Biodiversity Monitoring Stations for Benthic Megafauna in the Disko Fan Conservation Area

Ellen Kenchington, Camille Lirette, Margaret Treble, Kevin Jacobs

Fisheries and Oceans Canada
Maritimes Region
Bedford Institute of Oceanography
PO Box 1006
Dartmouth, Nova Scotia
B2Y 4A2

2022

Canadian Technical Report of
Fisheries and Aquatic Sciences 3499

Fisheries and Oceans Canada | Pêches et Océans Canada

Canada

Canadian Technical Report of Fisheries and Aquatic Sciences

Technical reports contain scientific and technical information that contributes to existing knowledge but which is not normally appropriate for primary literature. Technical reports are directed primarily toward a worldwide audience and have an international distribution. No restriction is placed on subject matter and the series reflects the broad interests and policies of Fisheries and Oceans Canada, namely, fisheries and aquatic sciences.

Technical reports may be cited as full publications. The correct citation appears above the abstract of each report. Each report is abstracted in the data base *Aquatic Sciences and Fisheries Abstracts*.

Technical reports are produced regionally but are numbered nationally. Requests for individual reports will be filled by the issuing establishment listed on the front cover and title page.

Numbers 1-456 in this series were issued as Technical Reports of the Fisheries Research Board of Canada. Numbers 457-714 were issued as Department of the Environment, Fisheries and Marine Service, Research and Development Directorate Technical Reports. Numbers 715-924 were issued as Department of Fisheries and Environment, Fisheries and Marine Service Technical Reports. The current series name was changed with report number 925.

Rapport technique canadien des sciences halieutiques et aquatiques

Les rapports techniques contiennent des renseignements scientifiques et techniques qui constituent une contribution aux connaissances actuelles, mais qui ne sont pas normalement appropriés pour la publication dans un journal scientifique. Les rapports techniques sont destinés essentiellement à un public international et ils sont distribués à cet échelon. II n'y a aucune restriction quant au sujet; de fait, la série reflète la vaste gamme des intérêts et des politiques de Pêches et Océans Canada, c'est-à-dire les sciences halieutiques et aquatiques.

Les rapports techniques peuvent être cités comme des publications à part entière. Le titre exact figure au-dessus du résumé de chaque rapport. Les rapports techniques sont résumés dans la base de données *Résumés des sciences aquatiques et halieutiques.*

Les rapports techniques sont produits à l'échelon régional, mais numérotés à l'échelon national. Les demandes de rapports seront satisfaites par l'établissement auteur dont le nom figure sur la couverture et la page du titre.

Les numéros 1 à 456 de cette série ont été publiés à titre de Rapports techniques de l'Office des recherches sur les pêcheries du Canada. Les numéros 457 à 714 sont parus à titre de Rapports techniques de la Direction générale de la recherche et du développement, Service des pêches et de la mer, ministère de l'Environnement. Les numéros 715 à 924 ont été publiés à titre de Rapports techniques du Service des pêches et de la mer, ministère des Pêches et de l'Environnement. Le nom actuel de la série a été établi lors de la parution du numéro 925.

Canadian Technical Report
of Fisheries and Aquatic Sciences 3499

2022

Biodiversity Monitoring Stations for Benthic Megafauna in the Disko Fan Conservation Area

by

Ellen Kenchington[1], Camille Lirette[1], Margaret Treble[1,2], Kevin Jacobs[1,2]

[1] Ocean and Ecosystem Sciences Division
Fisheries and Oceans Canada
Bedford Institute of Oceanography
PO Box 1006
Dartmouth, Nova Scotia
B2Y 4A2

[2] Arctic and Aquatic Research Division
Fisheries and Oceans Canada
Freshwater Institute
501 University Crescent
Winnipeg, Manitoba
R3T 2N6

Cat. No. Fs97-6/3499E-PDF ISBN: 978-0-660-44498-7 ISSN 1488-5379

Correct citation for this publication:

Kenchington, E., Lirette, C., Treble, M., and Jacobs, K. 2022. Biodiversity Monitoring Stations for Benthic Megafauna in the Disko Fan Conservation Area. Can. Tech. Rep. Fish. Aquat. Sci. 3499: v + 75 p.

TABLE OF CONTENTS

ABSTRACT

Kenchington, E., Lirette, C., Treble, M., and Jacobs, K. 2022. Biodiversity Monitoring Stations for Benthic Megafauna in the Disko Fan Conservation Area. Can. Tech. Rep. Fish. Aquat. Sci. 3499: v + 75 p.

The Artic Council's Circumpolar Biodiversity Monitoring Plan (CBMP) is a pan-Arctic, long-term, integrated biodiversity monitoring plan. Fisheries and Oceans Canada has established benthic biodiversity monitoring sites at four monitoring stations in or adjacent to the Disko Fan Conservation Area, a marine refuge in the lower Baffin Bay, following the CBMP. Photo transects were collected with a drop camera system for the purposes of providing baseline data for future monitoring of benthic invertebrate megafauna in this sensitive region, and for facilitating pan-Arctic comparisons of benthic communities. Species from ten phyla (Annelida, Arthropoda, Brachiopoda, Bryozoa, Chordata, Cnidaria, Echinodermata, Mollusca, Nemertea, Porifera) were identified from the imagery. The average abundance (N), number of taxa (S), Margalef *d*, Shannon Diversity and Simpson's Index with their Hill equivalents, and Pielou's Evenness, were calculated for each transect. Bray-Curtis similarity in community composition among transects was calculated from log(x+1)-transformed standardized abundance. UPGMA cluster analysis identified three significantly different depth-related clades. S, N and *d* were significantly negatively correlated with depth.

RÉSUMÉ

Kenchington, E., Lirette, C., Treble, M., and Jacobs, K. 2022. Biodiversity Monitoring Stations for Benthic Megafauna in the Disko Fan Conservation Area. Can. Tech. Rep. Fish. Aquat. Sci. 3499: v + 75 p.

Le Plan de surveillance de la biodiversité marine circumpolaire (PSBC) du Conseil de l'Arctique est un plan de surveillance intégrée à long terme de la biodiversité à l'échelle de l'Arctique. Conformément à ce plan, Pêches et Océans Canada a établi des sites de surveillance de la biodiversité benthique à quatre stations de surveillance dans la zone de conservation Disko Fan, un refuge marin situé dans la partie inférieure de la baie de Baffin. Des transects photographiques ont été réalisés à l'aide d'un système d'appareil photo suspendu dans le but de fournir des données de référence pour la surveillance future de la mégafaune invertébrée benthique dans cette région sensible, ainsi que de faciliter les comparaisons des communautés benthiques à l'échelle de l'Arctique. Des espèces de dix phyla (Annelida, Arthropoda, Brachiopoda, Bryozoa, Chordata, Cnidaria, Echinodermata, Mollusca, Nemertea, Porifera) ont été identifiées à partir de l'imagerie. L'abondance moyen (N), le nombre de taxons (S), l'indice *d* de Margalef, l'indice de diversité de Shannon et l'indice de Simpson l'indice avec leur Hill nombres équivalent, et de régularité de Pielou, ont été calculés pour chaque transect. L'indice de similarité de Bray-Curtis dans la composition de la communauté entre les transects a été calculée à partir de l'abondance normalisée transformée en log(x+1). L'analyse par grappes UPGMA a permis d'identifier trois clades significativement différents liés à la profondeur. Une corrélation négative importante a été observée entre S, N et *d* et la profondeur.

INTRODUCTION

The Arctic Council is the leading intergovernmental forum promoting cooperation, coordination and interaction among the Arctic States, Arctic Indigenous peoples and other Arctic inhabitants on issues of sustainable development and environmental protection in the Arctic. Canada is a member of the Arctic Council along with seven other Arctic nations. The Arctic Council's Conservation of Arctic Flora and Fauna (CAFF) working group established the Arctic Marine Biodiversity Monitoring Plan to facilitate the collection of baseline data in this sensitive region (Gill et al., 2011). "The monitoring plan is a pan-Arctic, long-term, integrated biodiversity monitoring plan produced by CAFF's Circumpolar Biodiversity Monitoring Program (CBMP)" (Circumpolar Biodiversity Monitoring Program Marine Steering Group, 2015). The goals of the program include coordinating the specific parameters measured, methodologies, indicators and sampling designs used by nations conducting Arctic science, to ensure comparability and support evidence-based decision making. Here, we report on data collected from the eastern Canadian Arctic on benthic megafaunal communities, in support of the CAFF for the purposes of providing baseline data for future monitoring of this sensitive region and of facilitating pan-Arctic comparisons of benthic communities.

The lower Baffin Bay and Davis Strait have rich coral and sponge communities, many of which have been protected in Canada from the harmful effects of bottom-contact fishing under the Policy for Managing the Impacts of Fishing on Sensitive Benthic Areas (cf. Hiltz et al., 2018). This policy was a major driver in assembling the available data on megafaunal communities dominated by corals and sponges in the eastern Canadian Arctic and in other bioregions in Canada. In 2010, through a peer-reviewed advisory process, Fisheries and Oceans Canada (DFO) systematically identified areas where high concentrations of large and small gorgonian corals, sea pens and sponges occurred in this and other bioregions (DFO, 2010; Kenchington et al., 2010). Records were obtained from DFO's trawl surveys which conduct depth-stratified random surveys in each bioregion, extending into frontier areas that had not experienced significant fishing activity. That information was supplemented by data from commercial vessels, and collectively compiled distributional data on these species throughout the broader region of the northwest Atlantic and the Gulf of St. Lawrence for the first time. This process was repeated in 2016 using updated trawl survey data on the coral and sponge bycatch and supplemented with more extensive analyses of the distributions through species distribution modeling (Knudby et al., 2013; Beazley et al., 2016; Kenchington et al., 2016; DFO, 2017). The locations of significant concentrations of corals and sponges, identified as concentrations of sensitive benthic species, were further evaluated as sensitive benthic areas taking into account their interaction with fishing activity (Koen-Alonso et al., 2018). The fishing activity between 2005-2014 in this bioregion impacted 2% and 2.3% of the area covered by significant concentrations of large and small gorgonian corals respectively, and 4.2% of sea pen and 5.6% of sponge significant concentrations. These percentages are relatively low compared to impacts of up to 41.5% of the identified concentrations spatially overlapping with fishing in other bioregions (Koen-Alonso et al., 2018).

Despite this baseline knowledge on the distributions of the species, the at-sea identifications of the corals and sponges in the research vessel catches was poorly resolved for some taxa creating large knowledge gaps (Kenchington et al., 2016). Sponges were only recorded to phylum, and sea pens were identified to order or genus with only three species identified: *Anthoptilum grandiflorum*, *Halipteris finmarchica*[1], and *Pennatula grandis*[2]. The identification of the gorgonian corals was more resolved. Five species of large gorgonian corals were identified: *Acanthogorgia armata*, *Paragorgia arborea, Keratoisis ornata*[3], *Paramuricea placomus, Primnoa resedaeformis*, along with an unknown *Paramuricea* sp., and small gorgonian corals were all identified to species: *Acanella arbuscula, Anthothela* cf. *grandiflora* and *Radicipes gracilis*. Knowledge of the species composition of the coral and sponge habitats is critical information for predicting community-level responses to climate change.

Since that time the sponges from the eastern Canadian Arctic became a focus of investigation and consequently have shown the greatest knowledge advance (Tompkins et al., 2017; Baker et al., 2018a, b; Murillo et al., 2018; Bouchard Marmen et al., 2019, 2021; Dinn et al., 2019, 2020). Murillo et al. (2018) identified 93 different sponge taxa from the trawl bycatch, with 79% identified to species, of which 2 were new to science, 1 recorded for the first time in the North Atlantic, and 26 others representing new distributional records. Murillo et al. (2018) further undertook an ecological analysis of their data and identified five distinct sponge species assemblages from the region. Two of the Baffin Bay-Davis Strait assemblages were characterized by large structure-forming astrophorids: one, with arctic species, (*Geodia hentscheli* and *Stelletta raphidiophora*) found at mid-water depths in Baffin Bay, and the other, characterized by boreal species, was found deeper, south of Davis Strait along the sill and in the Hatton Basin region. *Geodia atlantica, G. barretti* and *G. macandrewii* together with *Stryphnus fortis* and *Stelletta normani* were considered indicator species of those boreal sponge grounds. Another assemblage characterized by glass and carnivorous sponges was found along the continental slope of western Baffin Bay and was typified by *Chondrocladia* (*Chondrocladia*) *grandis*, *Bathydorus* sp. nov. and *Lissodendoryx* (*Lissodendoryx*) *complicata*. The authors suggested that those species would be good candidate target indicator species for future sponge community monitoring (cf. DFO, 2021). Taxonomic distinctness of the sponge assemblages was higher north of Cape Dyer and south of Davis Strait, whereas the number of species reached a maximum in Davis Strait, which represents the southern distribution limit of the arctic sponge fauna along the slope in this region (Murillo et al., 2018). Most recently, the microbiome and chemical diversities in three deep-sea sponge species from this region (*Geodia barretti*, *Stryphnus fortis*, and *Weberella bursa*) were characterized between depths of 244 m and 1476 m (Steffen et al., 2022). The results showed that sponge samples from different water masses over these depths harboured unique microbial assemblages and displayed differences in bioactive compounds within and between species, separating out at about

[1] *Halipteris finmarchica* is now known as *Balticina finmarchica*

[2] *Pennatula grandis* is now known as *Ptillela grandis*

[3] *Keratoisis ornata* is now known as *Keratoisis grayi*

1000 m, the approximate position of the oceanic front between the Irminger Current water and the deeper Labrador Sea Water. Therefore, cryptic biodiversity is expected to occur within sponge species with depth, associated with water mass position.

Baker et al. (2018c) were the first to report on the epifaunal taxa across all megafaunal species in the eastern Canadian Arctic, extracting data from underwater imagery collected with a drop camera deployed along transects in the Disko Fan Conservation Area (DFCA). They identified the megafauna > 1 cm from their imagery (Appendix A) which was collected from photo transects established as biodiversity monitoring transects (see below) following the CBMP. The DFCA is one of three marine refuges (also known as other effective area-based conservation measures; OECMs) in the eastern Canadian Arctic (DFO, 2019). The DFCA was identified as an Ecologically and Biologically Significant Area in 2011 (DFO, 2011) based on oceanographic characteristics, its function as an overwintering habitat for narwhal, and the presence of several species of cold-water coral (DFO, 2010; DFO, 2017). Thus, these photo transects also serve as baseline data for monitoring within the DFCA.

OVERVIEW OF THE ARCTIC MARINE BIODIVERSITY MONITORING PLAN SAMPLING APPROACH RELEVANT TO THIS STUDY

Data in this report were collected and subsequently processed and analyzed following standards outlined in the Arctic Marine Biodiversity Monitoring Plan for benthic communities produced by the CAFF's CBMP (Gill et al., 2011). In this plan the benthos (excluding fish and plankton (which are addressed separately in their report) are divided into three Focal Ecosystem Components (FECs): 1) macrofauna and megafauna, 2) macroalgae (coastal), and 3) meiofauna and microbes (Table 1). Macrofauna are defined as infauna > 1 cm and are always sampled by quantitative grab with the sediments passed over a 1-cm sieve. Megafauna includes both sessile and motile epifauna > 1 cm (or larger than 4 mm, depending on the size of the semi-quantitative trawl net mesh used), and overlaps with the macrofauna size range at its lower end. Table 2 shows the essential, recommended, and suggested gear, sampling scheme, and recommended sample analysis for megafauna in the CBMP.

Establishment of CBMP Monitoring Sites in the Eastern Canadian Arctic

In support of its commitment to the Arctic Council, in 2012 DFO conducted benthic photo transects complemented by ship-based sediment and water column sampling in the eastern Canadian Arctic (Baffin Bay and the Davis Strait), following the methodology outlined in the CBMP (cf. Baker et al., 2018c; Jacobs et al., 2022). The mission took place on board the CCGS *Henry Larsen* (mission code: LAR2012003) from 13 September to 15 October, 2012 with collaboration from the University of Quebec at Rimouski and Laval University. This mission undertook research as far north as Lancaster Sound (Figure 1). The site in the DFCA contained significant concentrations of cold-water corals and sponges (Kenchington et al., 2010, 2016, 2018a), and associated conservation measures prohibit all bottom-contact fishing activities (Government of Canada, 2018), making them good candidates for monitoring the impacts of climate change.

Table 1. Summary of the priority parameters and biodiversity indicators for three Focal Ecosystem Component (FEC) categories of the benthos. [Adapted from the CBMP (Gill et al., 2011).]

Category	FEC	Key Parameters	Indicators
Benthic fauna & microbes	Macrofauna & megafauna	- Abundance - Biomass (wet weight) - Species composition - Barcoding, other genomics	- Abundance; community composition - Biomass; community composition - Size-frequency distribution (for selected, mainly pan-Arctic species) - Diversity indices (e.g. Shannon, Simpson) - Distribution
Benthic fauna & microbes	Meiofauna & microbes	- Abundance - Biomass (wet weight) - Species composition - Barcoding, other genomics	- Abundance; community composition/structure - Biomass; community composition - Diversity indices (e.g. Shannon, Simpson) - Distribution
Benthic flora	Macroalgae	- Abundance - Biomass (wet weight) - Species composition - Barcoding, other genomics	- Abundance; community composition - Biomass; community composition - Diversity indices (e.g. Shannon, Simpson) - Distribution

Table 2. Essential, recommended, and suggested gear, sampling scheme, and sample analysis for megafauna. [Adapted from the CBMP (Gill et al., 2011).]

	Essential	Recommended	Suggested
Gear	Semi-quantitative trawl types and associated gear metadata	Under-water imaging (video or still photography) transects to complement trawl samples Preserve subsamples in 95% non-denatured molecular-grade ethanol for barcoding and genomics	
Sampling scheme	One trawl per station Substrate type and grain size from visual inspection of trawl catch, from imagery, or from accompanying grab samples Station depth	Water properties (salinity, temperature) from CTD casts Water-column chlorophyll (either from direct measurements or from satellite data) Separate grab sample for quantitative grain-size determination	Information on other drivers (shipping, development, harvest) acquired from appropriate sources
Sample analysis	Species-level detail desirable. Abundance counts and biomass (wet-weight from fresh or preserved samples) Vouchering of specimens, archiving of samples	Genomics/barcoding to confirm identifications and examine pan-Arctic distribution patterns	Size-frequency distribution of select target species of regional and/or pan-Arctic relevance, invasive species, and species vulnerable to physical stress from trawling

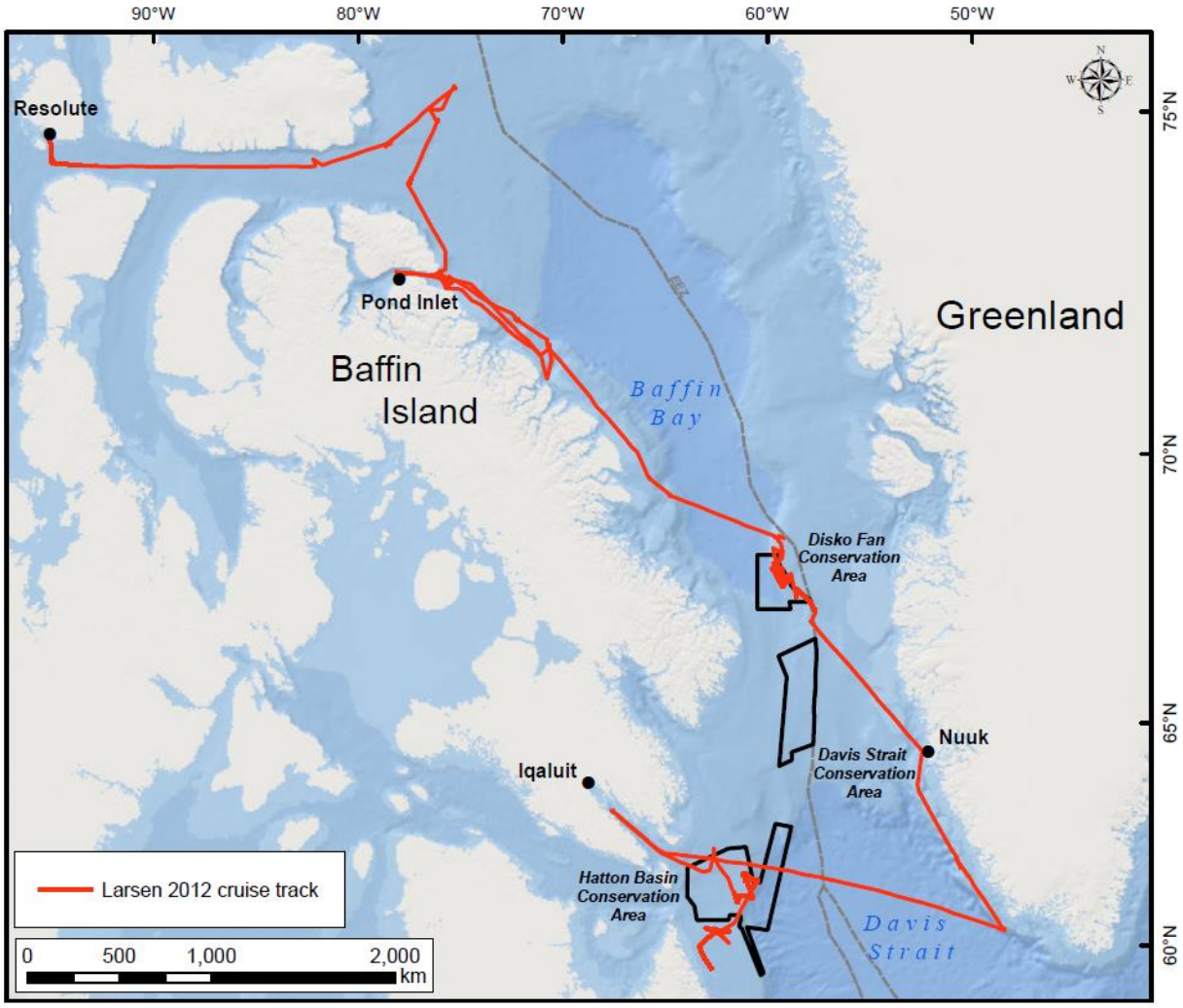


Figure 1. Cruise track of the 2012 CCGS *Henry Larsen* mission (red) carried out in the eastern Arctic. Closed areas (black outline) show the Disko Fan Conservation Area (DFCA) and the other conservation areas in the region put in place by DFO.

Bottom-contact fishing was first restricted in the DFCA in 1998 to minimize impacts on food availability and winter habitat of narwhal (Hiltz et al., 2018). After the discovery of large gorgonian corals in the area, the conservation objectives were expanded and the area was named the Narwhal Overwintering and Coldwater Coral Zone. A prohibition on all bottom-contact gear fishing for Greenland halibut was instituted in 2008. In 2017 the site was renamed the Disko Fan Conservation Area, with associated area-based fishing closures, contributing to Canada's Marine Conservation Targets. The DFCA is recognized as an important over-wintering habitat for narwhal (*Monodon monoceros*). This is supported by stable isotope, stomach content and diving behaviour analyses, which indicated the diet of narwhal is largely dependent on benthic organisms and habitats (Peklova et al., 2012; Laidre and Heide-Jørgensen, 2005; Laidre et al., 2003; Watt et al.,

2013, 2015, 2017). Understanding the benthic habitats that support these higher trophic levels is a critical element in the protection and conservation of species such as narwhals.

Standardized biomass of sensitive benthic megafaunal species (large and small gorgonian corals, sea pens, large-sized sponges) estimated from DFO research vessel trawl surveys conducted throughout the region (in Canadian waters) were previously reported in Kenchington et al. (2016 and 2018a). Species distribution models produced from those data interpolated the probability of occurrence to unsampled areas (Beazley et al., 2016, 2019a; Murillo et al., 2018, 2019). Environmental variables for the region have also been compiled (Beazley et al., 2019b).

As noted, the megafauna > 1 cm observed on the photo transects (Table 2) were previously described by Baker et al. (2018c), and all photos and associated metadata have been made public in an open access data repository (Kenchington et al., 2018b) and on the CAFF Arctic Biodiversity Data Service data portal. The authors compiled all of the abundance data by transect and taxon and provided photos of each taxon, however, they did not calculate the diversity indices that are needed as indicators for megafauna under the CBMP (Table 1). Here we analyze the data presented in Baker et al. (2018c) (Appendix A) and report on those indices along with the average abundance of the megafauna and community composition based on abundance, to complete the information for megafauna required under the CBMP recommendations (Table 2). Taxon abundance by transect will be made public on Mendeley Data https://data.mendeley.com/ in an updated version of Kenchington et al. (2018b).

Meiofauna and macrofauna, identified from sediment samples obtained from Van Veen grabs and box corers collected in 2012, along with an analysis of the environments at each station are reported elsewhere (Jacobs et al., 2022), and with this report, complete the documentation of the FECs at the monitoring stations in the DFCA.

METHODS

STATION SELECTION

Four areas at the DFCA site (Figure 2) were identified to meet the requirements for benthic monitoring stations under the CAFF-CBMP. The sampling stations included north-south and east-west gradients across the continental shelf, including key transition areas such as fishing activity, ice cover, water masses, productivity, and depth (Jacobs et al., 2022). The depth of the analyzed photo transects were ~400 m, ~600 m and ~ 1000 m (Figures 2, 3). Table 3 provides a summary of the location and depth range of each of the seven photo-transects analyzed. Station BB1_B sampled all three depth strata (Figure 3), while BB1_C sampled the 400 m and 1000 m strata (Table 3). Stations BB1_A and BB1_D each had only one transect processed. Stations BB1_A and BB1_C have three and one unprocessed photo transects respectively (Figure 2). Photos from those transects are archived at DFO (Bedford Institute of Oceanography) and are available upon request.

BB1_D lies just outside the boundaries of the DFCA (Figure 2), and provides a contrast for fishing effort.

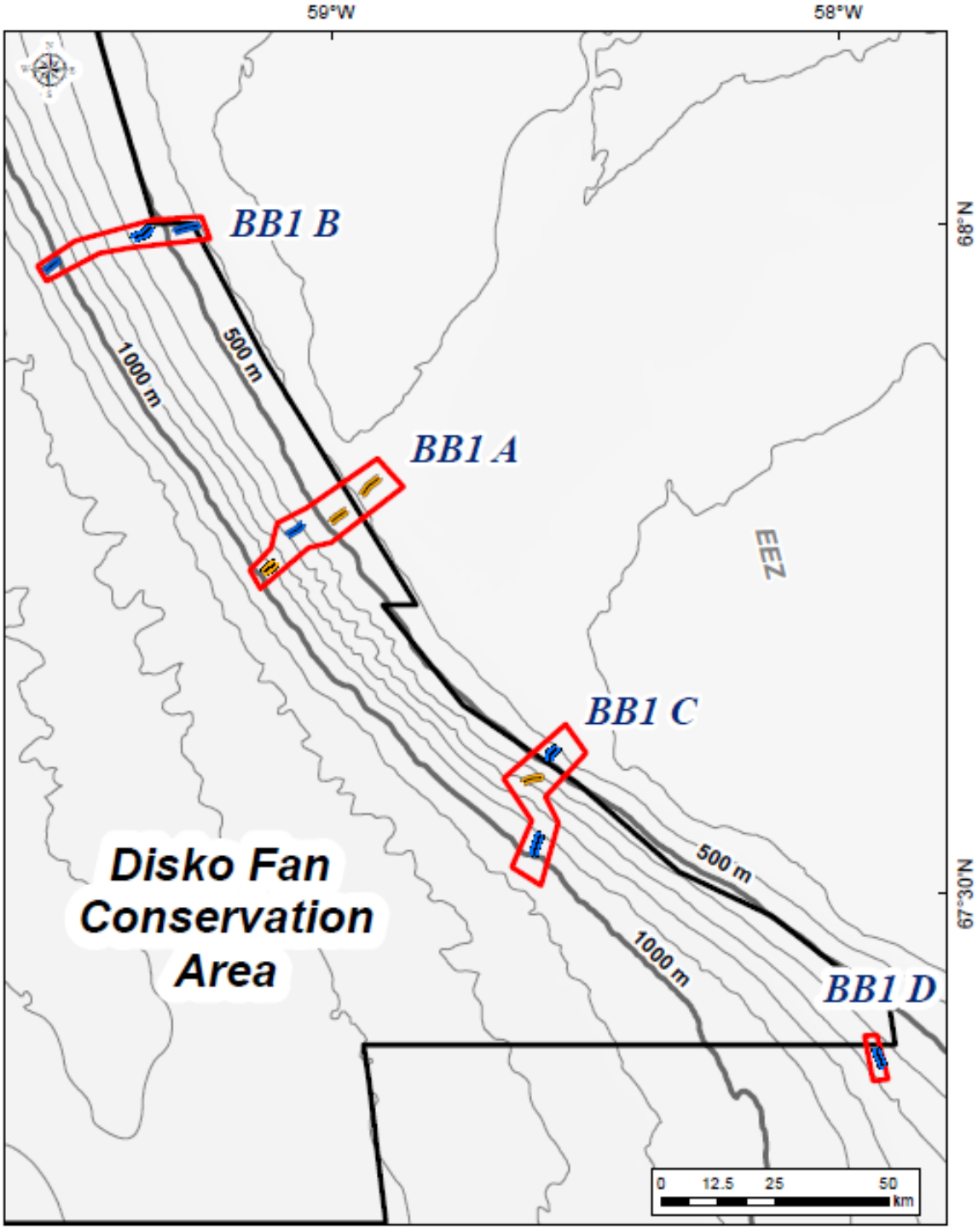


Figure 2. Locations of processed photo transects (blue lines) at the four stations (BB1_A-D) in or adjacent to the Disko Fan Conservation Area (DFCA). Photo transects that were completed but not analyzed are indicated in orange. Red lines indicate buffer zones placed around the stations (see Appendix F) that also encompass sediment sampling locations (Jacobs et al., 2022).

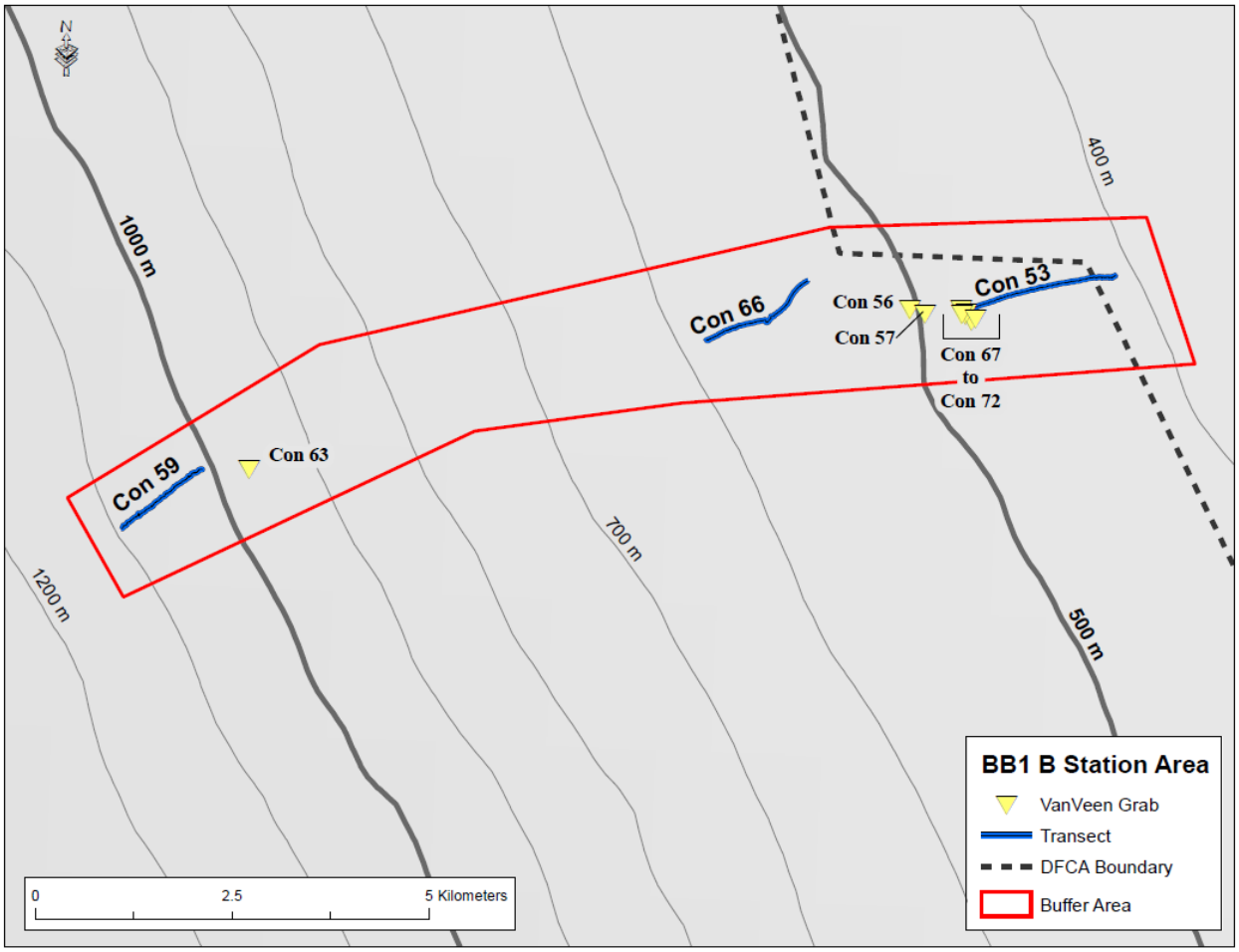


Figure 3. Station BB1_B illustrating the positioning of the photo transects (blue lines) along a depth gradient and in relation to sediment sampling (Jacobs et al., 2022), all labelled by Consecutive Operation Numbers (Con). The red line indicates a buffer zone around the sampling sites (see Appendix F for buffer co-ordinates and close-ups of all sampling stations).

DATA COMPILATION

All data on the benthic megafauna used in this study are found in Baker et al. (2018c). Their tables of abundance (per photo summed over all photos) for each photo transect, by taxon and phylum were extracted, and the recommendations that they made for combining taxa prior to analyses were followed (Appendix A, B). We have not updated the taxonomic nomenclature used herein, in order to facilitate direct comparisons with that publication. Counts of organisms were standardized to numbers per m^2 by dividing the number of observations by 0.6435 (Baker et al., 2018c).

The 4K Camera used to complete the photo transects was equipped with a SBE39plus, a high-accuracy, fast-sampling temperature and depth recorder (Sea-Bird Electronics, 13431 NE 20th St., Bellevue, WA 98005 USA). Temperature and depth data for each of the processed photos on each of the seven transects is presented (Appendix C).

Table 3. Details for benthic photo transects completed during the 2012 CCGS *Henry Larsen* mission. CON=Consecutive Operation Number. Average bottom temperature is at time of sampling. Note: not all images were analyzed (see Appendix C for complete inventory of images).

CON	Station Name	Length of Dive (km)	Start Depth (m)	End Depth (m)	Average Bottom Temp. (°C)	Number of Images Analyzed	Associated Grab Samples Processed
53	BB1_B_400m	2.0	404	457	3.75	68	Yes
59	BB1_B_1000m	1.5	998	1048	1.07	80	No
66	BB1_B_600m	1.5	581	525	3.34	64	No
76	BB1_A_600m	1.4	593	705	3.04	58	Yes
97	BB1_C_1000m	1.5	974	879	2.00	72	Yes
103, 104	BB1_C_400m	0.185, 1.3	229 410	243 482	4.38 4.39	88	Yes
116	BB1_D	1.45	643	655	2.50	67	Yes

DATA ANALYSES

Indices of diversity were calculated for each monitoring station from the standardized abundance data, following the CBMP protocol (Table 1). In accordance with that protocol, the more-rigorous requirements outlined by Kenchington and Kenchington (2013) were set aside. The number of taxa observed (S), Margalef Species Richness (d), the Shannon Diversity Index calculated using natural logarithms (H′), Gini-Simpson Index calculated as $1\text{-}\lambda' = 1\text{-}\{\Sigma_i N_i(N_i\text{-}1)\}/\{N(N\text{-}1)\}$, and Pielou's Evenness (J′) were all calculated using the *Diverse* application in the software Primer 7.0 (Clarke and Gorley, 2015). The Shannon and Simpson indices were further transformed into their Hill Number equivalents, $e^{H'}$ (^{1}D) and $1/\lambda$ (^{2}D: cf. Kenchington and Kenchington 2013). In addition, abundance density was represented as the mean number of organisms observed per square metre (N). Linear regressions between the start depths of the transect (m) and the diversity indices were calculated, together with 95% confidence intervals, using JMP 15. 1.0 software (SAS Institute Inc., Cary, North Carolina, USA). Equations for significant regressions were presented.

Shade plots (Clarke et al., 2014) were constructed to aid in selecting the type of data transformation. Untransformed and log(x+1)-transformed data were reviewed. Colouring in the shade plots gradate in linear proportion to abundance, with white space denoting absence of a taxon. After considering the shade plots, log(x+1)-transformed standardized abundance data were used to construct a Bray-Curtis similarity matrix between transects. This matrix was used to perform cluster and non-multidimensional scaling (nMDS) analyses. Unweighted pair group method with arithmetic mean (UPGMA) clustering was performed using a Type 1 similarity profile test (SIMPROF) with 999 permutations within variables, testing the null hypothesis of no multivariate structure. The SIMPROF test provides stopping rules for the clustering algorithm

(Clarke et al., 2008), and significance was determined at $\alpha = 0.05$. Cophenetic correlations were calculated for all cluster analyses to evaluate whether the dendrograms were a good representation of the similarity matrices. All analyses were performed in Primer 7.0.

RESULTS

DIVERSITY INDICES

In total, 465 taxa were identified from seven photo transects collected from four biodiversity monitoring stations (BB1_A_600 m, BB1_B_400 m, BB1_B_600 m, BB1_B_1000 m, BB1_C_400 m, BB1_C_1000 m, and BB1_D) in the DFCA (Appendix A). Those taxa were drawn from ten phyla (Annelida, Arthropoda, Brachiopoda, Bryozoa, Chordata, Cnidaria, Echinodermata, Mollusca, Nemertea, Porifera) but only 59% (274 taxa) could be identified, leaving 191 taxa unidentified. Baker et al. (2018c) also noted Foraminifera, but those were not assessed here as they used a different quantification approach. The total number of individuals observed over all transects recorded was 18,821, standardized to 29,247.86 (Σ observations/m^2). Over all transects, the poriferan morphotype of "thin sheets/cushion" was the most abundant taxon accounting for 16.68% of total abundance (Appendix B). Sea anemones in the family Hormathiidae were the second most abundant taxon, accounting for 6.08% of abundance, and eight taxa contributed to 50% of the total abundance on all transects. A pareto plot (Figure 4) shows the ordered frequency counts of abundance values for the different taxa and the dominance of those few taxa which are highly abundant (Appendix B).

The relative proportion of phyla on each transect was variable as well. Cnidaria dominated at transects BBI_B_400 m, BBI_B_1000 m, BBI_C_1000 m, and BB1_D, ranging between 28 and 52% of abundance (Figure 5). Porifera dominated at BB1_C_1000 m with 45% of abundance while transects BB1_A_600 m and BB1_B_600 m had similar proportions of cnidarian and poriferan abundance (32 to 35%). For most transects where cnidarians were dominant, Porifera was the second most abundant phylum, however at station BB1_B_1000 m, Annelida was the second most abundant phylum after Cnidaria (Figure 5). At each station the proportion of unidentified taxa ranged between 7 and 29%. At the taxon level, the three most abundant taxa differed among all of the transects (Table 4). Zooanthids, sabellid worms and sea pens dominated the transects at 1000 m, being the only common pattern.

The diversity indices for each sample are provided in Table 5. The photo transect at station BB1_C_400 m was distinctive having the highest number of taxa (S), the highest average abundance (N), and largest value of *d*.

The relationships of the diversity indices with depth are shown in Figure 6. The average number of individuals (N), number of taxa (S), and *d* had significant negative associations with depth. Their values of R^2 were 0.76, 0.78 and 0.69 respectively, indicating that a high proportion of the variance was explained by the regression.

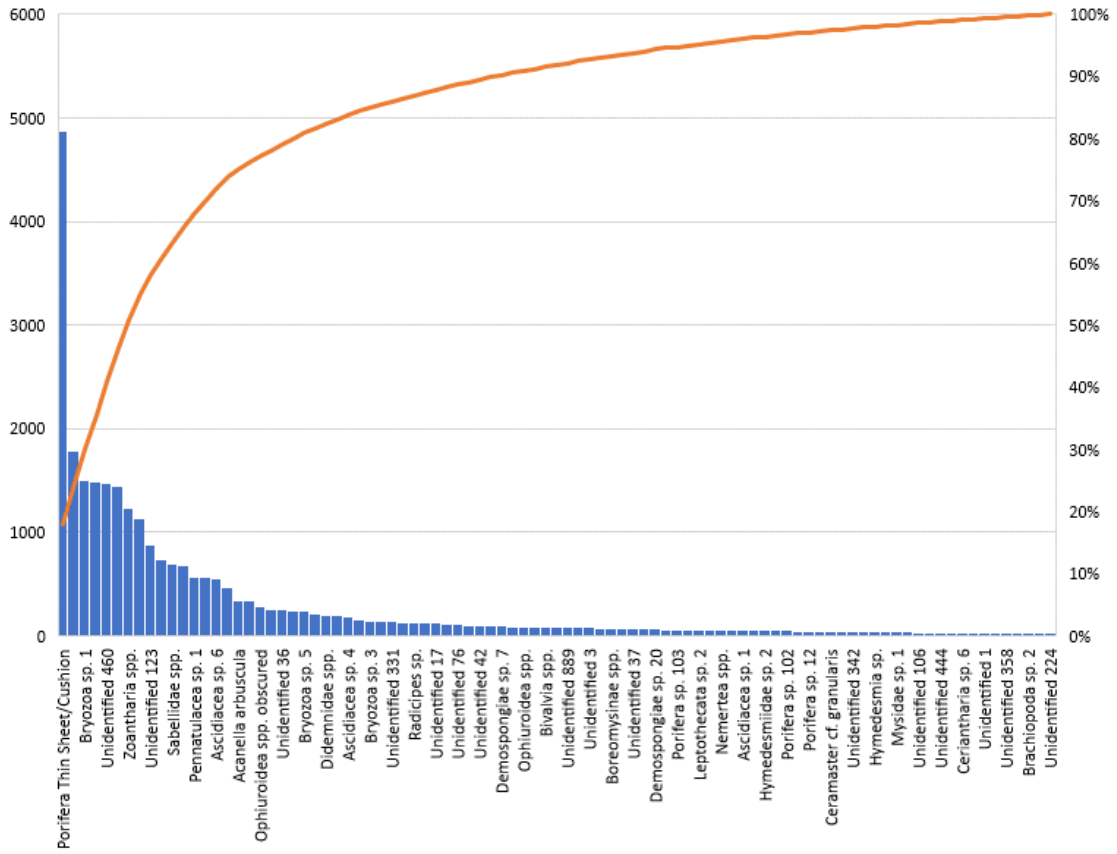


Figure 4. Pareto plot of the ordered frequency counts of megafaunal abundance for the 91 taxa with total abundance of > 29 accounting for 92.76% of total abundance on the seven photo transects. Taxa are as ordered in Appendix B with every second taxon labelled on the plot.

COMMUNITY SIMILARITY BASED ON ABUNDANCE

After examining shade plots showing the effect of log(x+1) transformation (Appendix D) the standardized abundance data were log(x+1)-transformed, resulting in an increase in the importance of less abundant taxa.

The dendrogram of samples (Figure 7) clustered according to their Bray-Curtis similarity (Appendix E), showed that the megafaunal communities in the DFCA form three significantly different clades associated with depth. The two photo transects from the deep locations (1000 m) formed one clade while the two transects from 400 m and from 600 m also joined with each other. Transect BB1_D did not cluster with the 600 m transects but instead chained on to the larger clade. Cophenetic correlation was very high (0.90) indicating that the dendrogram was a good representation of the similarity matrix. This same pattern is visualized in the nMDS plot with the similarity of the samples from each station shown (Figure 8). The stress for the nMDS plot was low (0.04) indicating that the two-dimensional representation is a good fit of the data.

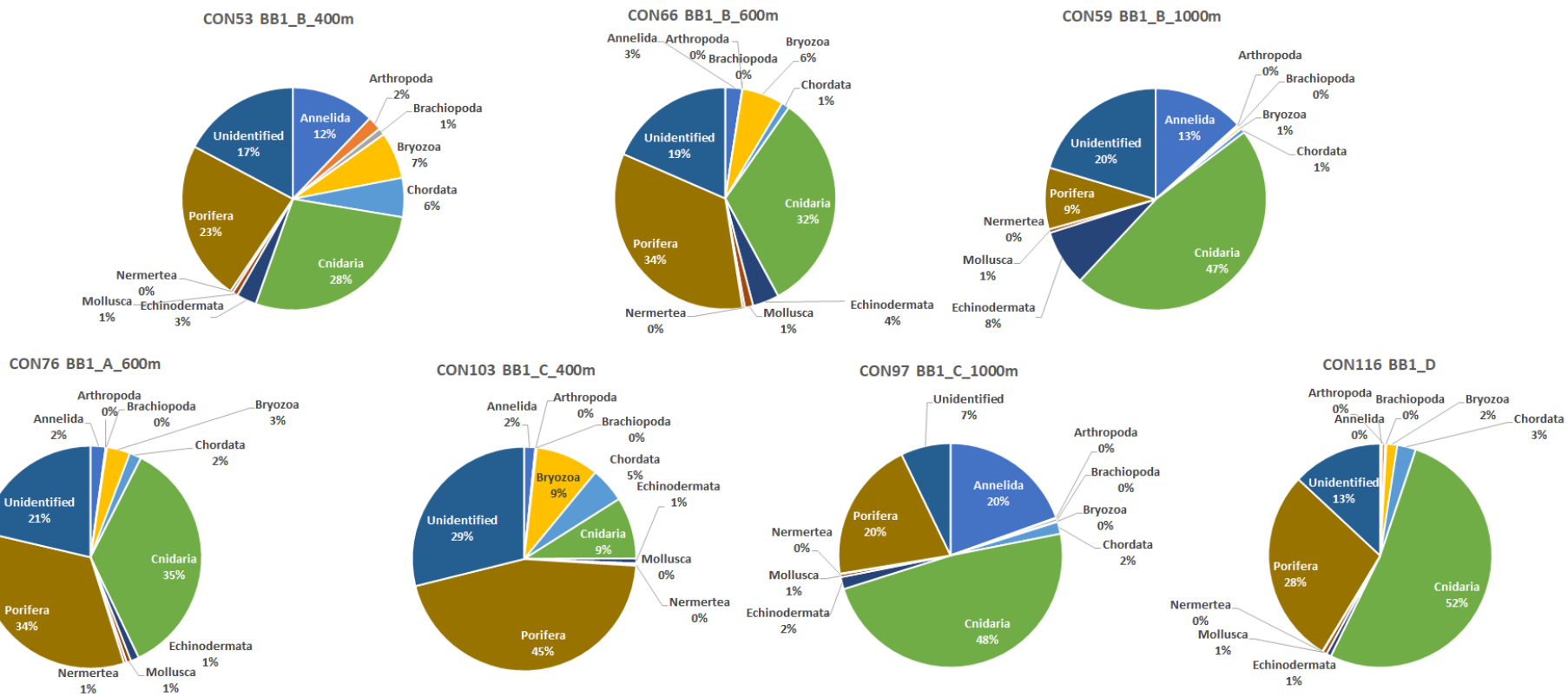


Figure 5. Proportion of observations by phylum identified from megafaunal taxa from each of the seven photo transects in the Disko Fan Conservation Area, eastern Canadian Arctic labelled by Consecutive Operation Number (CON) and by station. Green = Cnidaria; Brown = Porifera; other phyla as labelled. The total number of individuals over all transects recorded after standardization to a square meter was 29,247.86; equivalent numbers by transect are shown in Table 5.

Table 4. Ranked order of the three most abundant taxa on each photo transect CON=Consecutive Operation Number. Cn=Cnidaria; An=Annelida; P=Porifera; Br=Bryozoa; Ar=Arthropoda. Images and nomenclature of the most abundant taxon are from Baker et al. (2018c). Images have a 1-cm scale bar in their lower right.

BB1_B_400 m (CON53)	BB1_B_1000 m (CON59)	BB1_B_600 m (CON66)	BB1_A_600 m (CON76)
Hormathiidae spp. (Cn)	Zoantharia spp. (Cn)	*Pennatula grandis* (Cn)	*Acanella arbuscula* (Cn)
Unidentified 460	Sabellidae spp. (An)	Porifera Thin Sheet/Cushion (P)	Porifera Thin Sheet/Cushion (P)
Serpulidae spp. (An)	Pennatulacea sp. 1 (Cn)	Unidentified 460	Nephtheidae spp. (Cn)
			

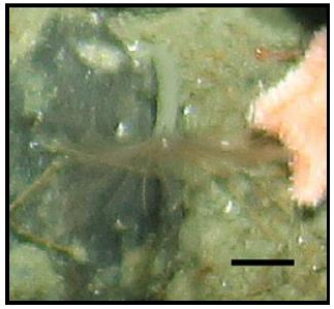
BB1_C_1000 m (CON97)	BB1_C_400 m (CON103/4)	BB1_D (CON116)
Sabellidae spp. (An)	Porifera Thin Sheet/Cushion (P)	Zoantharia spp. (Cn)
Pennatulacea sp. 1 (Cn)	Unidentified 445	Porifera Thin Sheet/Cushion (P)
Zoantharia spp. (Cn)	Bryozoa sp. 1 (Br)	Mysidae sp. 4 (Ar)
		

Table 5. Summary statistics by station, including: depth of transect start and end positions, mean number of organisms observed per m^2 (N) (± standard deviation), number of taxa observed (S), Margalef Species Richness (d), Shannon Diversity index (H′) and its Hill Number equivalent (^{1}D), Gini-Simpson Index and its Hill Number equivalent (^{2}D), and Pielou's Evenness (J′).

Station	Depth Start/End (m)	N (± standard deviation)	S	d	H′	Hill ^{1}D	Gini-Simpson Index	Hill ^{2}D	J′
BB1_B_400m	404/457	69.34 (± 32.43)	151	17.734	3.388	29.610	0.917	12.00	0.675
BB1_B_1000m	998/1048	15.33 (± 8.78)	96	13.358	3.172	23.854	0.910	11.01	0.695
BB1_B_600m	525/581	56.94 (± 64.69)	191	23.168	3.522	33.853	0.923	12.97	0.671
BB1_A_600m	593/705	40.94 (± 30.49)	185	23.673	3.751	42.561	0.948	18.92	0.719
BB1_C_1000m	879/974	25.40 (± 17.94)	106	13.978	3.202	24.588	0.917	11.98	0.687
BB1_C_400m	229/482	153.70 (± 90.62)	264	27.648	3.208	24.737	0.893	9.31	0.575
BB1_D	643/655	28.85 (± 34.67)	134	17.577	3.029	20.673	0.848	6.56	0.618

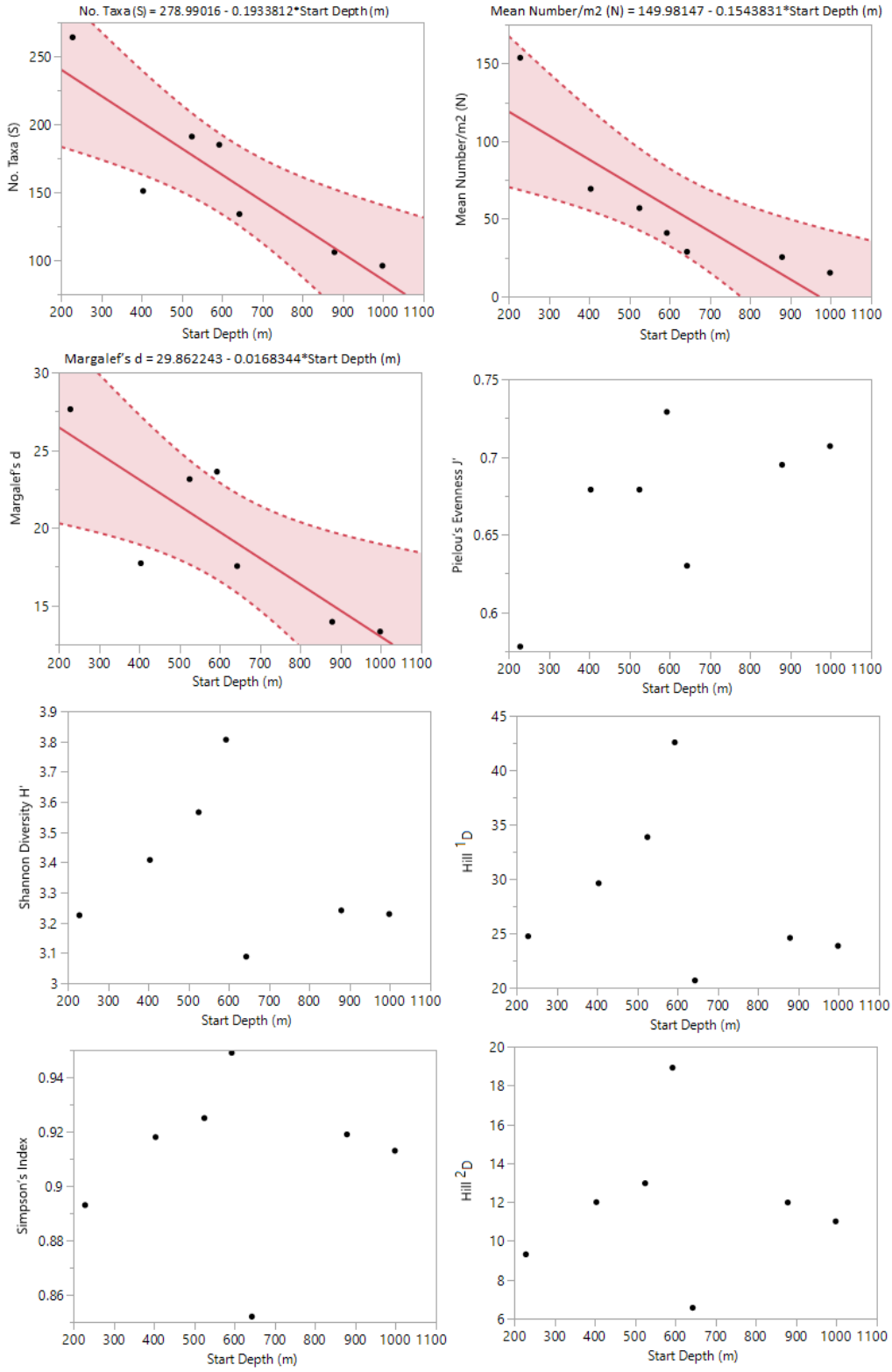


Figure 6. Linear regressions of megafaunal diversity indices (Table 5) with start depth (m) of the photo transect. For significant relationships the 95% confidence intervals are shown with the regression equation positioned above the graph.

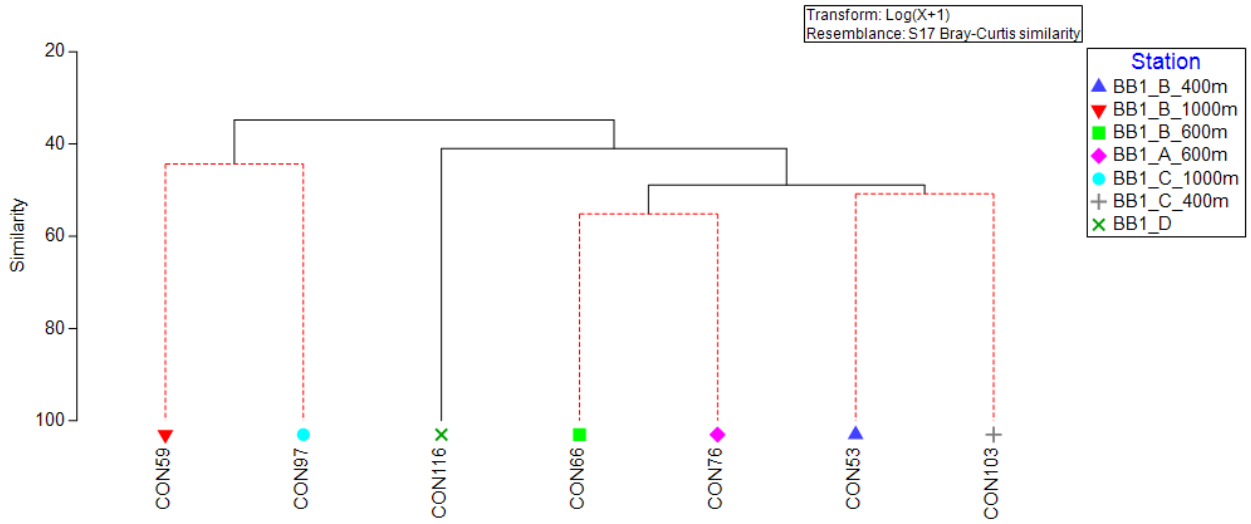


Figure 7. Unweighted group average cluster analysis of megafaunal communities based on Bray-Curtis similarity of log(x+1)-transformed megafaunal abundance. Significant clusters ($\alpha = 0.05$) assessed through 999 permutations are shown in red. Samples are labelled by Consecutive Operation Number (CON) and colour-coded by station (see Tables 3, 4).

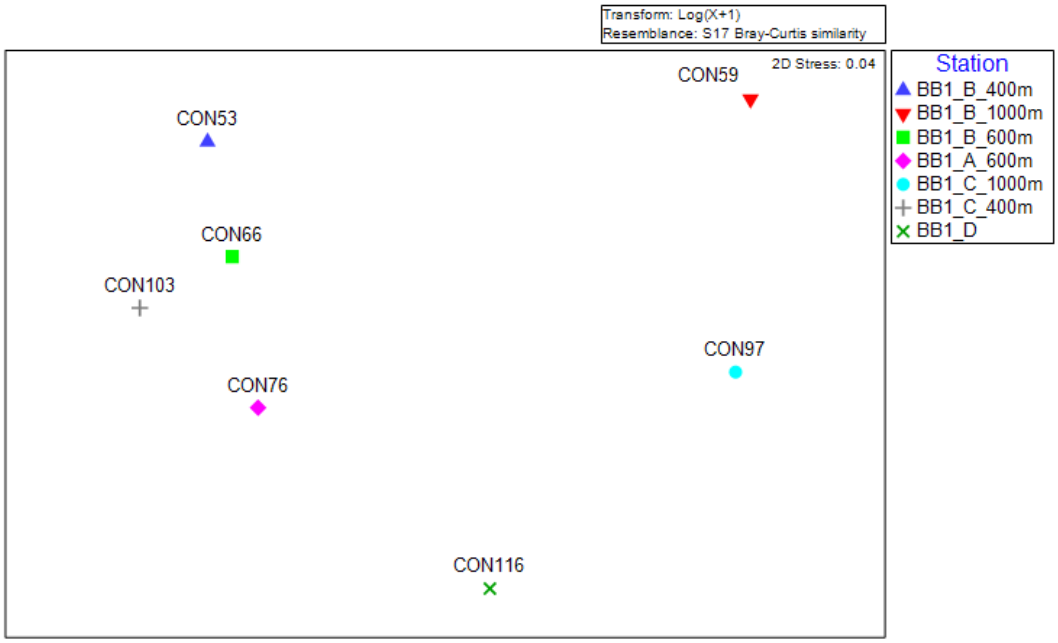


Figure 8. Non-metric multidimensional scaling analysis (nMDS) of megafaunal communities based on Bray-Curtis similarity of log(x+1)-transformed abundance (m^2). Samples are labelled by Consecutive Operation Number (CON) and colour-coded by station (see Tables 3, 5).

DISCUSSION

This study completes the baseline data requirements for the Circumpolar Biodiversity Monitoring Plan under the Arctic Council and offers a first description of the benthic megafaunal communities in the Disko Fan Conservation Area. In total, 465 taxa were identified from seven photo transects collected from four biodiversity monitoring stations (BB1_A_600 m, BB1_B_400 m, BB1_B_600 m, BB1_B_1000 m, BB1_C_400 m, BB1_C_1000 m, and BB1_D) in the DFCA. Those taxa were from ten phyla (Annelida, Arthropoda, Brachiopoda, Bryozoa, Chordata, Cnidaria, Echinodermata, Mollusca, Nemertea, Porifera). Cnidarians and/or poriferans numerically dominated the epibenthic megafauna and three taxa, sponge morphotypes forming thin sheets/cushions, sea anemones of the family Hormathiidae, and an unknown bryozoan, accounted for 30% of recorded abundance (Figure 9).

Figure 9. Images of Hormathiidae spp. (left) and Bryozoa sp. 1 (right) as identified by Baker et al. (2018c). These two taxa were the second and third most abundant on the photo transects (Appendix B). Scale bar is 1 cm.

However, only 59% (274 taxa) could be identified to some level in the taxonomic hierarchy, leaving 191 taxa unidentified. Of those identified, most could not be resolved to species level (Baker et al., 2018c). In fact only 9 species (1.9%) were fully identified: the sea pens *Anthoptilum grandiflorum* and *Pennatula grandis*[4], the small gorgonian coral *Acanella arbuscula*, the cup coral *Flabellum* (*Ulocyathus*) *alabastrum*, the sponges *Lissodendoryx* (*Lissodendoryx*) *complicata*, *Chondrocladia* (*Chondrocladia*) *grandis* and *Tentorium semisuberites*, and the sea stars *Hippasteria phrygiana* and *Tremaster mirabilis*, with the cushion star *Ceramaster* cf. *granularis* and the large anemone cf. *Pachycerianthus borealis* tentatively identified. This is a low degree of

[4] *Pennatula grandis* is now known as *Ptillela grandis*

identification, even for photo identifications. Identification of sponges requires examination of the spicules for almost all species, which accounts for much of the identification problems. Of those identified to at least phylum, 115 were sponges (41.8%). Diagnostic characters for other groups often require views of both dorsal and ventral surfaces and may also require examination of internal structures. Nevertheless, Baker et al. (2018c) undertook a careful and documented protocol to identify mutually exclusive taxa from the imagery which will allow for future monitoring. Cross-referencing of their data with that collected from the sediment samples at the same stations (Jacobs et al., 2022) would not have meaningfully helped with identifications because the two sampling gears collected very different fractions of the benthic community. Ideally, photo transects are complimented by *in situ* sample collection using a manipulator arm of a ROV so that the imagery can be directly matched to the specimen (e.g., Kenchington et al., 2014).

The epibenthic megafaunal communities were not highly similar, with the most similar transects showing 55.12% similarity (BB1_B_600 and BB1_A_600) and the most dissimilar being 68.93% different (BB1_C_400 and BB1_C_1000) at the same station. Community composition was strongly affected by depth, with the deepest transects forming a distinct cluster and having lower total abundance, lower number of taxa (S) and low species richness (d), compared with transects from shallower water. Thus, the photo transects satisfy the CBMP recommendation that a depth gradient be represented when establishing monitoring stations (Gill et al., 2011). Wei et al. (2020) examined the relationships between bathymetry, latitude, energy and benthic diversity in Canada's three oceans. They found that the Arctic overall contains greater benthic diversity than the Canadian Pacific or Atlantic Oceans, and that the highest diversity in both infauna and epifauna occurs at the continental shelf break at about 100 to 200 m and decreases at lower and shallower depths. This pattern is consistent with our observations of the megafauna in the Disko Fan Conservation Area.

Although the DFCA marine refuge prohibits bottom contact fishing by commercial vessels, the areas are still open to scientific research both with trawls and other sampling gears. In order to identify the location of the monitoring stations, so that destructive sampling can be avoided to the degree possible, we have drawn buffer zones around the sediment and photo transect sampling positions (Figure 2). The co-ordinates for those positions are provided in Appendix F. The bounding boxes presented are flexible and could be replaced by more informed buffer zones in future, taking into account uncertainty in the position of the gear on the bottom, and sediment plume transport from trawling.

ACKNOWLEDGEMENTS

In 2012, a joint project between the Department of Fisheries and Oceans Canada's Maritimes and Central and Arctic (C&A) Regions was initiated with the primary objective to conduct *in situ* benthic surveys in Davis Strait and Baffin Bay for the purpose of identifying vulnerable marine ecosystems (VMEs) and ecologically and biologically significant areas (EBSAs), and to provide

baseline data on the distribution and abundance of benthic invertebrates for assessing the impacts of climate change. The project was funded by Fisheries and Oceans Canada's International Governance Strategy (IGS) Research Fund to Ellen Kenchington and Margaret Treble (DFO-C&A), through the project: "Identification and Characterization of Benthic VMEs and EBSAs in Baffin Bay and Davis Strait, Sub Arctic/Eastern Arctic" which ran from April 2011 to March 2014.

Many people contributed to this work, both at sea and in the lab, including colleagues from NRCan, Laval and UQAR. In particular we thank the Captain and crew of the Canadian Coast Guard Ship *Henry Larsen*, and Andrew Cogswell (DFO) chief scientist at sea for the mission. Robert Benjamin led the implementation of IT logistics in support of data acquisition and links with the ship's navigation systems. We further thank Vladimir Kostylev for use of the 4K camera, and logistical support from Angus Robertson and Bob Murphy (NRCan), and from Kirk Phelan and Kelly Bentham (DFO). Many scientific staff contributed to the sample collections, and we are very grateful to all, especially Kevin MacIsaac, Merlin Best, Lindsay Beazley and Shawn Roach (DFO). We thank the coauthors of the Baker et al. (2018c) report, Emily Baker, Lindsay Beazley, Andrew McMillan, Joyce Rowsell and Ellen Kenchington for carefully documenting their procedures and identifying the abundance of the many taxa summarized in this report. Dr. F. Javier Murillo and Brighid Odenthal (DFO) kindly provided reviews of this manuscript.

REFERENCES

Baker, E., Odenthal, B., Walkusz, W., Siferd, T., Rios, P., Tompkins, G., and Kenchington, E. 2018a. Sponges from the 2010-2014 Paamiut Multispecies Trawl Surveys, Eastern Arctic and Subarctic: Class Demospongiae, Subclass Heteroscleromorpha, Order Poecilosclerida, Families Dendoricellidae and Tedaniidae. Can. Tech. Rep. Fish. Aquat. Sci. 3282: v + 46pp.

Baker, E., Odenthal, B., Tompkins, G., Walkusz, W., Siferd, T., and Kenchington, E. 2018b. Sponges from the 2010-2014 Paamiut Multispecies Trawl Surveys, Eastern Arctic and Subarctic: Class Demospongiae, Subclass Heteroscleromorpha, Order Poecilosclerida, Families Crellidae and Myxillidae. Can. Tech. Rep. Fish. Aquat. Sci. 3253: iv + 52 p.

Baker, E., Beazley, L., McMillan, A., Rowsell, J., and Kenchington, E. 2018c. Epibenthic Megafauna of the Disko Fan Conservation Area in the Davis Strait (Eastern Arctic) Identified from In Situ Benthic Image Transects. Can. Tech. Rep. Fish. Aquat. Sci. 3272: vi + 388 p.

Beazley, L., Kenchington, E., Guijarro, J., Lirette, C., Siferd, T., Treble, M., Baker, E., Bouchard Marmen, M., and Tompkins MacDonald, G. 2016. Species Distribution Modelling of Corals and Sponges in the Eastern Arctic for Use in the Identification of Significant Benthic Areas. Can. Tech. Rep. Fish. Aquat. Sci. 3175: vii + 210p.

Beazley, L., Murillo, F.J., Kenchington, E., Guijarro-Sabaniel, J., Lirette, C., Siferd, T., Treble, M., Baker, E., Bouchard Marmen, M., and Tompkins-MacDonald, G. 2019a. Species Distribution Modelling of Corals and Sponges in the Eastern Arctic for Use in the Identification of Significant Benthic Areas. Mendeley Data V1, doi: 10.17632/mcb726kcbx.1

Beazley, L., Guijarro-Sabaniel, J., Lirette, C., Wang, Z., and Kenchington, E. 2019b. Characteristics of Environmental Data Layers for Use in Species Distribution Modelling in the Eastern Canadian Arctic and Sub-Arctic Regions. Mendeley Data, V2, doi: 10.17632/zmwyjs222s.2

Bouchard Marmen, M., Tompkins, G., Harrington, N., Savard-Drouin, A., Wells, M., Baker, E., Odenthal, B., Walkusz, W., Siferd, T., and Kenchington, E. 2019. Sponges from the 2010-2014 Paamiut Multispecies Trawl Surveys, Eastern Arctic and Subarctic: Class Demospongiae, Subclass Heteroscleromorpha, Order Poecilosclerida, Families Microcionidae, Acarnidae and Esperiopsidae. Can. Tech. Rep. Fish. Aquat. Sci. 3349: v + 76 p.

Bouchard Marmen, M., Odenthal, B., Murillo, F. J., Tompkins, G., Baker, E., Savard-Drouin, A., Walkusz, W., Siferd, T. and Kenchington, E. 2021. Sponges from the 2010-2014 Paamiut Multispecies Trawl Surveys, Eastern Arctic and Subarctic: Class Demospongiae, Subclass Heteroscleromorpha, Order Poecilosclerida, Families Mycalidae and Isodictyidae. Can. Tech. Rep. Fish. Aquat. Sci. 3452: v + 60 p.

Circumpolar Biodiversity Monitoring Program Marine Steering Group. 2015. Arctic Marine Biodiversity Monitoring Plan Annual Plan 2014: Annual Report on the Implementation of the Circumpolar Biodiversity Monitoring Program's Arctic Marine Biodiversity Monitoring Plan (CBMP-Marine Plan). CAFF Monitoring Report No.15. CAFF International Secretariat, Akureyri, Iceland. ISBN: 978-9935-431-42-4

Clarke, K.R. and Gorley, R.N. 2015. PRIMER v7: User Manual/Tutorial. PRIMER-E, Plymouth.

Clarke, K.R., Somerfield, P.J., and Gorley, R.N. 2008. Testing of null hypotheses in exploratory community analyses: Similarity profiles and biota-environment linkage J. Exp. Mar. Biol. Ecol. 366: 56-69.

Clarke, K.R., Tweedley, J.R., and Valesini, F.J. 2014. Simple shade plots aid better long-term choices of data pre-treatment in multivariate assemblage studies J. Mar. Biol. Assoc. UK 94: 1-16.

DFO. 2010. Occurrence, Sensitivity to Fishing, and Ecological Function of Corals, Sponges, and Hydrothermal vents in Canadian waters. DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2010/041.

DFO. 2011. Identification of Ecologically and Biologically Significant Areas (EBSA) in the Canadian Arctic. DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2011/055.

DFO. 2017. Delineation of significant areas of coldwater corals and sponge-dominated communities in Canada's Atlantic and Eastern Arctic marine waters and their overlap with fishing activity. DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2017/007.

DFO. 2019. List of Marine Refuges. https://www.dfo-mpo.gc.ca/oceans/oecm-amcepz/refuges/ Accessed 2022-03-20.

DFO. 2021. A National Monitoring Framework for Coral and Sponge Areas Identified as Other Effective Area-Based Conservation Measures. DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2021/048.

Dinn, C., Edinger, E., and Leys, S.P. 2019. Sponge (Porifera) fauna of Frobisher Bay, Baffin Island, Canada with the description of an *Iophon* rich sponge garden. Zootaxa. 4576(2): 301-325.

Dinn, C., Zhang, X., Edinger, E., and Leys, S.P. 2020. Sponge communities in the eastern Canadian Arctic: species richness, diversity and density determined using targeted benthic sampling and underwater video analysis. Polar Biol. 43(9): 1287–1305.

Gill, M.J., Crane, K., Hindrum, R., Arneberg, P., Bysveen, I., Denisenko, N.V., Gofman, V., Grant-Friedman, A., Gudmundsson, G., Hopcroft, R.R., Iken, K., Labansen, A., Liubina, O.S., Melnikov, I.A., Moore, S.E., Reist, J.D., Sirenko, B.I., Stow, J., Ugarte, F., Vongraven, D., and Watkins, J. 2011. Arctic Marine Biodiversity Monitoring Plan (CBMP-MARINE PLAN). CAFF Monitoring Series Report No.3, April 2011,CAFF International Secretariat, Akureyri, Iceland. ISBN 1. 978-9979-9778-7-2

Government of Canada. 2018. New marine refuges off the coasts of Nunavut and Newfoundland and Labrador. News Release. https://www.canada.ca/en/fisheries-oceans/news/2017/12/new_marine_refugesoffthecoastsofnunavutandnewfoundlandandlabrado.html Accessed 2020-12-11.

Hiltz, E., Fuller, S. D., and Mitchell, J. 2018. Disko Fan Conservation Area: a Canadian case study. Parks 24 Special Issue June 2018. doi: 10.2305/IUCN.CH.2018.PARKS-24-SIEH.en

Jacobs, K., Bouchard Marmen, M., Rincón, B., MacDonald, B., Lirette, C., Gibb, O., Treble, M., and Kenchington, E. 2022. Biodiversity Monitoring Stations for Benthic Macrofauna and Meiofauna in the Disko Fan and Hatton Basin Conservation Areas. Can. Tech. Rep. Fish. Aquat. Sci. 3487 vii + 86 p.

Kenchington, E., Lirette, C., Cogswell, A., Archambault, D., Archambault, P., Benoit, H., Bernier, D., Brodie, B., Fuller, S., Gilkinson, K., Levesque, M., Power, D., Siferd, T., Treble, M., and Wareham, V. 2010. Delineating Coral and Sponge Concentrations in the Biogeographic Regions of the East Coast of Canada Using Spatial Analyses. DFO Can. Sci. Advis. Sec.t Res. Doc. 2010/041. iv + 207 pp.

Kenchington, E., Cogswell, A., MacIsaac, K., Beazley, L., Law, B., and Kenchington, T. 2014. Limited depth zonation among bathyal epibenthic megafauna of the Gully submarine canyon, northwest Atlantic. Deep Sea Res. II 104: 67-82.

Kenchington, E., L. Beazley, C. Lirette, F.J. Murillo, J. Guijarro, V. Wareham, K. Gilkinson, M. Koen Alonso, H. Benoît, H. Bourdages, B. Sainte-Marie, M. Treble, and Siferd, T. 2016. Delineation of Coral and Sponge Significant Benthic Areas in Eastern Canada Using Kernel Density Analyses and Species Distribution Models. DFO Can. Sci. Advis. Sec. Res. Doc. 2016/093. vi + 178 p.

Kenchington, E., Lirette, C., Murillo, F., Beazley, L., Guijarro-Sabaniel, J., Wareham, V., Gilkinson, K., Koen-Alonso, M., Benoit, H., Bourdages, H., Sainte-Marie, B., Treble, M. and Siferd, T. 2018a. Kernel Density Analyses of Coral and Sponge Catches from Research Vessel Survey Data for Use in Identification of Significant Benthic Areas. Mendeley Data, V2, doi: 10.17632/dtk86rjm86.2

Kenchington, E., Baker, E., and Beazley, L. 2018b. In Situ Benthic Image Transects from the Disko Fan Conservation Area in the Davis Strait (Eastern Arctic). Mendeley Data, V3, doi: 10.17632/cr3xvztwrj.3

Kenchington, T.J., and Kenchington, E. 2013. Biodiversity metrics for use in the ecosystem approach to oceans management. Can. Tech. Rep. Fish. Aquat. Sci. 3059: vi + 188p.

Knudby, A., Kenchington, E., and Murillo, F.J. 2013. Modeling the distribution of *Geodia* sponges and sponge grounds in the northwest Atlantic Ocean. PLoS ONE 8(12):e82306. DOI:10.1371/journal.pone.0082306.

Koen-Alonso, M., Favaro, C., Ollerhead, N., Benoît, H., Bourdages, H., Sainte-Marie, B., Treble, M., Hedges, K., Kenchington, E., Lirette, C., King, M., Coffen-Smout, S., and Murillo, J. 2018. Analysis of the overlap between fishing effort and Significant Benthic Areas in Canada's Atlantic and Eastern Arctic marine waters. DFO Can. Sci. Advis. Sec. Res. Doc. 2018/015. xvii + 270 p.

Laidre, K.L., and Heide-Jørgensen, M.P. 2005. Winter feeding intensity of narwhals (*Monodon monoceros*). Mar. Mamm. Sci. 21: 45–57.

Laidre, K.L., Heide-Jørgensen, M.P., Dietz, R., Hobbs, R.C., and Jørgensen, O.A. 2003. Deep-diving by narwhals *Monodon monoceros*: differences in foraging behavior between wintering areas? Mar. Ecol. Prog. Ser. 261: 269–281.

Murillo, F. J., Kenchington, E., Tompkins, G., Beazley, L., Baker, E., Knudby, A., and Walkusz, W. 2018. Sponge assemblages and predicted archetypes in the eastern Canadian Arctic. Mar. Ecol. Progr. Ser. 597: 115–135.

Murillo, F.J., Kenchington, E., Tompkins MacDonald, G., Beazley, L., Baker, E., Knudby, A., and Walkusz, W. 2019. Sponge Assemblages and Predicted Archetypes in the Eastern Canadian Arctic. Mendeley Data, V1, doi: 10.17632/vb4xvxk86v.1

Peklova, I., Hussey, N.E., Hedges, K.J., Treble, M.A., and Fisk, A.T. 2012. Depth and temperature preferences of the deepwater flatfish Greenland halibut *Reinhardtius hippoglossoides* in an Arctic marine ecosystem. Mar. Ecol. Prog. Ser. 467: 193–205.

Steffen, K., Indraningrat, A.A.G., Erngren, I., Haglof, J., Becking, L.E., Smidt, H., Yashayaev, I., Kenchington, E, Pettersson, C., Cardenas, P., and Sipkema, D. 2022. Oceanographic setting influences the prokaryotic community and metabolome in deep-sea sponges. Sci. Rep. 12, 3356. https://doi.org/10.1038/s41598-022-07292-3

Tompkins, G., Baker, E., Anstey, L., Walkusz, W., Siferd, T., and Kenchington, E. 2017. Sponges from the 2010-2014 Paamiut Multispecies Trawl Surveys, Eastern Arctic and Subarctic: Class Demospongiae, Subclass Heteroscleromorpha, Order Poecilosclerida, Family Coelosphaeridae, Genera *Forcepia* and *Lissodendoryx*. Can. Tech. Rep. Fish. Aquat. Sci. 3224: v + 129.

Watt, C.A., Heide-Jørgensen, M.P., and Ferguson, S.H. 2013. How adaptable are narwhal? A comparison of foraging patterns among the world's three narwhal populations. Ecosphere 4: 71.

Watt, C.A., Orr, J.R., Heide-Jørgensen, M.P., Nielsen, N.H., and Ferguson, S.H. 2015. Differences in dive behaviour among the world's three narwhal *Monodon monoceros* populations correspond with dietary differences. Mar. Ecol. Prog. Ser. 525: 273–285.

Watt, C.A., Orr, J. R., and Ferguson, S. H. 2017. Spatial distribution of narwhal (*Monodon monoceros*) diving for Canadian populations helps identify important seasonal foraging areas. Can. J. Zool. 95: 41–50.

Wei, C.-L., Cusson, M., Archambault, P., Belley, R., Brown, T., Burd, B. J., Edinger, E., Kenchington, E., Gilkinson, K., Lawton, P., Link, H., Ramey-Balci, P.A., Scrosati, R.A., and Snelgrove, P.V.R. 2020. Seafloor biodiversity of Canada's three oceans: Patterns, hotspots and potential drivers. Divers. Distrib. 26(2): 226–241.

APPENDIX A: MEGAFAUNAL ABUNDANCE BY STATION

Table 1. Abundance of megafaunal taxa observed in photo transects from the Disko Fan Conservation Area (DFCA), by Consecutive Operation Number (CON) and station. See Baker et al. (2018c) for taxon images. Taxon nomenclature follows that used in Baker et al. (2018c) and does not reflect name changes that have occurred since that publication.

		BB1_B_400	BB1_B_1000	BB1_B_600	BB1_A_600	BB1_C_1000	BB1_C_400	BB1_D
Phylum	Taxon	CON53	CON59	CON66	CON76	CON97	CON103/4	CON116
Annelida	*Aphroditiformia* sp.	0	0	0	0	0	1	0
Annelida	cf. Terebellidae spp.	7	0	9	9	5	13	3
Annelida	Sabellidae spp.	51	101	17	16	207	53	0
Annelida	Serpulidae spp.	310	1	31	8	13	71	0
Arthropoda	*Anomura* sp.	0	0	0	0	0	2	0
Arthropoda	Boreomysinae spp.	22	11	8	0	3	0	4
Arthropoda	Ceriantharia sp. 7	0	0	0	7	0	5	0
Arthropoda	Crangonidae spp.	16	0	1	5	0	40	4
Arthropoda	Euphausiidae sp.	0	0	0	0	0	1	0
Arthropoda	*Lithodes maja*	0	0	0	0	0	1	1
Arthropoda	Malacostraca sp. 1	0	0	1	0	0	0	0
Arthropoda	Malacostraca sp. 13	0	1	0	0	0	1	1
Arthropoda	Malacostraca sp. 14	5	0	0	0	0	4	0
Arthropoda	Malacostraca sp. 16	0	0	0	0	1	0	0
Arthropoda	Malacostraca sp. 2	1	3	1	0	1	10	1
Arthropoda	Malacostraca spp.	2	2	0	2	0	3	1

		BB1_B_400	BB1_B_1000	BB1_B_600	BB1_A_600	BB1_C_1000	BB1_C_400	BB1_D
Phylum	Taxon	CON53	CON59	CON66	CON76	CON97	CON103/4	CON116
Arthropoda	Mysidae sp. 1	0	0	0	1	9	0	13
Arthropoda	Mysidae sp. 4	4	1	1	2	12	3	74
Arthropoda	Mysidae sp. 5	2	0	1	3	0	1	1
Arthropoda	Pandalidae spp.	8	0	9	0	0	9	0
Arthropoda	Pantopoda sp. 1	0	0	0	0	0	2	0
Arthropoda	Pantopoda sp. 4	0	1	0	0	0	0	0
Arthropoda	Pantopoda spp.	2	1	0	0	0	0	0
Brachiopoda	Brachiopoda sp. 1	9	2	0	1	5	1	2
Brachiopoda	Brachiopoda sp. 2	13	0	0	1	0	6	0
Brachiopoda	Brachiopoda sp. 3	8	0	0	0	0	5	0
Brachiopoda	Brachiopoda sp. 7	0	0	0	0	0	2	0
Bryozoa	Bryozoa sp. 1	130	0	108	32	0	678	16
Bryozoa	Bryozoa sp. 3	16	2	29	18	0	29	2
Bryozoa	Bryozoa sp. 5	60	1	4	1	1	83	0
Chordata	Actinopterygii sp.	0	0	0	0	0	1	0
Chordata	Ascidiacea sp. 1	17	0	3	1	0	10	2
Chordata	Ascidiacea sp. 10	17	0	3	1	0	0	0
Chordata	Ascidiacea sp. 11	0	0	0	0	1	0	0
Chordata	Ascidiacea sp. 12	0	0	0	0	3	0	0
Chordata	Ascidiacea sp. 2	3	0	2	2	2	20	7
Chordata	Ascidiacea sp. 3	1	0	0	1	0	2	0
Chordata	Ascidiacea sp. 4	26	0	1	0	0	81	8
Chordata	Ascidiacea sp. 5	0	0	1	0	0	0	0

		BB1_B_400	BB1_B_1000	BB1_B_600	BB1_A_600	BB1_C_1000	BB1_C_400	BB1_D
Phylum	Taxon	CON53	CON59	CON66	CON76	CON97	CON103/4	CON116
Chordata	Ascidiacea sp. 6	46	5	3	5	10	275	9
Chordata	Ascidiacea sp. 8	0	0	0	0	1	8	0
Chordata	Ascidiacea sp. 9	1	0	0	0	0	0	0
Chordata	Cottidae sp. 1	2	0	1	0	0	0	0
Chordata	Cottidae sp. 2	0	0	1	1	0	0	0
Chordata	Didemnidae spp.	60	0	12	14	3	38	4
Chordata	Macrouridae sp.	0	0	0	1	0	0	1
Chordata	Pleuronectidae sp.	0	0	0	0	0	1	0
Cnidaria	*Acanella arbuscula*	0	0	30	182	1	3	1
Cnidaria	Actiniaria sp. 1	4	0	0	0	0	0	0
Cnidaria	Actiniaria sp. 10	0	0	2	0	0	0	0
Cnidaria	Actiniaria sp. 13	0	0	1	0	0	0	0
Cnidaria	Actiniaria sp. 15	0	0	0	4	0	0	0
Cnidaria	Actiniaria sp. 16	0	0	0	1	0	0	0
Cnidaria	Actiniaria sp. 17	0	0	1	0	0	0	0
Cnidaria	Actiniaria sp. 19	0	0	0	0	0	0	1
Cnidaria	Actiniaria sp. 2	10	0	8	1	0	2	0
Cnidaria	Actiniaria sp. 20	0	0	0	0	0	1	1
Cnidaria	Actiniaria sp. 21	0	0	0	0	3	3	1
Cnidaria	Actiniaria sp. 22	0	0	0	0	0	0	1
Cnidaria	Actiniaria sp. 23	0	0	0	0	0	0	2
Cnidaria	Actiniaria sp. 25	0	0	0	0	0	0	1
Cnidaria	Actiniaria sp. 27	0	0	0	0	0	1	0

		BB1_B_400	BB1_B_1000	BB1_B_600	BB1_A_600	BB1_C_1000	BB1_C_400	BB1_D
Phylum	Taxon	CON53	CON59	CON66	CON76	CON97	CON103/4	CON116
Cnidaria	Actiniaria sp. 28	0	0	0	0	0	0	1
Cnidaria	Actiniaria sp. 29	0	0	0	0	0	0	1
Cnidaria	Actiniaria sp. 30	0	0	0	0	0	1	0
Cnidaria	Actiniaria sp. 31	0	0	0	0	1	1	0
Cnidaria	Actiniaria sp. 32	0	0	0	0	0	1	0
Cnidaria	Actiniaria sp. 33	0	0	0	0	0	0	1
Cnidaria	Actiniaria sp. 35	0	0	0	0	2	0	0
Cnidaria	Actiniaria sp. 5	0	32	0	0	9	0	0
Cnidaria	Actiniaria sp. 6	0	0	1	0	0	0	0
Cnidaria	Actiniaria sp. 9	1	0	10	8	27	1	11
Cnidaria	Alcyonacea sp. 1	19	1	11	12	1	11	0
Cnidaria	Alcyonacea sp. 2	0	0	1	0	0	0	0
Cnidaria	Alcyonacea sp. 3	0	2	0	25	1	21	15
Cnidaria	Anthoathecata spp.	1	29	0	4	28	9	24
Cnidaria	*Anthomastus* sp.	12	0	0	0	0	0	0
Cnidaria	*Anthoptilum grandiflorum*	0	0	0	3	0	0	0
Cnidaria	Anthozoa sp. 1	0	0	1	3	0	3	2
Cnidaria	Anthozoa sp. 11	0	0	0	0	0	0	2
Cnidaria	Anthozoa sp. 13	0	0	0	1	0	0	1
Cnidaria	Anthozoa sp. 15	1	0	0	0	0	1	2
Cnidaria	Anthozoa sp. 19	0	0	0	0	0	1	0
Cnidaria	Anthozoa sp. 20	0	1	6	0	0	1	0
Cnidaria	Anthozoa sp. 21	0	0	0	0	0	1	0

		BB1_B_400	BB1_B_1000	BB1_B_600	BB1_A_600	BB1_C_1000	BB1_C_400	BB1_D
Phylum	Taxon	CON53	CON59	CON66	CON76	CON97	CON103/4	CON116
Cnidaria	Anthozoa sp. 22	0	0	0	0	0	0	1
Cnidaria	Anthozoa sp. 23	3	0	0	0	0	0	0
Cnidaria	Anthozoa sp. 24	0	0	0	2	77	3	1
Cnidaria	Anthozoa sp. 25	0	0	0	0	1	0	0
Cnidaria	Anthozoa sp. 3	0	0	2	0	14	0	2
Cnidaria	Anthozoa sp. 7	0	0	0	1	0	0	0
Cnidaria	Ceriantharia sp. 1	0	1	4	1	0	0	0
Cnidaria	Ceriantharia sp. 2	0	0	2	4	0	4	1
Cnidaria	cf. *Pachycerianthus borealis*	1	0	0	0	0	0	3
Cnidaria	Ceriantharia sp. 6	0	20	0	0	0	0	1
Cnidaria	cf. *Hymenaste*r sp.	0	1	0	0	0	0	0
Cnidaria	*Flabellum* (*Ulocyathus*) *alabastrum*	0	0	1	3	0	0	0
Cnidaria	*Flabellum* sp. 1	0	0	1	1	0	0	0
Cnidaria	Hormathiidae spp.	686	2	1	0	7	448	0
Cnidaria	*Kophobelemnon* spp.	0	0	2	0	1	0	0
Cnidaria	Leptothecata sp. 1	1	0	1	3	3	39	0
Cnidaria	Leptothecata sp. 2	0	1	0	2	5	27	1
Cnidaria	Leptothecata sp. 3	0	0	0	1	0	24	0
Cnidaria	Leptothecata sp. 4	0	0	0	0	0	6	0
Cnidaria	Leptothecata sp. 5	0	0	0	0	0	10	0
Cnidaria	Leptothecata sp. 7	1	2	0	1	5	9	0
Cnidaria	Nephtheidae spp.	9	5	32	126	54	71	69

		BB1_B_400	BB1_B_1000	BB1_B_600	BB1_A_600	BB1_C_1000	BB1_C_400	BB1_D
Phylum	Taxon	CON53	CON59	CON66	CON76	CON97	CON103/4	CON116
Cnidaria	*Pennatula grandis*	33	3	530	124	5	30	3
Cnidaria	Pennatulacea sp. 1	58	86	11	15	189	7	1
Cnidaria	Pennatulacea sp. 2	0	0	0	0	0	0	1
Cnidaria	*Radicipes* sp.	0	0	80	3	0	0	0
Cnidaria	Isididae sp.	0	0	1	1	0	2	1
Cnidaria	Zoantharia spp.	3	178	12	2	122	25	446
Echinodermata	Amphiuridae sp.	0	0	2	0	0	0	0
Echinodermata	Asteroidea sp. 1	1	0	1	1	0	0	0
Echinodermata	Asteroidea sp. 2	0	0	0	1	0	0	0
Echinodermata	Asteroidea sp. 3	0	0	0	1	0	0	0
Echinodermata	Asteroidea sp. 6	0	0	0	0	0	0	1
Echinodermata	Asteroidea sp. 8	0	0	0	0	0	0	2
Echinodermata	*Ceramaster* cf. *granularis*	10	0	2	4	0	10	1
Echinodermata	cf. *Colus* sp.	0	0	1	0	0	0	0
Echinodermata	Comatulida sp.	2	0	0	0	1	6	0
Echinodermata	Echinoidea sp. 1	0	0	0	0	1	0	0
Echinodermata	Echinoidea sp. 2	0	0	0	1	0	0	0
Echinodermata	*Henricia* sp. 1	0	0	2	0	0	0	0
Echinodermata	*Henricia* sp. 2	0	0	0	0	0	1	0
Echinodermata	*Hippasteria phrygiana*	0	0	1	1	1	6	0
Echinodermata	Ophiuroidea sp. 10	0	1	0	0	0	0	0
Echinodermata	Ophiuroidea sp. 11	0	3	0	0	0	0	0
Echinodermata	Ophiuroidea sp. 2	0	0	1	0	3	1	0

		BB1_B_400	BB1_B_1000	BB1_B_600	BB1_A_600	BB1_C_1000	BB1_C_400	BB1_D
Phylum	Taxon	CON53	CON59	CON66	CON76	CON97	CON103/4	CON116
Echinodermata	Ophiuroidea sp. 3	4	0	1	0	0	1	0
Echinodermata	Ophiuroidea sp. 4	0	0	1	0	0	0	1
Echinodermata	Ophiuroidea sp. 5	0	1	2	1	0	2	0
Echinodermata	Ophiuroidea sp. 6	0	4	0	0	0	3	0
Echinodermata	Ophiuroidea sp. 7	0	0	0	1	0	6	0
Echinodermata	Ophiuroidea spp.	7	22	13	3	2	8	3
Echinodermata	Ophiuroidea spp. obscured	64	29	63	2	6	17	0
Echinodermata	Pterasteridae spp.	0	0	0	0	3	0	0
Echinodermata	Solasteridae spp.	0	2	0	0	3	0	0
Echinodermata	*Tremaster mirabilis*	0	0	0	1	0	0	0
Echinodermata	Valvatacea sp.	0	1	0	1	0	1	0
Mollusca	Bivalvia spp.	18	1	21	5	1	7	3
Mollusca	cf. Colossendeidae sp.	0	1	0	0	0	0	0
Mollusca	Flabellinidae spp.	0	1	3	2	0	0	0
Mollusca	Gastropoda sp. 2	0	0	0	0	0	0	1
Mollusca	Gastropoda sp. 3	0	0	0	0	0	4	2
Mollusca	Gastropoda sp. 4	0	0	0	0	2	0	0
Mollusca	Gastropoda sp. 5	0	0	0	0	1	0	0
Mollusca	Gastropoda sp. 6	0	0	1	0	0	0	0
Mollusca	Gastropoda sp. 8	1	0	0	0	0	1	0
Mollusca	Gastropoda sp. 9	0	1	0	0	1	0	0
Mollusca	Gastropoda sp. 10	0	0	1	2	0	1	0
Mollusca	Incirrata sp.	1	0	0	0	0	2	1

		BB1_B_400	BB1_B_1000	BB1_B_600	BB1_A_600	BB1_C_1000	BB1_C_400	BB1_D
Phylum	Taxon	CON53	CON59	CON66	CON76	CON97	CON103/4	CON116
Mollusca	Polyplacophora sp. 1	0	0	1	0	0	1	0
Mollusca	Polyplacophora sp. 2	1	0	0	1	0	2	0
Mollusca	Polyplacophora sp. 3	0	0	0	0	0	1	0
Mollusca	Polyplacophora sp. 4	1	0	0	0	0	0	0
Mollusca	Trochidae sp.	1	0	1	0	0	2	0
Nermertea	Nemertea spp.	12	0	8	6	1	7	1
Porifera	*Asbestopluma* sp.	1	1	0	0	2	0	0
Porifera	*Asconema* sp.	70	0	5	6	0	73	1
Porifera	Axinellida sp. 1	0	0	1	0	0	0	0
Porifera	Axinellida sp. 2	0	0	0	1	0	0	0
Porifera	Axinellida sp. 3	2	0	0	0	0	1	1
Porifera	Axinellida sp. 4	4	0	0	0	0	3	0
Porifera	Axinellida sp. 5	2	0	0	0	0	0	0
Porifera	Axinellida sp. 6	4	0	0	0	0	0	0
Porifera	cf. *Thenea* spp.	0	0	0	0	4	0	0
Porifera	*Chondrocladia* (*Chondrocladia*) *grandis*	0	0	0	0	1	0	0
Porifera	Cladorhizidae spp.	1	0	0	5	0	1	1
Porifera	Demospongiae sp. 1	0	0	54	0	0	0	0
Porifera	Demospongiae sp. 10	0	0	2	3	0	8	7
Porifera	Demospongiae sp. 11	0	0	1	0	0	0	0
Porifera	Demospongiae sp. 12	2	1	2	0	0	4	0
Porifera	Demospongiae sp. 13	0	0	1	0	0	0	0

		BB1_B_400	BB1_B_1000	BB1_B_600	BB1_A_600	BB1_C_1000	BB1_C_400	BB1_D
Phylum	Taxon	CON53	CON59	CON66	CON76	CON97	CON103/4	CON116
Porifera	Demospongiae sp. 14	0	0	1	0	0	0	0
Porifera	Demospongiae sp. 15	2	0	1	1	0	0	5
Porifera	Demospongiae sp. 16	0	0	0	1	0	1	0
Porifera	Demospongiae sp. 17	0	0	1	0	0	0	0
Porifera	Demospongiae sp. 18	2	0	0	1	0	6	0
Porifera	Demospongiae sp. 19	0	14	67	0	0	1	0
Porifera	Demospongiae sp. 2	0	0	2	0	0	1	1
Porifera	Demospongiae sp. 20	23	2	0	2	3	8	4
Porifera	Demospongiae sp. 21	5	0	0	1	0	0	0
Porifera	Demospongiae sp. 22	0	0	0	0	0	1	1
Porifera	Demospongiae sp. 23	0	0	0	0	0	5	0
Porifera	Demospongiae sp. 24	0	0	0	0	0	1	0
Porifera	Demospongiae sp. 25	0	0	0	0	0	1	0
Porifera	Demospongiae sp. 26	0	0	0	0	0	2	0
Porifera	Demospongiae sp. 28	1	0	0	0	0	0	0
Porifera	Demospongiae sp. 29	0	0	0	0	1	0	0
Porifera	Demospongiae sp. 3	4	0	3	2	2	3	0
Porifera	Demospongiae sp. 30	2	0	0	0	1	0	0
Porifera	Demospongiae sp. 31	2	0	0	0	0	0	0
Porifera	Demospongiae sp. 32	0	0	0	0	4	0	0
Porifera	Demospongiae sp. 33	0	0	1	0	0	0	0
Porifera	Demospongiae sp. 4	0	0	1	0	0	1	1
Porifera	Demospongiae sp. 5	0	2	1	0	25	1	7

		BB1_B_400	BB1_B_1000	BB1_B_600	BB1_A_600	BB1_C_1000	BB1_C_400	BB1_D
Phylum	Taxon	CON53	CON59	CON66	CON76	CON97	CON103/4	CON116
Porifera	Demospongiae sp. 6	0	0	8	0	0	1	0
Porifera	Demospongiae sp. 7	19	3	1	2	3	21	12
Porifera	Demospongiae sp. 8	0	0	0	0	0	4	0
Porifera	Demospongiae sp. 9	4	0	0	0	0	0	0
Porifera	Hexactinellida sp. 1	2	0	1	0	0	3	0
Porifera	Hexactinellida sp. 2	0	0	1	0	0	0	0
Porifera	Hexactinellida sp. 3	0	0	0	5	0	13	0
Porifera	Hexactinellida sp. 4	3	0	0	1	0	0	0
Porifera	Hexactinellida sp. 5	0	0	0	0	0	3	0
Porifera	*Hymedesmia* sp.	1	1	3	0	15	0	5
Porifera	Hymedesmiidae sp. 1	0	0	10	3	1	1	0
Porifera	Hymedesmiidae sp. 2	1	0	13	1	12	0	6
Porifera	*Lissodendoryx* (*Lissodendoryx*) *complicata*	3	0	7	18	0	0	0
Porifera	Polymastiidae sp. 1	1	0	1	0	0	1	0
Porifera	Polymastiidae sp. 10	2	0	0	0	0	0	0
Porifera	Polymastiidae sp. 11	6	0	0	0	0	0	0
Porifera	Polymastiidae sp. 12	6	0	0	0	0	0	0
Porifera	Polymastiidae sp. 2	12	0	0	1	1	1	0
Porifera	Polymastiidae sp. 3	3	0	0	1	0	0	0
Porifera	Polymastiidae sp. 4	7	0	0	3	2	0	0
Porifera	Polymastiidae sp. 5	0	0	0	0	0	0	1
Porifera	Polymastiidae sp. 6	8	0	0	0	0	3	0

		BB1_B_400	BB1_B_1000	BB1_B_600	BB1_A_600	BB1_C_1000	BB1_C_400	BB1_D
Phylum	Taxon	CON53	CON59	CON66	CON76	CON97	CON103/4	CON116
Porifera	Polymastiidae sp. 8	2	0	0	0	1	3	0
Porifera	Polymastiidae sp. 9	2	0	0	0	2	1	0
Porifera	Porifera sp. 100	1	0	0	1	0	0	0
Porifera	Porifera sp. 101	1	0	6	4	0	0	0
Porifera	Porifera sp. 102	0	0	17	7	1	7	0
Porifera	Porifera sp. 103	22	0	2	5	0	10	0
Porifera	Porifera sp. 11	0	0	1	0	0	3	0
Porifera	Porifera sp. 12	25	0	1	0	0	4	0
Porifera	Porifera sp. 17	0	0	1	0	0	3	0
Porifera	Porifera sp. 2	1	0	1	1	0	0	0
Porifera	Porifera sp. 22	38	0	1	1	1	0	0
Porifera	Porifera sp. 25	0	0	2	0	0	3	0
Porifera	Porifera sp. 26	1	0	4	0	0	0	0
Porifera	Porifera sp. 27	0	0	3	0	0	1	0
Porifera	Porifera sp. 3	19	1	29	8	31	21	16
Porifera	Porifera sp. 30	0	0	0	1	0	0	0
Porifera	Porifera sp. 35	0	0	0	3	0	0	0
Porifera	Porifera sp. 40	13	0	8	7	0	23	7
Porifera	Porifera sp. 42	0	0	0	2	0	1	0
Porifera	Porifera sp. 47	1	0	0	1	0	1	0
Porifera	Porifera sp. 48	0	0	5	1	0	1	0
Porifera	Porifera sp. 52	0	0	0	2	0	2	0
Porifera	Porifera sp. 58	0	0	1	0	0	1	2

		BB1_B_400	BB1_B_1000	BB1_B_600	BB1_A_600	BB1_C_1000	BB1_C_400	BB1_D
Phylum	Taxon	CON53	CON59	CON66	CON76	CON97	CON103/4	CON116
Porifera	Porifera sp. 59	0	0	0	1	0	1	0
Porifera	Porifera sp. 6	3	0	13	1	0	16	0
Porifera	Porifera sp. 64	0	0	0	0	1	0	0
Porifera	Porifera sp. 65	0	0	0	2	1	17	7
Porifera	Porifera sp. 7	43	0	14	18	2	224	0
Porifera	Porifera sp. 70	0	0	0	0	0	0	2
Porifera	Porifera sp. 73	4	2	6	4	2	0	0
Porifera	Porifera sp. 76	0	0	0	0	0	1	0
Porifera	Porifera sp. 77	0	0	0	0	0	2	0
Porifera	Porifera sp. 78	0	0	0	0	0	4	0
Porifera	Porifera sp. 80	1	0	0	0	0	2	0
Porifera	Porifera sp. 81	1	0	0	0	0	4	0
Porifera	Porifera sp. 82	0	0	0	0	0	2	0
Porifera	Porifera sp. 83	0	0	0	0	0	1	0
Porifera	Porifera sp. 84	0	0	0	0	0	4	0
Porifera	Porifera sp. 85	0	0	0	0	0	6	0
Porifera	Porifera sp. 86	11	0	0	0	0	2	0
Porifera	Porifera sp. 89	3	0	0	0	0	3	0
Porifera	Porifera sp. 9	0	0	2	0	0	0	1
Porifera	Porifera sp. 90	0	0	0	0	0	2	0
Porifera	Porifera sp. 91	0	0	0	0	0	2	0
Porifera	Porifera sp. 92	0	0	0	0	0	1	0
Porifera	Porifera sp. 93	1	0	0	0	0	1	0

		BB1_B_400	BB1_B_1000	BB1_B_600	BB1_A_600	BB1_C_1000	BB1_C_400	BB1_D
Phylum	Taxon	CON53	CON59	CON66	CON76	CON97	CON103/4	CON116
Porifera	Porifera sp. 99	1	0	0	0	0	0	0
Porifera	*Tentorium semisuberites*	1	0	0	0	0	0	0
Porifera	Porifera Thin Sheet	5	0	90	92	5	253	25
Porifera	Porifera Cushion	137	11	109	77	86	486	54
Porifera	Porifera Thin Sheet/Cushion	133	26	230	175	11	2426	138
Porifera	Porifera Massive-globose	15	5	40	13	12	66	15
Porifera	Porifera Massive-irregular	8	0	2	2	2	17	0
Porifera	Porifera Vase-cylindrical	8	0	14	19	0	94	5
	Unidentified 1	1	1	4	0	1	12	1
	Unidentified 103	0	0	2	1	0	5	4
	Unidentified 104	0	0	2	0	0	0	0
	Unidentified 106	0	0	1	5	0	16	0
	Unidentified 111	1	0	0	0	0	0	0
	Unidentified 112	0	0	1	0	0	0	0
	Unidentified 116	0	1	1	0	0	1	0
	Unidentified 117	0	3	9	14	0	36	11
	Unidentified 118	0	1	2	0	0	3	0
	Unidentified 123	35	27	7	52	2	408	32
	Unidentified 124	0	0	1	0	0	2	0
	Unidentified 13	0	0	1	0	0	0	0
	Unidentified 130	0	0	0	0	1	0	0
	Unidentified 133	0	0	1	0	0	0	0
	Unidentified 134	0	0	1	0	0	0	0

		BB1_B_400	BB1_B_1000	BB1_B_600	BB1_A_600	BB1_C_1000	BB1_C_400	BB1_D
Phylum	Taxon	CON53	CON59	CON66	CON76	CON97	CON103/4	CON116
	Unidentified 14	0	0	1	1	0	0	0
	Unidentified 144	0	0	1	0	0	0	0
	Unidentified 148	0	1	2	1	0	3	1
	Unidentified 149	0	0	0	0	4	0	0
	Unidentified 157	0	0	0	0	3	0	0
	Unidentified 160	0	0	0	0	1	0	0
	Unidentified 161	0	0	0	0	1	0	0
	Unidentified 164	0	0	0	0	1	0	0
	Unidentified 17	20	2	55	0	0	0	1
	Unidentified 171	0	0	1	0	0	0	0
	Unidentified 176	0	0	1	0	0	0	0
	Unidentified 177	0	0	1	0	0	0	0
	Unidentified 179	1	0	1	1	0	4	0
	Unidentified 181	0	1	1	1	0	6	0
	Unidentified 185	0	0	1	0	0	0	0
	Unidentified 188	0	0	1	0	0	3	0
	Unidentified 197	0	1	1	1	0	2	0
	Unidentified 201	0	0	1	0	0	0	0
	Unidentified 202	0	0	1	0	0	0	0
	Unidentified 21	1	0	0	0	0	0	0
	Unidentified 210	0	0	1	0	0	1	0
	Unidentified 212	0	0	1	3	0	5	0
	Unidentified 214	0	0	1	0	0	0	0

		BB1_B_400	BB1_B_1000	BB1_B_600	BB1_A_600	BB1_C_1000	BB1_C_400	BB1_D
Phylum	Taxon	CON53	CON59	CON66	CON76	CON97	CON103/4	CON116
	Unidentified 219	0	0	1	15	2	4	0
	Unidentified 22	0	0	3	3	0	6	1
	Unidentified 220	0	0	1	0	0	1	0
	Unidentified 222	0	0	1	1	0	0	0
	Unidentified 224	0	0	1	6	0	10	2
	Unidentified 228	0	0	1	0	0	0	0
	Unidentified 231	0	0	1	0	0	2	0
	Unidentified 235	0	0	1	0	0	3	0
	Unidentified 236	0	0	1	0	0	3	0
	Unidentified 243	0	0	0	1	0	0	0
	Unidentified 245	0	0	0	2	0	3	1
	Unidentified 251	0	0	0	1	0	1	0
	Unidentified 254	0	0	0	1	0	5	0
	Unidentified 257	0	2	0	1	0	2	0
	Unidentified 264	0	0	0	2	0	0	0
	Unidentified 268	0	0	2	3	0	2	1
	Unidentified 269	1	0	0	1	0	0	0
	Unidentified 272	0	0	0	2	0	0	0
	Unidentified 273	0	0	0	2	0	0	0
	Unidentified 28	1	0	2	2	0	3	0
	Unidentified 280	0	0	0	1	0	0	0
	Unidentified 281	0	0	0	1	0	3	0
	Unidentified 289	0	0	0	1	0	0	0

		BB1_B_400	BB1_B_1000	BB1_B_600	BB1_A_600	BB1_C_1000	BB1_C_400	BB1_D
Phylum	Taxon	CON53	CON59	CON66	CON76	CON97	CON103/4	CON116
	Unidentified 29	0	0	0	1	0	11	0
	Unidentified 290	0	0	0	1	0	0	0
	Unidentified 299	0	0	0	2	3	2	1
	Unidentified 3	1	1	7	4	0	36	3
	Unidentified 306	0	3	2	6	0	6	6
	Unidentified 307	0	0	0	1	0	0	0
	Unidentified 308	0	0	0	4	0	2	0
	Unidentified 309	0	0	0	2	0	0	1
	Unidentified 312	0	1	0	3	2	7	2
	Unidentified 314	0	0	0	1	0	0	0
	Unidentified 319	0	0	0	1	0	0	0
	Unidentified 32	0	0	1	1	0	0	0
	Unidentified 321	0	0	0	1	0	0	0
	Unidentified 328	0	0	0	1	0	0	0
	Unidentified 329	0	0	0	1	0	0	0
	Unidentified 331	0	5	3	2	0	66	11
	Unidentified 332	0	0	0	1	0	1	0
	Unidentified 334	0	0	0	1	0	6	0
	Unidentified 337	1	1	0	1	0	2	0
	Unidentified 340	0	0	0	1	0	0	2
	Unidentified 342	0	1	0	9	0	8	9
	Unidentified 343	0	0	0	1	0	1	2
	Unidentified 345	0	0	0	1	0	1	0

		BB1_B_400	BB1_B_1000	BB1_B_600	BB1_A_600	BB1_C_1000	BB1_C_400	BB1_D
Phylum	Taxon	CON53	CON59	CON66	CON76	CON97	CON103/4	CON116
	Unidentified 346	3	0	0	1	0	0	1
	Unidentified 348	0	0	0	1	0	1	0
	Unidentified 350	0	0	0	1	0	0	0
	Unidentified 352	0	3	0	1	0	2	0
	Unidentified 354	0	0	0	3	0	1	0
	Unidentified 355	2	2	4	0	0	0	1
	Unidentified 356	0	0	0	0	0	1	5
	Unidentified 358	1	0	0	0	0	17	3
	Unidentified 36	9	3	8	11	5	126	3
	Unidentified 361	0	0	0	0	0	0	1
	Unidentified 363	0	0	0	0	0	2	2
	Unidentified 366	0	0	0	0	0	0	1
	Unidentified 367	0	0	0	0	0	0	1
	Unidentified 37	0	8	2	0	27	6	0
	Unidentified 373	1	0	0	0	3	3	2
	Unidentified 375	0	0	0	0	0	0	1
	Unidentified 377	0	0	0	0	0	0	1
	Unidentified 380	0	0	0	0	0	0	1
	Unidentified 383	0	0	0	0	0	4	1
	Unidentified 384	0	1	0	0	0	2	1
	Unidentified 386	0	1	0	0	0	15	1
	Unidentified 389	0	0	0	0	0	0	1
	Unidentified 391	0	0	0	0	0	0	1

		BB1_B_400	BB1_B_1000	BB1_B_600	BB1_A_600	BB1_C_1000	BB1_C_400	BB1_D
Phylum	Taxon	CON53	CON59	CON66	CON76	CON97	CON103/4	CON116
	Unidentified 392	0	0	0	1	1	0	1
	Unidentified 394	0	0	0	2	0	0	1
	Unidentified 395	0	0	0	0	1	0	2
	Unidentified 396	0	0	1	0	0	0	0
	Unidentified 398	0	0	0	1	0	1	0
	Unidentified 399	44	3	54	11	3	93	7
	Unidentified 403	0	0	0	0	0	0	1
	Unidentified 404	0	0	0	3	0	7	2
	Unidentified 405	0	0	0	2	0	1	0
	Unidentified 407	0	0	2	0	0	0	0
	Unidentified 408	0	4	0	0	2	32	0
	Unidentified 409	0	0	0	0	0	7	0
	Unidentified 410	5	0	0	0	0	4	0
	Unidentified 411	1	0	0	0	0	4	0
	Unidentified 413	0	0	0	0	0	1	0
	Unidentified 414	0	0	0	0	0	2	0
	Unidentified 415	0	0	0	0	0	1	0
	Unidentified 416	0	0	0	0	0	1	0
	Unidentified 417	0	0	0	0	0	1	0
	Unidentified 418	1	0	0	0	0	2	0
	Unidentified 419	0	0	0	0	0	2	0
	Unidentified 42	2	2	12	12	0	37	1
	Unidentified 420	0	0	0	0	0	1	0

		BB1_B_400	BB1_B_1000	BB1_B_600	BB1_A_600	BB1_C_1000	BB1_C_400	BB1_D
Phylum	Taxon	CON53	CON59	CON66	CON76	CON97	CON103/4	CON116
	Unidentified 421	0	0	0	0	0	1	0
	Unidentified 422	0	0	0	0	0	2	0
	Unidentified 424	0	0	0	0	0	1	0
	Unidentified 425	0	1	0	0	0	1	0
	Unidentified 426	0	0	0	0	0	1	0
	Unidentified 428	0	1	0	0	0	2	0
	Unidentified 429	0	0	0	0	0	2	0
	Unidentified 43	1	0	1	0	0	0	0
	Unidentified 430	2	1	0	0	0	4	0
	Unidentified 432	0	0	0	0	0	1	0
	Unidentified 433	0	0	0	0	0	2	0
	Unidentified 434	0	0	0	0	0	9	0
	Unidentified 435	0	0	0	0	0	1	0
	Unidentified 436	0	0	0	0	0	1	0
	Unidentified 437	0	0	0	0	0	1	0
	Unidentified 438	0	0	0	0	0	1	0
	Unidentified 439	0	0	0	0	0	1	0
	Unidentified 44	2	0	1	0	0	0	0
	Unidentified 440	0	0	0	0	0	2	0
	Unidentified 441	0	0	0	0	0	1	0
	Unidentified 444	5	12	0	0	1	3	0
	Unidentified 445	19	35	1	1	0	872	0
	Unidentified 446	0	0	0	0	0	1	0

		BB1_B_400	BB1_B_1000	BB1_B_600	BB1_A_600	BB1_C_1000	BB1_C_400	BB1_D
Phylum	Taxon	CON53	CON59	CON66	CON76	CON97	CON103/4	CON116
	Unidentified 447	0	1	0	0	0	0	0
	Unidentified 448	0	1	0	0	0	0	0
	Unidentified 449	0	1	0	0	0	0	0
	Unidentified 45	0	0	2	1	0	2	0
	Unidentified 450	0	1	0	0	0	0	0
	Unidentified 451	0	1	0	0	0	0	0
	Unidentified 452	0	1	0	0	0	0	0
	Unidentified 453	2	8	0	0	0	0	0
	Unidentified 454	1	0	0	0	0	0	0
	Unidentified 455	0	3	0	0	0	0	0
	Unidentified 456	0	4	0	0	1	0	0
	Unidentified 458	0	0	0	0	2	0	0
	Unidentified 459	0	0	0	0	1	0	0
	Unidentified 460	326	1	155	71	11	375	5
	Unidentified 462	0	0	1	0	0	0	0
	Unidentified 463	0	0	1	0	0	1	0
	Unidentified 464	0	0	0	2	0	3	1
	Unidentified 47	0	0	2	0	0	4	0
	Unidentified 49	0	0	3	0	1	1	0
	Unidentified 58	0	0	3	1	0	0	0
	Unidentified 59	0	1	1	2	0	2	0
	Unidentified 60	8	0	15	2	0	7	1
	Unidentified 64	0	1	1	0	0	0	0

		BB1_B_400	BB1_B_1000	BB1_B_600	BB1_A_600	BB1_C_1000	BB1_C_400	BB1_D
Phylum	Taxon	CON53	CON59	CON66	CON76	CON97	CON103/4	CON116
	Unidentified 70	0	0	13	2	0	0	0
	Unidentified 71	0	0	1	0	0	2	0
	Unidentified 72	1	0	0	0	0	0	0
	Unidentified 73	1	0	0	0	0	0	0
	Unidentified 76	7	0	1	0	0	64	0
	Unidentified 78	0	0	1	0	0	0	0
	Unidentified 8	0	0	1	0	0	0	0
	Unidentified 84	0	0	1	0	0	1	0
	Unidentified 86	0	0	2	0	0	1	1
	Unidentified 88	1	0	0	0	0	0	0
	Unidentified 889	10	2	0	12	1	26	3
	Unidentified 9	0	0	2	2	1	2	0
	Unidentified 93	4	0	3	3	1	8	4
	Unidentified 95	0	2	1	0	0	2	0
	Unidentified 98	1	0	0	0	0	0	0

APPENDIX B: RANKED MEGAFAUNAL TAXON ABUNDANCE

Table 1. Ranked order of total abundance for megafaunal taxa (Σ number of observations/m^2) accounting for > 93% of total abundance observed on seven photo transects from the four CBMP biodiversity monitoring stations in the Disko Fan Conservation Area (DFCA). The percent and cumulative percent abundance for each taxon provided. Taxon nomenclature follows Baker et al. (2018c) and does not reflect more recent name changes.

Taxon	Total A	% A	Cumulative % A
Porifera Thin Sheet/Cushion	4878.01	16.68	16.68
Hormathiidae spp.	1777.78	6.08	22.76
Bryozoa sp. 1	1498.06	5.12	27.88
Porifera Cushion	1491.84	5.10	32.98
Unidentified 460	1466.98	5.02	37.99
Unidentified 445	1442.11	4.93	42.93
Zoantharia spp.	1224.55	4.19	47.11
Pennatula grandis	1131.31	3.87	50.98
Unidentified 123	874.90	2.99	53.97
Porifera Thin Sheet	730.38	2.50	56.47
Sabellidae spp.	691.53	2.36	58.83
Serpulidae spp.	674.44	2.31	61.14
Pennatulacea sp. 1	570.32	1.95	63.09
Nephtheidae spp.	568.76	1.94	65.03
Ascidiacea sp. 6	548.56	1.88	66.91
Porifera sp. 7	467.75	1.60	68.51
Acanella arbuscula	337.22	1.15	69.66
Unidentified 399	334.11	1.14	70.80
Ophiuroidea spp. obscured	281.27	0.96	71.77
Porifera Massive-globose	257.96	0.88	72.65
Unidentified 36	256.41	0.88	73.52
Asconema sp.	240.87	0.82	74.35
Bryozoa sp. 5	233.10	0.80	75.14
Porifera Vase-cylindrical	217.56	0.74	75.89
Didemnidae spp.	203.57	0.70	76.58
Porifera sp. 3	194.25	0.66	77.25
Ascidiacea sp. 4	180.26	0.62	77.87
Mysidae sp. 4	150.74	0.52	78.38
Bryozoa sp. 3	149.18	0.51	78.89
Anthoathecata spp.	147.63	0.50	79.40
Unidentified 331	135.20	0.46	79.86
Anthozoa sp. 24	128.98	0.44	80.30
Radicipes sp.	128.98	0.44	80.74

Taxon	Total A	% A	Cumulative % A
Demospongiae sp. 19	127.43	0.44	81.18
Unidentified 17	121.21	0.41	81.59
Unidentified 117	113.44	0.39	81.98
Unidentified 76	111.89	0.38	82.36
Crangonidae spp.	102.56	0.35	82.71
Unidentified 42	102.56	0.35	83.06
Alcyonacea sp. 3	99.46	0.34	83.40
Demospongiae sp. 7	94.79	0.32	83.73
Porifera sp. 40	90.13	0.31	84.03
Actiniaria sp. 9	90.13	0.31	84.34
Ophiuroidea spp.	90.13	0.31	84.65
Bivalvia spp.	87.02	0.30	84.95
Alcyonacea sp. 1	85.47	0.29	85.24
Demospongiae sp. 1	83.92	0.29	85.53
Unidentified 889	83.92	0.29	85.81
Unidentified 3	80.81	0.28	86.09
Boreomysinae spp.	74.59	0.26	86.35
Leptothecata sp. 1	73.04	0.25	86.59
cf. Terebellidae spp.	71.48	0.24	86.84
Unidentified 37	66.82	0.23	87.07
Demospongiae sp. 20	65.27	0.22	87.29
Actiniaria sp. 5	63.71	0.22	87.51
Porifera sp. 22	63.71	0.22	87.73
Porifera sp. 103	60.61	0.21	87.93
Unidentified 408	59.05	0.20	88.14
Ascidiacea sp. 2	55.94	0.19	88.33
Leptothecata sp. 2	55.94	0.19	88.52
Demospongiae sp. 5	55.94	0.19	88.71
Nemertea spp.	54.39	0.19	88.90
Ascidiacea sp. 1	51.28	0.18	89.07
Hymedesmiidae sp. 2	51.28	0.18	89.25
Porifera sp. 6	51.28	0.18	89.42
Unidentified 60	51.28	0.18	89.60
Porifera sp. 102	49.73	0.17	89.77
Porifera Massive-irregular	48.17	0.16	89.93
Porifera sp. 12	46.62	0.16	90.09
Lissodendoryx (*Lissodendoryx*) *complicata*	43.51	0.15	90.24
Ceramaster cf. *granularis*	41.96	0.14	90.38
Porifera sp. 65	41.96	0.14	90.53
Unidentified 342	41.96	0.14	90.67
Pandalidae spp.	40.40	0.14	90.81

Taxon	Total A	% A	Cumulative % A
Hymedesmia sp.	38.85	0.13	90.94
Leptothecata sp. 3	38.85	0.13	91.07
Mysidae sp. 1	35.74	0.12	91.20
Unidentified 306	35.74	0.12	91.32
Unidentified 93	35.74	0.12	91.44
Unidentified 106	34.19	0.12	91.56
Unidentified 219	34.19	0.12	91.67
Ascidiacea sp. 10	32.63	0.11	91.79
Actiniaria sp. 2	32.63	0.11	91.90
Ceriantharia sp. 6	32.63	0.11	92.01
Unidentified 358	32.63	0.11	92.12
Unidentified 444	32.63	0.11	92.23
Brachiopoda sp. 2	31.08	0.11	92.34
Demospongiae sp. 10	31.08	0.11	92.44
Brachiopoda sp. 1	31.08	0.11	92.55
Unidentified 1	31.08	0.11	92.66
Unidentified 224	29.53	0.10	92.76
Leptothecata sp. 7	27.97	0.10	92.85
Hexactinellida sp. 3	27.97	0.10	92.95
Porifera sp. 73	27.97	0.10	93.05
Anthozoa sp. 3	27.97	0.10	93.14
Σ Abundance of all Taxa	29247.86		

APPENDIX C: TEMPERATURE AND DEPTH DATA FOR EACH PHOTO TRANSECT

Table 1. Details of each photo collected from the photo transects in the Disko Fan Conservation Area (DFCA). Temperature and depth were recorded from a Seabird39 attached to the 4K Camera frame. Photos have been uploaded to the CAFF data repository. Not all photos were analyzed (see Table 3). Those photos that were not analyzed are marked with an asterisk.

CON	Photo No.	Latitude (DD)	Longitude (DD)	Date	GMT (hhmmss)	Julian Day	Depth (m)	Bottom Temperature (C)	Photo Filename
CON-053	9	67.998988	-59.265450	26-Sep-2012	103941	270	401.19	4.0507	CON-053 009.jpg
CON-053	10	67.998561	-59.266370	26-Sep-2012	104028	270	401.15	4.0524	CON-053 010.jpg
CON-053	11	67.998372	-59.267116	26-Sep-2012	104117	270	400.83	4.0526	CON-053 011.jpg
CON-053	12	67.998392	-59.267512	26-Sep-2012	104201	270	401.91	4.0519	CON-053 012.jpg
CON-053	13	67.998438	-59.267869	26-Sep-2012	104248	270	403.21	4.0524	CON-053 013.jpg
CON-053	14	67.998423	-59.268354	26-Sep-2012	104335	270	404.88	4.0528	CON-053 014.jpg
CON-053	15	67.998398	-59.269416	26-Sep-2012	104423	270	406.62	4.0516	CON-053 015.jpg
CON-053	16	67.998357	-59.269383	26-Sep-2012	104513	270	408.83	4.0507	CON-053 016.jpg
CON-053	17	67.998320	-59.269329	26-Sep-2012	104601	270	411.94	4.0538	CON-053 017.jpg
CON-053	18	67.998396	-59.270169	26-Sep-2012	104648	270	415.06	4.0558	CON-053 018.jpg
CON-053	19	67.998358	-59.270603	26-Sep-2012	104733	270	417.27	4.0548	CON-053 019.jpg
CON-053	20	67.998350	-59.271011	26-Sep-2012	104814	270	419.13	4.0574	CON-053 020.jpg
CON-053	21	67.998312	-59.271580	26-Sep-2012	104855	270	419.55	4.0590	CON-053 021.jpg
CON-053	22	67.998344	-59.272228	26-Sep-2012	104941	270	421.42	4.0603	CON-053 022.jpg
CON-053	23	67.998364	-59.272438	26-Sep-2012	105030	270	422.86	4.0638	CON-053 023.jpg
CON-053	24	67.998281	-59.273085	26-Sep-2012	105115	270	423.34	4.0642	CON-053 024.jpg
CON-053	25	67.998235	-59.273713	26-Sep-2012	105158	270	423.42	4.0664	CON-053 025.jpg
CON-053	26	67.998172	-59.274601	26-Sep-2012	105305	270	424.82	4.0607	CON-053 026.jpg
CON-053	27	67.998069	-59.275051	26-Sep-2012	105346	270	425.35	4.0608	CON-053 027.jpg
CON-053	28	67.998034	-59.275891	26-Sep-2012	105436	270	424.76	4.0417	CON-053 028.jpg
CON-053	29	67.997971	-59.276565	26-Sep-2012	105520	270	424.33	4.0293	CON-053 029.jpg
CON-053	30	67.997890	-59.277332	26-Sep-2012	105606	270	424.66	4.0119	CON-053 030.jpg

CON	Photo No.	Latitude (DD)	Longitude (DD)	Date	GMT (hhmmss)	Julian Day	Depth (m)	Bottom Temperature (C)	Photo Filename
CON-053	31	67.997884	-59.277345	26-Sep-2012	105608	270	425.91	4.0126	CON-053 031.jpg
CON-053	32	67.997856	-59.278031	26-Sep-2012	105656	270	424.67	4.0085	CON-053 032.jpg
CON-053	33	67.997750	-59.278814	26-Sep-2012	105741	270	424.68	3.9895	CON-053 033.jpg
CON-053	34	67.997764	-59.279403	26-Sep-2012	105824	270	426.00	3.9702	CON-053 034.jpg
CON-053	35	67.997718	-59.280038	26-Sep-2012	105907	270	425.78	3.9635	CON-053 035.jpg
CON-053	36	67.997633	-59.280800	26-Sep-2012	105953	270	427.34	3.9406	CON-053 036.jpg
CON-053	37	67.997556	-59.281534	26-Sep-2012	110041	270	427.49	3.9287	CON-053 037.jpg
CON-053	38	67.997506	-59.282216	26-Sep-2012	110125	270	428.73	3.9030	CON-053 038.jpg
CON-053	39	67.997440	-59.282954	26-Sep-2012	110211	270	429.19	3.8863	CON-053 039.jpg
CON-053	40	67.997359	-59.283784	26-Sep-2012	110307	270	431.04	3.8639	CON-053 040.jpg
CON-053	41	67.997302	-59.284548	26-Sep-2012	110354	270	432.40	3.8007	CON-053 041.jpg
CON-053	42*	67.997302	-59.284582	26-Sep-2012	110359	270	435.09	3.8075	CON-053 042.jpg
CON-053	43	67.997196	-59.285204	26-Sep-2012	110441	270	433.32	3.7076	CON-053 043.jpg
CON-053	44	67.997190	-59.285884	26-Sep-2012	110526	270	433.97	3.6709	CON-053 044.jpg
CON-053	45	67.997127	-59.286498	26-Sep-2012	110608	270	434.98	3.6518	CON-053 045.jpg
CON-053	46	67.997028	-59.287230	26-Sep-2012	110652	270	436.35	3.6136	CON-053 046.jpg
CON-053	47	67.996933	-59.287948	26-Sep-2012	110739	270	439.01	3.6030	CON-053 047.jpg
CON-053	48	67.996930	-59.288770	26-Sep-2012	110824	270	440.49	3.5871	CON-053 048.jpg
CON-053	49	67.996824	-59.289411	26-Sep-2012	110906	270	442.12	3.5699	CON-053 049.jpg
CON-053	50*	67.996818	-59.289500	26-Sep-2012	110913	270	444.64	3.5627	CON-053 050.jpg
CON-053	51	67.996762	-59.290102	26-Sep-2012	110950	270	444.10	3.5473	CON-053 051.jpg
CON-053	52	67.996674	-59.290696	26-Sep-2012	111034	270	445.32	3.5459	CON-053 052.jpg
CON-053	53*	67.996674	-59.290700	26-Sep-2012	111037	270	446.85	3.5423	CON-053 053.jpg
CON-053	54	67.996665	-59.291464	26-Sep-2012	111117	270	446.76	3.5439	CON-053 054.jpg
CON-053	55	67.996540	-59.292209	26-Sep-2012	111204	270	448.16	3.5375	CON-053 055.jpg
CON-053	56	67.996477	-59.292890	26-Sep-2012	111247	270	448.72	3.5379	CON-053 056.jpg
CON-053	57	67.996413	-59.293560	26-Sep-2012	111334	270	449.60	3.5342	CON-053 057.jpg
CON-053	58	67.996330	-59.294282	26-Sep-2012	111420	270	450.26	3.5314	CON-053 058.jpg

CON	Photo No.	Latitude (DD)	Longitude (DD)	Date	GMT (hhmmss)	Julian Day	Depth (m)	Bottom Temperature (C)	Photo Filename
CON-053	59	67.996236	-59.294943	26-Sep-2012	111506	270	451.46	3.5286	CON-053 059.jpg
CON-053	60	67.996206	-59.295629	26-Sep-2012	111549	270	452.24	3.5252	CON-053 060.jpg
CON-053	61	67.996126	-59.296272	26-Sep-2012	111631	270	452.07	3.5227	CON-053 061.jpg
CON-053	62	67.996027	-59.297063	26-Sep-2012	111716	270	452.48	3.5187	CON-053 062.jpg
CON-053	63	67.995960	-59.297640	26-Sep-2012	111759	270	453.55	3.5176	CON-053 063.jpg
CON-053	64	67.995870	-59.298432	26-Sep-2012	111846	270	454.31	3.5118	CON-053 064.jpg
CON-053	65	67.995770	-59.299118	26-Sep-2012	111934	270	456.06	3.5097	CON-053 065.jpg
CON-053	66	67.995675	-59.299807	26-Sep-2012	112016	270	457.13	3.5077	CON-053 066.jpg
CON-053	67	67.995581	-59.300335	26-Sep-2012	112057	270	456.99	3.5028	CON-053 067.jpg
CON-053	68	67.995525	-59.300926	26-Sep-2012	112140	270	458.09	3.5121	CON-053 068.jpg
CON-053	69	67.995409	-59.301632	26-Sep-2012	112223	270	457.76	3.5097	CON-053 069.jpg
CON-053	70*	67.995408	-59.301654	26-Sep-2012	112228	270	460.48	3.4984	CON-053 070.jpg
CON-053	71	67.995296	-59.302246	26-Sep-2012	112306	270	458.24	3.4930	CON-053 071.jpg
CON-053	72*	67.995276	-59.302288	26-Sep-2012	112311	270	459.96	3.4917	CON-053 072.jpg
CON-053	73	67.995195	-59.302832	26-Sep-2012	112349	270	458.04	3.4892	CON-053 073.jpg
CON-053	74	67.995081	-59.303622	26-Sep-2012	112438	270	459.97	3.4851	CON-053 074.jpg
CON-053	75	67.994977	-59.304290	26-Sep-2012	112523	270	459.91	3.4813	CON-053 075.jpg
CON-053	76	67.994918	-59.304952	26-Sep-2012	112606	270	460.59	3.4784	CON-053 076.jpg
CON-053	77	67.994829	-59.305663	26-Sep-2012	112653	270	461.42	3.4750	CON-053 077.jpg
CON-053	78	67.994723	-59.306408	26-Sep-2012	112735	270	461.65	3.4747	CON-053 078.jpg
CON-053	79	67.994656	-59.306936	26-Sep-2012	112817	270	461.83	3.4717	CON-053 079.jpg
CON-053	80	67.994517	-59.307691	26-Sep-2012	112905	270	462.00	3.4706	CON-053 080.jpg
CON-053	81	67.994408	-59.308425	26-Sep-2012	112950	270	461.73	3.4679	CON-053 081.jpg
CON-059	43*	67.972539	-59.540589	27-Sep-2012	110018	271	998.46	1.2765	CON-059 043.jpg
CON-059	44	67.972539	-59.540601	27-Sep-2012	110026	271	1003.42	1.2736	CON-059 044.jpg
CON-059	45*	67.972538	-59.540608	27-Sep-2012	110029	271	1005.71	1.2740	CON-059 045.jpg
CON-059	46	67.972576	-59.541120	27-Sep-2012	110117	271	1005.71	1.2672	CON-059 046.jpg
CON-059	47*	67.972531	-59.541384	27-Sep-2012	110214	271	1006.13	1.2640	CON-059 047.jpg

CON	Photo No.	Latitude (DD)	Longitude (DD)	Date	GMT (hhmmss)	Julian Day	Depth (m)	Bottom Temperature (C)	Photo Filename
CON-059	48	67.972374	-59.541849	27-Sep-2012	110312	271	1008.10	1.2532	CON-059 048.jpg
CON-059	49	67.972353	-59.541868	27-Sep-2012	110316	271	1008.90	1.2574	CON-059 049.jpg
CON-059	50	67.972189	-59.542195	27-Sep-2012	110404	271	1009.74	1.2411	CON-059 050.jpg
CON-059	51*	67.972223	-59.542348	27-Sep-2012	110442	271	1004.80	1.2181	CON-059 051.jpg
CON-059	52	67.972223	-59.542434	27-Sep-2012	110450	271	1010.81	1.2303	CON-059 052.jpg
CON-059	53	67.972222	-59.542458	27-Sep-2012	110455	271	1011.20	1.2383	CON-059 053.jpg
CON-059	54	67.972160	-59.542863	27-Sep-2012	110548	271	1012.41	1.2423	CON-059 054.jpg
CON-059	55	67.972088	-59.543132	27-Sep-2012	110640	271	1013.05	1.2262	CON-059 055.jpg
CON-059	56*	67.972096	-59.543202	27-Sep-2012	110656	271	1005.66	1.2288	CON-059 056.jpg
CON-059	57	67.972075	-59.543495	27-Sep-2012	110736	271	1014.41	1.2340	CON-059 057.jpg
CON-059	58	67.971786	-59.543858	27-Sep-2012	110826	271	1015.69	1.2314	CON-059 058.jpg
CON-059	59	67.971758	-59.544120	27-Sep-2012	110916	271	1016.70	1.2057	CON-059 059.jpg
CON-059	60	67.971626	-59.544405	27-Sep-2012	111008	271	1018.11	1.2093	CON-059 060.jpg
CON-059	61*	67.971678	-59.544668	27-Sep-2012	111047	271	1010.74	1.1761	CON-059 061.jpg
CON-059	62	67.971711	-59.544764	27-Sep-2012	111100	271	1019.38	1.1934	CON-059 062.jpg
CON-059	63	67.971438	-59.545070	27-Sep-2012	111153	271	1020.17	1.1856	CON-059 063.jpg
CON-059	64	67.971318	-59.545431	27-Sep-2012	111246	271	1021.52	1.1690	CON-059 064.jpg
CON-059	65	67.971282	-59.545692	27-Sep-2012	111336	271	1022.65	1.1922	CON-059 065.jpg
CON-059	66	67.971189	-59.546165	27-Sep-2012	111423	271	1024.02	1.1640	CON-059 066.jpg
CON-059	67	67.971187	-59.546184	27-Sep-2012	111426	271	1024.21	1.1793	CON-059 067.jpg
CON-059	68	67.971109	-59.546428	27-Sep-2012	111517	271	1025.08	1.1637	CON-059 068.jpg
CON-059	69*	67.971005	-59.546670	27-Sep-2012	111601	271	1024.31	1.1551	CON-059 069.jpg
CON-059	70*	67.970996	-59.546674	27-Sep-2012	111607	271	1027.07	1.1580	CON-059 070.jpg
CON-059	71	67.970866	-59.547134	27-Sep-2012	111651	271	1027.98	1.1636	CON-059 071.jpg
CON-059	72	67.970765	-59.547577	27-Sep-2012	111737	271	1029.11	1.1554	CON-059 072.jpg
CON-059	73	67.970716	-59.547819	27-Sep-2012	111825	271	1031.06	1.1759	CON-059 073.jpg
CON-059	74*	67.970661	-59.548162	27-Sep-2012	111904	271	1026.12	1.1596	CON-059 074.jpg
CON-059	75	67.970630	-59.548190	27-Sep-2012	111911	271	1031.70	1.1423	CON-059 075.jpg

CON	Photo No.	Latitude (DD)	Longitude (DD)	Date	GMT (hhmmss)	Julian Day	Depth (m)	Bottom Temperature (C)	Photo Filename
CON-059	76	67.970460	-59.548669	27-Sep-2012	111959	271	1033.62	1.1424	CON-059 076.jpg
CON-059	77*	67.970402	-59.548938	27-Sep-2012	112041	271	1029.68	1.1892	CON-059 077.jpg
CON-059	78	67.970366	-59.548958	27-Sep-2012	112047	271	1034.21	1.1415	CON-059 078.jpg
CON-059	79	67.970222	-59.549164	27-Sep-2012	112132	271	1036.67	1.1344	CON-059 079.jpg
CON-059	80	67.970032	-59.549566	27-Sep-2012	112221	271	1037.28	1.1716	CON-059 080.jpg
CON-059	81	67.970061	-59.549634	27-Sep-2012	112309	271	1038.75	1.1465	CON-059 081.jpg
CON-059	82	67.969878	-59.550180	27-Sep-2012	112359	271	1039.98	1.1545	CON-059 082.jpg
CON-059	83	67.969654	-59.550784	27-Sep-2012	112507	271	1041.52	1.1187	CON-059 083.jpg
CON-059	84	67.969675	-59.551249	27-Sep-2012	112601	271	1043.33	1.1217	CON-059 084.jpg
CON-059	85	67.969413	-59.551485	27-Sep-2012	112657	271	1043.65	1.1169	CON-059 085.jpg
CON-059	86	67.969325	-59.551854	27-Sep-2012	112742	271	1045.33	1.0974	CON-059 086.jpg
CON-059	87	67.969245	-59.552161	27-Sep-2012	112841	271	1047.13	1.0745	CON-059 087.jpg
CON-059	88	67.969183	-59.552618	27-Sep-2012	112929	271	1048.32	1.0860	CON-059 088.jpg
CON-059	89	67.968990	-59.552874	27-Sep-2012	113015	271	1049.25	1.0382	CON-059 089.jpg
CON-059	90	67.968905	-59.553180	27-Sep-2012	113059	271	1049.15	1.0622	CON-059 090.jpg
CON-059	91	67.968832	-59.553432	27-Sep-2012	113144	271	1051.29	1.0678	CON-059 091.jpg
CON-059	92	67.968740	-59.553810	27-Sep-2012	113231	271	1052.54	1.0075	CON-059 092.jpg
CON-059	93	67.968701	-59.554078	27-Sep-2012	113322	271	1053.87	0.9864	CON-059 093.jpg
CON-059	94	67.968702	-59.554113	27-Sep-2012	113325	271	1053.82	0.9630	CON-059 094.jpg
CON-059	95	67.968577	-59.554357	27-Sep-2012	113419	271	1054.19	1.0027	CON-059 095.jpg
CON-059	96	67.968222	-59.555092	27-Sep-2012	113508	271	1055.49	0.9802	CON-059 096.jpg
CON-059	97	67.968104	-59.555250	27-Sep-2012	113556	271	1055.68	0.9804	CON-059 097.jpg
CON-059	98	67.968198	-59.555304	27-Sep-2012	113642	271	1056.73	0.9812	CON-059 098.jpg
CON-059	99	67.967992	-59.555757	27-Sep-2012	113733	271	1058.13	0.9896	CON-059 099.jpg
CON-059	100	67.967946	-59.556077	27-Sep-2012	113827	271	1059.31	0.9891	CON-059 100.jpg
CON-059	101	67.967878	-59.556436	27-Sep-2012	113926	271	1060.45	1.0022	CON-059 101.jpg
CON-059	102	67.967794	-59.556814	27-Sep-2012	114021	271	1060.87	0.9882	CON-059 102.jpg
CON-059	103	67.967590	-59.557268	27-Sep-2012	114129	271	1062.31	0.9914	CON-059 103.jpg

CON	Photo No.	Latitude (DD)	Longitude (DD)	Date	GMT (hhmmss)	Julian Day	Depth (m)	Bottom Temperature (C)	Photo Filename
CON-059	104	67.967600	-59.557324	27-Sep-2012	114214	271	1062.74	1.0023	CON-059 104.jpg
CON-059	105	67.967582	-59.557334	27-Sep-2012	114217	271	1063.68	0.9684	CON-059 105.jpg
CON-059	106*	67.967532	-59.557440	27-Sep-2012	114243	271	1063.04	0.9738	CON-059 106.jpg
CON-059	107	67.967531	-59.557450	27-Sep-2012	114249	271	1063.43	0.9623	CON-059 107.jpg
CON-059	108	67.967526	-59.557501	27-Sep-2012	114257	271	1063.93	0.9716	CON-059 108.jpg
CON-059	109	67.967518	-59.557638	27-Sep-2012	114304	271	1063.82	0.9538	CON-059 109.jpg
CON-059	110*	67.967514	-59.557735	27-Sep-2012	114311	271	1064.27	0.9635	CON-059 110.jpg
CON-059	111	67.967476	-59.557824	27-Sep-2012	114324	271	1064.79	0.9514	CON-059 111.jpg
CON-059	112*	67.967380	-59.557888	27-Sep-2012	114419	271	1065.44	0.9317	CON-059 112.jpg
CON-059	113*	67.967373	-59.557895	27-Sep-2012	114423	271	1064.46	0.9341	CON-059 113.jpg
CON-059	114*	67.967378	-59.558034	27-Sep-2012	114430	271	1065.00	0.9389	CON-059 114.jpg
CON-059	115	67.967378	-59.558044	27-Sep-2012	114437	271	1065.28	0.9562	CON-059 115.jpg
CON-059	116*	67.967378	-59.558086	27-Sep-2012	114444	271	1064.88	0.9511	CON-059 116.jpg
CON-059	117*	67.967378	-59.558100	27-Sep-2012	114452	271	1065.79	0.9530	CON-059 117.jpg
CON-059	118*	67.967378	-59.558120	27-Sep-2012	114500	271	1065.36	0.9565	CON-059 118.jpg
CON-059	119	67.967376	-59.558134	27-Sep-2012	114508	271	1065.79	0.9747	CON-059 119.jpg
CON-059	120	67.967371	-59.558318	27-Sep-2012	114516	271	1065.71	0.9978	CON-059 120.jpg
CON-059	121	67.967359	-59.558368	27-Sep-2012	114524	271	1065.17	0.9877	CON-059 121.jpg
CON-059	122	67.967179	-59.558953	27-Sep-2012	114619	271	1067.60	0.9561	CON-059 122.jpg
CON-059	123	67.967119	-59.559054	27-Sep-2012	114707	271	1067.17	0.9487	CON-059 123.jpg
CON-059	124	67.966977	-59.558989	27-Sep-2012	114715	271	1068.56	0.9737	CON-059 124.jpg
CON-059	125	67.966992	-59.559348	27-Sep-2012	114735	271	1069.14	0.9377	CON-059 125.jpg
CON-059	126	67.966842	-59.560177	27-Sep-2012	115025	271	1071.80	0.9434	CON-059 126.jpg
CON-059	127	67.966818	-59.560396	27-Sep-2012	115123	271	1073.23	0.9378	CON-059 127.jpg
CON-059	128*	67.966802	-59.560506	27-Sep-2012	115137	271	1066.99	0.9985	CON-059 128.jpg
CON-059	129	67.966611	-59.560971	27-Sep-2012	115216	271	1074.61	0.9285	CON-059 129.jpg
CON-059	130	67.966540	-59.561173	27-Sep-2012	115315	271	1076.52	0.9701	CON-059 130.jpg
CON-059	131	67.966476	-59.561378	27-Sep-2012	115405	271	1077.81	0.9704	CON-059 131.jpg

CON	Photo No.	Latitude (DD)	Longitude (DD)	Date	GMT (hhmmss)	Julian Day	Depth (m)	Bottom Temperature (C)	Photo Filename
CON-059	132	67.966377	-59.561642	27-Sep-2012	115458	271	1079.14	0.9760	CON-059 132.jpg
CON-059	133	67.966247	-59.561889	27-Sep-2012	115550	271	1080.60	0.9480	CON-059 133.jpg
CON-059	134	67.966276	-59.562237	27-Sep-2012	115638	271	1081.83	0.9438	CON-059 134.jpg
CON-059	135	67.966075	-59.562670	27-Sep-2012	115725	271	1082.03	0.9810	CON-059 135.jpg
CON-059	136	67.965948	-59.562721	27-Sep-2012	115811	271	1083.62	0.9733	CON-059 136.jpg
CON-059	137	67.965894	-59.563052	27-Sep-2012	115857	271	1085.42	0.9683	CON-059 137.jpg
CON-059	138	67.965822	-59.563143	27-Sep-2012	115942	271	1086.32	0.9742	CON-059 138.jpg
CON-059	139	67.965821	-59.563728	27-Sep-2012	120024	271	1086.29	0.9737	CON-059 139.jpg
CON-059	140*	67.965821	-59.563752	27-Sep-2012	120028	271	1087.72	0.9237	CON-059 140.jpg
CON-059	141	67.965556	-59.563888	27-Sep-2012	120107	271	1086.69	0.9701	CON-059 141.jpg
CON-059	142	67.965573	-59.563926	27-Sep-2012	120151	271	1088.78	0.8793	CON-059 142.jpg
CON-059	143	67.965573	-59.563946	27-Sep-2012	120201	271	1088.93	0.8735	CON-059 143.jpg
CON-066	10	67.989285	-59.390386	27-Sep-2012	194014	271	584.39	3.0977	CON-066 010.jpg
CON-066	11	67.989484	-59.389402	27-Sep-2012	194253	271	579.37	3.0847	CON-066 011.jpg
CON-066	12	67.989560	-59.388949	27-Sep-2012	194352	271	577.48	3.0850	CON-066 012.jpg
CON-066	13	67.989667	-59.388452	27-Sep-2012	194447	271	576.54	3.0862	CON-066 013.jpg
CON-066	14	67.989756	-59.387942	27-Sep-2012	194545	271	574.53	3.0864	CON-066 014.jpg
CON-066	15	67.989848	-59.387316	27-Sep-2012	194652	271	574.36	3.0899	CON-066 015.jpg
CON-066	16	67.989973	-59.386754	27-Sep-2012	194754	271	572.52	3.0896	CON-066 016.jpg
CON-066	17*	67.990000	-59.386702	27-Sep-2012	194759	271	571.50	3.0836	CON-066 017.jpg
CON-066	18	67.990106	-59.385909	27-Sep-2012	194913	271	570.18	3.0801	CON-066 018.jpg
CON-066	19	67.990244	-59.385508	27-Sep-2012	195013	271	569.08	3.1160	CON-066 019.jpg
CON-066	20	67.990429	-59.384748	27-Sep-2012	195128	271	567.23	3.1178	CON-066 020.jpg
CON-066	21*	67.990440	-59.384708	27-Sep-2012	195134	271	568.72	3.1050	CON-066 021.jpg
CON-066	22*	67.990441	-59.384704	27-Sep-2012	195140	271	567.43	3.1020	CON-066 022.jpg
CON-066	23	67.990622	-59.383940	27-Sep-2012	195304	271	564.60	3.1070	CON-066 023.jpg
CON-066	24	67.990772	-59.382974	27-Sep-2012	195424	271	563.65	3.1332	CON-066 024.jpg
CON-066	25	67.990864	-59.382466	27-Sep-2012	195517	271	562.28	3.1384	CON-066 025.jpg

CON	Photo No.	Latitude (DD)	Longitude (DD)	Date	GMT (hhmmss)	Julian Day	Depth (m)	Bottom Temperature (C)	Photo Filename
CON-066	26	67.990956	-59.381790	27-Sep-2012	195612	271	560.74	3.1598	CON-066 026.jpg
CON-066	27	67.991068	-59.381121	27-Sep-2012	195707	271	559.76	3.1423	CON-066 027.jpg
CON-066	28	67.991167	-59.380322	27-Sep-2012	195813	271	557.42	3.1317	CON-066 028.jpg
CON-066	29	67.991278	-59.379789	27-Sep-2012	195903	271	556.24	3.1414	CON-066 029.jpg
CON-066	30	67.991335	-59.379062	27-Sep-2012	195957	271	554.97	3.1696	CON-066 030.jpg
CON-066	31	67.991418	-59.378350	27-Sep-2012	200053	271	554.06	3.1797	CON-066 031.jpg
CON-066	32	67.991534	-59.377538	27-Sep-2012	200152	271	553.26	3.2184	CON-066 032.jpg
CON-066	33	67.991595	-59.376746	27-Sep-2012	200245	271	552.55	3.1994	CON-066 033.jpg
CON-066	34*	67.991592	-59.376722	27-Sep-2012	200248	271	553.55	3.1904	CON-066 034.jpg
CON-066	35	67.991672	-59.375996	27-Sep-2012	200342	271	552.42	3.2051	CON-066 035.jpg
CON-066	36	67.991805	-59.374818	27-Sep-2012	200449	271	551.70	3.2496	CON-066 036.jpg
CON-066	37	67.991883	-59.374049	27-Sep-2012	200544	271	550.24	3.2887	CON-066 037.jpg
CON-066	38*	67.991883	-59.374012	27-Sep-2012	200549	271	551.65	3.2629	CON-066 038.jpg
CON-066	39	67.991944	-59.373324	27-Sep-2012	200641	271	548.86	3.3427	CON-066 039.jpg
CON-066	40*	67.992005	-59.372675	27-Sep-2012	200740	271	548.03	3.3126	CON-066 040.jpg
CON-066	41	67.992048	-59.372022	27-Sep-2012	200817	271	547.35	3.3185	CON-066 041.jpg
CON-066	42	67.992071	-59.371654	27-Sep-2012	200844	271	546.94	3.3557	CON-066 042.jpg
CON-066	43*	67.992075	-59.371658	27-Sep-2012	200845	271	547.38	3.3544	CON-066 043.jpg
CON-066	44	67.991929	-59.371493	27-Sep-2012	200909	271	546.38	3.3202	CON-066 044.jpg
CON-066	45*	67.991841	-59.371139	27-Sep-2012	200934	271	547.26	3.3150	CON-066 045.jpg
CON-066	46*	67.991841	-59.371139	27-Sep-2012	200935	271	547.10	3.3135	CON-066 046.jpg
CON-066	47*	67.991841	-59.371139	27-Sep-2012	200936	271	546.94	3.3121	CON-066 047.jpg
CON-066	48	67.992063	-59.370609	27-Sep-2012	200957	271	545.10	3.3470	CON-066 048.jpg
CON-066	49	67.992235	-59.370197	27-Sep-2012	201021	271	544.10	3.3407	CON-066 049.jpg
CON-066	50*	67.992235	-59.370192	27-Sep-2012	201023	271	544.74	3.3393	CON-066 050.jpg
CON-066	51	67.992250	-59.370102	27-Sep-2012	201047	271	543.31	3.3717	CON-066 051.jpg
CON-066	52	67.992534	-59.369130	27-Sep-2012	201129	271	544.48	3.4163	CON-066 052.jpg
CON-066	53*	67.992567	-59.369051	27-Sep-2012	201136	271	543.75	3.3797	CON-066 053.jpg

CON	Photo No.	Latitude (DD)	Longitude (DD)	Date	GMT (hhmmss)	Julian Day	Depth (m)	Bottom Temperature (C)	Photo Filename
CON-066	54	67.992762	-59.368663	27-Sep-2012	201210	271	544.42	3.4366	CON-066 054.jpg
CON-066	55*	67.992906	-59.368070	27-Sep-2012	201249	271	544.15	3.4367	CON-066 055.jpg
CON-066	56	67.993031	-59.367896	27-Sep-2012	201315	271	541.60	3.4175	CON-066 056.jpg
CON-066	57	67.993059	-59.367793	27-Sep-2012	201320	271	541.97	3.4231	CON-066 057.jpg
CON-066	58	67.993150	-59.367280	27-Sep-2012	201403	271	541.00	3.4415	CON-066 058.jpg
CON-066	59*	67.993185	-59.367197	27-Sep-2012	201419	271	540.69	3.4127	CON-066 059.jpg
CON-066	60	67.993332	-59.366939	27-Sep-2012	201443	271	540.45	3.4245	CON-066 060.jpg
CON-066	61	67.993442	-59.366563	27-Sep-2012	201524	271	540.61	3.4495	CON-066 061.jpg
CON-066	62	67.993522	-59.366222	27-Sep-2012	201607	271	540.05	3.4812	CON-066 062.jpg
CON-066	63	67.993655	-59.365995	27-Sep-2012	201648	271	539.53	3.4700	CON-066 063.jpg
CON-066	64	67.993767	-59.365785	27-Sep-2012	201730	271	539.73	3.4762	CON-066 064.jpg
CON-066	65	67.993886	-59.365454	27-Sep-2012	201815	271	540.07	3.4522	CON-066 065.jpg
CON-066	66	67.993978	-59.365272	27-Sep-2012	201858	271	538.54	3.4680	CON-066 066.jpg
CON-066	67	67.994113	-59.365048	27-Sep-2012	201940	271	537.70	3.5072	CON-066 067.jpg
CON-066	68	67.994134	-59.364960	27-Sep-2012	202025	271	537.71	3.4701	CON-066 068.jpg
CON-066	69	67.994340	-59.364734	27-Sep-2012	202138	271	536.47	3.5297	CON-066 069.jpg
CON-066	70	67.994491	-59.364594	27-Sep-2012	202229	271	536.09	3.5063	CON-066 070.jpg
CON-066	71	67.994632	-59.364414	27-Sep-2012	202316	271	536.18	3.4762	CON-066 071.jpg
CON-066	72	67.994751	-59.364210	27-Sep-2012	202404	271	535.98	3.4775	CON-066 072.jpg
CON-066	73	67.994912	-59.364058	27-Sep-2012	202452	271	534.86	3.4903	CON-066 073.jpg
CON-066	74	67.995008	-59.363865	27-Sep-2012	202544	271	533.68	3.5053	CON-066 074.jpg
CON-066	75	67.995128	-59.363644	27-Sep-2012	202629	271	533.09	3.5147	CON-066 075.jpg
CON-066	76	67.995270	-59.363456	27-Sep-2012	202715	271	532.09	3.5208	CON-066 076.jpg
CON-066	77	67.995421	-59.363155	27-Sep-2012	202805	271	532.55	3.5140	CON-066 077.jpg
CON-066	78	67.995538	-59.362916	27-Sep-2012	202856	271	532.15	3.5176	CON-066 078.jpg
CON-066	79	67.995693	-59.362541	27-Sep-2012	202943	271	531.10	3.5333	CON-066 079.jpg
CON-066	80	67.995837	-59.362369	27-Sep-2012	203033	271	529.97	3.5350	CON-066 080.jpg
CON-066	81	67.995957	-59.362008	27-Sep-2012	203122	271	530.24	3.5765	CON-066 081.jpg
CON-066	82	67.996082	-59.361554	27-Sep-2012	203215	271	529.95	3.5453	CON-066 082.jpg

CON	Photo No.	Latitude (DD)	Longitude (DD)	Date	GMT (hhmmss)	Julian Day	Depth (m)	Bottom Temperature (C)	Photo Filename
CON-066	83	67.996227	-59.361134	27-Sep-2012	203304	271	528.93	3.5658	CON-066 083.jpg
CON-066	84	67.996328	-59.360769	27-Sep-2012	203352	271	527.37	3.5784	CON-066 084.jpg
CON-066	85	67.996448	-59.360357	27-Sep-2012	203445	271	526.14	3.5780	CON-066 085.jpg
CON-066	86*	67.996463	-59.360334	27-Sep-2012	203450	271	524.93	3.5642	CON-066 086.jpg
CON-066	87	67.996596	-59.359825	27-Sep-2012	203538	271	525.78	3.6011	CON-066 087.jpg
CON-066	88	67.996704	-59.359346	27-Sep-2012	203624	271	525.94	3.5935	CON-066 088.jpg
CON-076	27	67.777030	-59.059369	28-Sep-2012	152114	272	583.54	3.1730	CON-076 027.jpg
CON-076	28	67.776869	-59.059454	28-Sep-2012	152228	272	584.93	3.1551	CON-076 028.jpg
CON-076	29	67.776776	-59.059621	28-Sep-2012	152339	272	586.40	3.1651	CON-076 029.jpg
CON-076	30	67.776562	-59.059892	28-Sep-2012	152546	272	589.65	3.1817	CON-076 030.jpg
CON-076	31	67.776398	-59.060066	28-Sep-2012	152659	272	589.86	3.1634	CON-076 031.jpg
CON-076	32	67.776265	-59.060273	28-Sep-2012	152802	272	589.36	3.1785	CON-076 032.jpg
CON-076	33	67.776154	-59.060544	28-Sep-2012	152917	272	593.76	3.1379	CON-076 033.jpg
CON-076	34	67.776010	-59.060714	28-Sep-2012	153021	272	594.55	3.1388	CON-076 034.jpg
CON-076	35	67.775820	-59.060912	28-Sep-2012	153128	272	595.48	3.1401	CON-076 035.jpg
CON-076	36	67.775724	-59.061160	28-Sep-2012	153225	272	595.36	3.1612	CON-076 036.jpg
CON-076	37	67.775583	-59.061399	28-Sep-2012	153321	272	594.46	3.1570	CON-076 037.jpg
CON-076	38	67.775463	-59.061644	28-Sep-2012	153417	272	595.35	3.1655	CON-076 038.jpg
CON-076	39	67.775316	-59.061922	28-Sep-2012	153520	272	596.77	3.1562	CON-076 039.jpg
CON-076	40	67.775172	-59.062282	28-Sep-2012	153629	272	600.64	3.1391	CON-076 040.jpg
CON-076	41	67.775051	-59.062576	28-Sep-2012	153739	272	603.89	3.1315	CON-076 041.jpg
CON-076	42	67.774902	-59.062813	28-Sep-2012	153839	272	606.25	3.1381	CON-076 042.jpg
CON-076	43	67.774788	-59.063118	28-Sep-2012	153941	272	606.82	3.1298	CON-076 043.jpg
CON-076	44	67.774626	-59.063401	28-Sep-2012	154041	272	607.66	3.1212	CON-076 044.jpg
CON-076	45	67.774506	-59.063741	28-Sep-2012	154142	272	608.63	3.1223	CON-076 045.jpg
CON-076	46	67.774376	-59.064170	28-Sep-2012	154247	272	610.51	3.1160	CON-076 046.jpg
CON-076	47	67.774238	-59.064538	28-Sep-2012	154352	272	613.58	3.1089	CON-076 047.jpg
CON-076	48	67.774092	-59.064936	28-Sep-2012	154458	272	617.18	3.1123	CON-076 048.jpg

CON	Photo No.	Latitude (DD)	Longitude (DD)	Date	GMT (hhmmss)	Julian Day	Depth (m)	Bottom Temperature (C)	Photo Filename
CON-076	49	67.773931	-59.065355	28-Sep-2012	154603	272	621.33	3.1142	CON-076 049.jpg
CON-076	50	67.773821	-59.065816	28-Sep-2012	154707	272	624.91	3.0992	CON-076 050.jpg
CON-076	51	67.773688	-59.066200	28-Sep-2012	154805	272	623.10	3.0897	CON-076 051.jpg
CON-076	52	67.773544	-59.066671	28-Sep-2012	154905	272	621.65	3.0969	CON-076 052.jpg
CON-076	53	67.773433	-59.067061	28-Sep-2012	155011	272	623.81	3.0792	CON-076 053.jpg
CON-076	54	67.773324	-59.067592	28-Sep-2012	155117	272	624.87	3.0797	CON-076 054.jpg
CON-076	55	67.773164	-59.068130	28-Sep-2012	155221	272	627.54	3.0766	CON-076 055.jpg
CON-076	56	67.773113	-59.068638	28-Sep-2012	155328	272	629.44	3.0818	CON-076 056.jpg
CON-076	57	67.772948	-59.069195	28-Sep-2012	155434	272	631.78	3.0977	CON-076 057.jpg
CON-076	58	67.772852	-59.069750	28-Sep-2012	155543	272	634.99	3.0789	CON-076 058.jpg
CON-076	59	67.772718	-59.070374	28-Sep-2012	155651	272	636.28	3.0629	CON-076 059.jpg
CON-076	60	67.772600	-59.071032	28-Sep-2012	155807	272	636.43	3.0486	CON-076 060.jpg
CON-076	61	67.772450	-59.071782	28-Sep-2012	155919	272	639.45	3.0615	CON-076 061.jpg
CON-076	62	67.772321	-59.072438	28-Sep-2012	160028	272	641.54	3.0563	CON-076 062.jpg
CON-076	63	67.772220	-59.073031	28-Sep-2012	160126	272	641.32	3.0477	CON-076 063.jpg
CON-076	64	67.772079	-59.073620	28-Sep-2012	160229	272	641.19	3.0446	CON-076 064.jpg
CON-076	65	67.772079	-59.073629	28-Sep-2012	160231	272	641.26	3.0409	CON-076 065.jpg
CON-076	66	67.772006	-59.074377	28-Sep-2012	160338	272	645.36	3.0410	CON-076 066.jpg
CON-076	67	67.771840	-59.074961	28-Sep-2012	160449	272	648.90	3.0402	CON-076 067.jpg
CON-076	68	67.771738	-59.075529	28-Sep-2012	160551	272	651.24	3.0088	CON-076 068.jpg
CON-076	69	67.771603	-59.076262	28-Sep-2012	160705	272	653.15	3.0123	CON-076 069.jpg
CON-076	70	67.771477	-59.076935	28-Sep-2012	160813	272	655.66	2.9705	CON-076 070.jpg
CON-076	71	67.771338	-59.077531	28-Sep-2012	160910	272	656.68	2.9614	CON-076 071.jpg
CON-076	72	67.771192	-59.078138	28-Sep-2012	161016	272	657.69	2.9483	CON-076 072.jpg
CON-076	73	67.771032	-59.078713	28-Sep-2012	161121	272	659.98	2.9461	CON-076 073.jpg
CON-076	74	67.770910	-59.079277	28-Sep-2012	161228	272	661.91	2.9099	CON-076 074.jpg
CON-076	75	67.770717	-59.079915	28-Sep-2012	161342	272	664.04	2.8943	CON-076 075.jpg
CON-076	76	67.770716	-59.079974	28-Sep-2012	161345	272	664.88	2.8947	CON-076 076.jpg

CON	Photo No.	Latitude (DD)	Longitude (DD)	Date	GMT (hhmmss)	Julian Day	Depth (m)	Bottom Temperature (C)	Photo Filename
CON-076	77	67.770592	-59.08047	28-Sep-2012	161456	272	665.85	2.8986	CON-076 077.jpg
CON-076	78	67.770451	-59.081093	28-Sep-2012	161603	272	668.25	2.8888	CON-076 078.jpg
CON-076	79	67.770256	-59.081895	28-Sep-2012	161726	272	672.07	2.8214	CON-076 079.jpg
CON-076	80	67.770126	-59.082523	28-Sep-2012	161833	272	674.65	2.6151	CON-076 080.jpg
CON-076	81	67.769954	-59.083062	28-Sep-2012	161945	272	676.84	2.5911	CON-076 081.jpg
CON-076	82	67.769844	-59.083606	28-Sep-2012	162052	272	678.93	2.6752	CON-076 082.jpg
CON-076	83	67.769712	-59.084142	28-Sep-2012	162155	272	680.52	2.8031	CON-076 083.jpg
CON-076	84	67.769531	-59.084830	28-Sep-2012	162310	272	682.00	2.7666	CON-076 084.jpg
CON-097	8	67.529796	-58.601441	30-Sep-2012	103210	274	974.08	1.5549	0097 008.jpg
CON-097	9	67.529976	-58.601429	30-Sep-2012	103303	274	972.97	1.5518	0097 009.jpg
CON-097	10	67.530090	-58.601375	30-Sep-2012	103359	274	972.65	1.5488	0097 010.jpg
CON-097	11	67.530226	-58.601232	30-Sep-2012	103453	274	971.76	1.5636	0097 011.jpg
CON-097	12	67.530416	-58.601175	30-Sep-2012	103542	274	971.56	1.5830	0097 012.jpg
CON-097	13	67.530564	-58.601220	30-Sep-2012	103633	274	970.70	1.5916	0097 013.jpg
CON-097	14	67.530677	-58.601262	30-Sep-2012	103726	274	969.31	1.6200	0097 014.jpg
CON-097	15	67.530866	-58.601112	30-Sep-2012	103821	274	968.14	1.6307	0097 015.jpg
CON-097	16	67.531016	-58.600954	30-Sep-2012	103905	274	967.91	1.6587	0097 016.jpg
CON-097	17	67.531196	-58.600890	30-Sep-2012	103952	274	966.60	1.6676	0097 017.jpg
CON-097	18	67.531372	-58.600938	30-Sep-2012	104043	274	965.64	1.7151	0097 018.jpg
CON-097	19	67.531510	-58.600951	30-Sep-2012	104129	274	964.97	1.7261	0097 019.jpg
CON-097	20	67.531695	-58.600794	30-Sep-2012	104217	274	964.40	1.8234	0097 020.jpg
CON-097	21	67.531920	-58.600677	30-Sep-2012	104301	274	963.02	1.7618	0097 021.jpg
CON-097	22	67.532116	-58.600637	30-Sep-2012	104356	274	961.90	1.8520	0097 022.jpg
CON-097	23	67.532257	-58.600409	30-Sep-2012	104447	274	960.89	1.7663	0097 023.jpg
CON-097	24	67.532486	-58.600484	30-Sep-2012	104537	274	959.50	1.8566	0097 024.jpg
CON-097	25	67.532650	-58.600393	30-Sep-2012	104624	274	958.77	1.9575	0097 025.jpg
CON-097	26	67.532815	-58.600335	30-Sep-2012	104708	274	957.90	1.9327	0097 026.jpg
CON-097	27	67.533032	-58.600236	30-Sep-2012	104756	274	956.50	1.9145	0097 027.jpg

CON	Photo No.	Latitude (DD)	Longitude (DD)	Date	GMT (hhmmss)	Julian Day	Depth (m)	Bottom Temperature (C)	Photo Filename
CON-097	28	67.533172	-58.600081	30-Sep-2012	104847	274	955.54	2.0108	0097 028.jpg
CON-097	29	67.533394	-58.599957	30-Sep-2012	104933	274	955.24	1.9649	0097 029.jpg
CON-097	30	67.533596	-58.599820	30-Sep-2012	105024	274	953.61	1.9251	0097 030.jpg
CON-097	31	67.533778	-58.599706	30-Sep-2012	105108	274	952.76	1.9361	0097 031.jpg
CON-097	32	67.533989	-58.599609	30-Sep-2012	105156	274	951.93	1.9299	0097 032.jpg
CON-097	33	67.534176	-58.599523	30-Sep-2012	105242	274	950.25	1.9462	0097 033.jpg
CON-097	34	67.534285	-58.599287	30-Sep-2012	105324	274	949.14	1.9708	0097 034.jpg
CON-097	35	67.534503	-58.599049	30-Sep-2012	105415	274	948.71	1.9796	0097 035.jpg
CON-097	36	67.534679	-58.598973	30-Sep-2012	105455	274	947.47	1.9933	0097 036.jpg
CON-097	37	67.534857	-58.598759	30-Sep-2012	105539	274	946.26	1.9503	0097 037.jpg
CON-097	38	67.534991	-58.598692	30-Sep-2012	105624	274	945.70	1.9198	0097 038.jpg
CON-097	39	67.535276	-58.598411	30-Sep-2012	105719	274	943.95	1.9760	0097 039.jpg
CON-097	40	67.535484	-58.598178	30-Sep-2012	105803	274	943.79	1.9818	0097 040.jpg
CON-097	41	67.535636	-58.598064	30-Sep-2012	105847	274	942.50	2.0320	0097 041.jpg
CON-097	42	67.535858	-58.597912	30-Sep-2012	105930	274	941.36	2.0255	0097 042.jpg
CON-097	43	67.535987	-58.597746	30-Sep-2012	110014	274	940.04	2.1269	0097 043.jpg
CON-097	44	67.536192	-58.597484	30-Sep-2012	110058	274	939.50	2.1052	0097 044.jpg
CON-097	45	67.536348	-58.597240	30-Sep-2012	110145	274	938.69	2.1061	0097 045.jpg
CON-097	46	67.536565	-58.597124	30-Sep-2012	110226	274	937.40	2.0827	0097 046.jpg
CON-097	47	67.536693	-58.597005	30-Sep-2012	110309	274	936.87	2.1060	0097 047.jpg
CON-097	48	67.536836	-58.596859	30-Sep-2012	110356	274	935.63	2.1172	0097 048.jpg
CON-097	49	67.537035	-58.596738	30-Sep-2012	110439	274	934.39	2.1326	0097 049.jpg
CON-097	50	67.537287	-58.596625	30-Sep-2012	110532	274	933.46	2.1377	0097 050.jpg
CON-097	51	67.537432	-58.596506	30-Sep-2012	110615	274	932.68	2.1513	0097 051.jpg
CON-097	52	67.537600	-58.596317	30-Sep-2012	110654	274	931.72	2.1570	0097 052.jpg
CON-097	53	67.537785	-58.596192	30-Sep-2012	110738	274	930.48	2.1463	0097 053.jpg
CON-097	54	67.537865	-58.596098	30-Sep-2012	110823	274	928.72	2.1416	0097 054.jpg
CON-097	55	67.538101	-58.595834	30-Sep-2012	110910	274	928.72	2.1454	0097 055.jpg

CON	Photo No.	Latitude (DD)	Longitude (DD)	Date	GMT (hhmmss)	Julian Day	Depth (m)	Bottom Temperature (C)	Photo Filename
CON-097	56	67.538326	-58.595714	30-Sep-2012	110955	274	927.67	2.1452	0097 056.jpg
CON-097	57	67.538507	-58.595455	30-Sep-2012	111036	274	926.04	2.1561	0097 057.jpg
CON-097	58	67.538708	-58.595336	30-Sep-2012	111116	274	924.88	2.1814	0097 058.jpg
CON-097	59	67.538930	-58.595270	30-Sep-2012	111157	274	924.25	2.1703	0097 059.jpg
CON-097	60	67.539067	-58.595177	30-Sep-2012	111235	274	923.66	2.1880	0097 060.jpg
CON-097	61	67.539219	-58.595059	30-Sep-2012	111316	274	922.27	2.1844	0097 061.jpg
CON-097	62	67.539387	-58.594764	30-Sep-2012	111356	274	921.23	2.1991	0097 062.jpg
CON-097	63	67.539612	-58.594627	30-Sep-2012	111437	274	920.75	2.2025	0097 063.jpg
CON-097	64	67.539772	-58.594410	30-Sep-2012	111518	274	919.94	2.2027	0097 064.jpg
CON-097	65	67.540002	-58.594198	30-Sep-2012	111603	274	918.41	2.2028	0097 065.jpg
CON-097	66	67.540240	-58.594018	30-Sep-2012	111700	274	916.84	2.2017	0097 066.jpg
CON-097	67	67.540583	-58.593669	30-Sep-2012	111804	274	915.17	2.1970	0097 067.jpg
CON-097	68	67.540819	-58.593356	30-Sep-2012	111905	274	913.13	2.1884	0097 068.jpg
CON-097	69	67.541112	-58.593101	30-Sep-2012	112005	274	911.62	2.1856	0097 069.jpg
CON-097	70	67.541358	-58.592912	30-Sep-2012	112102	274	910.11	2.1793	0097 070.jpg
CON-097	71	67.541665	-58.592642	30-Sep-2012	112202	274	908.72	2.1669	0097 071.jpg
CON-097	72	67.541894	-58.592355	30-Sep-2012	112257	274	907.06	2.1554	0097 072.jpg
CON-097	73	67.542089	-58.592188	30-Sep-2012	112355	274	904.92	2.1584	0097 073.jpg
CON-097	74	67.542412	-58.591729	30-Sep-2012	112459	274	902.00	2.1613	0097 074.jpg
CON-097	75	67.542417	-58.591729	30-Sep-2012	112501	274	902.73	2.1610	0097 075.jpg
CON-097	76	67.542741	-58.591532	30-Sep-2012	112602	274	900.80	2.1646	0097 076.jpg
CON-097	77	67.542998	-58.591262	30-Sep-2012	112708	274	898.62	2.1664	0097 077.jpg
CON-097	78	67.543332	-58.590823	30-Sep-2012	112813	274	896.70	2.1637	0097 078.jpg
CON-097	79	67.543599	-58.590564	30-Sep-2012	112916	274	894.59	2.1647	0097 079.jpg
CON-103	13	67.612661	-58.546963	30-Sep-2012	194738	274	380.65	4.3825	CON-103 013.jpg
CON-103	14	67.612661	-58.546963	30-Sep-2012	194822	274	380.40	4.3810	CON-103 014.jpg
CON-103	15	67.612660	-58.546963	30-Sep-2012	194913	274	380.53	4.3807	CON-103 015.jpg
CON-103	16	67.612655	-58.546993	30-Sep-2012	194957	274	379.90	4.3810	CON-103 016.jpg

CON	Photo No.	Latitude (DD)	Longitude (DD)	Date	GMT (hhmmss)	Julian Day	Depth (m)	Bottom Temperature (C)	Photo Filename
CON-103	17	67.612639	-58.547029	30-Sep-2012	195053	274	380.01	4.3818	CON-103 017.jpg
CON-103	18	67.612598	-58.547061	30-Sep-2012	195156	274	380.46	4.3803	CON-103 018.jpg
CON-103	19	67.612551	-58.547095	30-Sep-2012	195253	274	380.59	4.3784	CON-103 019.jpg
CON-103	20	67.612470	-58.547128	30-Sep-2012	195400	274	380.69	4.3779	CON-103 020.jpg
CON-103	21	67.612422	-58.547248	30-Sep-2012	195500	274	381.66	4.3778	CON-103 021.jpg
CON-103	22	67.612335	-58.547526	30-Sep-2012	195613	274	383.23	4.3784	CON-103 022.jpg
CON-103	23	67.612235	-58.547981	30-Sep-2012	195729	274	386.16	4.3780	CON-103 023.jpg
CON-103	24	67.612082	-58.548631	30-Sep-2012	195937	274	390.95	4.3781	CON-103 024.jpg
CON-103	25	67.611951	-58.549169	30-Sep-2012	200052	274	391.02	4.3778	CON-103 025.jpg
CON-103	26	67.611865	-58.549462	30-Sep-2012	200159	274	388.94	4.3777	CON-103 026.jpg
CON-103	27	67.611757	-58.549788	30-Sep-2012	200305	274	390.87	4.3772	CON-103 027.jpg
CON-103	28	67.611626	-58.550270	30-Sep-2012	200406	274	389.83	4.3775	CON-103 028.jpg
CON-104	42	67.609047	-58.557516	30-Sep-2012	202540	274	409.56	4.3707	CON-103 042.jpg
CON-104	43	67.608833	-58.558056	30-Sep-2012	202715	274	409.40	4.3677	CON-103 043.jpg
CON-104	44	67.608719	-58.558474	30-Sep-2012	202812	274	410.38	4.3689	CON-103 044.jpg
CON-104	45	67.608568	-58.558826	30-Sep-2012	202916	274	411.87	4.3696	CON-103 045.jpg
CON-104	46	67.608489	-58.559182	30-Sep-2012	203017	274	414.42	4.3710	CON-103 046.jpg
CON-104	47	67.608365	-58.559853	30-Sep-2012	203129	274	415.77	4.3715	CON-103 047.jpg
CON-104	48	67.608259	-58.560369	30-Sep-2012	203238	274	416.77	4.3712	CON-103 048.jpg
CON-104	49	67.608086	-58.560715	30-Sep-2012	203337	274	416.95	4.3719	CON-103 049.jpg
CON-104	50	67.608025	-58.561192	30-Sep-2012	203435	274	417.01	4.3742	CON-103 050.jpg
CON-104	51	67.607843	-58.561678	30-Sep-2012	203543	274	419.46	4.3750	CON-103 051.jpg
CON-104	52	67.607737	-58.562092	30-Sep-2012	203648	274	419.51	4.3792	CON-103 052.jpg
CON-104	53	67.607618	-58.562425	30-Sep-2012	203736	274	420.52	4.3812	CON-103 053.jpg
CON-104	54	67.607508	-58.562769	30-Sep-2012	203826	274	420.28	4.3798	CON-103 054.jpg
CON-104	55	67.607397	-58.563093	30-Sep-2012	203915	274	420.20	4.3804	CON-103 055.jpg
CON-104	56*	67.607392	-58.563119	30-Sep-2012	203920	274	418.04	4.3806	CON-103 056.jpg
CON-104	57	67.607276	-58.563360	30-Sep-2012	204005	274	420.07	4.3806	CON-103 057.jpg

CON	Photo No.	Latitude (DD)	Longitude (DD)	Date	GMT (hhmmss)	Julian Day	Depth (m)	Bottom Temperature (C)	Photo Filename
CON-104	58	67.607275	-58.563379	30-Sep-2012	204009	274	418.69	4.3809	CON-103 058.jpg
CON-104	59	67.607186	-58.563687	30-Sep-2012	204107	274	421.61	4.3804	CON-103 059.jpg
CON-104	60	67.607089	-58.564034	30-Sep-2012	204206	274	423.11	4.3810	CON-103 060.jpg
CON-104	61	67.606985	-58.564352	30-Sep-2012	204304	274	423.23	4.3821	CON-103 061.jpg
CON-104	62	67.606868	-58.564739	30-Sep-2012	204401	274	424.31	4.3827	CON-103 062.jpg
CON-104	63	67.606751	-58.565123	30-Sep-2012	204508	274	425.34	4.3824	CON-103 063.jpg
CON-104	64	67.606687	-58.565360	30-Sep-2012	204609	274	426.14	4.3817	CON-103 064.jpg
CON-104	65	67.606633	-58.565628	30-Sep-2012	204655	274	425.56	4.3827	CON-103 065.jpg
CON-104	66	67.606621	-58.565630	30-Sep-2012	204659	274	427.48	4.3824	CON-103 066.jpg
CON-104	67	67.606530	-58.565904	30-Sep-2012	204757	274	426.50	4.3827	CON-103 067.jpg
CON-104	68	67.606518	-58.565914	30-Sep-2012	204800	274	427.41	4.3826	CON-103 068.jpg
CON-104	69	67.606359	-58.566454	30-Sep-2012	204941	274	429.59	4.3813	CON-103 069.jpg
CON-104	70	67.606256	-58.566935	30-Sep-2012	205054	274	430.67	4.3804	CON-103 070.jpg
CON-104	71	67.606150	-58.567282	30-Sep-2012	205151	274	431.28	4.3819	CON-103 071.jpg
CON-104	72	67.606047	-58.567501	30-Sep-2012	205243	274	432.53	4.3827	CON-103 072.jpg
CON-104	73	67.606035	-58.567513	30-Sep-2012	205248	274	431.52	4.3823	CON-103 073.jpg
CON-104	74	67.605931	-58.567735	30-Sep-2012	205336	274	433.23	4.3819	CON-103 074.jpg
CON-104	75	67.605863	-58.568071	30-Sep-2012	205430	274	432.82	4.3831	CON-103 075.jpg
CON-104	76	67.605674	-58.568420	30-Sep-2012	205539	274	436.87	4.3831	CON-103 076.jpg
CON-104	77	67.605509	-58.568899	30-Sep-2012	205704	274	440.07	4.3820	CON-103 077.jpg
CON-104	78*	67.605487	-58.568937	30-Sep-2012	205710	274	438.87	4.3826	CON-103 078.jpg
CON-104	79	67.605386	-58.569127	30-Sep-2012	205803	274	440.25	4.3808	CON-103 079.jpg
CON-104	80	67.605278	-58.569388	30-Sep-2012	205903	274	443.58	4.3788	CON-103 080.jpg
CON-104	81	67.605160	-58.569663	30-Sep-2012	210002	274	446.03	4.3794	CON-103 081.jpg
CON-104	82	67.605043	-58.569861	30-Sep-2012	210046	274	445.63	4.3791	CON-103 082.jpg
CON-104	83	67.604935	-58.570025	30-Sep-2012	210139	274	446.01	4.3805	CON-103 083.jpg
CON-104	84*	67.604918	-58.570036	30-Sep-2012	210144	274	444.49	4.3804	CON-103 084.jpg
CON-104	85	67.604846	-58.570145	30-Sep-2012	210227	274	444.94	4.3804	CON-103 085.jpg

CON	Photo No.	Latitude (DD)	Longitude (DD)	Date	GMT (hhmmss)	Julian Day	Depth (m)	Bottom Temperature (C)	Photo Filename
CON-104	86	67.604662	-58.570330	30-Sep-2012	210318	274	445.93	4.3822	CON-103 086.jpg
CON-104	87	67.604557	-58.570417	30-Sep-2012	210409	274	447.71	4.3855	CON-103 087.jpg
CON-104	88	67.604428	-58.570553	30-Sep-2012	210459	274	447.76	4.3855	CON-103 088.jpg
CON-104	89	67.604325	-58.570682	30-Sep-2012	210546	274	448.62	4.3920	CON-103 089.jpg
CON-104	90	67.604185	-58.570805	30-Sep-2012	210641	274	451.46	4.3924	CON-103 090.jpg
CON-104	91*	67.604154	-58.570808	30-Sep-2012	210647	274	450.27	4.3938	CON-103 091.jpg
CON-104	92	67.604043	-58.570870	30-Sep-2012	210733	274	452.61	4.3940	CON-103 092.jpg
CON-104	93	67.603916	-58.570929	30-Sep-2012	210834	274	453.95	4.3929	CON-103 093.jpg
CON-104	94	67.603761	-58.571015	30-Sep-2012	210935	274	455.78	4.3947	CON-103 094.jpg
CON-104	95	67.603609	-58.571052	30-Sep-2012	211037	274	458.04	4.3954	CON-103 095.jpg
CON-104	96	67.603459	-58.571050	30-Sep-2012	211138	274	459.35	4.3963	CON-103 096.jpg
CON-104	97	67.603320	-58.571040	30-Sep-2012	211230	274	459.72	4.3962	CON-103 097.jpg
CON-104	98	67.603110	-58.571028	30-Sep-2012	211345	274	460.94	4.4013	CON-103 098.jpg
CON-104	99	67.602919	-58.571017	30-Sep-2012	211444	274	462.39	4.4082	CON-103 099.jpg
CON-104	100	67.602744	-58.571018	30-Sep-2012	211549	274	463.06	4.4109	CON-103 100.jpg
CON-104	101	67.602741	-58.571018	30-Sep-2012	211553	274	463.90	4.4109	CON-103 101.jpg
CON-104	102	67.602553	-58.570997	30-Sep-2012	211648	274	464.95	4.4068	CON-103 102.jpg
CON-104	103	67.602410	-58.570972	30-Sep-2012	211751	274	467.50	4.4063	CON-103 103.jpg
CON-104	104	67.602161	-58.570936	30-Sep-2012	211917	274	468.12	4.4046	CON-103 104.jpg
CON-104	105	67.602034	-58.570946	30-Sep-2012	212011	274	469.47	4.3984	CON-103 105.jpg
CON-104	106	67.601864	-58.570949	30-Sep-2012	212105	274	470.64	4.3995	CON-103 106.jpg
CON-104	107	67.601715	-58.570954	30-Sep-2012	212155	274	471.93	4.3986	CON-103 107.jpg
CON-104	108	67.601601	-58.570967	30-Sep-2012	212251	274	473.91	4.3950	CON-103 108.jpg
CON-104	109	67.601416	-58.570974	30-Sep-2012	212345	274	475.73	4.3952	CON-103 109.jpg
CON-104	110	67.601283	-58.570962	30-Sep-2012	212439	274	477.34	4.3943	CON-103 110.jpg
CON-104	111	67.601155	-58.570958	30-Sep-2012	212531	274	478.74	4.3937	CON-103 111.jpg
CON-104	112	67.601054	-58.570953	30-Sep-2012	212622	274	480.12	4.3908	CON-103 112.jpg
CON-104	113	67.600879	-58.570877	30-Sep-2012	212716	274	481.09	4.3906	CON-103 113.jpg

CON	Photo No.	Latitude (DD)	Longitude (DD)	Date	GMT (hhmmss)	Julian Day	Depth (m)	Bottom Temperature (C)	Photo Filename
CON-104	114	67.600696	-58.570866	30-Sep-2012	212805	274	481.44	4.3898	CON-103 114.jpg
CON-104	115	67.600619	-58.570866	30-Sep-2012	212854	274	482.53	4.3935	CON-103 115.jpg
CON-104	116	67.600443	-58.570863	30-Sep-2012	212947	274	482.60	4.3941	CON-103 116.jpg
CON-104	117	67.600282	-58.570832	30-Sep-2012	213042	274	485.09	4.3931	CON-103 117.jpg
CON-116	11	67.382935	-57.926036	1-Oct-2012	154053	275	633.79	2.4715	CON-116 011.jpg
CON-116	12	67.382799	-57.926134	1-Oct-2012	154221	275	634.70	2.4721	CON-116 012.jpg
CON-116	13	67.382654	-57.926151	1-Oct-2012	154330	275	634.25	2.4669	CON-116 013.jpg
CON-116	14	67.382538	-57.926120	1-Oct-2012	154440	275	634.98	2.4650	CON-116 014.jpg
CON-116	15	67.382408	-57.926152	1-Oct-2012	154552	275	635.13	2.4620	CON-116 015.jpg
CON-116	16	67.382225	-57.926138	1-Oct-2012	154711	275	635.32	2.4578	CON-116 016.jpg
CON-116	17	67.382138	-57.926106	1-Oct-2012	154803	275	635.46	2.4597	CON-116 017.jpg
CON-116	18	67.382013	-57.926073	1-Oct-2012	154855	275	635.86	2.4637	CON-116 018.jpg
CON-116	19	67.381932	-57.926022	1-Oct-2012	154957	275	635.97	2.4581	CON-116 019.jpg
CON-116	20	67.381806	-57.926016	1-Oct-2012	155104	275	636.26	2.4589	CON-116 020.jpg
CON-116	21	67.381635	-57.925894	1-Oct-2012	155213	275	636.23	2.4568	CON-116 021.jpg
CON-116	22	67.381506	-57.925870	1-Oct-2012	155321	275	636.52	2.4573	CON-116 022.jpg
CON-116	23	67.381387	-57.925828	1-Oct-2012	155427	275	636.18	2.4571	CON-116 023.jpg
CON-116	24	67.381214	-57.925734	1-Oct-2012	155535	275	636.05	2.4573	CON-116 024.jpg
CON-116	25	67.381058	-57.925625	1-Oct-2012	155644	275	636.47	2.4633	CON-116 025.jpg
CON-116	26	67.380904	-57.925510	1-Oct-2012	155755	275	637.52	2.4612	CON-116 026.jpg
CON-116	27	67.380752	-57.925419	1-Oct-2012	155901	275	637.28	2.4646	CON-116 027.jpg
CON-116	28	67.380745	-57.925405	1-Oct-2012	155934	275	636.77	2.4621	CON-116 028.jpg
CON-116	29	67.380539	-57.925350	1-Oct-2012	160046	275	637.82	2.4643	CON-116 029.jpg
CON-116	30	67.380300	-57.925198	1-Oct-2012	160200	275	637.68	2.4730	CON-116 030.jpg
CON-116	31	67.380194	-57.925133	1-Oct-2012	160308	275	637.79	2.4759	CON-116 031.jpg
CON-116	32	67.379997	-57.924971	1-Oct-2012	160421	275	638.52	2.4802	CON-116 032.jpg
CON-116	33	67.379786	-57.924838	1-Oct-2012	160536	275	638.87	2.4876	CON-116 033.jpg
CON-116	34	67.379578	-57.924656	1-Oct-2012	160658	275	640.24	2.4920	CON-116 034.jpg

CON	Photo No.	Latitude (DD)	Longitude (DD)	Date	GMT (hhmmss)	Julian Day	Depth (m)	Bottom Temperature (C)	Photo Filename
CON-116	35	67.379295	-57.924390	1-Oct-2012	160834	275	640.53	2.4937	CON-116 035.jpg
CON-116	36	67.379114	-57.924177	1-Oct-2012	160939	275	640.96	2.4913	CON-116 036.jpg
CON-116	37	67.378924	-57.924035	1-Oct-2012	161035	275	641.82	2.4949	CON-116 037.jpg
CON-116	38	67.378738	-57.923834	1-Oct-2012	161133	275	641.80	2.4951	CON-116 038.jpg
CON-116	39	67.378613	-57.923714	1-Oct-2012	161223	275	641.83	2.5027	CON-116 039.jpg
CON-116	40	67.378426	-57.923533	1-Oct-2012	161320	275	642.40	2.5073	CON-116 040.jpg
CON-116	41	67.378266	-57.923338	1-Oct-2012	161414	275	642.63	2.5079	CON-116 041.jpg
CON-116	42	67.378089	-57.923147	1-Oct-2012	161507	275	643.22	2.5049	CON-116 042.jpg
CON-116	43	67.377953	-57.922978	1-Oct-2012	161602	275	643.43	2.5110	CON-116 043.jpg
CON-116	44	67.377798	-57.922747	1-Oct-2012	161652	275	644.08	2.5170	CON-116 044.jpg
CON-116	45	67.377656	-57.922576	1-Oct-2012	161745	275	644.11	2.5133	CON-116 045.jpg
CON-116	46	67.377440	-57.922345	1-Oct-2012	161846	275	644.43	2.5161	CON-116 046.jpg
CON-116	47	67.377255	-57.922154	1-Oct-2012	161938	275	643.65	2.5160	CON-116 047.jpg
CON-116	48	67.377089	-57.921968	1-Oct-2012	162032	275	644.18	2.5141	CON-116 048.jpg
CON-116	49	67.376911	-57.921730	1-Oct-2012	162130	275	645.50	2.5199	CON-116 049.jpg
CON-116	50	67.376748	-57.921491	1-Oct-2012	162218	275	644.78	2.5151	CON-116 050.jpg
CON-116	51	67.376592	-57.921212	1-Oct-2012	162307	275	645.31	2.5129	CON-116 051.jpg
CON-116	52	67.376421	-57.921052	1-Oct-2012	162400	275	644.80	2.5153	CON-116 052.jpg
CON-116	53	67.376415	-57.921051	1-Oct-2012	162403	275	645.82	2.5171	CON-116 053.jpg
CON-116	54	67.376248	-57.920859	1-Oct-2012	162449	275	645.45	2.5199	CON-116 054.jpg
CON-116	55	67.376121	-57.920600	1-Oct-2012	162542	275	645.83	2.5162	CON-116 055.jpg
CON-116	56	67.376048	-57.920482	1-Oct-2012	162655	275	646.56	2.5058	CON-116 056.jpg
CON-116	57	67.375764	-57.920194	1-Oct-2012	162801	275	646.92	2.5116	CON-116 057.jpg
CON-116	58	67.375610	-57.920024	1-Oct-2012	162847	275	646.92	2.5136	CON-116 058.jpg
CON-116	59	67.375450	-57.919793	1-Oct-2012	162933	275	646.87	2.5103	CON-116 059.jpg
CON-116	60	67.375193	-57.919454	1-Oct-2012	163042	275	647.32	2.5060	CON-116 060.jpg
CON-116	61	67.375044	-57.919302	1-Oct-2012	163133	275	646.82	2.5059	CON-116 061.jpg
CON-116	62	67.374886	-57.919076	1-Oct-2012	163219	275	646.90	2.5051	CON-116 062.jpg

CON	Photo No.	Latitude (DD)	Longitude (DD)	Date	GMT (hhmmss)	Julian Day	Depth (m)	Bottom Temperature (C)	Photo Filename
CON-116	63	67.374697	-57.918824	1-Oct-2012	163307	275	646.84	2.5079	CON-116 063.jpg
CON-116	64	67.374538	-57.918649	1-Oct-2012	163400	275	646.79	2.5133	CON-116 064.jpg
CON-116	65	67.374357	-57.918493	1-Oct-2012	163443	275	646.63	2.5184	CON-116 065.jpg
CON-116	66	67.374194	-57.918262	1-Oct-2012	163527	275	646.93	2.5160	CON-116 066.jpg
CON-116	67	67.374078	-57.918024	1-Oct-2012	163611	275	646.69	2.5203	CON-116 067.jpg
CON-116	68	67.373920	-57.917893	1-Oct-2012	163656	275	645.26	2.5177	CON-116 068.jpg
CON-116	69	67.373731	-57.917727	1-Oct-2012	163745	275	645.06	2.5169	CON-116 069.jpg
CON-116	70	67.373574	-57.917495	1-Oct-2012	163832	275	644.65	2.5289	CON-116 070.jpg
CON-116	71	67.373346	-57.917281	1-Oct-2012	163925	275	644.15	2.5311	CON-116 071.jpg
CON-116	72	67.373038	-57.916994	1-Oct-2012	164045	275	642.78	2.5328	CON-116 072.jpg
CON-116	73	67.372647	-57.916678	1-Oct-2012	164244	275	643.67	2.5539	CON-116 073.jpg
CON-116	74	67.372318	-57.916260	1-Oct-2012	164400	275	645.26	2.5576	CON-116 074.jpg
CON-116	75*	67.372303	-57.916258	1-Oct-2012	164404	275	645.12	2.5552	CON-116 075.jpg
CON-116	76	67.372010	-57.915935	1-Oct-2012	164519	275	646.87	2.5659	CON-116 076.jpg
CON-116	77	67.371752	-57.915765	1-Oct-2012	164627	275	647.16	2.5591	CON-116 077.jpg
CON-116	78	67.371380	-57.915433	1-Oct-2012	164748	275	648.85	2.5731	CON-116 078.jpg

APPENDIX D: EFFECT OF DATA TRANSFORMATION ON ABUNDANCE

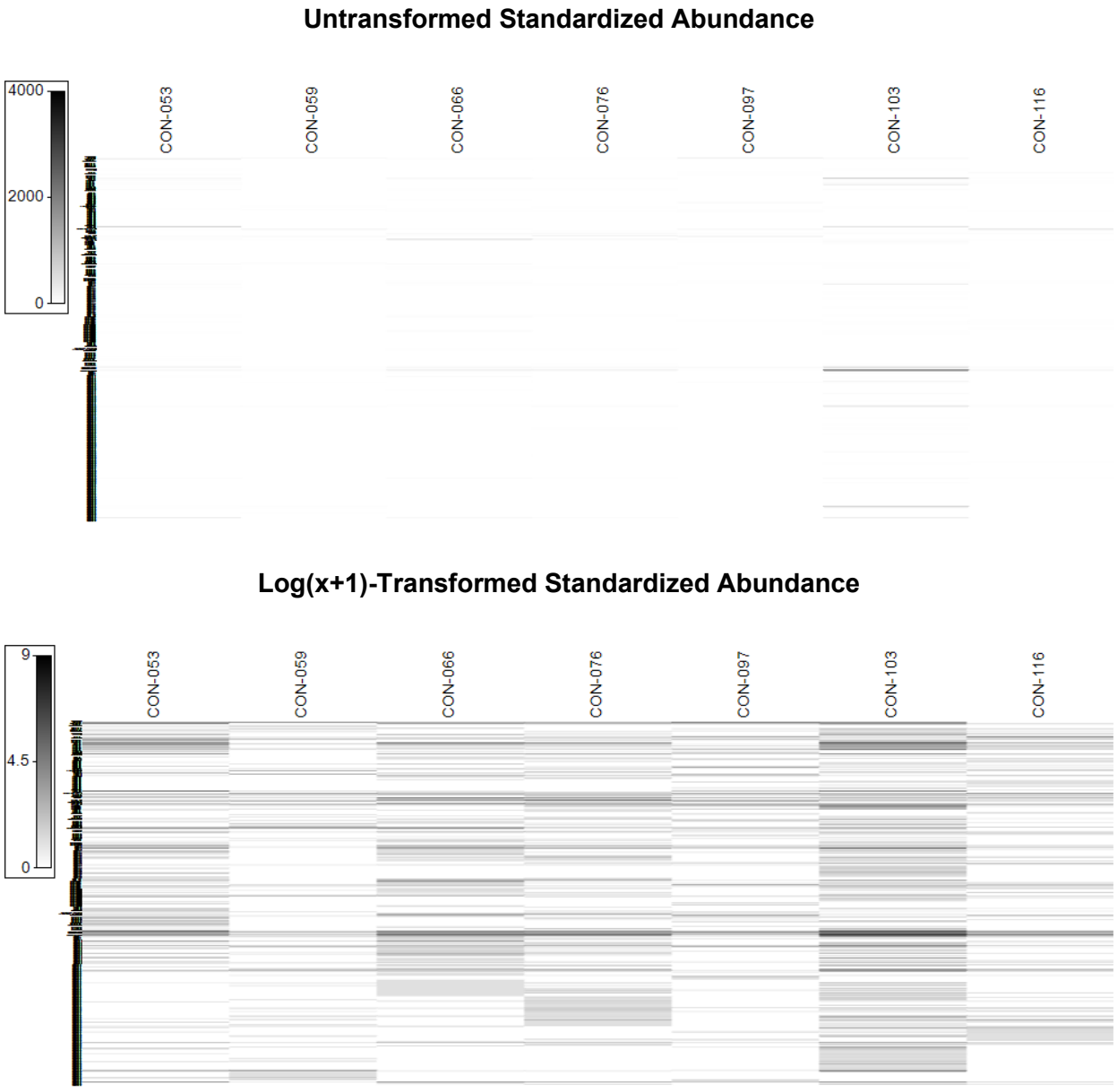


Figure 1. Shade plots showing the effect of transformation on the abundance of taxa by sample. Scale bars of the abundance for each plot are shown in the upper left.

APPENDIX E: SIMILARITY AMONG MEGAFAUNAL COMMUNITIES IN ABUNDANCE

Station	BB1_B_400 m	BB1_B_1000 m	BB1_B_600 m	BB1_A_600 m	BB1_C_1000 m	BB1_C_400 m	BB1_D
CON53	53						
CON59	33.51	59					
CON66	48.66	32.83	66				
CON76	46.48	31.74	55.12	76			
CON97	36.82	44.33	34.77	37.45	97		
CON103/4	50.82	30.22	48.13	52.39	31.07	103/4	
CON116	36.77	37.06	39.39	47.68	42.55	40.02	116

Figure 1. Bray-Curtis similarity among megafaunal communities based on log (x+1)-transformed abundance (m^2). Samples are labelled by CON (in bold), and station.

APPENDIX F: CO-ORDINATES OF BUFFER ZONES AROUND MONITORING STATIONS

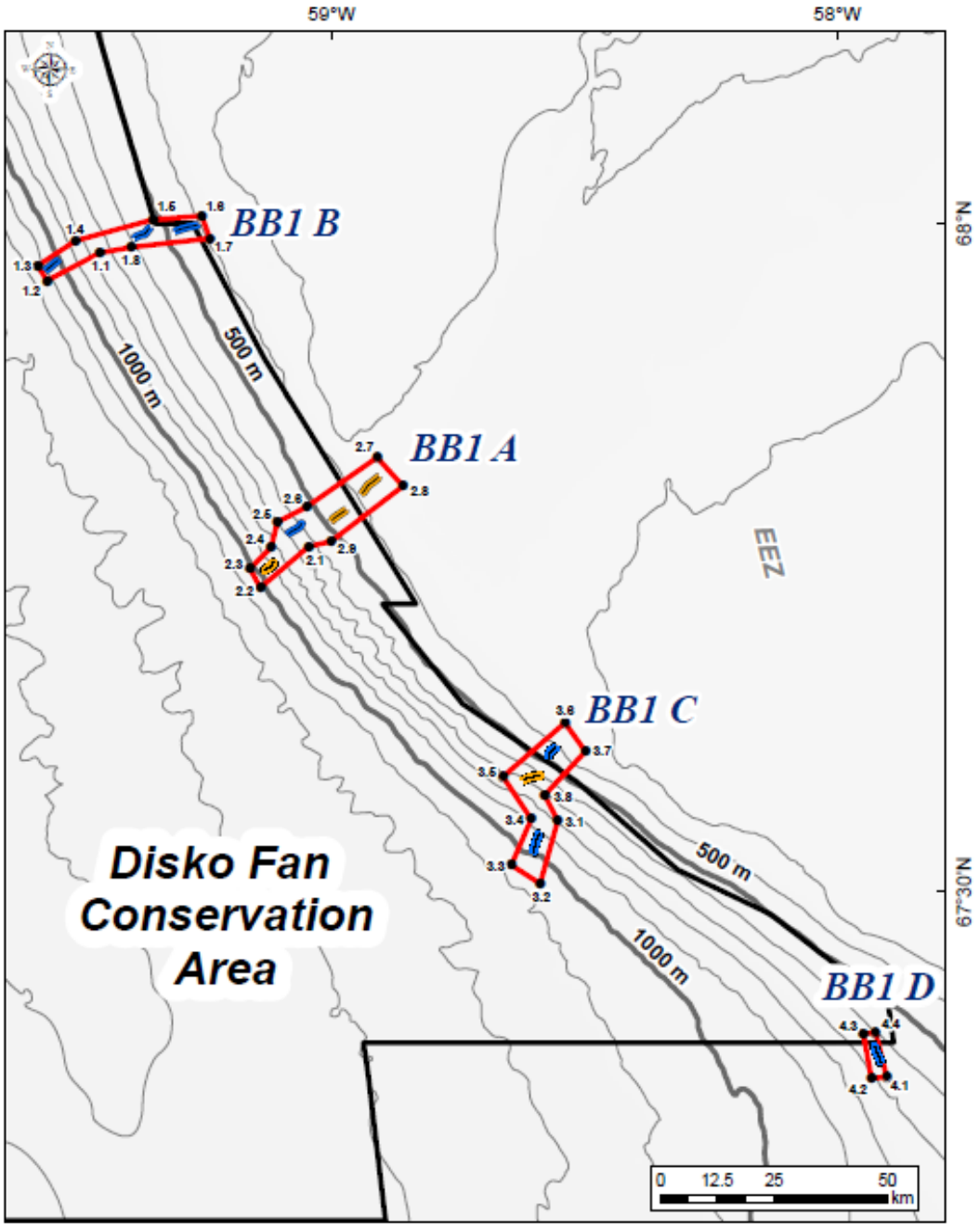


Figure 1. Position of point co-ordinates for buffer zones around the monitoring stations in and/or adjacent to the Disko Fan Conservation Area (DFCA; see Table 1 for latitude and longitude associated with each of the labelled points). Photo transects in blue have been fully processed; orange-coloured transects have not been analyzed but are available for processing.

Table 1. Latitude and longitude (DD=decimal degrees) for the buffer zones surrounding the monitoring stations in the Disko Fan Conservation Area (DFCA) illustrated in Figure 1.

Vertex_ID	Station	Latitude	Longitude
1.1	BB1_B	67.978129	-59.458510
1.2	BB1_B	67.957681	-59.562904
1.3	BB1_B	67.968710	-59.581119
1.4	BB1_B	67.987265	-59.506641
1.5	BB1_B	68.002872	-59.353213
1.6	BB1_B	68.005376	-59.257144
1.7	BB1_B	67.988922	-59.240852
1.8	BB1_B	67.982237	-59.396335
2.1	BB1_A	67.759509	-59.045753
2.2	BB1_A	67.728883	-59.140878
2.3	BB1_A	67.742966	-59.162004
2.4	BB1_A	67.759072	-59.120169
2.5	BB1_A	67.777866	-59.107871
2.6	BB1_A	67.789206	-59.049704
2.7	BB1_A	67.826107	-58.910399
2.8	BB1_A	67.804814	-58.859383
2.9	BB1_A	67.763477	-59.001420
3.1	BB1_C	67.553623	-58.553733
3.2	BB1_C	67.506138	-58.588182
3.3	BB1_C	67.520099	-58.645291
3.4	BB1_C	67.554895	-58.605806
3.5	BB1_C	67.586806	-58.661587
3.6	BB1_C	67.627454	-58.539134
3.7	BB1_C	67.605886	-58.498848
3.8	BB1_C	67.572947	-58.579463
4.1	BB1_D	67.359685	-57.903614
4.2	BB1_D	67.358499	-57.933290
4.3	BB1_D	67.392586	-57.949561
4.4	BB1_D	67.393170	-57.925221

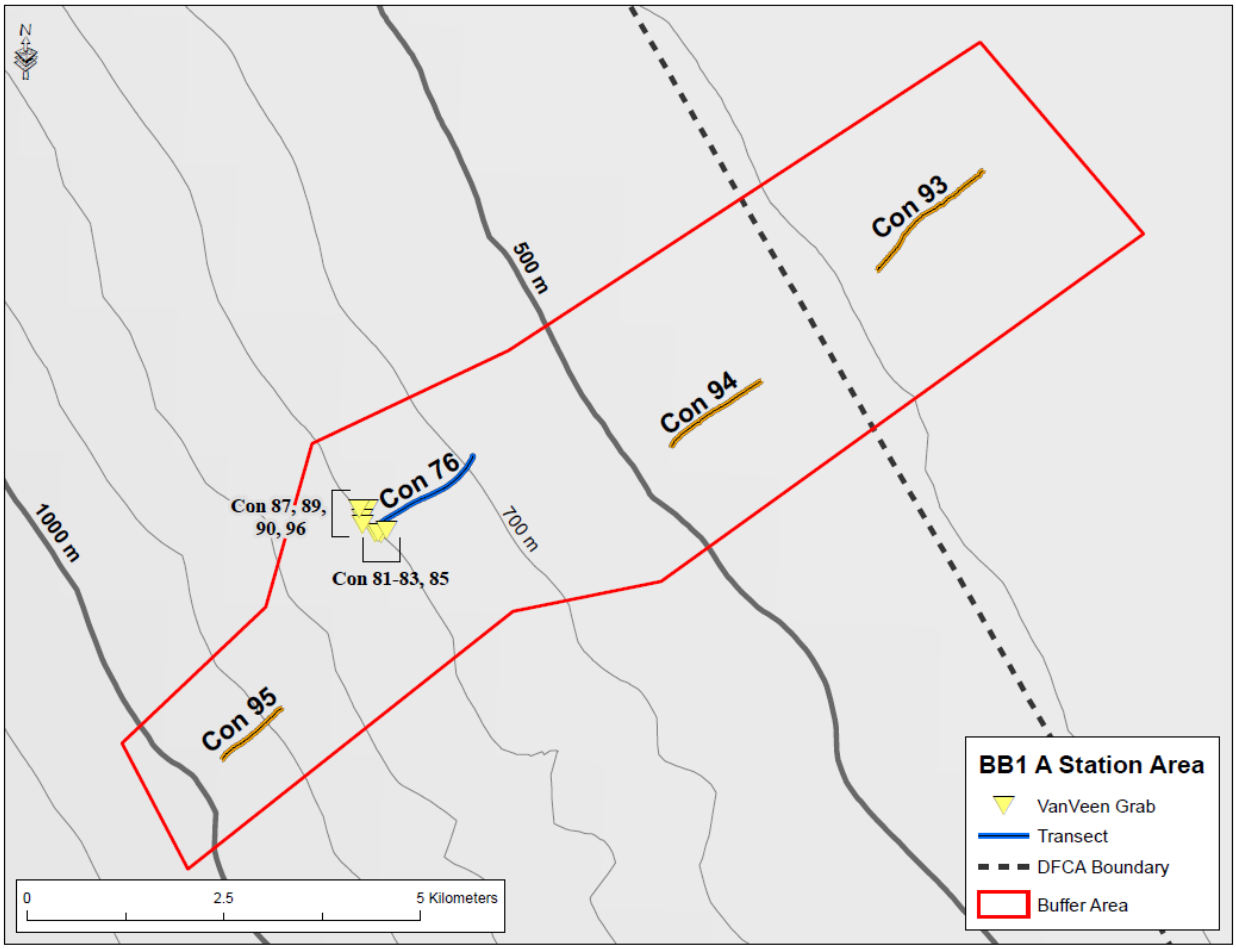


Figure 2. Close-up of the BB1_A monitoring station with a buffer zone (red line) around the sampling sites in the Disko Fan Conservation Area (boundary indicated by dashed line; details of sediment samples are in Jacobs et al., 2022). Transect Con 93 lies outside the marine refuge. Photo transects in blue have been fully processed and are reported on herein; orange-brown-coloured transects have been collected but not been processed.

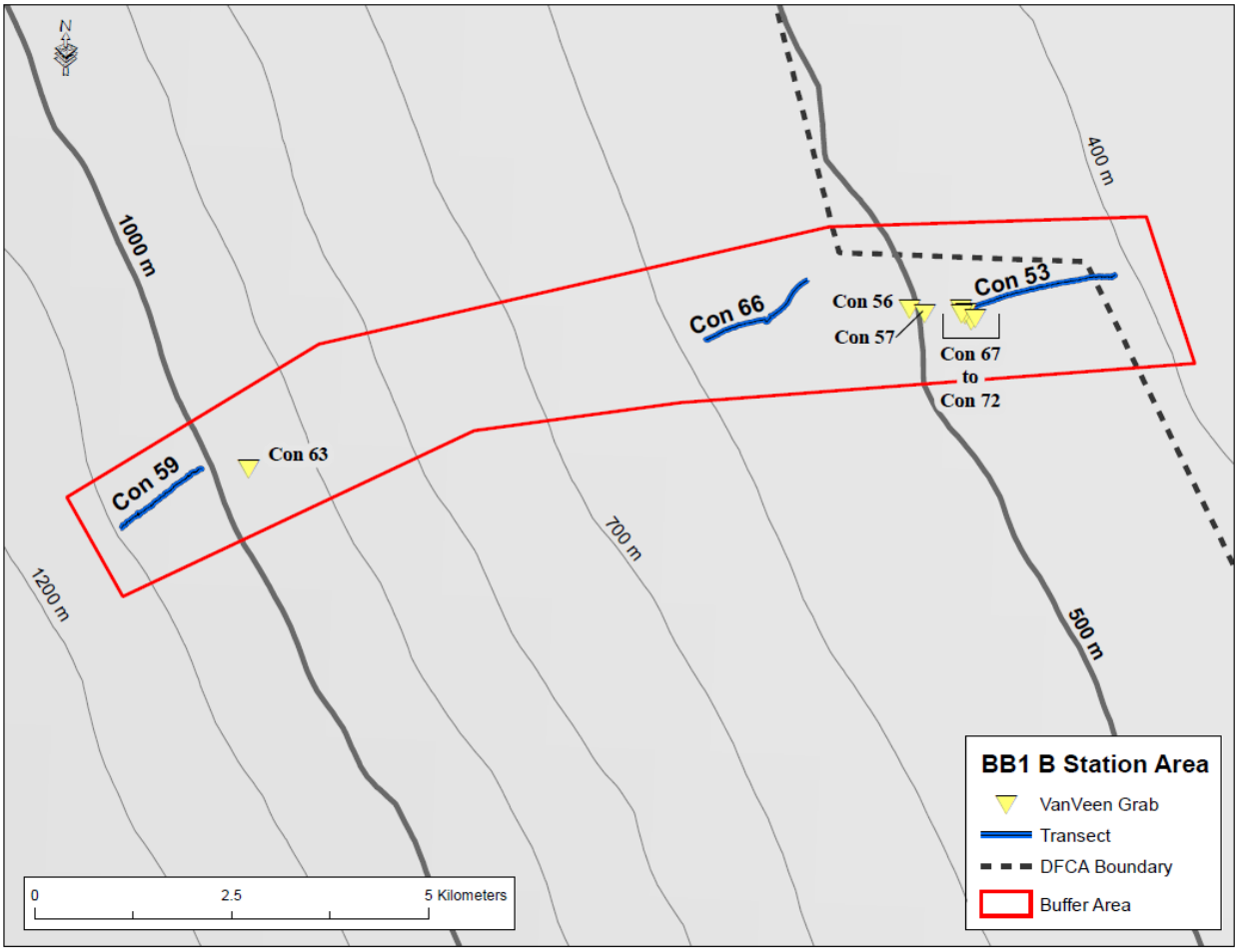


Figure 3. Close-up of the BB1_B monitoring station with a buffer zone (red line) around the sampling sites in the Disko Fan Conservation Area (boundary indicated by dashed line; details of sediment samples are in Jacobs et al., 2022).

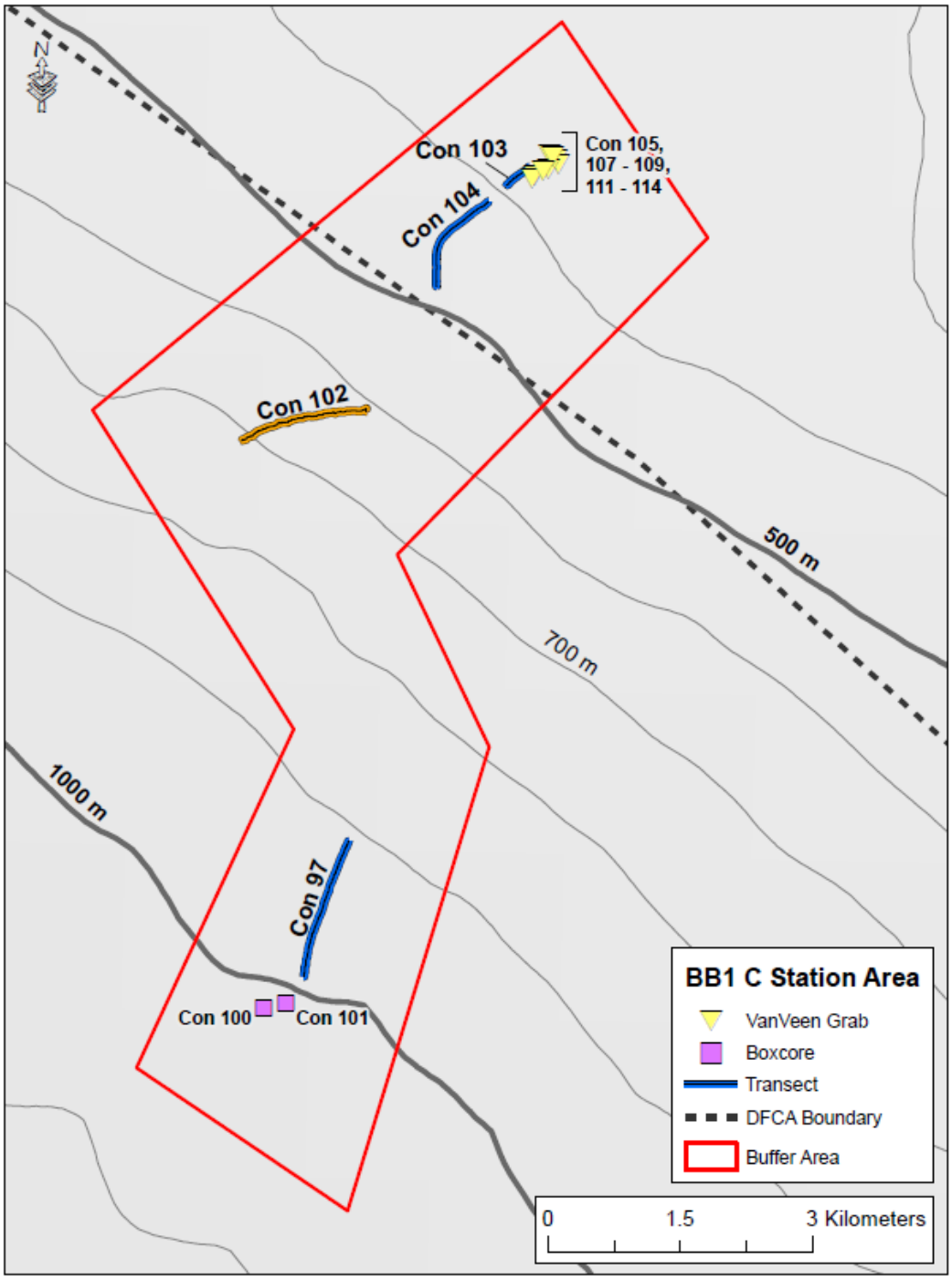


Figure 4. Close-up of the BB1_C monitoring station with a buffer zone (red line) around the sampling sites in the Disko Fan Conservation Area (boundary indicated by dashed line; details of sediment samples are in Jacobs et al., 2022). Transects Con 103 and 104 lie outside the marine refuge. Photo transects in blue have been fully processed and are reported on herein; orange-brown-coloured transects have been collected but not been processed.

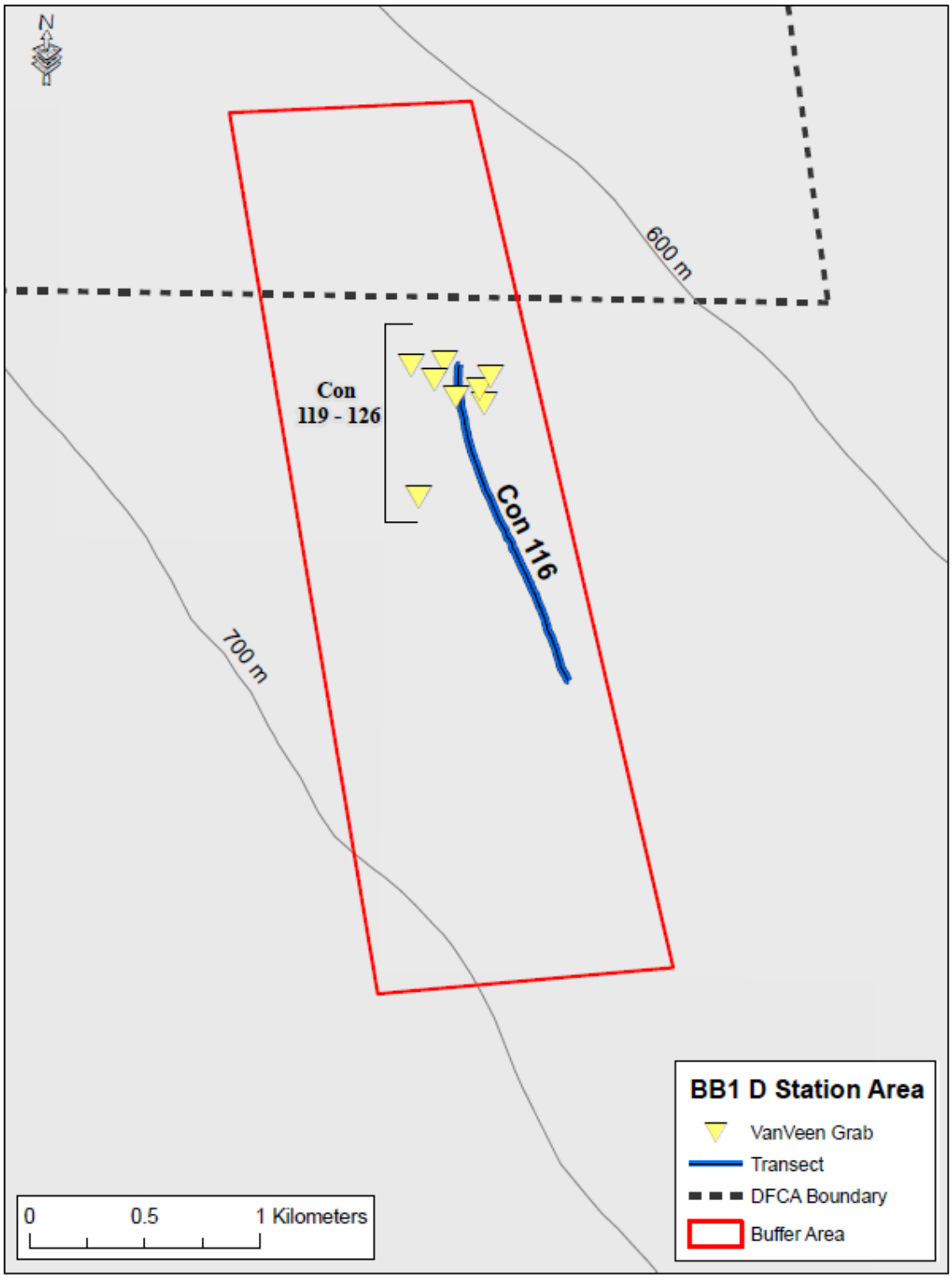


Figure 5. Close-up of the BB1_D monitoring station with a buffer zone (red line) around the sampling sites just outside of the Disko Fan Conservation Area (boundary indicated by dashed line; details of sediment samples are in Jacobs et al., 2022).