mollusca	-	Bivalvia	Protobranchia	Nuculanida	Yoldiidae	-	<i>Yoldiella intermedia</i>	-	-	-	-	-	X	X	-	X	X	-	-
Mollusca	-	Bivalvia	Protobranchia	Nuculanida	Yoldiidae	-	<i>Yoldiella lenticula</i>	X	-	-	-	-	X	-	-	-	-	X	-
Mollusca	-	Bivalvia	Protobranchia	Nuculanida	Yoldiidae	-	<i>Yoldiella nana</i>	X	-	-	-	-	-	-	-	-	-	-	-
Mollusca	-	Bivalvia	Protobranchia	Nuculanida	Yoldiidae	-	<i>Yoldiella</i> sp.	-	-	-	-	-	-	-	Y	Y	X	X	-
Mollusca	-	Bivalvia	Protobranchia	Nuculanida	Yoldiidae	-	Yoldiidae indet.	-	-	-	-	Y	X	Y	Y	Y	X	X	X
Chordata	Vertebrata	Actinopterygii	-	Perciformes	Zoarcidae	-	Zoarcidae indet.	-	-	-	-	-	-	X	-	-	-	-	-
TOTAL # Taxa (COUNT)								135	147	156	188	237	320	318	370	266	244	352	157
# New Unique Taxa each year								135	84	53	50	113	47	41	34	16	1	25	1

Notes: taxa identified to the lowest practical taxonomic level; indet.= indeterminate (taxa which could not be identified beyond the taxonomic level listed); sp.=species; cf.=compare with (taxa is an inexact match to the designated taxa).

Taxa in bold indicate new observations in MEEMP and NIS/AIS programs

All taxa cross-referenced with NIS/AIS resources: Fofonoff et al. 2018, ISSG 2025, Costello et al. 2025, Molnar et al. 2008, Casas-Monroy et al. 2014

APPENDIX 8A-2

**Benthic Infauna Laboratory
Data 2024**



Total abundance data in matrix format, including total taxa (species richness) for WSP Baffinland MEEMP Benthos, 2024.

Biologica Sample ID								mb24-033-001		mb24-033-002	mb24-033-003	mb24-033-004	mb24-033-005	mb24-033-006	mb24-033-007	mb24-033-008
Client Sample ID								SCV-1		SCV-2	SE18-1	SNW-1	SW-1	SW-2	SW-3	SW-4
Date Sampled								12-Aug-24		17-Aug-24	17-Aug-24	17-Aug-24	18-Aug-24	12-Aug-24	10-Aug-24	18-Aug-24
								Total		Total	Total	Total	Total	Total	Total	Total
								Abundance		Abundance	Abundance	Abundance	Abundance	Abundance	Abundance	Abundance
taxcode	grpcode	Phylum	Class	Order	Family	Subfamily	Taxon Name	Unique Taxa	Abundance							
ANNE	ANHI	Annelida	Clitellata				Hirudinea indet.	1	16							16
ANNE	POER	Annelida	Polychaeta	Eunicida	Dorvilleidae		Ophryotrocha sp.	1	48				16	32		
ANNE	POER	Annelida	Polychaeta	Eunicida	Lumbrineridae		Lumbrineridae indet.		16							16
ANNE	POER	Annelida	Polychaeta	Eunicida	Lumbrineridae		Scoletoma fragilis	1	16	16						
ANNE	POER	Annelida	Polychaeta	Eunicida	Lumbrineridae		Scoletoma laurentiana	1	16	16						
ANNE	POER	Annelida	Polychaeta	Eunicida	Lumbrineridae		Scoletoma sp.		97			48				49
ANNE	POER	Annelida	Polychaeta	Phyllodocida	Hesionidae		Nereimyra aphroditoides	1	995	115	432	144	96	16	144	48
ANNE	POER	Annelida	Polychaeta	Phyllodocida	Microphthalmidae		Microphthalmus sp.	1	16					16		
ANNE	POER	Annelida	Polychaeta	Phyllodocida	Nephtyidae		Micronephthys cornuta	1	272	64	32	96				80
ANNE	POER	Annelida	Polychaeta	Phyllodocida	Nephtyidae		Nephtys ciliata	1	2			1				1
ANNE	POER	Annelida	Polychaeta	Phyllodocida	Nereididae	Nereidinae	Nereis zonata	1	2	2						
ANNE	POER	Annelida	Polychaeta	Phyllodocida	Phyllodocidae	Eteoninae	Eteone sp.	1	80			16		32	32	
ANNE	POER	Annelida	Polychaeta	Phyllodocida	Phyllodocidae	Phyllodocinae	Phyllodoce groenlandica	1	33	1	16			16		
ANNE	POER	Annelida	Polychaeta	Phyllodocida	Polynoidae	Polynoinae	Bylgides promamme	1	16			16				
ANNE	POER	Annelida	Polychaeta	Phyllodocida	Polynoidae	Polynoinae	Gattyana cirrhosa	1	18	2						16
ANNE	POER	Annelida	Polychaeta	Phyllodocida	Polynoidae	Polynoinae	Harmothoe sp.	1	1	1						
ANNE	POER	Annelida	Polychaeta	Phyllodocida	Sigalionidae	Pholoinae	Pholoe longa	1	532	36	64				240	192
ANNE	POER	Annelida	Polychaeta	Phyllodocida	Sigalionidae	Pholoinae	Pholoe minuta	1	576			48			208	320
ANNE	POER	Annelida	Polychaeta	Phyllodocida	Sigalionidae	Pholoinae	Pholoe sp.		64			48			16	
ANNE	POER	Annelida	Polychaeta	Phyllodocida	Sphaerodoridae		Sphaerodordium minutum	1	16	16						
ANNE	POER	Annelida	Polychaeta	Phyllodocida	Syllidae	Anoplosyllinae	Streptospinigera niuqtut	1	16			16				
ANNE	POER	Annelida	Polychaeta	Phyllodocida	Syllidae	Exogoninae	Exogone sp.	1	32	16						16
ANNE	POSE	Annelida	Polychaeta	Sabellida	Fabriciidae		Pseudofabricia sp. nr. aberrans	1	16		16					
ANNE	POSE	Annelida	Polychaeta	Sabellida	Oweniidae		Galathowenia oculata	1	257	48	129	64				16
ANNE	POSE	Annelida	Polychaeta	Sabellida	Oweniidae		Myriochele heeri	1	48	32		16				
ANNE	POSE	Annelida	Polychaeta	Sabellida	Oweniidae		Owenia fusiformis	1	157	112	29	16				
ANNE	POSE	Annelida	Polychaeta	Sabellida	Sabellidae	Myxicolinae	Dialychone sp.	2	2	2				32		
ANNE	POSE	Annelida	Polychaeta	Sabellida	Sabellidae	Myxicolinae	Dialychone sp. 1	1	48	16	32					
ANNE	POSE	Annelida	Polychaeta	Sabellida	Sabellidae	Myxicolinae	Dialychone sp. 3	1	32							
ANNE	POSE	Annelida	Polychaeta	Sabellida	Sabellidae	Myxicolinae	Euchone incolor	1	416	32	112	16	96		48	112
ANNE	POSE	Annelida	Polychaeta	Sabellida	Sabellidae	Sabellinae	Bispira sp.	1	1							1
ANNE	POSE	Annelida	Polychaeta	Sabellida	Sabellidae		Branchiomma sp.	1	1	1						
ANNE	POSE	Annelida	Polychaeta	Sabellida	Sabellidae		Sabellidae indet.		64		16	16			32	
ANNE	POSE	Annelida	Polychaeta	Spionida	Apistobranchidae		Apistobranchus sp.	1	32			16				
ANNE	POSE	Annelida	Polychaeta	Spionida	Spionidae		Prionospio sp.	1	818	208	338	240	16	16		16
ANNE	POSE	Annelida	Polychaeta	Spionida	Spionidae		Pygospio elegans	1	512	368	16				48	80
ANNE	POSE	Annelida	Polychaeta	Spionida	Spionidae		Spio sp.	1	48					48		
ANNE	POSE	Annelida	Polychaeta	Spionida	Spionidae		Spionidae indet.		16					16		
ANNE	POSE	Annelida	Polychaeta	Terebellida	Ampharetidae	Ampharetinae	Ampharete petersenae	1	112	48	16	32				16
ANNE	POSE	Annelida	Polychaeta	Terebellida	Ampharetidae	Ampharetinae	Ampharete sp.		16		16					
ANNE	POSE	Annelida	Polychaeta	Terebellida	Ampharetidae	Ampharetinae	Lysippe labiata	1	32	32						
ANNE	POSE	Annelida	Polychaeta	Terebellida	Cirratulidae		Aphelochaeta sp.	1	416	144	32	192			16	
ANNE	POSE	Annelida	Polychaeta	Terebellida	Cirratulidae		Chaetozone bathyala		1,264	48	448	240	240	16	16	64
ANNE	POSE	Annelida	Polychaeta	Terebellida	Cirratulidae		Chaetozone careyi	1	496		48	64		112	256	192
ANNE	POSE	Annelida	Polychaeta	Terebellida	Cirratulidae		Chaetozone pigmentata	1	48		16					16
ANNE	POSE	Annelida	Polychaeta	Terebellida	Cirratulidae		Chaetozone setosa complex	1	273	80	80	32	16	16	48	32
ANNE	POSE	Annelida	Polychaeta	Terebellida	Cirratulidae		Chaetozone sp.	1	1,856	112	288	64	496	32	32	432
ANNE	POSE	Annelida	Polychaeta	Terebellida	Cirratulidae		Chaetozone anasima		32	32						400
ANNE	POSE	Annelida	Polychaeta	Terebellida	Cirratulidae		Cirratulidae indet.		496	48		128	208		16	96
ANNE	POSE	Annelida	Polychaeta	Terebellida	Cirratulidae		Kirkegaardia sp.	1	32							32
ANNE	POSE	Annelida	Polychaeta	Terebellida	Cirratulidae		Tharyx sp.	1	176	16	32	96				32
ANNE	POSE	Annelida	Polychaeta	Terebellida	Melinnidae		Melinna sp.	1	16		16					
ANNE	POSE	Annelida	Polychaeta	Terebellida	Pectinariidae		Cistenides granulata	1	69		26	3			33	7
ANNE	POSE	Annelida	Polychaeta	Terebellida	Terebellidae	Terebellinae	Laphania boeckii	1	112	16	16	16	48	16		
ANNE	POSE	Annelida	Polychaeta	Terebellida	Terebellidae	Terebellinae	Paramphitrite birulai	1	32		16	16				
ANNE	POSE	Annelida	Polychaeta	Terebellida	Terebellidae	Terebellinae	Pista maculata	1	8		1					7
ANNE	POSE	Annelida	Polychaeta	Terebellida	Terebellidae	Terebellinae	Polycirrus sp. complex	1	96		48					48
ANNE	POSE	Annelida	Polychaeta	Terebellida	Trichobranchidae		Terebellides sp.	1	243	64	33	1	112	16		17
ANNE	POSE	Annelida	Polychaeta		Capitellidae		Capitella capitata complex	1	112				48	16	32	16



Total abundance data in matrix format, including total taxa (species richness) for WSP Baffinland MEEMP Benthos, 2024.

Biologica Sample ID								mb24-033-001		mb24-033-002	mb24-033-003	mb24-033-004	mb24-033-005	mb24-033-006	mb24-033-007	mb24-033-008
Client Sample ID								SCV-1		SCV-2	SE18-1	SNW-1	SW-1	SW-2	SW-3	SW-4
Date Sampled								12-Aug-24		17-Aug-24	17-Aug-24	17-Aug-24	18-Aug-24	12-Aug-24	10-Aug-24	18-Aug-24
								Total		Total	Total	Total	Total	Total	Total	Total
taxcode	grpcode	Phylum	Class	Order	Family	Subfamily	Taxon Name	Unique Taxa	Abundance	Abundance	Abundance	Abundance	Abundance	Abundance	Abundance	Abundance
ANNE	POSE	Annelida	Polychaeta		Capitellidae		Mediomastus sp.	1	416	16	80	80	48	16	80	48
ANNE	POSE	Annelida	Polychaeta		Capitellidae		Notomastus sp.	1	16		16					
ANNE	POSE	Annelida	Polychaeta		Cossuridae		Cossura longocirrata	1	768	208		304		16	64	176
ANNE	POSE	Annelida	Polychaeta		Maldanidae	Euclymeninae	Clymenura polaris	1	48		16				32	
ANNE	POSE	Annelida	Polychaeta		Maldanidae	Euclymeninae	Euclymeninae indet.		96		48		32		16	
ANNE	POSE	Annelida	Polychaeta		Maldanidae	Maldaninae	Maldane sarsi	1	64		48					16
ANNE	POSE	Annelida	Polychaeta		Opheliidae	Ophelininae	Ophelia limacina	1	16			16				
ANNE	POSE	Annelida	Polychaeta		Orbiniidae	Orbiniinae	Leitoscoloplos acutus	1	48							48
ANNE	POSE	Annelida	Polychaeta		Orbiniidae	Orbiniinae	Leitoscoloplos sp.		32				32			
ANNE	POSE	Annelida	Polychaeta		Orbiniidae	Orbiniinae	Scoloplos armiger	1	81			16	16			49
ANNE	POSE	Annelida	Polychaeta		Orbiniidae	Orbiniinae	Scoloplos sp.		65		17	16	16		16	
ANNE	POSE	Annelida	Polychaeta		Orbiniidae		Orbiniidae indet.		32							32
ANNE	POSE	Annelida	Polychaeta		Paraonidae		Aricidea (Acmira) catherinae	1	32				32			
ANNE	POSE	Annelida	Polychaeta		Paraonidae		Aricidea (Aricidea) minuta	1	512	96			32			240
ANNE	POSE	Annelida	Polychaeta		Paraonidae		Aricidea hartmanae	1	80	32	144		48			
ANNE	POSE	Annelida	Polychaeta		Paraonidae		Aricidea nolani	1	128	32	48		32			16
ANNE	POSE	Annelida	Polychaeta		Paraonidae		Aricidea sp.		48				48			
ANNE	POSE	Annelida	Polychaeta		Scalibregmatidae		Scalibregma inflatum	1	192	32	16	32	16		64	16
ARTH	CHPY	Arthropoda	Pycnogonida		Pycnogonida		Pycnogonida indet.	1	16					16		
ARTH	CRAM	Arthropoda	Malacostraca	Amphipoda	Corophiidae		Corophiidae indet.	1	48			16			16	16
ARTH	CRAM	Arthropoda	Malacostraca	Amphipoda	Dexaminidae	Prophliantinae	Guernea nordenskioldi	1	272			16	32			224
ARTH	CRAM	Arthropoda	Malacostraca	Amphipoda	Oedicerotidae		Monoculodes sp.	1	16				16			
ARTH	CRAM	Arthropoda	Malacostraca	Amphipoda	Oedicerotidae		Monoculopsis longicornis	1	160						160	
ARTH	CRAM	Arthropoda	Malacostraca	Amphipoda	Oedicerotidae		Monoculopsis sp.		16							16
ARTH	CRAM	Arthropoda	Malacostraca	Amphipoda	Oedicerotidae		Oedicerotidae indet.		64			16				48
ARTH	CRAM	Arthropoda	Malacostraca	Amphipoda	Oedicerotidae		Rostroculodes sp.	1	48							
ARTH	CRAM	Arthropoda	Malacostraca	Amphipoda	Oedicerotidae		Westwoodilla sp.	1	16	16					32	16
ARTH	CRAM	Arthropoda	Malacostraca	Amphipoda	Stenothoidae		Stenothoidae indet.	1	16			16				
ARTH	CRAM	Arthropoda	Malacostraca	Amphipoda	Tryphosidae		Orchomene sp.	1	48						16	32
ARTH	CRAM	Arthropoda	Malacostraca	Amphipoda	Uristidae		Anonyx nugax	1	1							1
ARTH	CRAM	Arthropoda	Malacostraca	Amphipoda	Uristidae		Anonyx sarsi	1	16					16		
ARTH	CRAM	Arthropoda	Malacostraca	Amphipoda	Uristidae		Anonyx sp.		32					32		
ARTH	CRCI	Arthropoda	Thecostraca	Balanomorpha			Balanomorpha indet.	1	80			16		48		16
ARTH	CRCU	Arthropoda	Malacostraca	Cumacea	Diastylidae		Brachydiastylis resima	1	16							16
ARTH	CRCU	Arthropoda	Malacostraca	Cumacea	Diastylidae		Diastylis goodsiri	1	16			16				
ARTH	CRCU	Arthropoda	Malacostraca	Cumacea	Diastylidae		Diastylis rathkei	1	16							16
ARTH	CRCU	Arthropoda	Malacostraca	Cumacea	Diastylidae		Diastylis scorpoides	1	112	16			32			64
ARTH	CRCU	Arthropoda	Malacostraca	Cumacea	Diastylidae		Diastylis sp.		48						16	32
ARTH	CRCU	Arthropoda	Malacostraca	Cumacea	Lampropidae		Lampropidae indet.		17		16					1
ARTH	CRCU	Arthropoda	Malacostraca	Cumacea	Lampropidae		Lamprops fuscatus	1	288						112	176
ARTH	CRCU	Arthropoda	Malacostraca	Cumacea	Leuconidae		Eudorella truncatula	1	32	16			16			
ARTH	CRCU	Arthropoda	Malacostraca	Cumacea	Leuconidae		Eudorella sp.		1		1					
ARTH	CRCU	Arthropoda	Malacostraca	Cumacea	Leuconidae		Leucon nasicoides	1	256	16			32		16	192
ARTH	CRIS	Arthropoda	Malacostraca	Isopoda	Gnathiidae		Gnathiidae indet.	1	16			16				
ARTH	CROS	Arthropoda	Ostracoda	Myodocopida	Philomedidae		Philomedes sp.	1	3,056	448	16	16	672	16	16	1872
ARTH	CRTA	Arthropoda	Malacostraca	Tanaidacea	Akanthophoreidae		Akanthophoreus sp.	1	16				16			
ARTH	CRTA	Arthropoda	Malacostraca	Tanaidacea	Pseudotanaidae		Pseudotanaeis sp.	1	48				32			16
ARTH	CRTA	Arthropoda	Malacostraca	Tanaidacea	Sphyrapodidae	Pseudosphyrapodinae	Pseudosphyrapus anomalus	1	240	176		64				
ARTH	CRTA	Arthropoda	Malacostraca	Tanaidacea	Typhlotanaidae		Typhlotanaidae indet.		32	32						
ARTH	CRTA	Arthropoda	Malacostraca	Tanaidacea	Typhlotanaidae		Typhlotanais sp.	1	48				48			
ARTH	CRTA	Arthropoda	Malacostraca	Tanaidacea			Tanaidacea indet.		16			16				
ECHI	ECEC	Echinodermata	Echinoidea	Camarodonta	Strongylocentrotidae		Strongylocentrotus droebachiensis	1	3				1			2
ECHI	ECOP	Echinodermata	Ophiuroidea	Ophiurida	Ophiuridae	Ophiurinae	Ophiocten affinis	1	3						1	2
ECHI	ECOP	Echinodermata	Ophiuroidea	Ophiurida	Ophiuridae	Ophiurinae	Ophiura robusta	1	48				32			16
ECHI	ECOP	Echinodermata	Ophiuroidea	Ophiurida	Ophiuridae	Ophiurinae	Ophiura sarsii	1	24	2		3	4	2	5	8
ECHI	ECOP	Echinodermata	Ophiuroidea	Ophiurida	Ophiuridae	Ophiurinae	Ophiura sp.		55				51			4
MISC	BRYO	Bryozoa	Gymnolaemata	Cheilostomatida			Cheilostomatida indet.	1	1		1					
MISC	CNHY	Cnidaria	Hydrozoa	Anthoathecata			Anthoathecata indet.	1	1	1						
MISC	CNHY	Cnidaria	Hydrozoa	Limnomedusae	Monobrachiiidae		Monobrachium parasitum	1	36	1			17		16	2



Total abundance data in matrix format, including total taxa (species richness) for WSP Baffinland MEEMP Benthos, 2024.

Biologica Sample ID								mb24-033-001		mb24-033-002	mb24-033-003	mb24-033-004	mb24-033-005	mb24-033-006	mb24-033-007	mb24-033-008	
Client Sample ID								SCV-1		SCV-2	SE18-1	SNW-1	SW-1	SW-2	SW-3	SW-4	
Date Sampled								12-Aug-24		17-Aug-24	17-Aug-24	17-Aug-24	18-Aug-24	12-Aug-24	10-Aug-24	18-Aug-24	
								Total		Total	Total	Total	Total	Total	Total	Total	
taxcode	grpcode	Phylum	Class	Order	Family	Subfamily	Taxon Name	Unique Taxa	Abundance	Abundance	Abundance	Abundance	Abundance	Abundance	Abundance	Abundance	
MISC	NTEA	Nemertea	Hoplonemertea				Hoplonemertea indet.	1	16	16							
MISC	NTEA	Nemertea	Palaeonemertea	Archinemertea	Cephalotrichidae		Cephalothrix sp.	1	96	16	16			48	16		
MISC	NTEA	Nemertea	Pilidiophora	Heteronemertea	Lineidae		Lineidae indet.	1	18		1		16			1	
MISC	NTEA	Nemertea	Pilidiophora	Heteronemertea			Heteronemertea indet.		1		1						
MISC	NTEA	Nemertea					Nemertea indet.		33		1		16		16		
MISC	PORI	Porifera	Calcarea				Calcarea indet.	1	1							1	
MISC	PRIA	Cephalorhyncha	Priapulida	Priapulomorpha	Priapulidae		Priapulus caudatus	1	16		16						
MOLL	MOBI	Mollusca	Bivalvia	Adapedonta	Hiatellidae		Hiatella arctica	1	259		72	34	17	32	11	33	60
MOLL	MOBI	Mollusca	Bivalvia	Cardiida	Cardiidae	Clinocardiinae	Ciliatocardium ciliatum	1	3		1				1	1	
MOLL	MOBI	Mollusca	Bivalvia	Cardiida	Cardiidae	Clinocardiinae	Serripes groenlandicus	1	7		2			1	2		
MOLL	MOBI	Mollusca	Bivalvia	Cardiida	Tellinidae	Macominae	Macoma calcarea	1	65	18	27	3	12		1	4	
MOLL	MOBI	Mollusca	Bivalvia	Cardiida	Tellinidae	Macominae	Macoma moesta	1	39		19	1			18	1	
MOLL	MOBI	Mollusca	Bivalvia	Cardiida	Tellinidae	Macominae	Macominae indet.		240		16	80			16	112	
MOLL	MOBI	Mollusca	Bivalvia	Carditida	Astartidae		Astarte borealis	1	119	18	19	24	6		23	29	
MOLL	MOBI	Mollusca	Bivalvia	Carditida	Astartidae		Astarte montagui	1	580	80	140	54	69		8	229	
MOLL	MOBI	Mollusca	Bivalvia	Carditida	Astartidae		Astarte sp.		224	32	32	16	64			80	
MOLL	MOBI	Mollusca	Bivalvia	Lucinida	Thyasiridae		Thyasiridae indet.	1	256	48	80		48		48	32	
MOLL	MOBI	Mollusca	Bivalvia	Myida	Myidae		Mya sp.		107			53			3	51	
MOLL	MOBI	Mollusca	Bivalvia	Myida	Myidae		Mya truncata	1	8		2			1	5		
MOLL	MOBI	Mollusca	Bivalvia	Mytilida	Mytilidae	Crenellinae	Arvella faba	1	1	1							
MOLL	MOBI	Mollusca	Bivalvia	Mytilida	Mytilidae	Musculinae	Musculus discors	1	1							1	
MOLL	MOBI	Mollusca	Bivalvia	Nuculanida	Nuculanidae	Nuculaninae	Nuculana minuta	1	64		32					32	
MOLL	MOBI	Mollusca	Bivalvia	Nuculanida	Nuculanidae	Nuculaninae	Nuculana pernula	1	34	17		16				1	
MOLL	MOBI	Mollusca	Bivalvia	Nuculanida	Yoldiidae		Yoldiidae indet.	1	80	16		64					
MOLL	MOBI	Mollusca	Bivalvia	Nuculida	Nuculidae		Ennucula tenuis	1	608	192	48	96	256			16	
MOLL	MOBI	Mollusca	Bivalvia	Pectinida	Propeamussiidae		Similipecten greenlandicus		71	26		4	36	1		4	
MOLL	MOBI	Mollusca	Bivalvia				Bivalvia indet.	1	80		32		32			16	
MOLL	MOGA	Mollusca	Gastropoda	Cephalaspidea	Cylichnidae		Cylichnidae indet.		16			16					
MOLL	MOGA	Mollusca	Gastropoda	Cephalaspidea	Cylichnidae		Cylichnoides occultus		16			16					
MOLL	MOGA	Mollusca	Gastropoda	Cephalaspidea	Tornatinidae		Acteocina sp.	1	16							16	
MOLL	MOGA	Mollusca	Gastropoda	Littorinimorpha	Naticidae	Naticinae	Cryptonatica affinis	1	16		16						
MOLL	MOGA	Mollusca	Gastropoda	Littorinimorpha	Naticidae	Polinicinae	Euspira pallida	1	16			16					
MOLL	MOGA	Mollusca	Gastropoda	Littorinimorpha	Rissoidae		Boreocingula castanea	1	16			16					
MOLL	MOGA	Mollusca	Gastropoda	Neogastropoda	Mangeliidae		Mangeliidae indet.	1	33			17				16	
MOLL	MOGA	Mollusca	Gastropoda				Gastropoda indet.	1	48				32			16	
Total Abundance									22,457	2,740	3,369	1,994	4,790	322	718	2,485	6,039
Total Unique Taxa								121		44	54	42	59	9	26	37	70
Grab Sampler									Van Veen	Van Veen	Van Veen	Van Veen	Van Veen	Van Veen	Van Veen	Van Veen	Van Veen
# of Composite Grabs									3	3	3	3	3	3	3	3	3
Total Density (Organisms/m²)									74,857	9,133	11,230	6,647	15,967	1,073	2,393	8,283	20,130
Incidental Taxa:																	
MEMO	MEMO	Arthropoda	Hexanauplia				Copepoda indet. (parasitic)		16	16							
MEMO	MEMO	Arthropoda	Hexanauplia				Copepoda indet. (planktonic)		64						48		16
MEMO	MEMO	Arthropoda	Ostracoda				Ostracoda indet. (meiofaunal)		1,872	48	16	64	176	16	16	96	1440
MEMO	MEMO	Echinodermata	Holothuroidea	Apodida	Myriotrochidae		Myriotrochus rinkii		16			16					
MEMO	MEMO						Egg/egg mass		400	80		16	32		32	64	176
MEMO	MEMO	Nematoda					Nematoda indet.		2,400		272	208	48	48	992		832

APPENDIX 8A-3

**Benthic Infauna Laboratory
Methods**



Marine Benthic Enumeration and Identification Methods

Client: WSP

Project: Baffinland MEEMP

Protocol: EEM

Sample Inventory

Sample arrival: 30-Aug-24

Number of samples: 8

Number of jars: 15

Screen size: 500 µm and 1.0 cm

Biologica project number: mb24-033

The chain of custody documents were checked and approved with the client. Samples were transferred from formalin into 70% ethanol and stained with Rose Bengal to aid in sorting. Each sample was provided a unique identification number and placed in the queue for analysis.

Table 1. Summary of benthic samples processed for WSP Baffinland MEEMP, 2024.

Client Sample ID	Date Sampled	Biologica Sample ID	# of Jars	Field Split	Lab Split	Final Split	Organisms Counted
SCV-1	12-Aug-24	mb24-033-001	1	1/4	1/4A	1/16	167
			1	Whole	Whole	Whole	68
SCV-2	17-Aug-24	mb24-033-002	1	1/4	1/4A	1/16	201
			2	Whole	Whole	Whole	153
SE18-1	17-Aug-24	mb24-033-003	1	1/4	1/4A	1/16	119
			1	Whole	Whole	Whole	90
SNW-1	17-Aug-24	mb24-033-004	1	1/4	1/4A	1/16	295
			1	Whole	Whole	Whole	70
SW-1	18-Aug-24	mb24-033-005	8	1/4	1/4A	1/16	20
			1	Whole	Whole	Whole	2
SW-2	12-Aug-24	mb24-033-006	1	1/4	1/4A	1/16	44
			1	Whole	Whole	Whole	14
SW-3	10-Aug-24	mb24-033-007	1	1/4	1/4A	1/16	152
			1	Whole	Whole	Whole	53
SW-4	18-Aug-24	mb24-033-008	1	1/4	1/4A	1/16	368
			2	Whole	Whole	Whole	151

Sample Processing

Sorting and Subsampling:

All samples were sorted using dissecting microscopes at 10–40x magnification by trained personnel. Microscopic sorting is the only way to ensure >90% of organisms are removed from the debris, which is required by EEM (Environment Canada; Environmental Effects Monitoring) guidelines for marine benthic analyses. To minimize potential sorter bias,

samples were distributed among technicians such that no one person sorted all the replicates of a given sample.

Due to historically the large volumes and high abundances in the samples, samples were fractioned in the field into a 1.0 cm macro fraction and 500 µm fine fraction. This strategy was developed to maximize the detection of large and rare individuals in the macro fraction while accurately enumerating smaller organisms in the fine fraction. The macro 1.0 cm fraction was analyzed whole, with all large organisms (>1.0 cm) removed from the sample, as was done in previous years for this project. In addition, all large debris in this fraction were checked microscopically, including rocks and other large debris to ensure encrusting organisms were accurately enumerated.

Biologica subsampled the fine 500 µm fraction. The 500 µm fraction was split in the field to 1/4. Biologica subsequently split this fraction by a second 1/4 split, for a final 1/16 split. Subsampling was done with a Caton tray (Caton, 1991). The sample was spread evenly over a Caton grid, and sequential random quadrats were selected and sorted until the minimum 1/4 lab split was reached.

Sub-sampling accuracy was assessed by sorting the remaining sample for 10% (n= 4) of all sub-sampled samples and comparing the fractions to one another. Refer to Table 2 for sub-sampling accuracy results.

Sorting QA/QC:

To ensure sorting efficiency was >95%, whole and/or partial sub-samples were re-sorted. Sorting efficiency was calculated using the following equation (where total count = final total number of organisms in sample):

$$\text{Sorting efficiency} = [1 - (\# \text{ of organisms in spot check or re-sort} / \text{total organisms})] \times 100$$

*Total organisms includes the original count and the number found from the re-sort

All samples checked must meet or exceed 95% sorting efficiency. Any samples falling below 95% sorting efficiency are re-sorted in their entirety, and additional checks are undertaken as necessary. For quality assurance, QA re-sorts were performed on 10% of samples. Four samples were randomly selected and re-sorted in their entirety. Refer to Table 2 for sorting efficiency results.

Table 2. Summary of sorting QA/QC results for WSP Baffinland MEEMP, 2024.

Client Sample ID	Biologica Sample ID	Sorting Efficiency QA Whole Re-sorts	Sub-sampling accuracy
SCV-1	mb24-033-001		
SCV-2	mb24-033-002	98.54%	
SE18-1	mb24-033-003		
SNW-1	mb24-033-004		
SW-1	mb24-033-005		
SW-2	mb24-033-006		93.12%
SW-3	mb24-033-007		
SW-4	mb24-033-008		

Identification and Invasive Species Detection:

All organisms were identified using a combination of dissecting (10–40x) and compound microscopes (100–1000x) and standard taxonomic keys (see methodological and taxonomic references) to the lowest practicable level (species whenever possible). All specimens were archived in air-tight glass vials with glycerin and 70% ethanol for long-term storage. Taxonomic data were recorded in Biologica's custom database.

During the identification process, taxonomists recorded if any identified taxa were beyond their recorded range and/or potentially introduced (originating from another location) or invasive (both introduced and appearing to proliferate with possible detrimental effects to the ecosystem and/or industry). **No taxa observed were identified as putative invasive taxa.** One genus of interest over the past several years of sampling has been *Marenzelleria*. Multiple specimens were externally verified by DNA analysis by Dr. Vasily Radashevsky from the National Scientific Center of Marine Biology and were confirmed to be *Marenzelleria wireni*. Historical identifications can all be taken to this species identification.

One new taxa to the project was identified and has been referenced if needed for verification.

Reference Collection:

Biologica houses a reference collection of all taxa that have been observed in the Baffinland MEEMP project thus far. Taxa are added to this reference collection yearly. These may be new taxa and/or new stages. Taxa new to the project are sent for external verification. This collection consists of a minimum of one specimen representing each taxon and stage, with five specimens per taxon/stage wherever possible. These specimens were labelled, given a location code, and placed in evaporation-resistant shell dram vials. Approximately 1 mL of glycerin was added to each vial to prevent desiccation.

Data Management and Analysis

All data were recorded in Biologica's custom database. Total abundances were extrapolated for samples split in the field and the lab to represent the abundance from the whole sample. Organism densities were calculated by dividing the total organism abundance (extrapolated if the sample was split) using the area of a Van Veen grab (0.1 m²), with three composite Van Veen grabs (3 x 0.1m²) for each sample.

Results were provided to the WSP project manager in Excel spreadsheets via email.

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APPENDIX 8B-1

Incidental Taxa Identifications 2024

Phylum Class/Order	Family	Taxa	Method
Annelida			
Polychaeta/-	-	Polychaeta indet.	Quadrats
Polychaeta/Echiura	-	Echiura indet.	Fish Stomachs
Polychaeta/Errantia	Polynoidae	<i>Harmothoe imbricata</i>	Incidentals, Quadrats
Polychaeta/Sedentaria	Pectinariidae	<i>Cistenides granulata</i>	Offset Habitat, Quadrats
Polychaeta/Sedentaria	Pectinariidae	Pectinariidae indet.	Fish Stomachs
Polychaeta/Sedentaria	Sabellidae	Sabellidae indet.	Offset Habitat, Quadrats
Polychaeta/Sedentaria	Serpulidae	Serpulidae indet.	Offset Habitat
Polychaeta/Sedentaria	Terebellidae	Terebellidae indet.	Quadrats
Arthropoda			
-/-	-	Crustacea indet.	Fish Stomachs
Copepoda/-	-	Copepoda indet.	Incidentals
Copepoda/Calanoida	Calanidae	<i>Calanus hyperboreus</i>	Fish Stomachs
Copepoda/Calanoida	Calanidae	<i>Calanus</i> sp.	Fish Stomachs
Insecta/Diptera	-	Tipuloidea indet.	Fish Stomach
Malacostraca/Amphipoda	-	Amphipoda indet.	Fish Stomachs, Quadrats
Malacostraca/Amphipoda	-	Hyperiidea indet.	Fish Stomachs
Malacostraca/Amphipoda	-	Lysianassoidea indet.	Fish Stomachs
Malacostraca/Amphipoda	Atylidae	<i>Atylus</i> sp.	Fish Stomachs
Malacostraca/Amphipoda	Gammaridae	<i>Gammarus</i> sp.	Fish Stomachs
Malacostraca/Amphipoda	Hyperiidae	<i>Themisto</i> sp.	Fish Stomachs
Malacostraca/Amphipoda	Oedicerotidae	Oedicerotidae indet.	Fish Stomachs
Malacostraca/Amphipoda	Uristidae	<i>Onisimus</i> sp.	Fish Stomachs
Malacostraca/Decapoda	Pandalidae	<i>Pandalus montagui</i>	Quadrats
Malacostraca/Mysida	-	Mysida indet.	Offset Habitat, Fish Stomachs, Quadrats
Malacostraca/Mysida	Mysidae	<i>Mysis</i> sp.	Fish Stomachs
Thecostraca/Balanomorpha	-	Balanomorpha indet.	Offset Habitat, Quadrats
Thecostraca/Balanomorpha	Balanidae	<i>Balanus</i> sp.	Incidentals
Brachiopoda			
-/-	-	Brachiopoda indet.	Offset Habitat
Rhynchonellata/Rhynchonellida	Hemithirididae	<i>Hemithiris psittacea</i>	Incidentals
Bryophyta			
Bryopsida/Hypnales	Amblysteigaceae	<i>Pseudocalliergon brevifolium</i>	Incidentals
Bryozoa			
Gymnolaemata/Cheilostomatida	Calloporidae	Calloporidae indet.	Incidentals
Gymnolaemata/Cheilostomatida	-	Cheilostomatida indet.	Incidentals
Gymnolaemata/Ctenostomatida	Alcyonidiidae	<i>Alcyonidium</i> sp.	Incidentals
Stenolaemata/Cyclostomatida	-	Cyclostomatida indet.	Incidentals
Chlorophyta			
-/-	-	Chlorophyta indet.	Quadrats
Chlorophyceae/Acrosiphoniales	Acrosiphoniaceae	<i>Acrosiphonia</i> sp.	Offset Habitat
Chlorophyceae/Acrosiphoniales	Acrosiphoniaceae	<i>Acrosiphonia</i> sp. 3GWS	Macroalgae, NextGen Sequencing
Chlorophyceae/Acrosiphoniales	Acrosiphoniaceae	<i>Acrosiphonia</i> sp. 6GWS	NextGen Sequencing
Chlorophyceae/Acrosiphoniales	Acrosiphoniaceae	<i>Acrosiphonia</i> sp. 8GWS	Macroalgae, NextGen Sequencing
Chlorophyceae/Acrosiphoniales	Acrosiphoniaceae	<i>Spongomorpha aeruginosa</i>	Offset Habitat, Quadrats
Ulvophyceae/Cladophorales	Cladophoraceae	<i>Chaetomorpha brachygona</i>	NextGen Sequencing
Ulvophyceae/Cladophorales	Cladophoraceae	<i>Chaetomorpha melagonium</i>	Offset Habitat, Macroalgae, Quadrats
Ulvophyceae/Cladophorales	Cladophoraceae	<i>Chaetomorpha</i> sp. 3GWS	NextGen Sequencing
Ulvophyceae/Cladophorales	Cladophoraceae	<i>Rhizoclonium riparium</i>	NextGen Sequencing
Ulvophyceae/Ulotrichales	Ulotrichaceae	<i>Ulothrix flacca</i>	Macroalgae, NextGen Sequencing
Ulvophyceae/Ulotrichales	Ulotrichaceae	<i>Ulothrix</i> sp. 1 Nunavut	Macroalgae
Ulvophyceae/Ulotrichales	Ulotrichaceae	<i>Ulothrix subflaccida</i>	NextGen Sequencing
Ulvophyceae/Ulotrichales	Ulotrichaceae	<i>Urospora neglecta</i>	Macroalgae
Ulvophyceae/Ulotrichales	Ulotrichaceae	<i>Urospora pencilliformis</i>	NextGen Sequencing
Ulvophyceae/Ulvales	Kornmanniaceae	<i>Blidingia</i> sp.	Macroalgae
Ulvophyceae/Ulvales	Kornmanniaceae	<i>Blidingia</i> sp. 2Subsalsa	Macroalgae
Ulvophyceae/Ulvales	Ulvaceae	<i>Ulvaria splendens</i>	NextGen Sequencing
Chordata			
-/-	-	Tunicata ident.	Offset Habitat, Quadrats
Ascidacea/Phlebobranchia	Asciidiidae	<i>Ascidia</i> sp.	Incidentals
Ascidacea/Stolidobranchia	-	Stolidobranchia indet.	Incidentals
Ascidacea/Stolidobranchia	Pyuridae	<i>Boltenia echinata</i>	Incidentals
Ascidacea/Stolidobranchia	Pyuridae	Pyuridae indet.	Incidentals

Phylum Class/Order	Family	Taxa	Method
Teleostei/-	-	Teleostei indet.	Fish Stomachs
Teleostei/Gadiformes	Gadidae	Gadidae indet.	Fish Capture
Teleostei/Gadiformes	Gadidae	<i>Gadus macrocephalus</i>	Fish Capture
Teleostei/Gadiformes	Gadidae	<i>Gadus</i> sp.	Fish Capture
Teleostei/Perciformes	Agonidae	<i>Aspidophoroides olrikii</i>	Fish Capture, Incidentals
Teleostei/Perciformes	Ammodytidae	Ammodytidae indet.	Fish Stomachs
Teleostei/Perciformes	Cottidae	Cottidae indet.	Fish Capture
Teleostei/Perciformes	Cottidae	<i>Gymnocanthus tricuspis</i>	Fish Capture
Teleostei/Perciformes	Cottidae	<i>Icelus spatula</i>	Fish Capture
Teleostei/Perciformes	Cottidae	<i>Myoxocephalus quadricornis</i>	Fish Capture
Teleostei/Perciformes	Cottidae	<i>Myoxocephalus scorpioides</i>	Fish Capture, Quadrats
Teleostei/Perciformes	Cottidae	<i>Myoxocephalus scorpius</i>	Fish Capture, Offset Habitat, Quadrats
Teleostei/Perciformes	Cottidae	<i>Myoxocephalus</i> sp.	Incidentals
Teleostei/Perciformes	Cottidae	<i>Triglops pingelii</i>	Fish Capture
Teleostei/Perciformes	Cyclopteridae	<i>Cyclopterus lumpus</i>	Quadrats
Teleostei/Perciformes	Cyclopteridae	<i>Eumicrotremus spinosus</i>	Fish Capture
Teleostei/Perciformes	Stichaeidae	<i>Lumpenus</i> sp.	Quadrats
Teleostei/Perciformes	Stichaeidae	<i>Lumpenus fabricii</i>	Quadrats
Teleostei/Perciformes	Zoarcidae	<i>Gymnelus viridis</i>	Offset Habitat, Quadrats
Teleostei/Perciformes	Zoarcidae	<i>Lycodes mucosus</i>	Quadrats
Teleostei/Perciformes	Zoarcidae	Zoarcidae indet.	Offset Habitat
Teleostei/Salmoniformes	Salmonidae	<i>Salvelinus alpinus</i>	Fish Capture
Cnidaria			
Hexacorallia/Actiniaria	Actiniidae	<i>Urticina</i> sp.	Offset Habitat
Hexacorallia/Ceriantharia	-	Ceriantharia indet.	Offset Habitat, Quadrats
Hydrozoa/Leptothecata	-	Leptothecata indet.	Offset Habitat
Ctenophora			
Ctenophora/-	-	Ctenophora indet.	Offset Habitat, Quadrats
Echinodermata			
Asteroidea/Forcipulatida	Asteriidae	<i>Leptasterias</i> sp.	Quadrats
Echinoidea/Camarodonta	Strongylocentrotidae	<i>Strongylocentrotus droebachiensis</i>	Offset Habitat
Ophiuroidea/Ophiuroidea	Ophiuridae	Ophiuridae indet.	Offset Habitat, Quadrats
Heterokontophyta			
Bacillariophyceae/Naviculales	Berkeleyaceae	<i>Berkeleya</i> sp.	Macroalgae
Bacillariophyceae/Naviculales	Berkeleyaceae	<i>Parlibellus</i> sp.	Macroalgae
Mollusca			
Bivalvia/Adapedonta	Hiatellidae	<i>Hiatella arctica</i>	Offset Habitat, Quadrats
Bivalvia/Cardiida	Cardiidae	<i>Serripes groenlandicus</i>	Quadrats
Bivalvia/Cardiida	Tellinidae	<i>Macoma</i> sp.	Quadrats
Bivalvia/Carditida	Astartidae	<i>Astarte borealis</i>	Offset Habitat, Quadrats
Bivalvia/Myida	Myidae	<i>Mya truncata</i>	Offset Habitat, Quadrats
Bivalvia/Mytilida	Mytilidae	<i>Musculus discors</i>	Offset Habitat, Quadrats
Bivalvia/Mytilida	Mytilidae	<i>Mytilus</i> sp.	Incidentals, Offset Habitat, Quadrats
Bivalvia/Nuculanida	Nuculanidae	<i>Nuculana</i> sp.	Quadrats
Bivalvia/Pectinida	Pectinidae	<i>Chlamys islandica</i>	Quadrats
Bivalvia/Pectinida	Propeamussiidae	<i>Similipectens greenlandicus</i>	Quadrats
Cephalopoda/Sepiida	-	Sepiolina indet.	Incidentals
Gastropoda/-	Lottidae	Lottidae indet.	Offset Habitat
Gastropoda/-	Lottidae	<i>Testudinalia testudinalis</i>	Incidentals, Quadrats
Gastropoda/Nudibranchia	-	Dendronotoidea indet.	Incidentals
Gastropoda/Nudibranchia	Dendronotidae	<i>Dendronotus</i> sp.	Quadrats
Gastropoda/Pteropoda	Limacinidae	<i>Limacina</i> sp.	Fish Stomachs
Gastropoda/Trochida	Margaritidae	<i>Margarites</i> sp.	Quadrats
Polyplacophora/Chitonida	Tonicellidae	<i>Tonicella marmorea</i>	Incidentals
Nemertea			
-/-	-	Nemertea indet.	Quadrats
Ochrophyta			
Phaeophyceae/Desmarestiales	Desmarestiaceae	<i>Desmarestia aculeata</i>	Macroalgae
Phaeophyceae/Desmarestiales	Desmarestiaceae	<i>Desmarestia ligulata</i>	NextGen Sequencing
Phaeophyceae/Desmarestiales	Desmarestiaceae	<i>Desmarestia</i> sp.	Offset Habitat, Quadrats
Phaeophyceae/Desmarestiales	Desmarestiaceae	<i>Desmarestia</i> sp. 1Arctic	Macroalgae, NextGen Sequencing
Phaeophyceae/Ectocarpales	Acinetosporaceae	Acinetosporaceae_gen sp. 1AP2016	NextGen Sequencing
Phaeophyceae/Ectocarpales	Acinetosporaceae	<i>Pylaiella</i> sp.	Offset Habitat, Macroalgae, Quadrats
Phaeophyceae/Ectocarpales	Acinetosporaceae	<i>Pylaiella washingtoniensis</i>	Macroalgae

Phylum Class/Order	Family	Taxa	Method
Phaeophyceae/Ectocarpales	Chordariaceae	<i>Ascoseiophila</i> sp. 1violodora	Macroalgae
Phaeophyceae/Ectocarpales	Chordariaceae	<i>Chordaria chordaeformis</i>	NextGen Sequencing
Phaeophyceae/Ectocarpales	Chordariaceae	<i>Chordaria flagelliformis</i>	NextGen Sequencing
Phaeophyceae/Ectocarpales	Chordariaceae	<i>Dictyosiphon foeniculaceus</i>	Quadrats
Phaeophyceae/Ectocarpales	Chordariaceae	<i>Elachista</i> sp. 1Arctic	NextGen Sequencing
Phaeophyceae/Ectocarpales	Chordariaceae	<i>Litosiphon</i> sp. 1Arctic	Macroalgae
Phaeophyceae/Ectocarpales	Chordariaceae	<i>Microspongium</i> sp. 4GWS	NextGen Sequencing
Phaeophyceae/Ectocarpales	Chordariaceae	<i>Polycerea borealis</i>	NextGen Sequencing
Phaeophyceae/Ectocarpales	Chordariaceae	<i>Punctaria</i> sp.	NextGen Sequencing
Phaeophyceae/Ectocarpales	Chordariaceae	<i>Saundersella doloresiae</i>	NextGen Sequencing
Phaeophyceae/Ectocarpales	Chordariaceae	<i>Stictyosiphon arcticus</i>	Macroalgae
Phaeophyceae/Ectocarpales	Chordariaceae	<i>Stictyosiphon tortilis</i>	Offset Habitat, Macroalgae, Quadrats
Phaeophyceae/Ectocarpales	Ectocarpaceae	<i>Ectocarpus</i> sp.	NextGen Sequencing
Phaeophyceae/Ectocarpales	Ectocarpaceae	<i>Ectocarpus</i> sp. 1siliculosus	NextGen Sequencing
Phaeophyceae/Ectocarpales	Scytosiphonaceae	<i>Petalonia arctica</i>	NextGen Sequencing
Phaeophyceae/Ectocarpales	Scytosiphonaceae	<i>Petalonia fascia</i>	NextGen Sequencing
Phaeophyceae/Ectocarpales	Scytosiphonaceae	<i>Planosiphon filiformis</i>	NextGen Sequencing
Phaeophyceae/Ectocarpales	Scytosiphonaceae	<i>Scytosiphon shibazakiorum</i>	Macroalgae, NextGen Sequencing
Phaeophyceae/Ectocarpales	Scytosiphonaceae	<i>Scytosiphon</i> sp. 1 crust	NextGen Sequencing
Phaeophyceae/Fucales	Fucaceae	<i>Fucus distichus</i>	Offset Habitat, Macroalgae, Quadrats
Phaeophyceae/Laminariales	Laminariaceae	<i>Saccharina latissima</i>	Offset Habitat, Macroalgae, Quadrats
Phaeophyceae/Ralfsiales	Ralfsiaceae	<i>Ralfsia</i> sp.	Macroalgae
Phaeophyceae/Ralfsiales	Ralfsiaceae	<i>Ralfsia</i> sp. 1Arctic	NextGen Sequencing
Phaeophyceae/Sphacelariales	Sphacelariaceae	<i>Battersia arctica</i>	Macroalgae
Phaeophyceae/Sphacelariales	Sphacelariaceae	<i>Batersia</i> sp.	Offset Habitat, Quadrats
Phaeophyceae/Sphacelariales	Sphacelariaceae	<i>Chaetopteris plumosa</i>	Offset Habitat, Macroalgae
Phaeophyceae/Sphacelariales	Stypocaulaceae	<i>Protohalopteris radicans</i>	NextGen Sequencing
Phaeophyceae/Tilopteridales	Halosiphonaceae	<i>Halosiphon</i> sp. 2tomentosus	NextGen Sequencing
Phaeophyceae/Tilopteridales	Halosiphonaceae	<i>Halosiphon tomentosus</i>	Offset Habitat, Quadrats
Phaeophyceae/Tilopteridales	Phyllariaceae	<i>Saccorhiza dermatodea</i>	Macroalgae
Phaeophyceae/Tilopteridales	Tilopteraceae	<i>Haplospora globosa</i>	NextGen Sequencing
Phaeophyceae/Tilopteridales	Tilopteraceae	<i>Tilopteridalean</i> sp. 2GWS	NextGen Sequencing
Phaeophyceae/Tilopteridales	Tilopteraceae	<i>Tilopteridalean</i> sp. 3GWS	NextGen Sequencing
Platyhelminthes			
Cestoda/-	-	Cestoda indet.	Fish Stomachs
Porifera			
Demospongiae/-	-	Demospongiae indet.	Incidentals
Rhodophyta			
Florideophyceae/Acrochaetiales	Acrochaetiaceae	<i>Grania efflorescens</i>	NextGen Sequencing
Florideophyceae/Ahnfeltiales	Ahnfeltiaceae	<i>Ahnfeltia plicata</i>	Offset Habitat
Florideophyceae/Ceramiales	Ceramiaceae	<i>Antithamnion</i> cf. <i>sparsum</i>	NextGen Sequencing
Florideophyceae/Ceramiales	Ceramiaceae	<i>Scagelia pylaisaei</i>	Macroalgae
Florideophyceae/Ceramiales	Delesseriaceae	<i>Phycodrys fimbriata</i>	Offset Habitat, Macroalgae, Quadrats
Florideophyceae/Ceramiales	Rhodomelaceae	<i>Odonthalia dentata</i>	Offset Habitat, Macroalgae
Florideophyceae/Ceramiales	Rhodomelaceae	<i>Polysiphonia kapraunii</i>	NextGen Sequencing
Florideophyceae/Ceramiales	Rhodomelaceae	<i>Polysiphonia</i> sp.	Offset Habitat, Quadrats
Florideophyceae/Ceramiales	Rhodomelaceae	<i>Rhodomela sibirica</i>	Macroalgae
Florideophyceae/Ceramiales	Rhodomelaceae	<i>Rhodomela virgata</i>	Macroalgae
Florideophyceae/Ceramiales	Rhodomelaceae	<i>Savoiea arctica</i>	Offset Habitat, Macroalgae, Quadrats
Florideophyceae/Corallinales	-	Corallinales indet.	Offset Habitat, Quadrats
Florideophyceae/Corallinales	Lithophyllaceae	<i>Titanoderma pustulatum</i>	NextGen Sequencing
Florideophyceae/Gigartinales	Dumontiaceae	<i>Dilsea socialis</i>	Offset Habitat, Macroalgae
Florideophyceae/Gigartinales	Phyllophoraceae	<i>Coccotylus truncatus</i>	Offset Habitat, Macroalgae, Quadrats
Florideophyceae/Hapalidiales	Hapalidiaceae	<i>Boreolithothamnion lemoineae</i>	Macroalgae
Florideophyceae/Hapalidiales	Mesophyllumaceae	<i>Leptophytum foecundum</i>	Macroalgae
Florideophyceae/Hapalidiales	Mesophyllumaceae	<i>Leptophytum laeve</i>	Macroalgae

Notes: taxa identified to the lowest practical taxonomic level; indet.= indeterminate (taxa which could not be identified beyond the taxonomic level listed); sp.=species; cf.=compare with (taxa is an inexact match to the designated taxa).

Taxa in bold indicate new observations in MEEMP and NIS/AIS programs

All taxa cross-referenced with NIS/AIS resources: Fofonoff et al. 2018, ISSG 2025, Costello et al. 2025, Molnar et al. 2008, Casas-Monroy et al. 2014

APPENDIX 8B-2

Incidentals Laboratory Data 2024



Abundance data in long format for WSP Baffinland MEEMP Specimens, 2024.

Biologica																			Unique		
Client	Project	Year	Sample Type	Split	Sample ID	Client Sample ID	Date Sampled	taxcode	grpcode	Phylum	Class	Order	Family	Subfamily	Taxon Name	A	Int	J	Total Abundance	Taxa	Comments
WSP	Baffinland MEEMP	2024	DNA Specimens	Whole	mb24-033-123	Center-S-24-Opportunistic-Tunicate	01-Aug-24	MISC	URAS	Chordata	Ascidacea	Stolidobranchia	Pyuridae		Pyuridae indet.	2		2		1	
WSP	Baffinland MEEMP	2024	DNA Specimens	Whole	mb24-033-124	East-M-24-Opportunistic-Barncales	01-Aug-24	ARTH	CRCI	Arthropoda	Thecostraca	Balanomorpha	Balanidae	Balaninae	Balanus sp.		18		18	1	
WSP	Baffinland MEEMP	2024	DNA Specimens	Whole	mb24-033-125	East-M-24-Opportunistic-Eggs	01-Aug-24	EGGS	EGGS						Egg/egg mass			23	23	1	Sepiolina indet. (Bobtail squid) eggs
WSP	Baffinland MEEMP	2024	DNA Specimens	Whole	mb24-033-126	East-M-B-BI-Y4-24-Opportunistic-Tunicate, Bryozoan	01-Aug-24	MISC	BRYO	Bryozoa	Stenolaemata	Cyclostomatida			Cyclostomatida indet.	1		1		1	
WSP	Baffinland MEEMP	2024	DNA Specimens	Whole	mb24-033-126	East-M-B-BI-Y4-24-Opportunistic-Tunicate, Bryozoan	01-Aug-24	MISC	BRYO	Bryozoa	Gymnolaemata	Cheilostomatida			Cheilostomatida indet.	1		1		1	
WSP	Baffinland MEEMP	2024	DNA Specimens	Whole	mb24-033-126	East-M-B-BI-Y4-24-Opportunistic-Tunicate, Bryozoan	01-Aug-24	MISC	URAS	Chordata	Ascidacea	Stolidobranchia	Pyuridae		Boltenia echinata			8	8	1	
WSP	Baffinland MEEMP	2024	DNA Specimens	Whole	mb24-033-126	East-M-B-BI-Y4-24-Opportunistic-Tunicate, Bryozoan	01-Aug-24	MISC	URAS	Chordata	Ascidacea	Phlebobranchia	Ascidiidae		Ascidia sp.			3	3	1	
WSP	Baffinland MEEMP	2024	DNA Specimens	Whole	mb24-033-127	Q2OLD-Opportunistic-Bryozoan-24	28-Jul-24	MISC	BRYO	Bryozoa	Gymnolaemata	Ctenostomatida	Alcyonidiidae		Alcyonidium sp.	1		1		1	
WSP	Baffinland MEEMP	2024	DNA Specimens	Whole	mb24-033-128	Q6-24-Opportunistic-Tunicate	08-Aug-24	MISC	URAS	Chordata	Ascidacea	Stolidobranchia	Pyuridae		Boltenia echinata	1	1	2		1	Encrusting on scallop shell
WSP	Baffinland MEEMP	2024	DNA Specimens	Whole	mb24-033-128	Q6-24-Opportunistic-Tunicate	08-Aug-24	MISC	URAS	Chordata	Ascidacea	Stolidobranchia			Stolidobranchia indet.			1	1		Encrusting on scallop shell
WSP	Baffinland MEEMP	2024	DNA Specimens	Whole	mb24-033-128	Q6-24-Opportunistic-Tunicate	08-Aug-24	MISC	PORI	Porifera	Demospongiae				Demospongiae indet.			3	3	1	Encrusting on scallop shell
WSP	Baffinland MEEMP	2024	DNA Specimens	Whole	mb24-033-128	Q6-24-Opportunistic-Tunicate	08-Aug-24	MISC	BRYO	Bryozoa	Gymnolaemata	Cheilostomatida			Cheilostomatida indet.	1		1		1	Encrusting on scallop shell
WSP	Baffinland MEEMP	2024	DNA Specimens	Whole	mb24-033-129	Q6-P-G-Y4-24-Opportunistic-Bryozoan	08-Aug-24	MISC	BRYO	Bryozoa	Gymnolaemata	Cheilostomatida	Calloporidae		Calloporidae indet.	3		3		1	
WSP	Baffinland MEEMP	2024	DNA Specimens	Whole	mb24-033-130	Q7-24-Opportunistic-Bryozoan	06-Aug-24	MISC	BRYO	Bryozoa	Gymnolaemata	Ctenostomatida	Alcyonidiidae		Alcyonidium sp.	1		1		1	
WSP	Baffinland MEEMP	2024	DNA Specimens	Whole	mb24-033-131	Q12-B-G-Y2-24-Opportunistic-Bryozoan	31-Jul-24	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a				n/a		Debris/tissue fragment, nothing to identify in vial
WSP	Baffinland MEEMP	2024	DNA Specimens	Whole	mb24-033-132	RefTI-24-Opportunistic-Brachiopod	07-Aug-24	MISC	BRAC	Brachiopoda	Rhynchonellata	Rhynchonellida	Hemithiridae		Hemithiris psittacea	1		1		1	New to 2024
WSP	Baffinland MEEMP	2024	DNA Specimens	Whole	mb24-033-133	TGT-Ref-Chiton	16-Aug-24	MOLL	MOPO	Mollusca	Polyplacophora	Chitonida	Tonicellidae	Tonicellinae	Tonicella marmorea	1		1		1	
WSP	Baffinland MEEMP	2024	DNA Specimens	Whole	mb24-033-134	TGT-Ref-Coraline Algae	16-Aug-24	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Archived				n/a		Archived, not processed
WSP	Baffinland MEEMP	2024	DNA Specimens	Whole	mb24-033-135	TRO1-Tunicate	11-Aug-24	MISC	URAS	Chordata	Ascidacea	Phlebobranchia	Ascidiidae		Ascidia sp.	2		2		1	
WSP	Baffinland MEEMP	2024	DNA Specimens	Whole	mb24-033-135	TRO1-Tunicate	11-Aug-24	MEMO	MEMO	Arthropoda	Hexanauplia				Copepoda indet. (parasitic)	1		1			
WSP	Baffinland MEEMP	2024	Fin Clips and Whole Body Fish	Whole	24-033-319	ARAL-17	13-Aug-24	-	PIXX	Chordata	Teleostei	Scorpaeniformes	Agonidae	-	Aspidophoroides olrikii	-	-	-	-	-	Ulcina olrikii synonym
WSP	Baffinland MEEMP	2024	Fin Clips and Whole Body Fish	Whole	24-033-320	ARAL-18	13-Aug-24	-	PIXX	Chordata	Teleostei	Scorpaeniformes	Agonidae	-	Aspidophoroides olrikii	-	-	-	-	-	Ulcina olrikii synonym
WSP	Baffinland MEEMP	2024	Fin Clips and Whole Body Fish	Whole	24-033-350	UNCD-13	13-Aug-24	-	PIXX	Chordata	Actinopteri	Gadiformes	Gadidae	-	Gadidae indet.	-	-	-	-	-	
WSP	Baffinland MEEMP	2024	Fin Clips and Whole Body Fish	Whole	24-033-351	UNCD-14	13-Aug-24	-	PIXX	Chordata	Actinopteri	Gadiformes	Gadidae	-	Gadidae indet.	-	-	-	-	-	
WSP	Baffinland MEEMP	2024	Fin Clips and Whole Body Fish	Whole	24-033-352	UNSC-01-DV	11-Aug-24	-	PIXX	Chordata	Actinopteri	Scarpaeniformes	Cottidae	-	Myoxocephalus sp.	-	-	-	-	-	
WSP	Baffinland MEEMP	2024	Fin Clips and Whole Body Fish	Whole	24-033-354	UNSC-03	10-Aug-24	-	PIXX					-	Fin Clip	-	-	-	-	-	Submitting for DNA
WSP	Baffinland MEEMP	2024	Fin Clips and Whole Body Fish	Whole	24-033-355	UNSC-04	13-Aug-24	-	PIXX	Chordata	Actinopteri	Scarpaeniformes	Cottidae	-	Myoxocephalus sp.	-	-	-	-	-	
WSP	Baffinland MEEMP	2024	Fin Clips and Whole Body Fish	Whole	24-033-356	UNSC-05	16-Aug-24	-	PIXX	Chordata	Actinopteri	Scarpaeniformes	Cottidae	-	Myoxocephalus scorpius	-	-	-	-	-	Identified from photos (refer to reference: https://www.fishbase.se/photos/ThumbnailsSummary.php?ID=1329) Submitting for DNA
WSP	Baffinland MEEMP	2024	Fin Clips and Whole Body Fish	Whole	24-033-357	UNSC-06	18-Aug-24	-	PIXX					-	Fin Clip	-	-	-	-	-	
WSP	Baffinland MEEMP	2024	Quadrat Trawl	Whole	mb24-033-119	Q6-24-Opportunistic-Chiton, Limpet	08-Aug-24	MOLL	MOGA	Mollusca	Gastropoda				Lottiidae	1			1	1	
WSP	Baffinland MEEMP	2024	Quadrat Trawl	Whole	mb24-033-119	Q6-24-Opportunistic-Chiton, Limpet	08-Aug-24	MOLL	MOPO	Mollusca	Polyplacophora	Chitonida	Tonicellidae	Tonicellinae	Tonicella marmorea	1		1		1	
WSP	Baffinland MEEMP	2024	Quadrat Trawl	Whole	mb24-033-120	Q14-24-Opportunistic-Mussel	11-Aug-24	MOLL	MOBI	Mollusca	Bivalvia	Mytilida	Mytilidae		Mytilus sp.	1		1		1	
WSP	Baffinland MEEMP	2024	Quadrat Trawl	Whole	mb24-033-121	Q17-24-Opportunistic- Worm	06-Aug-24	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Polynoidae	Polynoinae	Harmothoe imbricata	1		1		1	
WSP	Baffinland MEEMP	2024	Quadrat Trawl	Whole	mb24-033-122	Q17-24-Opportunistic-Nudibranch	6-Aug-24	MOLL	MOGA	Mollusca	Gastropoda	Nudibranchia			Dendronotoidea indet.	1		1		1	

APPENDIX 8B-3

**Fish Stomach Laboratory
Data 2024**



Abundance and biomass data in long format for WSP Baffinland MEEMP, 2024.

Client	Project	Year	Fish	Biologica Sample ID	Client Sample ID	Date Sampled	% Fullness	% Material Digested	Full Stomach Weight (g)	Source	Group Code	Phylum	Subphylum	Class	Subclass	Order	Family	Taxon	Stage	Total Abundance	Total WW (g)	WW/Individual (g)	Total Unique Taxa	Comments	Processing Note	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-136	BAFF24UDPFFHSC1001	04-Aug-24	100	25	20.55182	Benthic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Gammaridae	Gammarus sp.	A	1	0.02727	0.02727		1	Found outside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-136	BAFF24UDPFFHSC1001	04-Aug-24	100	25	20.55182	Benthic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Uristidae	Onisimus sp.	A	1	0.09741	0.09741		1	Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-136	BAFF24UDPFFHSC1001	04-Aug-24	100	25	20.55182	Benthic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda		Amphipoda indet.	A/parts		0.00924	0.00924			Found outside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-136	BAFF24UDPFFHSC1001	04-Aug-24	100	25	20.55182	Planktonic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda		Hyperiidea indet.	A	1	0.14721	0.14721		1	Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-136	BAFF24UDPFFHSC1001	04-Aug-24	100	25	20.55182	Planktonic	CRCO	Arthropoda	Crustacea	Hexanauplia	Eumalacostraca	Calanoida	Calanidae	Calanus sp.	A	30	0.15381	0.00513		1	Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-136	BAFF24UDPFFHSC1001	04-Aug-24	100	25	20.55182	Undetermined	CRXX	Arthropoda	Crustacea					Crustacea indet.	Parts		0.06310	0.06310			Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-136	BAFF24UDPFFHSC1001	04-Aug-24	100	25	20.55182	Benthic	EURA	Annelida		Polychaeta	Echiura			Echiura indet.	A	1	0.72311	0.72311		1	Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-136	BAFF24UDPFFHSC1001	04-Aug-24	100	25	20.55182	Planktonic	MOGA	Mollusca						Limacina sp.	A	53	0.65928	0.01244			Found outside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-136	BAFF24UDPFFHSC1001	04-Aug-24	100	25	20.55182	Planktonic	MOGA	Mollusca						Limacina sp.	A	204	2.34161	0.01148		1	Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-136	BAFF24UDPFFHSC1001	04-Aug-24	100	25	20.55182	Non-Food	Non-Food							Plant material	n/a		n/a	n/a		n/a	Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-136	BAFF24UDPFFHSC1001	04-Aug-24	100	25	20.55182	Planktonic	PIXX	Chordata	Vertebrata	Teleostei				Teleostei indet.	A	1	2.58451	2.58451		1	Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-136	BAFF24UDPFFHSC1001	04-Aug-24	100	25	20.55182	Undetermined	XXXX							Unidentified tissue	Parts		0.37129	0.37129			Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-137	BAFF24UDPFFHSC1002	04-Aug-24	100	100	3.09678	Benthic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Gammaridae	Gammarus sp.	Int	2	0.00595	0.00298			Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-137	BAFF24UDPFFHSC1002	04-Aug-24	100	100	3.09678	Benthic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Gammaridae	Gammarus sp.	A	2	0.07507	0.03754		1	Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-137	BAFF24UDPFFHSC1002	04-Aug-24	100	100	3.09678	Planktonic	CRCO	Arthropoda	Crustacea	Hexanauplia	Copepoda	Calanoida	Calanidae	Calanus sp.	A	12	0.09749	0.00812		1	Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-137	BAFF24UDPFFHSC1002	04-Aug-24	100	100	3.09678	Planktonic	CRMY	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Mysida		Mysida indet.	A	8	0.05830	0.00729		1	Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-137	BAFF24UDPFFHSC1002	04-Aug-24	100	100	3.09678	Undetermined	CRXX	Arthropoda	Crustacea					Crustacea indet.	Parts		0.75895	0.75895			Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-137	BAFF24UDPFFHSC1002	04-Aug-24	100	100	3.09678	Non-Food	Non-Food							Rocks	n/a		n/a	n/a		n/a	Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-138	BAFF24UDPFFHSC1003	04-Aug-24	25	75	5.22891	Benthic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Gammaridae	Gammarus sp.	A	1	0.02570	0.02570		1	Found outside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-138	BAFF24UDPFFHSC1003	04-Aug-24	25	75	5.22891	Benthic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Gammaridae	Gammarus sp.	A	2	0.11381	0.05691			Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-138	BAFF24UDPFFHSC1003	04-Aug-24	25	75	5.22891	Planktonic	CRCO	Arthropoda	Crustacea	Hexanauplia	Copepoda	Calanoida	Calanidae	Calanus hyperboreus	A	1	0.01675	0.01675			Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-138	BAFF24UDPFFHSC1003	04-Aug-24	25	75	5.22891	Planktonic	CRCO	Arthropoda	Crustacea	Hexanauplia	Copepoda	Calanoida	Calanidae	Calanus hyperboreus	A	5	0.04977	0.00995		1	Found outside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-138	BAFF24UDPFFHSC1003	04-Aug-24	25	75	5.22891	Planktonic	CRCO	Arthropoda	Crustacea	Hexanauplia	Copepoda	Calanoida	Calanidae	Calanus sp.	A/parts		0.01275	0.01275			Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-138	BAFF24UDPFFHSC1003	04-Aug-24	25	75	5.22891	Planktonic	MOGA	Mollusca						Limacina sp.	A	7	0.05909	0.00844			Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-138	BAFF24UDPFFHSC1003	04-Aug-24	25	75	5.22891	Planktonic	MOGA	Mollusca						Limacina sp.	A	17	0.13128	0.00772		1	Found outside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-138	BAFF24UDPFFHSC1003	04-Aug-24	25	75	5.22891	Undetermined	XXXX							Unidentified tissue	Parts		0.02939	0.02939			Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-138	BAFF24UDPFFHSC1003	04-Aug-24	25	75	5.22891	Undetermined	XXXX							Unidentified tissue	Parts		0.24898	0.24898			Found outside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-139	BAFF24UDPFFHSC1004	04-Aug-24	100	100	12.28651	Planktonic	CRCO	Arthropoda	Crustacea	Hexanauplia	Copepoda	Calanoida	Calanidae	Calanus hyperboreus	A	1	0.00643	0.00643		1	Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-139	BAFF24UDPFFHSC1004	04-Aug-24	100	100	12.28651	Non-Food	Non-Food	Annelida		Polychaeta	Sedentaria	Terebellida	Pectinariidae	Pectinariidae indet. (tubes only)	Parts		n/a	n/a		n/a	Tube only	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-139	BAFF24UDPFFHSC1004	04-Aug-24	100	100	12.28651	Non-Food	Non-Food							Rocks	n/a		n/a	n/a		n/a	Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-139	BAFF24UDPFFHSC1004	04-Aug-24	100	100	12.28651	Benthic	POSE	Annelida		Polychaeta	Sedentaria	Terebellida	Pectinariidae	Pectinariidae indet.	Parts		0.86846	0.86846		1	Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-139	BAFF24UDPFFHSC1004	04-Aug-24	100	100	12.28651	Undetermined	XXXX							Unidentified tissue	Parts		2.36921	2.36921			Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-140	BAFF24UDPFFHSC1005	04-Aug-24	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Not Processed	n/a	n/a	n/a	n/a		n/a	Sample on hold, not processed
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-141	BAFF24UDPFFHSC1006	04-Aug-24	25	100	7.11293	Benthic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Gammaridae	Gammarus sp.	A	1	0.04714	0.04714		1	Found outside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-141	BAFF24UDPFFHSC1006	04-Aug-24	25	100	7.11293	Benthic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Oedicerotidae	Oedicerotidae indet.	A	1	0.00980	0.00980		1	Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-141	BAFF24UDPFFHSC1006	04-Aug-24	25	100	7.11293	Benthic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Oedicerotidae	Oedicerotidae indet.	A	1	0.02665	0.02665			Found outside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-141	BAFF24UDPFFHSC1006	04-Aug-24	25	100	7.11293	Benthic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda		Amphipoda indet.	A	1	0.00700	0.00700			Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-141	BAFF24UDPFFHSC1006	04-Aug-24	25	100	7.11293	Planktonic	CRCO	Arthropoda	Crustacea	Hexanauplia	Copepoda	Calanoida	Calanidae	Calanus hyperboreus	A	3	0.02114	0.00705		1	Found outside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-141	BAFF24UDPFFHSC1006	04-Aug-24	25	100	7.11293	Planktonic	CRCO	Arthropoda	Crustacea	Hexanauplia	Copepoda	Calanoida	Calanidae	Calanus sp.	A	2	0.02309	0.01155			Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-141	BAFF24UDPFFHSC1006	04-Aug-24	25	100	7.11293	Undetermined	CRXX	Arthropoda	Crustacea					Crustacea indet.	Parts		0.06751	0.06751			Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-141	BAFF24UDPFFHSC1006	04-Aug-24	25	100	7.11293	Undetermined	CRXX	Arthropoda	Crustacea					Crustacea indet.	Parts		0.08213	0.08213			Found outside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-141	BAFF24UDPFFHSC1006	04-Aug-24	25	100	7.11293	Planktonic	MOGA	Mollusca						Limacina sp.	A	43	0.44344	0.01031			Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-141	BAFF24UDPFFHSC1006	04-Aug-24	25	100	7.11293	Planktonic	MOGA	Mollusca						Limacina sp.	A	156	1.54506	0.00990		1	Found outside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-141	BAFF24UDPFFHSC1006	04-Aug-24	25	100	7.11293	Non-Food	Non-Food							Plant material	n/a		n/a	n/a		n/a	Found outside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-141	BAFF24UDPFFHSC1006	04-Aug-24	25	100	7.11293	Planktonic	PIXX	Chordata	Vertebrata	Teleostei				Teleostei indet.	Parts		0.28482	0.28482		1	Found outside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-141	BAFF24UDPFFHSC1006	04-Aug-24	25	100	7.11293	Benthic	PIXX	Chordata						Ammodytidae indet.	A	1	2.68343	2.68343		1	Found outside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-141	BAFF24UDPFFHSC1006	04-Aug-24	25	100	7.11293	Undetermined	XXXX							Unidentified tissue	Parts		0.01423	0.01423			Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-141	BAFF24UDPFFHSC1006	04-Aug-24	25	100	7.11293	Undetermined	XXXX							Unidentified tissue	Parts		0.23084	0.23084			Found outside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-142	BAFF24UDPFFHSC1007	04-Aug-24	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Not Processed	n/a	n/a	n/a	n/a		n/a	Sample on hold, not processed
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-143	BAFF24UDPFFHSC1008	04-Aug-24	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Not Processed	n/a	n/a	n/a	n/a		n/a	Sample on hold, not processed
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-144	BAFF24UDPFFHSC1009	04-Aug-24	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Not Processed	n/a	n/a	n/a	n/a		n/a	Sample on hold, not processed
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-145	BAFF24UDPFFHSC1010	04-Aug-24	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Not Processed	n/a	n/a	n/a	n/a		n/a	Sample on hold, not processed
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-146	BAFF24UDPFFHSC1011	04-Aug-24	75	100	9.72847	Benthic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda		Amphipoda indet.	A	1	0.04268	0.04268		1	Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-146	BAFF24UDPFFHSC1011	04-Aug-24																				



Abundance and biomass data in long format for WSP Baffinland MEEMP, 2024.

Client	Project	Year	Fish	Biologica Sample			Client Sample ID	Date Sampled	% Fullness	% Material Digested	Full Stomach Weight (g)	Source	Group Code	Phylum	Subphylum	Class	Subclass	Order	Family	Taxon	Total		Total Unique Taxa	Comments	Processing Note
				ID	ms24-033-156	ms24-033-156															Abundance	Total WW (g)			
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-156	BAFF24UDPFFHSC1021	04-Aug-24	50	100	3.88662	Benthic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Atylidae	Atylus sp.	Int	1	0.00700	0.00700			Found outside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-156	BAFF24UDPFFHSC1021	04-Aug-24	50	100	3.88662	Benthic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Atylidae	Atylus sp.	A	1	0.34974	0.34974	1		Found outside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-156	BAFF24UDPFFHSC1021	04-Aug-24	50	100	3.88662	Benthic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Gammaridae	Gammarus sp.	A	5	0.06878	0.01376	1		Found outside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-156	BAFF24UDPFFHSC1021	04-Aug-24	50	100	3.88662	Planktonic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda		Hyperiidea indet.	A/parts	1	0.04328	0.04328	1		Found outside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-156	BAFF24UDPFFHSC1021	04-Aug-24	50	100	3.88662	Benthic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda		Lysianassoidea indet.	A	1	0.32107	0.32107	1		Found outside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-156	BAFF24UDPFFHSC1021	04-Aug-24	50	100	3.88662	Planktonic	CRCO	Arthropoda	Crustacea	Hexanauplia	Copepoda	Calanoida	Calanidae	Calanus hyperboreus	A	26	0.24481	0.00942	1		Found outside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-156	BAFF24UDPFFHSC1021	04-Aug-24	50	100	3.88662	Planktonic	CRCO	Arthropoda	Crustacea	Hexanauplia	Copepoda	Calanoida	Calanidae	Calanus hyperboreus	Parts		0.04789	0.04789			Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-156	BAFF24UDPFFHSC1021	04-Aug-24	50	100	3.88662	Planktonic	CRMY	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Mysida		Mysida indet.	A	1	0.03967	0.03967	1		Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-156	BAFF24UDPFFHSC1021	04-Aug-24	50	100	3.88662	Planktonic	MOGA	Mollusca						Limacina sp.	A	22	0.16660	0.00757			Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-156	BAFF24UDPFFHSC1021	04-Aug-24	50	100	3.88662	Planktonic	MOGA	Mollusca						Limacina sp.	A	244	1.41971	0.00582	1		Found outside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-156	BAFF24UDPFFHSC1021	04-Aug-24	50	100	3.88662	Non-Food	Non-Food							Rocks	n/a		n/a	n/a	n/a		Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-156	BAFF24UDPFFHSC1021	04-Aug-24	50	100	3.88662	Undetermined	XXXX							Unidentified tissue	Parts		0.32578	0.32578			Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-156	BAFF24UDPFFHSC1021	04-Aug-24	50	100	3.88662	Undetermined	XXXX							Unidentified tissue	Parts		3.18934	3.18934			Found outside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-157	BAFF24UDPFFHSC1022	04-Aug-24	75	100	5.37813	Planktonic	CRCO	Arthropoda	Crustacea	Hexanauplia	Copepoda	Calanoida	Calanidae	Calanus sp.	A	6	0.04511	0.00752			Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-157	BAFF24UDPFFHSC1022	04-Aug-24	75	100	5.37813	Planktonic	CRCO	Arthropoda	Crustacea	Hexanauplia	Copepoda	Calanoida	Calanidae	Calanus sp.	A	7	0.02585	0.00369	1		Found outside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-157	BAFF24UDPFFHSC1022	04-Aug-24	75	100	5.37813	Planktonic	MOGA	Mollusca						Limacina sp.	A	3	0.03644	0.01215	1		Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-157	BAFF24UDPFFHSC1022	04-Aug-24	75	100	5.37813	Non-Food	Non-Food							Plant material	n/a		n/a	n/a	n/a		Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-157	BAFF24UDPFFHSC1022	04-Aug-24	75	100	5.37813	Non-Food	Non-Food							Rocks	n/a		n/a	n/a	n/a		Found outside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-157	BAFF24UDPFFHSC1022	04-Aug-24	75	100	5.37813	Planktonic	PIXX	Chordata	Vertebrata	Teleostei				Teleostei indet.	Parts		0.20945	0.20945	1		Found outside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-157	BAFF24UDPFFHSC1022	04-Aug-24	75	100	5.37813	Undetermined	XXXX							Unidentified tissue	Parts		0.24334	0.24334			Found outside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-157	BAFF24UDPFFHSC1022	04-Aug-24	75	100	5.37813	Undetermined	XXXX							Unidentified tissue	Parts		0.70190	0.70190			Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-158	BAFF24UDPFFHSC1023	04-Aug-24	25	100	2.65917	Benthic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Gammaridae	Gammarus sp.	A	2	0.11111	0.05556	1		Found outside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-158	BAFF24UDPFFHSC1023	04-Aug-24	25	100	2.65917	Planktonic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda		Hyperiidea indet.	A/parts	1	0.00376	0.00376	1		Found outside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-158	BAFF24UDPFFHSC1023	04-Aug-24	25	100	2.65917	Planktonic	CRCO	Arthropoda	Crustacea	Hexanauplia	Copepoda	Calanoida	Calanidae	Calanus hyperboreus	A	1	0.00420	0.00420			Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-158	BAFF24UDPFFHSC1023	04-Aug-24	25	100	2.65917	Planktonic	CRCO	Arthropoda	Crustacea	Hexanauplia	Copepoda	Calanoida	Calanidae	Calanus hyperboreus	A	8	0.05738	0.00717	1		Found outside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-158	BAFF24UDPFFHSC1023	04-Aug-24	25	100	2.65917	Planktonic	CRMY	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Mysida	Mysidae	Mysis sp.	A	3	0.01762	0.00587	1		Found outside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-158	BAFF24UDPFFHSC1023	04-Aug-24	25	100	2.65917	Planktonic	CRMY	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Mysida		Mysida indet.	Parts		0.09659	0.09659			Found outside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-158	BAFF24UDPFFHSC1023	04-Aug-24	25	100	2.65917	Planktonic	MOGA	Mollusca						Limacina sp.	A	14	0.09068	0.00648	1		Found outside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-158	BAFF24UDPFFHSC1023	04-Aug-24	25	100	2.65917	Undetermined	XXXX							Unidentified tissue	Parts		0.10119	0.10119			Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-158	BAFF24UDPFFHSC1023	04-Aug-24	25	100	2.65917	Undetermined	XXXX							Unidentified tissue	Parts		1.59613	1.59613			Found outside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-159	BAFF24UDPFFHSC1024	05-Aug-24	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Not Processed	n/a	n/a	n/a	n/a	n/a		Sample on hold, not processed
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-160	BAFF24UDPFFHSC1025	05-Aug-24	75	100	10.80723	Undetermined	CRXX	Arthropoda	Crustacea					Crustacea indet.	Parts		0.33263	0.33263	1		Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-160	BAFF24UDPFFHSC1025	05-Aug-24	75	100	10.80723	Undetermined	XXXX							Unidentified tissue	Parts		0.10665	0.10665			Found outside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-160	BAFF24UDPFFHSC1025	05-Aug-24	75	100	10.80723	Undetermined	XXXX							Unidentified tissue	Parts		2.39413	2.39413			Found inside of the stomach



Abundance and biomass data in long format for WSP Baffinland MEEMP, 2024.

Client	Project	Year	Fish	Biologica Sample ID	Client Sample ID	Date Sampled	% Fullness	% Material Digested	Full Stomach Weight (g)	Source	Group Code	Phylum	Subphylum	Class	Subclass	Order	Family	Taxon	Stage	Total Abundance	Total WW (g)	WW/Individual (g)	Total Unique Taxa	Comments	Processing Note
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-177	BAFF24UREFFHSC2002	03-Aug-24	25	100	10.04563	Benthic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda		Amphipoda indet.	Int	1	0.00497	0.00497	1		Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-177	BAFF24UREFFHSC2002	03-Aug-24	25	100	10.04563	Planktonic	CRCO	Arthropoda	Crustacea	Hexanauplia	Copepoda	Calanoida	Calanidae	Calanus sp.	A	6	0.03262	0.00544	1		Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-177	BAFF24UREFFHSC2002	03-Aug-24	25	100	10.04563	Undetermined	PIXX	Chordata	Vertebrata	Teleostei				Teleostei indet.	Eggs	40	0.21704	0.00543	1		Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-177	BAFF24UREFFHSC2002	03-Aug-24	25	100	10.04563	Undetermined	XXXX							Unidentified tissue	Parts		0.32927	0.32927			Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-178	BAFF24UREFFHSC2003	03-Aug-24	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Not Processed	n/a	n/a	n/a	n/a	n/a	Sample on hold, not processed	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-179	BAFF24UREFFHSC2004	03-Aug-24	0	100	12.76674	Planktonic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda		Hyperiidea indet.	A	1	0.01846	0.01846	1		Found outside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-179	BAFF24UREFFHSC2004	03-Aug-24	0	100	12.76674	Planktonic	CRXX	Arthropoda	Crustacea					Crustacea indet.	Parts		0.01279	0.01279	1		Found outside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-179	BAFF24UREFFHSC2004	03-Aug-24	0	100	12.76674	Planktonic	MOGA	Mollusca						Limacina sp.	Parts		0.08992	0.08992	1		Found outside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-179	BAFF24UREFFHSC2004	03-Aug-24	0	100	12.76674	Planktonic	PIXX	Chordata	Vertebrata	Teleostei				Teleostei indet.	Parts		0.31849	0.31849	1		Found outside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-179	BAFF24UREFFHSC2004	03-Aug-24	0	100	12.76674	Undetermined	XXXX							Unidentified tissue	Parts		1.11205	1.11205			Found outside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-180	BAFF24UREFFHSC2005	03-Aug-24	75	100	6.91222	Benthic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Gammaridae	Gammarus sp.	Int	5	0.04320	0.00864	1		Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-180	BAFF24UREFFHSC2005	03-Aug-24	75	100	6.91222	Planktonic	CRMY	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Mysida		Mysida indet.	Int	8	0.02627	0.00328	1		Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-180	BAFF24UREFFHSC2005	03-Aug-24	75	100	6.91222	Undetermined	CRXX	Arthropoda	Crustacea					Crustacea indet.	Parts		0.63190	0.63190			Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-180	BAFF24UREFFHSC2005	03-Aug-24	75	100	6.91222	Non-Food	Non-Food							Plant material	n/a		n/a	n/a	n/a		Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-180	BAFF24UREFFHSC2005	03-Aug-24	75	100	6.91222	Non-Food	Non-Food							Rocks	n/a		n/a	n/a	n/a		Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-180	BAFF24UREFFHSC2005	03-Aug-24	75	100	6.91222	Undetermined	XXXX							Unidentified tissue	Parts		1.74253	1.74253			Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-181	BAFF24UREFFHSC2006	03-Aug-24	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Not Processed	n/a	n/a	n/a	n/a	n/a	Sample on hold, not processed	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-182	BAFF24UREFFHSC2007	03-Aug-24	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Not Processed	n/a	n/a	n/a	n/a	n/a	Sample on hold, not processed	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-183	BAFF24UREFFHSC2008	03-Aug-24	0	100	5.56602	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Empty Stomach	n/a	n/a	n/a	n/a	n/a	Empty Stomach	Empty Stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-184	BAFF24UREFFHSC2009	03-Aug-24	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Not Processed	n/a	n/a	n/a	n/a	n/a	Sample on hold, not processed	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-185	BAFF24UREFFHSC2010	03-Aug-24	0	100	1.25097	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Empty Stomach	n/a	n/a	n/a	n/a	n/a	Empty Stomach	Empty Stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-186	BAFF24UREFFHSC2011	03-Aug-24	25	50	8.99201	Planktonic	CRMY	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Mysida		Mysida indet.	Int	1	0.00241	0.00241	1		Found outside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-186	BAFF24UREFFHSC2011	03-Aug-24	25	50	8.99201	Planktonic	MOGA	Mollusca						Limacina sp.	A	3	0.03780	0.01260			Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-186	BAFF24UREFFHSC2011	03-Aug-24	25	50	8.99201	Planktonic	MOGA	Mollusca						Limacina sp.	A	71	0.70461	0.00992	1		Found outside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-186	BAFF24UREFFHSC2011	03-Aug-24	25	50	8.99201	Undetermined	XXXX							Unidentified tissue	Parts		0.08713	0.08713			Found outside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-187	BAFF24UREFFHSC2012	03-Aug-24	25	75	9.01641	Undetermined	CRXX	Arthropoda	Crustacea					Crustacea indet.	Parts		0.06189	0.06189	1		Found outside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-187	BAFF24UREFFHSC2012	03-Aug-24	25	75	9.01641	Planktonic	MOGA	Mollusca						Limacina sp.	A/parts	8	0.04805	0.00601			Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-187	BAFF24UREFFHSC2012	03-Aug-24	25	75	9.01641	Planktonic	MOGA	Mollusca						Limacina sp.	A	45	0.38484	0.00855	1		Found outside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-187	BAFF24UREFFHSC2012	03-Aug-24	25	75	9.01641	Non-Food	Non-Food							Rocks	n/a		n/a	n/a	n/a		Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-187	BAFF24UREFFHSC2012	03-Aug-24	25	75	9.01641	Non-Food	Non-Food							Rocks	n/a		n/a	n/a	n/a		Found outside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-187	BAFF24UREFFHSC2012	03-Aug-24	25	75	9.01641	Undetermined	XXXX							Unidentified tissue	Parts		1.36055	1.36055			Found outside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-188	BAFF24UREFFHSC2013	09-Aug-24	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Not Processed	n/a	n/a	n/a	n/a	n/a	Sample on hold, not processed	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-189	BAFF24UREFFHSC2014	09-Aug-24	0	100	3.59288	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Empty Stomach	n/a	n/a	n/a	n/a	n/a	Empty Stomach	Empty Stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-190	BAFF24UREFFHSC2015	09-Aug-24	0	100	2.25804	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Empty Stomach	n/a	n/a	n/a	n/a	n/a	Empty Stomach	Empty Stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-191	BAFF24UREFFHSC2016	09-Aug-24	25	100	4.38341	Benthic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Gammaridae	Gammarus sp.	Int	1	0.00529	0.00529	1		Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-191	BAFF24UREFFHSC2016	09-Aug-24	25	100	4.38341	Planktonic	CRMY	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Mysida		Mysida indet.	Int	3	0.09830	0.03277	1		Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-191	BAFF24UREFFHSC2016	09-Aug-24	25	100	4.38341	Undetermined	CRXX	Arthropoda	Crustacea					Crustacea indet.	Parts		0.01361	0.01361			Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-191	BAFF24UREFFHSC2016	09-Aug-24	25	100	4.38341	Undetermined	XXXX							Unidentified tissue	Parts		0.26617	0.26617			Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-192	BAFF24UREFFHSC2017	09-Aug-24	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Not Processed	n/a	n/a	n/a	n/a	n/a	Sample on hold, not processed	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-193	BAFF24UREFFHSC2018	09-Aug-24	25	100	1.15140	Planktonic	CRMY	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Mysida		Mysida indet.	Int	1	0.00284	0.00284	1		Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-194	BAFF24UREFFHSC2019	09-Aug-24	50	75	2.97185	Benthic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Gammaridae	Gammarus sp.	A	2	0.04681	0.02341	1		Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-194	BAFF24UREFFHSC2019	09-Aug-24	50	75	2.97185	Benthic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda		Amphipoda indet.	Int	1	0.00219	0.00219			Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-194	BAFF24UREFFHSC2019	09-Aug-24	50	75	2.97185	Planktonic	CRMY	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Mysida		Mysida indet.	J	2	0.00437	0.00219	1		Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-194	BAFF24UREFFHSC2019	09-Aug-24	50	75	2.97185	Undetermined	CRXX	Arthropoda	Crustacea					Crustacea indet.	Parts		0.00693	0.00693			Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-194	BAFF24UREFFHSC2019	09-Aug-24	50	75	2.97185	Parasite	PLTY	Platyhelminthes						Cestoda indet.	L	8	0.00126	0.00016	1		Plerocercoid
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-194	BAFF24UREFFHSC2019	09-Aug-24	50	75	2.97185	Undetermined	XXXX							Unidentified tissue	Parts		0.41897	0.41897			Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-195	BAFF24UREFFHSC2020	09-Aug-24	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Not Processed	n/a	n/a	n/a	n/a	n/a	Sample on hold, not processed	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-196	BAFF24UREFFHSC2021	09-Aug-24	0	100	1.78677	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Empty Stomach	n/a	n/a	n/a	n/a	n/a	Empty Stomach	Empty Stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-197	BAFF24UREFFHSC2022	09-Aug-24	25	75	2.40808	Benthic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Gammaridae	Gammarus sp.	Int	1	0.03430	0.03430	1		Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-197	BAFF24UREFFHSC2022	09-Aug-24	25	75	2.40808	Benthic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Gammaridae	Gammarus sp.	Parts		0.00711	0.00711			Found outside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-197	BAFF24UREFFHSC2022	09-Aug-24	25	75	2.40808	Undetermined	CRXX	Arthropoda	Crustacea					Crustacea indet.	Parts		0.01612	0.00612			Found outside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-197	BAFF24UREFFHSC2022	09-Aug-24	25	75	2.40808	Undetermined	CRXX	Arthropoda	Crustacea					Crustacea indet.	Parts		0.04598	0.04598			Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-197	BAFF24UREFFHSC2022	09-Aug-24	25	75	2.40808	Planktonic	MOGA	Mollusca						Limacina sp.	Parts		0.00570	0.00570	1		Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-198	BAFF24UREFFHSC2023	09-Aug-24	50	100	6.02460	Benthic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Gammaridae	Gammarus sp.	Int	1	0.00417	0.00417			Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-198	BAFF24UREFFHSC2023	09-Aug-24	50	100	6.02460	Benthic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Gammaridae	Gammarus sp.	Int	3	0.03284	0.01095			Found outside



Abundance and biomass data in long format for WSP Baffinland MEEMP, 2024.

Client	Project	Year	Fish	Biologica Sample ID	Client Sample ID	Date Sampled	% Fullness	% Material Digested	Full Stomach Weight (g)	Source	Group Code	Phylum	Subphylum	Class	Subclass	Order	Family	Taxon	Stage	Total Abundance	Total WW (g)	WW/Individual (g)	Total Unique Taxa	Comments	Processing Note		
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-205	BAFF24UREFFHSC2030	09-Aug-24	50	75	7.13678	Undetermined	XXXX							Unidentified tissue	Parts		0.56203	0.56203				Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-206	BAFF24UREFFHSC2031	07-Aug-24	50	50	6.49754	Benthic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Gammaridae	Gammarus sp.	Int	3	0.03153	0.01051	1			Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-206	BAFF24UREFFHSC2031	07-Aug-24	50	50	6.49754	Planktonic	CRMY	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Mysida	Mysida indet.	Int	4	0.01035	0.00259	1			Found inside of the stomach		
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-206	BAFF24UREFFHSC2031	07-Aug-24	50	50	6.49754	Undetermined	CRXX	Arthropoda	Crustacea					Crustacea indet.	Parts		0.01001	0.01001				Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-206	BAFF24UREFFHSC2031	07-Aug-24	50	50	6.49754	Planktonic	MOGA	Mollusca						Limacina sp.	A	49	0.52681	0.01075	1			Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-206	BAFF24UREFFHSC2031	07-Aug-24	50	50	6.49754	Planktonic	MOGA	Mollusca						Limacina sp.	Parts		0.23724	0.23724				Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-206	BAFF24UREFFHSC2031	07-Aug-24	50	50	6.49754	Non-Food	Non-Food							Plant material	n/a		n/a	n/a	n/a			Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-206	BAFF24UREFFHSC2031	07-Aug-24	50	50	6.49754	Non-Food	Non-Food							Rocks	n/a		n/a	n/a	n/a			Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-206	BAFF24UREFFHSC2031	07-Aug-24	50	50	6.49754	Parasite	PLTY	Platyhelminthes							Cestoda indet.	L	2	0.00047	0.00024	1	Plerocercoid		Found inside of the stomach
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-207	BAFF24UREFFHSC2032	07-Aug-24	0	100	4.61607	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		Empty Stomach	n/a	n/a	n/a	n/a	Empty Stomach		Empty Stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-208	BAFF24UREFFHSC2033	08-Aug-24	0	100	1.67066	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		Empty Stomach	n/a	n/a	n/a	n/a	Empty Stomach		Empty Stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-209	BAFF24UREFFHSC2034	08-Aug-24	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		Not Processed	n/a	n/a	n/a	n/a		Sample on hold, not processed		
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-210	BAFF24UREFFHSC2035	08-Aug-24	75	25	4.66901	Benthic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Gammaridae	Gammarus sp.	Int	2	0.10272	0.05136	1			Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-210	BAFF24UREFFHSC2035	08-Aug-24	75	25	4.66901	Planktonic	CRMY	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Mysida	Mysida indet.	Int	1	0.00262	0.00262	1			Found inside of the stomach		
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-210	BAFF24UREFFHSC2035	08-Aug-24	75	25	4.66901	Undetermined	CRXX	Arthropoda	Crustacea					Crustacea indet.	Parts		0.00553	0.00553				Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-210	BAFF24UREFFHSC2035	08-Aug-24	75	25	4.66901	Planktonic	MOGA	Mollusca						Limacina sp.	A	121	0.54841	0.00453	1			Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-210	BAFF24UREFFHSC2035	08-Aug-24	75	25	4.66901	Planktonic	MOGA	Mollusca						Limacina sp.	Parts		0.05121	0.05121				Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-211	BAFF24UREFFHSC2036	16-Aug-24	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		Not Processed	n/a	n/a	n/a	n/a		Sample on hold, not processed		
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-212	BAFF24UREFFHSC2037	16-Aug-24	25	25	7.20518	Benthic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Gammaridae	Gammarus sp.	A	1	0.04173	0.04173	1			Found outside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-212	BAFF24UREFFHSC2037	16-Aug-24	25	25	7.20518	Planktonic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Hyperiidae	Themisto sp.	A	1	0.00748	0.00748	1			Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-212	BAFF24UREFFHSC2037	16-Aug-24	25	25	7.20518	Undetermined	CRXX	Arthropoda	Crustacea					Crustacea indet.	Parts		0.00150	0.00150				Found outside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-212	BAFF24UREFFHSC2037	16-Aug-24	25	25	7.20518	Planktonic	MOGA	Mollusca						Limacina sp.	A	28	0.20931	0.00748	1			Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-213	BAFF24UREFFHSC2038	16-Aug-24	25	50	6.06110	Benthic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Gammaridae	Gammarus sp.	Int	3	0.02670	0.00890	1			Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-213	BAFF24UREFFHSC2038	16-Aug-24	25	50	6.06110	Planktonic	CRMY	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Mysida	Mysida indet.	Parts		0.00520	0.00520	1			Found inside of the stomach		
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-213	BAFF24UREFFHSC2038	16-Aug-24	25	50	6.06110	Undetermined	CRXX	Arthropoda	Crustacea					Crustacea indet.	Parts		0.00711	0.00711				Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-213	BAFF24UREFFHSC2038	16-Aug-24	25	50	6.06110	Planktonic	MOGA	Mollusca						Limacina sp.	A	19	0.11851	0.00624	1			Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-213	BAFF24UREFFHSC2038	16-Aug-24	25	50	6.06110	Undetermined	XXXX							Unidentified tissue	Parts		0.06011	0.06011				Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-214	BAFF24UREFFHSC2039	16-Aug-24	50	50	2.15468	Benthic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Gammaridae	Gammarus sp.	J	5	0.34700	0.06940	1			Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-214	BAFF24UREFFHSC2039	16-Aug-24	50	50	2.15468	Undetermined	CRXX	Arthropoda	Crustacea					Crustacea indet.	Parts		0.06312	0.06312				Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-214	BAFF24UREFFHSC2039	16-Aug-24	50	50	2.15468	Planktonic	MOGA	Mollusca						Limacina sp.	A	28	0.16975	0.00606	1			Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-214	BAFF24UREFFHSC2039	16-Aug-24	50	50	2.15468	Non-Food	Non-Food							Rocks	n/a		n/a	n/a	n/a			Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Fourhorn Sculpin	ms24-033-214	BAFF24UREFFHSC2039	16-Aug-24	50	50	2.15468	Undetermined	XXXX							Unidentified tissue	Parts		0.02933	0.02933				Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Arctic Char	ms24-033-215	BAFF24UDPFARCH4001	07-Aug-24	25	100	3.60282	Planktonic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Hyperiidae	Themisto sp.	A/parts	2	0.02981	0.01491	1			Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Arctic Char	ms24-033-215	BAFF24UDPFARCH4001	07-Aug-24	25	100	3.60282	Undetermined	CRXX	Arthropoda	Crustacea					Crustacea indet.	Parts		0.03441	0.03441				Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Arctic Char	ms24-033-216	BAFF24UDPFARCH4002	07-Aug-24	50	50	7.22002	Planktonic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Hyperiidae	Themisto sp.	Int	1	0.01044	0.01044				Found outside of the stomach	
WSP	Baffinland MEEMP	2024	Arctic Char	ms24-033-216	BAFF24UDPFARCH4002	07-Aug-24	50	50	7.22002	Planktonic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Hyperiidae	Themisto sp.	Int	1	0.01259	0.01259	1			Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Arctic Char	ms24-033-216	BAFF24UDPFARCH4002	07-Aug-24	50	50	7.22002	Planktonic	CRCO	Arthropoda	Crustacea	Hexanauplia	Copepoda	Calanoida	Calanidae	Calanus hyperboreus	A	3	0.01730	0.00577	1			Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Arctic Char	ms24-033-216	BAFF24UDPFARCH4002	07-Aug-24	50	50	7.22002	Planktonic	CRMY	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Mysida	Mysidae	Mysis sp.	A	1	0.13752	0.13752				Found outside of the stomach	
WSP	Baffinland MEEMP	2024	Arctic Char	ms24-033-216	BAFF24UDPFARCH4002	07-Aug-24	50	50	7.22002	Planktonic	CRMY	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Mysida	Mysidae	Mysis sp.	A	2	0.08720	0.04360	1			Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Arctic Char	ms24-033-216	BAFF24UDPFARCH4002	07-Aug-24	50	50	7.22002	Planktonic	CRMY	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Mysida	Mysidae	Mysida indet.	Int	3	0.01386	0.00462				Found outside of the stomach	
WSP	Baffinland MEEMP	2024	Arctic Char	ms24-033-216	BAFF24UDPFARCH4002	07-Aug-24	50	50	7.22002	Planktonic	CRMY	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Mysida	Mysidae	Mysida indet.	Int	8	0.02704	0.00338				Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Arctic Char	ms24-033-216	BAFF24UDPFARCH4002	07-Aug-24	50	50	7.22002	Undetermined	CRXX	Arthropoda	Crustacea					Crustacea indet.	Parts		0.01073	0.01073				Found outside of the stomach	
WSP	Baffinland MEEMP	2024	Arctic Char	ms24-033-216	BAFF24UDPFARCH4002	07-Aug-24	50	50	7.22002	Undetermined	CRXX	Arthropoda	Crustacea					Crustacea indet.	Parts		0.08308	0.08308				Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Arctic Char	ms24-033-217	BAFF24UDPFARCH4003	08-Aug-24	25	100	9.91444	Undetermined	CRXX	Arthropoda	Crustacea					Crustacea indet.	Parts		0.13310	0.13310	1			Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Arctic Char	ms24-033-217	BAFF24UDPFARCH4003	08-Aug-24	25	100	9.91444	Undetermined	XXXX							Unidentified tissue	Parts		0.53173	0.53173				Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Arctic Char	ms24-033-218	BAFF24UDPFARCH4004	08-Aug-24	25	75	11.54355	Planktonic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Hyperiidae	Themisto sp.	Int	1	0.01159	0.01159	1			Found outside of the stomach	
WSP	Baffinland MEEMP	2024	Arctic Char	ms24-033-218	BAFF24UDPFARCH4004	08-Aug-24	25	75	11.54355	Planktonic	CRMY	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Mysida	Mysida indet.	Parts		0.35202	0.35202	1			Found inside of the stomach		
WSP	Baffinland MEEMP	2024	Arctic Char	ms24-033-219	BAFF24UDPFARCH4005	08-Aug-24	75	50	61.15800	Planktonic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Hyperiidae	Themisto sp.	A	19	5.58391	0.29389				Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Arctic Char	ms24-033-219	BAFF24UDPFARCH4005	08-Aug-24	75	50	61.15800	Planktonic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Hyperiidae	Themisto sp.	Int	148	6.50573	0.04396	1			Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Arctic Char	ms24-033-219	BAFF24UDPFARCH4005	08-Aug-24	75	50	61.15800	Benthic	CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Uristidae	Onisimus sp.	Int	21	0.67294	0.03204	1			Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Arctic Char	ms24-033-219	BAFF24UDPFARCH4005	08-Aug-24	75	50	61.15800	Planktonic	CRMY	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Mysida	Mysidae	Mysis sp.	Int	13	0.80171	0.06167	1			Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Arctic Char	ms24-033-219	BAFF24UDPFARCH4005	08-Aug-24	75	50	61.15800	Undetermined	CRXX	Arthropoda	Crustacea					Crustacea indet.	Parts		12.53758	12.53758				Found inside of the stomach	
WSP	Baffinland MEEMP	2024	Arctic Char	ms24-033-219	BAFF24UDPFARCH4005	08-Aug-24	75	50	61.15800	Planktonic	PIXX	Chordata	Vertebrata	Teleostei				Teleostei indet.	Parts		0.69258	0.69258	1			Found inside of the stomach	
WSP	Baff																										

APPENDIX 8B-4

**Macroalgal Identifications by
University of New Brunswick, 2024**

Macroalgal Identifications by Dr. Gary Saunders, University of New Brunswick, 2024

#	Division	Class	Order	Family	Name	Hab.	Coll.	Date	Geo.	Lat	Long	Basis of Record	Notable
GWS049942	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 3GWS	Subtidal (12.3 m) on Rock	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.89	-80.8846	Human observation & Sanger sequencing	
GWS049952	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 3GWS	Upper intertidal on rock	O.Reeves	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	Human observation & Sanger sequencing	
GWS049953	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 3GWS	Upper intertidal on rock	O.Reeves	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	Human observation & Sanger sequencing	
GWS049955	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 3GWS	Upper intertidal on rock	O.Reeves	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	Human observation & Sanger sequencing	
GWS049957	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 3GWS	Subtidal (5 m) on Rock	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	Human observation & Sanger sequencing	
GWS049967	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 3GWS	Subtidal (5 m) on Rock	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	Human observation & Sanger sequencing	
GWS049968	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 8GWS	Subtidal (17 m) on Rock	P. Hinton	05.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	Human observation & Sanger sequencing	
GWS049907	Chlorophyta	Ulvophyceae	Cladophorales	Cladophoraceae	Chaetomorpha melagonium (F.Weber & D.Mohr) Kützing	Subtidal (11.3 m) on Metal quadrat	N. OBrien, P. Hinton	29.7.2024	Milne Inlet, Baffin Island	71.9149	-80.7992	Human observation & Sanger sequencing	
GWS049918	Chlorophyta	Ulvophyceae	Cladophorales	Cladophoraceae	Chaetomorpha melagonium (F.Weber & D.Mohr) Kützing	Subtidal (12.8 m) on Metal quadrat	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.9185	Human observation & Sanger sequencing	
GWS049951A	Chlorophyta	Ulvophyceae	Ulotrichales	Ulotrichaceae	Ulothrix flacca (Dillwyn)Thuret	Upper intertidal on rock	O.Reeves	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	Human observation	
GWS049950	Chlorophyta	Ulvophyceae	Ulotrichales	Ulotrichaceae	Ulothrix sp. 1Nunavut	Upper intertidal on rock	O.Reeves	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	Human observation & Sanger sequencing	Sequence indicates this is a species of Ulothrix that we have not encountered previously. A preliminary look at the NextGen ITS data has also hit this species.
GWS049939	Chlorophyta	Ulvophyceae	Ulotrichales	Ulotrichaceae	Urospora neglecta (Kornmann) Lokhorst & Trask	Subtidal (12.3 m) on Rock	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.89	-80.8846	Human observation & Sanger sequencing	
GWS049951	Chlorophyta	Ulvophyceae	Ulotrichales	Ulotrichaceae	Urospora neglecta (Kornmann) Lokhorst & Trask	Upper intertidal on rock	O.Reeves	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	Human observation	
GWS049956	Chlorophyta	Ulvophyceae	Ulvaes	Kommanniaceae	Blidingia sp.	Subtidal (5 m) on Rock	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	Human observation	
GWS049931	Chlorophyta	Ulvophyceae	Ulvaes	Kommanniaceae	Blidingia sp. 2subsalsa (Kjellman) Kornmann & Sahling	Subtidal (12.3 m) on Fucus	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.89	-80.8846	Human observation	
GWS049940	Chlorophyta	Ulvophyceae	Ulvaes	Kommanniaceae	Blidingia sp. 2subsalsa (Kjellman) Kornmann & Sahling	Subtidal (12.3 m) on Rock	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.89	-80.8846	Human observation	
GWS049941	Chlorophyta	Ulvophyceae	Ulvaes	Kommanniaceae	Blidingia sp. 2subsalsa (Kjellman) Kornmann & Sahling	Subtidal (12.3 m) on Rock	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.89	-80.8846	Human observation & Sanger sequencing	
GWS049900	Ochrophyta	Bacillariophyceae	Naviculales	Berkeleyaceae	Berkeleya sp.	Subtidal (12 m) epiphytic on Obelia	N. OBrien, P. Hinton, K. Lindsay	28.7.2024	Milne Inlet, Baffin Island	71.8877	-80.9111	Human observation	
GWS049901	Ochrophyta	Bacillariophyceae	Naviculales	Berkeleyaceae	Berkeleya sp.	Subtidal (12 m) on metal quadrat	N. OBrien, P. Hinton, K. Lindsay	28.7.2024	Milne Inlet, Baffin Island	71.8877	-80.9111	Human observation	
GWS049914	Ochrophyta	Bacillariophyceae	Naviculales	Berkeleyaceae	Berkeleya sp.	Subtidal (11.3 m) epiphytic on Obelia	N. OBrien, P. Hinton	29.7.2024	Milne Inlet, Baffin Island	71.9149	-80.7992	Human observation	
GWS049903	Ochrophyta	Bacillariophyceae	Naviculales	Berkeleyaceae	Parlibellus sp.	Subtidal (12 m) on Bryozoan	N. OBrien, P. Hinton, K. Lindsay	28.7.2024	Milne Inlet, Baffin Island	71.8877	-80.9111	Human observation	
GWS049991	Ochrophyta	Phaeophyceae	Desmarestiales	Desmarestiaceae	Desmarestia aculeata (Linnaeus) J.V.Lamouroux	Subtidal (12.3 m) on Rock	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	Human observation & Sanger sequencing	
GWS049904	Ochrophyta	Phaeophyceae	Desmarestiales	Desmarestiaceae	Desmarestia sp. 1Arctic	Subtidal (11.3 m) on Metal quadrat	N. OBrien, P. Hinton	29.7.2024	Milne Inlet, Baffin Island	71.9149	-80.7992	Human observation	Novel Desmarestia thus far only known from the Arctic.
GWS049913	Ochrophyta	Phaeophyceae	Desmarestiales	Desmarestiaceae	Desmarestia sp. 1Arctic	Subtidal (11.3 m) on Metal quadrat	N. OBrien, P. Hinton	29.7.2024	Milne Inlet, Baffin Island	71.9149	-80.7992	Human observation	
GWS049917	Ochrophyta	Phaeophyceae	Desmarestiales	Desmarestiaceae	Desmarestia sp. 1Arctic	Subtidal (12.8 m) on Metal quadrat	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.9185	Human observation	
GWS049969	Ochrophyta	Phaeophyceae	Desmarestiales	Desmarestiaceae	Desmarestia sp. 1Arctic	Subtidal (17 m) on Rock	P. Hinton	05.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	Human observation	
GWS049909	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella sp.	Subtidal (11.3 m) on Metal quadrat	N. OBrien, P. Hinton	29.7.2024	Milne Inlet, Baffin Island	71.9149	-80.7992	Human observation	
GWS049911	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella sp.	Subtidal (11.3 m) epiphytic on Saccharina	N. OBrien, P. Hinton	29.7.2024	Milne Inlet, Baffin Island	71.9149	-80.7992	Human observation	
GWS049930	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella sp.	Subtidal (12.3 m) on Fucus	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.89	-80.8846	Human observation	
GWS049937	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella sp.	Subtidal (12.3 m) on Fucus	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.89	-80.8846	Human observation	
GWS049932	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella washingtoniensis Jao	Subtidal (12.3 m) on Fucus	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.89	-80.8846	Human observation & Sanger sequencing	
GWS049936	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella washingtoniensis Jao	Subtidal (12.3 m) on Fucus	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.89	-80.8846	Human observation & Sanger sequencing	
GWS049972	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella washingtoniensis Jao	Subtidal (17 m) on Rock	P. Hinton	05.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	Human observation & Sanger sequencing	
GWS049974	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella washingtoniensis Jao	Subtidal (17 m) on Rock	P. Hinton	05.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	Human observation & Sanger sequencing	
GWS049926	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Ascoseiophila sp. 1violodora	Subtidal (11.4 m) in/on Dilsea socialis	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.918	Human observation & Sanger sequencing	Ascoseiophila violodora A.F.Peters is an Antarctic species. This is a relatively closely related sister, which is very exciting

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#	Division	Class	Order	Family	Name	Hab.	Coll.	Date	Geo.	Lat	Long	Basis of Record	Notable
GWS049934	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Litosiphon sp.1Arctic	Subtidal (12.3 m) Drift	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.89	-80.8846	Human observation	There is only a single recognized species of <i>Litosiphon</i> , and if has not been reported from the Arctic. This is anatomically very similar, but has some dofferences suggesting it is a novel arctic endemic.
GWS049975	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Stictyosiphon arcticus Pedersen & Kristiansen	Subtidal (17 m) on Rock	P. Hinton	05.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	Human observation	This is my best identification for this specimen. We will hopefully get DNA eventually from a collection.
GWS049915	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Stictyosiphon tortilis (Gobi) Areschoug ex Reinke	Subtidal (11.3 m) on Metal quadrat	N. OBrien, P. Hinton	29.7.2024	Milne Inlet, Baffin Island	71.9149	-80.7992	Human observation	
GWS049927	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Stictyosiphon tortilis (Gobi) Areschoug ex Reinke	Subtidal (11.4 m) on Metal quadrat	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.918	Human observation & Sanger sequencing	
GWS049933	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Stictyosiphon tortilis (Gobi) Areschoug ex Reinke	Subtidal (12.3 m) on Fucus	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.89	-80.8846	Human observation & Sanger sequencing	
GWS049958	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Stictyosiphon tortilis (Gobi) Areschoug ex Reinke	Subtidal (5 m) on Metal anchor	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	Human observation	
GWS049961	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Stictyosiphon tortilis (Gobi) Areschoug ex Reinke	Subtidal (5 m) on Rock	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	Human observation	
GWS049963	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Stictyosiphon tortilis (Gobi) Areschoug ex Reinke	Subtidal (5 m) on Metal anchor	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	Human observation & Sanger sequencing	
GWS049966	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Stictyosiphon tortilis (Gobi) Areschoug ex Reinke	Subtidal (5 m) on Rock	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	Human observation & Sanger sequencing	
GWS049970	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Stictyosiphon tortilis (Gobi) Areschoug ex Reinke	Subtidal (17 m) on Rock	P. Hinton	05.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	Human observation	
GWS049971	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Stictyosiphon tortilis (Gobi) Areschoug ex Reinke	Subtidal (17 m) on Dictyosiphon	P. Hinton	05.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	Human observation & Sanger sequencing	
GWS049973	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Stictyosiphon tortilis (Gobi) Areschoug ex Reinke	Subtidal (17 m) on Rock	P. Hinton	05.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	Human observation & Sanger sequencing	
GWS049959	Ochrophyta	Phaeophyceae	Ectocarpales	Scytosiphonaceae	Scytosiphon shibazakiorum M.Hoshino & Kogame	Subtidal (5 m) on metal anchor	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	Human observation & Sanger sequencing	
GWS049964	Ochrophyta	Phaeophyceae	Ectocarpales	Scytosiphonaceae	Scytosiphon shibazakiorum M.Hoshino & Kogame	Subtidal (5 m) on metal anchor	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	Human observation	
EWSP24000	Ochrophyta	Phaeophyceae	Fucales	Fucaceae	Fucus distichus Linnaeus	Subtidal (11.3 m) on Metal quadrat	N. OBrien, P. Hinton	29.7.2024	Milne Inlet, Baffin Island	71.9149	-80.7992	Human observation	
EWSP24001	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus) C.E.Lane, C.Mayes, Druehl & G.W.Saunders	Subtidal (17 m) on Rock	P. Hinton	05.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	Human observation	
GWS049902	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus) C.E.Lane, C.Mayes, Druehl & G.W.Saunders	Subtidal (12 m) on metal quadrat	N. OBrien, P. Hinton, K. Lindsay	28.7.2024	Milne Inlet, Baffin Island	71.8877	-80.9111	Human observation & Sanger sequencing	
GWS049908	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus) C.E.Lane, C.Mayes, Druehl & G.W.Saunders	Subtidal (11.3 m) on Metal quadrat	N. OBrien, P. Hinton	29.7.2024	Milne Inlet, Baffin Island	71.9149	-80.7992	Human observation	
GWS049919	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus) C.E.Lane, C.Mayes, Druehl & G.W.Saunders	Subtidal (12.8 m) on Metal quadrat	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.9185	Human observation	
GWS049921	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus) C.E.Lane, C.Mayes, Druehl & G.W.Saunders	Subtidal (11.4 m) on Metal quadrat	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.918	Human observation & Sanger sequencing	
GWS049976	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus) C.E.Lane, C.Mayes, Druehl & G.W.Saunders	Subtidal (17 m) on Rock	P. Hinton	05.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	Human observation	
GWS049977	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus) C.E.Lane, C.Mayes, Druehl & G.W.Saunders	Subtidal (17 m) on Rock	P. Hinton	05.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	Human observation & Sanger sequencing	
GWS049978	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus) C.E.Lane, C.Mayes, Druehl & G.W.Saunders	Subtidal (17 m) on Rock	P. Hinton	05.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	Human observation & Sanger sequencing	
GWS049987	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus) C.E.Lane, C.Mayes, Druehl & G.W.Saunders	Subtidal (12.3 m) on Rock	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	Human observation & Sanger sequencing	
GWS049997	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus) C.E.Lane, C.Mayes, Druehl & G.W.Saunders	Subtidal (12.3 m) on Rock	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	Human observation & Sanger sequencing	
GWS049954	Ochrophyta	Phaeophyceae	Ralfsiales	Ralfsiaceae	Ralfsia sp.	Upper intertidal on rock	O.Reeves	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	Human observation	
GWS049912	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Battersia arctica (Harvey) Draisma, Prud'homme & H. Kawai	Subtidal (11.3 m) on Metal quadrat	N. OBrien, P. Hinton	29.7.2024	Milne Inlet, Baffin Island	71.9149	-80.7992	Human observation & Sanger sequencing	
GWS049929	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Battersia arctica (Harvey) Draisma, Prud'homme & H. Kawai	Subtidal (12.3 m) on Fucus	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.89	-80.8846	Human observation	

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#	Division	Class	Order	Family	Name	Hab.	Coll.	Date	Geo.	Lat	Long	Basis of Record	Notable
GWS049935	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Battersia arctica (Harvey) Draisma, Prud'homme & H. Kawai	Subtidal (12.3 m) on Fucus	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.89	-80.8846	Human observation	
GWS049938	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Battersia arctica (Harvey) Draisma, Prud'homme & H. Kawai	Subtidal (12.3 m) on Fucus	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.89	-80.8846	Human observation & Sanger sequencing	
GWS049948	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Battersia arctica (Harvey) Draisma, Prud'homme & H. Kawai	Subtidal (5 m) Drift	O.Reeves, T. Tomliens, M. Babin	03.8.2024	Koluktoo Bay, Baffin Island	72.0732	-80.8182	Human observation	
GWS049949	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Battersia arctica (Harvey) Draisma, Prud'homme & H. Kawai	Subtidal (5 m) Drift	O.Reeves, T. Tomliens, M. Babin	03.8.2024	Koluktoo Bay, Baffin Island	72.0732	-80.8182	Human observation	
GWS049960	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Battersia arctica (Harvey) Draisma, Prud'homme & H. Kawai	Subtidal (5 m) on Metal anchor	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	Human observation & Sanger sequencing	
GWS049962	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Battersia arctica (Harvey) Draisma, Prud'homme & H. Kawai	Subtidal (5 m) on Metal anchor	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	Human observation & Sanger sequencing	
GWS049965	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Battersia arctica (Harvey) Draisma, Prud'homme & H. Kawai	Subtidal (5 m) on Rock	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	Human observation	
GWS049981	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Battersia arctica (Harvey) Draisma, Prud'homme & H. Kawai	Subtidal (12.3 m) on Rock	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	Human observation	
GWS049994	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Battersia arctica (Harvey) Draisma, Prud'homme & H. Kawai	Subtidal (12.3 m) on Rock	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	Human observation & Sanger sequencing	
GWS049999	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Battersia arctica (Harvey) Draisma, Prud'homme & H. Kawai	Subtidal (12.3 m) on Rock	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	Human observation & Sanger sequencing	
GWS049910	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Chaetopteris plumosa (Lyngbye) Kützing	Subtidal (11.3 m) on Metal quadrat	N. OBrien, P. Hinton	29.7.2024	Milne Inlet, Baffin Island	71.9149	-80.7992	Human observation	
GWS049993	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Chaetopteris plumosa (Lyngbye) Kützing	Subtidal (12.3 m) on Rock	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	Human observation & Sanger sequencing	
GWS050001	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Chaetopteris plumosa (Lyngbye) Kützing	Subtidal (12.3 m) on Rock	N. OBrien, P. Hinton, K. Lindsay	07.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	Human observation	
GWS049920	Ochrophyta	Phaeophyceae	Tilopteridales	Phyllariaceae	Saccorhiza dermatodea (Bachelot de la Pylaie) J.Agardh	Subtidal (12.8 m) drift	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.9185	Human observation	
GWS049995	Rhodophyta	Florideophyceae	Hapalidiales	Hapalidiaceae	Boreolithothamnion lemoineae (W.H.Adey) P.W.Gabrielson, Maneveldt, Hughey & V.Peña	Subtidal (12.3 m) on Rock	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	Human observation & Sanger sequencing	
GWS049943	Rhodophyta	Florideophyceae	Hapalidiales	Mesophyllumaceae	Leptophytum foecundum (Kjellman) W.H. Adey	Subtidal (27.4 m) on Rock	O.Reeves, T. Tomliens, M. Babin	03.8.2024	Koluktoo Bay, Baffin Island	72.0732	-80.8182	Human observation & Sanger sequencing	
GWS049944	Rhodophyta	Florideophyceae	Hapalidiales	Mesophyllumaceae	Leptophytum foecundum (Kjellman) W.H. Adey	Subtidal (27.4 m) on Rock	O.Reeves, T. Tomliens, M. Babin	03.8.2024	Koluktoo Bay, Baffin Island	72.0732	-80.8182	Human observation & Sanger sequencing	
GWS049945	Rhodophyta	Florideophyceae	Hapalidiales	Mesophyllumaceae	Leptophytum laeve W.H. Adey	Subtidal (27.4 m) on Rock	O.Reeves, T. Tomliens, M. Babin	03.8.2024	Koluktoo Bay, Baffin Island	72.0732	-80.8182	Human observation & Sanger sequencing	
GWS049946	Rhodophyta	Florideophyceae	Hapalidiales	Mesophyllumaceae	Leptophytum laeve W.H. Adey	Subtidal (27.4 m) on Rock	O.Reeves, T. Tomliens, M. Babin	03.8.2024	Koluktoo Bay, Baffin Island	72.0732	-80.8182	Human observation & Sanger sequencing	
GWS049947	Rhodophyta	Florideophyceae	Hapalidiales	Mesophyllumaceae	Leptophytum laeve W.H. Adey	Subtidal (27.4 m) on Rock	O.Reeves, T. Tomliens, M. Babin	03.8.2024	Koluktoo Bay, Baffin Island	72.0732	-80.8182	Human observation & Sanger sequencing	
GWS049923	Rhodophyta	Florideophyceae	Ceramiales	Ceramiaceae	Scagelia pylaisaei (Montagne) M.J.Wynne	Subtidal (11.4 m) on Saccharina	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.918	Human observation & Sanger sequencing	
GWS049924	Rhodophyta	Florideophyceae	Ceramiales	Ceramiaceae	Scagelia pylaisaei (Montagne) M.J.Wynne	Subtidal (11.4 m) on Saccharina	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.918	Human observation & Sanger sequencing	
GWS049928	Rhodophyta	Florideophyceae	Ceramiales	Ceramiaceae	Scagelia pylaisaei (Montagne) M.J.Wynne	Subtidal (11.4 m) on Saccharina	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.918	Human observation & Sanger sequencing	
GWS049985	Rhodophyta	Florideophyceae	Ceramiales	Ceramiaceae	Scagelia pylaisaei (Montagne) M.J.Wynne	Subtidal (12.3 m) epiphytic on Dilsea socialis	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	Human observation & Sanger sequencing	
GWS050000	Rhodophyta	Florideophyceae	Ceramiales	Delesseriaceae	Phycodrys fimbriata (Kuntze) Kylin	Subtidal (12.3 m) on Rock	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	Human observation & Sanger sequencing	
GWS049992	Rhodophyta	Florideophyceae	Ceramiales	Rhodomelaceae	Odonthalia dentata (Linnaeus) Lyngbye	Subtidal (12.3 m) on Rock	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	Human observation & Sanger sequencing	
GWS049998	Rhodophyta	Florideophyceae	Ceramiales	Rhodomelaceae	Odonthalia dentata (Linnaeus) Lyngbye	Subtidal (12.3 m) on Rock	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	Human observation & Sanger sequencing	
GWS049916	Rhodophyta	Florideophyceae	Ceramiales	Rhodomelaceae	Rhodomela sibirica A.Zinova & Vinogradova	Subtidal (11.3 m) on Metal quadrat	N. OBrien, P. Hinton	29.7.2024	Milne Inlet, Baffin Island	71.9149	-80.7992	Human observation	
GWS049979	Rhodophyta	Florideophyceae	Ceramiales	Rhodomelaceae	Rhodomela sibirica A.Zinova & Vinogradova	Subtidal (12.3 m) on Rock	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	Human observation & Sanger sequencing	
GWS049990	Rhodophyta	Florideophyceae	Ceramiales	Rhodomelaceae	Rhodomela sibirica A.Zinova & Vinogradova	Subtidal (12.3 m) on Rock	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	Human observation & Sanger sequencing	
GWS049922	Rhodophyta	Florideophyceae	Ceramiales	Rhodomelaceae	Rhodomela virgata Kjellman	Subtidal (11.4 m) on Metal quadrat	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.918	Human observation	

Macroalgal Identifications by Dr. Gary Saunders, University of New Brunswick, 2024

#	Division	Class	Order	Family	Name	Hab.	Coll.	Date	Geo.	Lat	Long	Basis of Record	Notable
GWS049984	Rhodophyta	Florideophyceae	Ceramiales	Rhodomelaceae	Rhodomela virgata Kjellman	Subtidal (12.3 m) on Rock	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	Human observation & Sanger sequencing	
GWS049986	Rhodophyta	Florideophyceae	Ceramiales	Rhodomelaceae	Rhodomela virgata Kjellman	Subtidal (12.3 m) on Rock	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	Human observation	
GWS049905	Rhodophyta	Florideophyceae	Ceramiales	Rhodomelaceae	Savoiea arctica (J.Agardh) M.J.Wynne	Subtidal (11.3 m) on Metal quadrat	N. OBrien, P. Hinton	29.7.2024	Milne Inlet, Baffin Island	71.9149	-80.7992	Human observation & Sanger sequencing	
GWS049980	Rhodophyta	Florideophyceae	Ceramiales	Rhodomelaceae	Savoiea arctica (J.Agardh) M.J.Wynne	Subtidal (12.3 m) on Rock	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	Human observation	
GWS049983	Rhodophyta	Florideophyceae	Ceramiales	Rhodomelaceae	Savoiea arctica (J.Agardh) M.J.Wynne	Subtidal (12.3 m) on Rock	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	Human observation & Sanger sequencing	
GWS049925	Rhodophyta	Florideophyceae	Gigartinales	Dumontiaceae	Dilsea socialis (Postels & Ruprecht) Perestenko	Subtidal (11.4 m) on Metal quadrat	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.918	Human observation	
GWS049926A	Rhodophyta	Florideophyceae	Gigartinales	Dumontiaceae	Dilsea socialis (Postels & Ruprecht) Perestenko	Subtidal (11.4 m) on Metal quadrat	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.918	Human observation	
GWS049982	Rhodophyta	Florideophyceae	Gigartinales	Dumontiaceae	Dilsea socialis (Postels & Ruprecht) Perestenko	Subtidal (12.3 m) on Rock	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	Human observation & Sanger sequencing	
GWS049988	Rhodophyta	Florideophyceae	Gigartinales	Dumontiaceae	Dilsea socialis (Postels & Ruprecht) Perestenko	Subtidal (12.3 m) on Rock	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	Human observation & Sanger sequencing	
GWS049989	Rhodophyta	Florideophyceae	Gigartinales	Dumontiaceae	Dilsea socialis (Postels & Ruprecht) Perestenko	Subtidal (12.3 m) on Rock	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	Human observation	
GWS049996	Rhodophyta	Florideophyceae	Gigartinales	Dumontiaceae	Dilsea socialis (Postels & Ruprecht) Perestenko	Subtidal (12.3 m) on Rock	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	Human observation & Sanger sequencing	
EWSP24002	Rhodophyta	Florideophyceae	Gigartinales	Phyllophoraceae	Coccotylus truncatus (Pallas) Wynne & Heine	Subtidal (12.3 m) on Rock	N. OBrien, P. Hinton, K. Lindsay	07.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	Human observation	
GWS049906	Rhodophyta	Florideophyceae	Gigartinales	Phyllophoraceae	Coccotylus truncatus (Pallas) Wynne & Heine	Subtidal (11.3 m) on Metal quadrat	N. OBrien, P. Hinton	29.7.2024	Milne Inlet, Baffin Island	71.9149	-80.7992	Human observation & Sanger sequencing	

APPENDIX 8B-5

Review of Archival Macroalgae

1.0 INTRODUCTION

Baffinland Iron Mines Corporation (Baffinland) owns and operates an open pit iron ore mine (the Project) located in the Qikiqtani Region of North Baffin Island, Nunavut, in accordance with Terms and Conditions of its Project Certificate (PC) No. 005. As a part of regulatory commitments, Baffinland executes an annual multi-disciplinary Marine Environmental Effects Monitoring Program (MEEMP) and Nonindigenous Species/Aquatic Invasive Species (NIS/AIS) Monitoring Program at Milne Port, in order to evaluate potential Project-related effects on the marine environment. The NIS/AIS Monitoring Program is designed to address the potential risks of species introductions to the marine environment from ship ballast water and hull biofouling.

Taxonomic identification is critical to the detection and management of NIS/AIS. Since the beginning of the MEEMP-NIS/AIS Monitoring Program, taxonomic resources for the identification of macroalgae have been considered a knowledge gap. Few macroalgal surveys have been conducted in the Canadian Arctic and the biodiversity is not well known. Compared to other taxa detected at Milne Port, relatively few macroalgae had been identifiable to species. This was identified as a deficiency of the monitoring program because macroalgae are a taxonomic group at high risk of transport via hull fouling. To address this deficiency, WSP developed a collaboration with Dr. Gary Saunders, a macroalgae taxonomy specialist, and his graduate student Olivia Reeves at the University of New Brunswick.

In 2024, Dr. Saunders and Ms. Reeves performed a review of the existing macroalgal collection, in addition to providing taxonomic identification services for macroalgae collected in the 2024 field program.

2.0 METHODS

Detailed methods and definitions of terms used in this memorandum are presented in Chapter 8.0 of the 2024 MEEMP report (WSP 2025). Macroalgae samples collected for morphological identification as well as DNA in 2021, 2022, and 2023 were sent to Dr. Gary Saunders at the Centre for Environmental & Molecular Algal Research at University of New Brunswick (UNB) for verification. These samples represented collections from settlement substrates in addition to opportunistic collections from quadrat surveys and offset habitat monitoring surveys. All samples had been previously examined by Biologica Environmental Services, Ltd., with subsequent morphological analysis of some specimens by Dr. Sandra Lindstrom, University of British Columbia, and DNA barcoding at the Canadian Centre for DNA Barcoding (CCDB), University of Guelph.

WSP then reviewed the Milne Port Taxonomic Inventory to incorporate new or updated accepted species names as required for previously identified species. Macroalgae taxa previously identified in Milne Port that were not identified during Dr. Saunder's review were not removed from the taxonomic inventory as the samples sent for verification do not represent the complete sample inventory. Many species identified by Dr. Saunders had been previously identified in MEEMP-NIS/AIS surveys in Milne Port, however, due to changes in the methods for discussion of range and distribution, all taxa identified by Dr. Saunders were treated as new identifications for the purposes of this memo.

Macroalgae taxa were assessed through literature review to determine if their known distributions and ranges included North Atlantic, Arctic and/or Canadian Arctic waters, whether the taxon had a history as an AIS somewhere else in the world, and to check for changes in the taxonomic nomenclature. Information sources for species biology and distributions, as well as global and domestic AIS databases and resources are the same as those listed in Section 8.3.3.3 in Chapter 8.0 of the 2024 MEEMP report (WSP 2025).

2.1 Distribution Categories

Based on the range on record for each taxon, a value was assigned to each new observation to express the distance to the closest record as a descriptor of distribution. Methods for describing the distribution categories followed those of Goldsmit et al. (2014), adjusted for the Project location (Figure 1). Each taxon was assigned a value of 1 to 5 based on the locations of the closest records to the project area, where:

- A value of 1 indicated there were previous records “Within the Region”. The region was defined as Milne Inlet between the Milne Port Site and Ragged Island¹.
- A value of 2 indicated that there was no record within the immediate region, however there was a record from the “Surrounding Region”. Boundaries for the surrounding region included the Eastern Canadian Arctic and Davis Strait.
- A value of 3 indicated that records existed for the taxon in other regions of the Canadian Arctic, or “Arctic Outside Region”. Boundaries included the Western Canadian Arctic and Hudson Bay.
- A value of 4 indicated the taxon had a “Circumpolar/Circumboreal Distribution” on record, indicating the taxon was recorded in other locations within the Arctic, or had a generally described Arctic distribution, with no georeferenced collections in the Arctic Outside Region.
- A value of 5 indicated the taxon had a “Wider Distribution” on record that did not clearly include records within circumpolar or circumboreal regions.

Supporting information on distribution for each taxon (as requested by MEWG members) was summarized by indicating the closest Marine Ecoregions of the World (MEOW; Spalding et al. 2007) where specimens had been recorded in the scientific literature or databases listed above. Based on biology or ecosystem connectivity, species in nine Arctic ecoregions listed below were considered to have a reasonable probability of having a natural range that would include Milne Port. Each ecoregion represents coastal and shelf waters shallower than 200 m, with seaward boundaries extending 370 km (200 nautical miles) offshore or to 200 m depth (whichever is further offshore). Relevant Arctic Ecoregions applicable to MEEMP surveys are as follows (in approximate order of proximity to the Project area):

- **Baffin Bay–Davis Strait** – Davis Strait north of Cape Dyer to the northern extent of Baffin Bay, including the eastern extent of Lancaster Sound. Milne Port is located within this ecoregion. This ecoregion falls within the boundaries of distribution categories 1 and 2.
- **Lancaster Sound** – The Lancaster Sound region of the southern Arctic Archipelago, including Devon Island, Sommerset Island, Cornwallis Island, as well as the eastern and southern coastlines of Prince of Wales Island and Bathurst Island. This ecoregion falls within the boundaries of distribution categories 1, 2 and 3.
- **High Arctic Archipelago** – The Arctic Archipelago north of Lancaster Sound and Viscount Melville Sound. This ecoregion falls within the boundaries of distribution categories 2, 3 and 4.
- **Northern Labrador** – Northern Labrador Sea at Davis Inlet to Southern Davis Strait at Cape Dyer, including the eastern extent of Hudson Strait. This ecoregion includes Iqaluit and Frobisher Bay. This ecoregion falls within the boundaries of distribution categories 2 and 4.

¹ Due to the limited number of species surveys that have occurred in this region in comparison to MEEMP survey efforts, it is anticipated that most new observations in the program will not fall into this category.

- **Hudson Complex** – Includes the waters of Hudson Bay, James Bay, Hudson Strait, and Foxe Basin, as well as the eastern extent of Fury and Hecla Strait. This ecoregion falls within the boundaries of distribution category 3.
- **West Greenland Shelf** – Coastal and shelf waters of Western Greenland approximately between Cape York and Nûk. This ecoregion falls within the boundaries of distribution categories 2 and 4.
- **North Greenland** – Coastal and shelf waters of North Greenland approximately between Cape York and Danmarkshavn. This ecoregion falls within the boundaries of distribution categories 2 and 4.
- **East Greenland Shelf** – Coastal and shelf waters of North Greenland approximately between Danmarkshavn and Nûk. This ecoregion falls within the boundaries of distribution category 4.
- **Beaufort–Amundsen–Viscount Melville–Queen Maud** – The southern Arctic Archipelago west of the Lancaster Sound ecoregion, extending west past Cape Perry. This ecoregion falls within the boundaries of distribution category 3.

An uncertainty value was also provided to indicate the confidence in the available data used to place the specific taxon within the appropriate distribution category.

- **Low uncertainty** indicates that the available data are robust and well reviewed. It is assumed that the range on record is an accurate description for the taxon.
- **Moderate uncertainty** indicates that there is some uncertainty in the range on record or limited collection records, and that there is a reasonable probability that range may be broader or narrower than described in the available literature.
- **High uncertainty** indicates that the range on record is likely incomplete and not representative of the probable range. High uncertainty will be more likely for newly described species, or rarer species that are underrepresented in collections.

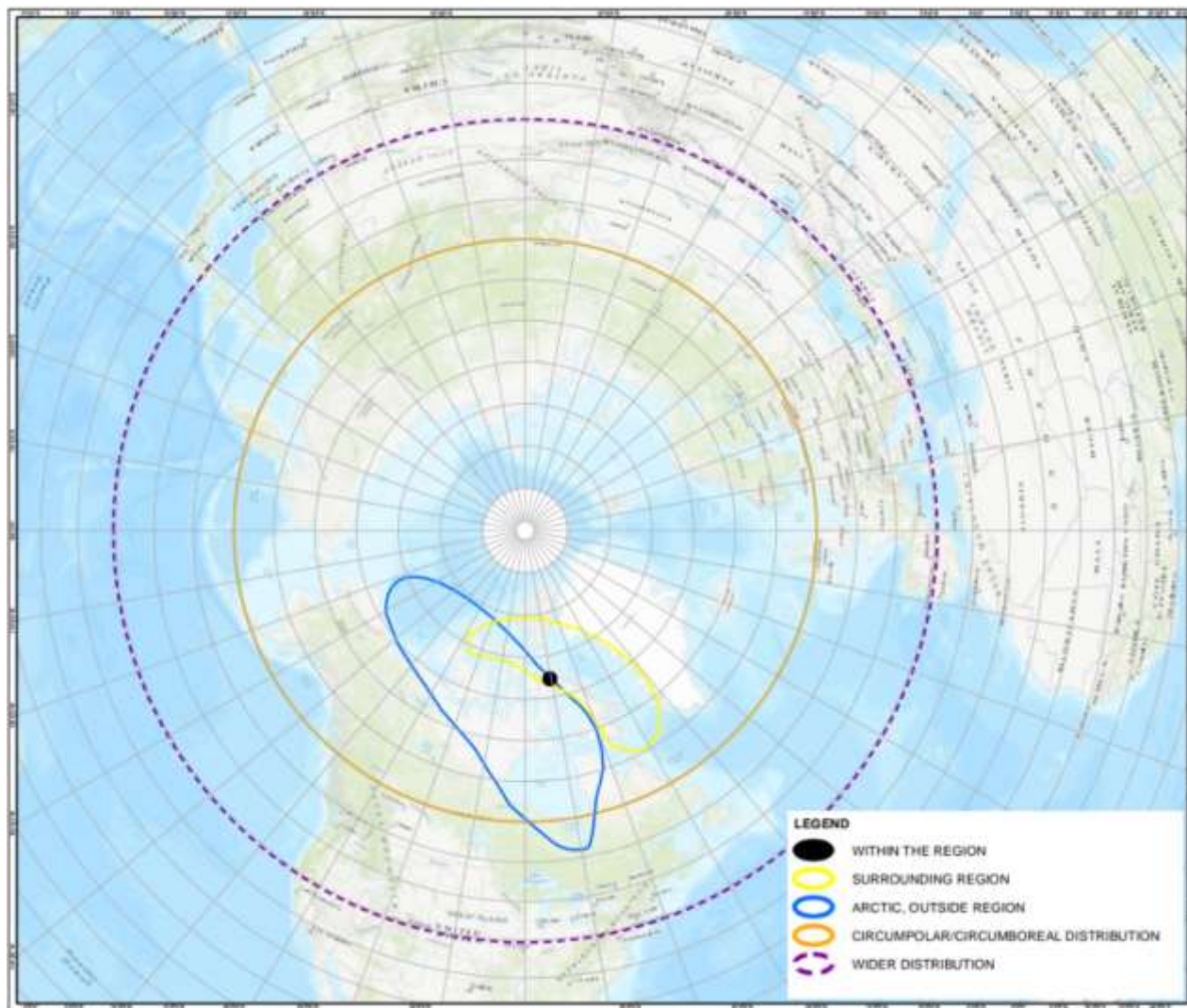


Figure 1: Approximate regions for taxonomic distribution categories used to define closest records. Adapted from Goldsmit et al. (2014).

3.0 RESULTS AND DISCUSSION

A total of 39 distinct macroflora taxa were recorded in samples examined by Dr. Saunders, 25 of which were identifiable to species level. Seventeen of these taxa had been previously identified in MEEMP surveys, as well as representative taxa from five higher level taxa. The identified taxa are summarised in Table 1 and are described further in the following sections 3.1 through 3.3.

Table 1: List of Macroflora Taxa Identified in Samples Examined by Dr. Saunders, with Distribution on Record

Division Class/Order	Family	Taxon	Distribution References	Distribution Category ^(a)	Relevant Ecoregions on Record ^(b)	Uncertainty ^(c)
Chlorophyta						
Ulvophyceae / Acrosiphoniales	Acrosiphoniaceae	<i>Acrosiphonia</i> sp.	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	1	1, 2, 3, 4, 5, 6	Low
Ulvophyceae / Cladophorales	Cladophoraceae	<i>Chaetomorpha</i> sp.*	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14	1	1, 2, 3, 4, 5, 6, 8, 9	Low
Ulvophyceae / Cladophorales	Cladophoraceae	<i>Chaetomorpha melagonium</i>	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14	1	1, 2, 3, 4, 5, 6, 8, 9	Low
Ulvophyceae / Ulotrichales	Ulotrichaceae	<i>Urospora neglecta</i>	1, 2, 3, 9	4	*	Moderate
Ulvophyceae / Ulvales	Kornmanniaceae	<i>Blidingia</i> sp. <i>2subsalsa</i>	9, 15	3	5	High
Ochrophyta						
Phaeophyceae / Desmarestiales	Desmarestiaceae	<i>Desmarestia aculeata</i>	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 16	1	1, 2, 3, 4, 5, 6, 8, 9	Low
Phaeophyceae / Desmarestiales	Desmarestiaceae	<i>Desmarestia</i> sp.*	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 16	1	1, 2, 3, 4, 5, 6, 8, 9	Low
Phaeophyceae / Ectocarpales	Acinetosporaceae	Acinetosporaceae indet.*	1, 2, 3, 5, 7	1	1, 2, 4, 5, 6, 8, 9	Low
Phaeophyceae / Ectocarpales	Acinetosporaceae	Acinetosporaceae gen sp. 3AP-2016	7, 15	1	1	High
Phaeophyceae / Ectocarpales	Acinetosporaceae	<i>Hincksia</i> sp.	1, 2, 3, 4, 6, 7, 8	1	1, 2, 4, 5, 8	Low
Phaeophyceae / Ectocarpales	Acinetosporaceae	<i>Pylaiella</i> sp.*	1, 2, 3, 4, 5, 6, 7, 9, 10, 12	1	1, 5	Low

Division Class/Order	Family	Taxon	Distribution References	Distribution Category ^(a)	Relevant Ecoregions on Record ^(b)	Uncertainty ^(c)
Phaeophyceae / Ectocarpales	Acinetosporaceae	<i>Pylaiella washingtoniensis</i>	3, 5, 7, 9	1	1, 5	Low
Phaeophyceae / Ectocarpales	Acinetosporaceae	<i>Dictyosiphon foeniculaceus</i>	1, 2, 3, 4, 5, 6, 8, 10, 12, 14, 17	2	1, 4, 5, 6	Moderate
Phaeophyceae / Ectocarpales	Acinetosporaceae	<i>Dictyosiphon</i> sp.*	1, 2, 3, 4, 5, 6, 7, 8, 10, 12, 13, 14, 17	1	1, 4, 5, 6	Low
Phaeophyceae / Ectocarpales	Chordariaceae	<i>Elachista fucicola</i>	1, 2, 3, 4, 6, 7, 8, 9, 10	1	1, 2, 4, 5	Low
Phaeophyceae / Ectocarpales	Chordariaceae	<i>Stictyosiphon</i> sp.*	1, 2, 3, 4, 5, 6, 7, 8, 10, 12, 13, 14, 17	1	1, 2, 4, 5, 6, 8, 9	Low
Phaeophyceae / Ectocarpales	Chordariaceae	<i>Stictyosiphon arcticus</i>	2, 3, 18	1	1, 6	Moderate
Phaeophyceae / Ectocarpales	Chordariaceae	<i>Stictyosiphon tortilis</i>	1, 2, 3, 4, 5, 6, 7, 8, 10, 12, 14, 17	1	1, 2, 4, 5, 8, 9	Low
Phaeophyceae / Ectocarpales	Scytosiphonaceae	<i>Scytosiphon</i> sp. Group J	19	3	5	High
Phaeophyceae / Fucales	Fucaceae	<i>Fucus distichus</i>	1, 2, 3, 4, 5, 6, 7, 9, 12, 14, 17, 20	1	1, 2, 4, 5, 6, 7, 8, 9	Low
Phaeophyceae / Laminariales	Alariaceae	<i>Alaria esculenta</i>	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 14, 20, 21	1	1, 2, 3, 4, 5, 6, 8, 9	Low
Phaeophyceae / Laminariales	Laminariaceae	<i>Saccharina</i> sp.*	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 17, 20, 21	1	1, 2, 3, 4, 5, 6, 7, 8, 9	Moderate
Phaeophyceae / Laminariales	Laminariaceae	<i>Saccharina latissima</i>	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 20, 21	1	1, 2, 4, 5, 6, 8, 9	Low

Division Class/Order	Family	Taxon	Distribution References	Distribution Category ^(a)	Relevant Ecoregions on Record ^(b)	Uncertainty ^(c)
Phaeophyceae / Laminariales	Laminariaceae	<i>Laminaria</i> sp.*	1, 2, 3, 4, 6, 7, 8, 9, 10, 12, 13, 14, 17, 21	1	1, 2, 3, 4, 5, 6, 7, 8, 9	Moderate
Phaeophyceae / Laminariales	Laminariaceae	<i>Laminaria solidungula</i>	1, 2, 3, 6, 7, 9, 10, 14, 21	1	1, 2, 4, 5, 6, 8, 9	Low
Phaeophyceae / Sphacelariales	Lithodermataceae	<i>Pseudolithoderma</i> sp.	1, 2, 3, 4, 6, 8, 10, 14	1	1, 2, 3, 5, 6, 8, 9	Low
Phaeophyceae / Sphacelariales	Sphacelariaceae	<i>Battersia arctica</i>	1, 2, 3, 4, 6, 7, 8, 12, 14	1	1, 2, 3, 5, 8, 9	Low
Phaeophyceae / Sphacelariales	Sphacelariaceae	<i>Battersia racemosa</i>	1, 2, 3	2	1, 5	Moderate
Phaeophyceae / Sphacelariales	Sphacelariaceae	<i>Chaetopteris plumosa</i>	1, 2, 3, 4, 6, 7, 8, 9, 10, 12	1	1, 2, 3, 4, 5, 6, 8, 9	Low
Rhodophyta						
Florideophyceae / Ahnfeltiales	Ahnfeltiaceae	<i>Ahnfeltia borealis</i>	1, 2, 3, 5, 9	2	1, 4, 5	Moderate
Florideophyceae / Ceramiales	Ceramiaceae	<i>Scagelia pylaisaei</i>	1, 2, 3, 6, 7, 8, 9	1	1, 4, 5	Moderate
Florideophyceae / Ceramiales	Delesseriaceae	<i>Phycodrys fimbriata</i>	1, 2, 3, 5, 6, 9	2	1, 4, 5	Moderate
Florideophyceae / Ceramiales	Rhodomelaceae	<i>Odonthalia dentata</i>	1, 2, 3, 4, 5, 6, 7, 8, 9, 13, 14	1	1, 3, 4, 5	Low
Florideophyceae / Ceramiales	Rhodomelaceae	<i>Polysiphonia stricta</i>	1, 2, 3, 4, 5, 6, 9	2	1, 3, 4, 5, 8	Low
Florideophyceae / Ceramiales	Rhodomelaceae	<i>Rhodomela tenuissima</i>	1, 2, 3, 4, 9, 10	2	1, 7	Moderate

Division Class/Order	Family	Taxon	Distribution References	Distribution Category ^(a)	Relevant Ecoregions on Record ^(b)	Uncertainty ^(c)
Florideophyceae / Ceramiales	Rhodomelaceae	<i>Rhodomela virgata</i>	2, 3, 5, 9	3	5	Moderate
Florideophyceae / Ceramiales	Rhodomelaceae	<i>Savoiea arctica</i>	2, 3, 4, 5, 6, 7, 8, 10, 12, 14	1	1, 2, 4, 5, 6, 8, 9	Moderate
Florideophyceae / Gigartinales	Dumontiaceae	<i>Dilsea socialis</i>	1, 2, 3, 4, 5, 7, 8, 9	1	1, 4, 5	Low
Florideophyceae / Gigartinales	Phyllophoraceae	<i>Coccotylus truncatus</i>	1, 2, 3, 4, 5, 6, 7, 8, 9, 13, 14	1	1, 2, 3, 4, 5, 8, 9	Low

Notes: Taxa identified to the lowest practical taxonomic level; *indicates non-unique taxa; indet.= indeterminate (taxa which could not be identified beyond the taxonomic level listed); sp.=species.

^(a) Distribution categories indicate the proximity to the Project of the closest georeferenced collection of the taxon, where category 1: Within the Region, 2: Surrounding Region, 3: Arctic, Outside Region, 4: Circumpolar/Circumboreal Distribution, 5: Wider Distribution. Distribution categories are defined in Section 2.1

^(b) Ecoregion are delineated in Spalding et al. 2007 and herein refer to 1. Baffin Bay-Davis Strait; 2. Lancaster Sound; 3. High Arctic Archipelago; 4. Northern Labrador; 5. Hudson Complex; 6. West Greenland Shelf; 7. North Greenland Shelf; 8. East Greenland Shelf; 9. Beaufort-Amundson-Viscount Melville-Queen Maud

^(c) Uncertainty indicates confidence in the data available for the range on record. Uncertainty categories (Low, Moderate, and High) are described in Section 2.1

* Descriptions include the "Canadian Arctic", but no further description is provided. Relevant Ecoregion could not be determined.

Taxa distribution references: 1: WoRMS 2025; 2: GBIF 2025; 3: Guiry and Guiry 2025; 4. Lee 1980; 5. Saunders and McDevit 2013; 6. Mathieson et al. 2010; 7. Küpper et al. 2016; 8. Wilce and Dunton 2014; 9. Saunders 2023; 10. Lund 1959; 11. Charette et al. 2020; 12. Ellis and Wilce 1961; 13. Brown et al. 2011; 14. Cross et al. 1987; 15. NLM 2025; 16. Goldsmit et al. 2023; 17. Snow et al. 1987; 18. Pedersen and Kristiansen 1992; 19. McDevit and Saunders 2017; 20. Sokoloff 2015; 21. Goldsmit et al. 2021.

All taxa cross-referenced with NIS/AIS resources: Fofonoff et al. 2018, AquaNIS 2015, ISSG 2025, Costello et al. 2025, CABI 2025, Casas-Monroy et al. 2014, CAFF and PAME 2017, Molnar et al. 2008.

3.1 Chlorophyta

3.1.1 *Acrosiphonia* sp.

An unknown species of *Acrosiphonia* was first observed in Milne Port in 2022 on settlement substrates (WSP 2023). At least two species from this genus (*A. arcta* and *A. sonderi*) are accepted as present in the Eastern Canadian Arctic, with records including collections from Ragged Island, north of the Project area (Küpper et al. 2016, GBIF 2025). However, DNA barcoding of specimens collected in Churchill indicate that the taxonomic record for the Canadian Arctic is incomplete and there are at least four distinct species present in the area (Saunders and McDevit 2013). No records of potential NIS species in the genus *Acrosiphonia* occur in comparable environments to Milne Port.

- ***Acrosiphonia* sp. is not considered a taxon of concern for Milne Port.**

3.1.2 *Chaetomorpha* sp. and *Chaetomorpha melagonium*

Chaetomorpha was first identified in Milne Port in 2021 (as *Chaetomorpha melagonium*). *Chaetomorpha* is a genus of cladophoran green algae with a broad global distribution. At least three species have been recorded in the Canadian Arctic (*C. melagonium*, *C. linum*, and *C. ligustica*), with *C. melagonium* and *C. linum* recorded at Cape Hatt (Ragged Island), north of the Project area (Cross et al. 1987, Küpper et al. 2016, Wilce and Dunton 2014). In general, *Chaetomorpha* species may be hard to distinguish morphologically and may be difficult to resolve genetically. Efforts to sequence specimens from Churchill and Milne Port failed to generate barcode data or readable sequences (Saunders and McDevit 2013, Golder 2022a).

Several cladophoran species are recorded as alien or cryptogenic to other regions, including *C. linum*, introduced to Australia from Baltic origins (AquaNIS 2015) and *C. ligustica*, introduced to the USA from Europe (Costello et al. 2025). Other potential NIS species in the genus *Chaetomorpha* that are naturally occurring in Canadian Arctic waters do not occur in comparable environments to Milne Port and are unlikely to be species of concern.

- ***Chaetomorpha* sp. and *Chaetomorpha melagonium* are not considered taxa of concern in Milne Port.**

3.1.3 *Urospora neglecta*

Urospora sp. first identified in 2018 during monitoring of offsetting habitat. In 2021, specimens were tentatively identified as *Urospora neglecta* although the identification was tentative due to poor descriptions and morphological similarities within the genus. The identification was confirmed by DNA analysis (Golder 2022a). Limited collection records of this species indicate a broad range that includes the North American Arctic (WoRMS 2025, GBIF 2025, Guiry and Guiry 2025, Saunders 2023). There are no records of this species in available NIS/AIS databases.

- ***Urospora neglecta* is not considered a taxon of concern for Milne Port.**

3.1.4 *Blidingia* sp. *2subsalsa*

Specimens collected in Milne Port were a morphological match to a genetic group that is not represented in the literature. This taxon is currently unclassified and is named for a morphologically similar sister species, *B. subsalsa*, known from Europe (Saunders 2023). *B. sp. 2subsalsa* has been collected in Alaska and Churchill, implying a broad North American range (Saunders 2023). There are no records of this species in available NIS/AIS databases.

- ***Blidingia* sp. *2subsalsa* is not considered a taxon of concern for Milne Port.**

3.2 Ochrophyta

3.2.1 *Desmarestia* sp.

Desmarestia was first identified in Milne Port during baseline surveys where *Desmarestia* sp. were among the dominant macroflora (SEM 2015). In 2021, *D. viridis* and *D. aculeata* were both identified during MEEMP surveys and sent for verification by the CCDB (Golder 2022a). Barcoding confirmed the identification of *D. aculeata* (see Section 3.2.2), but the other specimen did not match *D. viridis* sequences from Alaska, British Columbia, and Nova Scotia, indicating that it was likely a related, but separate species. The identification of *D. viridis* was adjusted to *Desmarestia* sp. as a precaution.

Arctic records of *Desmarestia* are uncertain (Saunders and McDevitt 2013). Genetic work shows that morphologically identified *D. aculeata* resolves to 3 genetic groups, one which is known from the Atlantic and Eastern Arctic, however, the morphotype is known to occur in the area (Saunders and McDevitt 2013). Specimens collected at Cape Hatt were found to include *D. aculeata* as well as an unidentified *Desmarestia* species (Küpper et al. 2016), confirming at least two species occur in the Project area. *D. viridis* is a known introduced species to the Black Sea and Sea of Azoth (AquaNIS 2015, Costello et al. 2025). *D. viridis* has been recorded in the Eastern Canadian Arctic and surrounding region (Cross et al. 1987, Lund 1959, Lee 1980) however, these may be misidentifications of a similar, related species (Küpper et al. 2016). Other *Desmarestia* species present on NIS/AIS databases do not occur in comparable environments to Milne Port.

Specimens examined by Dr. Saunders were not able to be resolved to species, however they were a morphological match for the undescribed *Desmarestia* species that was identified by Küpper et al (2016) at Ragged Island (Saunders 2024, pers. comm.). Records of *D. viridis* in the Eastern Canadian Arctic may be this undescribed species, further review of this genus is required.

- ***Desmarestia* sp. is not considered a taxon of concern in Milne Port.**

3.2.2 *Desmarestia aculeata*

Desmarestia aculeata is a species of brown algae with a broad global distribution, with records throughout the Canadian Arctic. Eastern Canadian Arctic observations include Baffin Island (Ellis and Wilce 1961, Küpper et al. 2016). The species was first identified in Milne Port in 2021, when the identification was confirmed via DNA analysis (Golder 2022a). In general, older Arctic records of *Desmarestia* may be unreliable (Saunders and McDevitt 2013, see Section 3.2.1). Genetic work shows that morphologically identified *D. aculeata* resolves to 3 genetic groups, one which is known from the Atlantic and Eastern Arctic, however, the morphotype is known to

occur in the Eastern Canadian Arctic (Saunders and McDevitt 2013). Specimens collected at Cape Hatt were found to include *D. aculeata* (Küpper et al. 2016). There are no records of this species in available NIS/AIS databases.

- ***Desmarestia aculeata* is not considered a taxon of concern in Milne Port.**

3.2.3 **Acinetosporaceae indet. and Acinetosporaceae gen sp. 3AP-2016**

Acinetosporaceae is an ochrophyte family that contains multiple species that are well documented in the Eastern Canadian Arctic (WoRMS 2025, GBIF 2025) and were first documented in Milne Port in 2021 (as *Pylaiella* cf. *varia* and *Pylaiella* sp.; Golder 2022a). Genetic work on species within this family, illustrated by genetic differences in *Pylaiella littoralis* (see Section 3.2.5), indicates that there is significant work needed on species descriptions (Saunders 2024, pers. comm.). In 2021, the Milne Port specimens morphologically identified as *Pylaiella* cf. *varia* were sent to the CCDB for barcoding analysis. Barcoding was unable to resolve them further than the family level, as they did not match any identified species on record (Golder 2022a). However, the specimen was a 99.69% match to sequences for Acinetosporaceae gen sp. 3AP-2016, which was collected in 2016 at Cape Hatt, indicating there is likely a naturally occurring, undescribed species of this family in the Project area (NLM 2025, Küpper et al. 2016).

Dr. Saunders review of other specimens collected in Milne Port found other Acinetosporaceae indet. that were morphological matches for Acinetosporaceae gen sp. 3AP-2016.

Representative Acinetosporaceae species that are present on NIS/AIS databases do not occur in comparable environments to Milne Port.

- **Acinetosporaceae indet. and Acinetosporaceae gen sp. 3AP-2016 are not considered taxa of concern in Milne Port.**

3.2.4 ***Hincksia* sp.**

Hincksia is a genus of fuzzy brown algae with a broad global distribution (WoRMS 2025, GBIF 2025). Arctic records include observations in the Ellesmere-Baffin Island and Hudson Strait Regions (Mathieson et al. 2010). In addition to sequenced records from Ragged Island (Küpper et al. 2016). *H. ovata* is the only *Hincksia* species recorded in the Canadian Arctic. This species has been recorded at Baffin Island under the synonymized former name *Giffordia ovata* (Lee 1980). Sequences from specimens collected from Ragged Island in 2009 aligned with the genus *Hincksia*, but did not align with the sequenced species (which did not include *H. ovata*; Küpper et al. 2016).

In 2021, Acinetosporaceae indet. specimens from Milne Port (tentatively identified as *Pylaiella* cf. *varia*) were compared against multiple *Hincksia* sequences on record, with no matches found (see Section 3.2.3, Golder 2022a). In 2022, specimens collected from settlement substrates in Milne Port were tentatively identified as cf. *Hincksia* sp. (WSP 2023). These were re-examined by Dr. Saunders and confirmed to morphologically fit in the genus, however Dr. Saunders noted that these types of algae require more work to confirm morphological groups.

Several species are listed on AIS databases, including *H. ovata* (AquaNIS 2015, Costello et al. 2025). Each listed taxon is considered cryptogenic to the region where it was found and either has a natural range that has a reasonable potential to include the Eastern Canadian Arctic (e.g., *H. ovata* and *H. granulosa*) or does not occur in comparable environments to Milne Port (Hewitt et al. 2004, Guiry and Guiry 2025).

- ***Hincksia* sp. is not considered a taxon of concern for Milne Port.**

3.2.5 *Pylaiella* sp. and *Pylaiella washingtoniensis*

The genus *Pylaiella* is a globally common genus with a well documented range in the Canadian Arctic (WoRMS 2025, GBIF 2025). Unidentified *Pylaiella* have been identified in Milne Port since baseline surveys in 2008 and 2010 and observed regularly in subsequent survey years (SEM 2016, WSP 2024). In 2021, specimens collected in Milne Port surveys were tentatively identified as *Pylaiella varia*, an arctic species with a limited collection record (Golder 2022a). DNA barcoding returned a 99% match to unidentified specimens from the family Acinetosporaceae, collected from Cape Hatt in 2016 (see Acinetosporaceae sp. 3AP-2016 in Section 3.2.3). In 2022, some specimens collected during Milne Port surveys were morphologically identified as *P. littoralis* (WSP 2023).

P. littoralis along with *P. washingtoniensis* have been confirmed via barcoding to occur in the Project area prior to Project operations (Küpper et al. 2016). The same study also indicated the presence of a potential third, currently unidentified species. Genetic work is required for this genus. For example, morphologically identified *P. littoralis* specimens collected from around Canada, including in the Eastern Canadian Arctic, were found to be three genetically distinct groups (Saunders and McDevit 2013). *P. washingtoniensis* was originally considered to be a Pacific species, however barcoding reveals a much broader range, with it being common in the Pacific, Atlantic, and Arctic Oceans (Saunders and McDevit 2013, Saunders 2023, Guiry and Guiry 2025).

P. littoralis is listed on AIS databases as alien to European waters (AquaNIS 2015, Costello et al. 2025), however this species is North American in origin and has been confirmed to occur in the Project area prior to Project operations, and therefore is not considered a taxon of concern for Milne Port.

- ***Pylaiella* sp. and *Pylaiella washingtoniensis* are not considered taxa of concern for Milne Port.**

3.2.6 *Dictyosiphon* sp. and *Dictyosiphon foeniculaceus*

This genus clearly occurs in the Eastern Canadian Arctic, however more specific taxonomy is unclear due to significant phenotypic plasticity (WoRMS 2025, GBIF 2025, Saunders and McDevit 2013). Based on morphological descriptions, there are four species in Canadian waters, however molecular work reveals there are at least six with overlapping ranges (Saunders and McDevit 2013). The morphological variation within each genetic group leads to uncertainty over historic collections based on morphology. For example, *D. foeniculaceus* is described as a common species with an apparently broad range with collections in the Canadian Pacific, Arctic, and Atlantic oceans. However, molecular work suggests regional differences in the dominant genetic group. *D. foeniculaceus* collected in the Pacific Ocean were most commonly from a genetic group that was poorly represented in the Atlantic and Arctic oceans (Saunders and McDevit 2013). Further genetic work is needed to resolve this genus.

D. foeniculaceus was confirmed in Milne Port by DNA barcoding in 2021 (Golder 2022a). An additional specimen was considered an inexact morphological match for *D. ekmanii* (Golder 2022a). Previous molecular analysis of collections from Cape Hatt was unable to identify *Dictyosiphon* specimens to species; they did not match sequences for *D. foeniculaceus*, but did match an unknown specimen from Churchill, identified as *Dictyosiphon* sp._1GWS (Küpper et al. 2016). *Dictyosiphon* sp._1GWS was the dominant genetic group collected in Pacific waters and were also represented but not dominant in Arctic and Atlantic collections (Saunders and McDevit 2013).

There are no records of *Dictyosiphon* species in available NIS/AIS databases.

- ***Dictyosiphon* sp. and *Dictyosiphon foeniculaceus* are not considered taxa of concern for Milne Port.**

3.2.7 *Elachista fucicola*

Elachista fucicola is a species of epiphytic brown algae with a broad distribution throughout the North Pacific, North Atlantic and Arctic oceans (WoRMS 2025, GBIF 2025). Canadian records in the Eastern Canadian Arctic include Ragged Island (Küpper et al. 2016).

There have been no previous observations of this species or genus in Milne Port surveys. This is likely due to *Elachista* being an epiphytic genus, which may have been overlooked in the macroalgal collections.

There are no records of *Elachista fucicola* in available NIS/AIS databases.

- ***Elachista fucicola* is not considered a taxon of concern for Milne Port.**

3.2.8 *Stictyosiphon* sp., *Stictyosiphon arcticus*, and *Stictyosiphon tortilis*

Stictyosiphon is a genus of filamentous brown algae. Multiple species are confirmed to occur in the Eastern Canadian Arctic, including at Ragged Island (WoRMS 2025, GBIF 2025, Küpper et al. 2016, Snow et al. 1987). The genus was first recorded in Milne Port in 2022 as *S. tortilis* as well as unidentified *Stictyosiphon* specimens with morphological similarities to *S. tortilis* and *S. soriferus* (WSP 2023).

While not positively identified in the reviewed macroalgae collection, there were indications the unidentified *Stictyosiphon* may have included *S. arcticus*, a species that is poorly represented in the literature. This species was described from specimens collected in Greenland along with specimens collected in Norway and at Cape Hatt, indicating a broad Arctic and North Atlantic range (Pedersen and Kristiansen 1992). This species has morphological similarities with *Chordaria flagelliformis* and *Dictyosiphon foeniculaceus* and may also be misidentified as *Coelocladia arctica* (Pedersen and Kristiansen 1992).

S. tortilis is a well-documented species in the Eastern Canadian Arctic. Surveys at Ragged Island indicate it is among the most dominant flora in the area (Cross et al. 1987, Küpper et al. 2016). This is based on morphological identification and it has not been confirmed molecularly (Küpper et al. 2016).

S. soriferus is recorded as introduced to Australia through the likely vector of hull fouling (Hewitt et al. 2004, AquaNIS 2015). However, this species' natural range includes the North Atlantic and potentially may also include the Eastern Canadian Arctic, indicated by a collection in Churchill (Saunders and McDevit 2013). *Stictyosiphon*

specimens collected at Ragged Island were compared to publicly available sequences for *S. soriferus* and were not a close match (Küpper et al. 2016). Due to the record of introduction and the unclear Eastern Canadian Arctic range, in 2023 this species was designated Low Risk and placed on the Watch List as a precaution. There are no records of other *Stictyosiphon* species in available NIS/AIS databases.

- ***Stictyosiphon* sp., *Stictyosiphon arcticus*, and *Stictyosiphon tortilis* are not considered taxa of concern for Milne Port.**
- ***Stictyosiphon soriferus* was designated Low Risk and remains on the Watch List.**

3.2.9 *Scytosiphon* sp. Group J

While there is confidence that the brown algae genus *Scytosiphon* is naturally present in the Canadian Arctic, there is uncertainty in the species that are present. Collection of barcode data from Canadian Phaeophyceae revealed significant diversity within the genus in Canada, resolving into up to eleven distinct groups, compared to only four described species (McDevit and Saunders 2017). Groups C, D, and J all included collections in Hudson Bay (Group C and D) and the Canadian Arctic (Group J; unpublished data in McDevit and Saunders 2017).

This genus was first tentatively identified in Milne Port in 2022 as cf. *Scytosiphon lomentaria* or cf. *Asperococcus fistulosus*, which is a homotypic synonym with a narrower range (WSP 2023). *Scytosiphon lomentaria* is currently the only species from this genus with a described Arctic range. Morphological identification indicated *S. lomentaria* is present at Cape Hatt, however, this was not confirmed by molecular means (Küpper et al. 2016). Records of *S. lomentaria* in the Canadian Arctic are potentially misidentified *S. canaliculatus* and/or other undescribed *Scytosiphon* sp. (Saunders and McDevit 2013, McDevit and Saunders 2017).

The Milne Port specimens were confidently placed in the genus *Scytosiphon*, while the specific identification was based on experience that *Scytosiphon* sp. Group J is found in Nunavut (Saunders 2024, pers. comm.).

- ***Scytosiphon* sp. Group J is not considered a taxon of concern for Milne Port.**

3.2.10 *Fucus distichus*

Fucus distichus is a common species in the Canadian Arctic and is expected to occur within the Project area (WoRMS 2025, GBIF 2025, Guiry and Guiry 2025). Historic *Fucus* records in the surrounding area include *F. evanescens*, which is accepted as a subspecies of *F. distichus* (WoRMS 2025). However, *F. distichus* subsp. *evanescens* is considered non-native to the Arctic (AquaNIS 2025, Costello et al. 2025). Records of *F. evanescens* in the Canadian Arctic may be misrepresented records of *F. distichus* or other subspecies, confused by revisions in the taxonomy (see Kupper et al. 2016 and Cross et al. 1987).

Fucus sp. has been identified in Milne Port since baseline surveys, where it was initially described as *Fucus distichus* subsp. *edentatus*, based on collections from Steensby Inlet (SEM 2010). This subspecies is not known to occur north of the Hudson Complex (Guiry and Guiry 2025, Lee 1980). Subsequent reports did not clarify species or subspecies, although the genus continued to be observed in surveys (SEM 2014, 2015). *F. distichus* was first identified in Milne Port surveys in 2020, where it was observed in quadrats, as well as along offset habitat on the Ore Dock and Freight Dock (Golder 2021).

- ***Fucus distichus* is not considered a taxon of concern for Milne Port.**

3.2.11 *Alaria esculenta*

Alaria esculenta is a bladed brown alga, commercially farmed in Europe (Ciravegna et al. 2023). *A. esculenta* is considered to be among the dominant kelp species in the eastern Canadian Arctic (Goldsmit et al. 2021).

A. esculenta is well documented around throughout the Eastern Canadian Arctic, Baffin Island, and has been recorded at Ragged Island prior to Project operations (WoRMS 2025, GBIF 2025, Saunders and McDevit 2013, Lee 1980, Küpper et al. 2016). During baseline surveys, *A. esculenta* was presumed to be present in Milne Port but was only confirmed in Steensby Inlet (SEM 2010). This is the first identification of this species in Milne Port.

Alaria esculenta is listed as alien to parts of the North Sea, however it naturally occurs in the North Sea in areas where water temperatures remain below 16°C (Streftaris et al. 2005, MarLIN 2025). These introductions may be related to commercial farming in regions outside of the optimal temperature range (Ciravegna et al. 2023).

- ***Alaria esculenta* is not considered a taxon of concern for Milne Port.**

3.2.12 *Saccharina* sp., *Saccharina latissima*, *Laminaria* sp., *Laminaria solidungula*

Specimens collected in Milne Port included a mix of *Saccharina* and *Laminaria*. The species present were not confirmed in the samples, due to juveniles of *Saccharina* and *Laminaria* being too similar to differentiate visually, however the samples were considered to contain *S. latissima* and/or *L. solidungula* (Saunders 2024, pers. comm.). The genera *Saccharina* and *Laminaria* are closely related and morphologically similar. *Saccharina* was originally defined in 1809 and *Laminaria* in 1813, but *Laminaria* was selected due to its more common usage (Lane et al. 2006). Molecular investigations of the order Laminariales revealed significant diversity and distinct clades within the genus *Laminaria* that led to the resurrection of the genus *Saccharina* and the transference of multiple former *Laminaria* species to this genus (Lane et al. 2006). Due to these changes, historic records of *Saccharina* and *Laminaria* are difficult to resolve to the current accepted species.

Both genera have broad global ranges and contain currently accepted species with documented ranges that include the Eastern Canadian Arctic (WoRMS 2025, GBIF 2025). Exact records for *Saccharina* and *Laminaria* sp. are difficult to resolve due to the more recent taxonomic changes. For example, *S. latissima* (formerly *L. saccharina* and *L. longicuris*, and other *Laminaria* sp.) and *S. groenlandica* (formerly *L. groenlandica*, but also now accepted as *S. latissima*) are in modern records in the Eastern Canadian Arctic (Saunders and McDevit 2013, Küpper et al. 2016, WoRMS 2025) and are in older records as *Laminaria* species (Lee 1980, Cross et al. 1987, Ellis and Wilce 1961).

Overall, *S. latissima* and *L. solidungula* are accepted as present through the Eastern Canadian Arctic (Saunders and McDevit 2013, Küpper et al. 2016). Additionally, *S. latissima* has been molecularly confirmed to be present at Ragged Island (Küpper et al. 2016) and both these species were molecularly confirmed in the Hudson Complex (Saunders and McDevit 2013). Baseline surveys in Milne Port identified *S. longicuris*, *S. latissima*, and *L. solidungula* as the most commonly noted bladed kelp species observed in video surveys (SEM 2010, SEM 2016).

Several *Saccharina* and *Laminaria* species are listed on AIS databases (AquaNIS 2015, Costello et al. 2025). However, this includes deliberate introductions via aquaculture (*S. japonica*, Lutaenko et al. 2013). Other records are alternative names for or subspecies of *S. japonica* (AquaNIS 2015, Costello et al. 2025, WoRMS 2025, Lane et al. 2006). Each listed taxon does not occur in comparable environments to Milne Port (Guiry and Guiry 2025). There are no records of *S. latissima* or *L. solidungula* in available NIS/AIS databases.

- ***Saccharina* sp., *Saccharina latissima*, *Laminaria* sp., and *Laminaria solidungula* are not considered taxa of concern for Milne Port.**

3.2.13 *Pseudolithoderma* sp.

Pseudolithoderma is a genus of crustose brown algae. Multiple species are recorded throughout the Canadian Arctic. Records include unidentified species at Cape Hatt, Ragged Island (Cross et al. 1987). Other species recorded in the region include *P. extensum*, *P. rosenvingei*, *P. subextensum*, and *P. paradoxum* (Lee 1980, Mathieson et al. 2010). *Pseudolithoderma* has not been previously identified in Milne Port, although it was presumed to be present during baseline surveys based on literature review (SEM 2010).

P. roscoffense, native to North-West Europe is listed on AquaNIS, however there are no details available on its status outside of the native range and it is unclear if it is considered introduced outside of this range (AquaNIS 2015).

- ***Pseudolithoderma* sp. is not considered a taxon of concern for Milne Port.**

3.2.14 *Battersia arctica* and *Battersia racemosa*

Battersia is a genus of filamentous brown algae with at least two Eastern Canadian Arctic species, *B. arctica* and *B. racemosa*, with *B. arctica* being more commonly observed. *B. arctica* and *B. racemosa* appear in older records as *Sphacelaria arctica* and *S. racemosa*, respectively. Some records also include *S. racemosa* var. *arctica*, which is now accepted as *B. arctica* (WoRMS 2025). Due to the variant name not being used consistently in older literature, there is a level of uncertainty regarding older records of *S. racemosa* and which modern descriptions those collections would represent.

Battersia was first observed in Milne Port during the monitoring of offset habitat in 2020. In 2021 unidentified Sphacelariales specimens were tentatively identified as *Battersia* cf. *arctica* and a confident identification of *B. arctica* was made in 2022 (Golder 2022a, WSP 2023).

There are no records of *B. arctica* or *B. racemosa* in available NIS/AIS databases.

- ***Battersia arctica* and *Battersia racemosa* are not considered taxa of concern for Milne Port.**

3.2.15 *Chaetopteris plumosa*

Chaetopteris plumosa is an understory brown algal species with a broad range including records in the Eastern Canadian Arctic and at Ragged Island (WoRMS 2025, GBIF 2025, Guiry and Guiry 2025, Küpper et al. 2016, Cross et al. 1987). Some literature uses the unaccepted name, *Sphacelaria plumosa*, for this species, although both names are often acknowledged. This alternative identification included specimens collected in Steensby Inlet during baseline surveys (SEM 2010).

There are no records of *C. plumosa* or *S. plumosa* in available NIS/AIS databases.

- ***Chaetopteris plumosa* is not considered a taxon of concern for Milne Port.**

3.3 Rhodophyta

3.3.1 *Ahnfeltia borealis*

First described in 2012, *Ahnfeltia borealis* is a species of red algae with a North Atlantic distribution. There are very few collections on record, however, these indicate a broad northern range that includes the eastern Canadian Arctic (WoRMS 2025, GBIF 2025). This species may have been overlooked prior to its description due to similarities with *A. plicata*, which also has an Arctic range (Saunders and McDevit 2013). *A. plicata* records in the Eastern Canadian Arctic (which may potentially represent misidentified *A. borealis*) include Lancaster Sound and Eclipse Sound, including Pond Inlet and Ragged Island (Lee 1980, Cross et al. 1987, Küpper et al. 2016).

Ahnfeltia borealis has not been observed in previous Milne Port surveys. There are no records of *A. borealis* or other *Ahnfeltia* species in available NIS/AIS databases.

- ***Ahnfeltia borealis* is not considered a taxon of concern for Milne Port.**

3.3.2 *Scagelia pylaisaei*

Species in the genus *Scagelia* are cryptic and records determined from morphological examinations in the Canadian Arctic are uncertain (Saunders and McDevit 2013). However, it is assumed that *S. pylaisaei* has a natural range that includes the Eastern Canadian Arctic (Saunders and McDevit 2013). Records in the Eastern Canadian Arctic include Churchill and Ragged Island (Saunders and McDevit 2013, Küpper et al. 2016), as well as in baseline survey algal collections in Steensby Inlet (SEM 2010). In 2022, unidentified Ceramioideae specimens were considered potentially to represent *S. pylaisaei*, however the identification was not able to be confirmed (WSP 2023).

There are no records of *S. pylaisaei* or other *Scagelia* species in available NIS/AIS databases.

- ***Scagelia pylaisaei* is not considered a taxon of concern for Milne Port.**

3.3.3 *Phycodrys fimbriata*

Phycodrys fimbriata is part of a species complex with two other species present in the Arctic and western North Atlantic. *P. fimbriata* is the most common and the only one confirmed to occur in Nunavut (Saunders 2023, WoRMS 2025, GBIF 2025). Species in this complex are morphologically similar and may be confused with other species (Saunders and McDevit 2013, Saunders 2023). Records in the Canadian Arctic are uncertain as a result. *Phycodrys rubens* has been morphologically identified at Ragged Island, however genetic work on this species in Atlantic Canada indicates it is commonly misidentified *P. fimbriata* (Küpper et al. 2016, Saunders and McDevit 2025).

P. fimbriata was identified in Steensby Inlet as part of baseline surveys and in Milne Port in 2021 (SEM 2010, Golder 2022a). There are no records of *P. fimbriata* in available NIS/AIS databases.

- ***Phycodrys fimbriata* is not considered a taxon of concern for Milne Port.**

3.3.4 *Odonthalia dentata*

While this genus as a whole requires further work, records of this species in the Canadian Arctic are considered reliable based on molecular investigations (Saunders and McDevit 2013). This species has a natural Canadian Arctic range that includes records at Ragged Island (Cross et al. 1987, Küpper et al. 2016). Specimens potentially representing *O. dentata* were identified in algal samples collected for DNA in 2021, although they were not among the specimens chosen for sequencing (Golder 2022a).

This was one of the most common species of foliose red algae observed in Steensby Inlet during baseline surveys (SEM 2010). There are no records of *O. dentata* in available NIS/AIS databases.

- ***Odonthalia dentata* is not considered a taxon of concern for Milne Port.**

3.3.5 *Polysiphonia stricta*

Genetic work on the morphospecies indicates there are potentially three species grouped under this name, two of which have been collected in the Eastern Canadian Arctic (Saunders and McDevit 2013). Older Arctic records of this species list are frequently identified as *P. urceolata*, an unaccepted synonym for this species complex (Lee 1980, Mathieson et al. 2010, WoRMS 2025).

In 2022, a specimen of filamentous red algae collected in Milne Port was tentatively identified based on morphology as an unknown species of *Polysiphonia* (WSP 2023).

There are no records of *P. stricta* in available NIS/AIS databases.

- ***Polysiphonia stricta* is not considered a taxon of concern for Milne Port.**

3.3.6 *Rhodomela tenuissima* and *Rhodomela virgata*

Rhodomela is a genus of red algae with multiple species recorded in the Canadian Arctic (GBIF 2025). Records in the Eastern Canadian Arctic include *R. lycopodioides* f. *tenuissima*, which is now accepted as *R. tenuissima* (Lee 1980, WoRMS 2025). In some records, *R. lycopodioides* f. *tenuissima* was shortened to *R. lycopodioides*, a currently accepted name for a morphospecies with at least three distinct genetic groups, which confuses the distribution records for both *R. tenuissima* and *R. lycopodioides* (Lee 1980, Saunders and McDevit 2025). Work is needed to confirm the range of *R. tenuissima*, however it appears to have a broad Arctic range, indicated by collections in the Western Canadian Arctic, Alaska, and Greenland (Saunders 2023, Lund 1959).

The majority of the *Rhodomela* in Milne Port specimens were assigned to *R. virgata*. *R. virgata* is morphologically variable and may be confused with *R. lycopodioides* (Saunders and McDevit 2013, Saunders 2023). The Milne Port specimens matched Canadian Arctic records collected for DNA that were considered a morphological match to *R. virgata*, but there are uncertainties in the taxonomy (Saunders 2023). Despite the uncertainties in taxonomy, it is clear that a species matching the morphology of *R. virgata* and the Milne Port specimens is present elsewhere in the Eastern Canadian Arctic (GBIF 2025, Saunders and McDevit 2013).

R. sibirica was identified in baseline surveys in Steensby Inlet and was presumed to be among the red algae observed in ROV surveys at Milne Port (SEM 2010). This is among the species known to occur at Baffin Island (Saunders 2023). Unknown red algae specimens were tentatively identified as *Rhodomela* in 2021 MEEMP surveys and were tentatively assigned to *Rhodomela confervoides* in 2022 (Golder 2022a, WSP 2023).

There are no records of *Rhodomela* species, including *R. tenuissima* or *R. virgata* in available NIS/AIS databases.

- ***Rhodomela tenuissima* and *Rhodomela virgata* are not considered taxa of concern for Milne Port.**

3.3.7 *Savoiea arctica*

Savoiea is a relatively new genus and is not fully accepted within the available literature (WoRMS 2023, Guiry and Guiry 2025, Wynne 2018). Most Canadian Arctic records for *S. arctica* are under the synonyms *Polyostea arctica*, *Pterosiphonia arctica*, and *Polysiphonia arctica* (Charette et al. 2020, Lee 1980, Lund 1959, Cross et al. 1987). Under the former names, the species has a broad range throughout the Canadian Arctic, including records at Ragged Island (Küpper et al. 2016, Ellis and Wilce 1961).

S. arctica (as *Polysiphonia arctica*) was the most common of the filamentous red algae in baseline surveys at Steensby Inlet (SEM 2010). First identified in Milne Port as *S. arctica* in 2021 surveys, this species has been observed during quadrat surveys in subsequent years (Golder 2022a, WSP 2023, 2024).

There are no records of *S. arctica*, *Polyostea arctica*, *Pterosiphonia arctica* or *Polysiphonia arctica* in available NIS/AIS databases.

- ***Savoiea arctica* is not considered a taxon of concern for Milne Port.**

3.3.8 *Dilsea socialis*

Dilsea socialis, formerly known as *Dilsea integra*, is a species of canopy forming bladed red algae that is well documented through the eastern Canadian Arctic, including records from Ragged Island under both species names (Küpper et al. 2016, Guiry and Guiry 2025, Lee 1980).

D. socialis was identified in baseline surveys in Steensby Inlet and was presumed to be among the red algae observed in ROV surveys at Milne Port (SEM 2010). *D. socialis* was first identified in MEEMP surveys and surveys of reference habitat in Milne Port in 2021 (Golder 2022a, Golder 2022b).

There are no records of *D. socialis* or *D. integra* in available NIS/AIS databases.

- ***Dilsea socialis* is not considered a taxon of concern for Milne Port.**

3.3.9 *Coccotylus truncatus*

Coccotylus truncatus is considered to be the more arctic of the *Coccotylus* species (Saunders and McDevit 2013). *C. truncatus* is a well documented northern species with collections throughout the Eastern Canadian Arctic, including Ragged Island (WoRMS 2025, GBIF 2025, Brown et al. 2011, Cross et al. 1987, Lee 1980). Older records of this algae may be under the former name *Phyllophora truncata* (Lee 1980, Cross et al. 1997).

C. truncatus (as *Phyllophora truncata*) was identified in baseline surveys in Steensby Inlet where it was among the most common foliose red algae and was presumed to be among the red algae observed in ROV surveys at Milne Port (SEM 2010). *C. truncatus* was first identified in MEEMP surveys and surveys of reference habitat in Milne Port in 2021 (Golder 2022a, Golder 2022b)

There are no records of *C. truncatus* or *P. truncata* in available NIS/AIS databases.

- ***Coccotylus truncatus* is not considered a taxon of concern for Milne Port.**

4.0 CONCLUSION

Review of the macroalgal specimen inventory identified 39 distinct taxa, seventeen of which had been identified in previous years. An analysis of the available literature indicated each of the new records had a clearly described range and collection records that included Arctic waters or had reasonable likelihood of including the Eastern Canadian Arctic. Each macroalgae taxon was cross-checked against marine invasive species databases. None of the taxa observed were identified as globally recognized invasive species (Molnar et al. 2008) or as domestically recognized invasive species according to the National Risk Assessment for Introduction of Aquatic Nonindigenous Species to Canada by Ballast Water (Casas-Monroy et al. 2014). In addition to these databases, the distribution and habitat preferences of each taxon was researched independently in the literature for signs of NIS status in the Arctic region. For specimens that could not be resolved to species, review efforts focused on confirming that the higher-level classification (e.g., genus) had at least one species with a distribution that included Arctic waters. Where taxa or representative taxa were listed on NIS/AIS databases, flagged species were found to either already occur naturally in the Eastern Canadian Arctic or were not found in comparable environments to Milne Port. No taxa identified in review of Milne Port algal specimens were considered to represent taxa of concern in Milne Port.

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APPENDIX 8B-6

Macroalgae Identification Methods

March 18, 2025

Report by Gary W. Saunders, University of New Brunswick, for WSP Canada Inc.
Baffinland Iron Mines Corp. / Mary River Project

UNB contract: Assist in Taxonomic & Biogeographic Analyses of Macroalgae

Submission No. 2_002(final): A report on the macroalgae collected in 2024 and a composite list including the new records and updates to archival material 2017-2023 – due March 15, 2025.

The identifications were largely based on the following references, as well as 30 years' experience studying seaweed in the NW Atlantic including work in the arctic: Moller Pedersen (2022), Nielsen et al. (2022a, 2022b), and Saunders (2024; including information on the companion webpage seaweedcanada.ca). Other useful works for linking specimens to genetic groups and understanding cryptic diversity in the arctic included: Bringloe et al. (2017, 2019a, 2019b, 2020), Küpper et al. (2016) and Saunders & McDevit (2013). Among other works as needed, historical context was found in Taylor (1957) and Lee (1980).

Samples from 2024 were identified morphologically and, where samples worked for DNA extraction, through genetic tools. The level of identification is recorded as 'Human observation' and 'Human Observation & Sanger Sequencing', respectively. The records are in the appended Excel sheet '2024_Nunavut_Report'. A few notable observations were made, and these are highlighted in Column N (Notable). These continue to grow the list of potential arctic endemic species, in support of past glacial refugia in this region (Bringloe et al. 2020). Field crews in 2025 should have an eye out to target these species.

In addition the data obtained through NextGen sequencing are appended as a separate spreadsheet (2024_Nunavut_NextGen_Report). These data must be used conservatively as they are prone to both positive and negative errors. False positives are especially likely when a scrape contains little material for the target marker; e.g., all of our putative false positives were obtained with the red seaweed specific marker COII-COIII – prior to our analyses Olivia noted that there was almost no red material in the scrapes. With little in the tube to compete for the PCR reagents, even the smallest amount of contaminant is likely to be amplified. Despite the shortcomings of metabarcoding data, they are however useful at flagging species for field teams to monitor.

To facilitate the previous task of searching for specific species, we have provided the NextGen data at two levels of confidence indicated in each record's accession number. For example, NGenWSP240051(T4) indicates more reads being recovered (T4) meaning the species is likely in the flora versus accession numbers ending in (T1), which have a much lower threshold of recovery (potential false positives), but we should be aware that they may be present. Although we have encountered species at both the T4 and T1 level that we have not previously collected in Nunavut, all of the species uncovered we have found elsewhere in Arctic or subarctic floras (notably Churchill, MB, Labrador, down to Les Escoumins, QC) and it is my opinion that they are likely members of the base algal flora in Milne Inlet. The few exceptions are included in the attached spreadsheet (2024_Nunavut_NextGen_Report) with my notes. One final caveat must be

considered in using the LSU D2 data. This marker is conservative and cannot discriminate among closely related species. Thus a 100% match could be correct or belong to a different species not yet in our database that is closely related to the match. The secondary lineage-specific markers are used in part to augment this shortcoming and improve the resolution that we can provide in these metabarcoding lists.

Based on better anatomical observations combined with the 2024 sequence data, I was able to improve identifications for the specimens covered in our first report (No. 1_001). These updates are included in a second spreadsheet, which also includes the 2024 data, appended here as '2024_Composite_Report'.

Our success in obtaining sequences from the 2024 material was lower than we typically expect. This was likely due to Olivia being new to completing these tasks on her own and we have discussed some steps to take to ensure enhanced returns for 2025. To be fair, it can take years to master these protocols and she did very well for her first solo mission. Consequently, there were some wonderful results from Olivia's work, and some tantalizing uncertainties in need of further study. Notably, some of the key finds (e.g. *Litosiphon* sp. 1 Arctic and *Stictyosiphon articus*) still await confirmation through DNA analyses, while others with sequence data but for which we lack sufficient vouchers to characterize them morphologically (e.g. *Elachista* sp. 1 Arctic, *Polysiphonia kapraunii* and *Scytosiphon* sp. 1 crust). All of these, along with taxa flagged in the NextGen spreadsheet (2024_Nunavut_NextGen_Report), should be targeted during the 2025 season.

In summary, everything that I viewed was within the bounds of an arctic flora in my experience. The species are all likely components of the Arctic flora.

Respectfully submitted,

Gary W. Saunders

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APPENDIX 8B-7

Fish Stomach Laboratory Methods



Fish Stomach Enumeration and Identification Methods

Client: WSP

Project: Baffinland MEEMP

Sample Inventory

Sample arrival: 30-Aug-24

Number of samples: 92: 60 processed, 32 on hold

Biologica project number: ms24-033

Upon arrival, the samples were examined and double-checked against the chain of custody to ensure that (1) all samples were accounted for, and (2) each sample had the appropriate number of jars as indicated on the COC. Any discrepancies were reported to the client and were resolved before further sample handling. Samples were then assigned a unique identification number. Stomachs arrived already removed from fish and preserved in formalin.

Table 1. Summary of fish stomachs processed for WSP Baffinland MEEMP, 2024.

Client Sample ID	Date Sampled	Biologica Sample ID	Fish	% Stomach Fullness	% Material Digested	Full Stomach Weight (g)
BAFF24UDPFFHSC1001	04-Aug-24	ms24-033-136	Fourhorn Sculpin	100	25	20.55182
BAFF24UDPFFHSC1002	04-Aug-24	ms24-033-137	Fourhorn Sculpin	100	100	3.09678
BAFF24UDPFFHSC1003	04-Aug-24	ms24-033-138	Fourhorn Sculpin	25	75	5.22891
BAFF24UDPFFHSC1004	04-Aug-24	ms24-033-139	Fourhorn Sculpin	100	100	12.28651
BAFF24UDPFFHSC1006	04-Aug-24	ms24-033-141	Fourhorn Sculpin	25	100	7.11293
BAFF24UDPFFHSC1011	04-Aug-24	ms24-033-146	Fourhorn Sculpin	75	100	9.72847
BAFF24UDPFFHSC1012	04-Aug-24	ms24-033-147	Fourhorn Sculpin	75	75	29.68573
BAFF24UDPFFHSC1014	04-Aug-24	ms24-033-149	Fourhorn Sculpin	50	100	5.37250
BAFF24UDPFFHSC1015	04-Aug-24	ms24-033-150	Fourhorn Sculpin	50	100	4.47916
BAFF24UDPFFHSC1016	04-Aug-24	ms24-033-151	Fourhorn Sculpin	50	100	3.89131
BAFF24UDPFFHSC1021	04-Aug-24	ms24-033-156	Fourhorn Sculpin	50	100	3.88662
BAFF24UDPFFHSC1022	04-Aug-24	ms24-033-157	Fourhorn Sculpin	75	100	5.37813
BAFF24UDPFFHSC1023	04-Aug-24	ms24-033-158	Fourhorn Sculpin	25	100	2.65917
BAFF24UDPFFHSC1025	05-Aug-24	ms24-033-160	Fourhorn Sculpin	75	100	10.80723
BAFF24UDPFFHSC1026	05-Aug-24	ms24-033-161	Fourhorn Sculpin	50	100	6.73290
BAFF24UDPFFHSC1027	05-Aug-24	ms24-033-162	Fourhorn Sculpin	0	100	3.74044
BAFF24UDPFFHSC1029	05-Aug-24	ms24-033-164	Fourhorn Sculpin	0	100	4.55122
BAFF24UDPFFHSC1030	05-Aug-24	ms24-033-165	Fourhorn Sculpin	50	100	6.46095
BAFF24UDPFFHSC1031	05-Aug-24	ms24-033-166	Fourhorn Sculpin	75	100	7.11023
BAFF24UDPFFHSC1032	05-Aug-24	ms24-033-167	Fourhorn Sculpin	0	100	3.31821
BAFF24UDPFFHSC1034	05-Aug-24	ms24-033-169	Fourhorn Sculpin	50	100	8.91804
BAFF24UDPFFHSC1035	05-Aug-24	ms24-033-170	Fourhorn Sculpin	50	100	3.47132
BAFF24UDPFFHSC1037	08-Aug-24	ms24-033-172	Fourhorn Sculpin	100	100	32.23203

Client Sample ID	Date Sampled	Biological Sample ID	Fish	% Stomach Fullness	% Material Digested	Full Stomach Weight (g)
BAFF24UDPFFHSC1038	08-Aug-24	ms24-033-173	Fourhorn Sculpin	75	50	9.39899
BAFF24UDPFFHSC1040	08-Aug-24	ms24-033-175	Fourhorn Sculpin	50	100	9.57372
BAFF24UREFFHSC2001	03-Aug-24	ms24-033-176	Fourhorn Sculpin	0	100	2.29935
BAFF24UREFFHSC2002	03-Aug-24	ms24-033-177	Fourhorn Sculpin	25	100	10.04563
BAFF24UREFFHSC2004	03-Aug-24	ms24-033-179	Fourhorn Sculpin	0	100	12.76674
BAFF24UREFFHSC2005	03-Aug-24	ms24-033-180	Fourhorn Sculpin	75	100	6.91222
BAFF24UREFFHSC2008	03-Aug-24	ms24-033-183	Fourhorn Sculpin	0	100	5.56602
BAFF24UREFFHSC2010	03-Aug-24	ms24-033-185	Fourhorn Sculpin	0	100	1.25097
BAFF24UREFFHSC2011	03-Aug-24	ms24-033-186	Fourhorn Sculpin	25	50	8.99201
BAFF24UREFFHSC2012	03-Aug-24	ms24-033-187	Fourhorn Sculpin	25	75	9.01641
BAFF24UREFFHSC2014	09-Aug-24	ms24-033-189	Fourhorn Sculpin	0	100	3.59288
BAFF24UREFFHSC2015	09-Aug-24	ms24-033-190	Fourhorn Sculpin	0	100	2.25804
BAFF24UREFFHSC2016	09-Aug-24	ms24-033-191	Fourhorn Sculpin	25	100	4.38341
BAFF24UREFFHSC2018	09-Aug-24	ms24-033-193	Fourhorn Sculpin	25	100	1.15140
BAFF24UREFFHSC2019	09-Aug-24	ms24-033-194	Fourhorn Sculpin	50	75	2.97185
BAFF24UREFFHSC2021	09-Aug-24	ms24-033-196	Fourhorn Sculpin	0	100	1.78677
BAFF24UREFFHSC2022	09-Aug-24	ms24-033-197	Fourhorn Sculpin	25	75	2.40808
BAFF24UREFFHSC2023	09-Aug-24	ms24-033-198	Fourhorn Sculpin	50	100	6.02460
BAFF24UREFFHSC2025	09-Aug-24	ms24-033-200	Fourhorn Sculpin	100	75	12.85457
BAFF24UREFFHSC2030	09-Aug-24	ms24-033-205	Fourhorn Sculpin	50	75	7.13678
BAFF24UREFFHSC2031	07-Aug-24	ms24-033-206	Fourhorn Sculpin	50	50	6.49754
BAFF24UREFFHSC2032	07-Aug-24	ms24-033-207	Fourhorn Sculpin	0	100	4.61607
BAFF24UREFFHSC2033	08-Aug-24	ms24-033-208	Fourhorn Sculpin	0	100	1.67066
BAFF24UREFFHSC2035	08-Aug-24	ms24-033-210	Fourhorn Sculpin	75	25	4.66901
BAFF24UREFFHSC2037	16-Aug-24	ms24-033-212	Fourhorn Sculpin	25	25	7.20518
BAFF24UREFFHSC2038	16-Aug-24	ms24-033-213	Fourhorn Sculpin	25	50	6.06110
BAFF24UREFFHSC2039	16-Aug-24	ms24-033-214	Fourhorn Sculpin	50	50	2.15468
BAFF24UDPFARCH4001	07-Aug-24	ms24-033-215	Arctic Char	25	100	3.60282
BAFF24UDPFARCH4002	07-Aug-24	ms24-033-216	Arctic Char	50	50	7.22002
BAFF24UDPFARCH4003	08-Aug-24	ms24-033-217	Arctic Char	25	100	9.91444
BAFF24UDPFARCH4004	08-Aug-24	ms24-033-218	Arctic Char	25	75	11.54355
BAFF24UDPFARCH4005	08-Aug-24	ms24-033-219	Arctic Char	75	50	61.15800
BAFF24UDPFARCH4006	08-Aug-24	ms24-033-220	Arctic Char	25	100	10.49591
BAFF24UDPFARCH4009	11-Aug-24	ms24-033-223	Arctic Char	25	100	6.80288
BAFF24UDPFARCH4010	11-Aug-24	ms24-033-224	Arctic Char	50	75	6.35614
BAFF24UDPFARCH4012	17-Aug-24	ms24-033-226	Arctic Char	25	100	7.23533
BAFF24UDPFARCH4013	18-Aug-24	ms24-033-227	Arctic Char	25	100	8.44441

Sample Processing

Before dissection and identification, the percent fullness and percent digestion of each stomach was recorded based on the professional judgement of the taxonomist(s). For each new project, if multiple

taxonomists are involved, they must agree on the categorization for the first 30 stomachs to ensure consistency of reporting.

The stomach contents were dissected out and weighed as per the following protocol:

1. Intestines were removed just anterior to the pyloric caecae and discarded. The esophagus was included with the stomach.
2. Excess moisture was blotted from the food bolus with paper towel, avoiding excessive pressure on the food bolus and the full stomach weight was taken. For stomachs that were damaged prior to analysis the stomach contents found outside of the stomach were weighed individually in their prey grouping and added to the total stomach weight.
3. A longitudinal incision was made with a scalpel or scissors, avoiding damage to the contents, to reveal the food bolus. At this time stomach fullness was determined and the corresponding code for the degree of fullness is recorded (Table 2). Fullness was estimated by considering two factors: the degree of distention of the stomach, and the weight of the bolus relative to the size of the fish.

Table 2. Stomach fullness categories.

0	Empty
10	Trace of prey
25	Trace–25% full
50	25–50% full
75	50–75% full
100	75–100% full (distended)

4. Percent digestion was determined based on the following categories. This ranking was given before the bolus was dissected based on observable condition of the prey organisms (Table 3).

Table 3. Percent digestion of stomach contents.

0	All material is undigested, only whole organisms visible
0–10	Trace only; few posterior-most prey items are digested
25	10–25% digested. Posterior-most 25% digested and more than half of the organisms are whole
50	25–50% digested; approximately half of the organisms are whole
75	50–75% digested, less than half of organisms are whole
100	All material is digested, no whole organisms visible

5. Material that was obviously composed of parasites, stomach lining, rocks, or any other non-prey is removed. (These items were not included in the stomach weight but were noted in the comments).
6. The bolus was dissected, working anterior-posterior. Prey items were identified to the lowest practical taxonomic level (species when possible). Digested and unidentifiable material were categorized (e.g., unidentified Insect parts, digested tissue, non-food, etc.). Each identifiable unit

(taxon or category) was placed in small drops of water on petri dish to prevent desiccation during the identification process. Chironomidae were slide-mounted for identification.

7. All prey categories (taxa and unidentifiable categories) were blotted and weighed to the nearest 0.01 mg of wet weight.

Data

Results were provided to the WSP Baffinland project manager in Excel spreadsheets via email.

Selected Methodological and Taxonomic References

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APPENDIX 8B-8

NextGen Sequencing Results

Appendix 8B-8

NextGen Sequencing Results

#	Division	Class	Order	Family	Name	Hab.	Coll.	Date	Geo.	Lat	Long	LoSL Basis of Recor	NextGen	Note
NGenWSP240036(T4)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 3GWS	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.8903	-80.8847	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240037(T4)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 3GWS	Pinching and scraping throughout intertidal	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240038(T4)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 3GWS	Subtidal (5m) on Rock	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240039(T4)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 3GWS	Subtidal (17m) on Rock	P. Hinton	05.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240040(T1)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 3GWS	Subtidal (12.8m) on Settlement plate, West Freight dock composite scrape	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240041(T1)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 3GWS	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240016(T4)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 6GWS	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	27.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240017(T1)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 6GWS	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	02.8.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240018(T4)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 6GWS	Subtidal (10m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	02.8.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240019(T4)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 6GWS	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	29.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240020(T1)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 6GWS	Subtidal (12.8m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.9185	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240021(T1)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 6GWS	Subtidal (11.3m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.918	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240022(T4)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 6GWS	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.8903	-80.8847	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240023(T1)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 6GWS	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.8902	-80.8838	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240024(T4)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 6GWS	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.8903	-80.8839	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240025(T4)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 6GWS	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.89	-80.8846	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240026(T4)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 6GWS	Subtidal (5m) on Rock	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240027(T4)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 6GWS	Subtidal (17m) on Rock	P. Hinton	05.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240028(T1)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 6GWS	Subtidal (12.8m) on Settlement plate, West Freight dock composite scrape	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240029(T1)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 6GWS	Subtidal (13m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240030(T1)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 6GWS	Subtidal (13m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.8902	-80.8868	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240031(T1)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 6GWS	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.8903	-80.8868	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240032(T1)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 6GWS	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240061(T1)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 6GWS	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	27.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240062(T4)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 6GWS	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.8903	-80.8839	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240063(T4)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 6GWS	Subtidal (5m) on Rock	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240064(T4)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 6GWS	Subtidal (17m) on Rock	P. Hinton	05.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240065(T1)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 6GWS	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.8903	-80.8868	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240033(T4)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 8GWS	Subtidal (12.8m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.9185	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240034(T1)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 8GWS	Subtidal (11.3m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.918	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240035(T4)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Acrosiphonia sp. 8GWS	Subtidal (17m) on Rock	P. Hinton	05.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240042(T4)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Spongomorpha aeruginosa	Subtidal (10m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	02.8.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240043(T1)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Spongomorpha aeruginosa	Subtidal (11.3m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.918	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240044(T1)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Spongomorpha aeruginosa	Subtidal (11.3m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8874	-80.9187	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240045(T4)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Spongomorpha aeruginosa	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.8902	-80.8838	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240046(T1)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Spongomorpha aeruginosa	Subtidal (12.8m) on Settlement plate, West Freight dock composite scrape	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240047(T1)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Spongomorpha aeruginosa	Subtidal (13m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	

Appendix 8B-8
NextGen Sequencing Results

#	Division	Class	Order	Family	Name	Hab.	Coll.	Date	Geo.	Lat	Long	toSL Basis of Recor	NextGen	Note
NGenWSP240048(T1)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Spongomorpha aeruginosa	Subtidal (13m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240049(T1)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Spongomorpha aeruginosa	Subtidal (11.3m) on Settlement plate	N. OBrien, P. Hinton	29.7.2024	Milne Inlet, Baffin Island	71.9149	-80.7992	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240050(T1)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Spongomorpha aeruginosa	Subtidal (12.8m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.9185	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240191(T1)	Chlorophyta	Ulvophyceae	Acrosiphoniales	Acrosiphoniaceae	Spongomorpha aeruginosa	Subtidal (11.3m) on Settlement plate	N. OBrien, P. Hinton	29.7.2024	Milne Inlet, Baffin Island	71.9149	-80.7992	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240080(T1)	Chlorophyta	Ulvophyceae	Cladophorales	Cladophoraceae	Chaetomorpha brachygonia	Subtidal (12.8m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.9185	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	Not aware of Arctic records, but certainly possible. Need to collect more of this thin unattached and attached
NGenWSP240072(T4)	Chlorophyta	Ulvophyceae	Cladophorales	Cladophoraceae	Chaetomorpha melagonium	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	31.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240073(T4)	Chlorophyta	Ulvophyceae	Cladophorales	Cladophoraceae	Chaetomorpha melagonium	Subtidal (12.8m) on Settlement plate, West Freight dock composite scrape	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240074(T4)	Chlorophyta	Ulvophyceae	Cladophorales	Cladophoraceae	Chaetomorpha melagonium	Subtidal (11.3m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8874	-80.9187	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240075(T1)	Chlorophyta	Ulvophyceae	Cladophorales	Cladophoraceae	Chaetomorpha melagonium	Subtidal (13m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240076(T1)	Chlorophyta	Ulvophyceae	Cladophorales	Cladophoraceae	Chaetomorpha melagonium	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240077(T1)	Chlorophyta	Ulvophyceae	Cladophorales	Cladophoraceae	Chaetomorpha melagonium	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240079(T1)	Chlorophyta	Ulvophyceae	Cladophorales	Cladophoraceae	Chaetomorpha sp.	Subtidal (12.8m) on Settlement plate, West Freight dock composite scrape	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	Could be Chaetomorpha sp. 3GWS which we got for ITS but needs to be added to LSUD2 ref library.
NGenWSP240051(T4)	Chlorophyta	Ulvophyceae	Cladophorales	Cladophoraceae	Chaetomorpha sp. 3GWS	Subtidal (13m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	Only one previous collection of this genetic group, a spring (April) collection from Massachusetts. Morphologically this species matches some of the vouchers that I have observed in the Milne Inlet material, but for which we have yet to acquire comparative sequences data.
NGenWSP240151(T1)	Chlorophyta	Ulvophyceae	Cladophorales	Cladophoraceae	Rhizoclonium riparium (Rottb.)	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.8902	-80.8838	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240008(T1)	Chlorophyta	Ulvophyceae	Ulotrichales	Ulotrichaceae	Ulothrix flacca (Dillwyn) Thwaites	Pinching and scraping throughout intertidal	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240009(T1)	Chlorophyta	Ulvophyceae	Ulotrichales	Ulotrichaceae	Ulothrix spp.	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.89	-80.8846	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240010(T4)	Chlorophyta	Ulvophyceae	Ulotrichales	Ulotrichaceae	Ulothrix spp.	Pinching and scraping throughout intertidal	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240011(T1)	Chlorophyta	Ulvophyceae	Ulotrichales	Ulotrichaceae	Ulothrix spp.	Subtidal (12.8m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.8899	-80.8868	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240012(T1)	Chlorophyta	Ulvophyceae	Ulotrichales	Ulotrichaceae	Ulothrix spp.	Subtidal (13m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240013(T1)	Chlorophyta	Ulvophyceae	Ulotrichales	Ulotrichaceae	Ulothrix spp.	Pinching and scraping throughout intertidal	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240014(T1)	Chlorophyta	Ulvophyceae	Ulotrichales	Ulotrichaceae	Ulothrix spp.	Subtidal (11.3m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8874	-80.9187	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240015(T1)	Chlorophyta	Ulvophyceae	Ulotrichales	Ulotrichaceae	Ulothrix spp.	Subtidal (12.8m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.8899	-80.8868	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240214(T4)	Chlorophyta	Ulvophyceae	Ulotrichales	Ulotrichaceae	Ulothrix spp.	Pinching and scraping throughout intertidal	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240215(T1)	Chlorophyta	Ulvophyceae	Ulotrichales	Ulotrichaceae	Ulothrix spp.	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	27.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240216(T1)	Chlorophyta	Ulvophyceae	Ulotrichales	Ulotrichaceae	Ulothrix spp.	Subtidal (10m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	27.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240007(T1)	Chlorophyta	Ulvophyceae	Ulotrichales	Ulotrichaceae	Ulothrix subflaccida Willebrandt	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.89	-80.8846	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240002(T4)	Chlorophyta	Ulvophyceae	Ulotrichales	Ulotrichaceae	Urospora neglecta (Korrmann)	Pinching and scraping throughout intertidal	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240003(T1)	Chlorophyta	Ulvophyceae	Ulotrichales	Ulotrichaceae	Urospora neglecta (Korrmann)	Subtidal (5m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240004(T1)	Chlorophyta	Ulvophyceae	Ulotrichales	Ulotrichaceae	Urospora neglecta (Korrmann)	Subtidal (10m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	27.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240005(T4)	Chlorophyta	Ulvophyceae	Ulotrichales	Ulotrichaceae	Urospora neglecta (Korrmann)	Pinching and scraping throughout intertidal	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240006(T1)	Chlorophyta	Ulvophyceae	Ulotrichales	Ulotrichaceae	Urospora neglecta (Korrmann)	Subtidal (12.8m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.8899	-80.8868	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240001(T1)	Chlorophyta	Ulvophyceae	Ulotrichales	Ulotrichaceae	Urospora penicilliformis (Rottb.)	Pinching and scraping throughout intertidal	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Green ITS (GrMetF2/CladoITS7Rn); MiSeq	
NGenWSP240221(T1)	Chlorophyta	Ulvophyceae	Ulotrichales	Ulotrichaceae	Urospora spp.	Subtidal (10m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	27.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240222(T4)	Chlorophyta	Ulvophyceae	Ulotrichales	Ulotrichaceae	Urospora spp.	Pinching and scraping throughout intertidal	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240223(T1)	Chlorophyta	Ulvophyceae	Ulotrichales	Ulotrichaceae	Urospora spp.	Subtidal (5m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	

Appendix 8B-8
NextGen Sequencing Results

#	Division	Class	Order	Family	Name	Hab.	Coll.	Date	Geo.	Lat	Long	toSL Basis of Recor	NextGen	Note
NGenWSP240078(T1)	Chlorophyta	Ulvophyceae	Ulvales	Kornmanniaceae	Blidingia sp. 2subsalsa (Kje	Pinching and scraping throughout intertidal	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240217(T1)	Chlorophyta	Ulvophyceae	Ulvales	Ulvaceae	Ulvaria splendens (Ruprech	Subtidal (10m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	27.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240218(T1)	Chlorophyta	Ulvophyceae	Ulvales	Ulvaceae	Ulvaria splendens (Ruprech	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.8903	-80.8868	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240219(T1)	Chlorophyta	Ulvophyceae	Ulvales	Ulvaceae	Ulvaria splendens (Ruprech	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240220(T1)	Chlorophyta	Ulvophyceae	Ulvales	Ulvaceae	Ulvaria splendens (Ruprech	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240276(T1)	Ochrophyta	Phaeophyceae	Desmarestiales	Desmarestiaceae	Desmarestia aculeata (Linn	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	31.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240277(T4)	Ochrophyta	Phaeophyceae	Desmarestiales	Desmarestiaceae	Desmarestia aculeata (Linn	Subtidal (11.3m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.918	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240278(T1)	Ochrophyta	Phaeophyceae	Desmarestiales	Desmarestiaceae	Desmarestia aculeata (Linn	Subtidal (11.3m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8874	-80.9187	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240279(T1)	Ochrophyta	Phaeophyceae	Desmarestiales	Desmarestiaceae	Desmarestia aculeata (Linn	Subtidal (17m) on Rock	P. Hinton	05.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240280(T4)	Ochrophyta	Phaeophyceae	Desmarestiales	Desmarestiaceae	Desmarestia aculeata (Linn	Subtidal (12.8m) on Settlement plate, West Freight dock composite scrape	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240281(T1)	Ochrophyta	Phaeophyceae	Desmarestiales	Desmarestiaceae	Desmarestia aculeata (Linn	Subtidal (12.8m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.8899	-80.8868	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240282(T1)	Ochrophyta	Phaeophyceae	Desmarestiales	Desmarestiaceae	Desmarestia aculeata (Linn	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240083(T1)	Ochrophyta	Phaeophyceae	Desmarestiales	Desmarestiaceae	Desmarestia aculeata/inter	Subtidal (11.3m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8874	-80.9187	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240317(T4)	Ochrophyta	Phaeophyceae	Desmarestiales	Desmarestiaceae	Desmarestia ligulata (Light	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	27.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	Interesting find and worth looking for to have morphological confirmation. Known from Alaska, Norway, etc., but I am not aware of records for the Canadian arctic. Could be there as gametophyte only; or a lab contam?
NGenWSP240233(T1)	Ochrophyta	Phaeophyceae	Desmarestiales	Desmarestiaceae	Desmarestia sp.	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	30.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	POSSIBLY sp. 1Arctic, need to add to database
NGenWSP240234(T4)	Ochrophyta	Phaeophyceae	Desmarestiales	Desmarestiaceae	Desmarestia sp.	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.8903	-80.8839	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	POSSIBLY sp. 1Arctic, need to add to database
NGenWSP240235(T1)	Ochrophyta	Phaeophyceae	Desmarestiales	Desmarestiaceae	Desmarestia sp.	Subtidal (12.8m) on Settlement plate, West Freight dock composite scrape	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	POSSIBLY sp. 1Arctic, need to add to database
NGenWSP240084(T1)	Ochrophyta	Phaeophyceae	Desmarestiales	Desmarestiaceae	Desmarestia sp. 1Arctic	Subtidal (11.3m) on Settlement plate	N. OBrien, P. Hinton	29.7.2024	Milne Inlet, Baffin Island	71.9149	-80.7992	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240052(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Acinetosporaceae_gen sp.	Subtidal (10m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	02.8.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	LSUD2 does not discriminate between these two species. Both occur in the arctic.
NGenWSP240053(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Acinetosporaceae_gen sp.	Subtidal (10m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	29.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	LSUD2 does not discriminate between these two species. Both occur in the arctic.
NGenWSP240054(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Acinetosporaceae_gen sp.	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	29.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	LSUD2 does not discriminate between these two species. Both occur in the arctic.
NGenWSP240055(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Acinetosporaceae_gen sp.	Subtidal (11.3m) on Settlement plate	N. OBrien, P. Hinton	29.7.2024	Milne Inlet, Baffin Island	71.9149	-80.7992	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	LSUD2 does not discriminate between these two species. Both occur in the arctic.
NGenWSP240056(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Acinetosporaceae_gen sp.	Subtidal (11.3m) on Settlement plate	N. OBrien, P. Hinton	29.7.2024	Milne Inlet, Baffin Island	71.9149	-80.7992	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	LSUD2 does not discriminate between these two species. Both occur in the arctic.
NGenWSP240057(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Acinetosporaceae_gen sp.	Subtidal (11.3m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.918	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	LSUD2 does not discriminate between these two species. Both occur in the arctic.
NGenWSP240058(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Acinetosporaceae_gen sp.	Subtidal (17m) on Rock	P. Hinton	05.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	LSUD2 does not discriminate between these two species. Both
NGenWSP240059(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Acinetosporaceae_gen sp.	Subtidal (13m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	LSUD2 does not discriminate between these two species. Both occur in the arctic.
NGenWSP240060(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Acinetosporaceae_gen sp.	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.8903	-80.8868	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	LSUD2 does not discriminate between these two species. Both occur in the arctic.
NGenWSP240122(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella littoralis (Linnaeus	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	27.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240123(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella littoralis (Linnaeus	Subtidal (10m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	29.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240124(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella littoralis (Linnaeus	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.89	-80.8846	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240125(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella littoralis (Linnaeus	Subtidal (12.8m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.8899	-80.8868	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240126(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella littoralis (Linnaeus	Subtidal (13m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.8902	-80.8868	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240127(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella littoralis (Linnaeus	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240239(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella washingtoniensis	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	27.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240240(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella washingtoniensis	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	02.8.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240241(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella washingtoniensis	Subtidal (10m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	02.8.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	

Appendix 8B-8
NextGen Sequencing Results

#	Division	Class	Order	Family	Name	Hab.	Coll.	Date	Geo.	Lat	Long	toSL Basis of Recor	NextGen	Note
NGenWSP240242(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella washingtoniensis	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	31.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240243(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella washingtoniensis	Subtidal (10m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	29.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240244(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella washingtoniensis	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	30.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240245(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella washingtoniensis	Subtidal (12.8m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.9185	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240246(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella washingtoniensis	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.8903	-80.8839	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240247(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella washingtoniensis	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240259(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella washingtoniensis	Subtidal (12.8m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.8899	-80.8868	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240260(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella washingtoniensis	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240128(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella washingtoniensis	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	27.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240129(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella washingtoniensis	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.89	-80.8846	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240130(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella washingtoniensis	Subtidal (12.8m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.8899	-80.8868	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240131(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella washingtoniensis	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240132(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella washingtoniensis	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	31.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240133(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella washingtoniensis	Subtidal (10m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	29.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240134(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella washingtoniensis	Subtidal (11.3m) on Settlement plate	N. OBrien, P. Hinton	29.7.2024	Milne Inlet, Baffin Island	71.9149	-80.7992	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240135(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella washingtoniensis	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.89	-80.8846	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240136(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella washingtoniensis	Pinching and scraping throughout intertidal	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240137(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella washingtoniensis	Subtidal (17m) on Rock	P. Hinton	05.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240138(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella washingtoniensis	Subtidal (12.8m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.8899	-80.8868	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240139(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella washingtoniensis	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240140(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Acinetosporaceae	Pylaiella washingtoniensis	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240082(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Chordaria chordaeformis (K	Subtidal (11.3m) on Settlement plate	N. OBrien, P. Hinton	29.7.2024	Milne Inlet, Baffin Island	71.9149	-80.7992	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240329(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Chordaria flagelliformis (O.	Subtidal (10m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	29.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240113(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Chordariacean sp.	Subtidal (10m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	29.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	Need to add to the Chordariaceae for reference database.
NGenWSP240085(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Dictyosiphon spp.	Pinching and scraping throughout intertidal	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240105(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Elachista sp. 1Arctic	Subtidal (11.3m) on Settlement plate	N. OBrien, P. Hinton	29.7.2024	Milne Inlet, Baffin Island	71.9149	-80.7992	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240106(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Elachista sp. 1Arctic	Subtidal (13m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240107(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Elachista sp. 1Arctic	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	27.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240108(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Elachista sp. 1Arctic	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	02.8.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240109(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Elachista sp. 1Arctic	Subtidal (10m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	02.8.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240110(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Elachista sp. 1Arctic	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	31.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240328(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Microspongium sp. 4GWS	Subtidal (11.3m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8874	-80.9187	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240114(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Polycerea borealis Vinograd	Subtidal (10m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	02.8.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240115(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Polycerea borealis Vinograd	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	29.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240116(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Polycerea borealis Vinograd	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240119(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Punctaria spp.	Subtidal (11.3m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8874	-80.9187	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240120(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Punctaria spp.	Subtidal (12.8m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.9185	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240121(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Punctaria spp.	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.8903	-80.8847	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240166(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Saundersella doloresiae G.	Subtidal (11.3m) on Settlement plate	N. OBrien, P. Hinton	29.7.2024	Milne Inlet, Baffin Island	71.9149	-80.7992	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	

Appendix 8B-8
NextGen Sequencing Results

#	Division	Class	Order	Family	Name	Hab.	Coll.	Date	Geo.	Lat	Long	toSL Basis of Recor	NextGen	Note
NGenWSP240167(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Saundersella doloresiae G.	Subtidal (10m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	02.8.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240168(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Saundersella doloresiae G.	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	02.8.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240169(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Saundersella doloresiae G.	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.8903	-80.8839	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240170(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Saundersella doloresiae G.	Subtidal (11.3m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.918	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240171(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Saundersella doloresiae G.	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.8902	-80.8838	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240172(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Saundersella doloresiae G.	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.89	-80.8846	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240192(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Stictyosiphon tortilis (Gobi)	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	02.8.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240193(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Stictyosiphon tortilis (Gobi)	Subtidal (10m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	02.8.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240194(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Stictyosiphon tortilis (Gobi)	Subtidal (10m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	29.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240195(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Stictyosiphon tortilis (Gobi)	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	30.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240196(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Stictyosiphon tortilis (Gobi)	Subtidal (11.3m) on Settlement plate	N. OBrien, P. Hinton	29.7.2024	Milne Inlet, Baffin Island	71.9149	-80.7992	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240197(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Stictyosiphon tortilis (Gobi)	Subtidal (11.3m) on Settlement plate	N. OBrien, P. Hinton	29.7.2024	Milne Inlet, Baffin Island	71.9149	-80.7992	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240198(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Stictyosiphon tortilis (Gobi)	Subtidal (11.3m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.918	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240199(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Stictyosiphon tortilis (Gobi)	Subtidal (11.3m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8874	-80.9187	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240200(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Stictyosiphon tortilis (Gobi)	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.8903	-80.8847	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240201(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Stictyosiphon tortilis (Gobi)	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.8902	-80.8838	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240202(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Stictyosiphon tortilis (Gobi)	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.8903	-80.8839	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240203(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Stictyosiphon tortilis (Gobi)	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.89	-80.8846	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240204(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Stictyosiphon tortilis (Gobi)	Pinching and scraping throughout intertidal	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240205(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Stictyosiphon tortilis (Gobi)	Subtidal (5m) on Rock	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240206(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Stictyosiphon tortilis (Gobi)	Subtidal (17m) on Rock	P. Hinton	05.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240207(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Stictyosiphon tortilis (Gobi)	Subtidal (12.8m) on Settlement plate, West Freight dock composite scrape	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240208(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Stictyosiphon tortilis (Gobi)	Subtidal (11.3m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8874	-80.9187	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240209(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Stictyosiphon tortilis (Gobi)	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.8903	-80.8868	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240210(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Stictyosiphon tortilis (Gobi)	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240211(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Stictyosiphon tortilis (Gobi)	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240212(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	Stictyosiphon tortilis (Gobi)	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240330(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp.	Subtidal (10m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	29.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	Matches a specimen we have from Bay of Fundy as well as one in GenBank from Greenland.
NGenWSP240261(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (11.3m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8874	-80.9187	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240262(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (11.3m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8874	-80.9187	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240290(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	27.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240291(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (10m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	27.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240292(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	02.8.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240293(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (10m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	02.8.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240294(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	31.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240295(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (10m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	29.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240296(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	29.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240297(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	30.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	

Appendix 8B-8
NextGen Sequencing Results

#	Division	Class	Order	Family	Name	Hab.	Coll.	Date	Geo.	Lat	Long	toSL Basis of Recor	NextGen	Note
NGenWSP240298(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (11.3m) on Settlement plate	N. OBrien, P. Hinton	29.7.2024	Milne Inlet, Baffin Island	71.9149	-80.7992	NextGen sequencing	Brown ITS (P1, NextITSR1); MiSeq	
NGenWSP240299(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (11.3m) on Settlement plate	N. OBrien, P. Hinton	29.7.2024	Milne Inlet, Baffin Island	71.9149	-80.7992	NextGen sequencing	Brown ITS (P1, NextITSR1); MiSeq	
NGenWSP240300(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (12.8m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.9185	NextGen sequencing	Brown ITS (P1, NextITSR1); MiSeq	
NGenWSP240301(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (11.3m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.918	NextGen sequencing	Brown ITS (P1, NextITSR1); MiSeq	
NGenWSP240302(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.8903	-80.8847	NextGen sequencing	Brown ITS (P1, NextITSR1); MiSeq	
NGenWSP240303(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.8902	-80.8838	NextGen sequencing	Brown ITS (P1, NextITSR1); MiSeq	
NGenWSP240304(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.8903	-80.8839	NextGen sequencing	Brown ITS (P1, NextITSR1); MiSeq	
NGenWSP240305(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.89	-80.8846	NextGen sequencing	Brown ITS (P1, NextITSR1); MiSeq	
NGenWSP240306(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Pinching and scraping throughout intertidal	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextITSR1); MiSeq	
NGenWSP240307(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (5m) on Rock	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextITSR1); MiSeq	
NGenWSP240308(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (17m) on Rock	P. Hinton	05.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextITSR1); MiSeq	
NGenWSP240309(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (12.8m) on Settlement plate, West Freight dock composite scrape	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	NextGen sequencing	Brown ITS (P1, NextITSR1); MiSeq	
NGenWSP240310(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (12.8m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.8899	-80.8868	NextGen sequencing	Brown ITS (P1, NextITSR1); MiSeq	
NGenWSP240311(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (11.3m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8874	-80.9187	NextGen sequencing	Brown ITS (P1, NextITSR1); MiSeq	
NGenWSP240312(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (13m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	NextGen sequencing	Brown ITS (P1, NextITSR1); MiSeq	
NGenWSP240313(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (13m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.8902	-80.8868	NextGen sequencing	Brown ITS (P1, NextITSR1); MiSeq	
NGenWSP240314(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	Brown ITS (P1, NextITSR1); MiSeq	
NGenWSP240315(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	Brown ITS (P1, NextITSR1); MiSeq	
NGenWSP240316(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	Brown ITS (P1, NextITSR1); MiSeq	
NGenWSP240086(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (11.3m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8874	-80.9187	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240087(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.8902	-80.8838	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240088(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.8903	-80.8839	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240089(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (11.3m) on Settlement plate	N. OBrien, P. Hinton	29.7.2024	Milne Inlet, Baffin Island	71.9149	-80.7992	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240090(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (11.3m) on Settlement plate	N. OBrien, P. Hinton	29.7.2024	Milne Inlet, Baffin Island	71.9149	-80.7992	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240091(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (12.8m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.9185	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240092(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (11.3m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.918	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240093(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (11.3m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8874	-80.9187	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240094(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.8903	-80.8839	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240095(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.89	-80.8846	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240096(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (17m) on Rock	P. Hinton	05.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240097(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (13m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.8902	-80.8868	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240098(T4)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.8903	-80.8868	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240099(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240100(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Ectocarpaceae	Ectocarpus sp. 1siliculosus	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240111(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Scytosiphonaceae	Petalonia arctica/fascia	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240112(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Scytosiphonaceae	Planosiphon filiformis (Batt	Subtidal (10m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	02.8.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240173(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Scytosiphonaceae	Scytosiphon shibazakiorum	Subtidal (10m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	02.8.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240174(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Scytosiphonaceae	Scytosiphon shibazakiorum	Subtidal (10m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	29.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	

Appendix 8B-8 NextGen Sequencing Results

#	Division	Class	Order	Family	Name	Hab.	Coll.	Date	Geo.	Lat	Long	LoSL Basis of Recor	NextGen	Note
NGenWSP240175(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Scytosiphonaceae	Scytosiphon shibazakiorum	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.8903	-80.8839	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240176(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Scytosiphonaceae	Scytosiphon shibazakiorum	Subtidal (11.3m) on Settlement plate	N. OBrien, P. Hinton	29.7.2024	Milne Inlet, Baffin Island	71.9149	-80.7992	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240177(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Scytosiphonaceae	Scytosiphon shibazakiorum	Subtidal (5m) on Rock	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240178(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Scytosiphonaceae	Scytosiphon sp. 1crust	Subtidal (10m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	02.8.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	Only one previously confirmed collection; Churchill.
NGenWSP240179(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Scytosiphonaceae	Scytosiphon sp. 1crust	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	02.8.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	Only one previously confirmed collection; Churchill.
NGenWSP240180(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Scytosiphonaceae	Scytosiphon sp. 1crust	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	27.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	Only one previously confirmed collection; Churchill.
NGenWSP240181(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Scytosiphonaceae	Scytosiphon sp. 1crust	Subtidal (10m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	29.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	Only one previously confirmed collection; Churchill.
NGenWSP240182(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Scytosiphonaceae	Scytosiphon sp. 1crust	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	29.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	Only one previously confirmed collection; Churchill.
NGenWSP240183(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Scytosiphonaceae	Scytosiphon sp. 1crust	Subtidal (11.3m) on Settlement plate	N. OBrien, P. Hinton	29.7.2024	Milne Inlet, Baffin Island	71.9149	-80.7992	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	Only one previously confirmed collection; Churchill.
NGenWSP240184(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Scytosiphonaceae	Scytosiphon sp. 1crust	Subtidal (12.8m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.9185	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	Only one previously confirmed collection; Churchill.
NGenWSP240185(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Scytosiphonaceae	Scytosiphon sp. 1crust	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.8903	-80.8839	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	Only one previously confirmed collection; Churchill.
NGenWSP240186(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Scytosiphonaceae	Scytosiphon sp. 1crust	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	Only one previously confirmed collection; Churchill.
NGenWSP240187(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Scytosiphonaceae	Scytosiphon sp. 1crust	Subtidal (13m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	Only one previously confirmed collection; Churchill.
NGenWSP240188(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Scytosiphonaceae	Scytosiphon sp. 1crust	Subtidal (13m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.8902	-80.8868	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	Only one previously confirmed collection; Churchill.
NGenWSP240189(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Scytosiphonaceae	Scytosiphon sp. 1crust	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	Only one previously confirmed collection; Churchill.
NGenWSP240190(T1)	Ochrophyta	Phaeophyceae	Ectocarpales	Scytosiphonaceae	Scytosiphon sp. 1crust	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	Only one previously confirmed collection; Churchill.
NGenWSP240101(T4)	Ochrophyta	Phaeophyceae	Fucales	Fucaceae	Fucus distichus Linnaeus	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	31.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240255(T4)	Ochrophyta	Phaeophyceae	Laminariales	Agaraceae	Agarum clathratum Dumort	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	31.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextISR1); MiSeq	
NGenWSP240256(T1)	Ochrophyta	Phaeophyceae	Laminariales	Agaraceae	Agarum clathratum Dumort	Subtidal (11.3m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8874	-80.9187	NextGen sequencing	Brown ITS (P1, NextISR1); MiSeq	
NGenWSP240236(T1)	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus)	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	30.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextISR1); MiSeq	
NGenWSP240248(T4)	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus)	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	29.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextISR1); MiSeq	
NGenWSP240249(T4)	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus)	Subtidal (11.3m) on Settlement plate	N. OBrien, P. Hinton	29.7.2024	Milne Inlet, Baffin Island	71.9149	-80.7992	NextGen sequencing	Brown ITS (P1, NextISR1); MiSeq	
NGenWSP240250(T4)	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus)	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.8903	-80.8839	NextGen sequencing	Brown ITS (P1, NextISR1); MiSeq	
NGenWSP240251(T4)	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus)	Subtidal (13m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	NextGen sequencing	Brown ITS (P1, NextISR1); MiSeq	
NGenWSP240252(T4)	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus)	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.8903	-80.8868	NextGen sequencing	Brown ITS (P1, NextISR1); MiSeq	
NGenWSP240253(T4)	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus)	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	Brown ITS (P1, NextISR1); MiSeq	
NGenWSP240254(T4)	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus)	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	Brown ITS (P1, NextISR1); MiSeq	
NGenWSP240263(T4)	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus)	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	27.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextISR1); MiSeq	
NGenWSP240264(T4)	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus)	Subtidal (10m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	27.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextISR1); MiSeq	
NGenWSP240265(T4)	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus)	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	02.8.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextISR1); MiSeq	
NGenWSP240266(T4)	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus)	Subtidal (10m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	29.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextISR1); MiSeq	
NGenWSP240267(T4)	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus)	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	30.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextISR1); MiSeq	
NGenWSP240268(T4)	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus)	Subtidal (11.3m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.918	NextGen sequencing	Brown ITS (P1, NextISR1); MiSeq	
NGenWSP240269(T4)	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus)	Subtidal (11.3m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8874	-80.9187	NextGen sequencing	Brown ITS (P1, NextISR1); MiSeq	
NGenWSP240270(T4)	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus)	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.8903	-80.8847	NextGen sequencing	Brown ITS (P1, NextISR1); MiSeq	
NGenWSP240271(T4)	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus)	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.8902	-80.8838	NextGen sequencing	Brown ITS (P1, NextISR1); MiSeq	
NGenWSP240272(T4)	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus)	Subtidal (17m) on Rock	P. Hinton	05.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextISR1); MiSeq	
NGenWSP240273(T4)	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus)	Subtidal (12.8m) on Settlement plate, West Freight dock composite scrape	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	NextGen sequencing	Brown ITS (P1, NextISR1); MiSeq	

Appendix 8B-8 NextGen Sequencing Results

#	Division	Class	Order	Family	Name	Hab.	Coll.	Date	Geo.	Lat	Long	LoSL Basis of Recor	NextGen	Note
NGenWSP240274(T4)	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus)	Subtidal (13m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.8902	-80.8868	NextGen sequencing	Brown ITS (P1, NextISR1); MiSeq	
NGenWSP240275(T4)	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus)	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	Brown ITS (P1, NextISR1); MiSeq	
NGenWSP240152(T1)	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus)	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	29.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240153(T4)	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus)	Subtidal (11.3m) on Settlement plate	N. OBrien, P. Hinton	29.7.2024	Milne Inlet, Baffin Island	71.9149	-80.7992	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240154(T4)	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus)	Subtidal (12.8m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.9185	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240155(T4)	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus)	Subtidal (11.3m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.918	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240156(T4)	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus)	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.8902	-80.8838	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240157(T4)	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus)	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.8903	-80.8839	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240158(T4)	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus)	Subtidal (13m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240159(T4)	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus)	Subtidal (13m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.8902	-80.8868	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240160(T4)	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus)	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.8903	-80.8868	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240161(T4)	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus)	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240162(T4)	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus)	Subtidal (10m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	29.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240163(T4)	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus)	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	29.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240164(T4)	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus)	Subtidal (17m) on Rock	P. Hinton	05.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240165(T1)	Ochrophyta	Phaeophyceae	Laminariales	Arthrothamnaceae	Saccharina latissima (Linnaeus)	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240257(T1)	Ochrophyta	Phaeophyceae	Laminariales	Laminariaceae	Laminaria solidungula J. Agardh	Subtidal (10m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	29.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextISR1); MiSeq	
NGenWSP240104(T1)	Ochrophyta	Phaeophyceae	Laminariales	Laminariaceae	Laminaria solidungula J. Agardh	Subtidal (12.8m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.9185	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240141(T1)	Ochrophyta	Phaeophyceae	Ralfsiales	Ralfsiaceae	Ralfsia sp. 1Arctic	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	27.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	Something new; need to collect more brown crusts.
NGenWSP240142(T1)	Ochrophyta	Phaeophyceae	Ralfsiales	Ralfsiaceae	Ralfsia sp. 1Arctic	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	02.8.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	Something new; need to collect more brown crusts.
NGenWSP240143(T1)	Ochrophyta	Phaeophyceae	Ralfsiales	Ralfsiaceae	Ralfsia sp. 1Arctic	Subtidal (10m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	02.8.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	Something new; need to collect more brown crusts.
NGenWSP240144(T1)	Ochrophyta	Phaeophyceae	Ralfsiales	Ralfsiaceae	Ralfsia sp. 1Arctic	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	31.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	Something new; need to collect more brown crusts.
NGenWSP240145(T1)	Ochrophyta	Phaeophyceae	Ralfsiales	Ralfsiaceae	Ralfsia sp. 1Arctic	Subtidal (12.8m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.9185	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	Something new; need to collect more brown crusts.
NGenWSP240146(T1)	Ochrophyta	Phaeophyceae	Ralfsiales	Ralfsiaceae	Ralfsia sp. 1Arctic	Subtidal (11.3m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8874	-80.9187	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	Something new; need to collect more brown crusts.
NGenWSP240147(T1)	Ochrophyta	Phaeophyceae	Ralfsiales	Ralfsiaceae	Ralfsia sp. 1Arctic	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.8903	-80.8839	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	Something new; need to collect more brown crusts.
NGenWSP240148(T1)	Ochrophyta	Phaeophyceae	Ralfsiales	Ralfsiaceae	Ralfsia sp. 1Arctic	Subtidal (13m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.8902	-80.8868	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	Something new; need to collect more brown crusts.
NGenWSP240149(T1)	Ochrophyta	Phaeophyceae	Ralfsiales	Ralfsiaceae	Ralfsia sp. 1Arctic	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.8903	-80.8868	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	Something new; need to collect more brown crusts.
NGenWSP240150(T1)	Ochrophyta	Phaeophyceae	Ralfsiales	Ralfsiaceae	Ralfsia sp. 1Arctic	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	Something new; need to collect more brown crusts.
NGenWSP240237(T4)	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Battersia arctica (Harvey) Dawson	Subtidal (11.3m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8874	-80.9187	NextGen sequencing	Brown ITS (P1, NextISR1); MiSeq	
NGenWSP240238(T1)	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Battersia arctica (Harvey) Dawson	Subtidal (11.3m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8874	-80.9187	NextGen sequencing	Brown ITS (P1, NextISR1); MiSeq	
NGenWSP240283(T4)	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Battersia arctica (Harvey) Dawson	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	31.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextISR1); MiSeq	
NGenWSP240284(T4)	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Battersia arctica (Harvey) Dawson	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.89	-80.8846	NextGen sequencing	Brown ITS (P1, NextISR1); MiSeq	
NGenWSP240285(T4)	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Battersia arctica (Harvey) Dawson	Subtidal (5m) on Rock	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextISR1); MiSeq	
NGenWSP240286(T4)	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Battersia arctica (Harvey) Dawson	Subtidal (11.3m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8874	-80.9187	NextGen sequencing	Brown ITS (P1, NextISR1); MiSeq	
NGenWSP240287(T4)	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Battersia arctica (Harvey) Dawson	Subtidal (13m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	NextGen sequencing	Brown ITS (P1, NextISR1); MiSeq	
NGenWSP240288(T4)	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Battersia arctica (Harvey) Dawson	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	Brown ITS (P1, NextISR1); MiSeq	
NGenWSP240289(T4)	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Battersia arctica (Harvey) Dawson	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	Brown ITS (P1, NextISR1); MiSeq	
NGenWSP240066(T4)	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Battersia arctica (Harvey) Dawson	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	31.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240067(T1)	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Battersia arctica (Harvey) Dawson	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.8902	-80.8838	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	

Appendix 8B-8
NextGen Sequencing Results

#	Division	Class	Order	Family	Name	Hab.	Coll.	Date	Geo.	Lat	Long	toSL Basis of Recor	NextGen	Note
NGenWSP240068(T4)	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Battersia arctica (Harvey) D	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.89	-80.8846	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240069(T4)	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Battersia arctica (Harvey) D	Subtidal (5m) on Rock	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240070(T1)	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Battersia arctica (Harvey) D	Subtidal (13m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240071(T1)	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Battersia arctica (Harvey) D	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240318(T1)	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Chaetopteris plumosa (Lyn	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	29.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240319(T1)	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Chaetopteris plumosa (Lyn	Subtidal (12.8m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.9185	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240320(T1)	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Chaetopteris plumosa (Lyn	Subtidal (11.3m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8875	-80.918	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240321(T1)	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Chaetopteris plumosa (Lyn	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.8902	-80.8838	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240322(T1)	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Chaetopteris plumosa (Lyn	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.8903	-80.8839	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240323(T1)	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Chaetopteris plumosa (Lyn	Subtidal (11.3m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8874	-80.9187	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240324(T1)	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Chaetopteris plumosa (Lyn	Subtidal (13m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240325(T1)	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Chaetopteris plumosa (Lyn	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240326(T1)	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Chaetopteris plumosa (Lyn	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240081(T1)	Ochrophyta	Phaeophyceae	Sphacelariales	Sphacelariaceae	Chaetopteris plumosa (Lyn	Subtidal (11.3m) on Settlement plate	P. Hinton, K. Lindsay	31.7.2024	Milne Inlet, Baffin Island	71.8874	-80.9187	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240327(T1)	Ochrophyta	Phaeophyceae	Sphacelariales	Stypocaulaceae	Protohalopteris radicans (D	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240118(T1)	Ochrophyta	Phaeophyceae	Sphacelariales	Stypocaulaceae	Protohalopteris radicans (D	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	Interesting find. Need to look for brown turf ~1 cm tall.
NGenWSP240102(T1)	Ochrophyta	Phaeophyceae	Stschapoviales	Halosiphonaceae	Halosiphon sp. 2tomentos	Subtidal (17m) on Rock	P. Hinton	05.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240103(T1)	Ochrophyta	Phaeophyceae	Tilopteridales	Tilopteraceae	Haplospora globosa Kjellm	Subtidal (13m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	
NGenWSP240213(T1)	Ochrophyta	Phaeophyceae	Tilopteridales	Tilopteraceae	Tilopteridalean sp. 2GWS/3	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	29.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	LSUD2 does not discriminate among these species. Both in arctic.
NGenWSP240258(T1)	Ochrophyta	Phaeophyceae	Tilopteridales	Tilopteraceae	Tilopteridalean sp. 3GWS	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	29.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	Brown ITS (P1, NextTSR1); MiSeq	
NGenWSP240228(T4)	Rhodophyta	Florideophyceae	Corallinales	Lithophyllaceae	Titanoderma pustulatum (J	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	COII-COIII (cox2F, cox3R); MiSeq	Possible FALSE POSITIVE. We suspect that this is a false positive, but teams should look for coralline crusts on other macroalgae. It has been reported from Svalbard.
NGenWSP240224(T1)	Rhodophyta	Florideophyceae	Acrochaetiales	Acrochaetiaceae	Grania efflorescens (J.Agar	Subtidal (10m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	29.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	COII-COIII (cox2F, cox3R); MiSeq	Matches data for LAB009A, which may be Grania efflorescens. We are working to add this species to the dataset to confirm this result. This species does occur in the Arctic.
NGenWSP240225(T1)	Rhodophyta	Florideophyceae	Acrochaetiales	Acrochaetiaceae	Grania efflorescens (J.Agar	Pinching and scraping throughout intertidal	N. OBrien, P. Hinton, K. Lindsay	04.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	COII-COIII (cox2F, cox3R); MiSeq	Matches data for LAB009A, which may be Grania efflorescens. We are working to add this species to the dataset to confirm this result. This species does occur in the Arctic.
NGenWSP240226(T1)	Rhodophyta	Florideophyceae	Acrochaetiales	Acrochaetiaceae	Grania efflorescens (J.Agar	Subtidal (11.9m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9118	-80.8106	NextGen sequencing	COII-COIII (cox2F, cox3R); MiSeq	Matches data for LAB009A, which may be Grania efflorescens. We are working to add this species to the dataset to confirm this result. This species does occur in the Arctic.
NGenWSP240227(T4)	Rhodophyta	Florideophyceae	Acrochaetiales	Acrochaetiaceae	Grania efflorescens (J.Agar	Subtidal (17m) on Rock	P. Hinton	05.8.2024	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	COII-COIII (cox2F, cox3R); MiSeq	Matches data for LAB009A, which may be Grania efflorescens. We are working to add this species to the dataset to confirm this result. This species does occur in the Arctic.
NGenWSP240232(T1)	Rhodophyta	Florideophyceae	Acrochaetiales	Acrochaetiaceae	Grania efflorescens (J.Agar	Subtidal (12.3m) on Settlement plate	N. OBrien, P. Hinton	01.8.2024	Milne Inlet, Baffin Island	71.8903	-80.8847	NextGen sequencing	COII-COIII (cox2F, cox3R); MiSeq	Matches data for LAB009A, which may be Grania efflorescens. We are working to add this species to the dataset to confirm this result. This species does occur in the Arctic.
NGenWSP240231(T1)	Rhodophyta	Florideophyceae	Ceramiales	Ceramiaceae	Antithamnion cf. sparsum T	Subtidal (10m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	02.8.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	COII-COIII (cox2F, cox3R); MiSeq	FALSE POSITIVE. We suspect that this is a false positive, but teams should look for fuzzy reds that are not Scagelia. Note, this was recently recognized as an introduced species in Nova Scotia and New Brunswick. So definitely an eye out for it.
NGenWSP240232(T1)	Rhodophyta	Florideophyceae	Ceramiales	Ceramiaceae	Antithamnion cf. sparsum T	Subtidal (10m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	27.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	COII-COIII (cox2F, cox3R); MiSeq	FALSE POSITIVE. We suspect that this is a false positive, but teams should look for fuzzy reds that are not Scagelia. Note, this was recently recognized as an introduced species in Nova Scotia and New Brunswick. So definitely an eye out for it.
NGenWSP240117(T1)	Rhodophyta	Florideophyceae	Ceramiales	Rhodomelaceae	Polysiphonia kapraunii B.St	Subtidal (12.8m) on Settlement plate	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.8899	-80.8868	NextGen sequencing	LSU D2 (MetLSUF1/MetLSUR1); MiSeq	Interesting hit. Need to consider voucher GWS049602. Odd that this was our only red with LSUD2, but unlikely a false positive. Note that LSUD2 has a lower ability to distinguish among species, so this could be a closely related species to Polysiphonia kapraunii.
NGenWSP240230(T1)	Rhodophyta	Florideophyceae	Ceramiales	Rhodomelaceae	Rhodomela virgata Kjellmar	Subtidal (10m) on Rock Basket	N. OBrien, P. Hinton, K. Lindsay	27.7.2023	Milne Inlet, Baffin Island	71.8883	-80.9126	NextGen sequencing	COII-COIII (cox2F, cox3R); MiSeq	May be Rhodomela virgata. We are working to add this species to the dataset to confirm this result. This species does occur in the Arctic.
NGenWSP240229(T4)	Rhodophyta	Florideophyceae	Gigartinales	Dumontiaceae	Dilsea socialis (Postels & R	Subtidal (12.8m) on Settlement plate, West Freight dock composite scrape	N. OBrien, P. Hinton, K. Lindsay	06.8.2024	Milne Inlet, Baffin Island	71.9124	-80.8045	NextGen sequencing	COII-COIII (cox2F, cox3R); MiSeq	

APPENDIX 8B-9

2023 DNA Barcoding Results



Baffinland MEEMP DNA barcoding report – 2023

Technical Memorandum

Report Prepared for WSP

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April 7, 2025

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Abbreviations

CCDB – Canadian Centre for DNA Barcoding

BOLD – Barcode of Life Database

CO1 – cytochrome *c* oxidase subunit I

NGS – Next-Generation Sequencing

FASTA – Fast Alignment Search Tool for Amino Acid Sequences

BLAST – Basic Local Alignment Search Tool

NCBI – National Center for Biotechnology Information

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2. BLAST search results for sequenced specimens, showing the top species matches along with query coverage and percent identity.

1.0 Introduction and Objectives

Annual environmental surveys are completed by WSP Canada Inc. in support of the Mary River Mine operated by Baffinland Iron Mines Corporation. Biologica Environmental Services Ltd. (Biologica) supports these efforts through taxonomic identification including traditional methods (morphological examination) as well as DNA barcoding in cases where identifications are uncertain, or there is a particular interest in a group of organisms, such as potential non-indigenous species.

While invasive taxa are an important issue globally (Bax et al, 2003), their detection is hindered by limited knowledge of the composition of many native marine communities as well as limited sequence availability, which is likely exacerbated in the Arctic due to a paucity of primary taxonomic research in the region.

DNA barcoding was used to identify target organisms, which were of interest as indicated by WSP as potential new record, non-indigenous species or other taxonomic uncertainty. DNA barcoding uses the mitochondrial cytochrome c oxidase subunit I (COI) gene, which has been shown to be a powerful tool for delineating species across a wide range of animal phyla (Hebert et al, 2003). However, its effectiveness relies heavily on the availability of comprehensive and geographically representative reference libraries. For many marine invertebrate groups in the Arctic, such databases remain sparse or lacking (Mincks et al, 2010), making confident species-level identifications challenging.

Sequencing was conducted at the Canadian Centre for DNA Barcoding (CCDB), where initial attempts using standard Sanger sequencing yielded limited success. To enhance species recovery, Next-Generation Sequencing (NGS) was employed on a subset of target taxa, generating a dataset that included expected taxa as well as potential contaminants. This report presents an analysis of the sequencing results.

The target taxa in 2023 included: (1) the epifaunal colonial Phyla Bryozoa and Tunicata, that are known to contain species invasive in other parts of the world; and (2) selected polychaete worms (Annelida) that are new records or have other associated taxonomic uncertainty.

2.0 Methods

Both settlement plates/substrates, sediment samples (benthos), and individual target organisms were collected by WSP for possible DNA analysis, and preserved in 95% ethanol in the field. Samples were received at Biologica Environmental Services in September 2023 and stored at approximately -20°C.

Rocks and settlement plates were scanned using a microscope (10-40x) for bryozoans and tunicates, which were then removed and placed into micro centrifuge tubes with 95% ethanol (Item #PO16EA95, Commercial Alcohols, Brampton, ON). Samples were stored in a freezer at -20°C when not being processed. Sediment samples were sorted microscopically and specimens reviewed for the presence of target taxa by our taxonomists.

Individual target organisms were then identified by a specialized taxonomist using morphological characters, they were separated into individual microcentrifuge tubes with 95% ethanol and kept in a freezer at -20°C.

Specimens of interest were then sent to the Canadian Centre of DNA Barcoding (CCDB) for sequencing. Initial sequencing using COI Geller primers (Geller et al, 2013) failed to recover any bryozoan sequences but successfully amplified DNA from the annelid and ascidian specimens. To try to improve bryozoan sequence recovery, Next-Generation Sequencing (NGS) was employed.

FASTA files of the NGS results were then assessed using Basic Local Alignment Search Tool (BLAST) searches through the National Center for Biotechnology Information (NCBI) database to find matches and identify sequences.

3.0 Results and Discussion

DNA barcoding yielded some success from Sanger sequencing the annelids and tunicates, but the bryozoans presented some challenges and were subject to further Next-Generation Sequencing (NGS). The results discussed below highlight the importance of the continuing study Canadian Arctic biodiversity using morphological and DNA-based methods.

The two annelid specimens that were submitted matched 23 sequences from Arctic Canada and Norway that have been identified as an undescribed species of Spionidae in

the genus *Spio* (Table 1) though the phylogenetic tree (Figure 1) indicates that it is more closely related to the genus *Marenzelleria*. The assignment of specimens to incorrect taxa is a common limitation of DNA barcoding for marine invertebrates. While useful for flagging potential novel taxa, it cannot reliably resolve species identity or genus placement without support from morphological taxonomy and reliably identified specimens in the BOLD database. To reliably identify organisms, a strong database built on morphological taxonomic expertise is necessary, which is currently in development with BOLD. Based on the range of the specimens matched, these specimens are likely indigenous to Arctic Canada, belonging to the genus *Marenzelleria*, as identified by taxonomic features prior to submission.

Of the six tunicate specimens submitted, four specimens were successfully sequenced: three *Ascidia callosa* and one *Boltenia echinata* (Table 1). The *A. callosa* matched a single other specimen collected from Alaska (Fig. 2). While this result is consistent with the known range of *Ascidia callosa*, it should be noted that the limited number of reference sequences doesn't provide a high level of confidence in confirming the identification. In contrast, *B. echinata* matched 14 other specimens sequenced across the Canadian Arctic, Alaska, and Norway, showing a broader and better documentation of distribution. However, phylogenetic analysis (Fig. 3) also indicates another distinct genetic cluster from Newfoundland, suggesting that *B. echinata* may represent a species complex.

Next Generation Sequencing (NGS) was used to successfully recover sequences for five of the 26 submitted specimens of Bryozoa, as the initial attempts with Sanger sequencing were unsuccessful (Table 2). In one case, a specimen returned two bryozoan sequences: one was supported by 88 read counts while a second had only 8 reads. The low-read sequence is likely the result of environmental DNA or low-level contamination, rather than originating from the specimen itself. Sequences were compared to publicly available reference data using the BLAST search on the NCBI website to identify the closest matching taxa based on sequence similarity. From those searches we were able to infer bryozoan matches for five of the submitted sequences (Table 2.). However, none of the matches were close enough to allow identification beyond Phylum (average of ~80% shared identity, versus ~97% required for species identification). This highlights a number of difficulties in sequencing marine invertebrates, especially bryozoans.

The difficulties in extracting sequences could be due to a number of factors, from needing to refine the extraction protocols in order to optimize amplification of marine invertebrates, to possibly needing to develop more effective primers. While some studies have been successful in using universal primers for bryozoans, it has also been found that their use can result in binding to multiple locations within the genome which creates non-specific

products (Porter et al, 2001). In addition, bryozoan biology presents some unique challenges to DNA extraction and amplification as well. The colony surface can retain DNA from other organism such as algae and bacteria which may be preferentially amplified (Porter et al, 2001). Additionally, as colonial organisms they may contain more than one haplotype which can result in chimeric sequences (Lee et al, 2011) these can be difficult to interpret without specialized expertise. Furthermore, bryozoans have been shown to have very high interspecific variation, sometimes as high as or even exceeding 20% divergence (Gomez et al, 2007, Lee et al, 2011) which can make it difficult to interpret results based on DNA barcoding alone. Nonetheless, the lack of close matches to the sequences attained is likely due to gaps in the reference library of bryozoan species sequenced to date, especially for Arctic species. Due to a limited reference library and high intraspecific variability a phylogenetic tree was not constructed, as these factors greatly limit the ability to interpret the results. These challenges emphasize the importance of continuing to sequence Arctic marine fauna.

4.0 Major Conclusions

The results show identifications consistent with native Arctic polychaete and tunicate species *Ascidia callosa*, *Boltenia echinata*, and *Marenzelleria*. Bryozoan results did not yield reliable species identifications. These results underscore the need to expand molecular reference databases for Arctic invertebrates, and highlight the importance of integrating morphological and molecular tools for accurate identification. Expanding reference libraries with verified Arctic sequences, incorporating both morphological and molecular approaches, and increasing sampling efforts will be critical to improving our understanding of Arctic biodiversity and detecting potential shifts in species distributions.

5.0 References

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Table 1. Species identifications of polychaetes and ascidians sequenced using Sanger sequencing, with corresponding Barcode Index Numbers (BINs).

Sample ID	Phylum, Class	Closest Match	BIN
SW-12	Annelida, Polychaeta	<i>Spio</i> sp. CMC02*	AAC3261
SW-12	Annelida, Polychaeta	<i>Spio</i> sp. CMC02*	AAC3261
Center -DB- Y3- 23- 2	Tunicata, Ascidiacea	<i>Ascidia callosa</i>	ADV2153
Center -DB- Y3- 23- 2	Tunicata, Ascidiacea	<i>Ascidia callosa</i>	ADV2153
Center -DB- Y3- 23- 2	Tunicata, Ascidiacea	<i>Ascidia callosa</i>	ADV2153
Center -DB- Y3- 23- 2	Tunicata, Ascidiacea	<i>Boltenia echinata</i>	AAO0714

*Spionid polychaetes were identified as *Marenzelleria* sp. prior to submission. The closest match of *Spio* sp. Is likely a result of a misidentified reference specimen in the CCDB database. These are assumed to be *Marenzelleria* sp. (see Fig. 1).

Table 2: BLAST search results for bryozoan specimens sequenced using Next Generation Sequencing, showing the top species matches along with query coverage and percent identity. For definitive identification, one would expect a minimum >97% match. Identifications with ~80% identity are adequate for Phylum identification only. Species matches reported in this table should be interpreted only as putative related species.

S a m p l e I D	CC DB S a m p l e I D	R e a d C o u n t	Sequence	Clo ses t M a t c h	Q ue ry C o v er	% I n d e n t .
C e n t e r - D B- Y 3- 2 3- 2	BAR MB 021 - 24_ lin1 0	1 4	AACACTTTATTTATATTTGGTTTGTGAGCAGGAATAGTTGGAAGAGGACTAAGAGCTTTAATTCGGGTAGAACTAAGACAA CCTGGGGGTTTAAATGGGAAATGATCAATTATATAACGTGATTGTCACCGCACACGCATTTTAAATAATTTTTTCATAGTGAT ACCTATTATAAATTGGCGGATTTCGGAAACTGGCTTATCCCATTAATGCTAGGAGTGCCAGATATAGCTTTCCCCCGCTTAA ATAATATAAGATTCTGGTTACTTCCCCCAGCTCTATCTTTGTTATTAATATCATCATTAGTAGAGAGAGGGGCAGGAACTGG TTGAACTGTTTATCCTCCTCTCTCTTCTAATATAGCTCACAGAGGGCCCTCTGTAGACTTAGCTATTTTTCACTTCATCTAG CTGGGGCATCCTCAATTTTAGGAGCAATTAATTTTATAACTACTACTATAAATATACGTAGAAACCTTATAACCATAATACGT ATCCCTTTATTAGTTTGAGCGGTTTTTATTACAGCTGTACTATTACTTTCTCTCCAGTTTTAGCAGGAGCTATTACTATG CTATTAACAGATCGAAATTTAAACACAGCTTTCTTTGACCCAGCAGGTGGAGGAGACCCTATTTTATACCAACATTTATTT	<i>Par asm ittin a niti da</i>	99 %	79 .6 6 %
C e n t	BAR MB	2 6	AACACTTTATTTATGTTTGGCCTATGAGCTGGTATAGTCGGGAGAGGCCTAAGAGCCCTCATCCGAGTAGAATTAAGTC AACCTGGAGGCTTAATAGGAAATGACCAACTTTATAATGTAATTGTGACAGCCCATGCTTTCTTAATAATTTTTTTATAGTTA TACCAATTATAATTGGAGGCTTCGGTAATTGACTCATTCCTTTAATATTAGGAGCACCAGACATAGCTTTCCACGGTAAAA	<i>Bug ula mig</i>	99 %	80 .2

er - D B- Y 3- 2 3- 2	022 -24		TAATATAAGATTTTGGTTATTGCCCCCAGCATTAAACCTTATTATTGATATCTTCTTTAGTAGAAAGAGGAGCTGGAACAGGAT GGACTGTATACCCTCCACTATCTTCCAATTTAGCACATAGAGGTCCTTCTGTAGATTTAGCTATCTTTCCCTTCATCTTGC AGGAGCATCTTCAATTCTTGGGGCTATTAATTTTATAACCACTACCATAAATATACGTAGAAATATAATAAGTATAATACGAA TCTCCCTATTAGTGTGAGCTGTCTTTATCACAGCTGTCTTACTCCTTTCTTTACCTGTACTAGCAGGCGCTATTACTAT ACTTTTGACAGATCGTAACTTAAACACATCCTTTTTTGACCCTGCAGGGGGTGGAGATCCTATCTTGTACCAACATCTTT C	otto i		7 %
C e n t e r - D B- Y 3- 2 3- 2	BAR MB 023 -24	7 2	AACACTTTATTTTATGTTTGGCCTATGAGCTGGTATAGTCGGGAGAGGCCTAAGAGCCCTCATCCGAGTAGAATTAAGTC AACCTGGAGGCTTAATAGGAAATGACCAACTTTATAATGTAATTGTGACAGCCCATGCTTTCTTAATAATTTTTTATAGTTA TACCAATTATAATTGGAGGCTTCGGTAATTGACTCATTCCTTAATATTAGGAGCACCAGACATAGCTTTCCACGGTTAAA TAATATAAGATTTTGGTTATTGCCCCCAGCATTAAACCTTATTATTGATATCTTCTTTAGTAGAAAGAGGAGCTGGAACAGGAT GGACTGTATACCCTCCACTATCTTCCAATTTAGCACATAGAGGTCCTTCTGTAGATTTAGCTATCTTTCCCTTCATCTTGC AGGAGCATCTTCAATTCTTGGGGCTATTAATTTTATAACCACTACCATAAATATACGTAGAAATATAATAAGTATAATACGAA TCTCCCTATTAGTGTGAGCTGTCTTTATCACAGCTGTCTTACTCCTTTCTTTACCTGTACTAGCAGGCGCTATTACTAT ACTTTTGACAGATCGTAACTTAAACACATCCTTTTTTGACCCTGCAGGGGGTGGAGATCCTATCTTGTACCAACATCTTT C	Bug ula mig otto i	99 %	80 .2 7 %
C e n t e r - D B- Y 3-	BAR MB 024 -24	8 8	AACACTTTATTTTATATTTGGGTTATGGGCAGGAATAGTGGGAAGAGGCCTTAGAGCTTTAATTCGAGTTGAGCTAAGACA ACCGGGGGGTTAATAGGAAATGACCAACTATATAATGTGATTGTTACTGCACATGCTTTTTAATAATTTTTTATAGTTATA CCTATTATAATTGGGGGCTTTGGGAATTGGTTAATTCCTCTTATACTCGGGGCTCCAGACATGGCTTTTCCTCGGTTAAAT AATATAAGGTTTTGGTTACTTCCTCCTGCTTTAACTTTATTATTAATATCTTCTTTGGTGGAAAGAGGGGCAGGCACTGGTTG AACAGTTTACCCTCCTTTATCCTCTAATTTAGCTCATAGAGGACCGTCAGTAGACCTCGCTATTTTTCTCTTCATTTAGCT GGTGCGTCCTCAATTTAGGCGCTATTAATTTTATACTACTCTTAATATGCGTAGAGGTGCAATATCAATAATGCGCG TACCTCTTTTAGTGTGGGCAGTATTATTACTGCAGTTCTTTACTTTTATCTTTACCGGTATTAGCTGGGGCTATTACTATATT ATTAACAGACCGAAATTTAAACACATCTTTTTTGACCCTGCTGGAGGTGGGGACCCCATTTTATATCAACATTGTTT	Cab ere a ellis ii	98 %	80 .0 6 %

2 3- 2						
C e n t e r - D B- Y 3- 2 3- 2	BAR MB 024 -24	8	AACACTTTATTTTATATTTGGGTTATGGGCAGGAATAGTGGGAAGAGGCCTTAGAGCTTTAATTCGAGTTGAGCTAAGACA ACCGGGGGGTTTAATAGGAAATGACCAACTATATAATGTGATTGTTACTGCACATGCTTTTTAATAATTTTTTTTATAGTTATA CCTATTATAATTGGGGGCTTTGGGAATTGGTTAATTCCTCTTATACTCGGGGCTCCAGACATGGCTTTTCCTCGGTAAAT AATATAAGGTTTTGGTTACTTCCTCCTGCTTTAACTTTATTATTAATATCTTCTTTGGTGGAAGAGGGGCAGGCACTGGTTG AACAGTTTACCCTCCTTTATCCTCTAATTTAGCTCATAGAGGACCNTCAGTAGACCTGGCTATTTTTCTCTTCATTTAGCT GGTGCATCCTCAATTTTAGGTGCTATTAATTTTATACTACTACCCTTAATATACGTAGAGGTGGAATATCAATAATGCGCG TACCTCTTTTAGTGTGGGCAGTATTCATTACTGCAGTTCCTTTACTTTTATCCTTACCGGTATTAGCTGCAGCTATTACTATAT TATTAACAGACCGAAATTTAAATACATCTTTTTTGACCCTGCTGGAGGTGGGGACCCCATTTTATANCAACATTTGTTT	Micr opo rina arti cula ta	10 0 %	79 .3 9 %
C e n t e r - D B- Y 3- 2 3- 2	BAR MB 025 -24	1 3	AACACTTTATTTTATGTTTGGCCTATGAGCTGGTATAGTCGGGAGAGGCCTAAGAGCCCTCATCCGAGTAGAATTAAGTC AACCTGGAGGCTTAATAGGAAATGACCAACTTTATAATGTAATTGTGACAGCCCATGCTTTCCTTAATAATTTTTTTATAGTTA TACCAATTATAATTGGAGGCTTCGGTAATTGACTCATTCTTTAATATTAGGAGCACCAGACATAGCTTTTCCACGGTAAAA TAATATAAGATTTTGGTTATTGCCCCCAGCATTAACTTATTATTGATATCTTCTTTAGTAGAAAAGAGGAGCTGGAACAGGAT GGACTGTATACCCTCCACTATCTTCCAATTTAGCACATAGAGGTCCTTCTGTAGATTTAGCTATCTTTCCCTTCATCTTGC AGGAGCATCTTCAATTCTTGGGGCTATTAATTTTATAACCACTACCATAAATATACGTAGAAAATATAATAAGTATAATACGAA TCTCCCTATTAGTGTGAGCTGTCTTTATCACAGCTGTCCTTACTCCTTTCTTTACCTGTACTAGCAGGCGCTATTACTAT ACTTTTGACAGATCGTAACTTAAACACATCCTTTTTTGACCCTGCAGGGGTGGAGATCCTATCTTGTACCAACATCTTTT	Bug ula mig otto i	99 %	80 .2 7 %

C

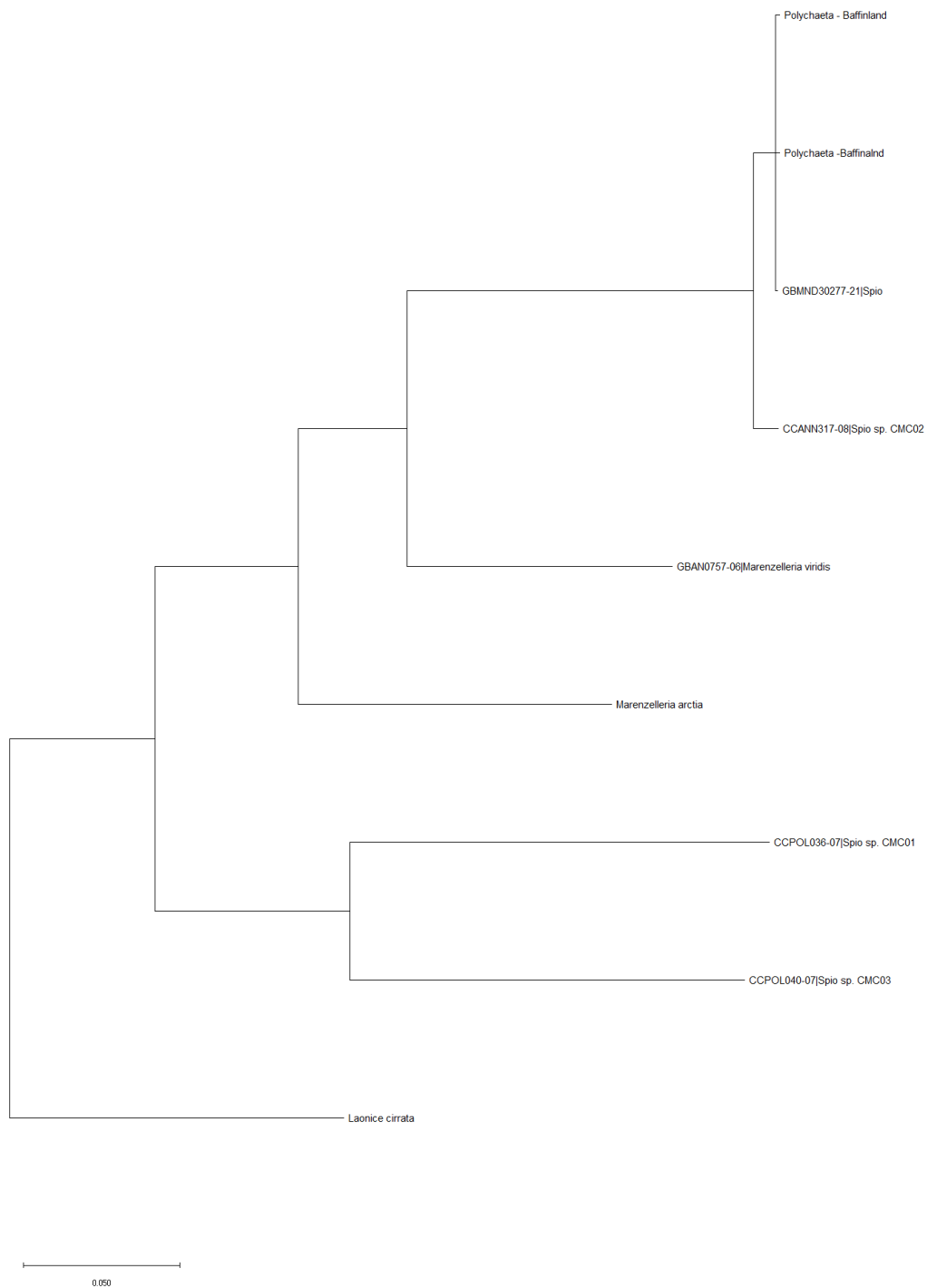


Fig. 1. Maximum likelihood tree of COI sequences from Spionidae (Polychaeta specimens from Baffinland, along with closely matching sequences from BOLD).

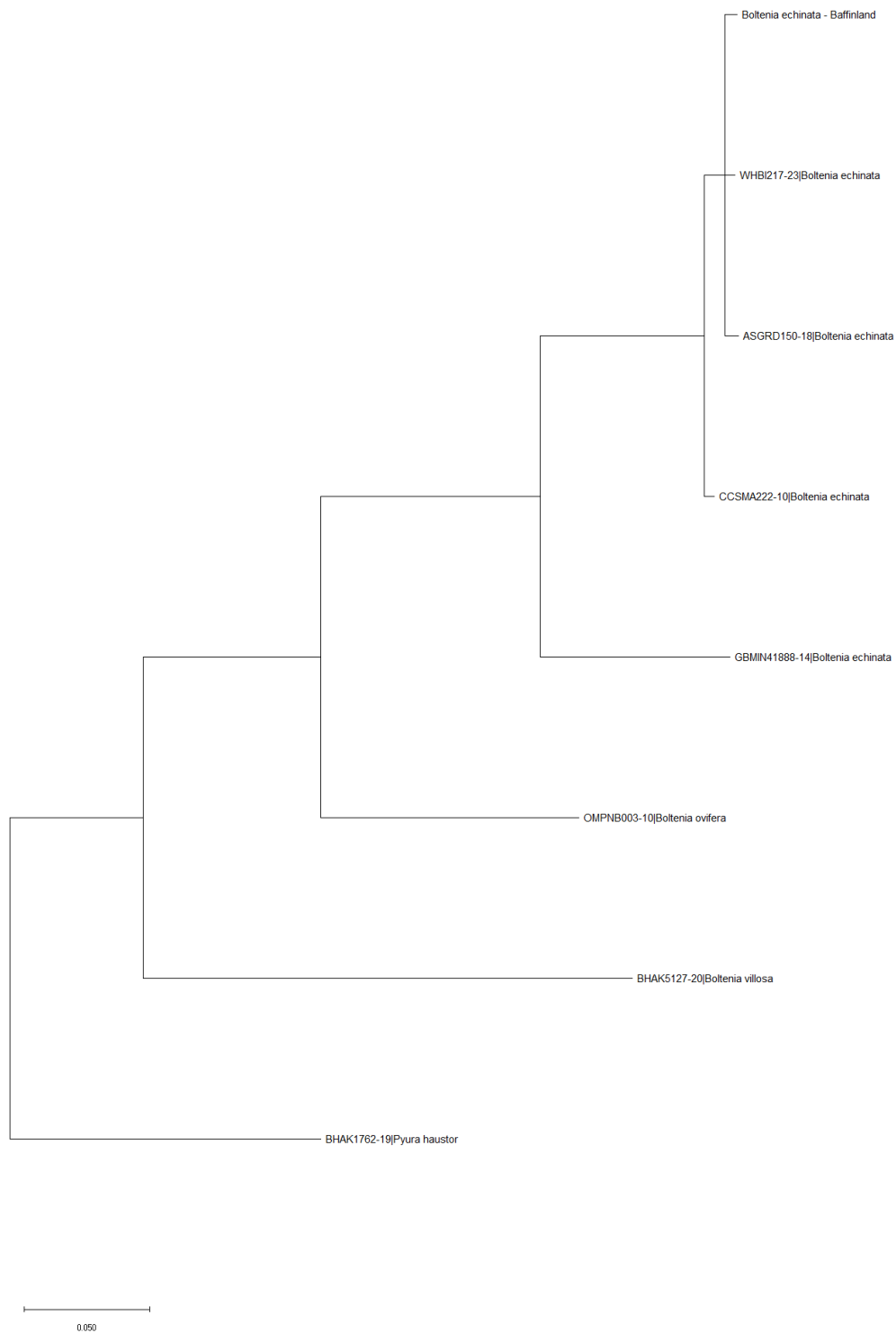


Fig. 2. Maximum likelihood tree of COI from *Boltenia echinata* (Tunicata) collected from Baffinland and closely related species from BOLD

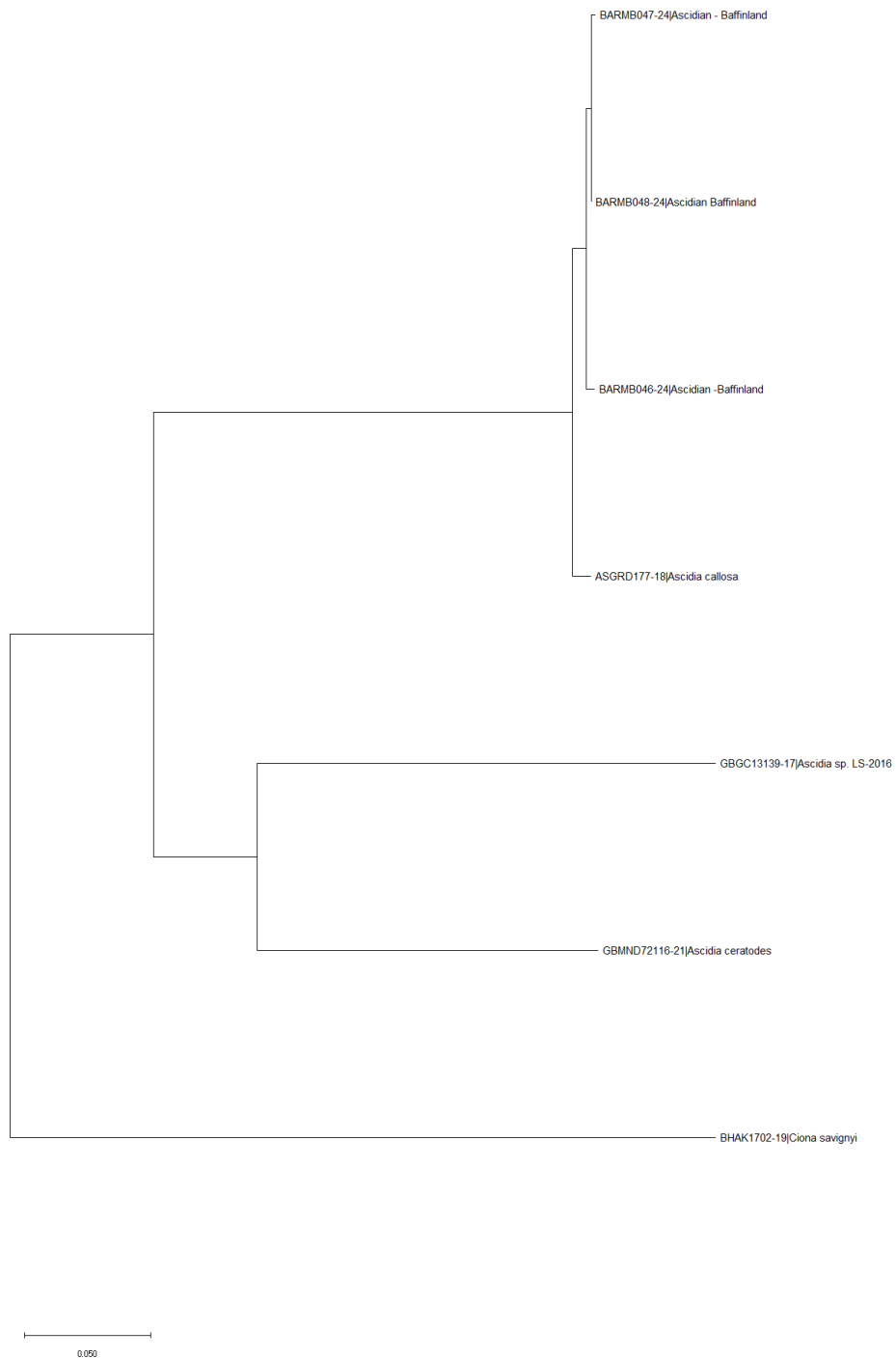


Fig. 3. Maximum likelihood tree of *Ascidia* (Tunicata) specimens from Baffinland with closely related species from BOLD

APPENDIX 8C-1

**Taxa Presence/Absence on
Settlement Substrates 2021-2024**

Phylum Class/Order	Family	Taxa	2021	2022	2023	2024*
Annelida						
Clitellata/-	-	Hirudinea indet.	X		X	X
Clitellata/Enchytraeida	Enchytraeidae	Enchytraeidae indet.		X	X	X
Polychaeta/Eunicida	Lumbrineridae	<i>Scoletoma fragilis</i>		X	X	
Polychaeta/Eunicida	Lumbrineridae	<i>Scoletoma impatiens</i>		X		
Polychaeta/Eunicida	Lumbrineridae	<i>Scoletoma</i> sp.		X	X	X
Polychaeta/Phyllodocida	Hesionidae	Hesionidae indet.	X	X	X	
Polychaeta/Phyllodocida	Hesionidae	<i>Nereimyra aphroditoides</i>	X	X		
Polychaeta/Phyllodocida	Hesionidae	<i>Nereimyra punctata</i>		X	X	X
Polychaeta/Phyllodocida	Nephtyidae	<i>Micronephthys cornuta</i>	X	X		
Polychaeta/Phyllodocida	Nereididae	<i>Nereis zonata</i>	X	X	X	X
Polychaeta/Phyllodocida	Nereididae	Nereididae indet.	X		X	X
Polychaeta/Phyllodocida	Sigalionidae	<i>Pholoe longa</i>	X	X	X	X
Polychaeta/Phyllodocida	Sigalionidae	<i>Pholoe minuta</i>	X	X	X	X
Polychaeta/Phyllodocida	Sigalionidae	<i>Pholoe</i> sp.	X	X	X	X
Polychaeta/Phyllodocida	Phyllodocidae	<i>Eteone longa</i> complex		X	X	
Polychaeta/Phyllodocida	Phyllodocidae	<i>Eteone</i> sp.	X	X		X
Polychaeta/Phyllodocida	Phyllodocidae	<i>Phyllodoce</i> sp.	X			
Polychaeta/Phyllodocida	Phyllodocidae	Phyllodocidae indet.	X			
Polychaeta/Phyllodocida	Polynoidae	<i>Bylgides</i> sp.		X		
Polychaeta/Phyllodocida	Polynoidae	<i>Bylgides promamme</i>				X
Polychaeta/Phyllodocida	Polynoidae	<i>Gattyana</i> sp.			X	
Polychaeta/Phyllodocida	Polynoidae	<i>Gattyana cirrhosa</i>	X	X		X
Polychaeta/Phyllodocida	Polynoidae	<i>Harmothoe imbricata</i>	X			
Polychaeta/Phyllodocida	Polynoidae	<i>Harmothoe propinqua</i>				X
Polychaeta/Phyllodocida	Polynoidae	<i>Harmothoe rarispina</i>	X			X
Polychaeta/Phyllodocida	Polynoidae	<i>Harmothoe</i> sp.	X	X	X	X
Polychaeta/Phyllodocida	Polynoidae	Polynoidae indet.				X
Polychaeta/Phyllodocida	Polynoidae	Polynoinae indet.	X	X		
Polychaeta/Phyllodocida	Syllidae	<i>Pionosyllis</i> sp.	X			
Polychaeta/Phyllodocida	Syllidae	Syllidae indet.	X			
Polychaeta/Sabellida	Sabellidae	<i>Chone</i> sp.				X
Polychaeta/Sabellida	Sabellidae	<i>Dialychone</i> sp. 3				X
Polychaeta/Sabellida	Sabellidae	<i>Dialychone</i> sp.	X	X	X	X
Polychaeta/Sabellida	Sabellidae	<i>Euchone incolor</i>	X			X
Polychaeta/Sabellida	Sabellidae	<i>Euchone</i> sp.	X	X		X
Polychaeta/Sabellida	Sabellidae	Sabellidae indet.	X	X		X
Polychaeta/Sabellida	Serpulidae	<i>Bushiella (Jugaria)</i> sp.		X		
Polychaeta/Sabellida	Serpulidae	<i>Bushiella (Jugaria) quadrangularis</i>			X	X
Polychaeta/Sabellida	Serpulidae	<i>Circeis armoricana</i>				X
Polychaeta/Sabellida	Serpulidae	<i>Circeis</i> sp.	X			
Polychaeta/Sabellida	Serpulidae	Serpulidae indet.	X	X	X	
Polychaeta/Sabellida	Serpulidae	Spirorbinae indet.			X	
Polychaeta/Spionida	Spionidae	<i>Dipolydora quadrilobata</i>		X		X
Polychaeta/Spionida	Spionidae	<i>Marenzelleria</i> sp.	X			
Polychaeta/Spionida	Spionidae	<i>Pygospio elegans</i>				X
Polychaeta/Spionida	Spionidae	<i>Scoletepis</i> sp.	X			
Polychaeta/Spionida	Spionidae	Spionidae indet.	X	X		
Polychaeta/Terebellida	Ampharetidae	<i>Amphicteis sundevalli</i>	X			
Polychaeta/Terebellida	Ampharetidae	<i>Ampharete</i> sp.			X	X
Polychaeta/Terebellida	Ampharetidae	Ampharetidae indet.	X	X	X	
Polychaeta/Terebellida	Cirratulidae	<i>Chaetozone bathyala</i>	X	X		X
Polychaeta/Terebellida	Cirratulidae	<i>Chaetozone pigmentata</i>			X	X
Polychaeta/Terebellida	Cirratulidae	<i>Chaetozone setosa</i> complex				X
Polychaeta/Terebellida	Cirratulidae	<i>Chaetozone</i> sp.	X	X	X	X
Polychaeta/Terebellida	Cirratulidae	<i>Aphelochaeta</i> sp.		X		
Polychaeta/Terebellida	Cirratulidae	<i>Tharyx</i> sp.				X
Polychaeta/Terebellida	Cirratulidae	Cirratulidae indet.		X	X	X
Polychaeta/Terebellida	Pectinariidae	<i>Cistenides granulata</i>	X	X	X	X
Polychaeta/Terebellida	Terebellidae	<i>Amphitrite cirrata</i>				X
Polychaeta/Terebellida	Terebellidae	<i>Pista maculata</i>		X		X
Polychaeta/Terebellida	Terebellidae	<i>Lanassa venusta venusta</i>				X
Polychaeta/Terebellida	Terebellidae	<i>Leaena ebranchiata</i>			X	X
Polychaeta/Terebellida	Terebellidae	<i>Polycirrus medusa</i>				X
Polychaeta/Terebellida	Terebellidae	<i>Polycirrus</i> sp. complex		X	X	X
Polychaeta/Terebellida	Terebellidae	Terebellidae indet.	X	X	X	X
Polychaeta/Terebellida	Trichobanchidae	<i>Terebellides</i> sp.	X	X	X	X
Polychaeta/Terebellida	Trichobanchidae	<i>Trichobranchus glacialis</i>		X		
Polychaeta/Terebellida	Trichobanchidae	<i>Trichobranchus</i> sp.			X	
Polychaeta/-	Capitellidae	<i>Capitella capitata</i> complex		X		X
Polychaeta/-	Capitellidae	<i>Mediomastus</i> sp.	X	X	X	X
Polychaeta/-	Cossuridae	<i>Cossura longocirrata</i>	X	X	X	X
Polychaeta/-	Maldanidae	<i>Maldane sarsi</i>		X	X	X
Polychaeta/-	Opheliidae	Opheliidae indet.			X	
Polychaeta/-	Orbiniidae	<i>Scoloplos</i> sp.		X		
Polychaeta/-	Paraonidae	<i>Aricidea hartmanae</i>			X	
Polychaeta/-	Paraonidae	<i>Aricidea (acmira) catherinae</i>				X
Polychaeta/-	Paraonidae	<i>Aricidea nolani</i>				X
Polychaeta/-	Paraonidae	<i>Aricidea</i> sp.		X		X
Polychaeta/-	Paraonidae	Paraonidae indet.		X		
Polychaeta/-	Scalibregmatidae	<i>Scalibregma inflatum</i>	X	X		X
Polychaeta/-	Scalibregmatidae	Scalibregmatidae indet.	X			
Polychaeta/-	-	Polychaeta indet.		X		
Polychaeta/-	-	Sedentaria indet.		X		
-/-	-	Annelida indet.		X	X	

Phylum Class/Order	Family	Taxa	2021	2022	2023	2024*
Arthropoda						
Arachnida/-	-	Acari indet.	X			
Arachnida/Trombidiformes	Halacaridae	Halacaridae indet.			X	X
Copepoda/Calanoida	-	Calanoida indet.		X		
Copepoda/Harpacticoida	-	Harpacticoida indet.			X	
Copepoda/-	-	Copepoda indet.			X	
Insecta/Diptera	-	Diptera indet.			X	
Insecta/Ephemeroptera	-	Ephemeroptera indet.			X	
Malacostraca/Amphipoda	Atylidae	<i>Atylus carinatus</i>	X			X
Malacostraca/Amphipoda	Atylidae	<i>Atylus</i> sp.			X	X
Malacostraca/Amphipoda	Ampeliscidae	<i>Ampelisca</i> sp.		X		
Malacostraca/Amphipoda	Ampeliscidae	<i>Haploops tubicola</i>		X		
Malacostraca/Amphipoda	Calliopiidae	Calliopiidae indet.	X			
Malacostraca/Amphipoda	Calliopiidae	<i>Apherusa</i> sp.	X			
Malacostraca/Amphipoda	Corophiidae	<i>Crassikorophium</i> sp.	X		X	
Malacostraca/Amphipoda	Corophiidae	Corophiidae indet.	X			
Malacostraca/Amphipoda	Dexaminidae	<i>Guernea nordenskioldi</i>	X	X		
Malacostraca/Amphipoda	Dulichidae	<i>Dulichia</i> sp.				X
Malacostraca/Amphipoda	Eusiridae	<i>Rhachotropis</i> sp.				X
Malacostraca/Amphipoda	Gammaridae	<i>Gammarus oceanicus</i>	X	X		
Malacostraca/Amphipoda	Gammaridae	<i>Gammarus setosus</i>		X		
Malacostraca/Amphipoda	Gammaridae	<i>Gammarus</i> sp.	X	X		
Malacostraca/Amphipoda	Ischyroceridae	Ischyroceridae indet.				X
Malacostraca/Amphipoda	Ischyroceridae	<i>Ischyrocerus anguipes</i>	X			
Malacostraca/Amphipoda	Oedicerotidae	<i>Monoculodes</i> sp.	X	X		
Malacostraca/Amphipoda	Oedicerotidae	Oedicerotidae indet.	X	X		
Malacostraca/Amphipoda	Pontogeneiidae	<i>Pontoporeia femorata</i>		X	X	X
Malacostraca/Amphipoda	Stenothoidae	Stenothoidae indet.		X		
Malacostraca/Amphipoda	Tryphosidae	<i>Orchomene</i> sp.		X		X
Malacostraca/Amphipoda	-	Lysianassoidea indet.	X			
Malacostraca/Amphipoda	-	Amphipoda indet.		X	X	X
Malacostraca/Cumacea	Diastylidae	<i>Brachydiastylis resima</i>		X		
Malacostraca/Cumacea	Lampropidae	<i>Lamprops</i> sp.		X		X
Malacostraca/Cumacea	Leuconidae	<i>Eudorella truncatula</i>		X		
Malacostraca/Cumacea	Leuconidae	<i>Leucon nasicoides</i>		X		
Malacostraca/Cumacea	Leuconidae	<i>Leucon</i> sp.		X		
Malacostraca/Decapoda	Thoridae	<i>Lebbeus polaris</i>	X			
Ostracoda/Myodocopida	Philomedidae	<i>Philomedes</i> sp.	X	X		X
Ostracoda/Podocopida	-	Podocopida indet.			X	
Ostracoda/-	-	Ostracoda indet.		X		
Thecostraca/Balanomorpha	-	Balanomorpha indet.	X	X	X	X
Branchiopoda						
Phyllopoda/Anomopoda	-	Cladocera indet.			X	
Bryozoa						
Gymnolaemata/Cheilostomatida	Calloporidae	Calloporidae indet.		X		X
Gymnolaemata/Cheilostomatida	Epistomiidae	<i>Synnotum</i> sp.				X
Gymnolaemata/Cheilostomatida	Eucrateidae	<i>Eucratea loricata</i>			X	X
Gymnolaemata/Cheilostomatida	-	Cheilostomatida indet.		X	X	X
Gymnolaemata/Ctenostomatida	-	Ctenostomatida indet.			X	
Gymnolaemata/Ctenostomatida	Alcyonidiidae	<i>Alcyonidium</i> sp.		X		X
Stenolaemata/Cyclostomatida	Lichenoporidae	<i>Lichenopora</i> sp.	X	X		X
Stenolaemata/Cyclostomatida	Lichenoporidae	Lichenoporidae indet.	X	X		X
Stenolaemata/Cyclostomatida	Tubuliporidae	Tubuliporidae indet.	X			
Stenolaemata/Cyclostomatida	-	Cyclostomatida indet.		X		X
-/-	-	Bryozoa indet.	X	X		X
Cephaloryhncha						
Priapulida/-	-	Priapulida indet.		X		
Chlorophyta						
Chlorophyceae/Chlamydomonadales	Chlorochytriaceae	<i>Chlorochytrium</i> sp.		X		
Ulvophyceae/Acrosiphoniales	Acrosiphoniaceae	<i>Acrosiphonia</i> sp.		X		
Ulvophyceae/Acrosiphoniales	Acrosiphoniaceae	Acrosiphoniaceae indet.		X		
Ulvophyceae/Acrosiphoniales	Acrosiphoniaceae	cf. <i>Spongomorpha aeruginosa</i>		X		
Ulvophyceae/Acrosiphoniales	Acrosiphoniaceae	<i>Spongomorpha aeruginosa</i>	X	X		
Ulvophyceae/Cladophorales	Cladophoraceae	cf. <i>Rhizoclonium</i> sp.		X		
Ulvophyceae/Cladophorales	Cladophoraceae	<i>Rhizoclonium</i> sp.	X			

Phylum Class/Order	Family	Taxa	2021	2022	2023	2024*
Ulvophyceae/Cladophorales	Cladophoraceae	<i>Chaetomorpha melagonium</i>		X		
Ulvophyceae/Ulotrichales	Monostromataceae	<i>Monostroma</i> sp.		X		
Ulvophyceae/Ulotrichales	Ulotrichaceae	cf. <i>Ulothrix</i> sp.		X		
Ulvophyceae/Ulotrichales	Ulotrichaceae	<i>Ulothrix</i> sp.	X	X		
Ulvophyceae/Ulotrichales	Ulotrichaceae	cf. <i>Urospora</i> sp.		X		
Ulvophyceae/Ulotrichales	Ulotrichaceae	Ulotrichaceae indet.	X			
Ulvophyceae/Ulvales	Kornmanniaceae	cf. <i>Blidingia marginata</i> / <i>Blidingia</i> cf. <i>marginata</i>		X		
Ulvophyceae/Ulvales	Kornmanniaceae	cf. <i>Blidingia ramifera</i>		X		
Ulvophyceae/Ulvales	Kornmanniaceae	<i>Blidingia</i> sp.		X		
Ulvophyceae/Ulvales	Ulvaceae	<i>Ulva</i> cf. <i>prolifera</i>	X			
Ulvophyceae/Ulvales	Ulvellaceae	cf. <i>Ulvella</i> sp.		X		
Ulvophyceae/-	-	Ulvophyceae indet.		X		
Chordata						
Asciacea/Phelobranchia	Asciidiidae	<i>Ascidia</i> sp.			X	X
Asciacea/Phelobranchia	-	Phlebobranchia indet.				X
Asciacea/Stolidobranchia	Molgulidae	<i>Molgula</i> sp.	X			
Asciacea/Stolidobranchia	Molgulidae	Molgulidae indet.		X		
Asciacea/Stolidobranchia	Pyuridae	<i>Boltenia echinata</i>		X	X	X
Asciacea/Stolidobranchia	Styelidae	Styelidae indet.			X	
Asciacea/Stolidobranchia	-	Stolidobranchia indet.			X	X
Asciacea/-	-	Asciacea indet.		X	X	X
Ciliophora						
-/-	-	Ciliophora indet.	X			
Cnidaria						
Anthozoa/Actiniaria	-	Actiniaria indet.	X			
Hydrozoa/Anthoathecata	Corynidae	<i>Sarsia</i> sp.	X			
Hydrozoa/Anthoathecata	-	Anthoathecata indet.	X			X
Hydrozoa/Leptothecata	Campanulariidae	Campanulariidae indet.	X	X	X	X
Hydrozoa/Leptothecata	-	Leptothecata indet.		X	X	X
Hydrozoa/-	-	Hydrozoa indet.		X	X	
Echinodermata						
Asteroidea/Forcipulatida	Asteriidae	<i>Leptasterias (Leptasterias) muelleri</i>	X			
Asteroidea/Forcipulatida	Asteriidae	Asteriidae indet.		X		
Echinoidea/Camarodonta	Strongylocentrotidae	<i>Strongylocentrotus droebachiensis</i>	X	X		
Ophiuroidea/Ophiurida	Ophiuridae	<i>Ophiura robusta</i>		X		
Ophiuroidea/Ophiurida	Ophiuridae	<i>Ophiura sarsii</i>	X			
Ophiuroidea/-	-	Ophiuroidea indet.		X		
Foraminifera						
-/-	-	Foraminifera indet.	X	X	X	X
Mollusca						
Bivalvia/Adapedonta	Hiatellidae	<i>Hiatella arctica</i>	X	X	X	X
Bivalvia/Cardiida	Tellinidae	<i>Macoma calcarea</i>		X		
Bivalvia/Carditida	Astartidae	<i>Astarte</i> sp.	X	X	X	
Bivalvia/Carditida	Astartidae	<i>Astarte borealis</i>	X	X	X	X
Bivalvia/Carditida	Astartidae	<i>Astarte montagui</i>	X	X	X	X
Bivalvia/Lucinida	Thyasiridae	<i>Thyasira</i> sp.		X		
Bivalvia/Lucinida	Thyasiridae	Thyasiridae indet.				X
Bivalvia/Myida	Myidae	<i>Mya</i> sp.	X	X	X	X
Bivalvia/Myida	Myidae	<i>Mya truncata</i>			X	X
Bivalvia/Mytilida	Mytilidae	<i>Arvella faba</i>	X	X	X	X
Bivalvia/Mytilida	Mytilidae	<i>Musculus discors</i>	X	X	X	X
Bivalvia/Mytilida	Mytilidae	<i>Musculus</i> sp.	X	X	X	X
Bivalvia/Mytilida	Mytilidae	<i>Musculus glacialis</i>		X		
Bivalvia/Mytilida	Mytilidae	Mytilidae indet.	X	X	X	X
Bivalvia/Nuculanida	Nuculanidae	<i>Nuculana minuta</i>	X	X		
Bivalvia/Nuculida	Nuculidae	<i>Ennucula tenuis</i>	X	X		X
Bivalvia/Pectinida	Propeamussiidae	<i>Similipecten greenlandicus</i>				X
Bivalvia/Pectinida	-	Pectinoidea indet.			X	X
Bivalvia/-	-	Bivalvia indet.	X	X	X	X
Gastropoda/Littorinimorpha	Naticidae	<i>Euspira pallida</i>				X
Gastropoda/Nudibranchia	Dendronotidae	<i>Dendronotus</i> sp.	X	X	X	X
Gastropoda/Nudibranchia	Onchidorididae	Onchidorididae indet.			X	
Gastropoda/Trochida	Margaritidae	<i>Margarites groenlandicus</i>	X			
Gastropoda/Trochida	Margaritidae	<i>Margarites helicinus</i>	X			
Gastropoda/Trochida	Margaritidae	<i>Margarites</i> sp.		X		
Gastropoda/-	Lottiidae	Lottiidae indet.	X	X	X	
Gastropoda/-	Lottiidae	<i>Testudinalia testudinalis</i>		X	X	X
Gastropoda/-	-	Lottioidea indet.			X	X
Gastropoda/-	-	Patellogastropoda indet.	X			X
Gastropoda/-	-	Gastropoda indet.	X		X	X
Polyplacophora/Chitonida	Tonicellidae	<i>Tonicella marmorea</i>			X	X
Nematoda						
-/-	-	Nematoda indet.		X	X	
Nemertea						
Hoplonemertea/-	-	Hoplonemertea indet.				X

Phylum Class/Order	Family	Taxa	2021	2022	2023	2024*
Pilidiophora/Heteronemertea	Lineidae	Lineidae indet.		X	X	X
Pilidiophora/Heteronemertea	-	Heteronemertea indet.			X	
-/-	-	Nemertea indet.		X		X
Ochrophyta						
Phaeophyceae/Chordales	Chordaceae	cf. <i>Chorda filum</i>		X		
Phaeophyceae/Desmarestiales	Desmarestiaceae	cf. <i>Desmarestia viridis</i>		X		
Phaeophyceae/Ectocarpales	Acinetosporaceae	Acinetosporaceae		X		
Phaeophyceae/Ectocarpales	Acinetosporaceae	cf. <i>Hincksia</i> sp.		X		
Phaeophyceae/Ectocarpales	Acinetosporaceae	cf. <i>Pogotrichum filiforme</i>		X		
Phaeophyceae/Ectocarpales	Acinetosporaceae	<i>Pylaiella</i> sp. / cf. <i>Pylaiella</i> sp		X		
Phaeophyceae/Ectocarpales	Acinetosporaceae	cf. <i>Pylaiella varia</i> / <i>Pylaiella</i> cf. <i>varia</i>	X	X		
Phaeophyceae/Ectocarpales	Acinetosporaceae	<i>Pylaiella littoralis</i>		X		
Phaeophyceae/Ectocarpales	Chordariaceae	cf. <i>Asperococcus fistulosus</i> / cf. <i>Scytosiphon lomentaria</i>		X		
Phaeophyceae/Ectocarpales	Chordariaceae	cf. <i>Delamarea attenuata</i>		X		
Phaeophyceae/Ectocarpales	Chordariaceae	cf. <i>Punctaria latifolia</i>		X		
Phaeophyceae/Ectocarpales	Chordariaceae	cf. <i>Punctaria</i> sp.		X		
Phaeophyceae/Ectocarpales	Chordariaceae	<i>Stictyosiphon tortilis</i> / cf. <i>Stictyosiphon tortilis</i> / cf. <i>Stictyosiphon</i> cf. <i>tortilis</i>		X		
Phaeophyceae/Ectocarpales	Chordariaceae	cf. <i>Stictyosiphon soriferus</i>		X		
Phaeophyceae/Ectocarpales	Chordariaceae	<i>Stictyosiphon</i> sp. / cf. <i>Stictyosiphon</i> sp.		X		
Phaeophyceae/Ectocarpales	Chordariaceae	cf. <i>Trachynema groenlandicum</i>	X			
Phaeophyceae/Ectocarpales	Chordariaceae	<i>Dictyosiphon</i> sp. / cf. <i>Dictyosiphon</i> sp.		X		
Phaeophyceae/Ectocarpales	Chordariaceae	Chordariaceae indet.	X	X		
Phaeophyceae/Ectocarpales	-	Ectocarpales indet.		X		
Phaeophyceae/Fucales	Fucaceae	<i>Fucus distichus</i> / cf. <i>Fucus distichus</i>	X	X		
Phaeophyceae/Sphacelariales	Sphacelariaceae	<i>Battersia arctica</i> / cf. <i>Battersia arctica</i>		X		
Phaeophyceae/Sphacelariales	-	Sphacelariales indet.	X	X		
Phaeophyceae/Stschapoviales	Platysiphonaceae	<i>Arcticophycus glacialis</i> / cf. <i>Arcticophycus glacialis</i>		X		
Phaeophyceae/Tilopteridales	Tilopteridaceae	cf. <i>Haplospora globosa</i>		X		
Platyhelminthes						
-/-	-	Platyhelminthes indet.				X
Porifera						
Demopongiae/-	-	Demospongiae indet.				X
Rhodophyta						
Compsopogonophyceae/Erythropeltales	Erythrotrichiaceae	cf. <i>Erythrotrichia</i> sp.		X		
Florideophyceae/Acrochaetiales	Audouinellaceae	Audouinellaceae indet.		X		
Florideophyceae/Ceramiales	Ceramiaceae	Ceramioideae indet.		X		
Florideophyceae/Ceramiales	Rhodomelaceae	cf. <i>Polysiphonia</i> sp.		X		
Florideophyceae/Ceramiales	Rhodomelaceae	<i>Rhodomela</i> sp. / cf. <i>Rhodomela</i> sp.		X		
Florideophyceae/Ceramiales	Rhodomelaceae	Rhodomelaceae indet.		X		
Florideophyceae/Ceramiales	Rhodomelaceae	<i>Savoiea arctica</i>		X		
Florideophyceae/Ceramiales	-	Ceramiales indet.		X		
Florideophyceae/Gigartinales	Phyllophoraceae	cf. <i>Coccotylus truncatus</i>		X		
-/-	-	Rhodophyta indet.		X		
Tracheophyta						
-/-	-	Tracheophyta indet.		X		
# Unique Taxa each year			69	110	61	73
TOTAL # Taxa (COUNT)			97	158	81	106

*Macroalgae were removed from settlement substrates and identified along with macroalgae from other components of the program. The results of all macroalgae identifications, including those from settlement substrates are presented in Appendix 8B-1

Notes: taxa identified to the lowest practical taxonomic level; indet.= indeterminate (taxa which could not be identified beyond the taxonomic level listed); sp.=species; cf.=compare with (taxa is an inexact match to the designated taxa). X indicated observed within the indicated sample year

Taxa in bold indicate new observations in MEEMP and NIS/AIS programs

All taxa cross-referenced with NIS/AIS resources: Fofonoff et al. 2023, ISSG 2023, Rius et al. 2023, AquaNIS 2023, Molnar et al. 2008, Casas-Monroy et al. 2014

APPENDIX 8C-2

**Settlement Substrate Laboratory
Data 2024**



Abundance data in long format for WSP Baffinland MEEMP 2024, Settlement Substrates including both plates and baskets.

Client	Project	Year	Sample Type	Biologica Sample ID	Date Client Sample ID Sampled	Organism Type	tax code	grp code	Phylum	Class	Order	Family	Subfamily	Taxon Name	Unique Taxa				Comments	New/historical taxa	
															A	I	J	Unstaged Count			
WSP	Baffinland MEEMP	2024	Plate	mb24-033-040	Center-M-P-BL-Y4-01-Aug-24	Attached	ALGAE	ALGAE						Algae			P	1		In historical settlement substrate data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-040	Center-M-P-BL-Y4-01-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Hesionidae		Nereimyra aphroditoides	P				1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-040	Center-M-P-BL-Y4-01-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Polynoidae	Polynoinae	Harmothoe rarispina	P				1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-040	Center-M-P-BL-Y4-01-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Sigalionidae	Pholoinae	Pholoe longa	P				1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-040	Center-M-P-BL-Y4-01-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Sigalionidae	Pholoinae	Pholoe minuta	P				1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-040	Center-M-P-BL-Y4-01-Aug-24	Attached	ANNE	POSE	Annelida	Polychaeta	Sabellida	Sabellidae	Myxicolinae	Chone sp.	P				1	In historical benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-040	Center-M-P-BL-Y4-01-Aug-24	Attached	ANNE	POSE	Annelida	Polychaeta	Sabellida	Sabellidae	Myxicolinae	Dialychone sp. 3	P				1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-040	Center-M-P-BL-Y4-01-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta	Terebellida	Terebellidae	Terebellinae	Pista maculata			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-040	Center-M-P-BL-Y4-01-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta	Terebellida	Terebellidae	Terebellinae	Polycirrus medusa	P				1	In historical benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-040	Center-M-P-BL-Y4-01-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta	Terebellida	Terebellidae	Terebellinae	Polycirrus sp. complex			P			In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-040	Center-M-P-BL-Y4-01-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta	Terebellida	Terebellidae	Terebellinae	Terebellidae indet.			P			In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-040	Center-M-P-BL-Y4-01-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta			Scalibregmatidae	Scalibregma inflatum			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-040	Center-M-P-BL-Y4-01-Aug-24	Encrusting	ARTH	CRCI	Arthropoda	Thecostraca	Balanomorpha			Balanomorpha indet.			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-040	Center-M-P-BL-Y4-01-Aug-24	Encrusting	MISC	BRYO	Bryozoa	Gymnolaemata	Cheilostomatida	Calloporidae		Calloporidae indet.			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-040	Center-M-P-BL-Y4-01-Aug-24	Encrusting	MISC	BRYO	Bryozoa	Gymnolaemata	Ctenostomatida	Alcyonidiidae		Alcyonidium sp.			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-040	Center-M-P-BL-Y4-01-Aug-24	Attached	MISC	CNHY	Cnidaria	Hydrozoa	Leptothecata	Campanulariidae		Campanulariidae indet.			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-040	Center-M-P-BL-Y4-01-Aug-24	Attached	MISC	FORA	Foraminifera					Foraminifera indet.			P		1	In historical settlement substrate data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-040	Center-M-P-BL-Y4-01-Aug-24	Mobile	MISC	NTEA	Nemertea					Nemertea indet.			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-040	Center-M-P-BL-Y4-01-Aug-24	Attached	MISC	URAS	Chordata	Ascidacea	Phlebobranchia			Phlebobranchia indet.			P		1	Higher level ID, lower levels within this order found in benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-040	Center-M-P-BL-Y4-01-Aug-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Adapedonta	Hiatellidae		Hiatella arctica			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-040	Center-M-P-BL-Y4-01-Aug-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Mytilida	Mytilidae		Musculus discors			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-040	Center-M-P-BL-Y4-01-Aug-24	Mobile	MOLL	MOBI	Mollusca	Bivalvia				Bivalvia indet.			P			In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-041	East-M-P-BL-Y4-24 01-Aug-24	Attached	ALGAE	ALGAE						Algae			P		1	In historical settlement substrate data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-041	East-M-P-BL-Y4-24 01-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Hesionidae		Nereimyra aphroditoides	P	P	P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-041	East-M-P-BL-Y4-24 01-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Nereididae	Nereidinae	Nereis zonata			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-041	East-M-P-BL-Y4-24 01-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Phyllodocidae	Eteoninae	Eteone sp.			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-041	East-M-P-BL-Y4-24 01-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Polynoidae	Polynoinae	Harmothoe sp.			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-041	East-M-P-BL-Y4-24 01-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Sigalionidae	Pholoinae	Pholoe minuta			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-041	East-M-P-BL-Y4-24 01-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Sigalionidae	Pholoinae	Pholoe sp.			P			In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-041	East-M-P-BL-Y4-24 01-Aug-24	Attached	ANNE	POSE	Annelida	Polychaeta	Sabellida	Sabellidae	Myxicolinae	Dialychone sp. 3			P	P	1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-041	East-M-P-BL-Y4-24 01-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta	Terebellida	Ampharetidae	Ampharetinae	Ampharete sp.			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-041	East-M-P-BL-Y4-24 01-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta	Terebellida	Terebellidae	Terebellinae	Amphitrite cirrata			P		1	In historical benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-041	East-M-P-BL-Y4-24 01-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta	Terebellida	Terebellidae	Terebellinae	Pista maculata			P	P	1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-041	East-M-P-BL-Y4-24 01-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta	Terebellida	Terebellidae	Terebellinae	Polycirrus medusa			P	P	1	In historical benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-041	East-M-P-BL-Y4-24 01-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta			Scalibregmatidae	Scalibregma inflatum			P	P	P	1	In historical settlement substrate and benthic data
WSP	Baffinland MEEMP	2024	Plate	mb24-033-041	East-M-P-BL-Y4-24 01-Aug-24	Encrusting	ARTH	CRCI	Arthropoda	Thecostraca	Balanomorpha			Balanomorpha indet.			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-041	East-M-P-BL-Y4-24 01-Aug-24	Mobile	MEMO	MEMO						Egg/egg mass				P		Squid	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-041	East-M-P-BL-Y4-24 01-Aug-24	Encrusting	MISC	BRYO	Bryozoa	Gymnolaemata	Ctenostomatida	Alcyonidiidae		Alcyonidium sp.			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-041	East-M-P-BL-Y4-24 01-Aug-24	Encrusting	MISC	BRYO	Bryozoa	Gymnolaemata	Cyclostomatida			Cyclostomatida indet.			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-041	East-M-P-BL-Y4-24 01-Aug-24	Attached	MISC	CNHY	Cnidaria	Hydrozoa	Leptothecata	Campanulariidae		Campanulariidae indet.			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-041	East-M-P-BL-Y4-24 01-Aug-24	Attached	MISC	FORA	Foraminifera					Foraminifera indet.			P		1	In historical settlement substrate data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-041	East-M-P-BL-Y4-24 01-Aug-24	Mobile	MISC	NTEA	Nemertea	Hoplonemertea				Hoplonemertea indet.			P		1	In historical benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-041	East-M-P-BL-Y4-24 01-Aug-24	Attached	MISC	URAS	Chordata	Ascidacea	Stolidobranchia			Stolidobranchia indet.			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-041	East-M-P-BL-Y4-24 01-Aug-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Adapedonta	Hiatellidae		Hiatella arctica			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-041	East-M-P-BL-Y4-24 01-Aug-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Mytilida	Mytilidae		Musculus discors			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-041	East-M-P-BL-Y4-24 01-Aug-24	Mobile	MOLL	MOBI	Mollusca												



Abundance data in long format for WSP Baffinland MEEMP 2024, Settlement Substrates including both plates and baskets.

Client	Project	Year	Sample Type	Biologica Sample ID	Client Sample ID	Date Sampled	Organism Type	tax code	grp code	Phylum	Class	Order	Family	Subfamily	Taxon Name	Unique Taxa				Comments	New/historical taxa				
																A	Int	J	Unstaged			Count			
WSP	Baffinland MEEMP	2024	Plate	mb24-033-044	Q3P-G-Y4-24	11-Aug-24	Attached	MISC	URAS	Chordata	Ascidacea	Phlebobranchia	Ascididae		Ascidia sp.			P		1		In historical settlement substrate and benthic data			
WSP	Baffinland MEEMP	2024	Plate	mb24-033-044	Q3P-G-Y4-24	11-Aug-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Adapedonta	Hiatellidae		Hiatella arctica			P		1		In historical settlement substrate and benthic data			
WSP	Baffinland MEEMP	2024	Plate	mb24-033-044	Q3P-G-Y4-24	11-Aug-24	Attached	MOLL	MOGA	Mollusca	Gastropoda				Lottoidea indet.				P		1		In historical settlement substrate data		
WSP	Baffinland MEEMP	2024	Plate	mb24-033-045	Q4-P-G-Y4-24	11-Aug-24	Attached	ALGAE	ALGAE						Algae				P		1		In historical settlement substrate data		
WSP	Baffinland MEEMP	2024	Plate	mb24-033-045	Q4-P-G-Y4-24	11-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Hesionidae		Nereimyra aphroditoides			P		1			In historical settlement substrate and benthic data		
WSP	Baffinland MEEMP	2024	Plate	mb24-033-045	Q4-P-G-Y4-24	11-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Polynoidae	Polynoinae	Harmothoe propinqua			P		1			In historical benthic data		
WSP	Baffinland MEEMP	2024	Plate	mb24-033-045	Q4-P-G-Y4-24	11-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Sigalionidae	Pholoinae	Pholoe minuta			P		1			In historical settlement substrate and benthic data		
WSP	Baffinland MEEMP	2024	Plate	mb24-033-045	Q4-P-G-Y4-24	11-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta	Terebellida	Terebellidae	Terebellinae	Pista maculata				P		1		In historical settlement substrate and benthic data		
WSP	Baffinland MEEMP	2024	Plate	mb24-033-045	Q4-P-G-Y4-24	11-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta		Capitellidae		Capitella capitata complex				P		1		In historical settlement substrate and benthic data		
WSP	Baffinland MEEMP	2024	Plate	mb24-033-045	Q4-P-G-Y4-24	11-Aug-24	Mobile	ARTH	CHAR	Arthropoda	Arachnida	Trombidiformes	Halacaridae		Halacaridae indet.			P		1			In historical settlement substrate and benthic data		
WSP	Baffinland MEEMP	2024	Plate	mb24-033-045	Q4-P-G-Y4-24	11-Aug-24	Encrusting	ARTH	CRCI	Arthropoda	Thecostraca	Balanomorpha			Balanomorpha indet.			P		1			In historical settlement substrate and benthic data		
WSP	Baffinland MEEMP	2024	Plate	mb24-033-045	Q4-P-G-Y4-24	11-Aug-24	Attached	MISC	CNHY	Cnidaria	Hydrozoa	Leptothecata	Campanulariidae		Campanulariidae indet.			P		1			In historical settlement substrate and benthic data		
WSP	Baffinland MEEMP	2024	Plate	mb24-033-045	Q4-P-G-Y4-24	11-Aug-24	Attached	MISC	FORA	Foraminifera					Foraminifera indet.			P		1			In historical settlement substrate data		
WSP	Baffinland MEEMP	2024	Plate	mb24-033-045	Q4-P-G-Y4-24	11-Aug-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Adapedonta	Hiatellidae		Hiatella arctica			P		1			In historical settlement substrate and benthic data		
WSP	Baffinland MEEMP	2024	Plate	mb24-033-045	Q4-P-G-Y4-24	11-Aug-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Mytilida	Mytilidae	Musculinae	Musculus sp.				P		1			In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-045	Q4-P-G-Y4-24	11-Aug-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Mytilida	Mytilidae		Mytilidae indet.				P		1			In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-045	Q4-P-G-Y4-24	11-Aug-24	Attached	MOLL	MOGA	Mollusca	Gastropoda				Patellogastropoda indet.				P		1			In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-046	Q5-P-G-Y4-24	06-Aug-24	Attached	ALGAE	ALGAE						Algae				P		1			In historical settlement substrate data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-046	Q5-P-G-Y4-24	06-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Sigalionidae	Pholoinae	Pholoe minuta			P		1				In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-046	Q5-P-G-Y4-24	06-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Sigalionidae	Pholoinae	Pholoe sp.				P		1			In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-046	Q5-P-G-Y4-24	06-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta	Terebellida	Terebellidae	Terebellinae	Amphitrite cirrata			P	P		1			In historical benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-046	Q5-P-G-Y4-24	06-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta	Terebellida	Terebellidae	Terebellinae	Leaena ebranchiata			P		1				In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-046	Q5-P-G-Y4-24	06-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta	Terebellida	Terebellidae		Terebellidae indet.				P		1			In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-046	Q5-P-G-Y4-24	06-Aug-24	Mobile	ARTH	CRAM	Arthropoda	Malacostraca	Amphipoda	Atylidae	Atylinae	Atylus carinatus				P		1			In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-046	Q5-P-G-Y4-24	06-Aug-24	Encrusting	ARTH	CRCI	Arthropoda	Thecostraca	Balanomorpha			Balanomorpha indet.			P		1				In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-046	Q5-P-G-Y4-24	06-Aug-24	Mobile	MEMO	MEMO						Egg/egg mass				P				Squid and other gelatinous egg mass	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-046	Q5-P-G-Y4-24	06-Aug-24	Encrusting	MISC	BRYO	Bryozoa	Gymnolaemata	Ctenostomatida	Alcyonidiidae		Alcyonidium sp.			P		1				In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-046	Q5-P-G-Y4-24	06-Aug-24	Encrusting	MISC	BRYO	Bryozoa	Stenolaemata	Cyclostomatida			Cyclostomatida indet.			P		1				In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-046	Q5-P-G-Y4-24	06-Aug-24	Attached	MISC	CNHY	Cnidaria	Hydrozoa	Leptothecata	Campanulariidae		Campanulariidae indet.			P		1				In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-046	Q5-P-G-Y4-24	06-Aug-24	Attached	MISC	FORA	Foraminifera					Foraminifera indet.			P		1				In historical settlement substrate data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-046	Q5-P-G-Y4-24	06-Aug-24	Attached	MISC	FORA	Foraminifera					Foraminifera indet.			P		1				In historical settlement substrate data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-046	Q5-P-G-Y4-24	06-Aug-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Adapedonta	Hiatellidae		Hiatella arctica			P		1				In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-046	Q5-P-G-Y4-24	06-Aug-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Mytilida	Mytilidae		Mytilidae indet.				P		1			In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-047	Q6-P-G-Y4-24	08-Aug-24	Attached	ALGAE	ALGAE						Algae					P		1			In historical settlement substrate and benthic data
WSP	Baffinland MEEMP	2024	Plate	mb24-033-047	Q6-P-G-Y4-24	08-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Hesionidae		Nereimyra aphroditoides			P	P		1			In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-047	Q6-P-G-Y4-24	08-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Polynoidae	Polynoinae	Harmothoe propinqua			P		1				In historical benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-047	Q6-P-G-Y4-24	08-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Polynoidae	Polynoinae	Harmothoe sp.			P						In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-047	Q6-P-G-Y4-24	08-Aug-24	Attached	ANNE	POSE	Annelida	Polychaeta	Sabellida	Sabellidae		Myxicolinae	Dialychone sp.			P		1			In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-047	Q6-P-G-Y4-24	08-Aug-24	Attached	ANNE	POSE	Annelida	Polychaeta	Sabellida	Serpulidae	Spirorbinae	Circeis armoricana			P		1				In historical settlement substrate data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-047	Q6-P-G-Y4-24	08-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta	Terebellida	Ampharetidae	Ampharetinae	Ampharete sp.			P		1				In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-047	Q6-P-G-Y4-24	08-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta	Terebellida	Terebellidae	Terebellinae	Leaena ebranchiata			P		1				In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-047	Q6-P-G-Y4-24	08-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta	Terebellida	Terebellidae		Pista maculata				P		1			In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Plate	mb24-033-047	Q6-P-G-Y4-24	08-Aug-24	Encrusting	ARTH	CRCI	Arthropoda	Thecostraca	Balanomorpha			Balanomorpha indet.			P		1			</		

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Abundance data in long format for WSP Baffinland MEEMP 2024, Settlement Substrates including both plates and baskets.

Client	Project	Year	Sample Type	Biologica Sample ID	Date Client Sample ID Sampled	Organism Type	tax code	grp code	Phylum	Class	Order	Family	Subfamily	Taxon Name	Taxa				Comments	New/historical taxa	
															A	Int	J	Unstaged Count			
WSP	Baffinland MEEMP	2024	Basket	mb24-033-058	Center-M-B-BL-Y4-01-Aug-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Mytilida	Mytilidae	Musculinae	Musculus discors		P	P	1		In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-058	Center-M-B-BL-Y4-01-Aug-24	Mobile	MOLL	MOGA	Mollusca	Gastropoda	Nudibranchia	Dendronotidae		Dendronotus sp.			P	1		In historical settlement substrate data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-058	Center-M-B-BL-Y4-01-Aug-24	Attached	MOLL	MOGA	Mollusca	Gastropoda		Lottiidae		Testudinalia testudinalis			P	1		In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-058	Center-M-B-BL-Y4-01-Aug-24	Attached	MOLL	MOGA	Mollusca	Gastropoda				Lottioidea indet.			P			In historical settlement substrate data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-058	Center-M-B-BL-Y4-01-Aug-24	Attached	MOLL	MOGA	Mollusca	Gastropoda				Patellogastropoda indet.			P			In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-059	East-M-B-BL-Y4-2401-Aug-24	Attached	ALGAE	ALGAE						Algae			P	1		In historical settlement substrate data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-059	East-M-B-BL-Y4-2401-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Nereididae	Nereidinae	Nereis zonata		P			1		In historical settlement substrate and benthic data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-059	East-M-B-BL-Y4-2401-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Polynoidae	Polynoinae	Bylgides promamme		P			1		In historical benthic data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-059	East-M-B-BL-Y4-2401-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Polynoidae	Polynoinae	Harmothoe rarispina			P	1		In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-059	East-M-B-BL-Y4-2401-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Polynoidae		Polynoidae indet.			P			In historical benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-059	East-M-B-BL-Y4-2401-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Sigalionidae	Pholoinae	Pholoe minuta		P			1		In historical settlement substrate and benthic data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-059	East-M-B-BL-Y4-2401-Aug-24	Attached	ANNE	POSE	Annelida	Polychaeta	Sabellida	Serpulidae	Spirorbiniae	Bushiella (Jugaria) quadrangularis		P	1			In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-059	East-M-B-BL-Y4-2401-Aug-24	Attached	ANNE	POSE	Annelida	Polychaeta	Sabellida	Serpulidae	Spirorbiniae	Circeis armoricana		P			1		In historical settlement substrate data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-059	East-M-B-BL-Y4-2401-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta	Terebellida	Terebellidae	Terebellinae	Leaena ebranchiata		P	1			In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-059	East-M-B-BL-Y4-2401-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta	Terebellida	Terebellidae	Terebellinae	Pista maculata		P			1		In historical settlement substrate and benthic data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-059	East-M-B-BL-Y4-2401-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta	Terebellida	Terebellidae		Terebellidae indet.		P			1		In historical settlement substrate and benthic data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-059	East-M-B-BL-Y4-2401-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta		Capitellidae		Mediomastus sp.		P			1		In historical settlement substrate and benthic data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-059	East-M-B-BL-Y4-2401-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta		Cossuridae		Cossura longocirrata		P			1		In historical settlement substrate and benthic data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-059	East-M-B-BL-Y4-2401-Aug-24	Mobile	ARTH	CRAM	Arthropoda	Malacostraca	Amphipoda			Amphipoda indet.			P	1		In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-059	East-M-B-BL-Y4-2401-Aug-24	Encrusting	ARTH	CRCI	Arthropoda	Thecostraca	Balanomorpha			Balanomorpha indet.		P			1		In historical settlement substrate and benthic data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-059	East-M-B-BL-Y4-2401-Aug-24	Encrusting	MISC	BRYO	Bryozoa	Gymnolaemata	Cheilostomatida	Calloporidae		Calloporidae indet.		P			1		In historical settlement substrate and benthic data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-059	East-M-B-BL-Y4-2401-Aug-24	Encrusting	MISC	BRYO	Bryozoa	Gymnolaemata	Cheilostomatida			Cheilostomatida indet.		P			1		In historical settlement substrate and benthic data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-059	East-M-B-BL-Y4-2401-Aug-24	Encrusting	MISC	BRYO	Bryozoa	Stenolaemata	Cyclostomatida			Cyclostomatida indet.		P			1		In historical settlement substrate and benthic data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-059	East-M-B-BL-Y4-2401-Aug-24	Mobile	MISC	NTEA	Nemertea	Pilidiophora	Heteronemertea	Lineidae		Lineidae indet.		P			1		In historical settlement substrate and benthic data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-059	East-M-B-BL-Y4-2401-Aug-24	Attached	MISC	URAS	Chordata	Ascidacea	Phlebobranchia	Asciidiidae		Ascidia sp.		P	P	P	1		In historical settlement substrate and benthic data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-059	East-M-B-BL-Y4-2401-Aug-24	Attached	MISC	URAS	Chordata	Ascidacea	Stolidobranchia	Pyuridae		Boltenia echinata		P			1		In historical settlement substrate and benthic data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-059	East-M-B-BL-Y4-2401-Aug-24	Attached	MISC	URAS	Chordata	Ascidacea	Stolidobranchia			Stolidobranchia indet.		P	1				In historical settlement substrate and benthic data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-059	East-M-B-BL-Y4-2401-Aug-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Adapedonta	Hiatellidae		Hiatella arctica		P			1		In historical settlement substrate and benthic data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-059	East-M-B-BL-Y4-2401-Aug-24	Mobile	MOLL	MOBI	Mollusca	Bivalvia	Carditida	Astartidae		Astarte montagui			P	1			In historical settlement substrate and benthic data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-059	East-M-B-BL-Y4-2401-Aug-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Mytilida	Mytilidae	Musculinae	Musculus discors		P			1		In historical settlement substrate and benthic data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-059	East-M-B-BL-Y4-2401-Aug-24	Mobile	MOLL	MOGA	Mollusca	Gastropoda	Nudibranchia	Dendronotidae		Dendronotus sp.			P	1			In historical settlement substrate data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-059	East-M-B-BL-Y4-2401-Aug-24	Attached	MOLL	MOPO	Mollusca	Polyplacophora	Chitonida	Tonicellidae	Tonicellinae	Tonicella marmorea		P			1		In historical settlement substrate and benthic data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-060	Q1-B-G-Y4-24 31-Jul-24	Attached	ALGAE	ALGAE						Algae			P	1			In historical settlement substrate data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-060	Q1-B-G-Y4-24 31-Jul-24	Mobile	ARTH	CRAM	Arthropoda	Malacostraca	Amphipoda			Amphipoda indet.			P		1		In historical settlement substrate and benthic data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-060	Q1-B-G-Y4-24 31-Jul-24	Encrusting	ARTH	CRCI	Arthropoda	Thecostraca	Balanomorpha			Balanomorpha indet.		P			1		In historical settlement substrate and benthic data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-060	Q1-B-G-Y4-24 31-Jul-24	Mobile	MEMO	MEMO						Egg/egg mass			P				Gastropoda eggs cases
WSP	Baffinland MEEMP	2024	Basket	mb24-033-060	Q1-B-G-Y4-24 31-Jul-24	Mobile	MISC	NTEA	Nemertea	Pilidiophora	Heteronemertea	Lineidae		Lineidae indet.		P			1		In historical settlement substrate and benthic data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-060	Q1-B-G-Y4-24 31-Jul-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Adapedonta	Hiatellidae		Hiatella arctica		P			1		In historical settlement substrate and benthic data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-060	Q1-B-G-Y4-24 31-Jul-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Mytilida	Mytilidae		Mytilidae indet.			P	1			In historical settlement substrate and benthic data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-060	Q1-B-G-Y4-24 31-Jul-24	Mobile	MOLL	MOBI	Mollusca	Bivalvia				Bivalvia indet.			P				Damaged shell
WSP	Baffinland MEEMP	2024	Basket	mb24-033-061	Q2-B-G-Y2-24 31-Jul-24	Attached	ALGAE	ALGAE						Algae			P	1			In historical settlement substrate data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-061	Q2-B-G-Y2-24 31-Jul-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Nereididae	Nereidinae	Nereis zonata		P			1		In historical settlement substrate and benthic data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-061	Q2-B-G-Y2-24 31-Jul-24	Mobile	ANNE	POSE	Annelida	Polychaeta	Terebellida	Terebellidae	Terebellinae	Leaena ebranchiata		P	1				In historical settlement substrate and benthic data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-061	Q2-B-G-Y2-24 31-Jul-24	Mobile	ANNE	POSE	Annelida	Polychaeta	Terebellida	Terebellidae		Terebellidae indet.			P	1			In historical settlement substrate and benthic data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-061	Q2-B-G-Y2-24 31-Jul-24	Encrusting	ARTH	CRCI	Arthropoda	Thecostraca	Balanomorpha			Balanomorpha indet.		P			1		In historical settlement substrate and benthic data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-061	Q2-B-G-Y2-24 31-Jul-24	Mobile	MEMO	MEMO						Egg/egg mass			P				Squid
WSP	Baffinland MEEMP	2024	Basket	mb24-033-061	Q2-B-G-Y2-24 31-Jul-24	Attached	MISC	URAS	Chord												



Abundance data in long format for WSP Baffinland MEEMP 2024, Settlement Substrates including both plates and baskets.

Client	Project	Year	Sample Type	Biologica Sample ID	Client Sample ID	Date Sampled	Organism Type	tax code	grp code	Phylum	Class	Order	Family	Subfamily	Taxon Name	Unique Taxa				Comments	New/historical taxa	
																A	Int	J	Unstaged			Count
WSP	Baffinland MEEMP	2024	Basket	mb24-033-063	Q4-B-G-Y3-24	11-Aug-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Adapedonta	Hiattellidae		Hiattella arctica	P				1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-063	Q4-B-G-Y3-24	11-Aug-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Mytilidae	Mytilidae	Musculinae	Musculus discors	P	P	P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-063	Q4-B-G-Y3-24	11-Aug-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Mytilidae	Mytilidae		Mytilidae indet.			P			In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-063	Q4-B-G-Y3-24	11-Aug-24	Mobile	MOLL	MOBI	Mollusca	Bivalvia				Bivalvia indet.			P			In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-063	Q4-B-G-Y3-24	11-Aug-24	Mobile	MOLL	MOGA	Mollusca	Gastropoda				Gastropoda indet.			P			Damaged shell	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-063	Q4-B-G-Y3-24	11-Aug-24	Attached	MOLL	MOGA	Mollusca	Gastropoda				Lottioidea indet.			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-064	Q5-B-G-Y3-24	06-Aug-24	Attached	ALGAE	ALGAE						Algae				P	1	In historical settlement substrate data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-064	Q5-B-G-Y3-24	06-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Eunicida	Lumbrineridae		Scoletoma sp.			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-064	Q5-B-G-Y3-24	06-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Nereididae	Nereidinae	Nereis zonata			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-064	Q5-B-G-Y3-24	06-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Nereididae		Nereididae indet.				P		In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-064	Q5-B-G-Y3-24	06-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Polynoidae	Polynoinae	Harmothoe propinqua			P		1	In historical benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-064	Q5-B-G-Y3-24	06-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Sigalionidae	Pholoinae	Pholoe minuta			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-064	Q5-B-G-Y3-24	06-Aug-24	Attached	ANNE	POSE	Annelida	Polychaeta	Sabellida	Serpulidae	Spirorbinae	Bushiella (Jugaria) quadrangularis			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-064	Q5-B-G-Y3-24	06-Aug-24	Attached	ANNE	POSE	Annelida	Polychaeta	Sabellida	Serpulidae	Spirorbinae	Circeis armoricana			P		1	In historical settlement substrate data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-064	Q5-B-G-Y3-24	06-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta	Terebellida	Cirratulidae		Chaetozone bathyala			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-064	Q5-B-G-Y3-24	06-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta	Terebellida	Cirratulidae		Chaetozone setosa complex			P	P	1	In historical benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-064	Q5-B-G-Y3-24	06-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta	Terebellida	Cirratulidae		Cirratulidae indet.				P		In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-064	Q5-B-G-Y3-24	06-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta	Terebellida	Cirratulidae		Tharyx sp.			P		1	In historical benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-064	Q5-B-G-Y3-24	06-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta	Terebellida	Pectinariidae		Cistenides granulata			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-064	Q5-B-G-Y3-24	06-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta	Terebellida	Terebellidae	Terebellinae	Lanassa venusta venusta			P		1	In historical benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-064	Q5-B-G-Y3-24	06-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta	Terebellida	Trichobranchidae		Terebellides sp.			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-064	Q5-B-G-Y3-24	06-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta		Capitellidae		Mediomastus sp.			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-064	Q5-B-G-Y3-24	06-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta		Cossuridae		Cossura longocirrata			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-064	Q5-B-G-Y3-24	06-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta		Maldanidae	Maldaninae	Maldane sarsi			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-064	Q5-B-G-Y3-24	06-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta		Paraonidae		Aricidea (Acmira) catherinae			P		1	In historical benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-064	Q5-B-G-Y3-24	06-Aug-24	Encrusting	ARTH	CRCI	Arthropoda	Thecostraca	Balanomorpha			Balanomorpha indet.			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-064	Q5-B-G-Y3-24	06-Aug-24	Mobile	ARTH	CRCU	Arthropoda	Malacostraca	Cumacea	Diastylidae		Brachydiastylis resima				P		In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-064	Q5-B-G-Y3-24	06-Aug-24	Mobile	ARTH	CROS	Arthropoda	Ostracoda	Mydocopidae	Philomedidae		Philomedes sp.			P	P	1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-064	Q5-B-G-Y3-24	06-Aug-24	Mobile	MEMO	MEMO						Egg/egg mass				P		Squid	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-064	Q5-B-G-Y3-24	06-Aug-24	Attached	MISC	CNHY	Cnidaria	Hydrozoa	Anthoathecata			Anthoathecata indet.			P		1	Attached to polychaete tubes	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-064	Q5-B-G-Y3-24	06-Aug-24	Attached	MISC	FORA	Foraminifera					Foraminifera indet.			P		1	In historical settlement substrate data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-064	Q5-B-G-Y3-24	06-Aug-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Adapedonta	Hiattellidae		Hiattella arctica			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-064	Q5-B-G-Y3-24	06-Aug-24	Mobile	MOLL	MOBI	Mollusca	Bivalvia	Carditida	Astartidae		Astarte montagui				P		1	In historical settlement substrate and benthic data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-064	Q5-B-G-Y3-24	06-Aug-24	Mobile	MOLL	MOBI	Mollusca	Bivalvia	Lucinida	Thyasiridae		Thyasiridae indet.			P		1	In historical benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-064	Q5-B-G-Y3-24	06-Aug-24	Attached	MOLL	MOGA	Mollusca	Gastropoda				Lottioidea indet.				P		1	In historical settlement substrate data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-065	Q6-B-G-Y3-24	08-Aug-24	Attached	ALGAE	ALGAE						Algae					P	1	In historical settlement substrate data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-065	Q6-B-G-Y3-24	08-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Hesionidae		Nereimyra aphroditoides			P	P	1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-065	Q6-B-G-Y3-24	08-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Nereididae	Nereidinae	Nereis zonata			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-065	Q6-B-G-Y3-24	08-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Polynoidae	Polynoinae	Gattyana cirrhosa			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-065	Q6-B-G-Y3-24	08-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Polynoidae	Polynoinae	Harmothoe rarispina			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-065	Q6-B-G-Y3-24	08-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Sigalionidae	Pholoinae	Pholoe minuta				P		1	In historical settlement substrate and benthic data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-065	Q6-B-G-Y3-24	08-Aug-24	Attached	ANNE	POSE	Annelida	Polychaeta	Sabellida	Serpulidae	Spirorbinae	Bushiella (Jugaria) quadrangularis			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-065	Q6-B-G-Y3-24	08-Aug-24	Attached	ANNE	POSE	Annelida	Polychaeta	Sabellida	Serpulidae	Spirorbinae	Circeis armoricana			P		1	In historical settlement substrate data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-065	Q6-B-G-Y3-24	08-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta	Terebellida	Cirratulidae		Chaetozone pigmentata			P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-065	Q6-B-G-Y3-24	08-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta	Terebellida	Terebellidae	Terebellinae	Polycirrus sp. complex							



Abundance data in long format for WSP Baffinland MEEMP 2024, Settlement Substrates including both plates and baskets.

Client	Project	Year	Sample Type	Biologica Sample ID	Client Sample ID	Date Sampled	Organism Type	tax code	grp code	Phylum	Class	Order	Family	Subfamily	Taxon Name	Unique Taxa				Comments	New/historical taxa		
																A	Int	J	Unstaged			Count	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-066	Q7-B-G-Y3-24	06-Aug-24	Mobile	MOLL	MOBI	Mollusca	Bivalvia	Carditida	Astartidae		Astarte montagui		P		1		In historical settlement substrate and benthic data		
WSP	Baffinland MEEMP	2024	Basket	mb24-033-066	Q7-B-G-Y3-24	06-Aug-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Mytilida	Mytilidae	Musculinae	Musculus discors		P	P	1		In historical settlement substrate and benthic data		
WSP	Baffinland MEEMP	2024	Basket	mb24-033-066	Q7-B-G-Y3-24	06-Aug-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Mytilida	Mytilidae	Musculinae	Musculus sp.			P			In historical settlement substrate and benthic data		
WSP	Baffinland MEEMP	2024	Basket	mb24-033-066	Q7-B-G-Y3-24	06-Aug-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Mytilida	Mytilidae		Mytilidae indet.			P			In historical settlement substrate and benthic data		
WSP	Baffinland MEEMP	2024	Basket	mb24-033-066	Q7-B-G-Y3-24	06-Aug-24	Attached	MOLL	MOGA	Mollusca	Gastropoda				Lottioidea indet.			P		1	In historical settlement substrate data		
WSP	Baffinland MEEMP	2024	Basket	mb24-033-066	Q7-B-G-Y3-24	06-Aug-24	Attached	MOLL	MOGA	Mollusca	Gastropoda				Patellogastropoda indet.			P			Damaged shell		
WSP	Baffinland MEEMP	2024	Basket	mb24-033-067	Q8-B-G-Y3-24	29-Jul-24	Attached	ALGAE	ALGAE						Algae			P		1	In historical settlement substrate data		
WSP	Baffinland MEEMP	2024	Basket	mb24-033-067	Q8-B-G-Y3-24	29-Jul-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Hesionidae		Nereimyra aphroditoides			P		1	In historical settlement substrate and benthic data		
WSP	Baffinland MEEMP	2024	Basket	mb24-033-067	Q8-B-G-Y3-24	29-Jul-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Sigalionidae	Pholoinae	Pholoe longa			P		1	In historical settlement substrate and benthic data		
WSP	Baffinland MEEMP	2024	Basket	mb24-033-067	Q8-B-G-Y3-24	29-Jul-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Sigalionidae	Pholoinae	Pholoe minuta			P		1	In historical settlement substrate and benthic data		
WSP	Baffinland MEEMP	2024	Basket	mb24-033-067	Q8-B-G-Y3-24	29-Jul-24	Attached	ANNE	POSE	Annelida	Polychaeta	Sabellida	Serpulidae	Spirorbinae	Bushiella (Jugaria) quadrangularis			P		1	In historical settlement substrate and benthic data		
WSP	Baffinland MEEMP	2024	Basket	mb24-033-067	Q8-B-G-Y3-24	29-Jul-24	Attached	ANNE	POSE	Annelida	Polychaeta	Sabellida	Serpulidae	Spirorbinae	Circeis armoricana			P		1	In historical settlement substrate data		
WSP	Baffinland MEEMP	2024	Basket	mb24-033-067	Q8-B-G-Y3-24	29-Jul-24	Encrusting	ARTH	CRCI	Arthropoda	Thecostraca	Balanomorpha			Balanomorpha indet.			P		1	In historical settlement substrate and benthic data		
WSP	Baffinland MEEMP	2024	Basket	mb24-033-067	Q8-B-G-Y3-24	29-Jul-24	Mobile	MEMO	MEMO						Egg/egg mass				P			In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-067	Q8-B-G-Y3-24	29-Jul-24	Encrusting	MISC	BRYO	Bryozoa	Gymnolaemata	Cheilostomatida	Calloporidae		Calloporidae indet.			P		1	In historical settlement substrate and benthic data		
WSP	Baffinland MEEMP	2024	Basket	mb24-033-067	Q8-B-G-Y3-24	29-Jul-24	Encrusting	MISC	BRYO	Bryozoa	Gymnolaemata	Cheilostomatida			Cheilostomatida indet.			P			In historical settlement substrate and benthic data		
WSP	Baffinland MEEMP	2024	Basket	mb24-033-067	Q8-B-G-Y3-24	29-Jul-24	Encrusting	MISC	BRYO	Bryozoa	Stenolaemata	Cyclostomatida	Lichenoporidae		Lichenopora sp.			P		1	In historical settlement substrate data		
WSP	Baffinland MEEMP	2024	Basket	mb24-033-067	Q8-B-G-Y3-24	29-Jul-24	Encrusting	MISC	BRYO	Bryozoa	Stenolaemata	Cyclostomatida	Lichenoporidae		Lichenoporidae indet.			P			In historical settlement substrate data		
WSP	Baffinland MEEMP	2024	Basket	mb24-033-067	Q8-B-G-Y3-24	29-Jul-24	Attached	MISC	FORA	Foraminifera					Foraminifera indet.			P		1	In historical settlement substrate data		
WSP	Baffinland MEEMP	2024	Basket	mb24-033-067	Q8-B-G-Y3-24	29-Jul-24	Mobile	MISC	NTEA	Nemertea					Lineidae indet.			P		1	In historical settlement substrate and benthic data		
WSP	Baffinland MEEMP	2024	Basket	mb24-033-067	Q8-B-G-Y3-24	29-Jul-24	Mobile	MISC	NTEA	Nemertea					Nemertea indet.			P			In historical settlement substrate and benthic data		
WSP	Baffinland MEEMP	2024	Basket	mb24-033-067	Q8-B-G-Y3-24	29-Jul-24	Attached	MISC	URAS	Chordata	Ascidacea	Phlebobranchia	Asciidiidae		Ascidia sp.				P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-067	Q8-B-G-Y3-24	29-Jul-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Adapedonta	Hiatellidae		Hiatella arctica			P		1	In historical settlement substrate and benthic data		
WSP	Baffinland MEEMP	2024	Basket	mb24-033-067	Q8-B-G-Y3-24	29-Jul-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Mytilida	Mytilidae	Musculinae	Musculus discors				P		1	Damaged shell	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-067	Q8-B-G-Y3-24	29-Jul-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Mytilida	Mytilidae	Musculinae	Musculus sp.				P			In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-067	Q8-B-G-Y3-24	29-Jul-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Mytilida	Mytilidae		Mytilidae indet.				P			In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-067	Q8-B-G-Y3-24	29-Jul-24	Mobile	MOLL	MOGA	Mollusca	Gastropoda		Nudibranchia	Dendronotidae	Dendronotus sp.				P		1	In historical settlement substrate data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-067	Q8-B-G-Y3-24	29-Jul-24	Attached	MOLL	MOGA	Mollusca	Gastropoda				Lottiidae				P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-067	Q8-B-G-Y3-24	29-Jul-24	Attached	MOLL	MOGA	Mollusca	Gastropoda				Lottioidea indet.				P			In historical settlement substrate data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-068	Q9-B-G-Y3-24	29-Jul-24	Attached	ALGAE	ALGAE						Algae				P		1	In historical settlement substrate data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-068	Q9-B-G-Y3-24	29-Jul-24	Encrusting	ARTH	CRCI	Arthropoda	Thecostraca	Balanomorpha			Balanomorpha indet.			P		1	In historical settlement substrate and benthic data		
WSP	Baffinland MEEMP	2024	Basket	mb24-033-068	Q9-B-G-Y3-24	29-Jul-24	Encrusting	MISC	BRYO	Bryozoa					Bryozoa indet.			P		1	In historical settlement substrate and benthic data		
WSP	Baffinland MEEMP	2024	Basket	mb24-033-068	Q9-B-G-Y3-24	29-Jul-24	Attached	MISC	FORA	Foraminifera					Foraminifera indet.			P		1	In historical settlement substrate data		
WSP	Baffinland MEEMP	2024	Basket	mb24-033-068	Q9-B-G-Y3-24	29-Jul-24	Attached	MISC	PORI	Porifera	Demospongiae				Demospongiae indet.			P		1	Very little tissue present		
WSP	Baffinland MEEMP	2024	Basket	mb24-033-068	Q9-B-G-Y3-24	29-Jul-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Adapedonta	Hiatellidae		Hiatella arctica				P		1	In historical benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-068	Q9-B-G-Y3-24	29-Jul-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Mytilida	Mytilidae	Musculinae	Musculus discors			P	P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-068	Q9-B-G-Y3-24	29-Jul-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Mytilida	Mytilidae		Mytilidae indet.				P			In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-069	Q10-B-G-Y3-24	06-Aug-24	Attached	ALGAE	ALGAE						Algae				P		1	In historical settlement substrate data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-069	Q10-B-G-Y3-24	06-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Hesionidae		Nereimyra aphroditoides			P	P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-069	Q10-B-G-Y3-24	06-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Sigalionidae	Pholoinae	Pholoe minuta				P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-069	Q10-B-G-Y3-24	06-Aug-24	Attached	ANNE	POSE	Annelida	Polychaeta	Sabellida	Sabellidae	Myxicolinae	Dialychone sp. 3				P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-069	Q10-B-G-Y3-24	06-Aug-24	Attached	ANNE	POSE	Annelida	Polychaeta	Sabellida	Serpulidae	Spirorbinae	Circeis armoricana				P		1	In historical settlement substrate data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-069	Q10-B-G-Y3-24	06-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta	Terebellida			Chaetozone sp.				P		1	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-069	Q10-B-G-Y3-24	06-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta	Terebellida	Terebellidae	Terebellinae	Amphitrite cirrata					P		1	In historical benthic data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-069	Q10-B-G-Y3-24	06-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta	Terebellida	Terebellidae		Terebellidae indet.					P			In historical settlement substrate and benthic data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-069	Q10-B-G-Y3-24	06-Aug-24	Mobile	ARTH	CRAM	Arthropoda	Malacostraca	Amphipoda	Eusiridae	</									



Abundance data in long format for WSP Baffinland MEEMP 2024, Settlement Substrates including both plates and baskets.

Client	Project	Year	Sample Type	Biologica Sample ID	Client Sample ID	Date Sampled	Organism Type	tax code	grp code	Phylum	Class	Order	Family	Subfamily	Taxon Name	Unique Taxa				Comments	New/historical taxa							
																A	Int	J	Unstaged			Count						
WSP	Baffinland MEEMP	2024	Basket	mb24-033-073	Q14-B-G-Y2-24	11-Aug-24	Attached	ALGAE	ALGAE							Algae		P		1		In historical settlement substrate data						
WSP	Baffinland MEEMP	2024	Basket	mb24-033-073	Q14-B-G-Y2-24	11-Aug-24	Mobile	ARTH	CRAM	Arthropoda	Malacostraca	Amphipoda	Atylidae	Atylinae		Atylus carinatus	P				1		In historical settlement substrate and benthic data					
WSP	Baffinland MEEMP	2024	Basket	mb24-033-073	Q14-B-G-Y2-24	11-Aug-24	Encrusting	ARTH	CRCI	Arthropoda	Thecostraca	Balanomorpha				Balanomorpha indet.	P				1		In historical settlement substrate and benthic data					
WSP	Baffinland MEEMP	2024	Basket	mb24-033-073	Q14-B-G-Y2-24	11-Aug-24	Mobile	MEMO	MEMO							Egg/egg mass		P					In gelatinous mass					
WSP	Baffinland MEEMP	2024	Basket	mb24-033-073	Q14-B-G-Y2-24	11-Aug-24	Attached	MISC	CNHY	Cnidaria	Hydrozoa	Leptothecata	Campanulariidae			Campanulariidae indet.	P				1		In historical settlement substrate and benthic data					
WSP	Baffinland MEEMP	2024	Basket	mb24-033-073	Q14-B-G-Y2-24	11-Aug-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Adapedonta	Hiatellidae			Hiatella arctica	P				1		In historical settlement substrate and benthic data					
WSP	Baffinland MEEMP	2024	Basket	mb24-033-073	Q14-B-G-Y2-24	11-Aug-24	Mobile	MOLL	MOBI	Mollusca	Bivalvia	Myida	Myidae			Mya sp.		P				1		In historical settlement substrate and benthic data				
WSP	Baffinland MEEMP	2024	Basket	mb24-033-073	Q14-B-G-Y2-24	11-Aug-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Mytilida	Mytilidae	Crenellinae		Arvella faba		P				1		In historical settlement substrate data				
WSP	Baffinland MEEMP	2024	Basket	mb24-033-073	Q14-B-G-Y2-24	11-Aug-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Mytilida	Mytilidae			Musculus discors		P				1		In historical settlement substrate and benthic data				
WSP	Baffinland MEEMP	2024	Basket	mb24-033-073	Q14-B-G-Y2-24	11-Aug-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Mytilida	Mytilidae			Mytilidae indet.		P						In historical settlement substrate and benthic data				
WSP	Baffinland MEEMP	2024	Basket	mb24-033-073	Q14-B-G-Y2-24	11-Aug-24	Attached	MOLL	MOGA	Mollusca	Gastropoda					Lottiidea indet.		P				1		In historical settlement substrate data				
WSP	Baffinland MEEMP	2024	Basket	mb24-033-074	Q15-B-G-Y2-24	06-Aug-24	Attached	ALGAE	ALGAE							Algae			P				1		In historical settlement substrate data			
WSP	Baffinland MEEMP	2024	Basket	mb24-033-074	Q15-B-G-Y2-24	06-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Polynoidae	Polynoinae		Harmothoe propinqua	P					1		In historical benthic data				
WSP	Baffinland MEEMP	2024	Basket	mb24-033-074	Q15-B-G-Y2-24	06-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Sigalionidae	Pholoinae		Pholoe longa								In historical settlement substrate and benthic data				
WSP	Baffinland MEEMP	2024	Basket	mb24-033-074	Q15-B-G-Y2-24	06-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Sigalionidae	Pholoinae		Pholoe minuta		P					1		In historical settlement substrate and benthic data			
WSP	Baffinland MEEMP	2024	Basket	mb24-033-074	Q15-B-G-Y2-24	06-Aug-24	Attached	ANNE	POSE	Annelida	Polychaeta	Sabellida	Sabellidae	Myxicolinae		Euchone incolor		P					1		In historical settlement substrate and benthic data			
WSP	Baffinland MEEMP	2024	Basket	mb24-033-074	Q15-B-G-Y2-24	06-Aug-24	Attached	ANNE	POSE	Annelida	Polychaeta	Sabellida	Sabellidae	Myxicolinae		Euchone sp.		P							In historical settlement substrate and benthic data			
WSP	Baffinland MEEMP	2024	Basket	mb24-033-074	Q15-B-G-Y2-24	06-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta	Terebellida	Cirratulidae			Chaetozone sp.		P					1		In historical settlement substrate and benthic data			
WSP	Baffinland MEEMP	2024	Basket	mb24-033-074	Q15-B-G-Y2-24	06-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta	Terebellida	Cirratulidae			Cirratulidae indet.			P						In historical settlement substrate and benthic data			
WSP	Baffinland MEEMP	2024	Basket	mb24-033-074	Q15-B-G-Y2-24	06-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta		Capitellidae			Mediomastus sp.	P						1		In historical settlement substrate and benthic data			
WSP	Baffinland MEEMP	2024	Basket	mb24-033-074	Q15-B-G-Y2-24	06-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta		Paraonidae			Aricidea nolani	P							1		In historical benthic data		
WSP	Baffinland MEEMP	2024	Basket	mb24-033-074	Q15-B-G-Y2-24	06-Aug-24	Mobile	ARTH	CRAM	Arthropoda	Malacostraca	Amphipoda	Pontogeneiidae			Pontoporeia femorata			P					1		In historical settlement substrate and benthic data		
WSP	Baffinland MEEMP	2024	Basket	mb24-033-074	Q15-B-G-Y2-24	06-Aug-24	Attached	MISC	FORA	Foraminifera						Foraminifera indet.	P							1		In historical settlement substrate data		
WSP	Baffinland MEEMP	2024	Basket	mb24-033-074	Q15-B-G-Y2-24	06-Aug-24	Mobile	MISC	PLTY	Platyhelminthes						Platyhelminthes indet.			P						1		In historical benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-074	Q15-B-G-Y2-24	06-Aug-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Adapedonta	Hiatellidae			Hiatella arctica	P							1		In historical settlement substrate and benthic data		
WSP	Baffinland MEEMP	2024	Basket	mb24-033-074	Q15-B-G-Y2-24	06-Aug-24	Attached	MOLL	MOGA	Mollusca	Gastropoda					Testudinalia testudinalis	P							1		In historical settlement substrate and benthic data		
WSP	Baffinland MEEMP	2024	Basket	mb24-033-075	Q17-B-G-Y2-24	06-Aug-24	Attached	ALGAE	ALGAE							Algae			P						1		In historical settlement substrate data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-075	Q17-B-G-Y2-24	06-Aug-24	Mobile	ANNE	ANHI	Annelida	Clitellata					Hirudinea indet.	P								1		In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-075	Q17-B-G-Y2-24	06-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Hesionidae			Nereimyra aphroditoides	P								1		In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-075	Q17-B-G-Y2-24	06-Aug-24	Mobile	ANNE	POER	Annelida	Polychaeta	Phyllodocida	Sigalionidae	Pholoinae		Pholoe minuta	P								1		In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-075	Q17-B-G-Y2-24	06-Aug-24	Mobile	ANNE	POSE	Annelida	Polychaeta		Capitellidae			Mediomastus sp.	P								1		In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-075	Q17-B-G-Y2-24	06-Aug-24	Mobile	ARTH	CRAM	Arthropoda	Malacostraca	Amphipoda	Pontogeneiidae			Pontoporeia femorata		P							1		In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-075	Q17-B-G-Y2-24	06-Aug-24	Encrusting	ARTH	CRCI	Arthropoda	Thecostraca	Balanomorpha				Balanomorpha indet.	P								1		In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-075	Q17-B-G-Y2-24	06-Aug-24	Mobile	MEMO	MEMO							Egg/egg mass	P										In historical settlement substrate data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-075	Q17-B-G-Y2-24	06-Aug-24	Encrusting	MISC	BRYO	Bryozoa	Gymnolaemata	Cheilostomatida	Epistomiidae			Synnotum sp.	P									1		In hystorical benthic data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-075	Q17-B-G-Y2-24	06-Aug-24	Attached	MISC	FORA	Foraminifera						Foraminifera indet.	P											In historical settlement substrate data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-075	Q17-B-G-Y2-24	06-Aug-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Adapedonta	Hiatellidae			Hiatella arctica	P		P						1		In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-075	Q17-B-G-Y2-24	06-Aug-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Mytilida	Mytilidae			Musculus discors		P	P						1	Damaged shell	In historical settlement substrate and benthic data	
WSP	Baffinland MEEMP	2024	Basket	mb24-033-075	Q17-B-G-Y2-24	06-Aug-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Mytilida	Mytilidae			Musculus sp.			P									In historical settlement substrate and benthic data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-075	Q17-B-G-Y2-24	06-Aug-24	Attached	MOLL	MOBI	Mollusca	Bivalvia	Mytilida	Mytilidae			Mytilidae indet.			P									In historical settlement substrate and benthic data
WSP	Baffinland MEEMP	2024	Basket	mb24-033-075	Q17-B-G-Y2-24	06-Aug-24	Attached	MOLL	MOGA	Mollusca	Gastropoda					Lottiidea indet.		P								1		In historical settlement substrate data

APPENDIX 8C-3

**Settlement Substrate Laboratory
Methods**



Marine Benthic Enumeration and Identification Methods

Client: WSP

Project: Baffinland MEEMP, 2024

Settlement Substrate (Plates and Baskets)

Sample Inventory

Sample arrival: 230- Aug-24

Number of samples: 36

Number of jars: 36

Screen size: 500 µm

Biologica project number: mb24-033

The chain of custody documents were checked and approved with the client. Samples were assigned a unique identification number. For processing, samples were analyzed in water and then transferred back into 10% formalin for storage.

Table 1. Summary of settlement substrate samples including both plates and baskets processed for WSP Baffinland MEEMP, 2024.

Substrate	Client Sample ID	Date Sampled	Biologica Sample ID
Plate	Center-M-P-BL-Y4-24	1-Aug-24	mb24-033-040
Plate	East-M-P-BL-Y4-24	1-Aug-24	mb24-033-041
Plate	Q1-P-G-Y4-24	31-Jul-24	mb24-033-042
Plate	Q2-P-G-Y3-24	31-Jul-24	mb24-033-043
Plate	Q3P-G-Y4-24	11-Aug-24	mb24-033-044
Plate	Q4-P-G-Y4-24	11-Aug-24	mb24-033-045
Plate	Q5-P-G-Y4-24	6-Aug-24	mb24-033-046
Plate	Q6-P-G-Y4-24	8-Aug-24	mb24-033-047
Plate	Q7-P-G-Y4-24	6-Aug-24	mb24-033-048
Plate	Q8-P-G-Y4-24	29-Jul-24	mb24-033-049
Plate	Q9-P-G-Y4-24	29-Jul-24	mb24-033-050
Plate	Q10-P-G-Y4-24	6-Aug-24	mb24-033-051
Plate	Q11-P-G-Y3-24	31-Jul-24	mb24-033-052
Plate	Q12-P-G-Y3-24	31-Jul-24	mb24-033-053
Plate	Q13-P-G-Y4-24	11-Aug-24	mb24-033-054
Plate	Q14-P-G-Y3-24	11-Aug-24	mb24-033-055
Plate	Q15-P-G-Y3-24	6-Aug-24	mb24-033-056
Plate	Q17-P-G-Y3-24	6-Aug-24	mb24-033-057
Basket	Center-M-B-BL-Y4-24	1-Aug-24	mb24-033-058
Basket	East-M-B-BL-Y4-24	1-Aug-24	mb24-033-059
Basket	Q1-B-G-Y4-24	31-Jul-24	mb24-033-060
Basket	Q2-B-G-Y2-24	31-Jul-24	mb24-033-061
Basket	Q3-B-G-Y3-24	11-Aug-24	mb24-033-062

Substrate	Client Sample ID	Date Sampled	Biological Sample ID
Basket	Q4-B-G-Y3-24	11-Aug-24	mb24-033-063
Basket	Q5-B-G-Y3-24	6-Aug-24	mb24-033-064
Basket	Q6-B-G-Y3-24	8-Aug-24	mb24-033-065
Basket	Q7-B-G-Y3-24	6-Aug-24	mb24-033-066
Basket	Q8-B-G-Y3-24	29-Jul-24	mb24-033-067
Basket	Q9-B-G-Y3-24	29-Jul-24	mb24-033-068
Basket	Q10-B-G-Y3-24	6-Aug-24	mb24-033-069
Basket	Q11-B-G-Y2-24	31-Jul-24	mb24-033-070
Basket	Q12-B-G-Y2-24	31-Jul-24	mb24-033-071
Basket	Q13-B-G-Y2-24	11-Aug-24	mb24-033-072
Basket	Q14-B-G-Y2-24	11-Aug-24	mb24-033-073
Basket	Q15-B-G-Y2-24	6-Aug-24	mb24-033-074
Basket	Q17-B-G-Y2-24	6-Aug-24	mb24-033-075

Sample Processing

The top and bottom surface of each sample was scanned to identify epifaunal taxa, including invertebrates and macroalgae. All organisms were identified using a combination of dissecting (10–40x) and compound (100–1000x) microscopes and standard taxonomic keys (see methodological and taxonomic references) to the level specified by the client: species or LPL (lowest practicable level). Each taxon was assigned an organism type (attached, encrusting, or mobile) and each taxon was given a stage, if applicable.

Organism types are defined as:

- Encrusting – Colonial and/or functionally colonial organisms that are permanently attached to substrate, whose abundances are more accurately captured by percent cover.
- Attached – Single individuals permanently attached to substrate but whose abundances are more easily captured by enumeration.
- Mobile – Organisms that are capable of movement from a single location.

Data

Results were provided to the WSP project manager in Excel spreadsheets via email.

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APPENDIX 8D-1

**Zooplankton Taxa
Presence/Absence from Survey
Years 2010-2024**

Phylum Subphylum	Class	Subclass	Order	Family	Subfamily	Taxa	Baseline	2016	2017	2018	2019	2020	2022	2023	2024
Annelida															
-	Polychaeta	-	-	-	-	Polychaeta indet.*	x	x	x	x	x	x	x	x	x
-	Polychaeta	Sedentaria	-	Sabellariidae	-	Sabellariidae indet.			x						
-	Polychaeta	Sedentaria	Sabellida	Oweniidae	-	Oweniidae indet.*								x	x
Arthropoda															
-	-	-	-	-	-	Arthropoda indet.*						x			
Chelicerata	Arachnida	Acari	-	-	-	Acari indet.*								x	x
Chelicerata	Arachnida	Acari	Trombidiformes	-	-	Hydrachnidia indet	x								
Crustacea	-	-	-	-	-	Crustacea indet.*			x	x	x		x	x	x
Crustacea	Branchiopoda	Phyllopoda	Diplostraca	-	-	Cladocera indet.					x				
Crustacea	Branchiopoda	Phyllopoda	Diplostraca/Anomopoda	Bosminidae	-	Bosmina longicornis	x	x							
Crustacea	Branchiopoda	Phyllopoda	Diplostraca/Anomopoda	Bosminidae	-	Bosmina sp.	x								
Crustacea	Branchiopoda	Phyllopoda	Diplostraca/Anomopoda	Bosminidae	-	Bosminidae indet.**			x			x	x	x	x
Crustacea	Branchiopoda	Phyllopoda	Diplostraca/Anomopoda	Chydoridae	-	Chydorus sphaericus		x							x
Crustacea	Branchiopoda	Phyllopoda	Diplostraca/Anomopoda	Daphniidae	-	Daphnia sp.***	x					x	x	x	x
Crustacea	Copepoda	-	-	-	-	Cirripedia indet.	x	x							
Crustacea	Copepoda	Copepoda	-	-	-	Copepoda indet.*	x	x		x	x	x	x	x	x
Crustacea	Copepoda	Copepoda	Calanoida	-	-	Calanoida indet.*	x		x	x	x	x	x	x	x
Crustacea	Copepoda	Copepoda	Calanoida	Acartiidae	-	Acarti sp. ***						x			
Crustacea	Copepoda	Copepoda	Calanoida	Acartiidae	-	Acartia hudsonica		x					x		
Crustacea	Copepoda	Copepoda	Calanoida	Acartiidae	-	Acartia longiremis	x	x	x		x	x	x	x	x
Crustacea	Copepoda	Copepoda	Calanoida	Acartiidae	-	Acartia sp.*	x	x	x	x	x	x		x	x
Crustacea	Copepoda	Copepoda	Calanoida	Calanidae	-	Calanus finmarchicus	x	x	x	x	x	x	x	x	x
Crustacea	Copepoda	Copepoda	Calanoida	Calanidae	-	Calanus glacialis	x	x	x	x	x	x	x	x	x
Crustacea	Copepoda	Copepoda	Calanoida	Calanidae	-	Calanus hyperboreus	x	x	x	x	x	x	x	x	x
Crustacea	Copepoda	Copepoda	Calanoida	Calanidae	-	Calanus sp.*			x	x	x	x	x	x	x
Crustacea	Copepoda	Copepoda	Calanoida	Centropagidae	-	Centropages sp.	x			x				x	x
Crustacea	Copepoda	Copepoda	Calanoida	Centropagidae	-	Limnocalanus macrurus						x	x	x	
Crustacea	Copepoda	Copepoda	Calanoida	Clausocalanidae	-	Clausocalanidae indet.*								x	
Crustacea	Copepoda	Copepoda	Calanoida	Clausocalanidae	-	Ctenocalanus sp.				x					
Crustacea	Copepoda	Copepoda	Calanoida	Clausocalanidae	-	Ctenocalanus vanus			x	x					
Crustacea	Copepoda	Copepoda	Calanoida	Clausocalanidae	-	Microcalanus sp.			x	x	x	x	x		x
Crustacea	Copepoda	Copepoda	Calanoida	Clausocalanidae	-	Pseudocalanus sp. complex*	x	x	x	x	x	x	x	x	x
Crustacea	Copepoda	Copepoda	Calanoida	Diaptomidae	-	Diaptomidae indet.								x	
Crustacea	Copepoda	Copepoda	Calanoida	Lucicutiidae	-	Lucicutia longicornis		x							
Crustacea	Copepoda	Copepoda	Calanoida	Lucicutiidae	-	Lucicutia sp	x								
Crustacea	Copepoda	Copepoda	Calanoida	Metridiidae	-	Metridia sp.	x		x	x				x	
Crustacea	Copepoda	Copepoda	Calanoida	Pontellidae	-	Pontellidae indet.	x								
Crustacea	Copepoda	Copepoda	Calanoida	Rathkeidae	-	Rathkea sp.			x						
Crustacea	Copepoda	Copepoda	Calanoida	Scolecitrichidae	-	Scolecithricella sp.			x	x					x
Crustacea	Copepoda	Copepoda	Calanoida	Temoridae	-	Eurytemora herdmani	x								
Crustacea	Copepoda	Copepoda	Cyclopoida	-	-	Cyclopoida indet.*			x	x	x	x	x	x	x
Crustacea	Copepoda	Copepoda	Cyclopoida	Corycaeidae	-	Corycaeus sp.	x								
Crustacea	Copepoda	Copepoda	Cyclopoida	Cyclopoidae	-	Cyclopidae indet.*								x	
Crustacea	Copepoda	Copepoda	Cyclopoida	Cyclopoidae	-	Cyclops sp.*								x	x
Crustacea	Copepoda	Copepoda	Cyclopoida	Cyclopoidae	-	Cyclops scutifer**						x	x		
Crustacea	Copepoda	Copepoda	Cyclopoida	Oithonidae	-	Oithona atlantica	x	x	x	x					
Crustacea	Copepoda	Copepoda	Cyclopoida	Oithonidae	-	Oithona similis	x	x	x	x	x	x		x	
Crustacea	Copepoda	Copepoda	Cyclopoida	Oithonidae	-	Oithona sp.*	x	x	x	x	x	x	x	x	x
Crustacea	Copepoda	Copepoda	Cyclopoida	Oncaeidae	-	Oncaea minuta	x								
Crustacea	Copepoda	Copepoda	Cyclopoida	Oncaeidae	-	Oncaea sp.*	x			x	x	x		x	
Crustacea	Copepoda	Copepoda	Cyclopoida	Oncaeidae	-	Oncaeidae indet.*		x	x					x	x
Crustacea	Copepoda	Copepoda	Cyclopoida	Oncaeidae	-	Triconia borealis		x	x					x	x
Crustacea	Copepoda	Copepoda	Cyclopoida	Sapphirinidae	-	Sapphirina sp.	x	x	x						
Crustacea	Copepoda	Copepoda	Harpacticoida	-	-	Harpacticoida indet.*		x		x	x	x	x	x	x
Crustacea	Copepoda	Copepoda	Harpacticoida	Ectinosomatidae	-	Microsetella norvegica	x	x	x	x	x	x	x	x	x
Crustacea	Copepoda	Copepoda	Harpacticoida	Ectinosomatidae	-	Microsetella sp.			x	x	x			x	
Crustacea	Copepoda	Copepoda	Harpacticoida	Peltidiidae	Clytemnestrinae	Clytemnestra scutellata	x	x							
Crustacea	Copepoda	Copepoda	Harpacticoida	Peltidiidae	Clytemnestrinae	Clytemnestra sp.			x						
Crustacea	Copepoda	Copepoda	Harpacticoida	Tachidiidae	-	Euterpina acutifrons	x	x	x						
Crustacea	Copepoda	Copepoda	Monstrilloida	Monstrillidae	-	Monstrilla sp.								x	
Crustacea	Malacostraca	Eumalacostraca	Amphipoda	-	-	Amphipoda indet.*	x	x	x					x	
Crustacea	Malacostraca	Eumalacostraca	Amphipoda	-	-	Lysianassoidea indet.				x			x		
Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Calliopiidae	-	Apherusa sp.				x					
Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Gammaridae	-	Gammarus sp.*									x
Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Hyperiidae	-	Hyperia sp.*								x	
Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Hyperiidae	-	Hyperia medusarum			x					x	
Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Hyperiidae	-	Hyperiidae indet.*				x	x		x	x	x
Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Hyperiidae	-	Hyperidea indet.*							x		
Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Hyperiidae	-	Hyperoche medusarum			x			x			
Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Hyperiidae	-	Themisto abyssorum			x						
Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Hyperiidae	-	Themisto libellula			x	x	x	x	x		x
Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Hyperiidae	-	Themisto sp.	x		x	x			x	x	x
Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Uristidae	-	Onisimus glacialis					x				
Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Uristidae	-	Onisimus litoralis				x					
Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Uristidae	-	Onisimus sp.				x			x		x
Crustacea	Malacostraca	Eumalacostraca	Decapoda	-	-	Caridea indet.				x					
Crustacea	Malacostraca	Eumalacostraca	Decapoda	Crangonidae	-	Crangonidae indet.				x					x
Crustacea	Malacostraca	Eumalacostraca	Decapoda	Crangonidae	-	Sabinea septemcarinata			x	x			x	x	x
Crustacea	Malacostraca	Eumalacostraca	Decapoda	Hippolytidae	-	Hippolytidae indet.				x					
Crustacea	Malacostraca	Eumalacostraca	Decapoda	Sapphirinidae	-	Sapphirina opalina	x								
Crustacea	Malacostraca	Eumalacostraca	Euphausiacea	-	-	Euphausiacea indet.				x					
Crustacea	Malacostraca	Eumalacostraca	Isopoda	-	-	Isopoda indet.*			x	x	x	x	x	x	x
Crustacea	Malacostraca	Eumalacostraca	Mysida	-	-	Mysida indet.	x								
Crustacea	Malacostraca	Eumalacostraca	Mysida	Mysidae	Mysinae	Mysis litoralis			x						
Crustacea	Malacostraca	Eumalacostraca	Mysida	Mysidae	Mysinae	Mysis sp.*				x		x	x	x	
Crustacea	Malacostraca	Eumalacostraca	Mysida	Mysidae	Erythropinae	Erythrops sp.				x					x
Crustacea	Ostracoda	-	-	-	-	Ostracoda indet.				x				x	
Crustacea	Thecostraca	Cirripedia	Balanomorpha	-	-	Balanomorpha indet.*			x	x	x	x	x	x	x
Hexapoda	Insecta	-	-	-	-	Insecta indet.***						x			
Hexapoda	Insecta	Pterygota	Diptera	-	-	Diptera indet.***						x			
Hexapoda	Insecta	Pterygota	Diptera	Chironomidae	-	Chironomidae indet.***						x		x	x
Bryozoa															
-	-	-	-	-	-	Bryozoa indet.*				x				x	
Chaetognatha															
-	-	-	-	-	-	Chaetognatha indet.		x						x	x
-	Sagittoidea	-	Aphragmophora	Sagittidae	-	Parasagitta elegans	x		x	x	x	x	x	x	x
-	Sagittoidea	-	Aphragmophora	Sagittidae	-	Parasagitta sp.			x	x					
-	Sagittoidea	-	Aphragmophora	Sagittidae	-	Sagittidae indet.	x	x							
-	Sagittoidea	-	Phragmophora	Eukrohniidae	-	Eukrohnia hamata	x								
Chordata															
Tunicata	Appendicularia	-	Copelata	Fritillariidae	Fritillariinae	Fritillaria sp.*	x	x		x	x	x		x	x
Tunicata	Appendicularia	-	Copelata	Oikopleuridae	Oikopleurinae	Oikopleura sp.*	x			x	x	x	x		x
Tunicata	Ascidacea	-	-	-	-	Ascidacea indet.*							x	x	
Vertebrata	Actinopterygii	-	Gadiformes	Gadidae	-	Gadidae indet.				x	x		x		x
Vertebrata	Actinopterygii	-	Perciformes	Ammodytidae	-	Ammodytes sp.*					x		x	x	x
Vertebrata	Actinopterygii	-	Perciformes	Pholidae	-	Pholis fasciata			x						

Phylum Subphylum	Class	Subclass	Order	Family	Subfamily	Taxa	Baseline	2016	2017	2018	2019	2020	2022	2023	2024
Vertebrata	Actinopterygii	-	Perciformes	Stichaeidae	-	Stichaeidae indet.*									x
Vertebrata	Actinopterygii	-	Scorpaeniformes	Cottidae	-	Cottidae indet.			x					x	
Vertebrata	Actinopterygii	-	Scorpaeniformes	Liparidae	-	<i>Liparis</i> sp.						x			
Cnidaria															
-	-	-	-	-	-	Cnidaria indet.*		x	x	x	x	x			
-	Hydrozoa	-	-	-	-	Hydrozoa indet.*								x	x
-	Hydrozoa	Hydroidolina	Anthoathecata	-	-	Anthoathecata indet.*	x								
-	Hydrozoa	Hydroidolina	Anthoathecata	Bougainvilliidae	-	<i>Bougainvillia</i> sp.						x			
-	Hydrozoa	Hydroidolina	Anthoathecata	Corymorphidae	-	Corymorphidae indet.*								x	
-	Hydrozoa	Hydroidolina	Anthoathecata	Corymorphidae	-	<i>Euphysa</i> sp.	x			x	x		x	x	x
-	Hydrozoa	Hydroidolina	Anthoathecata	Pandeidae	-	<i>Catablema vesicarium</i>			x	x					
-	Hydrozoa	Hydroidolina	Anthoathecata	Pandeidae	-	Pandeidae indet.*						x	x	x	x
-	Hydrozoa	Hydroidolina	Anthoathecata	Tubulariidae	-	<i>Hybocodon prolifer</i>					x				
-	Hydrozoa	Hydroidolina	Leptothecata	Campanulariidae	-	<i>Obelia</i> sp.					x				
-	Hydrozoa	Hydroidolina	Siphonophorae	-	-	Siphonophore indet.				x					
-	Hydrozoa	Trachylinae	Narcomedusae	Solmundaeginidae	-	<i>Aeginopsis laurentii</i>			x	x	x		x	x	x
-	Hydrozoa	Trachylinae	Trachymedusae	Rhopalonematidae	-	<i>Aglantha digitale</i>	x		x	x	x	x	x	x	x
-	Hydrozoa	Trachylinae	Trachymedusae	Rhopalonematidae	-	<i>Aglantha</i> sp.*			x	x					
-	Scyphozoa	-	-	-	-	Scyphozoa indet.*							x	x	
Ctenophora															
-	-	-	-	-	-	Ctenophora indet.	x				x		x	x	x
-	Nuda	-	Beroida	Beroidae	-	<i>Beroe cucumis</i>		x							
-	Nuda	-	Beroida	Beroidae	-	<i>Beroe gracilis</i>	x								
-	Nuda	-	Beroida	Beroidae	-	<i>Beroe</i> sp.*				x			x	x	x
-	Tentaculata	-	Cydlippida	Mertensiidae	-	<i>Mertensia ovum</i> *							x		
Echinodermata															
-	-	-	-	-	-	Echinodermata indet.	x	x							
Echinozoa	Echinoidea	-	-	-	-	Echinoidea indet.*			x	x	x	x		x	x
Asterozoa	Asteroidea	-	-	-	-	Asteroidea indet.*								x	
Asterozoa	Ophiuroidea	-	-	-	-	Ophiuroidea indet.*							x	x	x
Mollusca															
-	Bivalvia	-	-	-	-	Bivalvia indet.*	x	x	x	x	x	x	x	x	x
-	Gastropoda	-	-	-	-	Gastropoda indet.*			x	x	x	x	x	x	x
-	Gastropoda	Heterobranchia	Pteropoda	-	-	Gymnosomata indet.	x							x	
-	Gastropoda	Heterobranchia	Pteropoda	Clionidae	-	<i>Clione</i> sp.*								x	x
-	Gastropoda	Heterobranchia	Pteropoda	Clionidae	-	<i>Clione limacina</i>	x		x	x	x	x	x	x	x
-	Gastropoda	Heterobranchia	Pteropoda	Limacinidae	-	<i>Limacina helicina</i>	x		x	x	x	x	x	x	x
-	Gastropoda	Heterobranchia	Pteropoda	Limacinidae	-	<i>Limacina</i> sp.*	x	x	x			x	x	x	x
Nemertea															
-	-	-	-	-	-	Nemertea indet.			x					x	x
Rotifera															
-	-	-	-	-	-	Rotifera indet.			x						
-	Eurotatoria	Monogononta	Ploima	Synchaetidae	-	<i>Synchaeta hyperborea</i>		x							
-	Eurotatoria	Monogononta	Ploima	Synchaetidae	-	<i>Synchaeta</i> sp.			x						
Total Taxa Observed							49	33	59	61	41	46	49	70	60

Notes: Taxa in bold indicate the first observation of the taxa during MEEMP and NIS/AIS surveys. Taxa identified to the lowest practical taxonomic level; presence/absence for previous years taken from SEM 2015, 2016, 2017a, Golder 2018, Golder 2019a, Golder 2020a, Golder 2021a, WSP 2023, WSP 2024. *=Species or taxa from lower taxonomic levels identified in other survey years and/or in other survey methods; **=Freshwater taxon; ***= Incidental (benthic or terrestrial taxa or life stages); indet.= indeterminate (taxa could not be identified beyond the taxonomic level listed); sp.=species.

(a) Baseline includes zooplankton observations in 2008, 2010, 2014, and 2015.

APPENDIX 8D-2

Zooplankton Laboratory Data 2024



Zooplankton total abundance data matrix for WSP Baffinland MEEMP, 2024.

Biologica Sample ID									Grand Total		mz24-033-016	mz24-033-017	mz24-033-018	mz24-033-019	mz24-033-020	mz24-033-021	mz24-033-022	mz24-033-023	mz24-033-024	mz24-033-025	mz24-033-026	mz24-033-027	mz24-033-028
Client Sample ID									ZH-01		ZH-01	ZH-01	ZH-02	ZH-02	ZH-03	ZH-03	ZH-04	ZH-05	ZH-06	ZH-4	ZH-5	ZH-6	ZV-01
Date Sampled									02-Aug-24		17-Aug-24	02-Aug-24	17-Aug-24	02-Aug-24	17-Aug-24	02-Aug-24	17-Aug-24	17-Aug-24	17-Aug-24	06-Aug-24	06-Aug-24	06-Aug-24	02-Aug-24
Groupcode	Phylum	Subphylum	Class	Subclass	Order	Family	Taxon	Stage	Total Unique Taxa	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	
CHAE	Chaetognatha		Sagittoidea		Aphragmophora	Sagittidae	Parasagitta elegans		1	4,540	97												11
CHAE	Chaetognatha						Chaetognatha indet.			592													32
CNHY	Cnidaria		Hydrozoa	Hydroidolina	Anthoathecata	Corymorphidae	Euphysa sp.	Medusa	1	9	3		1		3					2			
CNHY	Cnidaria		Hydrozoa	Hydroidolina	Anthoathecata	Pandeidae	Pandeidae indet.	Medusa	1	3		1										1	
CNHY	Cnidaria		Hydrozoa	Trachylinae	Narcomedusae	Solmundaeginidae	Aeginopsis laurentii	Medusa	1	14							1		1				1
CNHY	Cnidaria		Hydrozoa	Trachylinae	Trachymedusae	Rhopalonematidae	Aglantha digitale	Medusa	1	929	144	104	117	47	128	58	32	51	48	16	5	30	24
CNHY	Cnidaria		Hydrozoa				Hydrozoa indet.	Medusa		639	32		11	4	8	16	8	80	59		32	64	
CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Hyperiididae	Hyperiididae indet.			100					8					16	10	64	2
CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Hyperiididae	Themisto libellula		1	197	64	4	65		8	3	2	2	1	24	13	4	
CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Hyperiididae	Themisto sp.			18												11	
CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Uristidae	Onisimus sp.		1	56	2	4	3		2	2	1	4	2	8	16	9	
CRCI	Arthropoda	Crustacea	Thecostraca	Cirripedia	Balanomorpha		Balanomorpha indet.	Cypris	1	515		40	21	16	24		8	16	5	96	128	96	32
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida	Acartiidae	Acartia longiremis	Vlf	1	8							4	4					
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida	Acartiidae	Acartia sp.	I-IV		16													
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida	Acartiidae	Acartia sp.	V		544			32	24	8	4	20	24	16		224	128	32
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida	Acartiidae	Acartia sp.	Vlf		11			11										
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida	Calanidae	Calanus finmarchicus	V	1	13			11										2
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida	Calanidae	Calanus finmarchicus	Vlf		25	16					8							
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida	Calanidae	Calanus glacialis	V	1	1,920	128	8	341			88				352	512	448	10
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida	Calanidae	Calanus glacialis	Vlf		1,624	128	16	107	1	56		4			208	736	320	7
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida	Calanidae	Calanus glacialis	Vlm		27			11							16			
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida	Calanidae	Calanus hyperboreus	V	1	3,642	528		480		360					544	928	704	31
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida	Calanidae	Calanus hyperboreus	Vlf		1,486	368		171		168					240	320	192	8
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida	Calanidae	Calanus hyperboreus	Vlm		81	16											64	
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida	Calanidae	Calanus sp.	I-IV		6,480	1056	176	523	116	280	28	36	32	21	1024	2080	768	96
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida	Centropagidae	Centropages sp.	V	1	16	16												
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida	Clausocalanidae	Microcalanus sp.	V	1	32											32		
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida	Clausocalanidae	Pseudocalanus sp. complex	V	1	5,133	176	184	256	52	256	72	28	96	32	832	1760	960	96
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida	Clausocalanidae	Pseudocalanus sp. complex	Vlf		309	48	16	21	12	24	24	4	16	16	96	32		
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida	Scolecitrichidae	Scolecitrichella sp.	V	1	4				4									
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida		Calanoida indet.	I-IV		13,591	592	456	885	228	376	240	176	224	91	1472	3968	2528	320
CRCO	Arthropoda	Crustacea	Copepoda		Cyclopoida	Oithonidae	Oithona sp.	I-IV	1	54,083	112	32	85	56		196	212	64	155	384	352	256	1728
CRCO	Arthropoda	Crustacea	Copepoda		Cyclopoida	Oithonidae	Oithona sp.	V		2,741	272	120	96	56	16								
CRCO	Arthropoda	Crustacea	Copepoda		Cyclopoida	Oithonidae	Oithona sp.	Vlf		1,604	176	40	11	32	16	20	40	296	16	128	96	128	128
CRCO	Arthropoda	Crustacea	Copepoda		Cyclopoida	Oithonidae	Oithona sp.	Vlm		137	48	8				8	4	8	5	32			
CRCO	Arthropoda	Crustacea	Copepoda		Cyclopoida	Oncaeidae	Oncaeidae indet.	I-IV	1	8,107													2496
CRCO	Arthropoda	Crustacea	Copepoda		Cyclopoida	Oncaeidae	Oncaeidae indet.	V		544													
CRCO	Arthropoda	Crustacea	Copepoda		Cyclopoida	Oncaeidae	Oncaeidae indet.	Vlm		21													
CRCO	Arthropoda	Crustacea	Copepoda		Cyclopoida	Oncaeidae	Triconia borealis	I-IV	1	128													128
CRCO	Arthropoda	Crustacea	Copepoda		Cyclopoida	Oncaeidae	Triconia borealis	V		48													
CRCO	Arthropoda	Crustacea	Copepoda		Cyclopoida	Oncaeidae	Triconia borealis	Vlf		64													32
CRCO	Arthropoda	Crustacea	Copepoda		Cyclopoida	Oncaeidae	Triconia borealis	Vlm		16													
CRCO	Arthropoda	Crustacea	Copepoda		Cyclopoida		Cyclopoida indet.	I-IV		347													
CRCO	Arthropoda	Crustacea	Copepoda		Harpacticoida	Ectinosomatidae	Microsetella norvegica	I-IV	1	1,840													160
CRCO	Arthropoda	Crustacea	Copepoda		Harpacticoida	Ectinosomatidae	Microsetella norvegica	V		531				16									128
CRCO	Arthropoda	Crustacea	Copepoda		Harpacticoida	Ectinosomatidae	Microsetella norvegica	Vlf		133													32
CRCO	Arthropoda	Crustacea	Copepoda		Harpacticoida	Ectinosomatidae	Microsetella norvegica	Vlm		48													
CRCO	Arthropoda	Crustacea	Copepoda				Copepoda indet.	Nauplius		91,384	48	144	11	140	24	144	148	224	133	224	32		6400
CRDE	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Decapoda	Crangonidae	Crangonidae indet.	Megalopa	1	5										4		1	
CRDE	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Decapoda	Crangonidae	Crangonidae indet.	Zoea		32													



Zooplankton total abundance data matrix for WSP Baffinland MEEMP, 2024.

Biologica Sample ID								Grand Total		mz24-033-016	mz24-033-017	mz24-033-018	mz24-033-019	mz24-033-020	mz24-033-021	mz24-033-022	mz24-033-023	mz24-033-024	mz24-033-025	mz24-033-026	mz24-033-027	mz24-033-028
Client Sample ID								ZH-01		ZH-01	ZH-01	ZH-02	ZH-02	ZH-03	ZH-03	ZH-04	ZH-05	ZH-06	ZH-4	ZH-5	ZH-6	ZV-01
Date Sampled								02-Aug-24		02-Aug-24	17-Aug-24	02-Aug-24	17-Aug-24	02-Aug-24	17-Aug-24	17-Aug-24	17-Aug-24	17-Aug-24	06-Aug-24	06-Aug-24	06-Aug-24	02-Aug-24
Groupcode	Phylum	Subphylum	Class	Subclass	Order	Family	Taxon	Total Unique Taxa	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)
URAP	Chordata	Tunicata	Appendicularia		Copelata	Oikopleuridae	Oikopleura sp.	1	2,435	96	24	149	12	96	20	4	8	5	112	288	32	10
Total Abundance:									248,287	4,364	2,512	3,776	1,192	2,489	1,402	1,446	2,854	1,768	7,278	13,112	8,067	14,028
Total Unique Taxa (species richness):								37		17	15	20	16	22	16	18	18	20	17	19	18	20
Freshwater Zooplankton Taxa:																						
CRCO	Arthropoda	Crustacea	Branchiopoda	Phyllopoda	Diplostraca	Bosminidae	Bosminidae indet.	1	44						4	8						
CRCO	Arthropoda	Crustacea	Branchiopoda	Phyllopoda	Diplostraca	Chydoridae	Chydorus sphaericus	1	12		8		4									
CRCO	Arthropoda	Crustacea	Branchiopoda	Phyllopoda	Diplostraca	Daphnidae	Daphnia sp.	1	24	16			4			4						
CRCO	Arthropoda	Crustacea	Copepoda		Cyclopoida	Cyclopidae	Cyclopidae indet.		643	176	120	43	24	48	72	48	48					64
CRCL	Arthropoda	Crustacea	Copepoda		Cyclopoida	Cyclopidae	Cyclopidae indet.		433	160	160	53	28	32								
CRCL	Arthropoda	Crustacea	Copepoda		Cyclopoida	Cyclopidae	Cyclops sp.	1	267	112	56	11	28	16	20	8	16					
CRCL	Arthropoda	Crustacea	Copepoda		Cyclopoida	Cyclopidae	Cyclops sp.		121	48	8	21	24	8	12							
Total Freshwater Zooplankton Abundance:									1,544	512	352	128	112	104	108	68	64					64
Total Unique Taxa (species richness):								4		2	2	1	3	1	2	3	1					1
MEMO/incidental taxa (Benthic):																						
MEMO	Arthropoda	Chelicerata	Arachnida	Acari			Acari indet.		8		8											
MEMO	Arthropoda	Crustacea	Hexanauplia	Copepoda	Harpacticoida		Harpacticoida indet.		59				8		12	12	16	11				
MEMO	Arthropoda	Crustacea	Hexanauplia	Copepoda	Harpacticoida		Harpacticoida indet.		64													
MEMO	Arthropoda	Crustacea	Hexanauplia	Copepoda	Harpacticoida		Harpacticoida indet.		12							12						
MEMO	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Gammaridae	Gammarus sp.		1								1					
MEMO	Arthropoda	Hexapoda	Insecta	Pterygota	Diptera	Chironomidae	Chironomidae indet.		8		8											
Biologica Sample ID								Grand Total		mz24-033-029	mz24-033-030	mz24-033-031	mz24-033-032	mz24-033-033	mz24-033-034	mz24-033-035	mz24-033-036	mz24-033-037	mz24-033-038	mz24-033-039	mz24-033-018_QA	mz24-033-031_QA
Client Sample ID								ZV-01		ZV-01	ZV-02	ZV-02	ZV-03	ZV-03	ZV-04	ZV-04	ZV-05	ZV-05	ZV-06	ZV-06	ZH-02_QA	ZV-02_QA
Date Sampled								17-Aug-24		17-Aug-24	02-Aug-24	17-Aug-24	02-Aug-24	17-Aug-24	02-Aug-24	17-Aug-24	02-Aug-24	17-Aug-24	02-Aug-24	17-Aug-24	02-Aug-24	17-Aug-24
Groupcode	Phylum	Subphylum	Class	Subclass	Order	Family	Taxon	Total Unique Taxa	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)
CHAE	Chaetognatha		Sagittoidea		Aphragmophora	Sagittidae	Parasagitta elegans	1	4,540	67		137	6	16	18	24	12	13	11	5	75	297
CHAE	Chaetognatha						Chaetognatha indet.		592		8		21	192	16	32	11	128	16	128		
CNHY	Cnidaria		Hydrozoa	Hydroidolina	Anthoathecata	Corymorphidae	Euphysa sp.	1	9												1	
CNHY	Cnidaria		Hydrozoa	Anthoathecata	Pandeidae		Pandeidae indet.	1	3													
CNHY	Cnidaria		Hydrozoa	Trachylinae	Narcomedusae	Solmundaeginidae	Aeginopsis laurentii	1	14	3		1		1	2	1		1		2		1
CNHY	Cnidaria		Hydrozoa	Trachylinae	Trachymedusae	Rhopalonematidae	Aglantha digitale	1	929	1	26	3	25	6	19	3	19	1	21	1	107	3
CNHY	Cnidaria		Hydrozoa				Hydrozoa indet.		639	64		64	21		32		64		16	64		96
CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Hyperiidae	Hyperiidae indet.		100													
CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Hyperiidae	Themisto libellula	1	197		4		1						1			44
CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Hyperiidae	Themisto sp.		18				2		4		1					
CRAM	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Uristidae	Onisimus sp.	1	56				1		2						3	
CRCI	Arthropoda	Crustacea	Thecostraca	Cirripedia			Balanomorpha indet.	1	515	32										64		64
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida	Acartiidae	Acartia longiremis	1	8													
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida	Acartiidae	Acartia sp.		16						16							
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida	Acartiidae	Acartia sp.		544									32			11	
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida	Acartiidae	Acartia sp.		11													
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida	Calanidae	Calanus finmarchicus	1	13												11	
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida	Calanidae	Calanus finmarchicus		25								1					
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida	Calanidae	Calanus glacialis	1	1,920			1	9		5		8		9		309	1
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida	Calanidae	Calanus glacialis		1,624	1		1	6		1		7		2	23	53	1
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida	Calanidae	Calanus glacialis		27													
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida	Calanidae	Calanus hyperboreus	1	3,642				14		20		20		13		480	
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida	Calanidae	Calanus hyperboreus		1,486				2		6		4		7		160	
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida	Calanidae	Calanus hyperboreus		81						1						11	
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida	Calanidae	Calanus sp.		6,480	96	10	18	20	14	14	8	16	18	14	16	555	18
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida	Centropagidae	Centropages sp.	1	16													
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida	Clausocalanidae	Microcalanus sp.	1	32													
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida	Clausocalanidae	Pseudocalanus sp. complex	1	5,133	64	24	32	21		32	32		64	32	32	213	64
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida	Clausocalanidae	Pseudocalanus sp. complex		309												43	
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida	Scolecitrichidae	Scolecitrichella sp.	1	4													
CRCO	Arthropoda	Crustacea	Copepoda		Calanoida		Calanoida indet.		13,591	224	120	256	107	96	272	288	160	288	128	96	960	160
CRCO	Arthropoda	Crustacea	Copepoda		Cyclopoida	Oithonidae	Oithona sp.	1	54,083	6368	872	9664	1685	7104	1216	8960	821	5952	1280	6528	75	8320
CRCO	Arthropoda	Crustacea	Copepoda		Cyclopoida	Oithonidae	Oithona sp.		2,741	800	64		149	352	96	224	32	224	16	224	128	224
CRCO	Arthropoda	Crustacea	Copepoda		Cyclopoida	Oithonidae	Oithona sp.		1,604	96	24	96	21	96	16	64	32	32	32	32	21	96
CRCO	Arthropoda	Crustacea	Copepoda		Cyclopoida	Oithonidae	Oithona sp.		137		8				16							
CRCO	Arthropoda	Crustacea	Copepoda		Cyclopoida	Oncaeidae	Oncaeidae indet.	1	8,107	288	752	128	960	224	560	352	619	512	896	320		288
CRCO	Arthropoda	Crustacea	Copepoda		Cyclopoida	Oncaeidae	Oncaeidae indet.		544	32			64	32	96	64	96		128	32		64
CRCO	Arthropoda	Crustacea	Copepoda		Cyclopoida	Oncaeidae	Oncaeidae indet.		21				21									
CRCO	Arthropoda	Crustacea	Copepoda		Cyclopoida	Oncaeidae	Triconia borealis	1	128													
CRCO	Arthropoda	Crustacea	Copepoda		Cyclopoida	Oncaeidae	Triconia borealis		48		16									32		
CRCO	Arthropoda	Crustacea	Copepoda		Cyclopoida	Oncaeidae	Triconia borealis		64						16				16			
CRCO	Arthropoda	Crustacea	Copepoda		Cyclopoida	Oncaeidae	Triconia borealis		16										16			
CRCO	Arthropoda	Crustacea	Copepoda		Cyclopoida		Cyclopoida indet.		347		48	128	43		16	32		32	16	32		96
CRCO	Arthropoda	Crustacea	Copepoda		Harpacticoida	Ectinosomatidae	Microsetella norvegica	1	1,840	192	48	352	128	224	112	384	32	128	16	64		320



Zooplankton total abundance data matrix for WSP Baffinland MEEMP, 2024.

Biologica Sample ID									Grand Total		mz24-033-016	mz24-033-017	mz24-033-018	mz24-033-019	mz24-033-020	mz24-033-021	mz24-033-022	mz24-033-023	mz24-033-024	mz24-033-025	mz24-033-026	mz24-033-027	mz24-033-028	
Client Sample ID											ZH-01	ZH-01	ZH-02	ZH-02	ZH-03	ZH-03	ZH-04	ZH-05	ZH-06	ZH-4	ZH-5	ZH-6	ZV-01	
Date Sampled											02-Aug-24	17-Aug-24	02-Aug-24	17-Aug-24	02-Aug-24	17-Aug-24	17-Aug-24	17-Aug-24	17-Aug-24	06-Aug-24	06-Aug-24	06-Aug-24	02-Aug-24	
Groupcode	Phylum	Subphylum	Class	Subclass	Order	Family	Taxon	Stage	Total Unique Taxa	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	Total Abundance (#/sample)	
CRCO	Arthropoda	Crustacea	Copepoda		Harpacticoida	Ectinosomatidae	Microsetella norvegica	V		531	32	40			128	48	32	11					64	
CRCO	Arthropoda	Crustacea	Copepoda		Harpacticoida	Ectinosomatidae	Microsetella norvegica	Vlf		133			32	43		16	11						32	
CRCO	Arthropoda	Crustacea	Copepoda		Harpacticoida	Ectinosomatidae	Microsetella norvegica	Vlm		48	32									16				
CRCO	Arthropoda	Crustacea	Copepoda				Copepoda indet.	Nauplius		91,384	7680	3328	11008	8192	8576	6912	9472	5376		8448	8064	6656	21	9728
CRDE	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Decapoda	Crangonidae	Crangonidae indet.	Megalopa	1	5														
CRDE	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Decapoda	Crangonidae	Crangonidae indet.	Zoea		32														
CRDE	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Decapoda	Crangonidae	Sabinea septemcarinata	Megalopa	1	1														
CRIS	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Isopoda		Isopoda indet.	Cryptoniscid larvae	1	191					32				32					
CRMY	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Mysida	Mysidae	Mysis sp.		1	2											1			
CRXX	Arthropoda	Crustacea					Crustacea indet.	Nauplius		56	32													
CTEN	Ctenophora		Nuda		Beroida	Beroidae	Beroe sp.		1	16	1						1							
CTEN	Ctenophora						Ctenophora indet.			41		1		1		1						3		
ECEC	Echinodermata	Echinozoa	Echinoidea				Echinoidea indet.	Echinopluteus	1	272		16					32	11		32	32		32	
ECOP	Echinodermata	Asterozoa	Ophiuroidea				Ophiuroidea indet.	Ophiopluteus	1	451		32		128		80		11		48				
EGGS							Egg/egg mass	Egg		18,227	768	384	1152	1792	768	1024	768	3840	1408	3456	2176		768	
MOBI	Mollusca		Bivalvia				Bivalvia indet.	Veliger	1	3,263	128	128	288	277	544	112	256	192	480	320	96		448	
MOGA	Mollusca		Gastropoda	Heterobranchia	Pteropoda	Clionidae	Clione limacina		1	79		1			1									
MOGA	Mollusca		Gastropoda	Heterobranchia	Pteropoda	Clionidae	Clione sp.			613	71	8	133	23	69	19	35					11		
MOGA	Mollusca		Gastropoda	Heterobranchia	Pteropoda	Limacinidae	Limacina helicina		1	51	1							1				21	37	
MOGA	Mollusca		Gastropoda	Heterobranchia	Pteropoda	Limacinidae	Limacina sp.			148								32		32	32			
MOGA	Mollusca		Gastropoda				Gastropoda indet.	Veliger		5,177	96	272	160	576	160	432	96	85	64	304	512	128	96	
NTEA	Nemertea						Nemertea indet.	Pilidium	1	4														
PIXX	Chordata	Vertebrata	Actinopteri	Teleostei	Gadiformes	Gadidae	Gadidae indet.	L	1	5									1			2		
PIXX	Chordata	Vertebrata	Actinopteri	Teleostei	Perciformes	Ammodytidae	Ammodytes sp.	L	1	5												1		
PIXX	Chordata	Vertebrata	Actinopteri	Teleostei	Perciformes	Stichaeidae	Stichaeidae indet.	L	1	1														
POSE	Annelida		Polychaeta	Sedentaria	Sabellida	Oweniidae	Oweniidae indet.	Mitraria	1	205			32		32		96	21		16				
POXX	Annelida		Polychaeta				Polychaeta indet.	Metatrochophore		104									64		32		32	
POXX	Annelida		Polychaeta				Polychaeta indet.	Trochophore		112					96					16				
URAP	Chordata	Tunicata	Appendicularia		Copelata	Fritillariidae	Fritillaria sp.		1	12,443	1312	72	1216	149	1024	160	1184	117	1088	272	1440	43	1152	
URAP	Chordata	Tunicata	Appendicularia		Copelata	Oikopleuridae	Oikopleura sp.		1	2,435	224	22	160	34	224	47	384	44	288	23	128	171	192	
Total Abundance:										248,287	18,705	6,331	25,062	14,545	20,011	11,423	22,856	11,706	19,269	15,319	18,771	3,680	22,694	
Total Unique Taxa (species richness):									37		15	16	13	16	13	19	15	17	15	19	16	19	15	
Freshwater Zooplankton Taxa:																								
CRCO	Arthropoda	Crustacea	Branchiopoda	Phyllopoda	Diplostraca	Bosminidae	Bosminidae indet.		1	44							32							
CRCO	Arthropoda	Crustacea	Branchiopoda	Phyllopoda	Diplostraca	Chydoridae	Chydorus sphaericus		1	12														
CRCO	Arthropoda	Crustacea	Branchiopoda	Phyllopoda	Diplostraca	Daphnidae	Daphnia sp.		1	24														
CRCO	Arthropoda	Crustacea	Copepoda		Cyclopoida	Cyclopidae	Cyclopidae indet.	I-IV		643												64		
CRCL	Arthropoda	Crustacea	Copepoda		Cyclopoida	Cyclopidae	Cyclopidae indet.	V		433												75		
CRCL	Arthropoda	Crustacea	Copepoda		Cyclopoida	Cyclopidae	Cyclops sp.	Vlf	1	267												32		
CRCL	Arthropoda	Crustacea	Copepoda		Cyclopoida	Cyclopidae	Cyclops sp.	Vlm		121														
Total Freshwater Zooplankton Abundance:										1,544							32					171		
Total Unique Taxa (species richness):									4								1					1		
MEMO/incidental taxa (Benthic):																								
MEMO	Arthropoda	Chelicerata	Arachnida	Acari			Acari indet.	L		8														
MEMO	Arthropoda	Crustacea	Hexanauplia	Copepoda	Harpacticoida		Harpacticoida indet.	I-IV		59														
MEMO	Arthropoda	Crustacea	Hexanauplia	Copepoda	Harpacticoida		Harpacticoida indet.	V		64	32								32					
MEMO	Arthropoda	Crustacea	Hexanauplia	Copepoda	Harpacticoida		Harpacticoida indet.	Vlf		12														
MEMO	Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Gammaridae	Gammarus sp.	A		1														
MEMO	Arthropoda	Hexapoda	Insecta	Pterygota	Diptera	Chironomidae	Chironomidae indet.	L		8														

APPENDIX 8D-3

Zooplankton Laboratory Methods



Marine Zooplankton Enumeration and Identification Methods

Client: WSP

Project: Baffinland MEEMP

Sample Inventory

Sample arrival: 30-Aug-24

Number of samples: 24

Number of jars: 24

Field screen size: Horizontal Tows = 250 μ m

Vertical Tows = 64 μ m

Biologica project number: mz24-033

Upon arrival, the samples were examined and double-checked against the chain of custody to ensure that (1) all samples were accounted for, and (2) each sample had the appropriate number of jars as indicated on the COC. Any discrepancies were reported to the client and were resolved before further sample handling. Samples were assigned a unique internal identification number and stored in ascending order in the sample storage area. For processing, samples were analyzed in water and then transferred into 10% Formalin for storage.

Sample Processing

Marine zooplankton samples were analyzed in 2-4 fractions as described below. All subsamples are obtained using a Folsom Splitter. Among the subsamples, a total count of a minimum of 300 organisms were identified.

- (1) A "URL" fraction (Unique, Large, and Rare) comprised of unique, large and rare organisms. These tend to have low abundance. The whole sample is scanned and these organisms are removed for identification. Ichthyoplankton are included in this fraction unless they have very high abundances.
- (2) One to three fraction(s) comprised of all remaining organisms in the sample. The number of fractions is determined by the size distribution and abundances of organisms in the sample. Counts are included in the fraction which most accurately captures the per-taxon abundances. All taxa (and stages/size class) are identified in only one fraction per sample. Fractions are assigned with the smallest split listed as "Fraction 1" and largest split is listed as the last fraction.

The fractions were analyzed through a stereo microscope at 10–40x magnification. All organisms were identified by taxonomic experts to the lowest taxonomic level using a compound microscope (100–400x magnification), appropriate dissection tools, and standard taxonomic references. For copepods, the stage of development was also recorded (copepodite stages I–V) as is the sex for mature individuals (copepod stage VI).

In addition, all taxa, including copepods, were assigned a size class consistent with sizing of the Zooplankton Taxonomy Laboratory at the Institute of Ocean Sciences (Sidney, BC). These size stages are explained in Table 1.

Table 1. Definition of size class stages

Size Class Code	Size (mm)
S0	< 1.0
S1	1.0 - < 5.0
S2	5.0 - < 10.0
S3	10.0 - < 15.0
S4	15.0 - < 20.0
S5	20.0 - < 25.0
S6	25.0 - < 30.0
S7	30.0 - < 35.0
S8	35.0 - < 40.0
S9	40.0 - < 45.0
S10	45.0 - < 50.0
S11	50.0 - < 55.0
S12	55.0 - < 60.0

Zooplankton were identified to species wherever possible, although immature copepods lack differentiating features required for identification beyond order (e.g., Calanoida, Cyclopoida, or Harpacticoida). All identifications were performed using taxonomic references and collaborations with external experts, where necessary.

Table 2. Summary of zooplankton samples processed for WSP Baffinland MEEMP, 2024.

Client Sample ID	Date Sampled	Tow	Biologica Sample ID	Fraction	Split	Specimens Counted*
ZH-01	02-Aug-24	Horizontal	mz24-033-016	Fraction 1	1/16	304
				Whole	Whole	12
ZH-01	17-Aug-24	Horizontal	mz24-033-017	Fraction 1	1/8	354
				Fraction 2	1/4	6
				Whole	Whole	8
ZH-02	02-Aug-24	Horizontal	mz24-033-018	Fraction 1	3/32	365
				Whole	Whole	11
ZH-02	17-Aug-24	Horizontal	mz24-033-019	Fraction 1	1/4	309
				Whole	Whole	56
ZH-03	02-Aug-24	Horizontal	mz24-033-020	Fraction 1	1/8	320
				Whole	Whole	17
ZH-03	17-Aug-24	Horizontal	mz24-033-021	Fraction 1	1/4	350
				Whole	Whole	86
ZH-04	17-Aug-24	Horizontal	mz24-033-022	Fraction 1	1/4	361
				Whole	Whole	50
ZH-05	17-Aug-24	Horizontal	mz24-033-023	Fraction 1	1/8	351
				Whole	Whole	62
ZH-06	17-Aug-24	Horizontal	mz24-033-024	Fraction 1	3/16	308
				Whole	Whole	67
ZH-4	06-Aug-24	Horizontal	mz24-033-025	Fraction 1	1/32	172
				Fraction 2	1/16	105
				Fraction 3	1/8	4

Client Sample ID	Date Sampled	Tow	Biologica Sample ID	Fraction	Split	Specimens Counted*
				Whole	Whole	30
ZH-5	06-Aug-24	Horizontal	mz24-033-026	Fraction 1	1/32	407
				Whole	Whole	56
ZH-6	06-Aug-24	Horizontal	mz24-033-027	Fraction 1	1/32	248
				Whole	Whole	67
ZV-01	02-Aug-24	Vertical	mz24-033-028	Fraction 1	1/32	225
				Fraction 2	1/128	50
				Whole	Whole	108
ZV-01	17-Aug-24	Vertical	mz24-033-029	Fraction 1	1/32	320
				Fraction 2	1/128	60
				Whole	Whole	17
ZV-02	02-Aug-24	Vertical	mz24-033-030	Fraction 1	1/8	320
				Fraction 2	1/128	26
				Whole	Whole	59
ZV-02	17-Aug-24	Vertical	mz24-033-031	Fraction 1	1/32	402
				Fraction 2	1/128	86
				Whole	Whole	38
ZV-03	02-Aug-24	Vertical	mz24-033-032	Fraction 1	3/64	209
				Fraction 2	1/128	64
				Whole	Whole	102
ZV-03	17-Aug-24	Vertical	mz24-033-033	Fraction 1	1/32	332
				Fraction 2	1/128	67
				Whole	Whole	43
ZV-04	02-Aug-24	Vertical	mz24-033-034	Fraction 1	1/16	211
				Fraction 2	1/128	54
				Whole	Whole	111
ZV-04	17-Aug-24	Vertical	mz24-033-035	Fraction 1	1/32	394
				Fraction 2	1/128	74
				Whole	Whole	40
ZV-05	02-Aug-24	Vertical	mz24-033-036	Fraction 1	3/32	224
				Fraction 2	1/128	42
				Whole	Whole	101
ZV-05	17-Aug-24	Vertical	mz24-033-037	Fraction 1	1/32	293
				Fraction 2	1/128	66
				Whole	Whole	37
ZV-06	02-Aug-24	Vertical	mz24-033-038	Fraction 1	1/16	232
				Fraction 2	1/128	63
				Whole	Whole	87
ZV-06	17-Aug-24	Vertical	mz24-033-039	Fraction 1	1/32	309
				Fraction 2	1/128	52
				Whole	Whole	51

*Eggs and MEMO organisms not included in raw specimen count.

*Freshwater specimens included in raw specimen count.

QA/QC

Ten percent (n=2) of samples were reanalyzed to assess subsampling accuracy and consistency of enumeration. The sample was chosen at random and processed at different times to reduce counting and identification bias. The results of this assessment are reported in Table 3.

Table 3. Summary of taxonomic QA/QC results for WSP Baffinland MEEMP, 2024.

Biologica Sample ID	Client Sample ID	Total Abundance (Original Replicate)	Total Abundance (QA Replicate)	Percent Agreement
mz24-033-031	ZV-02	25,062	22,694	90.55%
mz24-033-018	ZH-02	3,904	3,851	98.63%
Average				94.59%

Percent Agreement:

$\{100 - [(difference\ in\ abundance\ between\ samples / total\ abundance\ of\ original\ sample) \times 100]\}$ %

Data

Taxonomic data were recorded in Biologica's custom database. Results were provided to the WSP project manager in Excel spreadsheets via email.

Methodological and Taxonomic References

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APPENDIX 8E-1

Record of Risk Status

Phylum Class/Order	Family	Subfamily	Taxa	Project Component	Flagged	Results of Independent Verification	Risk Category	Watch List or Trigger List?	Relevant Ecoregions	Distribution References
Annelida										
Polychaeta/Sedentaria	Cirratulidae	-	Chaetozone anasima	Benthic Infauna	Yes	TBD	Low Risk	Watch List	-	25, 26
Polychaeta/Terebellida	Terebellidae	Terebellinae	Paramphitrite birulai*	Benthic Infauna	Yes (On Watch List)	N/A	Low Risk	Remain on Watchlist	-	1, 2, 15, 16, 17
Arthropoda										
Malacostraca/Decapoda	Pandalidae	-	Pandalus montagui	Quadrat Surveys	No	N/A	No Risk	N/A	1, 4, 5	1, 2, 3, 4
Brachiopoda										
Rhynchonellata/Rhynchonellida	Hemithiridae	-	Hemithiris psittacea	Incidentals	No	N/A	No Risk	N/A	1, 4, 5, 6, 8, 9	1, 2, 27, 28, 29, 30, 31, 32, 33
Bryophyta										
-/-	-	-	Bryophyta indet.**	Quadrat Surveys	Yes	TBD	TBD	TBD	1, 2, 3, 4, 5, 6, 7, 8, 9	2
Bryopsida/Hypnales	Amblysteigaceae	-	Pseudocalliergon brevifolium	Incidentals	No	N/A	No Risk	N/A	1, 2, 3, 5, 6, 7, 8, 9	2, 8, 38
Chlorophyta										
Chlorophyceae/Acrosiphoniales	Acrosiphoniaceae	-	Acrosiphonia sp. 3GWS	Macroalgae Collection, NextGen Sequencing	No	N/A	No Risk	N/A	5	5, 6
Chlorophyceae/Acrosiphoniales	Acrosiphoniaceae	-	Acrosiphonia sp. 6GWS	NextGen Sequencing	No	N/A	No Risk	N/A	5	5, 6, 7
Chlorophyceae/Acrosiphoniales	Acrosiphoniaceae	-	Acrosiphonia sp. 8GWS	Macroalgae Collection, NextGen Sequencing	No	N/A	No Risk	N/A	1, 5	7, 8
Ulvophyceae/Cladophorales	Cladophoraceae	-	Chaetomorpha brachygona	NextGen Sequencing	No	N/A	No Risk	N/A	-	35
Ulvophyceae/Cladophorales	Cladophoraceae	-	Chaetomorpha sp. 3GWS	NextGen Sequencing	Yes	N/A	Low Risk	Watch List	-	8
Ulvophyceae/Cladophorales	Cladophoraceae	-	Rhizoclonium riparium	NextGen Sequencing	No	N/A	No Risk	N/A	1, 2, 5, 6, 8, 9	1, 2, 8, 10, 12, 13, 14, 18, 23
Ulvophyceae/Ulotrichales	Ulotrichaceae	-	Ulothrix flacca	Macroalgae Collection, NextGen Sequencing	No	N/A	No Risk	N/A	1, 2, 3, 4, 5, 6, 8, 9	1, 2, 5, 9, 10, 11, 12, 13, 14, 15
Ulvophyceae/Ulotrichales	Ulotrichaceae	-	Ulothrix subflaccida	NextGen Sequencing	No	N/A	No Risk	N/A	1, 2, 3, 5, 6, 8, 9	2, 10, 13, 14, 23
Ulvophyceae/Ulotrichales	Ulotrichaceae	-	Ulothrix sp. 1Nunavut	Macroalgae Collection	No	N/A	No Risk	N/A	-	-
Ulvophyceae/Ulotrichales	Ulotrichaceae	-	Urospora penicilliformis	NextGen Sequencing	No	N/A	No Risk	N/A	1, 2, 4, 5, 6, 8, 9	1, 2, 10, 12, 13, 14, 15, 23
Ulvophyceae/Ulvales	Ulvaceae	-	Ulvaria splendens	NextGen Sequencing	No	N/A	No Risk	N/A	4, 5, 6	1, 2, 5, 10
Heterokontophyla										
Bacillariophyceae / Naviculales	Berkeleyaceae	-	Berkeleya sp.	Macroalgae Collection	No	N/A	No Risk	N/A	1, 3, 5, 8	1, 2, 13, 15, 16, 17, 18, 19
Bacillariophyceae / Naviculales	Berkeleyaceae	-	Parlibellus sp.	Macroalgae Collection	No	N/A	No Risk	N/A	2	20
Mollusca										
Cephalopoda/Sepiida	-	-	Sepiolina indet.	Incidentals	No	N/A	No Risk	N/A	1, 2, 3, 4, 5, 6, 7, 8, 9	1, 2, 27, 29, 34
Ochrophyta										
Phaeophyceae/Desmarestiales	Desmarestiaceae	-	Desmarestia ligulata	NextGen Sequencing	Yes	N/A	Low Risk	Watch List	-	1, 2
Phaeophyceae/Desmarestiales	Desmarestiaceae	-	Desmarestia sp. 1Arctic	Macroalgae Collection, NextGen Sequencing	No	N/A	No Risk	N/A	1	18
Phaeophyceae/Ectocarpales	Acinetosporaceae	-	Acinetosporaceae_gen sp. 1AP2016	NextGen Sequencing	No	N/A	No Risk	N/A	1, 4	6, 18
Phaeophyceae/Ectocarpales	Chordariaceae	-	Asceoseiropbila sp. 1violodora	Macroalgae Collection	No	N/A	No Risk	N/A	-	-
Phaeophyceae/Ectocarpales	Chordariaceae	-	Chordaria chordaeiformis	NextGen Sequencing	No	N/A	No Risk	N/A	1, 4, 5, 7	5, 7, 8, 10, 14
Phaeophyceae/Ectocarpales	Chordariaceae	-	Chordaria flagelliformis	NextGen Sequencing	No	N/A	No Risk	N/A	1, 2, 3, 4, 5, 6, 8, 9	1, 2, 5, 8, 10, 11, 12, 13, 14, 23
Phaeophyceae/Ectocarpales	Chordariaceae	-	Elachista sp. 1Arctic	NextGen Sequencing	No	N/A	No Risk	N/A	5	12
Phaeophyceae/Ectocarpales	Chordariaceae	-	Litosiphon sp.1Arctic	Macroalgae Collection	No	N/A	No Risk	N/A	-	-
Phaeophyceae/Ectocarpales	Chordariaceae	-	Microspongium sp. 4GWS	NextGen Sequencing	No	N/A	No Risk	N/A	-	6, 8
Phaeophyceae/Ectocarpales	Chordariaceae	-	Polycerea borealis	NextGen Sequencing	No	N/A	No Risk	N/A	4	8, 10, 12, 36
Phaeophyceae/Ectocarpales	Chordariaceae	-	Punctaria sp.	NextGen Sequencing	No	N/A	No Risk	N/A	1, 2, 3, 4, 5, 6, 8, 9	1, 2, 5, 7, 8, 10, 13, 14, 15, 16, 18,
Phaeophyceae/Ectocarpales	Chordariaceae	-	Saundersella doloresiae	NextGen Sequencing	No	N/A	No Risk	N/A	4	10, 12, 36
Phaeophyceae/Ectocarpales	Ectocarpaceae	-	Ectocarpus sp.	NextGen Sequencing	No	N/A	No Risk	N/A	1, 3, 4, 5, 6, 8, 9	1, 2, 8, 10, 13, 14, 18, 23
Phaeophyceae/Ectocarpales	Ectocarpaceae	-	Ectocarpus sp. 1siliculosus	NextGen Sequencing	No	N/A	No Risk	N/A	4, 5	2, 8
Phaeophyceae/Ectocarpales	Scytosiphonaceae	-	Petalonia arctica	NextGen Sequencing	No	N/A	No Risk	N/A	4, 5	8, 10, 12, 36
Phaeophyceae/Ectocarpales	Scytosiphonaceae	-	Petalonia fascia	NextGen Sequencing	No	N/A	No Risk	N/A	1, 2, 3, 4, 5, 6, 8, 9	1, 2, 5, 7, 8, 10, 13, 14, 15, 23
Phaeophyceae/Ectocarpales	Scytosiphonaceae	-	Planosiphon filiformis	NextGen Sequencing	No	N/A	No Risk	N/A	4, 5	1, 2, 7, 8, 10, 12
Phaeophyceae/Ectocarpales	Scytosiphonaceae	-	Scytosiphon shibazakiorum	Macroalgae Collection, NextGen Sequencing	No	N/A	No Risk	N/A	5	10, 12, 21, 22
Phaeophyceae/Ectocarpales	Scytosiphonaceae	-	Scytosiphon sp. 1crust	NextGen Sequencing	No	N/A	No Risk	N/A	5	6, 8
Phaeophyceae/Ralfsiales	Ralfsiaceae	-	Ralfsia sp.	Macroalgae Collection	No	N/A	No Risk	N/A	1, 2, 3, 4, 5, 6, 8, 9	1, 2, 5, 10, 11, 12, 13, 14, 15, 23
Phaeophyceae/Ralfsiales	Ralfsiaceae	-	Ralfsia sp. 1Arctic	NextGen Sequencing	No	N/A	No Risk	N/A	-	-
Phaeophyceae/Sphacelariales	Stypocaulaceae	-	Protohalopteris radicans	NextGen Sequencing	No	N/A	No Risk	N/A	4, 5, 6, 8	1, 2, 5, 8, 10, 11, 13, 14, 23
Phaeophyceae/Tilopteridales	Halosiphonaceae	-	Halosiphon sp. 2tomentosus	NextGen Sequencing	No	N/A	No Risk	N/A	4, 5	5, 7, 8
Phaeophyceae/Tilopteridales	Phyllariaceae	-	Saccorhiza dermatodea	Macroalgae Collection	No	N/A	No Risk	N/A	1, 2, 3, 5, 6, 8, 9	1, 2, 10, 13, 14, 23
Phaeophyceae/Tilopteridales	Tilopteraceae	-	Haplospora globosa	NextGen Sequencing	No	N/A	No Risk	N/A	1, 2, 4, 5, 8, 9	1, 2, 5, 7, 8, 10, 13, 16, 23
Phaeophyceae/Tilopteridales	Tilopteraceae	-	Tilopteridalean sp. 2GWS	NextGen Sequencing	No	N/A	No Risk	N/A	1	7, 8
Phaeophyceae/Tilopteridales	Tilopteraceae	-	Tilopteridalean sp. 3GWS	NextGen Sequencing	No	N/A	No Risk	N/A	-	7, 8
Rhodophyta										
Floriideophyceae/Acrochaetiales	Acrochaetiaceae	-	Grania efflorescens	NextGen Sequencing	No	N/A	No Risk	N/A	1, 2, 3, 5, 6, 8, 9	1, 2, 10, 13, 14, 15, 23
Floriideophyceae/Ahnfeltiales	Ahnfeltiaceae	-	Ahnfeltia plicata	Offset Habitat Monitoring	No	N/A	No Risk	N/A	1, 2, 4, 5, 8, 9	1, 2, 5, 13, 14, 15, 16, 18, 23
Floriideophyceae/Ceramiales	Ceramiaeae	Ceramioideae	Anthamion cf. sparsum	NextGen Sequencing	Yes	N/A	Low Risk	Watch List	-	37
Floriideophyceae/Ceramiales	Rhodomelaceae	-	Polysiphonia kapraunii	NextGen Sequencing	Yes	N/A	Low Risk	Watch List	-	10
Floriideophyceae/Ceramiales	Rhodomelaceae	-	Rhodomela sibirica	Macroalgae Collection	No	N/A	No Risk	N/A	1, 3, 5	1, 2, 7, 10, 12
Floriideophyceae/Corallinales	Lithophyllaceae	Lithophyllaceae	Titanoderma pustulatum	NextGen Sequencing	No	N/A	No Risk	N/A	-	1, 2, 12
Floriideophyceae/Hapalidiales	Hapalidiaceae	-	Boreolithothamnion lemniaeae	Macroalgae Collection	No	N/A	No Risk	N/A	1, 4, 9	8, 10, 12, 24
Floriideophyceae/Hapalidiales	Hapalidiaceae	-	Leptophytum foecundum	Macroalgae Collection	No	N/A	No Risk	N/A	1, 2, 3, 4, 6, 8, 9	1, 2, 7, 10, 13, 18, 23
Floriideophyceae/Hapalidiales	Hapalidiaceae	-	Leptophytum laeve	Macroalgae Collection	No	N/A	No Risk	N/A	1, 2, 3, 4, 5, 6, 8, 9	1, 2, 10, 13, 23

Notes: Taxa identified to the lowest practical taxonomic level; indet. = indeterminate (taxa which could not be identified beyond the taxonomic level listed); sp.=species.

Ecoregion are delineated in Spalding et al. 2007 and herein refer to 1. Baffin Bay-Davis Strait; 2. Lancaster Sound; 3. High Arctic Archipelago; 4. Northern Labrador; 5. Hudson Complex; 6. West Greenland Shelf; 7. North Greenland Shelf; 8. East Greenland Shelf; 9. Beaufort-Amundson-Viscount Melville-Queen Maud

Taxa distribution references: 1. WoRMS 2025; 2. GBIF 2025; 3. OBIS 2011; 4. Roy et al. 2015; 5. Saunders and McDevitt 2013; 6. NLM 2024; 7. Bringlee 2018; 8. BOLD 2025; 9. Charette et al. 2020; 10. Guiry and Guiry 2025; 11. Ellis and Wilce 1961; 12. Saunders 2023; 13. Mathieson et al. 2010; 14. Lund 1959; 15. Wilce and Dunton 2014; 16. Cross et al. 1987; 17. Snow et al. 1987; 18. Küpper et al. 2016; 19. Lobban 1984; 20. Conlan and Kivlek 2005; 21. McDevitt and Saunders 2017; 22. Hoshino et al. 2021; 23. Lee 1980; 24. Gabrielson et al. 2023; 25. Donner and Blake 2006; 26. Blake 2022; 27. Miller and Nozares 2024; 28. Goldsmit 2016; 29. Cusson 2018; 30. Chapman and Kostylev 2008; 31. NSC 2006; 32. Goldsmit et al. 2014; 33. Dale and Leontowich 2006; 34. DFO 201925; 35. Blair 1983; 36. Saunders 2024; 37. Brooks and Krumhansl 2023; 38. Tropicus 2025.

All taxa cross-referenced with NIS/AIS resources: Fofonoff et al. 2018, ISSG 2025, Costello et al. 2025, Molnar et al. 2008, Casas-Monroy et al. 2014.

*Paramphitrite birulai is on the Watch List. Specimens sent to specialist were not able to be resolved and the taxa was left on the Watch List as a precaution. Specimens will be sent again to the specialist if new developments in the taxonomy occur

**Bryophyta indet., cf. Punctaria latifolia, and cf. Stictyosiphon soniferus are pending verifications from 2022 surveys and were not observed in 2024

APPENDIX 8E-2

Record of Independent Verifications

Original ID	2018 Samples	2018 ID Verification (Lab/Inst. Name)*	2019 Samples	2019 Sample Locations	Sent for Verification (in 2020)	2019 ID Verification (Lab/Inst. Name)	2020 Samples	2020 Sample Locations	Sent for Verification (in 2021)?	2020 ID Verification (Lab/Inst. Name)	2021 Samples	2021 Sample Locations	Sent for Verification (in 2022)	2021 ID Verification (Lab/Inst. Name)
<i>Polydora cornuta</i>	Yes	<i>Polydora</i> sp. (Laval)	None				None				None			
<i>Pseudofabricia aberrans</i>	Yes	<i>Pseudofabricia</i> sp. nr. <i>aberrans</i> (Biologica) <i>Manayunkia aestruania</i> (Laval)	Yes	SNW-4, SNE-3 through SNE-5, SNE-8	Yes	<i>Pseudofabricia</i> sp. nr. <i>aberrans</i> (Biologica) <i>Fabricia stellaris</i> (Laval)	Yes	SNW-4, SNE-2, SNE-5, SNE-8 through SNE-11, SNE-13 through SNE-15	Yes	<i>Pseudofabricia</i> sp. nr. <i>aberrans</i> (Biologica) <i>Fabricia stellaris</i> (Laval)	Yes	SNW-3	Yes	Family Fabriciidae (CCDB, Columbia Science) <i>Pseudofabricia</i> sp. nr. <i>aberrans</i> (EcoAnalysts Inc.)**
<i>Rhodine bitorquata</i>	Yes	<i>Rhodine loveni</i> (Biologica) <i>Rhodine gracilior</i> (Laval)	Yes				None				None			
<i>Rhodine</i> sp.	Yes		Yes	BNE-8	Yes	<i>Rhodine</i> sp.	None				None			
Styelidae indet.	Yes	<i>Polycarpa fibrosa</i> (Biologica)	None				Yes		No		Yes		No	
<i>Ammodytes</i> sp.	Yes	<i>Ammodytes</i> sp.	None				Yes	Incidental	Yes	<i>Ammodytes hexapterus</i> (CCDB)	None			
<i>Eteone spilotus</i>	Yes	<i>Eteone</i> sp. (Biologica and Laval) <i>Eteone longa</i> (Potential ID from Laval)	Multiple <i>Eteone</i> species		No		None				None			
<i>Monocorophium insidiosum</i>	Yes	<i>Monocorophium insidiosum</i> (Biologica) <i>Crassikorophium bonelli</i> (Laval)	None				None				None			
<i>Monocorophium</i> sp.	Yes	<i>Monocorophium</i> sp. (Biologica) <i>Crassikorophium bonelli</i> (Laval)	Yes	SE-2, SE-4, SW-2, SW-6, SNE-7	Yes	<i>Crassikorophium</i> sp. (Laval)	None				None			
<i>Mya arenaria</i> <i>Mya truncata</i> <i>Mya</i> sp.	Yes	<i>Mya truncata</i> (Biologica) <i>Mya</i> sp. (Biologica) Imparientia (superorder) (Biologica)	None				None				None			
<i>Polycarpa pomaria</i>	Yes	<i>Polycarpa fibrosa</i> (Biologica)	None				None				None			
<i>Marenzelleria viridis</i> <i>Marenzelleria</i> sp.	No		Yes	SE-2, SW-2,	Yes	<i>Marenzelleria viridis</i> (Laval)	Yes	SW-11 through SW-14	Yes	<i>Marenzelleria viridis</i> (Laval) <i>Marenzelleria wireni</i> , <i>Marenzelleria arctica</i> , <i>Marenzelleria neglecta</i> (Radashevsky)***	Yes (<i>Marenzelleria</i> sp.)	SW-2, SW-3, Centre M Basket	Yes	<i>Marenzelleria wireni</i> (Radashevsky)
<i>Sosane</i> sp. nr. <i>Wireni</i>	No		Yes	SNE-6,	Yes	<i>Sosane wireni</i> (Laval)	Yes	SNW-9, SNE-10, SNE-12	Yes	<i>Sosane wireni</i> (Laval)	None			
<i>Oncousoeia</i> sp.	No		Yes	SNE-5	Yes	<i>Tubuliporina</i> (Laval)	None				None			
<i>Euphilomedes</i> sp.	No		Yes	Fish Stomachs	No	<i>Philomedes</i> sp. (Biologica)	None				None			
<i>Nereimyra aphroditoides</i>	Former name		Yes	Archive	Yes	<i>Nereimyra</i> sp. (Biologica)	Yes		No		Yes		No	
<i>Streptospinigera niuqtuut</i>	Former name		Yes	Archive	Yes	<i>Streptospinigera niuqtuut</i> (Biologica)	Yes		No		None			
<i>Harmothoe propinqua</i>	No		None				Yes	SW-6	Yes	<i>Harmothoe extenuata</i> (Laval)	None			
<i>Harmothoe viridis</i>	No		None				Yes	SE-11	Yes	<i>Harmothoe imbricata</i> (Biologica and Laval)	None			
<i>Hesperonoe</i> sp.	No		None				Yes	SNE-7	Yes	<i>Hesperonoe</i> sp. (Biologica) <i>Byigides</i> sp. (Laval)	None			
<i>Ampharete petersenae</i>	No		None				Yes	SW-3, SW-7, SW-10, SW-11, SW-13 through SW-15, SE-5 through SE-13, SE-15, SNW-7	Yes	<i>Ampharete petersenae</i> (Laval)	Yes	SE-1, SE-3, SW-4	Yes	<i>Ampharete petersenae</i> (Parapar)****
<i>Paramphitrite birulai</i>	No		None				Yes	SW-8, SW-10	Yes	<i>Amphitrite birulai</i> (Laval)	Yes	SE-1	Yes	<i>Paramphitrite birulai</i> (Parapar)****
<i>Crassikorophium</i> sp.	No		None				None				Yes	SE-3, Centre S Basket 1, Centre M Basket 1	Yes	Inconclusive/ Corophiidae indet. (CCDB) <i>Crassikorophium clarencense</i> (Friday Harbor)
<i>Diastylis biplicatus</i>	No		None				None				Yes	SW-4	Yes	<i>Diastylis</i> sp. (Laval)
<i>Tricellaria</i> sp.	No		None				None				Yes	SNE-2	Yes	Candidae indet. (Laval)
Buguloidea indet	No		None				None				None			
Bryophyta indet	No		None				None				None			
cf. <i>Punctaria latifolia</i>	No		None				None				None			
cf. <i>Stictyosiphon soriferus</i>	No		None				None				None			
<i>Chaetozone anasima</i>	No		None				None				None			

Note: Grey cells indicate no action (i.e., no specimen in samples, therefore none sent for verification)

* Biologica: Biologica Environmental Services; Laval: The Benthic Ecology Lab at Université Laval; CCDB: Canadian Centre for DNA Barcoding at the University of Guelph, Radashevsky: Dr. Vasily Radashevsky of the Russian National Scientific Center of Marine Biology; Parapar: Dr. Julio Parapar, Departamento de Biología, Universidade da Coruña; Friday Harbor: Dr. Craig Staudé at Friday Harbour Laboratories at the University of Washington

**EcoAnalysts and Columbia Science examined specimens from 2018 and 2019 collections

*** Radashevsky examined specimens from 2017-2020, no specimens matched *M. viridis*, at least one specimen was conclusively identified as *M. wireni* , a high probability of *M. arctica* was given for specimens from Phillips Creek, other specimens were a high probability of *M. wireni* and/or *M. neglecta*

**** Dr. Parapar concluded that specimens matched the most up to date descriptions for *Ampharete petersenae* and *Paramphitrite birulai*, however the identification was not positive based on missing features and limited taxonomic data for both genera

Original ID	2022 Samples	2022 Sample Locations	Sent for Verification (in 2023)	2022 ID Verification (Lab/Inst. Name)	2023 Samples	2023 Sample Locations	Sent for Verification (in 2024)	2023 ID Verification (Lab/Inst. Name)	2024 Samples	2024 Sample Locations	Sent for Verification (in 2025)	2024 ID Verification (Lab/Inst. Name)
<i>Polydora cornuta</i>	None				None				None			
<i>Pseudofabricia aberrans</i>	Yes (<i>Pseudofabricia</i> sp.)	SNW-2, SNW-3, SNW-4	No	N/A	Yes (<i>Pseudofabricia</i> sp. nr. <i>aberrans</i>)	SNE-2, SNE-4, SNE-5, SNE-7, SNE-10, SNE-13, SNE-15, SNW-5,	No	N/A	Yes (<i>Pseudofabricia</i> sp. nr. <i>aberrans</i>)	SCV-2	No	N/A
<i>Rhodine bitorquata</i>	None				None				None			
<i>Rhodine</i> sp.	Yes	SW-4	No	N/A	None				None			
Styelidae indet.	None				Yes (Styelidae indet., <i>Polycarpa fibrosa</i>	East M Plate, SE-5, SNW-7	No	N/A	None			
<i>Ammodytes</i> sp.	Yes	Incidental	No	N/A	Yes	ZH-02, ZH-03, Fish Stomachs, SW-11	No	N/A	Yes	Zooplankton	No	N/A
<i>Eteone spilotus</i>	None				None				None			
<i>Monocorophium insidiosum</i>	None				None				None			
<i>Monocorophium</i> sp.	None				None				None			
<i>Mya arenaria</i> <i>Mya truncata</i> <i>Mya</i> sp.	Yes	Multiple Stations	No	N/A	Yes	Multiple Stations	No	N/A	Yes (<i>Mya</i> sp. and <i>Mya truncata</i>)	SCV-2, SE-18-1, SW-2, SW-3, SW-4, Settlement Substrates	No	N/A
<i>Polycarpa pomaria</i>	None				None				None			
<i>Marenzelleria viridis</i> <i>Marenzelleria</i> sp.	Yes (<i>Marenzelleria</i> sp.)	SW-2, SW-3	No	N/A	Yes (<i>Marenzelleria</i> sp.)	SCV-2, SW-11, SW-12	No	N/A	None			
<i>Sosane</i> sp. nr. <i>Wireni</i>	None				Yes (<i>Sosane wireni</i>)	SNE-9	No	N/A	None			
<i>Oncousoecia</i> sp.	None				None				None			
<i>Euphilomedes</i> sp.	None				None				None			
<i>Nereimyra aphroditoides</i>	None				Yes	Multiple Stations	No	N/A	Yes	SCV-2, SE-18-1, SNW-1, SW-1, SW-2, SW-3, SW-4, Settlement Substrates	No	N/A
<i>Streptospinigera niuqtuut</i>	Yes	SNE-1	No	N/A	Yes	SE18-1	No	N/A	Yes	SW-4	No	N/A
<i>Harmothoe propinqua</i>	Yes	SE-3	No	N/A	None				Yes	Settlement Substrates	No	N/A
<i>Harmothoe viridis</i>	None				None				None			
<i>Hesperanoe</i> sp.	Yes	SE-2, SW-2, SW-3, SW-4, SNW-1	Yes	Pending	Yes	SNE-3, SNE-4	Yes	Pending	None			
<i>Ampharete petersenae</i>	None				Yes	SE-1, SE-11, SE-13, SNW-1, SNW-15, SW-1SW-2, SW-3, SW-5, SW-10, SW-12, SW-13	No	N/A	Yes	SCV-2, SE18-1, SNW-1, SW-4	No	N/A
<i>Paramphitrite birulai</i>	None				Yes	SE-15, SE18-1, SW-1, SW-4, SW-12	No	N/A	Yes	SE18-1, SNW-1	No	N/A
<i>Crassikorophium</i> sp.	Yes (<i>C. clarensense</i>)	SW-1, SW-2	No	N/A	Yes (<i>Crassikorophium</i> sp. and <i>Crassikorophium clarensense</i>)	West M Plate, SE-15, SW-2, SW-12, SW-13, SW-15	No	N/A	None			
<i>Diastylodes biplicatus</i>	None				None				None			
<i>Tricellaria</i> sp.	None				None				None			
Buguloidea indet	Yes	SW-4	Yes	Pending	None				None			
Bryophyta indet	Yes	Q21	Yes	Pending	None				None			
cf. <i>Punctaria latifolia</i>	Yes	Q5 Multi-year plate, Q6 Multi-year plate, Q14 Multi-year plate, Centre-S Multi-year plate, West D Annual plate, West-D annual basket	Yes	Pending	None				None			
cf. <i>Stictyosiphon soriferus</i>	Yes	West-M Multi-Year Basket	Yes	Pending	None				None			
<i>Chaetozone anasima</i>	None				None				Yes	SCV-1	Yes	Pending

Note: Grey cells indicate no action (i.e., no specimen in samples, therefore none sent for verification)

* Biologica: Biologica Environmental Services; Laval: The Benthic Ecology Lab at Université Laval; CCDB: Canadian Centre for DNA Barcoding at the University of Guelph, Radashevsky: Dr. Vasily Radashevsky of the Russian National Scientific Center of Marine Biology; Parapar: Dr. Julio Parapar, Departamento de Biología, L the University of Washington

**EcoAnalysts and Columbia Science examined specimens from 2018 and 2019 collections

*** Radashevsky examined specimens from 2017-2020, no specimens matched *M. viridis* , at least one specimen was conclusively identified as *M. wireni* , a high probability of *M. arctica* was given for specimens from Phillips Creek, other specimens were a high probability of *M. wireni* and/or *M. neglecta*

**** Dr. Parapar concluded that specimens matched the most up to date descriptions for *Ampharete petersenae* and *Paramphitrite birulai*, however the identification was not positive based on missing features and limited taxonomic data for both genera

APPENDIX 8E-3

Program Watch List

Appendix 8E-3
Program Watch List

Phylum					Year Added	Year Removed
Class/Order	Family	Subfamily	Taxa	Risk Category		
Annelida						
Polychaeta/Phyllodocida	Polynoidae	Polynoinae	<i>Hesperonoe</i> sp.	Low Risk	2020	N/A
Polychaeta/Sabellida	Fabriciidae	-	<i>Pseudofabricia</i> sp. nr. <i>aberrans</i>	No Risk	2018	2021
Polychaeta/Spionida	Spionidae	-	<i>Marenzelleria viridis</i> (<i>Marenzelleria</i> sp.)*	High Risk	2019	N/A
Polychaeta/Terebellida	Ampharetidae	Ampharetinae	<i>Ampharete petersenae</i>	No Risk	2020	2021
Polychaeta/Terebellida	Ampharetidae	Ampharetinae	<i>Sosane wireni</i>	No Risk	2019	2023
Polychaeta/Terebellida	Cirratulidae	-	<i>Chaetozone anasima</i>	Low Risk	2024	N/A
Polychaeta/Terebellida	Terebellidae	-	<i>Amphitrite birulai</i> / <i>Paramphitrite birulai</i> **	Low Risk	2020	N/A
Arthropoda						
Malacostraca/Amphipoda	Corophiidae	Corophiinae	<i>Crassikorophium</i> sp.***	Low Risk	2018**	N/A
Malacostraca/Amphipoda	Corophiidae	Corophiinae	<i>Monocorophium</i> sp.***	High Risk	2018**	N/A
Chlorophyta						
Ulvophyceae/Cladophorales	Cladophoraceae	-	<i>Chaetomorpha</i> sp. 3GWS	Low Risk	2024	N/A
Chordata						
Actinopterygii/Perciformes	Ammodytidae	-	<i>Ammodytes hexapterus</i>	Low Risk	2020	N/A
Ochrophyta						
Phaeophyceae/Desmarestiales	Desmarestiaceae	-	<i>Desmarestia ligulata</i>	Low Risk	2024	N/A
Phaeophyceae/Ectocarpales	Chordariaceae	-	<i>Punctaria latifolia</i>	Low Risk	2022	N/A
Phaeophyceae/Ectocarpales	Chordariaceae	-	<i>Stictyosiphon soriferus</i>	Low Risk	2022	N/A
Rhodophyta						
Floriophyceae/Ceramiales	Ceramiceae	Ceramioideae	<i>Antithamnion</i> cf. <i>sparsum</i>	Low Risk	2024	N/A
Floriophyceae/Ceramiales	Rhodomelaceae	-	<i>Polysiphonia kapraunii</i>	Low Risk	2024	N/A

**Marenzelleria viridis* and *Marenzelleria* species, other than *M. wireni* and *M. arctica*

** Specimens examined by Dr. Julio Parapar were determined to match the description of *Paramphitrite birulai*, however there is uncertainty in the taxonomic description that indicate that these specimens may be from a related, undescribed genus

*** *Monocorophium* and *Crassikorophium* sp. were previously identified during baseline surveys, but flagged for review in 2018

