2016

Kongsfjorden – Rijpfjorden Cruise (MOSJ – ICE)

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Contents

Introduction

The overall objectives of Norwegian Polar Institute (NPI) cruise to Kongsfjorden and Rijpfjorden is to: 1) monitor both short and long term changes in the Arctic ecosystem, and 2) enhance our knowledge on the Arctic eco- and ocean-climate systems. The cruise is used by NPI to obtain data on phytoplankton, zooplankton and the trophic structure of the ecosystem. Oceanographic data are also collected at the same sampling sites adding to the time series of data. Additional material for paleoceanographic data ensuring long-range time series are also collected. Two transects representing two different environmental settings are sampled. The first transect, the Kongsfjorden transect, begins in the innermost part of Kongsfjorden and ends on the slope of western Spitsbergen covering the full environmental range from glacier front, fjord and open marine conditions. The second transect, the Rijpfjorden transect, covers the same range from glacier to open marine conditions (Figure 1). Yet, the two transects differ strongly representing Arctic and high-Arctic conditions respectively. Kongsfjorden is influenced by relatively warm and saline Atlantic water which is advected into Kongsfjorden during summer, and only the innermost part of the fjord develops a sea-ice cover during winter. Atlantic water only has very limited influence on Rijpfjorden due to a relatively shallow sill hindering its inflow. Besides Rijpfjorden is covered by sea-ice minimum nine months a year.

During the cruise this year additional sampling from a glacier front area in Kongsfjorden was included. The glacier front sampling consisted of pelagic sampling (hydrographic, biogeochemical, phytoplankton and zooplankton) carried out by helicopter within 300 m off the Kongsvegen glacier. The ecosystem in front of glaciers are important feeding areas for seabirds and marine mammals, and meltwater from the glacier creates a unique environment that is still not fully understood. At the moment most glaciers are retreating in Svalbard, and the future implications of reducing these glacier front and feeding areas need urgent evaluation.

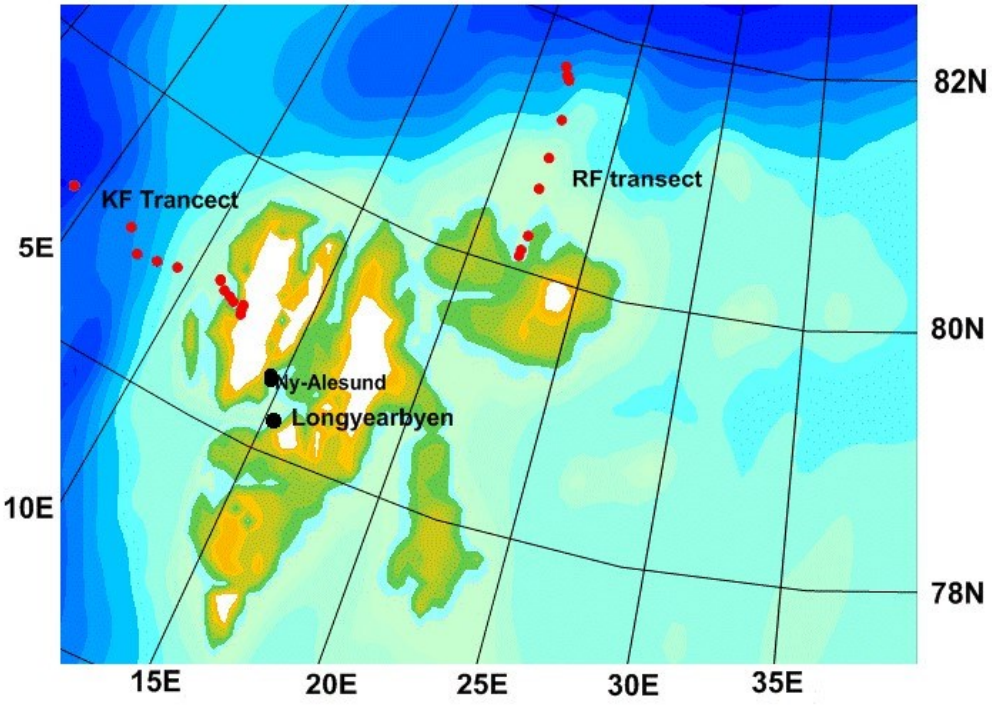

Figure 1. Transects locations and station positions (red filled circles).

Programmes and projects

MOSJ pelagic survey - Kongsfjorden

Responsible: Haakon Hop (NPI), Philipp Assmy (NPI) & Anette Wold (NPI)

MOSJ (Environmental monitoring – Svalbard and Jan Mayen, www.mosj.npolar.no/) is a program to monitor changes in the Arctic Ecosystem at Svalbard and Jan Mayen. As a part of MOSJ, the survey in Kongsfjorden - Fram Strait (KongHau) is used by NPI to monitor long term changes in phytoplankton and zooplankton as well as trophic structure of this ecosystem. The survey in Kongsfjorden and Fram Strait which includes CTD, nutrients, phytoplankton, zooplankton and benthos is maintained through joint efforts by Akvaplan-niva (Apn), the University of Tromsø (UoT), the University Centre in Svalbard (UNIS), the Norwegian Polar Institute (NPI), the Polish Institute of Oceanology (IOPAS) and the Alfred Wegener Institute of Polar and Marine Science (AWI).

- The transect consists of 7 stations inside the fjord (Kb7, Kb6, Kb5, Kb3, Kb2, Kb2, Kb1, Kb0), 3 stations on the shelf (V12, V10, V6) and 3 stations off the shelf (KH, HG-I, HG-IV).
- The transect is sampled every year in July, additional seasonal studies was done in 2002, 2006 and 2007.
- CTD and zooplankton sampled since 1996.
- Chlorophyll, nutrient, phytoplankton, sampled since 2009
- Fatty acid and stable isotope of phytoplankton, zooplankton, fish, benthos and seabirds are also analysed but not on a regular basis.
- All phytoplankton and zooplankton data are analyzed to species level in cooperation with the Institute of Oceanology in Sopot, Poland.
- All data is stored in the Marinedatabase at NPI.

ICE pelagic survey - Rijpfjorden

Responsible: Haakon Hop (NPI), Philipp Assmy (NPI) & Anette Wold (NPI)

The Norwegian Polar Institute's Centre for Ice, Climate and Ecosystems (ICE) is as a national competence centre for ice and climate research and environmental monitoring of the Polar Regions. Pelagic sampling during the 2013 AEM-MOSJ cruise is designed to obtain data that will improve our knowledge on water mass distribution, phytoplankton composition, as well as zooplankton species composition, life history adaptations and distribution patterns on a transect from Rijpfjorden to the ice edge. The following topics will be addressed:

1. CTD and ADCP transect
2. Phytoplankton species composition and concentration
3. Zooplankton species composition, abundance, vertical and horizontal distribution in relation to water mass distribution and ice conditions

Ocean Acidification

Responsible: *Agneta Fransson (NPI) & Melissa Chierichi (IMR)*

Investigate the natural calcium carbonate saturation state (Ω) in the area around Svalbard.

Influence of water mass composition (Atlantic, polar, fjordwater) and freshwater (glacier, sea-ice and river) on Ω. Distribution of *Calanus*, *Limacina helicina* will be related to Ω state.

Pterodpods should be collected from Multinet and MIK when present and stored 0n 95% alcohol.

CDOM

Responsible: *Mats Granskog (NPI) & Alexey Pavlov (NPI)*

The main objective is to collect CDOM samples for absorbance and fluorescence characterization of marine dissolved organic matter. This can be used as a proxy for dissolved organic carbon (DOC), and combined with the other tracers

(like ^{18}O and TA) it can also indicate optical properties of water masses. Samples will be collected at all stations along the Kongsfjorden transect, at the same depths as oxygen isotopes, DIC/AT and methane.

Sediment sampling (1): Long-term environmental monitoring using benthic foraminifera in Kongsfjorden

Responsible: *Katrine Husum (NPI) & Pedro Duarte (NPI)*

This project aims to monitor and quantify/model the response of benthic foraminifera to different physical environmental forcing in the Arctic, e.g. with regard to variations of the influence of Atlantic Water in Kongsfjorden. Benthic foraminifera are good monitors of environmental changes because they are very abundant in the surface sediments and very diverse even in Arctic coastal and fjord settings. Furthermore they have a short life cycle enabling to respond quickly to changes. After death the shells of the benthic foraminifera are preserved in the sediment enabling baseline studies of pre-impacted conditions back in time. A CTD cast/data will also be necessary on all these stations in order compare the modern foraminiferal data with the modern hydrographic data. The transect consists of 5 stations in Kongsfjorden (Kb3, Kb2, Kb1, Kb0, FM).

Sediment sampling (2): Reconstructions of natural sea-ice and water mass variability

Responsible: *Katrine Husum (NPI), Arto Miettinen (NPI) & Simon Belt (University of Plymouth)*

In order to obtain data on temperature, salinity etc. in the water masses from the past when it was not possible to get instrumental measurements of these factors; we study fossil micro-fauna (foraminifera) and micro-flora (diatoms) in the sediments in addition to their chemical composition (sea-ice biomarkers). Their composition and abundance depend on many environmental factors like temperature and salinity of the sea water, thus showing how the marine environment and water masses were back in time (paleo-oceanographic proxy data).The second aim of the project is to improve the proxies of ocean temperature and sea-ice and apply them to down core sediment samples from the multicores (fossil data). Hence the monitoring data will also serve as modern analogue data for interpretation of fossil data. The modern analogue data will also be utilized when developing statistical models making quantitative reconstructions (transfer functions based on benthic foraminifera and diatoms). The paleo-records will be established at selected stations in Kongsfjorden (Kb1), Krossfjorden (Kr1) and Rijpfjorden (R6). Furthermore, additional sediment samples for diatom paleo records were also collected for the OCTEL project (*Ocean–sea-ice–atmosphere teleconnections between the Southern Ocean and North Atlantic during the Holocene)* funded by the Research Council of Norway and Ministry of Earth Sciences (India).

Diving: collecting bivalves

Responsible: *Haakon Hop (NPI)*

This project aims to investigate and establish bivalves as records of seawater conditions around Svalbard. Three dives were carried out during the cruise in order to collect bivalve samples from Kongsfjorden (Gluudneset), Rijpfjorden (Erkna Island) and east of Prins Karls Forland (Richard Laguna). These sites have been sampled before and are known to host bivalves.

Glacier front sampling (TW-ICE)

Responsible: *Harald Steen (NPI), Philipp Assmy (NPI), Arild Sundfjord (NPI), Katrine Husum (NPI)*

This project aims to investigate the physical environment and ecology connected to tidal glacier fronts. Plankton net and water sampling in addition to CTD casts were carried out using a helicopter. Additional CTD casts and water current observations were carried out outside of the safety zone using RV *Lance* and zodiac respectively.

NCAOR ocean mooring rig

Responsible: *Arild Sundfjord (NPI), Agneta Fransson (NPI), Divya David (NCAOR), Kesavakumar Balakrishnan (NIOT).*

Since 2014 NCAOR has had a mooring rig in Kongsfjorden measuring various oceanographic parameters troughout the year. The rig contain at different depths CTD sensors, nitrate sensors, ADCP (Acoustic Doppler Current Profiler) etc. This year a CO2 sensor from NPI was added to the rig. This is a contribution to the Ocean Acidification project. In total ca. 24 hours was spend on retrieving and deploying the NCAOR rig.

Work on board and results

Twenty-three stations were visited in Kongsfjorden and Rijpfjorden, and a total of 1513 water samples, 142 plankton net samples and 536 sediment samples were collected. Furthermore, twenty-three CTD profiles were obtained. During the glacier front sampling additional 344 water samples and 18 plankton net samples were obtained.

Area	Station	Latitude	Longitude	Depth(m)	Sampling	Project
Kongsfjorden	Kb7	78° 57.98'	12° 22.60'	64	Pelagic	MOSJ
	Kb6	78° 55.81'	12° 23.11'	83	Pelagic	MOSJ
	Kb5	78° 53.79'	12° 26.45'	96	Pelagic; Marine geology	MOSJ
	Kb3	78° 57.24'	11° 57.38'	329	Pelagic; Marine geology	MOSJ
	Mooring				NCAOR Mooring	MOSJ
	Kb2	78° 58.68'	11° 43.91'	330	Pelagic; Marine geology	MOSJ
	Kb1	79° 00.67'	11° 25.66'	352	Pelagic; Marine geology	MOSJ
	Kb0	79° 02.78'	11° 08.36'	315	Pelagic; Marine geology	MOSJ
	FM	79° 03.05'	11° 05.17'	328	Marine geology	MOSJ
	V12	78° 58.79'	09° 29.77'	224	Pelagic	MOSJ
	V10	78° 55.96'	08° 32.82'	291	Pelagic	MOSJ
	V6	78° 54.39'	07° 46.24'	1125	Pelagic	MOSJ
Hausgarten	KH	79° 03.00'	07° 00.00'	1200	Pelagic	MOSJ
	HG-I	79° 08.00'	06° 05.54'	1200	Pelagic	MOSJ
	HG-IV	79° 03.90'	04° 10.80'	2500	Pelagic	MOSJ
Rjipfjorden	R1	80° 07.42'	22° 09.17'	202	Pelagic	ICE
	R2	80° 10.19'	22° 10.06'	175	Pelagic	ICE

	R3	80° 17.10'	22° 18.26'	225	Pelagic	ICE
	R4	80° 39.14'	22° 07.17'	128	Pelagic	ICE
	R5	80° 54.09'	22° 07.32'	125	Pelagic	ICE
	R6	81° 12.00'	22° 09.00'		Pelagic; Marine geology	ICE
	R7	81° 30.00'	22° 09.00'	>1000	Pelagic	ICE
	R8	81° 48.00'	22° 09.00'	>1000	Pelagic	ICE
	R9				Pelagic	ICE

Table 1 List of stations in Kongsfjorden and Rijpfjorden.

Hydrographic survey

Responsible: Olga Pavlova (NPI) & Dmitry Divine (NPI)

One of the aims of the cruise was do targeted oceanographic measurements covering the following key topics: Distribution hydrography, other physical parameters of water mass and movement of water in Kongsfjorden and Rijpfjorden of Svalbard. Data were collected from RV *Lance* on transect stations. For a more detailed sample overview, please see appendix. Data were collected using a range of instruments: CTD for collection of vertical profiles of conductivity (salinity), temperature, and associated parameters like chlorophyll, radiance etc. The CTD rosette is also equipped with water sampling bottles. A total of 50 profiles were made, see appendix for an overview of the main stations. ADCP (ship-mounted 150 kHz acoustic doppler current profiler) was used for measuring water currents throughout the water column; both by ship-mounted ADCP (upper ~200 m).

In order to obtain 'round the clock' CTD data the scientific personnel was divided into two groups. Team 1 (Dmitry and somebody from crew) performed the 6 to 12 shift whilst Team 2 (Olga and somebody from crew) ran the 12 – 6 shift. Once in the water the logging was initiated using SeaSave the Seabird data acquisition software. The salinity and temperature values were monitored until they were stable and then the CTD was lowered at about 1m/s. Water samples were 'fired' on the upcast. At the end of a station the CTD was taken back on deck for taking benthic samples from NISKIN bottles, wheeled into the shelter where it could be fastened to the ship before *Lance* headed to the next station. After which the data were downloaded, changed to ASCII using Data Conversion (DatConv) on the SBE data processing software. The resultant CNV files were used for plotting of TS vertical profiles and transects. At this stage no other processing was performed to the data.

Hydrographic structure and vertical transects

Positions of the CTD stations and transects for Kongsfjorden (KF) and Rijpfjorden (RF) are presented in Figure 1 and Table 1. Figures 2 and 3 show temperature and salinity distribution at the KF transect. The major physical features found in the section include the area of high water temperature and low salinity (especially in the eastern part of KF) in the surface layer. The high water temperature in the surface layer (T>7.0^{o}C) was formed due to solar radiation and summer warming. Low salinities in the eastern part of the fjord are result of glacier melting. Well pronounced salinity frontal zone is presented near the station KB0. This front separates low salinity melting waters and waters of the ocean origin with relatively high salinities. In the deepest, western part of the transect, below 1000 m the temperature is near freezing point. Figure 4 shows fluorescence distribution at the KF transect. Maximum values of the fluorescence here (3-5 mg/m^3) are in in the western part of the KF transect, in the layer from 30 to 50 m. Deeper 100 -150 m fluorescence practically is equal zero. Temperature, salinity and fluorescence at the vertical RF transect are shown in Figs. 5-7. The vertical sections (Fig. 5) indicate that between 50 and 100 m in the southern,

shallow part of the transect, strong thermocline was formed. The surface layer here has quite high temperatures (4.5-5.0°C) due to summer warming. Below thermocline the temperatures are negative and in the bottom layer - near freezing point. Salinity (Fig. 6) in the surface layer is very low (31-32 psu) along the transect, and very strong halocline is observed. In the northern deeper part of transect we have found the layer of the Atlantic Water extending vertically (from 100 to 600 m) with a core at the depth of 200-250 m.The hydrography of the Atlantic Water mass has typical properties for this region in summer. Thus, three water masses are detected there: 1) surface water with low salinity (31-32 psu) and temperature >4.5°C in the southern part of the transect and 1.0-1.5°C in northern part; 2) Atlantic Water mass (temperature >3.0°C and salinity bit more 35 psu), and 3) deep Arctic Water mass having temperature -0.46°C - -0.47°C and salinity 34.9 psu. In comparison with KF transect, we have found here the Surface Arctic water along entire length of section. Vertical distribution of fluorescence in RF is shown in the Fig. 7. Maximal values of the fluorescence (1.2-1.4 mg/m^3) were observed in the layer of 30-40 m. It is necessary to say that in 2016 values of the fluorescence in the RF are much lower than in the previous years.

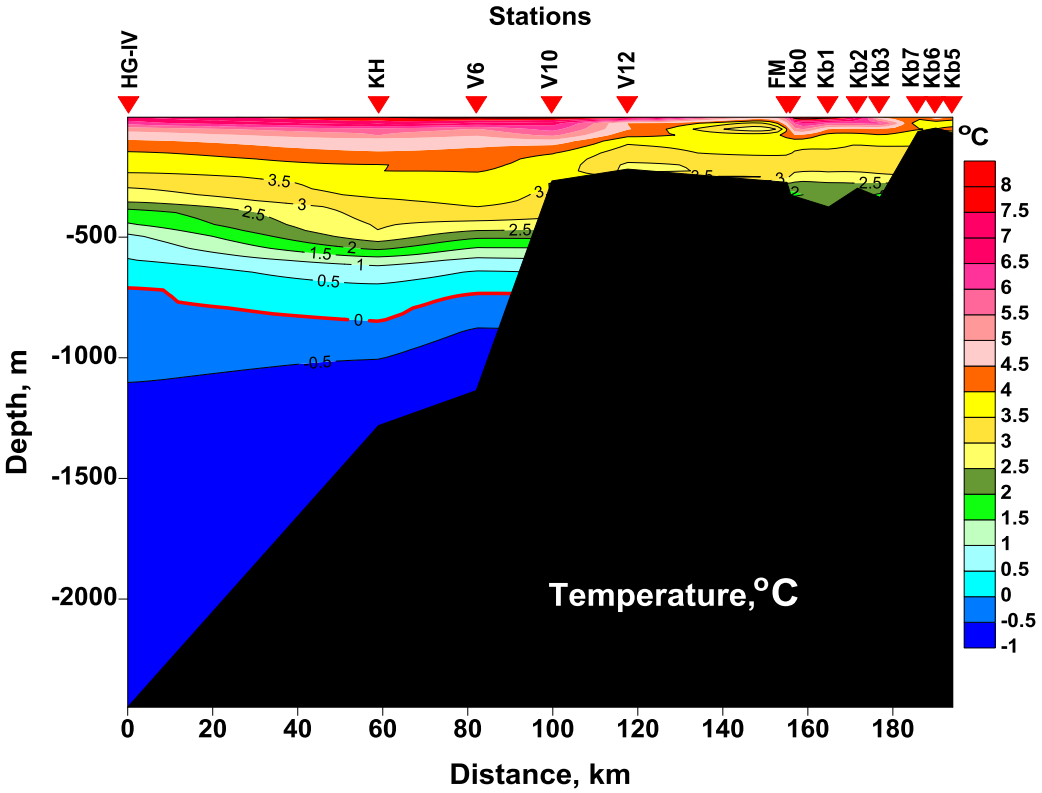

Figure 2. Temperature distribution at the transect in Kongsfjorden (profiles HG-IV, KH, V6, V10, V12, KB0, KB1, KB2, KB3, KB7, KB6 and KB5). Station positions are shown in Figure 1 and appendix.

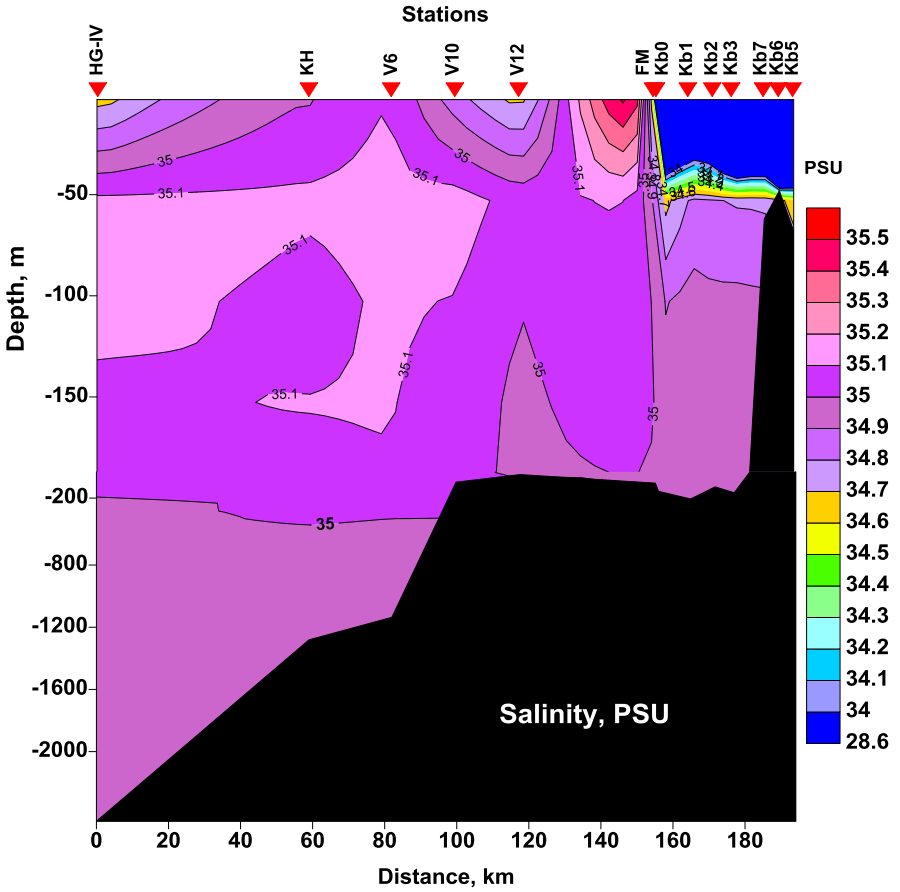

Figure 3. Salinity distribution at the transect in Kongsfjorden (profiles HG-IV, KH, V6, V10, V12, KB0, KB1, KB2, KB3, KB7, KB6 and KB5). Station positions are shown in Figure 1 and appendix.

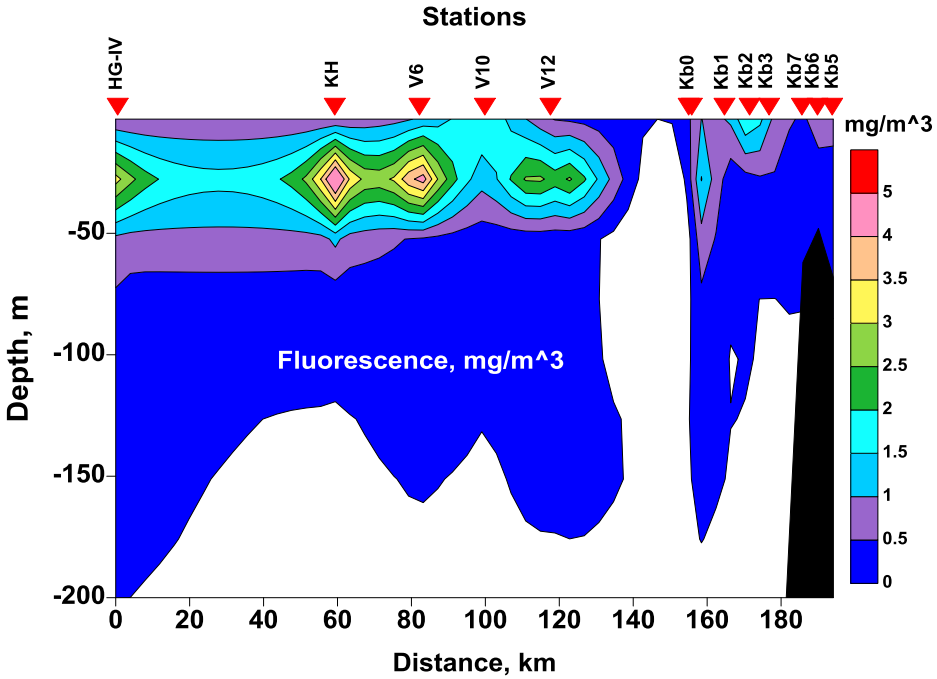

Figure 4. Fluorescence distribution at the transect in Kongsfjorden (profiles HG-IV, KH, V6, V10, V12, KB0, KB1, KB2, KB3, KB7, KB6 and KB5). Station positions are shown in Figure 1 and appendix.

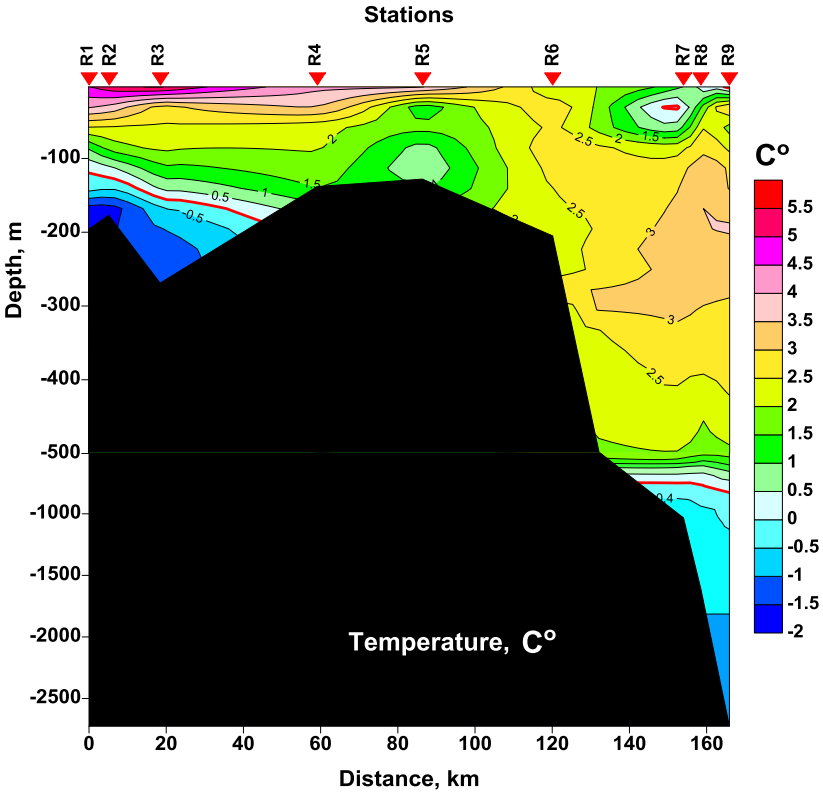

Figure 5. Temperature distribution at the transect in Rijpfjorden (profiles R1-R9). Station positions are shown in Figure 1 and appendix.

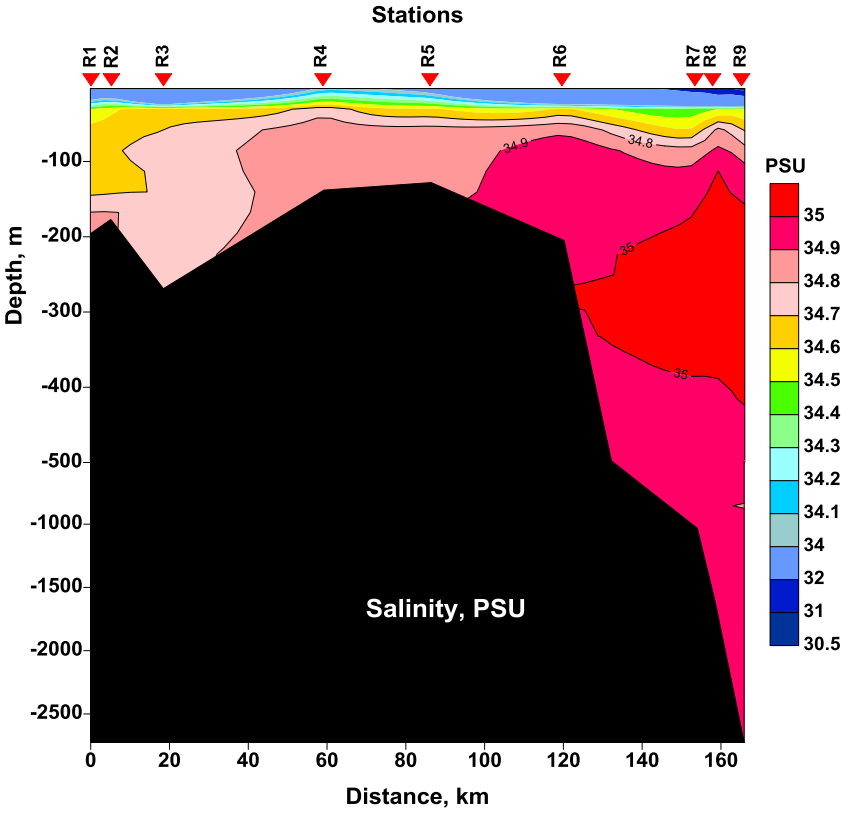

Figure 6. Salinity distribution at the transect in Rijpfjorden (profiles R1-R9). Station positions are shown in Figure 1 and appendix.

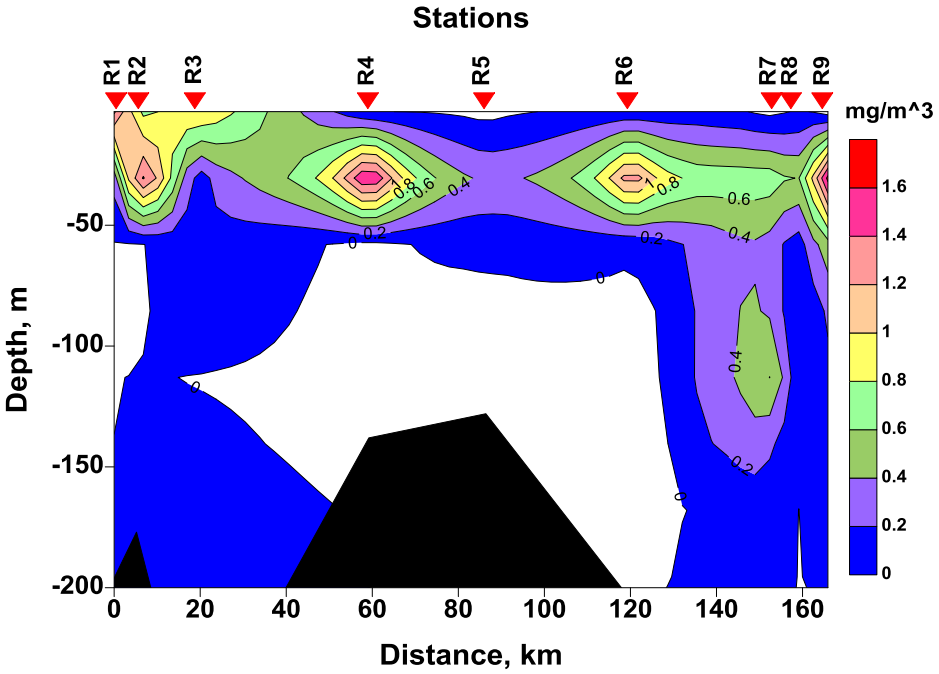

Figure 7. Fluorescence distribution at the transect in Rijpfjorden (profiles R1-R9). Station positions are shown in Figure 1 and appendix.

Biogeocehmical variables and phytoplankton

Responsible: *Jozeph Wictor (IOPAS), Agnieska Tatarek (IOPAS), Svein Kristiansen (UiT) & Anette Wold (NPI)*

Water samples were collected from Niskin bottles from the CTD rosette. Chlorophyll and ammonium samples were analyzed directly on board. Samples for phyto- and microplankton taxonomy will be sent with RV *Oceania* and will be analyzed at IOPAS in Poland. Particulate organic carbon and nitrogen (POC/PTDN) will be analysed at SYKE in Helsinki by Hermanni Kartokallio. Nutrient samples will be analyzed at IMR by Kjell Gundersen.

Zooplankton

Responsible: *Anette Wold (NPI)*

Mesozooplankton was sampled with multiple plankton sampler (MPS, Hydro-Bios Kiel), consisting of five closing nets with 0.25 m^2 opening and 200 µm mesh size. Macrozooplankton was sampled with a Midwater Isaak Kit Trawls (MIK) with 3.14 m^2 opening and 1500 µm mesh from the total water column. The standard depths for MPS samples was as follows:

Bottom depth <600m; bottom-200m, 200-100m, 100-50m, 50-20m, 20-0m

Bottom depth >600m; bottom-600m, 600-200m, 200-50m, 50-20m, 20-0m

All MPS samples were preserved immediately after sampling and stored on 4% formaldehyde solution buffered with hexamintetrahydrat. The MIK samples were splitted in two, half of the samples were frozen and half were stored on 4% formaldehyde solution. The frozen samples will be sent to Padmini Dalpadado, IMR for examination of gonad status of krill while the taxonomical sampled will be analysed either at NP or at IMR.

The zooplankton community in the inner part of Kongsfjorden was dominated by krill while the *Calanus* was dominating from Kb3 and further out.

Long-term environmental monitoring using benthic foraminifera in Kongsfjorden

Responsible: *Katrine Husum (NPI) & Pedro Duarte (NPI)*

Surface sediment samples were collected at 5 stations in Kongsfjorden (Kb3, Kb2, Kb1, Kb0, FM) as part of the annual monitoring of Kongsfjorden using benthic foraminifera. The samples were preserved in ethanol with Rosa Bengal stain and will be analyzed at NPI.

Reconstructions of natural sea-ice and water mass variability

Responsible: *Katrine Husum (NPI), Arto Miettinen (NPI) & Simon Belt (University of Plymouth)*

Four stations (Kb5, Kb1, Kr1, R6) were sampled for both surface sediments and down core sediment samples. Both surface and paleo-samples will be investigated for fossil micro-fauna (foraminifera) and micro-flora (diatoms). These samples will also be investigated with regard to their chemical composition (sea ice biomarker IP25 and other structurally similar compounds, collectively called Highly Branched Isoprenoids/HBIs). The surface sediment samples represent modern conditions and will serve as modern analogues when reconstructiing sea-ice distributions and and water masses back in time (using down core sediment samples). The samples are stored cold (< 5C) and will be analyzed at NPI and University of Plymouth, UK.

Ocean Acidification

Responsible: *Agneta Fransson (NPI) & Melissa Chierichi (IMR)*

Investigate the natural calcium carbonate saturation state (Ω) in the area around Svalbard. Influence of water mass composition (Atlantic, polar, fjordwater) and freshwater (glacier, sea-ice and river) on Ω. Distribution of *Calanus*, *Limacina helicina* will be related to Ω state. Pterodpods should be collected from Multinet and MIK when present and stored in 95% alcohol

Marine dissolved organic matter (CDOM)

Responsible: *Mats Granskog (NPI) & Alexey Pavlov (NPI)*

The main objective is to collect CDOM samples for absorbance and fluorescence characterization of marine dissolved organic matter. This can be used as a proxy for dissolved organic carbon (DOC), and combined with the other tracers (like ^{18}O and TA) it can also indicate optical properties of water masses. Samples will be collected at all stations along the Kongsfjorden transect, at the same depths as oxygen isotopes, DIC/AT and methane.

NCAOR Ocean mooring rig

Responsible: *Arild Sundfjord (NPI), Agneta Fransson (NPI), Divya David (NCAOR), Kesavakumar Balakrishnan (NCAOR).*

The Indian mooring team from NCAOR successfully retrieved their ocean mooring rig, which was deployed in 2015 near station Kb3 in Kongsfjorden. It was deployed successfully with new sensors the day after. It was estimated to take 12 hours in total; however it took 19 hours (six persons onboard).

Appendix 1

Participants

Name	Institute	Field/Function	e-mail
Katrine Husum	NPI	Marine geology/ Cruise leader	katrine.husum@npolar.no
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Marius Bratrein	NPI	Engineer	marius.bratrein@npolar.no

NPI: Norwegian Polar Institute. UiT: UiT – The Arctic University of Norway. IOPAS: Institute of Oceanology of the Polish Academy of Sciences, Poland. UNIS: University Centre in Svalbard. IMR: Institute of Marine Research. SAMS: Scottish Association of Marine Sciences, UK.

Appendix 2

Sampling procedures

A sample-log on an excel sheet will be used during cruise to register each sample
A unique sample ID will be provided to label each sample
UTC time and date will be used in the sample log
Excel sheet will be uploaded to database after cruise

CTD

- 11 x 8L Niskin bottles (bottle #1 is from the deepest depth)
- Sensors: Chl & CDOM fluorescence, O_2, transmissometer 660 nm, PAR, sPAR
- One cast whole water column for biology & chemistry
- One extra cast for microplankton >20 µm
- One hand-net (20 µm) 25-0m

Order of sampling from ship CTD

1. **Methane** 160 ml serum bottles (Ylva Ercson)
2. **DIC/AT** 250 ml glass bottle (Ylva Ericson)
3. **Ammonium** 14 ml tubes (Svein Kristiansen)
4. **CDOM** 40 ml amber glass vials (Ylva Ericson / Phytoplankton team)
5. **$\delta^{18}O$** 15 ml DDPE vials (Ylva Ericson / Phytoplankton team)
6. **Nutrients** 20 ml acid washed vials (Phytoplankton team)
7. **Chlorophyll and phaeopigments** 50 -1000 ml al. covered bottles (Phytoplankton team)
8. **Particle absorption** 200 -1000 ml aluminum covered bottles (Phytoplankton team)
9. **POC/PON** 200 -1000 ml plastic bottles (Phytoplankton team)
10. **Phytoplankton taxonomy** 250 ml brown glass bottles (Phytoplankton team)
11. **Microplankton (separate CTD cast)** 100 ml bottles (Phytoplankton team

SAMPLING DEPTHS BIOLOGY (Chl, Part. absorption, POC/PON, BSi, Phytoplankton)
Upper 100m: 100, 50, 25, 10, 5m + Chl max

SAMPLING DEPTHS CHEMISTRY (Methane, DIC/AT, CDOM, $\delta^{18}O$, Nutrients, Ammonium)
Entire water column: Bottom, intermediate layers (e.g. 200, 500, 1000m), 100, 50, 25, 10, 5m

SAMPLING DEPTHS MICROPLANKTON (filter through) 20 µm
Below Chl max, Chl max, above Chl max

1. Methane

Responsible: Agneta Fransson, Melissa Chierichi, Ylva Ericson

Methane is a volatile and relatively insoluble trace gas and so it's concentration in the seawater sample will be affected by prolonged contact with a headspace of air. It should therefore be sampled after SF6/CFCs and before dissolved oxygen and DIC/Alkalinity, or first if no SF6/CFC samples are drawn.

Sampling equipment

Silicone sampling tube (about 30 cm long)
160 mL serum bottles
Butyl rubber septa and metal crimp seals (best to assemble together before sampling)
Crimping pliers
Eppendorf dispensing pipette (set to dispense 50 µL) and spare tips,
Gloves
☠ Saturated solution of mercuric chloride ☠

Sampling procedure

- Attach the flexible tubing to the Niskin bottle spigot and flush the tube with seawater to expel all air bubbles.
- Rinse a 160 mL serum bottle with the sample water then place the end of the tube in the bottom of the bottle and allow it to fill and then overflow by at least 2 volumes (as for dissolved oxygen samples) Slowly withdraw the tubing from the bottle, pinching it to reduce flow as the end reaches the neck of the bottle. The aim is to have a completely full bottle free of bubbles with a slight convex meniscus over the opening.
- Immediately add 50 µL (2 drops) of saturated mercuric chloride solution then seal the bottle with a metal seal and butyl rubber septum using the crimping tool.
- Store samples in a refrigerator at 4 ºC. Do not allow the samples to warm up to room temperature before analysis.
- Please rinse crimping pliers in fresh water after sampling.

Caution

Saturated mercuric chloride solution is highly toxic. Wear gloves during the sampling/poisoning procedure and wash hands afterwards

2. Dissolved Inorganic Carbon (DIC) and total alkalinity (AT)

Responsible: Agneta Fransson, Melissa Chierici, Ylva Ericson

- Samples for DIC and total alkalinity should be sampled right after the dissolved oxygen samples to avoid contamination from air.
- Fill the 250 ml Duran glass bottle from the bottom to the top and squeeze the tubing as to enable a **bubble free and controlled filling of sample**.
- Overfill the bottle with at least twice the bottle volume (keep the tubing to the bottom of the bottle). Fill up the bottle, and towards the end of the filling, slowly move the tubing out of the bottle. Close the cap.
- After all bottles have been filled, add 60 µL saturated mercuric chloride ($HgCl_2$) to each sample by submerging the pipette tip into the sample. Close the bottle with the blue cap. Do not shake or mix. Some headspace in the bottle (a few mL) is OK.
- Store the samples well marked, in cold and dark place. But make sure they do not freeze. Best place is a cooling room at 4-6°C.

3. Ammonium

Responsible: Svein Kristiansen

Ammonium samples are easily contaminated. Use gloves, reduce handling of the sample to a minimum and cap the tubes (14 ml BD Falcon polypropylene tubes). The tubes are sterile and tests the last year have shown that acid wash is unnecessary when using new tubes. The tubes and caps should, however, be rinsed with the sample. See separate protocol for the analysis of ammonium samples.

- Samples should be filled right from the Niskin-bottle into the tubes, do not use any tubing and use gloves.
- Rinse the tubes and caps 3× with water from the Niskin.
- Fill the tube(s) up to 10 ml with sample and cap the tube(s). Each tube has a scale. Do triplicates from each depth if possible.
- The samples should be measured as soon as possible.

Figure 2: BD Falcon polypropylene tubes14 ml for ammonium samples

4. Colored dissolved organic matter (CDOM)

Responsible: Mats Granskog, Ylva Ericson

CDOM will be used as a proxy for dissolved organic carbon (DOC). Combined with the other tracers (like ^{18}O and AT) it also gives an idea of optical properties of water masses. The sample can either be collected with a syringe or with a filter cartridge.

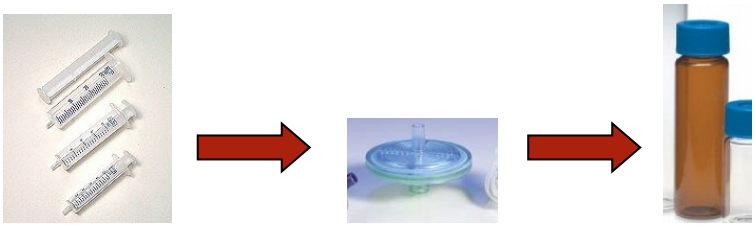
Equipment:

- Amber glass vials 40 ml (burned at 450°C) – pre-labelled
- Plastic syringe (60 ml)
- Acrodisc 0.8/0.2 μm syringe filters (see picture below)
- Clean silicon tubing
- Container (red lid) with 5% HCl to keep syringes and tubing between use

Collecting the sample with syringe filter:

- ***Always use laboratory gloves when collecting the samples*** to minimise the contamination risk, as any fats, oils etc. will affect the results. Do not touch the insides of the vials and caps, or the tip of the nozzle on the Niskin bottle or the filter capsule, as these parts come in contact with sample water.
- The same syringe filter can (normally) be used for all samples in one cast, but if water is turbid one may need to switch filter. Syringe can be re-used many times if it is kept clean. ***Start with the***

deepest seawater sample and move towards the surface when collecting sample water from the rosette.

- Place the syringe directly into the nozzle of the Niskin. Open the Niskin nozzle and rinse the luer tip of the syringe shortly, then insert the luer tip into the nozzle and fill the syringe with 10 ml seawater.
- Open the syringe fully (pull the piston out to 60 ml line) and put on the filter. Shake for 5 seconds to rinse the syringe and then push the water through the filter to rinse.
- Remove filter, fill syringe to 50 ml line, and put on filter. Discard first 10 ml through the filter, and then fill the amber vial to the shoulder (about 40 ml). Leave some headspace in vial! Close cap firmly.
- Syringe should be kept in a container with 5% HCl.
- Store the CDOM samples at +4°C in dark. After each station, put the samples in the fridge, and do not let them sit for long at room temperature! **Do not freeze!**
- 
- syringe syringe filter vial
- 
- Figure 3: Syringe, aerodisc and vials used for CDOM samples

Collecting the sample with a filter cartridge

Prior to use of a new filter cartridge, it should be rinsed with either 4000 ml of MilliQ or deep seawater.

- Attach the (clean) tubing to the Niskin nozzle (note that the capsule shows what direction water should flow through). First rinse the filter capsule, to get rid of earlier sample water. This means that you need to let about 200 ml of sample water run through before you collect a sample; follow instructions below (good to flush with extra seawater through the capsule before collecting the first sample at a station).
- Open the Niskin nozzle and open the top valve on the capsule to let air out and fill the capsule with seawater.
- Close the top valve on the capsule when capsule is full (i.e. water comes through the top valve), and let about 200 ml seawater pass through by gravity.
- Fill the amber vial to the shoulder. Leave some headspace in vial! Close cap firmly.
- To empty the capsule before next sample, open the bottom valve of the capsule, turn it upside down and let water drain out.

- Filter capsule and the silicon tubing should be stored in a plastic bag between stations, to prevent it from being dirty. Optimally the equipment should be stored in MilliQ when not used (white containers with red lids). Rinse a new capsule with 4 L MilliQ before using.
- For each sampling day or event, prepare a reference sample by filtering MilliQ water through the cartridge into a vial (use e.g. a large bottle with tap), i.e. sampling MilliQ, and treating it the same way as the samples. The reference vials get normal sample running number (but make an additional note "MilliQ" on the sample label), and are noted in the log sheet. Make also a note on CTD log sheet to avoid confusion with numbering on following casts.

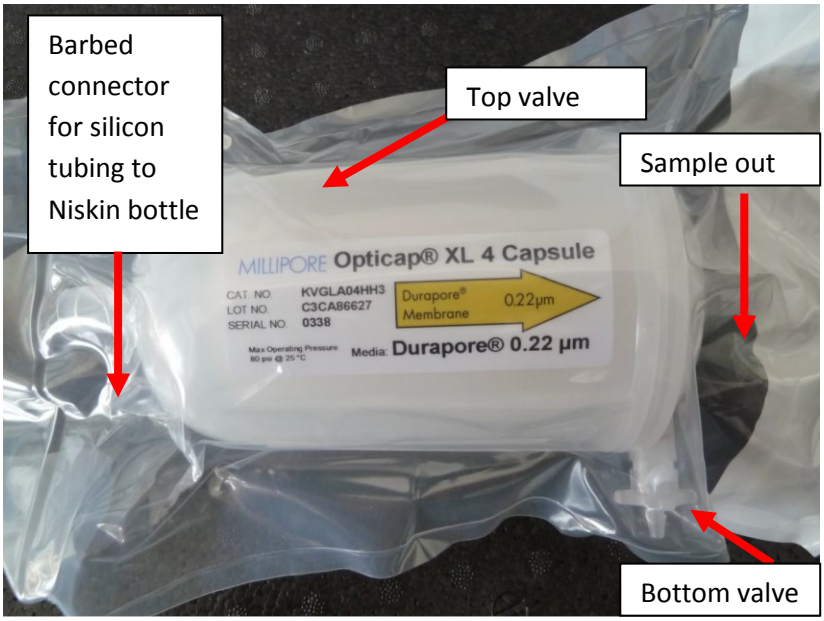


Figure 4: Millipore Opticap filter cartridge for filtering CDOM

5. Oxygen Isotope Ratio ($\delta^{18}O$)

Responsible: Mats Granskog, Ylva Ericson

Samples of $\delta^{18}O$ are collected to determine the fractions of river water and sea-ice meltwater in the ocean. Concurrent samples for salinity, oxygen isotope ratio and dissolved nutrients must be collected from the same sample volume. Ratios of ^{16}O to ^{18}O in the H_2O molecule are measured to a very high accuracy. This sample has nothing to do with dissolved oxygen.

Collecting the sample:

Sample evaporation and/or moisture condensation in the sample bottle are the principal enemies to these samples!

1) Rinse the vial and cap with sample ***three*** (3) times. This removes any water than may have condensed inside the bottle/cap.

2) Fill the vial and cap with seawater from the Niskin bottle.

3) Apply the cap to the vial without touching the inside.

4) Turn the bottle upside down and check for a small air bubble. It should look like the picture below. If the bubble is too small loosen the cap and tighten it again.

5) When all the $\delta^{18}O$ samples have been collected from one CTD, dry the vials, tighten the caps and seal with Parafilm **following the instructions below / on the next page**.

6) Store the $\delta^{18}O$ samples at room temperature or in a fridge.

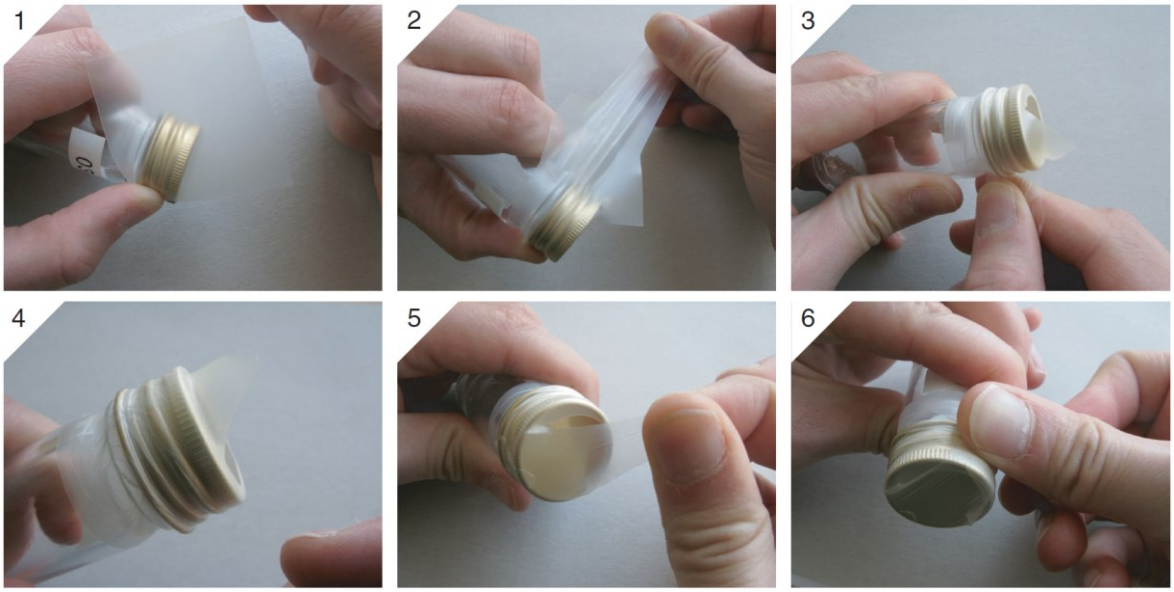


Figure 5: Applying a 5 cm ×5 cm square of Parafilm in a warm dry place. If the Parafilm is cold or wet, it will not stretch and will not stick to the bottle. It is better to wait a day than to apply Parafilm in the cold. Practise on an empty vial until you can do it neatly and securely.

6. Nutrients

Responsible: Philipp Assmy, Joseph Wictor, Agniszka Tatarek

- Samples should be filled right from the Niskin-bottle into acid-washed 20 ml scintillation vials. Rinse the vial with water from Niskin.
- Allow some head space for the addition of chloroform.
- Add 0.2 ml (200 µl) of chloroform with the dispenser
- Close the cap tight (chloroform is very volatile) and do not shake or turn the vial.
- Put the sample in the fridge inside the tray they were delivered. Keep the trays because they are used to ship the samples to IMR in Bergen.

Figure 6: Acid washed 20 ml plastic scintillation vials used for nutrient samples.

7. Chlorophyll & Phaeopigments

Responsible: Philipp Assmy, Joseph Wictor, Agniszka Tatarek

Filtration

- Filter ca. 50-2000 ml (depending on biomass – a light colour on the filter is enough) from each depth through 25 mm GF/F filters.
- Use plastic sampling bottles wrapped in aluminium foil because Chl *a* is sensitive to light.
- **If no time for extraction**: Filters are placed in extraction tubes (10 ml PP-tubes) and frozen as cold as possible (liquid nitrogen, dryshipper or -80°C) immediately after filtering (if immediate analysis onboard is impossible). Wrap samples in aluminium foil.

Extraction

- Work as dark as possible.
- Fold the filter once and place it in Chl *a* extraction vial.
- Add 5 ml methanol to the vial using a dispenser, put a lid on the vial and cover with aluminium foil.
- Extract it “over night” (12 hours) in a refrigerator. NB: Note the start and end time of extraction.
- Turn on Turner Design fluorometer at least 10 min before taking the first measurement.
- Vortex the tube for a few sec and let the sample adjust to room temperature before fluorometer reading.
- Transfer the sample to a clean borosilicate cuvette, and dry the cuvette on the outside.
- Place the cuvette in the cuvette holder of the fluorometer and wait until readings have stabilized. Press ***** button on fluorometer (see picture below), it will first show **Delay**, then **Average** and finally **Done** on the fluorometer display. Read the value on the fluorometer. This is the Rb value (Reading before acid addition) to get the total chlorophyll.
- Take the cuvette out of the cuvette holder and add 2 drops of 5% HCl, cover the cuvette with parafilm and mix it gently 3 times. Read the value on the fluorometer. This is the Ra value (Reading after acid addition) to get the phaeopigment concentration.
- Wash cuvette with clean methanol between every sample and let it dry.
- Before start, and in between, use a methanol blank to check that the cuvette is clean and that the fluorometer is zero for methanol.

Calculations

- Concentrations are calculated on the basis of calibrating data (see xls-file Chlorophyll_N-ICE_2015)
- In the same xls-file under the measurement spread sheet, type in the methanol and filtered volumes and the Rb and Ra values. This will give you the chlorophyll and phaeopigment concentrations.

8. Particle absorption

Responsible: Mats Granskog, Joseph Wictor, Agniszka Tatarek

- Filter ca. 50-1000 ml (depending on biomass – a **light colour** on the filter is enough) from each depth through 25 mm GF/F filters.
- Use plastic sampling bottles wrapped in aluminium foil because photosynthetic pigments are sensitive to light.
- Use forceps to place filters into the white filter containers/petri slides/petri dishes (see photo below). Cover with aluminium foil, and bring the filters of a cast, packed into aluminium foil, into a plastic bag in -80 °C freezer as soon as possible. Note on the aluminium foil package, and on the ziplock bag the date and cast (bigger bags can fit several casts).
- For each sampling day or event, prepare a reference filter by filtering MilliQ water through a filter (similar volume than sea water for the samples) and treating it the same way than the samples (i.e. freeze it together with the sample filters). If you change filter box in between sampling, prepare a reference filter for each box, make notes to the filtering protocol. The reference filters get normal sample running number (but make an additional note "MilliQ" on the sample label/petri slide), and are noted in the filtering protocol and log sheet. Make also a note on CTD log sheet to avoid confusion with numbering on following casts.

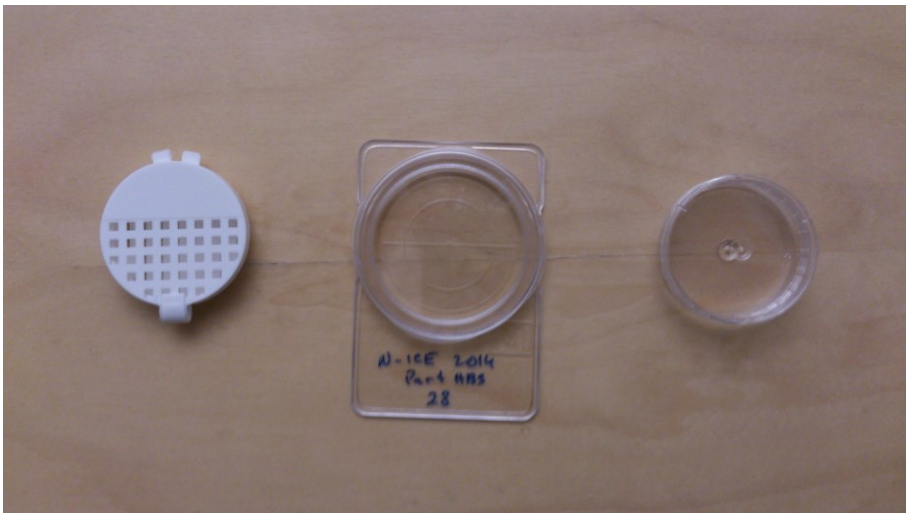


Figure 7: Storing devices for particle absorption filters, shown in order of preference (from left); white filter container, petri slide, petri dish. Containers can be reused. For long-term storage petri slides are preferred.

9. Particulate organic carbon and nitrogen (POC/PON)

Responsible: Philipp Assmy, Joseph Wictor, Agniszka Tatarek

- Filter 200 - 2000 ml, depending on particle concentration, on pre-combusted 25 mm GF/F filters (the filters were combusted at 450°C for 12 hours and are stored in aluminium foil).
- After filtration, each GF/F filter should be directly placed into Pall filter slides and dried at 60°C in a drying oven and thereafter stored at room temperature. Wrap filter slides from one station in aluminium foil and keep them in a labelled ziploc bag.
- For each sampling day or event, prepare a reference filter by filtering MilliQ water through a filter (similar volume than sea water for the samples) and treating it the same way than the samples. The reference filters get normal sample running number (but make an additional note "MilliQ" on the sample label/analysis slide), and are noted in the filtering protocol and log sheet. Make also a note on CTD log sheet to avoid confusion with numbering on following casts.

10. MAAs

Responsible: Hanna Kauko

- Filter ca. 50-1000 ml (depending on biomass – somewhat darker colour than for absorption filters) from each depth (only down to 25 m!) through 25 mm GF/F filters.
- Use plastic sampling bottles wrapped in aluminium foil because pigments are sensitive to light, and avoid light exposure when filtering.
- Use forceps to place filters into aluminium foil envelopes, filters folded once. Write the sample number on the envelope with a cryomarker, and with a pencil on a little piece of paper (place next to filter inside the foil package). Bring the filters of a cast, packed into a nylon sock (or small ziplock bag), into a plastic bag in -80 °C freezer as soon as possible. Note on a piece of paper the date and cast/coring event and place it into the sock, and note sample numbers on the ziplock bags.

11. Phytoplankton taxonomy

Responsible: Philipp Assmy, Joseph Wictor, Agniszka Tatarek

- 190 ml of seawater from each depth are filled into 200 ml brown glass bottles. Fill 200 ml measuring cylinder up to 190 ml mark directly from Niskin bottle and decant into brown glass bottle.
- Under the fume hood, phytoplankton samples are fixed with an aldehyde mixture: First add 0.8 ml of 25% glutaraldehyde and fix for approx. 5 min. Thereafter add 10 ml of 20% hexamine-buffered formaldehyde (to achieve a final concentration of 0.1% and 1%, respectively).
- Store the samples dark and cold, **do not freeze**!

12. Microplankton (>10µm) extra cast

Responsible: Philipp Assmy, Joseph Wictor, Agniszka Tatarek

- One extra CTD cast is sampled for microplankton >10 µm at three depths in the upper 50 m (5, 25 and 50 m).

- Three Niskin bottles (24 L) are closed per depth and the entire contents from each depth drained into 25 L carboys. Note the volume in the carboy.
- The contents of the 25 L carboys are then filtered over 10 µm mesh via a filtration tower (see picture below).
- Samples are concentrated to 90 ml (measure with 100 ml cylinder) and filled into 100 ml brown glass bottles.
- Under the fume hood, samples are first fixed with 3 ml strontiumchloride stock solution and then 10ml of 20% hexamine-buffered formaldehyde (final concentration of 2%).
- Store the samples dark and cold, **do not freeze**!
-

Figure 8: Filtration tower to concentrate microplankton samples

13. Rare taxa 20 µm hand-net

Responsible: Philipp Assmy, Joseph Wictor, Agniszka Tatarek

Vertical hauls (upper 20 m) with a 20 µm hand-net for taxonomy of rare taxa, biomass measurements and

Figure 9: Phytoplankton hand net 20 µm

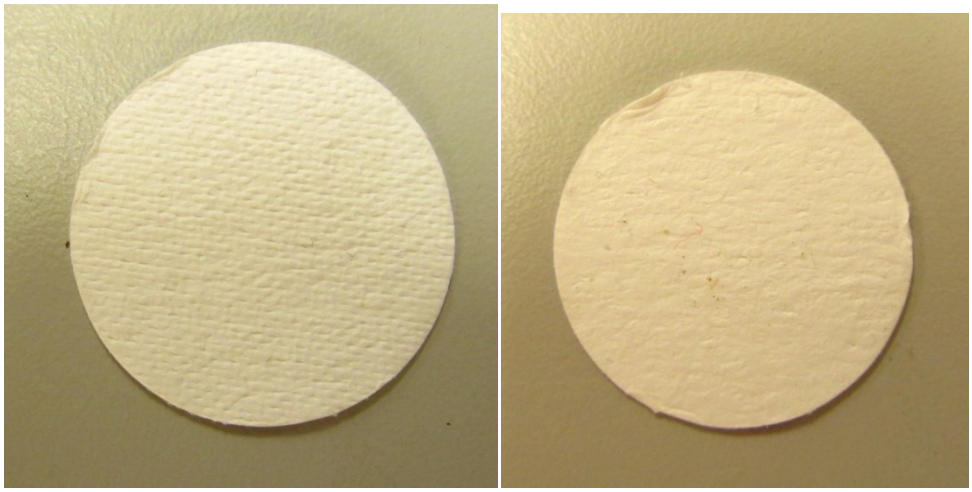
SEM/TEM material. **Never** tow hand-net with the winch!

- Connect the hand-net to the provided blue rope and attach a 1-2 kg shackle (ask crew) below the cod end.
- Make sure that the valve of the cod end is closed when lowering the hand-net.
- Wait until <90 ml are left in the cod end (less than half of the cod end volume), open valve and drain hand-net sample into 100 ml measuring cylinder. Fill up measuring cylinder to 90 ml by flushing the mesh of the cod end with squeeze bottle. Fill content of the measuring cylinder into 100 ml brown glass bottle.
- Under the fume hood, fix hand-net samples first with 3 ml strontiumchloride stock solution and then 10 ml of 20% hexamine-buffered formaldehyde (final concentration of 2%).
- Store samples dark and cold, **do not freeze**!

Figure 10: Brown glass bottles 200 ml (phytoplankton taxonomy) and 100 ml (microplankton >20µm & hand-net taxonomy).

General filtration guideline for particulates

- Collect seawater from the Niskin bottles from standard depths down to 100 m. Rinse the plastic bottle with sample water (~100 ml) before collecting the sample.
- Remember to **gently** mix the bottle (turn upside down for a couple of times) before filtering to ensure that no particles settle down (results in uneven concentration if subsampling the sampling bottle).
- Be sure to have placed the filter in the middle of the filter holder and that the funnel is thoroughly placed on top of it (if something is leaking the exact volume filtered or the filtration area on the filter is not known – these are needed for the calculations later).
- The two sides of the GF/F filter are not identical – for particulate absorption it is important to place it the right way (see photos below) – to make it simple use the same orientation for all parameters.
- Use low vacuum pressure (about -30 kPa). Always have the valve of the filtering funnel closed before turning the pump on or off.
- Cover the funnels with aluminium foil when filtering. If you expect to filter 1 L or 2 L, you can place the respective plastic bottle into the funnel and let it run. Please also note that the 0.5 and 1 L mark are indicated on the plastic sampling bottles.
- Rinse the funnel with filtered seawater (collect filtered sea water from previous filtrations) once the sample has been filtered. Do not let the filters dry out, close the valve.
- Use forceps to lift filters onto the sample containers (analysis slides (POC/N), petri dishes (BSi), cryovials (HPLC), white dishes/petri slides (particle absorbtion), plastic tubes (Chl)). Note that some filters are folded before placing them into the containers, whereas others remain flat.
- Rinse the filtration equipment with MilliQ before the next sample. Cover filtration funnel with aluminium foil when not used.



Mesh side – PARTICLES ON THIS SIDE. Soft “wave” side – back side.

Figure 11: Showing the different sides of the filters.

Zooplankton

Mesozooplankton- Multinet

Responsible: Anette Wold, Haakon Hop, Kasia Dmoch

Zooplankton is sampled with the Multinet from 5 standard depths:
Bottom depth <600m: bottom-200-100-50-20-0 m
Bottom depth >600m: bottom-600-200-50-20-0 m

Prepare Multinet:

- Check that the small pin on the rotating cylinder is in the right position (if not see instructions below).

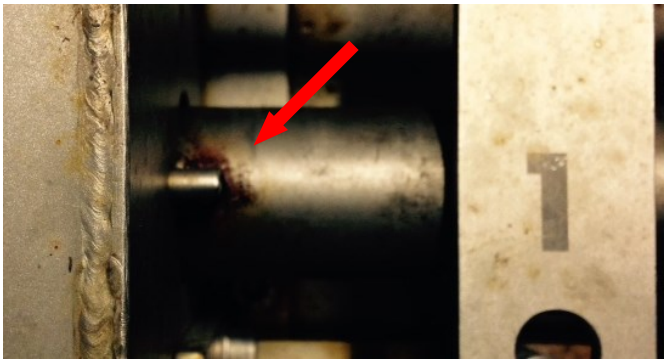


Figure 12: There is a small pin on the rotating cylinder which should point straight at the pin seen here.

- Turn on the Multinet
- Connect Multinet to the Thoughbook, open program “OceanLab3” from desktop.
- Check the battery status (should be >7)
  - Connect to Multinet using *connect symbol* (1st from left in menu bar)

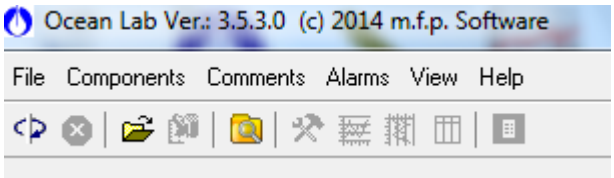


Figure 13: Menu bar of the Ocean Lab software

  - Open the *control mode* (6th from left in menu bar)
  - Choose *Pressure programming* to program the releasing depth. Remember that the Unlock depth must be minimum 1 m below the depth of the 1st net. The nets do not open if the Multinet has not been set below the unlock depth. Always go at least 10 m below to make sure it opens (if not the cast needs to be repeated).
  - Send to Multinet.

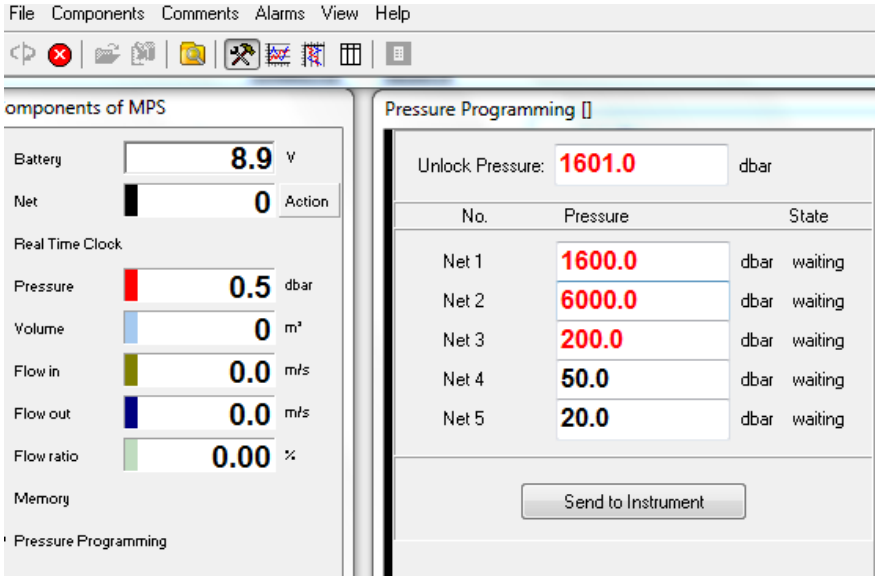


Figure 14: Pressure programing. Unlock pressure needs to be deeper than opening depth of Net 1 (depth of Net 2 is wrong in this picture, should be 600m).

- Disconnect Multinet. **Remember to put dummy plug back on.**

If not all the net opened during the previous deployment, check that the small pin of the rotating cylinder that controls the opening of the nets, is in the right position, pointing straight up towards the pin at the net (see picture above). If not mark *Net* and reset the rotating cylinder either by using *reset counter* or *half step*.

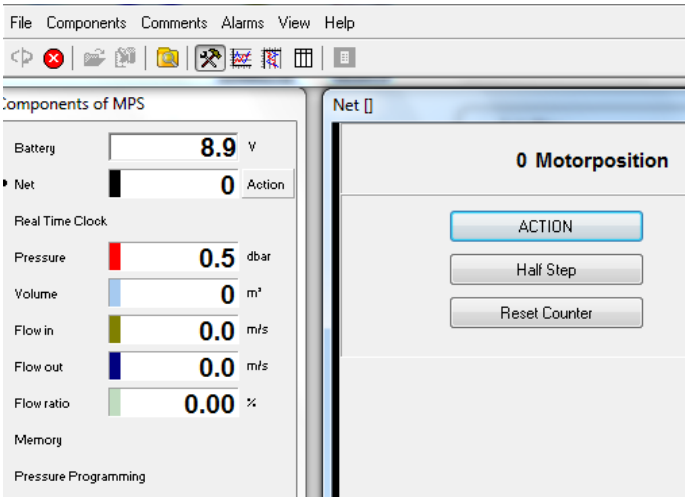


Figure 15: Mark *Net* in the right menu and use *Half step* to reset rotating cylinder

- Prepare the nets (strain the spring by using the bar to lift them into position).

- Net #1 samples the deepest layer, Net# 5 the surface layer.
- Make sure that cod ends are placed at the right net (check numbers)!
- Make sure that the nets are not twisted before the Multinet is lowered into the water.
- The weight of the lower part of the Multinet should be entirely supported by the ropes and not by the nets! (The nets have to hang loose, the ropes should be straight).

Depth sensor /Scanmar

The Scanmar has to be mounted to the frame of the net and the receiver has to hang overboard. There are two Scanmars onboard and they are located in the back of the steer house (loading station). They are attached to the nets using solid rubber cords.
The Scanmar works down to approx. 1500 m. When deeper use the Ek 60 to check the depth of the Multinet.

Receiving net:

- Flush net with water hose when it comes on deck.
- Before removing the cod end, make sure that water level is low enough (can been seen through the mesh of the cod end), otherwise part of the sample will spill over when cod end is removed! (This may be a problem when nets are clogged by high abundance of phytoplankton in the water).

Sample treatment Abundance samples:

- Filter contents of cod end through a sieve (mesh size 200 µm) placed over a white plastic tray (in case something gets spilled). Flush cod end with wash bottles filled with sea water.
- Larger jellies (ctenophores and cnidarians) should be removed prior to preservation (as they disintegrate in formalin, which makes enumeration of other zooplankton species, especially small ones, much more difficult). The removed species names and abundances should be recorded in the sample-log.
- The sample is then transferred from the sieve into 125 ml bottles (or larger if samples are dense).
- Fill bottles to the neck with sea water (red arrow)
- Add 10 ml formalin and a bit of hexamine
- Label bottles from the outside and place label

Macrozooplankton - MIK net

Responsible: Anette Wold, Haakon Hop, Kasia Dmoch

Samples are taken from bottom to surface

Equipment & fixatives:

- 250 or 500 ml bottles
- Zip bags
- 37% formaldehyde solution buffered with hexamintetrahydrat

Sampling:

- Flush the net with the hose before removing the cod end.
- Transfer sample into large bucket.
- Split sample in two using a plankton splitter.
- 1 part is fixed in formalin (same as for Multinet).
- 1 part is frozen at -80^{o}C.
- Label bottles from the outside and place label inside.

Calanus glacialis phenology - WP2

Responsible: Kaja Ostaszewska

The collection of *Calanus glacialis* will be part of the PhD thesis "Zooplankton as the basic food source for bi-environmental birds in the warming Arctic". Samples will be collected from the feeding grounds of little auk at three times during the season, in two different in climate and oceanographic conditions areas (Kongsfjord, Hornsund). The aim is to reveal whether periods of high food requirements for little auk will match the the peak of *C. glacialis* development..

Sampling during MOSJ cruise will be one of the three needed to have complete dataset from Kongsfjorden from one year. Zooplankton samples should be sampled from the upper 50 m with a WP2 net, 500µm mesh from stations in Kongsfjorden (from KB5 to V6). Additionally samples will be collected with a WP2 200µm mesh at every other station in order to have the full size spectra of *C. glacialis.*

Marine geology/Paleoceanography

Biomarker sampling – Water sampling (CTD and plankton net)

Responsible: Katrine Husum, Simon Belt

Sampling for biomarkers (HBIs: HBI III, Brassicasterol, IP25) will be done filtering 1 l of surface water from the standard CTD casts. In addition, a small plankton net (Figure 16) will deployed "over the side" sampling the upper 10 m of the water column. All samples should be stored cold (maximum 5-10° C). Further processing and analysis will be carried out onshore at University of Plymouth, UK.

Figure 16: Plankton net which will be deployed for biomarker sampling "over the side" of the ship.

Surface sediment sampling - Multicorer

Responsible: Katrine Husum, Arto Miettinen

The multi corer automatically gives 6 cores. The upper 0-1 and 1-2 cm will be sampled immediately or within a couple of hours in order to avoid compaction of the unconsolidated surface sediments. The foraminiferal samples will be preserved with ethanol and Rosa Bengal stain and kept in small plastic sediment containers. One core will be sampled for foraminiferal analysis (multicore (MC) A). These samples will be kept in small plastic containers. All samples should be stored cold (maximum 5-10° C). Further processing and analysis will be carried out onshore at NPI.

Sediment core sampling - Multicorer

Responsible: Arto Miettinen, Katrine Husum

The multi corer automatically gives six cores. Down core sampling of the multicores must be carried out immediately or within a couple of hours so compaction of the unconsolidated surface sediments is avoided. Three multicores will be subsampled for every cm; one multicore (MC A) from 2 cm to the bottom of the core (foraminifera), one multicore (MC C) from the top to the bottom (diatoms/biomarkers), and one multicore (MC D) will be sampled for dating (^{210}Pb) and as a reference from top of the core, 0 cm, to the bottom. These samples should be stored cold (maximum 5-10° C). Further processing and analysis will be carried out onshore at NPI.

Diving

Maintenance of NPI diving equipment

Responsible: Haakon Hop

Appendix 3a

Sample log pelagic sampling Kongsfjorden and Rijpfjorden

(Norwegian Polar Data https://data.npolar.no/marine/biology/

Sample name	Station	Latitude (deg)	Longitude (degr	Bottom depth (m)	Gear	Sample type	Contact person
CTD-001	Kb7	78,00	12,00	71	CTD	CTD	Pavlova
MET-001	Kb7	78,00	12,00	71	Niskin	Methane	Fransson
MET-002	Kb7	78,00	12,00	71	Niskin	Methane	Fransson
MET-003	Kb7	78,00	12,00	71	Niskin	Methane	Fransson
MET-004	Kb7	78,00	12,00	71	Niskin	Methane	Fransson
MET-005	Kb7	78,00	12,00	71	Niskin	Methane	Fransson
MET-006	Kb7	78,00	12,00	71	Niskin	Methane	Fransson
DIC-001	Kb7	78,00	12,00	71	Niskin	DIC/AT	Fransson
DIC-002	Kb7	78,00	12,00	71	Niskin	DIC/AT	Fransson
DIC-003	Kb7	78,00	12,00	71	Niskin	DIC/AT	Fransson
DIC-004	Kb7	78,00	12,00	71	Niskin	DIC/AT	Fransson
DIC-005	Kb7	78,00	12,00	71	Niskin	DIC/AT	Fransson
DIC-006	Kb7	78,00	12,00	71	Niskin	DIC/AT	Fransson
AMM-001	Kb7	78,00	12,00	71	Niskin	Ammonium	Duarte
AMM-002	Kb7	78,00	12,00	71	Niskin	Ammonium	Duarte
AMM-003	Kb7	78,00	12,00	71	Niskin	Ammonium	Duarte
AMM-004	Kb7	78,00	12,00	71	Niskin	Ammonium	Duarte
AMM-005	Kb7	78,00	12,00	71	Niskin	Ammonium	Duarte
AMM-006	Kb7	78,00	12,00	71	Niskin	Ammonium	Duarte
CDO-001	Kb7	78,00	12,00	71	Niskin	CDOM	Granskog
CDO-002	Kb7	78,00	12,00	71	Niskin	CDOM	Granskog
CDO-003	Kb7	78,00	12,00	71	Niskin	CDOM	Granskog
CDO-004	Kb7	78,00	12,00	71	Niskin	CDOM	Granskog
CDO-005	Kb7	78,00	12,00	71	Niskin	CDOM	Granskog
CDO-006	Kb7	78,00	12,00	71	Niskin	CDOM	Granskog
OXY-001	Kb7	78,00	12,00	71	Niskin	δ18 Oxygen	Granskog
OXY-002	Kb7	78,00	12,00	71	Niskin	δ18 Oxygen	Granskog
OXY-003	Kb7	78,00	12,00	71	Niskin	δ18 Oxygen	Granskog
OXY-004	Kb7	78,00	12,00	71	Niskin	δ18 Oxygen	Granskog
OXY-005	Kb7	78,00	12,00	71	Niskin	δ18 Oxygen	Granskog
OXY-006	Kb7	78,00	12,00	71	Niskin	δ18 Oxygen	Granskog
NUT-001	Kb7	78,00	12,00	71	Niskin	Nutrients	Assmy
NUT-002	Kb7	78,00	12,00	71	Niskin	Nutrients	Assmy
NUT-003	Kb7	78,00	12,00	71	Niskin	Nutrients	Assmy
NUT-004	Kb7	78,00	12,00	71	Niskin	Nutrients	Assmy
NUT-005	Kb7	78,00	12,00	71	Niskin	Nutrients	Assmy
NUT-006	Kb7	78,00	12,00	71	Niskin	Nutrients	Assmy
CHL-001	Kb7	78,00	12,00	71	Niskin	Chlorophyll a	Assmy

Sample name	Station	Latitude (deg)	Longitude (degr	Bottom depth (m)	Gear	Sample type	Contact person
CHL-002	Kb7	78,00	12,00	71	Niskin	Chlorophyll a	Assmy
CHL-003	Kb7	78,00	12,00	71	Niskin	Chlorophyll a	Assmy
CHL-004	Kb7	78,00	12,00	71	Niskin	Chlorophyll a	Assmy
CHL-005	Kb7	78,00	12,00	71	Niskin	Chlorophyll a	Assmy
CHL-006	Kb7	78,00	12,00	71	Niskin	Chlorophyll a	Assmy
PAB-001	Kb7	78,00	12,00	71	Niskin	Particle absorption	Assmy
PAB-002	Kb7	78,00	12,00	71	Niskin	Particle absorption	Assmy
PAB-003	Kb7	78,00	12,00	71	Niskin	Particle absorption	Assmy
PAB-004	Kb7	78,00	12,00	71	Niskin	Particle absorption	Assmy
PAB-005	Kb7	78,00	12,00	71	Niskin	Particle absorption	Assmy
PAB-006	Kb7	78,00	12,00	71	Niskin	Particle absorption	Assmy
POC-001	Kb7	78,00	12,00	71	Niskin	POC/PON	Assmy
POC-002	Kb7	78,00	12,00	71	Niskin	POC/PON	Assmy
POC-003	Kb7	78,00	12,00	71	Niskin	POC/PON	Assmy
POC-004	Kb7	78,00	12,00	71	Niskin	POC/PON	Assmy
POC-005	Kb7	78,00	12,00	71	Niskin	POC/PON	Assmy
POC-006	Kb7	78,00	12,00	71	Niskin	POC/PON	Assmy
PHT-001	Kb7	78,00	12,00	71	Niskin	Phytoplankton taxonomy	Assmy
PHT-002	Kb7	78,00	12,00	71	Niskin	Phytoplankton taxonomy	Assmy
PHT-003	Kb7	78,00	12,00	71	Niskin	Phytoplankton taxonomy	Assmy
PHT-004	Kb7	78,00	12,00	71	Niskin	Phytoplankton taxonomy	Assmy
PHT-005	Kb7	78,00	12,00	71	Niskin	Phytoplankton taxonomy	Assmy
PHT-006	Kb7	78,00	12,00	71	Niskin	Phytoplankton taxonomy	Assmy
MAA-001	Kb7	78,00	12,00	71	Niskin	Mycosporin-like aminoacids	Assmy
MAA-002	Kb7	78,00	12,00	71	Niskin	Mycosporin-like aminoacids	Assmy
MAA-003	Kb7	78,00	12,00	71	Niskin	Mycosporin-like aminoacids	Assmy
CTD-002	Kb7	78,00	12,00	70	CTD	CTD	Pavlova
MIT-001	Kb7	78,00	12,00	70	Niskin	Microplankton taxonomy	Assmy
MIT-002	Kb7	78,00	12,00	70	Niskin	Microplankton taxonomy	Assmy
MIT-003	Kb7	78,00	12,00	70	Niskin	Microplankton taxonomy	Assmy
HAN-001	Kb7	78,00	12,00	70	Handnet 20µm	Rare species	Assmy
ZOT-001	Kb7	78,00	12,00	68	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-002	Kb7	78,00	12,00	68	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-003	Kb7	78,00	12,00	68	Multinet 200µm	Mesozooplankton taxonomy	Wold
MIK-001	Kb7	78,00	12,00	68	MIK-net	Macrozooplankton taxonomy	Wold
CTD-003	Kb6	78,00	12,00	53	CTD	CTD	Pavlova
MET-007	Kb6	78,00	12,00	53	Niskin	Methane	Fransson
MET-008	Kb6	78,00	12,00	53	Niskin	Methane	Fransson
MET-009	Kb6	78,00	12,00	53	Niskin	Methane	Fransson
MET-010	Kb6	78,00	12,00	53	Niskin	Methane	Fransson
MET-011	Kb6	78,00	12,00	53	Niskin	Methane	Fransson
MET-012	Kb6	78,00	12,00	53	Niskin	Methane	Fransson
DIC-007	Kb6	78,00	12,00	53	Niskin	DIC/AT	Fransson
DIC-008	Kb6	78,00	12,00	53	Niskin	DIC/AT	Fransson
DIC-009	Kb6	78,00	12,00	53	Niskin	DIC/AT	Fransson

Sample name	Station	Latitude (deg)	Longitude (degr	Bottom depth (m)	Gear	Sample type	Contact person
DIC-010	Kb6	78,00	12,00	53	Niskin	DIC/AT	Fransson
DIC-011	Kb6	78,00	12,00	53	Niskin	DIC/AT	Fransson
DIC-012	Kb6	78,00	12,00	53	Niskin	DIC/AT	Fransson
AMM-007	Kb6	78,00	12,00	53	Niskin	Ammonium	Duarte
AMM-008	Kb6	78,00	12,00	53	Niskin	Ammonium	Duarte
AMM-009	Kb6	78,00	12,00	53	Niskin	Ammonium	Duarte
AMM-010	Kb6	78,00	12,00	53	Niskin	Ammonium	Duarte
AMM-011	Kb6	78,00	12,00	53	Niskin	Ammonium	Duarte
CDO-007	Kb6	78,00	12,00	53	Niskin	CDOM	Granskog
CDO-008	Kb6	78,00	12,00	53	Niskin	CDOM	Granskog
CDO-009	Kb6	78,00	12,00	53	Niskin	CDOM	Granskog
CDO-010	Kb6	78,00	12,00	53	Niskin	CDOM	Granskog
CDO-011	Kb6	78,00	12,00	53	Niskin	CDOM	Granskog
OXY-007	Kb6	78,00	12,00	53	Niskin	δ18 Oxygen	Granskog
OXY-008	Kb6	78,00	12,00	53	Niskin	δ18 Oxygen	Granskog
OXY-009	Kb6	78,00	12,00	53	Niskin	δ18 Oxygen	Granskog
OXY-010	Kb6	78,00	12,00	53	Niskin	δ18 Oxygen	Granskog
OXY-011	Kb6	78,00	12,00	53	Niskin	δ18 Oxygen	Granskog
OXY-012	Kb6	78,00	12,00	53	Niskin	δ18 Oxygen	Granskog
NUT-007	Kb6	78,00	12,00	53	Niskin	Nutrients	Assmy
NUT-008	Kb6	78,00	12,00	53	Niskin	Nutrients	Assmy
NUT-009	Kb6	78,00	12,00	53	Niskin	Nutrients	Assmy
NUT-010	Kb6	78,00	12,00	53	Niskin	Nutrients	Assmy
NUT-011	Kb6	78,00	12,00	53	Niskin	Nutrients	Assmy
CHL-007	Kb6	78,00	12,00	53	Niskin	Chlorophyll a	Assmy
CHL-008	Kb6	78,00	12,00	53	Niskin	Chlorophyll a	Assmy
CHL-009	Kb6	78,00	12,00	53	Niskin	Chlorophyll a	Assmy
CHL-010	Kb6	78,00	12,00	53	Niskin	Chlorophyll a	Assmy
CHL-011	Kb6	78,00	12,00	53	Niskin	Chlorophyll a	Assmy
PAB-007	Kb6	78,00	12,00	53	Niskin	Particle absorption	Assmy
PAB-008	Kb6	78,00	12,00	53	Niskin	Particle absorption	Assmy
PAB-009	Kb6	78,00	12,00	53	Niskin	Particle absorption	Assmy
PAB-010	Kb6	78,00	12,00	53	Niskin	Particle absorption	Assmy
PAB-011	Kb6	78,00	12,00	53	Niskin	Particle absorption	Assmy
POC-007	Kb6	78,00	12,00	53	Niskin	POC/PON	Assmy
POC-008	Kb6	78,00	12,00	53	Niskin	POC/PON	Assmy
POC-009	Kb6	78,00	12,00	53	Niskin	POC/PON	Assmy
POC-010	Kb6	78,00	12,00	53	Niskin	POC/PON	Assmy
POC-011	Kb6	78,00	12,00	53	Niskin	POC/PON	Assmy
PHT-007	Kb6	78,00	12,00	53	Niskin	Phytoplankton taxonomy	Assmy
PHT-008	Kb6	78,00	12,00	53	Niskin	Phytoplankton taxonomy	Assmy
PHT-009	Kb6	78,00	12,00	53	Niskin	Phytoplankton taxonomy	Assmy
PHT-010	Kb6	78,00	12,00	53	Niskin	Phytoplankton taxonomy	Assmy
PHT-011	Kb6	78,00	12,00	53	Niskin	Phytoplankton taxonomy	Assmy
MAA-004	Kb6	78,00	12,00	53	Niskin	Mycosporin-like aminoacids	Assmy
MAA-005	Kb6	78,00	12,00	53	Niskin	Mycosporin-like aminoacids	Assmy

Sample name	Station	Latitude (deg)	Longitude (degr	Bottom depth (m)	Gear	Sample type	Contact person
MAA-006	Kb6	78,00	12,00	53	Niskin	Mycosporin-like aminoacids	Assmy
HAN-002	Kb6	78,00	12,00	53	Handnet 20µm	Rare species	Assmy
CTD-004	Kb6	78,00	12,00	54	CTD	CTD	Pavlova
MIT-004	Kb6	78,00	12,00	54	Niskin	Microplankton taxonomy	Assmy
MIT-005	Kb6	78,00	12,00	54	Niskin	Microplankton taxonomy	Assmy
MIT-006	Kb6	78,00	12,00	54	Niskin	Microplankton taxonomy	Assmy
CTD-005	Kb6	78,00	12,00	54	CTD	CTD	Magalhaes
ZOT-004	Kb6	78,00	12,00	53	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-005	Kb6	78,00	12,00	53	Multinet 200µm	Mesozooplankton taxonomy	Wold
MIK-002	Kb6	78,00	12,00	53	MIK-net	Macrozooplankton taxonomy	Wold
CTD-006	Kb5	78,00	12,00	74	CTD	CTD	Pavlova
MET-013	Kb5	78,00	12,00	74	Niskin	Methane	Fransson
MET-014	Kb5	78,00	12,00	74	Niskin	Methane	Fransson
MET-015	Kb5	78,00	12,00	74	Niskin	Methane	Fransson
MET-016	Kb5	78,00	12,00	74	Niskin	Methane	Fransson
MET-017	Kb5	78,00	12,00	74	Niskin	Methane	Fransson
DIC-013	Kb5	78,00	12,00	74	Niskin	DIC/AT	Fransson
DIC-014	Kb5	78,00	12,00	74	Niskin	DIC/AT	Fransson
DIC-015	Kb5	78,00	12,00	74	Niskin	DIC/AT	Fransson
DIC-016	Kb5	78,00	12,00	74	Niskin	DIC/AT	Fransson
DIC-017	Kb5	78,00	12,00	74	Niskin	DIC/AT	Fransson
AMM-012	Kb5	78,00	12,00	74	Niskin	Ammonium	Duarte
AMM-013	Kb5	78,00	12,00	74	Niskin	Ammonium	Duarte
AMM-014	Kb5	78,00	12,00	74	Niskin	Ammonium	Duarte
AMM-015	Kb5	78,00	12,00	74	Niskin	Ammonium	Duarte
AMM-016	Kb5	78,00	12,00	74	Niskin	Ammonium	Duarte
CDO-012	Kb5	78,00	12,00	74	Niskin	CDOM	Granskog
CDO-013	Kb5	78,00	12,00	74	Niskin	CDOM	Granskog
CDO-014	Kb5	78,00	12,00	74	Niskin	CDOM	Granskog
CDO-015	Kb5	78,00	12,00	74	Niskin	CDOM	Granskog
CDO-016	Kb5	78,00	12,00	74	Niskin	CDOM	Granskog
OXY-013	Kb5	78,00	12,00	74	Niskin	δ18 Oxygen	Granskog
OXY-014	Kb5	78,00	12,00	74	Niskin	δ18 Oxygen	Granskog
OXY-015	Kb5	78,00	12,00	74	Niskin	δ18 Oxygen	Granskog
OXY-016	Kb5	78,00	12,00	74	Niskin	δ18 Oxygen	Granskog
OXY-017	Kb5	78,00	12,00	74	Niskin	δ18 Oxygen	Granskog
NUT-012	Kb5	78,00	12,00	74	Niskin	Nutrients	Assmy
NUT-013	Kb5	78,00	12,00	74	Niskin	Nutrients	Assmy
NUT-014	Kb5	78,00	12,00	74	Niskin	Nutrients	Assmy
NUT-015	Kb5	78,00	12,00	74	Niskin	Nutrients	Assmy
NUT-016	Kb5	78,00	12,00	74	Niskin	Nutrients	Assmy
CHL-012	Kb5	78,00	12,00	74	Niskin	Chlorophyll a	Assmy
CHL-013	Kb5	78,00	12,00	74	Niskin	Chlorophyll a	Assmy
CHL-014	Kb5	78,00	12,00	74	Niskin	Chlorophyll a	Assmy
CHL-015	Kb5	78,00	12,00	74	Niskin	Chlorophyll a	Assmy
CHL-016	Kb5	78,00	12,00	74	Niskin	Chlorophyll a	Assmy

Sample name	Station	Latitude (deg)	Longitude (degr	Bottom depth (m)	Gear	Sample type	Contact person
PAB-012	Kb5	78,00	12,00	74	Niskin	Particle absorption	Assmy
PAB-013	Kb5	78,00	12,00	74	Niskin	Particle absorption	Assmy
PAB-014	Kb5	78,00	12,00	74	Niskin	Particle absorption	Assmy
PAB-015	Kb5	78,00	12,00	74	Niskin	Particle absorption	Assmy
PAB-016	Kb5	78,00	12,00	74	Niskin	Particle absorption	Assmy
POC-012	Kb5	78,00	12,00	74	Niskin	POC/PON	Assmy
POC-013	Kb5	78,00	12,00	74	Niskin	POC/PON	Assmy
POC-014	Kb5	78,00	12,00	74	Niskin	POC/PON	Assmy
POC-015	Kb5	78,00	12,00	74	Niskin	POC/PON	Assmy
POC-016	Kb5	78,00	12,00	74	Niskin	POC/PON	Assmy
PHT-012	Kb5	78,00	12,00	74	Niskin	Phytoplankton taxonomy	Assmy
PHT-013	Kb5	78,00	12,00	74	Niskin	Phytoplankton taxonomy	Assmy
PHT-014	Kb5	78,00	12,00	74	Niskin	Phytoplankton taxonomy	Assmy
PHT-015	Kb5	78,00	12,00	74	Niskin	Phytoplankton taxonomy	Assmy
PHT-016	Kb5	78,00	12,00	74	Niskin	Phytoplankton taxonomy	Assmy
MAA-007	Kb5	78,00	12,00	74	Niskin	Mycosporin-like aminoacids	Assmy
MAA-008	Kb5	78,00	12,00	74	Niskin	Mycosporin-like aminoacids	Assmy
MAA-009	Kb5	78,00	12,00	74	Niskin	Mycosporin-like aminoacids	Assmy
HAN-003	Kb5	78,00	12,00	74	Handnet 20µm	Rare species	Assmy
CTD-007	Kb5	78,00	12,00	74	CTD	CTD	Pavlova
MIT-007	Kb5	78,00	12,00	74	Niskin	Microplankton taxonomy	Assmy
MIT-008	Kb5	78,00	12,00	74	Niskin	Microplankton taxonomy	Assmy
MIT-009	Kb5	78,00	12,00	74	Niskin	Microplankton taxonomy	Assmy
ZOT-006	Kb5	78,00	12,00	74	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-007	Kb5	78,00	12,00	74	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-008	Kb5	78,00	12,00	74	Multinet 200µm	Mesozooplankton taxonomy	Wold
MIK-003	Kb5	78,00	12,00	74	MIK-net	Macrozooplankton taxonomy	Wold
CTD-008	Kb3	78,00	11,00	339	CTD	CTD	Pavlova
ZOT-009	Kb3	78,00	11,00	339	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-010	Kb3	78,00	11,00	339	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-011	Kb3	78,00	11,00	339	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-012	Kb3	78,00	11,00	339	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-013	Kb3	78,00	11,00	339	Multinet 200µm	Mesozooplankton taxonomy	Wold
MIK-004	Kb3	78,00	11,00	339	MIK-net	Macrozooplankton taxonomy	Wold
	Kb3	78,00	11,00	339	WP2 500µm	Calanus phenology	Osteszewska
MET-018	Kb3	78,00	11,00	339	Niskin	Methane	Fransson
MET-019	Kb3	78,00	11,00	339	Niskin	Methane	Fransson
MET-020	Kb3	78,00	11,00	339	Niskin	Methane	Fransson
MET-021	Kb3	78,00	11,00	339	Niskin	Methane	Fransson
MET-022	Kb3	78,00	11,00	339	Niskin	Methane	Fransson
MET-023	Kb3	78,00	11,00	339	Niskin	Methane	Fransson
MET-024	Kb3	78,00	11,00	339	Niskin	Methane	Fransson
MET-025	Kb3	78,00	11,00	339	Niskin	Methane	Fransson
DIC-018	Kb3	78,00	11,00	339	Niskin	DIC/AT	Fransson

Sample name	Station	Latitude (deg)	Longitude (degr	Bottom depth (m)	Gear	Sample type	Contact person
DIC-019	Kb3	78,00	11,00	339	Niskin	DIC/AT	Fransson
DIC-020	Kb3	78,00	11,00	339	Niskin	DIC/AT	Fransson
DIC-021	Kb3	78,00	11,00	339	Niskin	DIC/AT	Fransson
DIC-022	Kb3	78,00	11,00	339	Niskin	DIC/AT	Fransson
DIC-023	Kb3	78,00	11,00	339	Niskin	DIC/AT	Fransson
DIC-024	Kb3	78,00	11,00	339	Niskin	DIC/AT	Fransson
DIC-025	Kb3	78,00	11,00	339	Niskin	DIC/AT	Fransson
AMM-017	Kb3	78,00	11,00	339	Niskin	Ammonium	Duarte
AMM-018	Kb3	78,00	11,00	339	Niskin	Ammonium	Duarte
AMM-019	Kb3	78,00	11,00	339	Niskin	Ammonium	Duarte
AMM-020	Kb3	78,00	11,00	339	Niskin	Ammonium	Duarte
AMM-021	Kb3	78,00	11,00	339	Niskin	Ammonium	Duarte
AMM-022	Kb3	78,00	11,00	339	Niskin	Ammonium	Duarte
AMM-023	Kb3	78,00	11,00	339	Niskin	Ammonium	Duarte
AMM-024	Kb3	78,00	11,00	339	Niskin	Ammonium	Duarte
CDO-017	Kb3	78,00	11,00	339	Niskin	CDOM	Granskog
CDO-018	Kb3	78,00	11,00	339	Niskin	CDOM	Granskog
CDO-019	Kb3	78,00	11,00	339	Niskin	CDOM	Granskog
CDO-020	Kb3	78,00	11,00	339	Niskin	CDOM	Granskog
CDO-021	Kb3	78,00	11,00	339	Niskin	CDOM	Granskog
CDO-022	Kb3	78,00	11,00	339	Niskin	CDOM	Granskog
CDO-023	Kb3	78,00	11,00	339	Niskin	CDOM	Granskog
CDO-024	Kb3	78,00	11,00	339	Niskin	CDOM	Granskog
OXY-018	Kb3	78,00	11,00	339	Niskin	δ18 Oxygen	Granskog
OXY-019	Kb3	78,00	11,00	339	Niskin	δ18 Oxygen	Granskog
OXY-020	Kb3	78,00	11,00	339	Niskin	δ18 Oxygen	Granskog
OXY-021	Kb3	78,00	11,00	339	Niskin	δ18 Oxygen	Granskog
OXY-022	Kb3	78,00	11,00	339	Niskin	δ18 Oxygen	Granskog
OXY-023	Kb3	78,00	11,00	339	Niskin	δ18 Oxygen	Granskog
OXY-024	Kb3	78,00	11,00	339	Niskin	δ18 Oxygen	Granskog
OXY-025	Kb3	78,00	11,00	339	Niskin	δ18 Oxygen	Granskog
NUT-017	Kb3	78,00	11,00	339	Niskin	Nutrients	Assmy
NUT-018	Kb3	78,00	11,00	339	Niskin	Nutrients	Assmy
NUT-019	Kb3	78,00	11,00	339	Niskin	Nutrients	Assmy
NUT-020	Kb3	78,00	11,00	339	Niskin	Nutrients	Assmy
NUT-021	Kb3	78,00	11,00	339	Niskin	Nutrients	Assmy
NUT-022	Kb3	78,00	11,00	339	Niskin	Nutrients	Assmy
NUT-023	Kb3	78,00	11,00	339	Niskin	Nutrients	Assmy
NUT-024	Kb3	78,00	11,00	339	Niskin	Nutrients	Assmy
CHL-017	Kb3	78,00	11,00	339	Niskin	Chlorophyll a	Assmy
CHL-018	Kb3	78,00	11,00	339	Niskin	Chlorophyll a	Assmy
CHL-019	Kb3	78,00	11,00	339	Niskin	Chlorophyll a	Assmy
CHL-020	Kb3	78,00	11,00	339	Niskin	Chlorophyll a	Assmy
CHL-021	Kb3	78,00	11,00	339	Niskin	Chlorophyll a	Assmy
PAB-017	Kb3	78,00	11,00	339	Niskin	Particle absorption	Assmy
PAB-018	Kb3	78,00	11,00	339	Niskin	Particle absorption	Assmy

Sample name	Station	Latitude (deg)	Longitude (degr	Bottom depth (m)	Gear	Sample type	Contact person
PAB-019	Kb3	78,00	11,00	339	Niskin	Particle absorption	Assmy
PAB-020	Kb3	78,00	11,00	339	Niskin	Particle absorption	Assmy
PAB-021	Kb3	78,00	11,00	339	Niskin	Particle absorption	Assmy
POC-017	Kb3	78,00	11,00	339	Niskin	POC/PON	Assmy
POC-018	Kb3	78,00	11,00	339	Niskin	POC/PON	Assmy
POC-019	Kb3	78,00	11,00	339	Niskin	POC/PON	Assmy
POC-020	Kb3	78,00	11,00	339	Niskin	POC/PON	Assmy
POC-021	Kb3	78,00	11,00	339	Niskin	POC/PON	Assmy
PHT-017	Kb3	78,00	11,00	339	Niskin	Phytoplankton taxonomy	Assmy
PHT-018	Kb3	78,00	11,00	339	Niskin	Phytoplankton taxonomy	Assmy
PHT-019	Kb3	78,00	11,00	339	Niskin	Phytoplankton taxonomy	Assmy
PHT-020	Kb3	78,00	11,00	339	Niskin	Phytoplankton taxonomy	Assmy
PHT-021	Kb3	78,00	11,00	339	Niskin	Phytoplankton taxonomy	Assmy
MAA-010	Kb3	78,00	11,00	339	Niskin	Mycosporin-like aminoacids	Assmy
MAA-011	Kb3	78,00	11,00	339	Niskin	Mycosporin-like aminoacids	Assmy
MAA-012	Kb3	78,00	11,00	339	Niskin	Mycosporin-like aminoacids	Assmy
HAN-004	Kb3	78,00	11,00	339	Handnet 20µm	Rare species	Assmy
CTD-009	Kb3	78,00	11,00	335	CTD	CTD	Pavlova
MIT-010	Kb3	78,00	11,00	335	Niskin	Microplankton taxonomy	Assmy
MIT-011	Kb3	78,00	11,00	335	Niskin	Microplankton taxonomy	Assmy
MIT-012	Kb3	78,00	11,00	335	Niskin	Microplankton taxonomy	Assmy
CTD-010	Kb2	78,00	11,00	299	CTD	CTD	Pavlova
ZOT-014	Kb2	78,00	11,00	299	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-015	Kb2	78,00	11,00	299	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-016	Kb2	78,00	11,00	299	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-017	Kb2	78,00	11,00	299	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-018	Kb2	78,00	11,00	299	Multinet 200µm	Mesozooplankton taxonomy	Wold
MET-026	KB2	78,00	11,00	299	Niskin	Methane	Fransson
MET-027	Kb2	78,00	11,00	299	Niskin	Methane	Fransson
MET-028	Kb2	78,00	11,00	299	Niskin	Methane	Fransson
MET-029	Kb2	78,00	11,00	299	Niskin	Methane	Fransson
MET-030	Kb2	78,00	11,00	299	Niskin	Methane	Fransson
MET-031	Kb2	78,00	11,00	299	Niskin	Methane	Fransson
MET-032	Kb2	78,00	11,00	299	Niskin	Methane	Fransson
DIC-026	Kb2	78,00	11,00	299	Niskin	DIC/AT	Fransson
DIC-027	Kb2	78,00	11,00	299	Niskin	DIC/AT	Fransson
DIC-028	Kb2	78,00	11,00	299	Niskin	DIC/AT	Fransson
DIC-029	Kb2	78,00	11,00	299	Niskin	DIC/AT	Fransson
DIC-030	Kb2	78,00	11,00	299	Niskin	DIC/AT	Fransson
DIC-031	Kb2	78,00	11,00	299	Niskin	DIC/AT	Fransson
DIC-032	Kb2	78,00	11,00	299	Niskin	DIC/AT	Fransson
AMM-025	Kb2	78,00	11,00	299	Niskin	Ammonium	Duarte
AMM-026	Kb2	78,00	11,00	299	Niskin	Ammonium	Duarte
AMM-027	Kb2	78,00	11,00	299	Niskin	Ammonium	Duarte
AMM-028	Kb2	78,00	11,00	299	Niskin	Ammonium	Duarte

AMM-029	Kb2	78,00	11,00	299	Niskin	Ammonium	Duarte
AMM-030	Kb2	78,00	11,00	299	Niskin	Ammonium	Duarte
AMM-031	Kb2	78,00	11,00	299	Niskin	Ammonium	Duarte
CDO-025	Kb2	78,00	11,00	299	Niskin	CDOM	Granskog
CDO-026	Kb2	78,00	11,00	299	Niskin	CDOM	Granskog
CDO-027	Kb2	78,00	11,00	299	Niskin	CDOM	Granskog
CDO-028	Kb2	78,00	11,00	299	Niskin	CDOM	Granskog
CDO-029	Kb2	78,00	11,00	299	Niskin	CDOM	Granskog
CDO-030	Kb2	78,00	11,00	299	Niskin	CDOM	Granskog
CDO-031	Kb2	78,00	11,00	299	Niskin	CDOM	Granskog
OXY-026	Kb2	78,00	11,00	299	Niskin	δ18 Oxygen	Granskog
OXY-027	Kb2	78,00	11,00	299	Niskin	δ18 Oxygen	Granskog
OXY-028	Kb2	78,00	11,00	299	Niskin	δ18 Oxygen	Granskog
OXY-029	Kb2	78,00	11,00	299	Niskin	δ18 Oxygen	Granskog
OXY-030	Kb2	78,00	11,00	299	Niskin	δ18 Oxygen	Granskog
OXY-031	Kb2	78,00	11,00	299	Niskin	δ18 Oxygen	Granskog
Sample name	**Station**	**Latitude (deg)**	**Longitude (degr**	**Bottom depth (m)**	**Gear**	**Sample type**	**Contact person**
OXY-032	Kb2	78,00	11,00	299	Niskin	δ18 Oxygen	Granskog
NUT-025	Kb2	78,00	11,00	299	Niskin	Nutrients	Assmy
NUT-026	Kb2	78,00	11,00	299	Niskin	Nutrients	Assmy
NUT-027	Kb2	78,00	11,00	299	Niskin	Nutrients	Assmy
NUT-028	Kb2	78,00	11,00	299	Niskin	Nutrients	Assmy
NUT-029	Kb2	78,00	11,00	299	Niskin	Nutrients	Assmy
NUT-030	Kb2	78,00	11,00	299	Niskin	Nutrients	Assmy
NUT-031	Kb2	78,00	11,00	299	Niskin	Nutrients	Assmy
CHL-022	Kb2	78,00	11,00	299	Niskin	Chlorophyll a	Assmy
CHL-023	Kb2	78,00	11,00	299	Niskin	Chlorophyll a	Assmy
CHL-024	Kb2	78,00	11,00	299	Niskin	Chlorophyll a	Assmy
CHL-025	Kb2	78,00	11,00	299	Niskin	Chlorophyll a	Assmy
CHL-026	Kb2	78,00	11,00	299	Niskin	Chlorophyll a	Assmy
PAB-022	Kb2	78,00	11,00	299	Niskin	Particle absorption	Assmy
PAB-023	Kb2	78,00	11,00	299	Niskin	Particle absorption	Assmy
PAB-024	Kb2	78,00	11,00	299	Niskin	Particle absorption	Assmy
PAB-025	Kb2	78,00	11,00	299	Niskin	Particle absorption	Assmy
PAB-026	Kb2	78,00	11,00	299	Niskin	Particle absorption	Assmy
PAB-027	Kb2	78,00	11,00	299	Niskin	Particle absorption	Assmy
POC-022	Kb2	78,00	11,00	299	Niskin	POC/PON	Assmy
POC-023	Kb2	78,00	11,00	299	Niskin	POC/PON	Assmy
POC-024	Kb2	78,00	11,00	299	Niskin	POC/PON	Assmy
POC-025	Kb2	78,00	11,00	299	Niskin	POC/PON	Assmy
POC-026	Kb2	78,00	11,00	299	Niskin	POC/PON	Assmy
POC-027	Kb2	78,00	11,00	299	Niskin	POC/PON	Assmy
PHT-022	Kb2	78,00	11,00	299	Niskin	Phytoplankton taxonomy	Assmy
PHT-023	Kb2	78,00	11,00	299	Niskin	Phytoplankton taxonomy	Assmy
PHT-024	Kb2	78,00	11,00	299	Niskin	Phytoplankton taxonomy	Assmy
PHT-025	Kb2	78,00	11,00	299	Niskin	Phytoplankton taxonomy	Assmy
PHT-026	Kb2	78,00	11,00	299	Niskin	Phytoplankton taxonomy	Assmy

MAA-013	Kb2	78,00	11,00	299	Niskin	Mycosporin-like aminoacids	Assmy
MAA-014	Kb2	78,00	11,00	299	Niskin	Mycosporin-like aminoacids	Assmy
MAA-015	Kb2	78,00	11,00	299	Niskin	Mycosporin-like aminoacids	Assmy
HAN-005	Kb2	78,00	11,00	299	Handnet 20µm	Rare species	Assmy
CTD-011	Kb2	78,00	11,00	299	CTD	CTD	Pavlova
MIT-013	Kb2	78,00	11,00	299	Niskin	Microplankton taxonomy	Assmy
MIT-014	Kb2	78,00	11,00	299	Niskin	Microplankton taxonomy	Assmy
MIT-015	Kb2	78,00	11,00	299	Niskin	Microplankton taxonomy	Assmy
ZOT-014	Kb2	78,00	11,00	285	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-015	Kb2	78,00	11,00	285	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-016	Kb2	78,00	11,00	285	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-017	Kb2	78,00	11,00	285	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-018	Kb2	78,00	11,00	285	Multinet 200µm	Mesozooplankton taxonomy	Wold
MIK-005	Kb2	78,00	11,00	285	MIK-net	Macrozooplankton taxonomy	Wold
	Kb2	78,00	11,00	285	WP2 500µm	Calanus phenology	Osteszewska
CTD-012	Kb1	79,00	11,00	360	CTD	CTD	Pavlova
MET-033	Kb1	79,00	11,00	360	Niskin	Methane	Fransson
Sample name	**Station**	**Latitude (deg)**	**Longitude (degr**	**Bottom depth (m)**	**Gear**	**Sample type**	**Contact person**
MET-034	Kb1	79,00	11,00	360	Niskin	Methane	Fransson
MET-035	Kb1	79,00	11,00	360	Niskin	Methane	Fransson
MET-036	Kb1	79,00	11,00	360	Niskin	Methane	Fransson
MET-037	Kb1	79,00	11,00	360	Niskin	Methane	Fransson
MET-038	Kb1	79,00	11,00	360	Niskin	Methane	Fransson
MET-039	Kb1	79,00	11,00	360	Niskin	Methane	Fransson
MET-040	Kb1	79,00	11,00	360	Niskin	Methane	Fransson
DIC-033	Kb1	79,00	11,00	360	Niskin	DIC/AT	Fransson
DIC-034	Kb1	79,00	11,00	360	Niskin	DIC/AT	Fransson
DIC-035	Kb1	79,00	11,00	360	Niskin	DIC/AT	Fransson
DIC-036	Kb1	79,00	11,00	360	Niskin	DIC/AT	Fransson
DIC-037	Kb1	79,00	11,00	360	Niskin	DIC/AT	Fransson
DIC-038	Kb1	79,00	11,00	360	Niskin	DIC/AT	Fransson
DIC-039	Kb1	79,00	11,00	360	Niskin	DIC/AT	Fransson
DIC-040	Kb1	79,00	11,00	360	Niskin	DIC/AT	Fransson
AMM-032	Kb1	79,00	11,00	360	Niskin	Ammonium	Duarte
AMM-033	Kb1	79,00	11,00	360	Niskin	Ammonium	Duarte
AMM-034	Kb1	79,00	11,00	360	Niskin	Ammonium	Duarte
AMM-035	Kb1	79,00	11,00	360	Niskin	Ammonium	Duarte
AMM-036	Kb1	79,00	11,00	360	Niskin	Ammonium	Duarte
AMM-037	Kb1	79,00	11,00	360	Niskin	Ammonium	Duarte
AMM-038	Kb1	79,00	11,00	360	Niskin	Ammonium	Duarte
AMM-039	Kb1	79,00	11,00	360	Niskin	Ammonium	Duarte
CDO-032	Kb1	79,00	11,00	360	Niskin	CDOM	Granskog
CDO-033	Kb1	79,00	11,00	360	Niskin	CDOM	Granskog
CDO-034	Kb1	79,00	11,00	360	Niskin	CDOM	Granskog
CDO-035	Kb1	79,00	11,00	360	Niskin	CDOM	Granskog
CDO-036	Kb1	79,00	11,00	360	Niskin	CDOM	Granskog

CDO-037	Kb1	79,00	11,00	360	Niskin	CDOM	Granskog
CDO-038	Kb1	79,00	11,00	360	Niskin	CDOM	Granskog
CDO-039	Kb1	79,00	11,00	360	Niskin	CDOM	Granskog
OXY-033	Kb1	79,00	11,00	360	Niskin	δ18 Oxygen	Granskog
OXY-034	Kb1	79,00	11,00	360	Niskin	δ18 Oxygen	Granskog
OXY-035	Kb1	79,00	11,00	360	Niskin	δ18 Oxygen	Granskog
OXY-036	Kb1	79,00	11,00	360	Niskin	δ18 Oxygen	Granskog
OXY-037	Kb1	79,00	11,00	360	Niskin	δ18 Oxygen	Granskog
OXY-038	Kb1	79,00	11,00	360	Niskin	δ18 Oxygen	Granskog
OXY-039	Kb1	79,00	11,00	360	Niskin	δ18 Oxygen	Granskog
OXY-040	Kb1	79,00	11,00	360	Niskin	δ18 Oxygen	Granskog
NUT-032	Kb1	79,00	11,00	360	Niskin	Nutrients	Assmy
NUT-033	Kb1	79,00	11,00	360	Niskin	Nutrients	Assmy
NUT-034	Kb1	79,00	11,00	360	Niskin	Nutrients	Assmy
NUT-035	Kb1	79,00	11,00	360	Niskin	Nutrients	Assmy
NUT-036	Kb1	79,00	11,00	360	Niskin	Nutrients	Assmy
NUT-037	Kb1	79,00	11,00	360	Niskin	Nutrients	Assmy
NUT-038	Kb1	79,00	11,00	360	Niskin	Nutrients	Assmy
NUT-039	Kb1	79,00	11,00	360	Niskin	Nutrients	Assmy
CHL-027	Kb1	79,00	11,00	360	Niskin	Chlorophyll a	Assmy
Sample name	**Station**	**Latitude (deg)**	**Longitude (degr**	**Bottom depth (m)**	**Gear**	**Sample type**	**Contact person**
CHL-028	Kb1	79,00	11,00	360	Niskin	Chlorophyll a	Assmy
CHL-029	Kb1	79,00	11,00	360	Niskin	Chlorophyll a	Assmy
CHL-030	Kb1	79,00	11,00	360	Niskin	Chlorophyll a	Assmy
CHL-031	Kb1	79,00	11,00	360	Niskin	Chlorophyll a	Assmy
CHL-032	Kb1	79,00	11,00	360	Niskin	Chlorophyll a	Assmy
PAB-028	Kb1	79,00	11,00	360	Niskin	Particle absorption	Assmy
PAB-029	Kb1	79,00	11,00	360	Niskin	Particle absorption	Assmy
PAB-030	Kb1	79,00	11,00	360	Niskin	Particle absorption	Assmy
PAB-031	Kb1	79,00	11,00	360	Niskin	Particle absorption	Assmy
PAB-032	Kb1	79,00	11,00	360	Niskin	Particle absorption	Assmy
PAB-033	Kb1	79,00	11,00	360	Niskin	Particle absorption	Assmy
POC-028	Kb1	79,00	11,00	360	Niskin	POC/PON	Assmy
POC-029	Kb1	79,00	11,00	360	Niskin	POC/PON	Assmy
POC-030	Kb1	79,00	11,00	360	Niskin	POC/PON	Assmy
POC-031	Kb1	79,00	11,00	360	Niskin	POC/PON	Assmy
POC-032	Kb1	79,00	11,00	360	Niskin	POC/PON	Assmy
POC-033	Kb1	79,00	11,00	360	Niskin	POC/PON	Assmy
PHT-027	Kb1	79,00	11,00	360	Niskin	Phytoplankton taxonomy	Assmy
PHT-028	Kb1	79,00	11,00	360	Niskin	Phytoplankton taxonomy	Assmy
PHT-029	Kb1	79,00	11,00	360	Niskin	Phytoplankton taxonomy	Assmy
PHT-030	Kb1	79,00	11,00	360	Niskin	Phytoplankton taxonomy	Assmy
PHT-031	Kb1	79,00	11,00	360	Niskin	Phytoplankton taxonomy	Assmy
PHT-032	Kb1	79,00	11,00	360	Niskin	Phytoplankton taxonomy	Assmy
MAA-016	Kb1	79,00	11,00	360	Niskin	Mycosporin-like aminoacids	Assmy
MAA-017	Kb1	79,00	11,00	360	Niskin	Mycosporin-like aminoacids	Assmy
MAA-018	Kb1	79,00	11,00	360	Niskin	Mycosporin-like aminoacids	Assmy

HAN-006	Kb1	79,00	11,00	360	Handnet 20µm	Rare species	Assmy
CTD-013	Kb1	79,00	11,00	384	CTD	CTD	Pavlova
MIT-015	Kb1	79,00	11,00	384	Niskin	Microplankton taxonomy	Assmy
MIT-016	Kb1	79,00	11,00	384	Niskin	Microplankton taxonomy	Assmy
MIT-017	Kb1	79,00	11,00	384	Niskin	Microplankton taxonomy	Assmy
ZOT-019	Kb1	79,00	11,00	355	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-020	Kb1	79,00	11,00	355	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-021	Kb1	79,00	11,00	355	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-022	Kb1	79,00	11,00	355	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-023	Kb1	79,00	11,00	355	Multinet 200µm	Mesozooplankton taxonomy	Wold
MIK-006	Kb1	79,00	11,00	355	MIK-net	Macrozooplankton taxonomy	Wold
	Kb1	79,00	11,00	355	WP2 500µm	Calanus phenology	Osteszewska
CTD-014	Kb0	79,00	11,00	327	CTD	CTD	Pavlova
MET-041	Kb0	79,00	11,00	327	Niskin	Methane	Fransson
MET-042	Kb0	79,00	11,00	327	Niskin	Methane	Fransson
MET-043	Kb0	79,00	11,00	327	Niskin	Methane	Fransson
MET-044	Kb0	79,00	11,00	327	Niskin	Methane	Fransson
MET-045	Kb0	79,00	11,00	327	Niskin	Methane	Fransson
MET-046	Kb0	79,00	11,00	327	Niskin	Methane	Fransson
MET-047	Kb0	79,00	11,00	327	Niskin	Methane	Fransson
DIC-041	Kb0	79,00	11,00	327	Niskin	DIC/AT	Fransson
Sample name	**Station**	**Latitude (deg)**	**Longitude (degr**	**Bottom depth (m)**	**Gear**	**Sample type**	**Contact person**
DIC-042	Kb0	79,00	11,00	327	Niskin	DIC/AT	Fransson
DIC-043	Kb0	79,00	11,00	327	Niskin	DIC/AT	Fransson
DIC-044	Kb0	79,00	11,00	327	Niskin	DIC/AT	Fransson
DIC-045	Kb0	79,00	11,00	327	Niskin	DIC/AT	Fransson
DIC-046	Kb0	79,00	11,00	327	Niskin	DIC/AT	Fransson
DIC-047	Kb0	79,00	11,00	327	Niskin	DIC/AT	Fransson
AMM-040	Kb0	79,00	11,00	327	Niskin	Ammonium	Duarte
AMM-041	Kb0	79,00	11,00	327	Niskin	Ammonium	Duarte
AMM-042	Kb0	79,00	11,00	327	Niskin	Ammonium	Duarte
AMM-043	Kb0	79,00	11,00	327	Niskin	Ammonium	Duarte
AMM-044	Kb0	79,00	11,00	327	Niskin	Ammonium	Duarte
AMM-045	Kb0	79,00	11,00	327	Niskin	Ammonium	Duarte
AMM-046	Kb0	79,00	11,00	327	Niskin	Ammonium	Duarte
CDO-040	Kb0	79,00	11,00	327	Niskin	CDOM	Granskog
CDO-041	Kb0	79,00	11,00	327	Niskin	CDOM	Granskog
CDO-042	Kb0	79,00	11,00	327	Niskin	CDOM	Granskog
CDO-043	Kb0	79,00	11,00	327	Niskin	CDOM	Granskog
CDO-044	Kb0	79,00	11,00	327	Niskin	CDOM	Granskog
CDO-045	Kb0	79,00	11,00	327	Niskin	CDOM	Granskog
OXY-041	Kb0	79,00	11,00	327	Niskin	δ18 Oxygen	Granskog
OXY-042	Kb0	79,00	11,00	327	Niskin	δ18 Oxygen	Granskog
OXY-043	Kb0	79,00	11,00	327	Niskin	δ18 Oxygen	Granskog
OXY-044	Kb0	79,00	11,00	327	Niskin	δ18 Oxygen	Granskog
OXY-045	Kb0	79,00	11,00	327	Niskin	δ18 Oxygen	Granskog

OXY-046	Kb0	79,00	11,00	327	Niskin	δ18 Oxygen	Granskog
OXY-047	Kb0	79,00	11,00	327	Niskin	δ18 Oxygen	Granskog
NUT-040	Kb0	79,00	11,00	327	Niskin	Nutrients	Assmy
NUT-041	Kb0	79,00	11,00	327	Niskin	Nutrients	Assmy
NUT-042	Kb0	79,00	11,00	327	Niskin	Nutrients	Assmy
NUT-043	Kb0	79,00	11,00	327	Niskin	Nutrients	Assmy
NUT-044	Kb0	79,00	11,00	327	Niskin	Nutrients	Assmy
NUT-045	Kb0	79,00	11,00	327	Niskin	Nutrients	Assmy
NUT-046	Kb0	79,00	11,00	327	Niskin	Nutrients	Assmy
CHL-033	Kb0	79,00	11,00	327	Niskin	Chlorophyll a	Assmy
CHL-034	Kb0	79,00	11,00	327	Niskin	Chlorophyll a	Assmy
CHL-035	Kb0	79,00	11,00	327	Niskin	Chlorophyll a	Assmy
CHL-036	Kb0	79,00	11,00	327	Niskin	Chlorophyll a	Assmy
CHL-037	Kb0	79,00	11,00	327	Niskin	Chlorophyll a	Assmy
PAB-034	Kb0	79,00	11,00	327	Niskin	Particle absorption	Assmy
PAB-035	Kb0	79,00	11,00	327	Niskin	Particle absorption	Assmy
PAB-036	Kb0	79,00	11,00	327	Niskin	Particle absorption	Assmy
PAB-037	Kb0	79,00	11,00	327	Niskin	Particle absorption	Assmy
PAB-038	Kb0	79,00	11,00	327	Niskin	Particle absorption	Assmy
POC-034	Kb0	79,00	11,00	327	Niskin	POC/PON	Assmy
POC-035	Kb0	79,00	11,00	327	Niskin	POC/PON	Assmy
POC-036	Kb0	79,00	11,00	327	Niskin	POC/PON	Assmy
POC-037	Kb0	79,00	11,00	327	Niskin	POC/PON	Assmy
POC-038	Kb0	79,00	11,00	327	Niskin	POC/PON	Assmy
Sample name	**Station**	**Latitude (deg)**	**Longitude (degr**	**Bottom depth (m)**	**Gear**	**Sample type**	**Contact person**
PHT-033	Kb0	79,00	11,00	327	Niskin	Phytoplankton taxonomy	Assmy
PHT-034	Kb0	79,00	11,00	327	Niskin	Phytoplankton taxonomy	Assmy
PHT-035	Kb0	79,00	11,00	327	Niskin	Phytoplankton taxonomy	Assmy
PHT-036	Kb0	79,00	11,00	327	Niskin	Phytoplankton taxonomy	Assmy
PHT-037	Kb0	79,00	11,00	327	Niskin	Phytoplankton taxonomy	Assmy
MAA-019	Kb0	79,00	11,00	327	Niskin	Mycosporin-like aminoacids	Assmy
MAA-020	Kb0	79,00	11,00	327	Niskin	Mycosporin-like aminoacids	Assmy
MAA-021	Kb0	79,00	11,00	327	Niskin	Mycosporin-like aminoacids	Assmy
CTD-015	Kb0	79,00	11,00	327	CTD	CTD	Pavlova
MIT-018	Kb0	79,00	11,00	327	Niskin	Microplankton taxonomy	Assmy
MIT-019	Kb0	79,00	11,00	327	Niskin	Microplankton taxonomy	Assmy
MIT-020	Kb0	79,00	11,00	327	Niskin	Microplankton taxonomy	Assmy
HAN-007	Kb0	79,00	11,00	327	Handnet 20µm	Rare species	Assmy
CTD-016	Kb0	79,00	11,00	323	CTD	CTD	Magalhaes
ZOT-024	Kb0	79,00	11,00	327	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-025	Kb0	79,00	11,00	327	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-026	Kb0	79,00	11,00	327	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-027	Kb0	79,00	11,00	327	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-028	Kb0	79,00	11,00	327	Multinet 200µm	Mesozooplankton taxonomy	Wold
MIK-007	Kb0	79,00	11,00	327	MIK-net	Macrozooplankton taxonomy	Wold
	Kb0	79,00	11,00	327	WP2 500µm	Calanus phenology	Osteszewska

CTD-017	V12	78,00	9,00	222	CTD	CTD	Pavlova
AMM-047	V12	78,00	9,00	222	Niskin	Ammonium	Duarte
AMM-048	V12	78,00	9,00	222	Niskin	Ammonium	Duarte
AMM-049	V12	78,00	9,00	222	Niskin	Ammonium	Duarte
AMM-050	V12	78,00	9,00	222	Niskin	Ammonium	Duarte
AMM-051	V12	78,00	9,00	222	Niskin	Ammonium	Duarte
AMM-052	V12	78,00	9,00	222	Niskin	Ammonium	Duarte
AMM-053	V12	78,00	9,00	222	Niskin	Ammonium	Duarte
CDO-048	V12	78,00	9,00	222	Niskin	CDOM	Granskog
CDO-049	V12	78,00	9,00	222	Niskin	CDOM	Granskog
CDO-050	V12	78,00	9,00	222	Niskin	CDOM	Granskog
CDO-051	V12	78,00	9,00	222	Niskin	CDOM	Granskog
CDO-052	V12	78,00	9,00	222	Niskin	CDOM	Granskog
CDO-053	V12	78,00	9,00	222	Niskin	CDOM	Granskog
CDO-054	V12	78,00	9,00	222	Niskin	CDOM	Granskog
OXY-048	V12	78,00	9,00	222	Niskin	δ18 Oxygen	Granskog
OXY-049	V12	78,00	9,00	222	Niskin	δ18 Oxygen	Granskog
OXY-050	V12	78,00	9,00	222	Niskin	δ18 Oxygen	Granskog
OXY-051	V12	78,00	9,00	222	Niskin	δ18 Oxygen	Granskog
OXY-052	V12	78,00	9,00	222	Niskin	δ18 Oxygen	Granskog
OXY-053	V12	78,00	9,00	222	Niskin	δ18 Oxygen	Granskog
OXY-054	V12	78,00	9,00	222	Niskin	δ18 Oxygen	Granskog
NUT-047	V12	78,00	9,00	222	Niskin	Nutrients	Assmy
NUT-048	V12	78,00	9,00	222	Niskin	Nutrients	Assmy
NUT-049	V12	78,00	9,00	222	Niskin	Nutrients	Assmy
NUT-050	V12	78,00	9,00	222	Niskin	Nutrients	Assmy
Sample name	**Station**	**Latitude (deg)**	**Longitude (degr**	**Bottom depth (m)**	**Gear**	**Sample type**	**Contact person**
NUT-051	V12	78,00	9,00	222	Niskin	Nutrients	Assmy
NUT-052	V12	78,00	9,00	222	Niskin	Nutrients	Assmy
NUT-053	V12	78,00	9,00	222	Niskin	Nutrients	Assmy
CHL-038	V12	78,00	9,00	222	Niskin	Chlorophyll a	Assmy
CHL-039	V12	78,00	9,00	222	Niskin	Chlorophyll a	Assmy
CHL-040	V12	78,00	9,00	222	Niskin	Chlorophyll a	Assmy
CHL-041	V12	78,00	9,00	222	Niskin	Chlorophyll a	Assmy
CHL-042	V12	78,00	9,00	222	Niskin	Chlorophyll a	Assmy
CHL-043	V12	78,00	9,00	222	Niskin	Chlorophyll a	Assmy
CHL-044	V12	78,00	9,00	222	Niskin	Chlorophyll a	Assmy
PAB-039	V12	78,00	9,00	222	Niskin	Particle absorption	Assmy
PAB-040	V12	78,00	9,00	222	Niskin	Particle absorption	Assmy
PAB-041	V12	78,00	9,00	222	Niskin	Particle absorption	Assmy
PAB-042	V12	78,00	9,00	222	Niskin	Particle absorption	Assmy
PAB-043	V12	78,00	9,00	222	Niskin	Particle absorption	Assmy
PAB-044	V12	78,00	9,00	222	Niskin	Particle absorption	Assmy
PAB-045	V12	78,00	9,00	222	Niskin	Particle absorption	Assmy
POC-039	V12	78,00	9,00	222	Niskin	POC/PON	Assmy
POC-040	V12	78,00	9,00	222	Niskin	POC/PON	Assmy
POC-041	V12	78,00	9,00	222	Niskin	POC/PON	Assmy

POC-042	V12	78,00	9,00	222	Niskin	POC/PON	Assmy
POC-043	V12	78,00	9,00	222	Niskin	POC/PON	Assmy
POC-044	V12	78,00	9,00	222	Niskin	POC/PON	Assmy
POC-045	V12	78,00	9,00	222	Niskin	POC/PON	Assmy
PHT-038	V12	78,00	9,00	222	Niskin	Phytoplankton taxonomy	Assmy
PHT-039	V12	78,00	9,00	222	Niskin	Phytoplankton taxonomy	Assmy
PHT-040	V12	78,00	9,00	222	Niskin	Phytoplankton taxonomy	Assmy
PHT-041	V12	78,00	9,00	222	Niskin	Phytoplankton taxonomy	Assmy
PHT-042	V12	78,00	9,00	222	Niskin	Phytoplankton taxonomy	Assmy
PHT-043	V12	78,00	9,00	222	Niskin	Phytoplankton taxonomy	Assmy
PHT-044	V12	78,00	9,00	222	Niskin	Phytoplankton taxonomy	Assmy
MAA-022	V12	78,00	9,00	222	Niskin	Mycosporin-like aminoacids	Assmy
MAA-023	V12	78,00	9,00	222	Niskin	Mycosporin-like aminoacids	Assmy
MAA-024	V12	78,00	9,00	222	Niskin	Mycosporin-like aminoacids	Assmy
CTD-018	V12	78,00	9,00	222	CTD	CTD	Pavlova
MIT-021	V12	78,00	9,00	222	Niskin	Microplankton taxonomy	Assmy
MIT-022	V12	78,00	9,00	222	Niskin	Microplankton taxonomy	Assmy
MIT-023	V12	78,00	9,00	222	Niskin	Microplankton taxonomy	Assmy
HAN-008	V12	78,00	9,00	222	Handnet 20µm	Rare species	Assmy
ZOT-029	V12	78,00	9,00	224	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-030	V12	78,00	9,00	224	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-031	V12	78,00	9,00	224	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-032	V12	78,00	9,00	224	Multinet 200µm	Mesozooplankton taxonomy	Wold
MIK-008	V12	78,00	9,00	224	MIK-net	Macrozooplankton taxonomy	Wold
	V12	78,00	9,00	224	WP2 500µm	Calanus phenology	Osteszewska
CTD-019	V10	78,00	8,00	269	CTD	CTD	Pavlova
AMM-054	V10	78,00	8,00	269	Niskin	Ammonium	Duarte
Sample name	**Station**	**Latitude (deg)**	**Longitude (degr**	**Bottom depth (m)**	**Gear**	**Sample type**	**Contact person**
AMM-055	V10	78,00	8,00	269	Niskin	Ammonium	Duarte
AMM-056	V10	78,00	8,00	269	Niskin	Ammonium	Duarte
AMM-057	V10	78,00	8,00	269	Niskin	Ammonium	Duarte
AMM-058	V10	78,00	8,00	269	Niskin	Ammonium	Duarte
AMM-059	V10	78,00	8,00	269	Niskin	Ammonium	Duarte
AMM-060	V10	78,00	8,00	269	Niskin	Ammonium	Duarte
AMM-061	V10	78,00	8,00	269	Niskin	Ammonium	Duarte
CDO-054	V10	78,00	8,00	269	Niskin	CDOM	Granskog
CDO-055	V10	78,00	8,00	269	Niskin	CDOM	Granskog
CDO-056	V10	78,00	8,00	269	Niskin	CDOM	Granskog
CDO-057	V10	78,00	8,00	269	Niskin	CDOM	Granskog
CDO-058	V10	78,00	8,00	269	Niskin	CDOM	Granskog
CDO-059	V10	78,00	8,00	269	Niskin	CDOM	Granskog
CDO-060	V10	78,00	8,00	269	Niskin	CDOM	Granskog
CDO-061	V10	78,00	8,00	269	Niskin	CDOM	Granskog
OXY-055	V10	78,00	8,00	269	Niskin	δ18 Oxygen	Granskog
OXY-056	V10	78,00	8,00	269	Niskin	δ18 Oxygen	Granskog
OXY-057	V10	78,00	8,00	269	Niskin	δ18 Oxygen	Granskog

OXY-058	V10	78,00	8,00	269	Niskin	δ18 Oxygen	Granskog
OXY-059	V10	78,00	8,00	269	Niskin	δ18 Oxygen	Granskog
OXY-060	V10	78,00	8,00	269	Niskin	δ18 Oxygen	Granskog
OXY-061	V10	78,00	8,00	269	Niskin	δ18 Oxygen	Granskog
OXY-062	V10	78,00	8,00	269	Niskin	δ18 Oxygen	Granskog
NUT-054	V10	78,00	8,00	269	Niskin	Nutrients	Assmy
NUT-055	V10	78,00	8,00	269	Niskin	Nutrients	Assmy
NUT-056	V10	78,00	8,00	269	Niskin	Nutrients	Assmy
NUT-057	V10	78,00	8,00	269	Niskin	Nutrients	Assmy
NUT-058	V10	78,00	8,00	269	Niskin	Nutrients	Assmy
NUT-059	V10	78,00	8,00	269	Niskin	Nutrients	Assmy
NUT-060	V10	78,00	8,00	269	Niskin	Nutrients	Assmy
NUT-061	V10	78,00	8,00	269	Niskin	Nutrients	Assmy
CHL-045	V10	78,00	8,00	269	Niskin	Chlorophyll a	Assmy
CHL-046	V10	78,00	8,00	269	Niskin	Chlorophyll a	Assmy
CHL-047	V10	78,00	8,00	269	Niskin	Chlorophyll a	Assmy
CHL-048	V10	78,00	8,00	269	Niskin	Chlorophyll a	Assmy
CHL-049	V10	78,00	8,00	269	Niskin	Chlorophyll a	Assmy
CHL-050	V10	78,00	8,00	269	Niskin	Chlorophyll a	Assmy
PAB-046	V10	78,00	8,00	269	Niskin	Particle absorption	Assmy
PAB-047	V10	78,00	8,00	269	Niskin	Particle absorption	Assmy
PAB-048	V10	78,00	8,00	269	Niskin	Particle absorption	Assmy
PAB-049	V10	78,00	8,00	269	Niskin	Particle absorption	Assmy
PAB-050	V10	78,00	8,00	269	Niskin	Particle absorption	Assmy
PAB-051	V10	78,00	8,00	269	Niskin	Particle absorption	Assmy
POC-046	V10	78,00	8,00	269	Niskin	POC/PON	Assmy
POC-047	V10	78,00	8,00	269	Niskin	POC/PON	Assmy
POC-048	V10	78,00	8,00	269	Niskin	POC/PON	Assmy
POC-049	V10	78,00	8,00	269	Niskin	POC/PON	Assmy
POC-050	V10	78,00	8,00	269	Niskin	POC/PON	Assmy
Sample name	**Station**	**Latitude (deg)**	**Longitude (degr**	**Bottom depth (m)**	**Gear**	**Sample type**	**Contact person**
POC-051	V10	78,00	8,00	269	Niskin	POC/PON	Assmy
PHT-045	V10	78,00	8,00	269	Niskin	Phytoplankton taxonomy	Assmy
PHT-046	V10	78,00	8,00	269	Niskin	Phytoplankton taxonomy	Assmy
PHT-047	V10	78,00	8,00	269	Niskin	Phytoplankton taxonomy	Assmy
PHT-048	V10	78,00	8,00	269	Niskin	Phytoplankton taxonomy	Assmy
PHT-049	V10	78,00	8,00	269	Niskin	Phytoplankton taxonomy	Assmy
PHT-050	V10	78,00	8,00	269	Niskin	Phytoplankton taxonomy	Assmy
MAA-025	V10	78,00	8,00	269	Niskin	Mycosporin-like aminoacids	Assmy
MAA-026	V10	78,00	8,00	269	Niskin	Mycosporin-like aminoacids	Assmy
MAA-027	V10	78,00	8,00	269	Niskin	Mycosporin-like aminoacids	Assmy
CTD-020	V10	78,00	8,00	269	CTD	CTD	Pavlova
MIT-024	V10	78,00	8,00	269	Niskin	Microplankton taxonomy	Assmy
MIT-025	V10	78,00	8,00	269	Niskin	Microplankton taxonomy	Assmy
MIT-026	V10	78,00	8,00	269	Niskin	Microplankton taxonomy	Assmy
HAN-009	V10	78,00	8,00	269	Handnet 20µm	Rare species	Assmy
ZOT-033	V10	78,00	8,00	269	Multinet 200µm	Mesozooplankton taxonomy	Wold

ZOT-034	V10	78,00	8,00	269	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-035	V10	78,00	8,00	269	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-036	V10	78,00	8,00	269	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-037	V10	78,00	8,00	269	Multinet 200µm	Mesozooplankton taxonomy	Wold
MIK-009	V10	78,00	8,00	269	MIK-net	Macrozooplankton taxonomy	Wold
	V10	78,00	8,00	269	WP2 500µm	Calanus phenology	Osteszewska
CTD-021	V6	78,00	7,00	1122	CTD	CTD	Pavlova
AMM-062	V6	78,00	7,00	1122	Niskin	Ammonium	Duarte
AMM-063	V6	78,00	7,00	1122	Niskin	Ammonium	Duarte
AMM-064	V6	78,00	7,00	1122	Niskin	Ammonium	Duarte
AMM-065	V6	78,00	7,00	1122	Niskin	Ammonium	Duarte
AMM-066	V6	78,00	7,00	1122	Niskin	Ammonium	Duarte
AMM-067	V6	78,00	7,00	1122	Niskin	Ammonium	Duarte
AMM-068	V6	78,00	7,00	1122	Niskin	Ammonium	Duarte
AMM-069	V6	78,00	7,00	1122	Niskin	Ammonium	Duarte
AMM-070	V6	78,00	7,00	1122	Niskin	Ammonium	Duarte
CDO-062	V6	78,00	7,00	1122	Niskin	CDOM	Granskog
CDO-063	V6	78,00	7,00	1122	Niskin	CDOM	Granskog
CDO-064	V6	78,00	7,00	1122	Niskin	CDOM	Granskog
CDO-065	V6	78,00	7,00	1122	Niskin	CDOM	Granskog
CDO-066	V6	78,00	7,00	1122	Niskin	CDOM	Granskog
CDO-067	V6	78,00	7,00	1122	Niskin	CDOM	Granskog
CDO-068	V6	78,00	7,00	1122	Niskin	CDOM	Granskog
CDO-069	V6	78,00	7,00	1122	Niskin	CDOM	Granskog
CDO-070	V6	78,00	7,00	1122	Niskin	CDOM	Granskog
OXY-063	V6	78,00	7,00	1122	Niskin	δ18 Oxygen	Granskog
OXY-064	V6	78,00	7,00	1122	Niskin	δ18 Oxygen	Granskog
OXY-065	V6	78,00	7,00	1122	Niskin	δ18 Oxygen	Granskog
OXY-066	V6	78,00	7,00	1122	Niskin	δ18 Oxygen	Granskog
OXY-067	V6	78,00	7,00	1122	Niskin	δ18 Oxygen	Granskog
OXY-068	V6	78,00	7,00	1122	Niskin	δ18 Oxygen	Granskog
Sample name	**Station**	**Latitude (deg)**	**Longitude (degr**	**Bottom depth (m)**	**Gear**	**Sample type**	**Contact person**
OXY-069	V6	78,00	7,00	1122	Niskin	δ18 Oxygen	Granskog
OXY-070	V6	78,00	7,00	1122	Niskin	δ18 Oxygen	Granskog
OXY-071	V6	78,00	7,00	1122	Niskin	δ18 Oxygen	Granskog
NUT-063	V6	78,00	7,00	1122	Niskin	Nutrients	Assmy
NUT-064	V6	78,00	7,00	1122	Niskin	Nutrients	Assmy
NUT-065	V6	78,00	7,00	1122	Niskin	Nutrients	Assmy
NUT-066	V6	78,00	7,00	1122	Niskin	Nutrients	Assmy
NUT-067	V6	78,00	7,00	1122	Niskin	Nutrients	Assmy
NUT-068	V6	78,00	7,00	1122	Niskin	Nutrients	Assmy
NUT-069	V6	78,00	7,00	1122	Niskin	Nutrients	Assmy
NUT-070	V6	78,00	7,00	1122	Niskin	Nutrients	Assmy
NUT-071	V6	78,00	7,00	1122	Niskin	Nutrients	Assmy
CHL-051	V6	78,00	7,00	1122	Niskin	Chlorophyll a	Assmy
CHL-052	V6	78,00	7,00	1122	Niskin	Chlorophyll a	Assmy

CHL-053	V6	78,00	7,00	1122	Niskin	Chlorophyll a	Assmy
CHL-054	V6	78,00	7,00	1122	Niskin	Chlorophyll a	Assmy
CHL-055	V6	78,00	7,00	1122	Niskin	Chlorophyll a	Assmy
CHL-056	V6	78,00	7,00	1122	Niskin	Chlorophyll a	Assmy
PAB-052	V6	78,00	7,00	1122	Niskin	Particle absorption	Assmy
PAB-053	V6	78,00	7,00	1122	Niskin	Particle absorption	Assmy
PAB-054	V6	78,00	7,00	1122	Niskin	Particle absorption	Assmy
PAB-055	V6	78,00	7,00	1122	Niskin	Particle absorption	Assmy
PAB-056	V6	78,00	7,00	1122	Niskin	Particle absorption	Assmy
PAB-057	V6	78,00	7,00	1122	Niskin	Particle absorption	Assmy
POC-052	V6	78,00	7,00	1122	Niskin	POC/PON	Assmy
POC-053	V6	78,00	7,00	1122	Niskin	POC/PON	Assmy
POC-054	V6	78,00	7,00	1122	Niskin	POC/PON	Assmy
POC-055	V6	78,00	7,00	1122	Niskin	POC/PON	Assmy
POC-056	V6	78,00	7,00	1122	Niskin	POC/PON	Assmy
POC-057	V6	78,00	7,00	1122	Niskin	POC/PON	Assmy
PHT-051	V6	78,00	7,00	1122	Niskin	Phytoplankton taxonomy	Assmy
PHT-052	V6	78,00	7,00	1122	Niskin	Phytoplankton taxonomy	Assmy
PHT-053	V6	78,00	7,00	1122	Niskin	Phytoplankton taxonomy	Assmy
PHT-054	V6	78,00	7,00	1122	Niskin	Phytoplankton taxonomy	Assmy
PHT-055	V6	78,00	7,00	1122	Niskin	Phytoplankton taxonomy	Assmy
PHT-056	V6	78,00	7,00	1122	Niskin	Phytoplankton taxonomy	Assmy
MAA-028	V6	78,00	7,00	1122	Niskin	Mycosporin-like aminoacids	Assmy
MAA-029	V6	78,00	7,00	1122	Niskin	Mycosporin-like aminoacids	Assmy
MAA-030	V6	78,00	7,00	1122	Niskin	Mycosporin-like aminoacids	Assmy
CTD-022	V6	78,00	7,00	1125	CTD	CTD	Pavlova
MIT-027	V6	78,00	7,00	1125	Niskin	Microplankton taxonomy	Assmy
MIT-028	V6	78,00	7,00	1125	Niskin	Microplankton taxonomy	Assmy
MIT-029	V6	78,00	7,00	1125	Niskin	Microplankton taxonomy	Assmy
CTD-023	V6	78,00	7,00	1119	CTD	CTD	Magalhaes
HAN-010	V6	78,00	7,00	1125	Handnet 20µm	Rare species	Assmy
CTD-024	KH	79,00	7,00	1302	CTD	CTD	Pavlova
AMM-071	KH	79,00	7,00	1302	Niskin	Ammonium	Duarte
AMM-072	KH	79,00	7,00	1302	Niskin	Ammonium	Duarte
Sample name	**Station**	**Latitude (deg)**	**Longitude (degr**	**Bottom depth (m)**	**Gear**	**Sample type**	**Contact person**
AMM-073	KH	79,00	7,00	1302	Niskin	Ammonium	Duarte
AMM-074	KH	79,00	7,00	1302	Niskin	Ammonium	Duarte
AMM-075	KH	79,00	7,00	1302	Niskin	Ammonium	Duarte
AMM-076	KH	79,00	7,00	1302	Niskin	Ammonium	Duarte
AMM-077	KH	79,00	7,00	1302	Niskin	Ammonium	Duarte
AMM-078	KH	79,00	7,00	1302	Niskin	Ammonium	Duarte
AMM-079	KH	79,00	7,00	1302	Niskin	Ammonium	Duarte
AMM-080	KH	79,00	7,00	1302	Niskin	Ammonium	Duarte
AMM-081	KH	79,00	7,00	1302	Niskin	Ammonium	Duarte
CDO-071	KH	79,00	7,00	1302	Niskin	CDOM	Granskog
CDO-072	KH	79,00	7,00	1302	Niskin	CDOM	Granskog
CDO-073	KH	79,00	7,00	1302	Niskin	CDOM	Granskog

CDO-074	KH	79,00	7,00	1302	Niskin	CDOM	Granskog
CDO-075	KH	79,00	7,00	1302	Niskin	CDOM	Granskog
CDO-076	KH	79,00	7,00	1302	Niskin	CDOM	Granskog
CDO-077	KH	79,00	7,00	1302	Niskin	CDOM	Granskog
CDO-078	KH	79,00	7,00	1302	Niskin	CDOM	Granskog
CDO-079	KH	79,00	7,00	1302	Niskin	CDOM	Granskog
CDO-080	KH	79,00	7,00	1302	Niskin	CDOM	Granskog
CDO-081	KH	79,00	7,00	1302	Niskin	CDOM	Granskog
OXY-072	KH	79,00	7,00	1302	Niskin	δ18 Oxygen	Granskog
OXY-073	KH	79,00	7,00	1302	Niskin	δ18 Oxygen	Granskog
OXY-074	KH	79,00	7,00	1302	Niskin	δ18 Oxygen	Granskog
OXY-075	KH	79,00	7,00	1302	Niskin	δ18 Oxygen	Granskog
OXY-076	KH	79,00	7,00	1302	Niskin	δ18 Oxygen	Granskog
OXY-077	KH	79,00	7,00	1302	Niskin	δ18 Oxygen	Granskog
OXY-078	KH	79,00	7,00	1302	Niskin	δ18 Oxygen	Granskog
OXY-079	KH	79,00	7,00	1302	Niskin	δ18 Oxygen	Granskog
OXY-080	KH	79,00	7,00	1302	Niskin	δ18 Oxygen	Granskog
OXY-081	KH	79,00	7,00	1302	Niskin	δ18 Oxygen	Granskog
OXY-082	KH	79,00	7,00	1302	Niskin	δ18 Oxygen	Granskog
NUT-072	KH	79,00	7,00	1302	Niskin	Nutrients	Assmy
NUT-073	KH	79,00	7,00	1302	Niskin	Nutrients	Assmy
NUT-074	KH	79,00	7,00	1302	Niskin	Nutrients	Assmy
NUT-075	KH	79,00	7,00	1302	Niskin	Nutrients	Assmy
NUT-076	KH	79,00	7,00	1302	Niskin	Nutrients	Assmy
NUT-077	KH	79,00	7,00	1302	Niskin	Nutrients	Assmy
NUT-078	KH	79,00	7,00	1302	Niskin	Nutrients	Assmy
NUT-079	KH	79,00	7,00	1302	Niskin	Nutrients	Assmy
NUT-080	KH	79,00	7,00	1302	Niskin	Nutrients	Assmy
NUT-081	KH	79,00	7,00	1302	Niskin	Nutrients	Assmy
NUT-082	KH	79,00	7,00	1302	Niskin	Nutrients	Assmy
CHL-057	KH	79,00	7,00	1302	Niskin	Chlorophyll a	Assmy
CHL-058	KH	79,00	7,00	1302	Niskin	Chlorophyll a	Assmy
CHL-059	KH	79,00	7,00	1302	Niskin	Chlorophyll a	Assmy
CHL-060	KH	79,00	7,00	1302	Niskin	Chlorophyll a	Assmy
CHL-061	KH	79,00	7,00	1302	Niskin	Chlorophyll a	Assmy
CHL-062	KH	79,00	7,00	1302	Niskin	Chlorophyll a	Assmy
Sample name	**Station**	**Latitude (deg)**	**Longitude (degr**	**Bottom depth (m)**	**Gear**	**Sample type**	**Contact person**
PAB-058	KH	79,00	7,00	1302	Niskin	Particle absorption	Assmy
PAB-059	KH	79,00	7,00	1302	Niskin	Particle absorption	Assmy
PAB-060	KH	79,00	7,00	1302	Niskin	Particle absorption	Assmy
PAB-061	KH	79,00	7,00	1302	Niskin	Particle absorption	Assmy
PAB-062	KH	79,00	7,00	1302	Niskin	Particle absorption	Assmy
PAB-063	KH	79,00	7,00	1302	Niskin	Particle absorption	Assmy
POC-058	KH	79,00	7,00	1302	Niskin	POC/PON	Assmy
POC-059	KH	79,00	7,00	1302	Niskin	POC/PON	Assmy
POC-060	KH	79,00	7,00	1302	Niskin	POC/PON	Assmy
POC-061	KH	79,00	7,00	1302	Niskin	POC/PON	Assmy

POC-062	KH	79,00	7,00	1302	Niskin	POC/PON	Assmy
POC-063	KH	79,00	7,00	1302	Niskin	POC/PON	Assmy
PHT-057	KH	79,00	7,00	1302	Niskin	Phytoplankton taxonomy	Assmy
PHT-058	KH	79,00	7,00	1302	Niskin	Phytoplankton taxonomy	Assmy
PHT-059	KH	79,00	7,00	1302	Niskin	Phytoplankton taxonomy	Assmy
PHT-060	KH	79,00	7,00	1302	Niskin	Phytoplankton taxonomy	Assmy
PHT-061	KH	79,00	7,00	1302	Niskin	Phytoplankton taxonomy	Assmy
PHT-062	KH	79,00	7,00	1302	Niskin	Phytoplankton taxonomy	Assmy
MAA-031	KH	79,00	7,00	1302	Niskin	Mycosporin-like aminoacids	Assmy
MAA-032	KH	79,00	7,00	1302	Niskin	Mycosporin-like aminoacids	Assmy
MAA-033	KH	79,00	7,00	1302	Niskin	Mycosporin-like aminoacids	Assmy
CTD-025	KH	79,00	7,00	1319	CTD	CTD	Pavlova
MIT-030	KH	79,00	7,00	1319	Niskin	Microplankton taxonomy	Assmy
MIT-031	KH	79,00	7,00	1319	Niskin	Microplankton taxonomy	Assmy
MIT-032	KH	79,00	7,00	1319	Niskin	Microplankton taxonomy	Assmy
HAN-011	KH	79,00	7,00	1302	Handnet 20µm	Rare species	Assmy
ZOT-038	KH	79,00	7,00	1320	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-039	KH	79,00	7,00	1320	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-040	KH	79,00	7,00	1320	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-041	KH	79,00	7,00	1320	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-042	KH	79,00	7,00	1320	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-043	V6	78,00	7,00	1120	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-044	V6	78,00	7,00	1120	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-045	V6	78,00	7,00	1120	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-046	V6	78,00	7,00	1120	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-047	V6	78,00	7,00	1120	Multinet 200µm	Mesozooplankton taxonomy	Wold
MIK-010	V6	78,00	7,00	1120	MIK-net	Macrozooplankton taxonomy	Wold
CTD-026	R1	80,00	22,00	203	CTD	CTD	Pavlova
MET-048	R1	80,00	22,00	203	Niskin	Methane	Fransson
MET-049	R1	80,00	22,00	203	Niskin	Methane	Fransson
MET-050	R1	80,00	22,00	203	Niskin	Methane	Fransson
MET-051	R1	80,00	22,00	203	Niskin	Methane	Fransson
MET-052	R1	80,00	22,00	203	Niskin	Methane	Fransson
MET-053	R1	80,00	22,00	203	Niskin	Methane	Fransson
MET-054	R1	80,00	22,00	203	Niskin	Methane	Fransson
DIC-048	R1	80,00	22,00	203	Niskin	DIC/AT	Fransson
Sample name	**Station**	**Latitude (deg)**	**Longitude (degr**	**Bottom depth (m)**	**Gear**	**Sample type**	**Contact person**
DIC-049	R1	80,00	22,00	203	Niskin	DIC/AT	Fransson
DIC-050	R1	80,00	22,00	203	Niskin	DIC/AT	Fransson
DIC-051	R1	80,00	22,00	203	Niskin	DIC/AT	Fransson
DIC-052	R1	80,00	22,00	203	Niskin	DIC/AT	Fransson
DIC-053	R1	80,00	22,00	203	Niskin	DIC/AT	Fransson
DIC-054	R1	80,00	22,00	203	Niskin	DIC/AT	Fransson
AMM-082	R1	80,00	22,00	203	Niskin	Ammonium	Duarte
AMM-083	R1	80,00	22,00	203	Niskin	Ammonium	Duarte

AMM-084	R1	80,00	22,00	203	Niskin	Ammonium	Duarte
AMM-085	R1	80,00	22,00	203	Niskin	Ammonium	Duarte
AMM-086	R1	80,00	22,00	203	Niskin	Ammonium	Duarte
AMM-087	R1	80,00	22,00	203	Niskin	Ammonium	Duarte
AMM-088	R1	80,00	22,00	203	Niskin	Ammonium	Duarte
CDO-082	R1	80,00	22,00	203	Niskin	CDOM	Granskog
CDO-083	R1	80,00	22,00	203	Niskin	CDOM	Granskog
CDO-084	R1	80,00	22,00	203	Niskin	CDOM	Granskog
CDO-085	R1	80,00	22,00	203	Niskin	CDOM	Granskog
CDO-086	R1	80,00	22,00	203	Niskin	CDOM	Granskog
CDO-087	R1	80,00	22,00	203	Niskin	CDOM	Granskog
CDO-088	R1	80,00	22,00	203	Niskin	CDOM	Granskog
OXY-083	R1	80,00	22,00	203	Niskin	δ18 Oxygen	Granskog
OXY-084	R1	80,00	22,00	203	Niskin	δ18 Oxygen	Granskog
OXY-085	R1	80,00	22,00	203	Niskin	δ18 Oxygen	Granskog
OXY-086	R1	80,00	22,00	203	Niskin	δ18 Oxygen	Granskog
OXY-087	R1	80,00	22,00	203	Niskin	δ18 Oxygen	Granskog
OXY-088	R1	80,00	22,00	203	Niskin	δ18 Oxygen	Granskog
OXY-089	R1	80,00	22,00	203	Niskin	δ18 Oxygen	Granskog
NUT-083	R1	80,00	22,00	203	Niskin	Nutrients	Assmy
NUT-084	R1	80,00	22,00	203	Niskin	Nutrients	Assmy
NUT-085	R1	80,00	22,00	203	Niskin	Nutrients	Assmy
NUT-086	R1	80,00	22,00	203	Niskin	Nutrients	Assmy
NUT-087	R1	80,00	22,00	203	Niskin	Nutrients	Assmy
NUT-088	R1	80,00	22,00	203	Niskin	Nutrients	Assmy
NUT-089	R1	80,00	22,00	203	Niskin	Nutrients	Assmy
CHL-063	R1	80,00	22,00	203	Niskin	Chlorophyll a	Assmy
CHL-064	R1	80,00	22,00	203	Niskin	Chlorophyll a	Assmy
CHL-065	R1	80,00	22,00	203	Niskin	Chlorophyll a	Assmy
CHL-066	R1	80,00	22,00	203	Niskin	Chlorophyll a	Assmy
CHL-067	R1	80,00	22,00	203	Niskin	Chlorophyll a	Assmy
CHL-068	R1	80,00	22,00	203	Niskin	Chlorophyll a	Assmy
PAB-064	R1	80,00	22,00	203	Niskin	Particle absorption	Assmy
PAB-065	R1	80,00	22,00	203	Niskin	Particle absorption	Assmy
PAB-066	R1	80,00	22,00	203	Niskin	Particle absorption	Assmy
PAB-067	R1	80,00	22,00	203	Niskin	Particle absorption	Assmy
PAB-068	R1	80,00	22,00	203	Niskin	Particle absorption	Assmy
PAB-069	R1	80,00	22,00	203	Niskin	Particle absorption	Assmy
PAB-070	R1	80,00	22,00	203	Niskin	Particle absorption	Assmy
POC-064	R1	80,00	22,00	203	Niskin	POC/PON	Assmy
Sample name	**Station**	**Latitude (deg)**	**Longitude (degr**	**Bottom depth (m)**	**Gear**	**Sample type**	**Contact person**
POC-065	R1	80,00	22,00	203	Niskin	POC/PON	Assmy
POC-066	R1	80,00	22,00	203	Niskin	POC/PON	Assmy
POC-067	R1	80,00	22,00	203	Niskin	POC/PON	Assmy
POC-068	R1	80,00	22,00	203	Niskin	POC/PON	Assmy
POC-069	R1	80,00	22,00	203	Niskin	POC/PON	Assmy
POC-070	R1	80,00	22,00	203	Niskin	POC/PON	Assmy

PHT-063	R1	80,00	22,00	203	Niskin	Phytoplankton taxonomy	Assmy
PHT-064	R1	80,00	22,00	203	Niskin	Phytoplankton taxonomy	Assmy
PHT-065	R1	80,00	22,00	203	Niskin	Phytoplankton taxonomy	Assmy
PHT-066	R1	80,00	22,00	203	Niskin	Phytoplankton taxonomy	Assmy
PHT-067	R1	80,00	22,00	203	Niskin	Phytoplankton taxonomy	Assmy
PHT-068	R1	80,00	22,00	203	Niskin	Phytoplankton taxonomy	Assmy
MAA-034	R1	80,00	22,00	203	Niskin	Mycosporin-like aminoacids	Assmy
MAA-035	R1	80,00	22,00	203	Niskin	Mycosporin-like aminoacids	Assmy
MAA-036	R1	80,00	22,00	203	Niskin	Mycosporin-like aminoacids	Assmy
CTD-027	R1	80,00	22,00	171	CTD	CTD	Pavlova
MIT-033	R1	80,00	22,00	171	Niskin	Microplankton taxonomy	Assmy
MIT-034	R1	80,00	22,00	171	Niskin	Microplankton taxonomy	Assmy
MIT-035	R1	80,00	22,00	171	Niskin	Microplankton taxonomy	Assmy
HAN-012	R1	80,00	22,00	171	Handnet 20µm	Rare species	Assmy
ZOT-048	R1	80,00	22,00	200	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-049	R1	80,00	22,00	200	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-050	R1	80,00	22,00	200	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-051	R1	80,00	22,00	200	Multinet 200µm	Mesozooplankton taxonomy	Wold
MIK-011	R1	80,00	22,00	200	MIK-net	Macrozooplankton taxonomy	Wold
CTD-028	R2	80,00	22,00	181	CTD	CTD	Pavlova
MET-055	R2	80,00	22,00	181	Niskin	Methane	Fransson
MET-056	R2	80,00	22,00	181	Niskin	Methane	Fransson
MET-057	R2	80,00	22,00	181	Niskin	Methane	Fransson
MET-058	R2	80,00	22,00	181	Niskin	Methane	Fransson
MET-059	R2	80,00	22,00	181	Niskin	Methane	Fransson
MET-060	R2	80,00	22,00	181	Niskin	Methane	Fransson
DIC-055	R2	80,00	22,00	181	Niskin	DIC/AT	Fransson
DIC-056	R2	80,00	22,00	181	Niskin	DIC/AT	Fransson
DIC-057	R2	80,00	22,00	181	Niskin	DIC/AT	Fransson
DIC-058	R2	80,00	22,00	181	Niskin	DIC/AT	Fransson
DIC-059	R2	80,00	22,00	181	Niskin	DIC/AT	Fransson
DIC-060	R2	80,00	22,00	181	Niskin	DIC/AT	Fransson
AMM-089	R2	80,00	22,00	181	Niskin	Ammonium	Duarte
AMM-090	R2	80,00	22,00	181	Niskin	Ammonium	Duarte
AMM-091	R2	80,00	22,00	181	Niskin	Ammonium	Duarte
AMM-092	R2	80,00	22,00	181	Niskin	Ammonium	Duarte
AMM-093	R2	80,00	22,00	181	Niskin	Ammonium	Duarte
AMM-094	R2	80,00	22,00	181	Niskin	Ammonium	Duarte
CDO-089	R2	80,00	22,00	181	Niskin	CDOM	Granskog
CDO-090	R2	80,00	22,00	181	Niskin	CDOM	Granskog
CDO-091	R2	80,00	22,00	181	Niskin	CDOM	Granskog
Sample name	**Station**	**Latitude (deg)**	**Longitude (degr**	**Bottom depth (m)**	**Gear**	**Sample type**	**Contact person**
CDO-092	R2	80,00	22,00	181	Niskin	CDOM	Granskog
CDO-093	R2	80,00	22,00	181	Niskin	CDOM	Granskog
CDO-094	R2	80,00	22,00	181	Niskin	CDOM	Granskog
OXY-090	R2	80,00	22,00	181	Niskin	δ18 Oxygen	Granskog

OXY-091	R2	80,00	22,00	181	Niskin	δ18 Oxygen	Granskog
OXY-092	R2	80,00	22,00	181	Niskin	δ18 Oxygen	Granskog
OXY-093	R2	80,00	22,00	181	Niskin	δ18 Oxygen	Granskog
OXY-094	R2	80,00	22,00	181	Niskin	δ18 Oxygen	Granskog
OXY-095	R2	80,00	22,00	181	Niskin	δ18 Oxygen	Granskog
NUT-090	R2	80,00	22,00	181	Niskin	Nutrients	Assmy
NUT-091	R2	80,00	22,00	181	Niskin	Nutrients	Assmy
NUT-092	R2	80,00	22,00	181	Niskin	Nutrients	Assmy
NUT-093	R2	80,00	22,00	181	Niskin	Nutrients	Assmy
NUT-094	R2	80,00	22,00	181	Niskin	Nutrients	Assmy
NUT-095	R2	80,00	22,00	181	Niskin	Nutrients	Assmy
CHL-069	R2	80,00	22,00	181	Niskin	Chlorophyll a	Assmy
CHL-070	R2	80,00	22,00	181	Niskin	Chlorophyll a	Assmy
CHL-071	R2	80,00	22,00	181	Niskin	Chlorophyll a	Assmy
CHL-072	R2	80,00	22,00	181	Niskin	Chlorophyll a	Assmy
CHL-073	R2	80,00	22,00	181	Niskin	Chlorophyll a	Assmy
PAB-071	R2	80,00	22,00	181	Niskin	Particle absorption	Assmy
PAB-070	R2	80,00	22,00	181	Niskin	Particle absorption	Assmy
PAB-072	R2	80,00	22,00	181	Niskin	Particle absorption	Assmy
PAB-073	R2	80,00	22,00	181	Niskin	Particle absorption	Assmy
PAB-074	R2	80,00	22,00	181	Niskin	Particle absorption	Assmy
PAB-075	R2	80,00	22,00	181	Niskin	Particle absorption	Assmy
POC-071	R2	80,00	22,00	181	Niskin	POC/PON	Assmy
POC-072	R2	80,00	22,00	181	Niskin	POC/PON	Assmy
POC-073	R2	80,00	22,00	181	Niskin	POC/PON	Assmy
POC-074	R2	80,00	22,00	181	Niskin	POC/PON	Assmy
POC-075	R2	80,00	22,00	181	Niskin	POC/PON	Assmy
PHT-069	R2	80,00	22,00	181	Niskin	Phytoplankton taxonomy	Assmy
PHT-070	R2	80,00	22,00	181	Niskin	Phytoplankton taxonomy	Assmy
PHT-071	R2	80,00	22,00	181	Niskin	Phytoplankton taxonomy	Assmy
PHT-072	R2	80,00	22,00	181	Niskin	Phytoplankton taxonomy	Assmy
PHT-073	R2	80,00	22,00	181	Niskin	Phytoplankton taxonomy	Assmy
MAA-037	R2	80,00	22,00	181	Niskin	Mycosporin-like aminoacids	Assmy
MAA-038	R2	80,00	22,00	181	Niskin	Mycosporin-like aminoacids	Assmy
MAA-039	R2	80,00	22,00	181	Niskin	Mycosporin-like aminoacids	Assmy
CTD-029	R2	80,00	22,00	189	CTD	CTD	Pavlova
MIT-036	R2	80,00	22,00	189	Niskin	Microplankton taxonomy	Assmy
MIT-037	R2	80,00	22,00	189	Niskin	Microplankton taxonomy	Assmy
MIT-038	R2	80,00	22,00	189	Niskin	Microplankton taxonomy	Assmy
HAN-013	R2	80,00	22,00	189	Handnet 20µm	Rare species	Assmy
ZOT-052	R2	80,00	22,00	183	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-053	R2	80,00	22,00	183	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-054	R2	80,00	22,00	183	Multinet 200µm	Mesozooplankton taxonomy	Wold
Sample name	**Station**	**Latitude (deg)**	**Longitude (degr**	**Bottom depth (m)**	**Gear**	**Sample type**	**Contact person**
ZOT-055	R2	80,00	22,00	183	Multinet 200µm	Mesozooplankton taxonomy	Wold
MIK-012	R2	80,00	22,00	183	MIK-net	Macrozooplankton taxonomy	Wold

CTD-030	R3	80,00	22,00	276	CTD	CTD	Pavlova
MET-061	R3	80,00	22,00	276	Niskin	Methane	Fransson
MET-062	R3	80,00	22,00	276	Niskin	Methane	Fransson
MET-063	R3	80,00	22,00	276	Niskin	Methane	Fransson
MET-064	R3	80,00	22,00	276	Niskin	Methane	Fransson
MET-065	R3	80,00	22,00	276	Niskin	Methane	Fransson
MET-066	R3	80,00	22,00	276	Niskin	Methane	Fransson
MET-067	R3	80,00	22,00	276	Niskin	Methane	Fransson
DIC-061	R3	80,00	22,00	276	Niskin	DIC/AT	Fransson
DIC-062	R3	80,00	22,00	276	Niskin	DIC/AT	Fransson
DIC-063	R3	80,00	22,00	276	Niskin	DIC/AT	Fransson
DIC-064	R3	80,00	22,00	276	Niskin	DIC/AT	Fransson
DIC-065	R3	80,00	22,00	276	Niskin	DIC/AT	Fransson
DIC-066	R3	80,00	22,00	276	Niskin	DIC/AT	Fransson
DIC-067	R3	80,00	22,00	276	Niskin	DIC/AT	Fransson
AMM-095	R3	80,00	22,00	276	Niskin	Ammonium	Duarte
AMM-096	R3	80,00	22,00	276	Niskin	Ammonium	Duarte
AMM-097	R3	80,00	22,00	276	Niskin	Ammonium	Duarte
AMM-098	R3	80,00	22,00	276	Niskin	Ammonium	Duarte
AMM-099	R3	80,00	22,00	276	Niskin	Ammonium	Duarte
AMM-100	R3	80,00	22,00	276	Niskin	Ammonium	Duarte
AMM-101	R3	80,00	22,00	276	Niskin	Ammonium	Duarte
CDO-096	R3	80,00	22,00	276	Niskin	CDOM	Granskog
CDO-097	R3	80,00	22,00	276	Niskin	CDOM	Granskog
CDO-098	R3	80,00	22,00	276	Niskin	CDOM	Granskog
CDO-099	R3	80,00	22,00	276	Niskin	CDOM	Granskog
CDO-100	R3	80,00	22,00	276	Niskin	CDOM	Granskog
CDO-101	R3	80,00	22,00	276	Niskin	CDOM	Granskog
CDO-102	R3	80,00	22,00	276	Niskin	CDOM	Granskog
OXY-096	R3	80,00	22,00	276	Niskin	δ18 Oxygen	Granskog
OXY-097	R3	80,00	22,00	276	Niskin	δ18 Oxygen	Granskog
OXY-098	R3	80,00	22,00	276	Niskin	δ18 Oxygen	Granskog
OXY-099	R3	80,00	22,00	276	Niskin	δ18 Oxygen	Granskog
OXY-100	R3	80,00	22,00	276	Niskin	δ18 Oxygen	Granskog
OXY-101	R3	80,00	22,00	276	Niskin	δ18 Oxygen	Granskog
OXY-102	R3	80,00	22,00	276	Niskin	δ18 Oxygen	Granskog
NUT-096	R3	80,00	22,00	276	Niskin	Nutrients	Assmy
NUT-097	R3	80,00	22,00	276	Niskin	Nutrients	Assmy
NUT-098	R3	80,00	22,00	276	Niskin	Nutrients	Assmy
NUT-099	R3	80,00	22,00	276	Niskin	Nutrients	Assmy
NUT-100	R3	80,00	22,00	276	Niskin	Nutrients	Assmy
NUT-101	R3	80,00	22,00	276	Niskin	Nutrients	Assmy
NUT-102	R3	80,00	22,00	276	Niskin	Nutrients	Assmy
CHL-074	R3	80,00	22,00	276	Niskin	Chlorophyll a	Assmy
CHL-075	R3	80,00	22,00	276	Niskin	Chlorophyll a	Assmy
CHL-076	R3	80,00	22,00	276	Niskin	Chlorophyll a	Assmy
Sample name	**Station**	**Latitude (deg)**	**Longitude (degr**	**Bottom depth (m)**	**Gear**	**Sample type**	**Contact person**

CHL-077	R3	80,00	22,00	276	Niskin	Chlorophyll a	Assmy
CHL-078	R3	80,00	22,00	276	Niskin	Chlorophyll a	Assmy
PAB-076	R3	80,00	22,00	276	Niskin	Particle absorption	Assmy
PAB-077	R3	80,00	22,00	276	Niskin	Particle absorption	Assmy
PAB-078	R3	80,00	22,00	276	Niskin	Particle absorption	Assmy
PAB-079	R3	80,00	22,00	276	Niskin	Particle absorption	Assmy
PAB-080	R3	80,00	22,00	276	Niskin	Particle absorption	Assmy
POC-076	R3	80,00	22,00	276	Niskin	POC/PON	Assmy
POC-077	R3	80,00	22,00	276	Niskin	POC/PON	Assmy
POC-078	R3	80,00	22,00	276	Niskin	POC/PON	Assmy
POC-079	R3	80,00	22,00	276	Niskin	POC/PON	Assmy
POC-080	R3	80,00	22,00	276	Niskin	POC/PON	Assmy
PHT-074	R3	80,00	22,00	276	Niskin	Phytoplankton taxonomy	Assmy
PHT-075	R3	80,00	22,00	276	Niskin	Phytoplankton taxonomy	Assmy
PHT-076	R3	80,00	22,00	276	Niskin	Phytoplankton taxonomy	Assmy
PHT-077	R3	80,00	22,00	276	Niskin	Phytoplankton taxonomy	Assmy
PHT-078	R3	80,00	22,00	276	Niskin	Phytoplankton taxonomy	Assmy
MAA-040	R3	80,00	22,00	276	Niskin	Mycosporin-like aminoacids	Assmy
MAA-041	R3	80,00	22,00	276	Niskin	Mycosporin-like aminoacids	Assmy
MAA-042	R3	80,00	22,00	276	Niskin	Mycosporin-like aminoacids	Assmy
CTD-031	R3	80,00	22,00	233	CTD	CTD	Pavlova
MIT-039	R3	80,00	22,00	233	Niskin	Microplankton taxonomy	Assmy
MIT-040	R3	80,00	22,00	233	Niskin	Microplankton taxonomy	Assmy
MIT-041	R3	80,00	22,00	233	Niskin	Microplankton taxonomy	Assmy
HAN-014	R3	80,00	22,00	233	Handnet 20µm	Rare species	Assmy
ZOT-056	R3	80,00	22,00	270	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-057	R3	80,00	22,00	270	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-058	R3	80,00	22,00	270	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-059	R3	80,00	22,00	270	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-060	R3	80,00	22,00	270	Multinet 200µm	Mesozooplankton taxonomy	Wold
MIK-013	R3	80,00	22,00	270	MIK-net	Macrozooplankton taxonomy	Wold
CTD-032	R4	80,00	22,00	154	CTD	CTD	Pavlova
MET-068	R4	80,00	22,00	154	Niskin	Methane	Fransson
MET-069	R4	80,00	22,00	154	Niskin	Methane	Fransson
MET-070	R4	80,00	22,00	154	Niskin	Methane	Fransson
MET-071	R4	80,00	22,00	154	Niskin	Methane	Fransson
MET-072	R4	80,00	22,00	154	Niskin	Methane	Fransson
MET-073	R4	80,00	22,00	154	Niskin	Methane	Fransson
MET-074	R4	80,00	22,00	154	Niskin	Methane	Fransson
DIC-068	R4	80,00	22,00	154	Niskin	DIC/AT	Fransson
DIC-069	R4	80,00	22,00	154	Niskin	DIC/AT	Fransson
DIC-070	R4	80,00	22,00	154	Niskin	DIC/AT	Fransson
DIC-071	R4	80,00	22,00	154	Niskin	DIC/AT	Fransson
DIC-072	R4	80,00	22,00	154	Niskin	DIC/AT	Fransson
DIC-073	R4	80,00	22,00	154	Niskin	DIC/AT	Fransson
DIC-074	R4	80,00	22,00	154	Niskin	DIC/AT	Fransson

AMM-102	R4	80,00	22,00	154	Niskin	Ammonium	Duarte
Sample name	**Station**	**Latitude (deg)**	**Longitude (degr**	**Bottom depth (m)**	**Gear**	**Sample type**	**Contact person**
AMM-103	R4	80,00	22,00	154	Niskin	Ammonium	Duarte
AMM-104	R4	80,00	22,00	154	Niskin	Ammonium	Duarte
AMM-105	R4	80,00	22,00	154	Niskin	Ammonium	Duarte
AMM-106	R4	80,00	22,00	154	Niskin	Ammonium	Duarte
AMM-107	R4	80,00	22,00	154	Niskin	Ammonium	Duarte
AMM-108	R4	80,00	22,00	154	Niskin	Ammonium	Duarte
CDO-103	R4	80,00	22,00	154	Niskin	CDOM	Granskog
CDO-104	R4	80,00	22,00	154	Niskin	CDOM	Granskog
CDO-105	R4	80,00	22,00	154	Niskin	CDOM	Granskog
CDO-106	R4	80,00	22,00	154	Niskin	CDOM	Granskog
CDO-107	R4	80,00	22,00	154	Niskin	CDOM	Granskog
CDO-108	R4	80,00	22,00	154	Niskin	CDOM	Granskog
CDO-109	R4	80,00	22,00	154	Niskin	CDOM	Granskog
OXY-103	R4	80,00	22,00	154	Niskin	δ18 Oxygen	Granskog
OXY-104	R4	80,00	22,00	154	Niskin	δ18 Oxygen	Granskog
OXY-105	R4	80,00	22,00	154	Niskin	δ18 Oxygen	Granskog
OXY-106	R4	80,00	22,00	154	Niskin	δ18 Oxygen	Granskog
OXY-107	R4	80,00	22,00	154	Niskin	δ18 Oxygen	Granskog
OXY-108	R4	80,00	22,00	154	Niskin	δ18 Oxygen	Granskog
OXY-109	R4	80,00	22,00	154	Niskin	δ18 Oxygen	Granskog
NUT-103	R4	80,00	22,00	154	Niskin	Nutrients	Assmy
NUT-104	R4	80,00	22,00	154	Niskin	Nutrients	Assmy
NUT-105	R4	80,00	22,00	154	Niskin	Nutrients	Assmy
NUT-106	R4	80,00	22,00	154	Niskin	Nutrients	Assmy
NUT-107	R4	80,00	22,00	154	Niskin	Nutrients	Assmy
NUT-108	R4	80,00	22,00	154	Niskin	Nutrients	Assmy
NUT-109	R4	80,00	22,00	154	Niskin	Nutrients	Assmy
CHL-079	R4	80,00	22,00	154	Niskin	Chlorophyll a	Assmy
CHL-080	R4	80,00	22,00	154	Niskin	Chlorophyll a	Assmy
CHL-081	R4	80,00	22,00	154	Niskin	Chlorophyll a	Assmy
CHL-082	R4	80,00	22,00	154	Niskin	Chlorophyll a	Assmy
CHL-083	R4	80,00	22,00	154	Niskin	Chlorophyll a	Assmy
CHL-084	R4	80,00	22,00	154	Niskin	Chlorophyll a	Assmy
PAB-081	R4	80,00	22,00	154	Niskin	Particle absorption	Assmy
PAB-082	R4	80,00	22,00	154	Niskin	Particle absorption	Assmy
PAB-083	R4	80,00	22,00	154	Niskin	Particle absorption	Assmy
PAB-084	R4	80,00	22,00	154	Niskin	Particle absorption	Assmy
PAB-085	R4	80,00	22,00	154	Niskin	Particle absorption	Assmy
PAB-086	R4	80,00	22,00	154	Niskin	Particle absorption	Assmy
POC-081	R4	80,00	22,00	154	Niskin	POC/PON	Assmy
POC-082	R4	80,00	22,00	154	Niskin	POC/PON	Assmy
POC-083	R4	80,00	22,00	154	Niskin	POC/PON	Assmy
POC-084	R4	80,00	22,00	154	Niskin	POC/PON	Assmy
POC-085	R4	80,00	22,00	154	Niskin	POC/PON	Assmy
POC-086	R4	80,00	22,00	154	Niskin	POC/PON	Assmy

PHT-079	R4	80,00	22,00	154	Niskin	Phytoplankton taxonomy	Assmy
PHT-080	R4	80,00	22,00	154	Niskin	Phytoplankton taxonomy	Assmy
PHT-081	R4	80,00	22,00	154	Niskin	Phytoplankton taxonomy	Assmy
Sample name	**Station**	**Latitude (deg)**	**Longitude (degr**	**Bottom depth (m)**	**Gear**	**Sample type**	**Contact person**
PHT-082	R4	80,00	22,00	154	Niskin	Phytoplankton taxonomy	Assmy
PHT-083	R4	80,00	22,00	154	Niskin	Phytoplankton taxonomy	Assmy
PHT-084	R4	80,00	22,00	154	Niskin	Phytoplankton taxonomy	Assmy
MAA-043	R4	80,00	22,00	154	Niskin	Mycosporin-like aminoacids	Assmy
MAA-044	R4	80,00	22,00	154	Niskin	Mycosporin-like aminoacids	Assmy
MAA-045	R4	80,00	22,00	154	Niskin	Mycosporin-like aminoacids	Assmy
CTD-033	R4	80,00	22,00	145	CTD	CTD	Pavlova
MIT-042	R4	80,00	22,00	145	Niskin	Microplankton taxonomy	Assmy
MIT-043	R4	80,00	22,00	145	Niskin	Microplankton taxonomy	Assmy
MIT-044	R4	80,00	22,00	145	Niskin	Microplankton taxonomy	Assmy
HAN-015	R4	80,00	22,00	145	Handnet 20µm	Rare species	Assmy
CTD-034	R4	80,00	22,00	154	CTD	CTD	Magalhaes
ZOT-061	R4	80,00	22,00	145	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-062	R4	80,00	22,00	145	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-063	R4	80,00	22,00	145	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-064	R4	80,00	22,00	145	Multinet 200µm	Mesozooplankton taxonomy	Wold
MIK-014	R4	80,00	22,00	145	MIK-net	Macrozooplankton taxonomy	Wold
CTD-035	R5	80,00	22,00	130	CTD	CTD	Pavlova
MET-075	R5	80,00	22,00	130	Niskin	Methane	Fransson
MET-076	R5	80,00	22,00	130	Niskin	Methane	Fransson
MET-077	R5	80,00	22,00	130	Niskin	Methane	Fransson
MET-078	R5	80,00	22,00	130	Niskin	Methane	Fransson
MET-079	R5	80,00	22,00	130	Niskin	Methane	Fransson
MET-080	R5	80,00	22,00	130	Niskin	Methane	Fransson
DIC-075	R5	80,00	22,00	130	Niskin	DIC/AT	Fransson
DIC-076	R5	80,00	22,00	130	Niskin	DIC/AT	Fransson
DIC-077	R5	80,00	22,00	130	Niskin	DIC/AT	Fransson
DIC-078	R5	80,00	22,00	130	Niskin	DIC/AT	Fransson
DIC-079	R5	80,00	22,00	130	Niskin	DIC/AT	Fransson
DIC-080	R5	80,00	22,00	130	Niskin	DIC/AT	Fransson
AMM-109	R5	80,00	22,00	130	Niskin	Ammonium	Duarte
AMM-110	R5	80,00	22,00	130	Niskin	Ammonium	Duarte
AMM-111	R5	80,00	22,00	130	Niskin	Ammonium	Duarte
AMM-112	R5	80,00	22,00	130	Niskin	Ammonium	Duarte
AMM-113	R5	80,00	22,00	130	Niskin	Ammonium	Duarte
AMM-114	R5	80,00	22,00	130	Niskin	Ammonium	Duarte
CDO-110	R5	80,00	22,00	130	Niskin	CDOM	Granskog
CDO-111	R5	80,00	22,00	130	Niskin	CDOM	Granskog
CDO-112	R5	80,00	22,00	130	Niskin	CDOM	Granskog
CDO-113	R5	80,00	22,00	130	Niskin	CDOM	Granskog
CDO-114	R5	80,00	22,00	130	Niskin	CDOM	Granskog
CDO-115	R5	80,00	22,00	130	Niskin	CDOM	Granskog

OXY-110	R5	80,00	22,00	130	Niskin	δ18 Oxygen	Granskog
OXY-111	R5	80,00	22,00	130	Niskin	δ18 Oxygen	Granskog
OXY-112	R5	80,00	22,00	130	Niskin	δ18 Oxygen	Granskog
OXY-113	R5	80,00	22,00	130	Niskin	δ18 Oxygen	Granskog
OXY-114	R5	80,00	22,00	130	Niskin	δ18 Oxygen	Granskog
Sample name	**Station**	**Latitude (deg)**	**Longitude (degr**	**Bottom depth (m)**	**Gear**	**Sample type**	**Contact person**
OXY-115	R5	80,00	22,00	130	Niskin	δ18 Oxygen	Granskog
NUT-110	R5	80,00	22,00	130	Niskin	δ18 Oxygen	Granskog
NUT-111	R5	80,00	22,00	130	Niskin	Nutrients	Assmy
NUT-112	R5	80,00	22,00	130	Niskin	Nutrients	Assmy
NUT-113	R5	80,00	22,00	130	Niskin	Nutrients	Assmy
NUT-114	R5	80,00	22,00	130	Niskin	Nutrients	Assmy
NUT-115	R5	80,00	22,00	130	Niskin	Nutrients	Assmy
CHL-085	R5	80,00	22,00	130	Niskin	Chlorophyll a	Assmy
CHL-086	R5	80,00	22,00	130	Niskin	Chlorophyll a	Assmy
CHL-087	R5	80,00	22,00	130	Niskin	Chlorophyll a	Assmy
CHL-088	R5	80,00	22,00	130	Niskin	Chlorophyll a	Assmy
CHL-089	R5	80,00	22,00	130	Niskin	Chlorophyll a	Assmy
PAB-087	R5	80,00	22,00	130	Niskin	Particle absorption	Assmy
PAB-088	R5	80,00	22,00	130	Niskin	Particle absorption	Assmy
PAB-089	R5	80,00	22,00	130	Niskin	Particle absorption	Assmy
PAB-090	R5	80,00	22,00	130	Niskin	Particle absorption	Assmy
PAB-091	R5	80,00	22,00	130	Niskin	Particle absorption	Assmy
POC-087	R5	80,00	22,00	130	Niskin	POC/PON	Assmy
POC-088	R5	80,00	22,00	130	Niskin	POC/PON	Assmy
POC-089	R5	80,00	22,00	130	Niskin	POC/PON	Assmy
POC-090	R5	80,00	22,00	130	Niskin	POC/PON	Assmy
POC-091	R5	80,00	22,00	130	Niskin	POC/PON	Assmy
POC-092	R5	80,00	22,00	130	Niskin	POC/PON	Assmy
PHT-085	R5	80,00	22,00	130	Niskin	Phytoplankton taxonomy	Assmy
PHT-086	R5	80,00	22,00	130	Niskin	Phytoplankton taxonomy	Assmy
PHT-087	R5	80,00	22,00	130	Niskin	Phytoplankton taxonomy	Assmy
PHT-088	R5	80,00	22,00	130	Niskin	Phytoplankton taxonomy	Assmy
PHT-089	R5	80,00	22,00	130	Niskin	Phytoplankton taxonomy	Assmy
MAA-045	R5	80,00	22,00	130	Niskin	Mycosporin-like aminoacids	Assmy
MAA-046	R5	80,00	22,00	130	Niskin	Mycosporin-like aminoacids	Assmy
MAA-047	R5	80,00	22,00	130	Niskin	Mycosporin-like aminoacids	Assmy
CTD-036	R5	80,00	22,00	125	CTD	CTD	Pavlova
MIT-045	R5	80,00	22,00	125	Niskin	Microplankton taxonomy	Assmy
MIT-046	R5	80,00	22,00	125	Niskin	Microplankton taxonomy	Assmy
MIT-047	R5	80,00	22,00	125	Niskin	Microplankton taxonomy	Assmy
HAN-016	R5	80,00	22,00	125	Handnet 20µm	Rare species	Assmy
ZOT-061	R5	80,00	22,00	125	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-062	R5	80,00	22,00	125	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-063	R5	80,00	22,00	125	Multinet 200µm	Mesozooplankton taxonomy	Wold
MIK-015	R5	80,00	22,00	125	MIK-net	Macrozooplankton taxonomy	Wold

CTD-037	R6	81,00	22,00	221	CTD	CTD	Pavlova
MET-081	R6	81,00	22,00	221	Niskin	Methane	Fransson
MET-082	R6	81,00	22,00	221	Niskin	Methane	Fransson
MET-083	R6	81,00	22,00	221	Niskin	Methane	Fransson
MET-084	R6	81,00	22,00	221	Niskin	Methane	Fransson
MET-085	R6	81,00	22,00	221	Niskin	Methane	Fransson
MET-086	R6	81,00	22,00	221	Niskin	Methane	Fransson
Sample name	**Station**	**Latitude (deg)**	**Longitude (degr**	**Bottom depth (m)**	**Gear**	**Sample type**	**Contact person**
MET-087	R6	81,00	22,00	221	Niskin	Methane	Fransson
AMM-115	R6	81,00	22,00	221	Niskin	Ammonium	Duarte
AMM-116	R6	81,00	22,00	221	Niskin	Ammonium	Duarte
AMM-117	R6	81,00	22,00	221	Niskin	Ammonium	Duarte
AMM-118	R6	81,00	22,00	221	Niskin	Ammonium	Duarte
AMM-119	R6	81,00	22,00	221	Niskin	Ammonium	Duarte
AMM-120	R6	81,00	22,00	221	Niskin	Ammonium	Duarte
AMM-121	R6	81,00	22,00	221	Niskin	Ammonium	Duarte
DIC-081	R6	81,00	22,00	221	Niskin	DIC/AT	Fransson
DIC-082	R6	81,00	22,00	221	Niskin	DIC/AT	Fransson
DIC-083	R6	81,00	22,00	221	Niskin	DIC/AT	Fransson
DIC-084	R6	81,00	22,00	221	Niskin	DIC/AT	Fransson
DIC-085	R6	81,00	22,00	221	Niskin	DIC/AT	Fransson
DIC-086	R6	81,00	22,00	221	Niskin	DIC/AT	Fransson
DIC-087	R6	81,00	22,00	221	Niskin	DIC/AT	Fransson
CDO-116	R6	81,00	22,00	221	Niskin	CDOM	Granskog
CDO-117	R6	81,00	22,00	221	Niskin	CDOM	Granskog
CDO-118	R6	81,00	22,00	221	Niskin	CDOM	Granskog
CDO-119	R6	81,00	22,00	221	Niskin	CDOM	Granskog
CDO-120	R6	81,00	22,00	221	Niskin	CDOM	Granskog
CDO-121	R6	81,00	22,00	221	Niskin	CDOM	Granskog
CDO-122	R6	81,00	22,00	221	Niskin	CDOM	Granskog
OXY-116	R6	81,00	22,00	221	Niskin	δ18 Oxygen	Granskog
OXY-117	R6	81,00	22,00	221	Niskin	δ18 Oxygen	Granskog
OXY-118	R6	81,00	22,00	221	Niskin	δ18 Oxygen	Granskog
OXY-119	R6	81,00	22,00	221	Niskin	δ18 Oxygen	Granskog
OXY-120	R6	81,00	22,00	221	Niskin	δ18 Oxygen	Granskog
OXY-121	R6	81,00	22,00	221	Niskin	δ18 Oxygen	Granskog
OXY-122	R6	81,00	22,00	221	Niskin	δ18 Oxygen	Granskog
NUT-116	R6	81,00	22,00	221	Niskin	Nutrients	Assmy
NUT-117	R6	81,00	22,00	221	Niskin	Nutrients	Assmy
NUT-118	R6	81,00	22,00	221	Niskin	Nutrients	Assmy
NUT-119	R6	81,00	22,00	221	Niskin	Nutrients	Assmy
NUT-120	R6	81,00	22,00	221	Niskin	Nutrients	Assmy
NUT-121	R6	81,00	22,00	221	Niskin	Nutrients	Assmy
NUT-122	R6	81,00	22,00	221	Niskin	Nutrients	Assmy
CHL-090	R6	81,00	22,00	221	Niskin	Chlorophyll a	Assmy
CHL-091	R6	81,00	22,00	221	Niskin	Chlorophyll a	Assmy
CHL-092	R6	81,00	22,00	221	Niskin	Chlorophyll a	Assmy

CHL-093	R6	81,00	22,00	221	Niskin	Chlorophyll a	Assmy
CHL-094	R6	81,00	22,00	221	Niskin	Chlorophyll a	Assmy
CHL-095	R6	81,00	22,00	221	Niskin	Chlorophyll a	Assmy
PAB-093	R6	81,00	22,00	221	Niskin	Particle absorption	Assmy
PAB-094	R6	81,00	22,00	221	Niskin	Particle absorption	Assmy
PAB-095	R6	81,00	22,00	221	Niskin	Particle absorption	Assmy
PAB-096	R6	81,00	22,00	221	Niskin	Particle absorption	Assmy
PAB-097	R6	81,00	22,00	221	Niskin	Particle absorption	Assmy
PAB-098	R6	81,00	22,00	221	Niskin	Particle absorption	Assmy
Sample name	**Station**	**Latitude (deg)**	**Longitude (degr**	**Bottom depth (m)**	**Gear**	**Sample type**	**Contact person**
POC-093	R6	81,00	22,00	221	Niskin	POC/PON	Assmy
POC-094	R6	81,00	22,00	221	Niskin	POC/PON	Assmy
POC-095	R6	81,00	22,00	221	Niskin	POC/PON	Assmy
POC-096	R6	81,00	22,00	221	Niskin	POC/PON	Assmy
POC-097	R6	81,00	22,00	221	Niskin	POC/PON	Assmy
POC-098	R6	81,00	22,00	221	Niskin	POC/PON	Assmy
PHT-090	R6	81,00	22,00	221	Niskin	Phytoplankton taxonomy	Assmy
PHT-091	R6	81,00	22,00	221	Niskin	Phytoplankton taxonomy	Assmy
PHT-092	R6	81,00	22,00	221	Niskin	Phytoplankton taxonomy	Assmy
PHT-093	R6	81,00	22,00	221	Niskin	Phytoplankton taxonomy	Assmy
PHT-094	R6	81,00	22,00	221	Niskin	Phytoplankton taxonomy	Assmy
PHT-095	R6	81,00	22,00	221	Niskin	Phytoplankton taxonomy	Assmy
MAA-049	R6	81,00	22,00	221	Niskin	Mycosporin-like aminoacids	Assmy
MAA-050	R6	81,00	22,00	221	Niskin	Mycosporin-like aminoacids	Assmy
MAA-051	R6	81,00	22,00	221	Niskin	Mycosporin-like aminoacids	Assmy
CTD-038	R6	81,00	22,00	205	CTD	CTD	Pavlova
MIT-048	R6	81,00	22,00	205	Niskin	Microplankton taxonomy	Assmy
MIT-049	R6	81,00	22,00	205	Niskin	Microplankton taxonomy	Assmy
MIT-050	R6	81,00	22,00	205	Niskin	Microplankton taxonomy	Assmy
HAN-017	R6	81,00	22,00	205	Handnet 20µm	Rare species	Assmy
ZOT-068	R6	81,00	22,00	215	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-069	R6	81,00	22,00	215	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-070	R6	81,00	22,00	215	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-071	R6	81,00	22,00	215	Multinet 200µm	Mesozooplankton taxonomy	Wold
MIK-016	R6	81,00	22,00	215	MIK-net	Macrozooplankton taxonomy	Wold
CTD-039	R7	81,00	21,00	1029	CTD	CTD	Pavlova
MET-088	R7	81,00	21,00	1029	Niskin	Methane	Fransson
MET-089	R7	81,00	21,00	1029	Niskin	Methane	Fransson
MET-090	R7	81,00	21,00	1029	Niskin	Methane	Fransson
MET-091	R7	81,00	21,00	1029	Niskin	Methane	Fransson
MET-092	R7	81,00	21,00	1029	Niskin	Methane	Fransson
MET-093	R7	81,00	21,00	1029	Niskin	Methane	Fransson
MET-094	R7	81,00	21,00	1029	Niskin	Methane	Fransson
MET-095	R7	81,00	21,00	1029	Niskin	Methane	Fransson
MET-096	R7	81,00	21,00	1029	Niskin	Methane	Fransson
DIC-088	R7	81,00	21,00	1029	Niskin	DIC/AT	Fransson

DIC-089	R7	81,00	21,00	1029	Niskin	DIC/AT	Fransson
DIC-090	R7	81,00	21,00	1029	Niskin	DIC/AT	Fransson
DIC-091	R7	81,00	21,00	1029	Niskin	DIC/AT	Fransson
DIC-092	R7	81,00	21,00	1029	Niskin	DIC/AT	Fransson
DIC-093	R7	81,00	21,00	1029	Niskin	DIC/AT	Fransson
DIC-094	R7	81,00	21,00	1029	Niskin	DIC/AT	Fransson
DIC-095	R7	81,00	21,00	1029	Niskin	DIC/AT	Fransson
DIC-096	R7	81,00	21,00	1029	Niskin	DIC/AT	Fransson
AMM-122	R7	81,00	21,00	1029	Niskin	Ammonium	Duarte
AMM-123	R7	81,00	21,00	1029	Niskin	Ammonium	Duarte
AMM-124	R7	81,00	21,00	1029	Niskin	Ammonium	Duarte
Sample name	**Station**	**Latitude (deg)**	**Longitude (degr**	**Bottom depth (m)**	**Gear**	**Sample type**	**Contact person**
AMM-125	R7	81,00	21,00	1029	Niskin	Ammonium	Duarte
AMM-126	R7	81,00	21,00	1029	Niskin	Ammonium	Duarte
AMM-127	R7	81,00	21,00	1029	Niskin	Ammonium	Duarte
AMM-128	R7	81,00	21,00	1029	Niskin	Ammonium	Duarte
AMM-129	R7	81,00	21,00	1029	Niskin	Ammonium	Duarte
AMM-130	R7	81,00	21,00	1029	Niskin	Ammonium	Duarte
CDO-123	R7	81,00	21,00	1029	Niskin	CDOM	Granskog
CDO-124	R7	81,00	21,00	1029	Niskin	CDOM	Granskog
CDO-125	R7	81,00	21,00	1029	Niskin	CDOM	Granskog
CDO-126	R7	81,00	21,00	1029	Niskin	CDOM	Granskog
CDO-127	R7	81,00	21,00	1029	Niskin	CDOM	Granskog
CDO-128	R7	81,00	21,00	1029	Niskin	CDOM	Granskog
CDO-129	R7	81,00	21,00	1029	Niskin	CDOM	Granskog
CDO-130	R7	81,00	21,00	1029	Niskin	CDOM	Granskog
CDO-131	R7	81,00	21,00	1029	Niskin	CDOM	Granskog
OXY-123	R7	81,00	21,00	1029	Niskin	δ18 Oxygen	Granskog
OXY-124	R7	81,00	21,00	1029	Niskin	δ18 Oxygen	Granskog
OXY-125	R7	81,00	21,00	1029	Niskin	δ18 Oxygen	Granskog
OXY-126	R7	81,00	21,00	1029	Niskin	δ18 Oxygen	Granskog
OXY-127	R7	81,00	21,00	1029	Niskin	δ18 Oxygen	Granskog
OXY-128	R7	81,00	21,00	1029	Niskin	δ18 Oxygen	Granskog
OXY-129	R7	81,00	21,00	1029	Niskin	δ18 Oxygen	Granskog
OXY-130	R7	81,00	21,00	1029	Niskin	δ18 Oxygen	Granskog
OXY-131	R7	81,00	21,00	1029	Niskin	δ18 Oxygen	Granskog
NUT-123	R7	81,00	21,00	1029	Niskin	Nutrients	Assmy
NUT-124	R7	81,00	21,00	1029	Niskin	Nutrients	Assmy
NUT-125	R7	81,00	21,00	1029	Niskin	Nutrients	Assmy
NUT-126	R7	81,00	21,00	1029	Niskin	Nutrients	Assmy
NUT-127	R7	81,00	21,00	1029	Niskin	Nutrients	Assmy
NUT-128	R7	81,00	21,00	1029	Niskin	Nutrients	Assmy
NUT-129	R7	81,00	21,00	1029	Niskin	Nutrients	Assmy
NUT-130	R7	81,00	21,00	1029	Niskin	Nutrients	Assmy
NUT-131	R7	81,00	21,00	1029	Niskin	Nutrients	Assmy
CHL-096	R7	81,00	21,00	1029	Niskin	Chlorophyll a	Assmy
CHL-097	R7	81,00	21,00	1029	Niskin	Chlorophyll a	Assmy

CHL-098	R7	81,00	21,00	1029	Niskin	Chlorophyll a	Assmy
CHL-099	R7	81,00	21,00	1029	Niskin	Chlorophyll a	Assmy
CHL-100	R7	81,00	21,00	1029	Niskin	Chlorophyll a	Assmy
PAB-099	R7	81,00	21,00	1029	Niskin	Particle absorption	Assmy
PAB-100	R7	81,00	21,00	1029	Niskin	Particle absorption	Assmy
PAB-101	R7	81,00	21,00	1029	Niskin	Particle absorption	Assmy
PAB-102	R7	81,00	21,00	1029	Niskin	Particle absorption	Assmy
PAB-103	R7	81,00	21,00	1029	Niskin	Particle absorption	Assmy
POC-099	R7	81,00	21,00	1029	Niskin	POC/PON	Assmy
POC-100	R7	81,00	21,00	1029	Niskin	POC/PON	Assmy
POC-101	R7	81,00	21,00	1029	Niskin	POC/PON	Assmy
POC-102	R7	81,00	21,00	1029	Niskin	POC/PON	Assmy
POC-103	R7	81,00	21,00	1029	Niskin	POC/PON	Assmy
Sample name	**Station**	**Latitude (deg)**	**Longitude (degr**	**Bottom depth (m)**	**Gear**	**Sample type**	**Contact person**
PHT-096	R7	81,00	21,00	1029	Niskin	Phytoplankton taxonomy	Assmy
PHT-097	R7	81,00	21,00	1029	Niskin	Phytoplankton taxonomy	Assmy
PHT-098	R7	81,00	21,00	1029	Niskin	Phytoplankton taxonomy	Assmy
PHT-099	R7	81,00	21,00	1029	Niskin	Phytoplankton taxonomy	Assmy
PHT-100	R7	81,00	21,00	1029	Niskin	Phytoplankton taxonomy	Assmy
MAA-052	R7	81,00	21,00	1029	Niskin	Mycosporin-like aminoacids	Assmy
MAA-053	R7	81,00	21,00	1029	Niskin	Mycosporin-like aminoacids	Assmy
MAA-054	R7	81,00	21,00	1029	Niskin	Mycosporin-like aminoacids	Assmy
CTD-040	R7	81,00	21,00	1046	CTD	CTD	Pavlova
MIT-051	R7	81,00	21,00	1046	Niskin	Microplankton taxonomy	Assmy
MIT-052	R7	81,00	21,00	1046	Niskin	Microplankton taxonomy	Assmy
MIT-053	R7	81,00	21,00	1046	Niskin	Microplankton taxonomy	Assmy
CTD-041	R7	81,00	21,00	1035	CTD	CTD	Magalhaes
ZOT-072	R7	81,00	21,00	1026	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-073	R7	81,00	21,00	1026	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-074	R7	81,00	21,00	1026	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-075	R7	81,00	21,00	1026	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-076	R7	81,00	21,00	1026	Multinet 200µm	Mesozooplankton taxonomy	Wold
MIK-017	R7	81,00	21,00	1026	MIK-net	Macrozooplankton taxonomy	Wold
CTD-042	R8	81,00	21,00	1617	CTD	CTD	Pavlova
MET-097	R8	81,00	21,00	1617	Niskin	Methane	Fransson
MET-098	R8	81,00	21,00	1617	Niskin	Methane	Fransson
MET-099	R8	81,00	21,00	1617	Niskin	Methane	Fransson
MET-100	R8	81,00	21,00	1617	Niskin	Methane	Fransson
MET-101	R8	81,00	21,00	1617	Niskin	Methane	Fransson
MET-102	R8	81,00	21,00	1617	Niskin	Methane	Fransson
MET-103	R8	81,00	21,00	1617	Niskin	Methane	Fransson
MET-104	R8	81,00	21,00	1617	Niskin	Methane	Fransson
MET-105	R8	81,00	21,00	1617	Niskin	Methane	Fransson
MET-106	R8	81,00	21,00	1617	Niskin	Methane	Fransson
DIC-097	R8	81,00	21,00	1617	Niskin	DIC/AT	Fransson
DIC-098	R8	81,00	21,00	1617	Niskin	DIC/AT	Fransson

DIC-099	R8	81,00	21,00	1617	Niskin	DIC/AT	Fransson
DIC-100	R8	81,00	21,00	1617	Niskin	DIC/AT	Fransson
DIC-101	R8	81,00	21,00	1617	Niskin	DIC/AT	Fransson
DIC-102	R8	81,00	21,00	1617	Niskin	DIC/AT	Fransson
DIC-103	R8	81,00	21,00	1617	Niskin	DIC/AT	Fransson
DIC-104	R8	81,00	21,00	1617	Niskin	DIC/AT	Fransson
DIC-105	R8	81,00	21,00	1617	Niskin	DIC/AT	Fransson
DIC-106	R8	81,00	21,00	1617	Niskin	DIC/AT	Fransson
AMM-131	R8	81,00	21,00	1617	Niskin	Ammonium	Duarte
AMM-132	R8	81,00	21,00	1617	Niskin	Ammonium	Duarte
AMM-133	R8	81,00	21,00	1617	Niskin	Ammonium	Duarte
AMM-134	R8	81,00	21,00	1617	Niskin	Ammonium	Duarte
AMM-135	R8	81,00	21,00	1617	Niskin	Ammonium	Duarte
AMM-136	R8	81,00	21,00	1617	Niskin	Ammonium	Duarte
AMM-137	R8	81,00	21,00	1617	Niskin	Ammonium	Duarte
Sample name	**Station**	**Latitude (deg)**	**Longitude (degr**	**Bottom depth (m)**	**Gear**	**Sample type**	**Contact person**
AMM-138	R8	81,00	21,00	1617	Niskin	Ammonium	Duarte
AMM-139	R8	81,00	21,00	1617	Niskin	Ammonium	Duarte
AMM-140	R8	81,00	21,00	1617	Niskin	Ammonium	Duarte
AMM-141	R8	81,00	21,00	1617	Niskin	Ammonium	Duarte
CDO-132	R8	81,00	21,00	1617	Niskin	CDOM	Granskog
CDO-133	R8	81,00	21,00	1617	Niskin	CDOM	Granskog
CDO-134	R8	81,00	21,00	1617	Niskin	CDOM	Granskog
CDO-135	R8	81,00	21,00	1617	Niskin	CDOM	Granskog
CDO-136	R8	81,00	21,00	1617	Niskin	CDOM	Granskog
CDO-137	R8	81,00	21,00	1617	Niskin	CDOM	Granskog
CDO-138	R8	81,00	21,00	1617	Niskin	CDOM	Granskog
CDO-139	R8	81,00	21,00	1617	Niskin	CDOM	Granskog
CDO-140	R8	81,00	21,00	1617	Niskin	CDOM	Granskog
CDO-141	R8	81,00	21,00	1617	Niskin	CDOM	Granskog
OXY-132	R8	81,00	21,00	1617	Niskin	δ18 Oxygen	Granskog
OXY-133	R8	81,00	21,00	1617	Niskin	δ18 Oxygen	Granskog
OXY-134	R8	81,00	21,00	1617	Niskin	δ18 Oxygen	Granskog
OXY-135	R8	81,00	21,00	1617	Niskin	δ18 Oxygen	Granskog
OXY-136	R8	81,00	21,00	1617	Niskin	δ18 Oxygen	Granskog
OXY-137	R8	81,00	21,00	1617	Niskin	δ18 Oxygen	Granskog
OXY-138	R8	81,00	21,00	1617	Niskin	δ18 Oxygen	Granskog
OXY-139	R8	81,00	21,00	1617	Niskin	δ18 Oxygen	Granskog
OXY-140	R8	81,00	21,00	1617	Niskin	δ18 Oxygen	Granskog
OXY-141	R8	81,00	21,00	1617	Niskin	δ18 Oxygen	Granskog
NUT-132	R8	81,00	21,00	1617	Niskin	Nutrients	Assmy
NUT-133	R8	81,00	21,00	1617	Niskin	Nutrients	Assmy
NUT-134	R8	81,00	21,00	1617	Niskin	Nutrients	Assmy
NUT-135	R8	81,00	21,00	1617	Niskin	Nutrients	Assmy
NUT-136	R8	81,00	21,00	1617	Niskin	Nutrients	Assmy
NUT-137	R8	81,00	21,00	1617	Niskin	Nutrients	Assmy
NUT-138	R8	81,00	21,00	1617	Niskin	Nutrients	Assmy

NUT-139	R8	81,00	21,00	1617	Niskin	Nutrients	Assmy
NUT-140	R8	81,00	21,00	1617	Niskin	Nutrients	Assmy
NUT-141	R8	81,00	21,00	1617	Niskin	Nutrients	Assmy
NUT-142	R8	81,00	21,00	1617	Niskin	Nutrients	Assmy
CHL-101	R8	81,00	21,00	1617	Niskin	Chlorophyll a	Assmy
CHL-102	R8	81,00	21,00	1617	Niskin	Chlorophyll a	Assmy
CHL-103	R8	81,00	21,00	1617	Niskin	Chlorophyll a	Assmy
CHL-104	R8	81,00	21,00	1617	Niskin	Chlorophyll a	Assmy
CHL-105	R8	81,00	21,00	1617	Niskin	Chlorophyll a	Assmy
CHL-106	R8	81,00	21,00	1617	Niskin	Chlorophyll a	Assmy
PAB-104	R8	81,00	21,00	1617	Niskin	Particle absorption	Assmy
PAB-105	R8	81,00	21,00	1617	Niskin	Particle absorption	Assmy
PAB-106	R8	81,00	21,00	1617	Niskin	Particle absorption	Assmy
PAB-107	R8	81,00	21,00	1617	Niskin	Particle absorption	Assmy
PAB-108	R8	81,00	21,00	1617	Niskin	Particle absorption	Assmy
PAB-109	R8	81,00	21,00	1617	Niskin	Particle absorption	Assmy
POC-104	R8	81,00	21,00	1617	Niskin	POC/PON	Assmy
Sample name	**Station**	**Latitude (deg)**	**Longitude (degr**	**Bottom depth (m)**	**Gear**	**Sample type**	**Contact person**
POC-105	R8	81,00	21,00	1617	Niskin	POC/PON	Assmy
POC-106	R8	81,00	21,00	1617	Niskin	POC/PON	Assmy
POC-107	R8	81,00	21,00	1617	Niskin	POC/PON	Assmy
POC-108	R8	81,00	21,00	1617	Niskin	POC/PON	Assmy
POC-109	R8	81,00	21,00	1617	Niskin	POC/PON	Assmy
PHT-101	R8	81,00	21,00	1617	Niskin	Phytoplankton taxonomy	Assmy
PHT-102	R8	81,00	21,00	1617	Niskin	Phytoplankton taxonomy	Assmy
PHT-103	R8	81,00	21,00	1617	Niskin	Phytoplankton taxonomy	Assmy
PHT-104	R8	81,00	21,00	1617	Niskin	Phytoplankton taxonomy	Assmy
PHT-105	R8	81,00	21,00	1617	Niskin	Phytoplankton taxonomy	Assmy
PHT-106	R8	81,00	21,00	1617	Niskin	Phytoplankton taxonomy	Assmy
MAA-055	R8	81,00	21,00	1617	Niskin	Mycosporin-like aminoacids	Assmy
MAA-056	R8	81,00	21,00	1617	Niskin	Mycosporin-like aminoacids	Assmy
MAA-057	R8	81,00	21,00	1617	Niskin	Mycosporin-like aminoacids	Assmy
CTD-043	R8	81,00	21,00	1528	CTD	CTD	Pavlova
MIT-054	R8	81,00	21,00	1528	Niskin	Microplankton taxonomy	Assmy
MIT-055	R8	81,00	21,00	1528	Niskin	Microplankton taxonomy	Assmy
MIT-056	R8	81,00	21,00	1528	Niskin	Microplankton taxonomy	Assmy
HAN-019	R8	81,00	21,00	1528	Handnet 20µm	Rare species	Assmy
ZOT-077	R8	81,00	22,00	1434	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-078	R8	81,00	22,00	1434	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-079	R8	81,00	22,00	1434	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-080	R8	81,00	22,00	1434	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-081	R8	81,00	22,00	1434	Multinet 200µm	Mesozooplankton taxonomy	Wold
MIK-018	R8	81,00	22,00	1434	MIK-net	Macrozooplankton taxonomy	Wold
CTD-044	R9	81,00	21,00	2777	CTD	CTD	Pavlova
MET-107	R9	81,00	21,00	2777	Niskin	Methane	Fransson
MET-108	R9	81,00	21,00	2777	Niskin	Methane	Fransson

MET-109	R9	81,00	21,00	2777	Niskin	Methane	Fransson
MET-110	R9	81,00	21,00	2777	Niskin	Methane	Fransson
MET-111	R9	81,00	21,00	2777	Niskin	Methane	Fransson
MET-112	R9	81,00	21,00	2777	Niskin	Methane	Fransson
MET-113	R9	81,00	21,00	2777	Niskin	Methane	Fransson
MET-114	R9	81,00	21,00	2777	Niskin	Methane	Fransson
MET-115	R9	81,00	21,00	2777	Niskin	Methane	Fransson
MET-116	R9	81,00	21,00	2777	Niskin	Methane	Fransson
MET-117	R9	81,00	21,00	2777	Niskin	Methane	Fransson
DIC-107	R9	81,00	21,00	2777	Niskin	DIC/AT	Fransson
DIC-108	R9	81,00	21,00	2777	Niskin	DIC/AT	Fransson
DIC-109	R9	81,00	21,00	2777	Niskin	DIC/AT	Fransson
DIC-110	R9	81,00	21,00	2777	Niskin	DIC/AT	Fransson
DIC-111	R9	81,00	21,00	2777	Niskin	DIC/AT	Fransson
DIC-112	R9	81,00	21,00	2777	Niskin	DIC/AT	Fransson
DIC-113	R9	81,00	21,00	2777	Niskin	DIC/AT	Fransson
DIC-117	R9	81,00	21,00	2777	Niskin	DIC/AT	Fransson
DIC-115	R9	81,00	21,00	2777	Niskin	DIC/AT	Fransson
DIC-116	R9	81,00	21,00	2777	Niskin	DIC/AT	Fransson
Sample name	**Station**	**Latitude (deg)**	**Longitude (degr**	**Bottom depth (m)**	**Gear**	**Sample type**	**Contact person**
DIC-114	R9	81,00	21,00	2777	Niskin	DIC/AT	Fransson
AMM-142	R9	81,00	21,00	2777	Niskin	Ammonium	Duarte
AMM-143	R9	81,00	21,00	2777	Niskin	Ammonium	Duarte
AMM-144	R9	81,00	21,00	2777	Niskin	Ammonium	Duarte
AMM-145	R9	81,00	21,00	2777	Niskin	Ammonium	Duarte
AMM-146	R9	81,00	21,00	2777	Niskin	Ammonium	Duarte
AMM-147	R9	81,00	21,00	2777	Niskin	Ammonium	Duarte
AMM-148	R9	81,00	21,00	2777	Niskin	Ammonium	Duarte
AMM-149	R9	81,00	21,00	2777	Niskin	Ammonium	Duarte
AMM-150	R9	81,00	21,00	2777	Niskin	Ammonium	Duarte
AMM-151	R9	81,00	21,00	2777	Niskin	Ammonium	Duarte
AMM-152	R9	81,00	21,00	2777	Niskin	Ammonium	Duarte
CDO-142	R9	81,00	21,00	2777	Niskin	CDOM	Granskog
CDO-143	R9	81,00	21,00	2777	Niskin	CDOM	Granskog
CDO-144	R9	81,00	21,00	2777	Niskin	CDOM	Granskog
CDO-145	R9	81,00	21,00	2777	Niskin	CDOM	Granskog
CDO-146	R9	81,00	21,00	2777	Niskin	CDOM	Granskog
CDO-147	R9	81,00	21,00	2777	Niskin	CDOM	Granskog
CDO-148	R9	81,00	21,00	2777	Niskin	CDOM	Granskog
CDO-149	R9	81,00	21,00	2777	Niskin	CDOM	Granskog
CDO-150	R9	81,00	21,00	2777	Niskin	CDOM	Granskog
CDO-151	R9	81,00	21,00	2777	Niskin	CDOM	Granskog
CDO-152	R9	81,00	21,00	2777	Niskin	CDOM	Granskog
OXY-142	R9	81,00	21,00	2777	Niskin	δ18 Oxygen	Granskog
OXY-143	R9	81,00	21,00	2777	Niskin	δ18 Oxygen	Granskog
OXY-144	R9	81,00	21,00	2777	Niskin	δ18 Oxygen	Granskog
OXY-145	R9	81,00	21,00	2777	Niskin	δ18 Oxygen	Granskog

OXY-146	R9	81,00	21,00	2777	Niskin	δ18 Oxygen	Granskog
OXY-147	R9	81,00	21,00	2777	Niskin	δ18 Oxygen	Granskog
OXY-148	R9	81,00	21,00	2777	Niskin	δ18 Oxygen	Granskog
OXY-149	R9	81,00	21,00	2777	Niskin	δ18 Oxygen	Granskog
OXY-150	R9	81,00	21,00	2777	Niskin	δ18 Oxygen	Granskog
OXY-151	R9	81,00	21,00	2777	Niskin	δ18 Oxygen	Granskog
OXY-152	R9	81,00	21,00	2777	Niskin	δ18 Oxygen	Granskog
NUT-143	R9	81,00	21,00	2777	Niskin	Nutrients	Assmy
NUT-144	R9	81,00	21,00	2777	Niskin	Nutrients	Assmy
NUT-145	R9	81,00	21,00	2777	Niskin	Nutrients	Assmy
NUT-146	R9	81,00	21,00	2777	Niskin	Nutrients	Assmy
NUT-147	R9	81,00	21,00	2777	Niskin	Nutrients	Assmy
NUT-148	R9	81,00	21,00	2777	Niskin	Nutrients	Assmy
NUT-149	R9	81,00	21,00	2777	Niskin	Nutrients	Assmy
NUT-150	R9	81,00	21,00	2777	Niskin	Nutrients	Assmy
NUT-151	R9	81,00	21,00	2777	Niskin	Nutrients	Assmy
NUT-152	R9	81,00	21,00	2777	Niskin	Nutrients	Assmy
NUT-153	R9	81,00	21,00	2777	Niskin	Nutrients	Assmy
CHL-107	R9	81,00	21,00	2777	Niskin	Chlorophyll a	Assmy
CHL-108	R9	81,00	21,00	2777	Niskin	Chlorophyll a	Assmy
CHL-109	R9	81,00	21,00	2777	Niskin	Chlorophyll a	Assmy
Sample name	**Station**	**Latitude (deg)**	**Longitude (degr**	**Bottom depth (m)**	**Gear**	**Sample type**	**Contact person**
CHL-110	R9	81,00	21,00	2777	Niskin	Chlorophyll a	Assmy
CHL-111	R9	81,00	21,00	2777	Niskin	Chlorophyll a	Assmy
CHL-112	R9	81,00	21,00	2777	Niskin	Chlorophyll a	Assmy
PAB-110	R9	81,00	21,00	2777	Niskin	Particle absorption	Assmy
PAB-111	R9	81,00	21,00	2777	Niskin	Particle absorption	Assmy
PAB-112	R9	81,00	21,00	2777	Niskin	Particle absorption	Assmy
PAB-113	R9	81,00	21,00	2777	Niskin	Particle absorption	Assmy
PAB-114	R9	81,00	21,00	2777	Niskin	Particle absorption	Assmy
PAB-115	R9	81,00	21,00	2777	Niskin	Particle absorption	Assmy
POC-110	R9	81,00	21,00	2777	Niskin	POC/PON	Assmy
POC-111	R9	81,00	21,00	2777	Niskin	POC/PON	Assmy
POC-112	R9	81,00	21,00	2777	Niskin	POC/PON	Assmy
POC-113	R9	81,00	21,00	2777	Niskin	POC/PON	Assmy
POC-114	R9	81,00	21,00	2777	Niskin	POC/PON	Assmy
POC-115	R9	81,00	21,00	2777	Niskin	POC/PON	Assmy
PHT-107	R9	81,00	21,00	2777	Niskin	Phytoplankton taxonomy	Assmy
PHT-108	R9	81,00	21,00	2777	Niskin	Phytoplankton taxonomy	Assmy
PHT-109	R9	81,00	21,00	2777	Niskin	Phytoplankton taxonomy	Assmy
PHT-110	R9	81,00	21,00	2777	Niskin	Phytoplankton taxonomy	Assmy
PHT-111	R9	81,00	21,00	2777	Niskin	Phytoplankton taxonomy	Assmy
PHT-112	R9	81,00	21,00	2777	Niskin	Phytoplankton taxonomy	Assmy
MAA-058	R9	81,00	21,00	2777	Niskin	Mycosporin-like aminoacids	Assmy
MAA-059	R9	81,00	21,00	2777	Niskin	Mycosporin-like aminoacids	Assmy
MAA-060	R9	81,00	21,00	2777	Niskin	Mycosporin-like aminoacids	Assmy
CTD-045	R9	81,00	21,00	2777	CTD	CTD	Pavlova

MIT-057	R9	81,00	21,00	2777	Niskin	Microplankton taxonomy	Assmy
MIT-058	R9	81,00	21,00	2777	Niskin	Microplankton taxonomy	Assmy
MIT-059	R9	81,00	21,00	2777	Niskin	Microplankton taxonomy	Assmy
HAN-020	R9	81,00	21,00	2777	Handnet 20µm	Rare species	Assmy
ZOT-082	R9	81,00	21,00	2810	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-083	R9	81,00	21,00	2810	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-084	R9	81,00	21,00	2810	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-085	R9	81,00	21,00	2810	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-086	R9	81,00	21,00	2810	Multinet 200µm	Mesozooplankton taxonomy	Wold
MIK-019	R9	81,00	21,00	2810	MIK-net	Macrozooplankton taxonomy	Wold
CTD-046	HG-IV	79,00	4,00	2394	CTD	CTD	Pavlova
NUT-154	HG-IV	79,00	4,00	2394	Niskin	Nutrients	Assmy
NUT-155	HG-IV	79,00	4,00	2394	Niskin	Nutrients	Assmy
NUT-156	HG-IV	79,00	4,00	2394	Niskin	Nutrients	Assmy
NUT-157	HG-IV	79,00	4,00	2394	Niskin	Nutrients	Assmy
NUT-158	HG-IV	79,00	4,00	2394	Niskin	Nutrients	Assmy
NUT-159	HG-IV	79,00	4,00	2394	Niskin	Nutrients	Assmy
NUT-160	HG-IV	79,00	4,00	2394	Niskin	Nutrients	Assmy
NUT-161	HG-IV	79,00	4,00	2394	Niskin	Nutrients	Assmy
NUT-162	HG-IV	79,00	4,00	2394	Niskin	Nutrients	Assmy
NUT-163	HG-IV	79,00	4,00	2394	Niskin	Nutrients	Assmy
NUT-164	HG-IV	79,00	4,00	2394	Niskin	Nutrients	Assmy
Sample name	**Station**	**Latitude (deg)**	**Longitude (degr**	**Bottom depth (m)**	**Gear**	**Sample type**	**Contact person**
AMM-153	HG-IV	79,00	4,00	2394	Niskin	Ammonium	Duarte
AMM-154	HG-IV	79,00	4,00	2394	Niskin	Ammonium	Duarte
AMM-155	HG-IV	79,00	4,00	2394	Niskin	Ammonium	Duarte
AMM-156	HG-IV	79,00	4,00	2394	Niskin	Ammonium	Duarte
AMM-157	HG-IV	79,00	4,00	2394	Niskin	Ammonium	Duarte
AMM-158	HG-IV	79,00	4,00	2394	Niskin	Ammonium	Duarte
AMM-159	HG-IV	79,00	4,00	2394	Niskin	Ammonium	Duarte
AMM-160	HG-IV	79,00	4,00	2394	Niskin	Ammonium	Duarte
AMM-161	HG-IV	79,00	4,00	2394	Niskin	Ammonium	Duarte
AMM-162	HG-IV	79,00	4,00	2394	Niskin	Ammonium	Duarte
AMM-163	HG-IV	79,00	4,00	2394	Niskin	Ammonium	Duarte
CHL-113	HG-IV	79,00	4,00	2394	Niskin	Chlorophyll a	Assmy
CHL-114	HG-IV	79,00	4,00	2394	Niskin	Chlorophyll a	Assmy
CHL-115	HG-IV	79,00	4,00	2394	Niskin	Chlorophyll a	Assmy
CHL-116	HG-IV	79,00	4,00	2394	Niskin	Chlorophyll a	Assmy
CHL-117	HG-IV	79,00	4,00	2394	Niskin	Chlorophyll a	Assmy
CHL-118	HG-IV	79,00	4,00	2394	Niskin	Chlorophyll a	Assmy
PAB-116	HG-IV	79,00	4,00	2394	Niskin	Particle absorption	Assmy
PAB-117	HG-IV	79,00	4,00	2394	Niskin	Particle absorption	Assmy
PAB-118	HG-IV	79,00	4,00	2394	Niskin	Particle absorption	Assmy
PAB-119	HG-IV	79,00	4,00	2394	Niskin	Particle absorption	Assmy
PAB-120	HG-IV	79,00	4,00	2394	Niskin	Particle absorption	Assmy
PAB-121	HG-IV	79,00	4,00	2394	Niskin	Particle absorption	Assmy

POC-116	HG-IV	79,00	4,00	2394	Niskin	POC/PON	Assmy
POC-117	HG-IV	79,00	4,00	2394	Niskin	POC/PON	Assmy
POC-118	HG-IV	79,00	4,00	2394	Niskin	POC/PON	Assmy
POC-119	HG-IV	79,00	4,00	2394	Niskin	POC/PON	Assmy
POC-120	HG-IV	79,00	4,00	2394	Niskin	POC/PON	Assmy
POC-121	HG-IV	79,00	4,00	2394	Niskin	POC/PON	Assmy
MAA-061	HG-IV	79,00	4,00	2394	Niskin	Mycosporin-like aminoacids	Assmy
MAA-062	HG-IV	79,00	4,00	2394	Niskin	Mycosporin-like aminoacids	Assmy
MAA-063	HG-IV	79,00	4,00	2394	Niskin	Mycosporin-like aminoacids	Assmy
PHT-113	HG-IV	79,00	4,00	2394	Niskin	Phytoplankton taxonomy	Assmy
PHT-114	HG-IV	79,00	4,00	2394	Niskin	Phytoplankton taxonomy	Assmy
PHT-115	HG-IV	79,00	4,00	2394	Niskin	Phytoplankton taxonomy	Assmy
PHT-116	HG-IV	79,00	4,00	2394	Niskin	Phytoplankton taxonomy	Assmy
PHT-117	HG-IV	79,00	4,00	2394	Niskin	Phytoplankton taxonomy	Assmy
PHT-118	HG-IV	79,00	4,00	2394	Niskin	Phytoplankton taxonomy	Assmy
CTD-047	HG-IV	79,00	4,00	2354	CTD	CTD	Pavlova
MIT-060	HG-IV	79,00	4,00	2354	Niskin	Microplankton taxonomy	Assmy
MIT-061	HG-IV	79,00	4,00	2354	Niskin	Microplankton taxonomy	Assmy
MIT-062	HG-IV	79,00	4,00	2354	Niskin	Microplankton taxonomy	Assmy
HAN-021	HG-IV	79,00	4,00	2354	Handnet 20µm	Rare species	Assmy
ZOT-087	HG-IV	79,00	4,00	2354	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-088	HG-IV	79,00	4,00	2354	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-089	HG-IV	79,00	4,00	2354	Multinet 200µm	Mesozooplankton taxonomy	Wold
ZOT-090	HG-IV	79,00	4,00	2354	Multinet 200µm	Mesozooplankton taxonomy	Wold
Sample name	**Station**	**Latitude (deg)**	**Longitude (degr**	**Bottom depth (m)**	**Gear**	**Sample type**	**Contact person**
ZOT-091	HG-IV	79,00	4,00	2354	Multinet 200µm	Mesozooplankton taxonomy	Wold
MIK-020	HG-IV	79,00	4,00	2354	MIK-net	Macrozooplankton taxonomy	Wold

Appendix 3b

Sample log geological sampling Kongsfjorden and Rijpfjorden

Sample ID	Station	Latitude	Longitude	Bottom depth (m)	Sample type	Proxy	Core depth (cm)	Contact person
NP16-Kb5-MC-A	Kb5	N 78 53.79	E 012 26.27	74	surface and paleo samples	Foraminifera	0-46	Husum
NP16-Kb5-MC-B	Kb5	N 78 53.79	E 012 26.27	74	surface and paleo samples	Diatoms	0-20	Miettinen
NP16-Kb5-MC-B	Kb5	N 78 53.79	E 012 26.27	74	surface and paleo samples	IP25/HBI	0-20	Husum
NP16-Kb3-MC-A	Kb3	N 78 57.35	E 011 57.10	339	surface samples	Foraminifera	0-1 + 1-2	Husum
NP16-Kb3-MC-B	Kb3	N 78 57.35	E 011 57.10	339	surface samples	Diatoms	0-1	Miettinen
NP16-Kb3-MC-B	Kb3	N 78 57.35	E 011 57.10	339	surface samples	IP25/HBI	0-1 + 1-2	Husum
NP16-Kb2-MC-A	Kb2	78 58.67N	011 43.86E	300	surface samples	Foraminifera	0-1 + 1-2	Husum
NP16-Kb2-MC-B	Kb2	78 58.67N	011 43.86E	300	surface samples	IP25/HBI	0-1 + 1-2	Husum
NP16-Kb2-MC-B	Kb2	78 58.67N	011 43.86E	300	surface samples	Ref	0-1 + 1-2	Husum
NP16-Kb1-MC-A	Kb1	N 79 00.00	E 011 25.84	360	surface and paleo samples	Foraminifera	0-33	Husum
NP16-Kb1-MC-B	Kb1	N 79 00.00	E 011 25.84	360	surface and paleo samples	Diatoms	0-38	Miettinen
NP16-Kb1-MC-B	Kb1	N 79 00.00	E 011 25.84	360	surface and paleo samples	IP25/HBI	0-38	Husum
NP16-Kb1-MC-C	Kb1	N 79 00.00	E 011 25.84	360	surface and paleo samples	Dating	0-39	Miettinen
NP16-Kb0-MC-A	Kb0	N 79 03.08	E 011 06.47	328	surface samples	Foraminifera	0-1 + 1-2	Husum
NP16-Kb0-MC-B	Kb0	N 79 03.08	E 011 06.47	328	surface samples	IP25/HBI	0-1 + 1-2	Husum
NP16-Kb0-MC-B	Kb0	N 79 03.08	E 011 06.47	328	surface samples	Ref	0-1 + 1-2	Miettinen
NP16-FM-MC-A	FM	N 79 03.48	E 011 05.34	280	surface samples	Foraminifera	0-1 + 1-2	Husum
NP16-FM-MC-B	FM	N 79 03.48	E 011 05.34	280	surface samples	IP25/HBI	0-1 + 1-2	Husum
NP16-FM-MC-B	FM	N 79 03.48	E 011 05.34	280	surface samples	Ref	0-1 + 1-2	Miettinen
NP16-Kr1-MC-A	Kr1	N 79 17.76	E 011 36.47	106	surface and paleo samples	Foraminifera	0-37	Husum
NP16-Kr1-MC-B	Kr1	N 79 17.76	E 011 36.47	106	surface and paleo samples	IP25/HBI	0-40	Husum
NP16-Kr1-MC-B	Kr1	N 79 17.76	E 011 36.47	106	surface and paleo samples	diatoms	0-40	Miettinen
NP16-R6-MC-A	R6	N 81 12.29	E 022 06.70	211	surface and paleo samples	Foraminifera	0-50	Husum
NP16-R6-MC-B	R6	N 81 12.29	E 022 06.70	211	surface and paleo samples	Diatoms	0-39	Miettinen
NP16-R6-MC-B	R6	N 81 12.29	E 022 06.70	211	surface and paleo samples	IP25/HBI	0-39	Husum
NP16-R6-MC-C	R6	N 81 12.29	E 022 06.70	211	surface and paleo samples	Dating	0-28	Husum

Appendix 3c

Sample log with meta data of CTD stations and water sampling

St. Number	Station	CTD File	Date	Latitude	Longitude	Depth (m)	Depth sample (m)
Kb7_1	Kb7	Kb7_1	25.07.2016	N 78 58.13	E 012 21.96	70.83	Bott: 61 (2 bottles) 50 (1 bottle) 25 (1 bottle) 10 (1 bottle) 5 (1 bottle) 2 (2 bottles)
Kb7_2	Kb7	Kb7_2	25.07.2016	N 78 58.09	E 012 22.08	70.55	50 (3 bottles) 25 (4 bottles) 10 (1 bottle) 5 (3 bottles)
Kb6_1	Kb6	Kb6_1	25.07.2016	N 78 55.85	E 012 22.91	54.83	Bott: 47.8 (2 bottles) 25 (1 bottle) 10 (1 bottle) 5 (1 bottle) 2 (2 bottles)
Kb6_2	Kb6	Kb6_2	25.07.2016	N 78 55.88	E 012 22.89	53.61	25 (3 bottles) 10 (3 bottles) 5 (3 bottles)
Kb6_3	Kb6	Kb6_3	26.07.2016	N 78 55.84	E 012 23.23	54.63	Bott: 45 (4 bottles) 25 (4 bottles) 2 (4 bottles)
Kb51	Kb5	Kb51	26.07.2016	N 78 53.79	E 012 26.27	74.35	Bott: 68 (2 bottles) 50 (1 bottle) 25 (2 bottles) 10 (2 bottles) 5 (1 bottle)
Kb52	Kb5	Kb52	26.07.2016	N 78 53.87	E 012 26.24	69.0	50 (3 bottles) 25 (3 bottles) 5 (3 bottles)
Kb3_1	Kb3	Kb3_1	26.07.2016	N 78 57.35	E 011 57.10	339.0	Bott: 335.0 (2 bottles) 300 (1 bottle) 200 (1 bottle) 100 (1 bottle) 50 (1 bottle) 25 (1 bottle) 10 (1 bottle) 5 (2 bottles)

Kb3_2	Kb3	Kb3_2	26.07.2016	N 78 57.6	E 011 57.76	336.0	Bott: 336.0 (1 bottle) 50 (1 bottle) 10 (3 bottles) 5 (4 bottles)
Kb2_1	Kb2	Kb2_1	26.07.2016	78 58.67N	011 43.86E	300.26	Bott: 297.3 (2 bottles) 200 (1 bottle) 100 (1 bottle) 50 (1 bottle) 25 (2 bottles) 10 (1 bottle) 5 (2 bottles)
Kb2_2	Kb2	Kb2_2	26.07.2016	N 78 58.71	E 011 43.77	298.40	50 (3 bottles) 25 (3 bottles) 5 (3 bottles)
Kb1_1	Kb1	Kb1_1	26.07.2016	N 79 00.00	E 011 25.84	359.6	Bott: 374.0 (2 bottles) 200 (1 bottle) 100 (1 bottle) 50 (1 bottle) 25 (bottle) 15 (2 bottles) 10 (1 bottle) 5 (2 bottles)
Kb1_2	Kb1	Kb1_2	26.07.2016	N 79 00.19	E 011 25.25	384.4	25 (3 bottles) 17 (3 bottles) 5 (4 bottles)
Kb1_3	Kb1	Kb1_3	27.07.2016	N 79 00.1	E 011 25.5	383.0	10 (5 bottles) 5 (5 bottles)
Kb0_1	Kb0	Kb0_1	27.07.2016	N 79 03.08	E 011 06.47	327.6	Bott: 324.0 (2 bottles) 200 (1 bottle) 100 (1 bottle) 50 (1 bottle) 25 (2 bottles) 10 (1 bottle) 5 (2 bottles)
Kb0_2	Kb0	Kb0_2	27.07.2016	N 79 02.73	E 011 07.2	327.0	50 (3 bottles) 20 (3 bottles) 5 (3 bottles)
Kb0_3	Kb0	Kb0_3	27.07.2016	N 79 02.77	E 011 08.2	323.0	Bott: 320.0 (3 bottles) 50 (3 bottles) 25 (3 bottles) 5 (3 bottles)
V12_1	V12	V12_1	27.07.2016	N 78 58.52		221.5	Bott: 217.0

					E 009 22.09		(2 bottles) 100 (1 bottle) 50 (1 bottle) 33 (2 bottles) 25 (1 bottle) 10 (1 bottle) 5 (2 bottles)
V12_2	V12	V12_2	27.07.2016	N 78 58.81	E 009 29.55	221.4	Bott: 218.0 (1 bottle) 50 (3 bottles) 31 (4 bottles) 10 (4 bottles)
V10_1	V10	V10_1	28.07.2016	N 78 56.1	E 008 33.45	269.0	Bott: 267.0 (2 bottles) 200 (1 bottle) 100 (1 bottle) 50 (1 bottle) 18 (2 bottles) 10 (1 bottle) 5 (2 bottles)
V10_2	V10	V10_2	28.07.2016	N 78 56.0	E 008 33.29	273.0	25 (3 bottles) 15 (3 bottles) 5 (3 bottles)
V6_1	V6	V6_1	28.07.2016	N 78 54.15	E 007 44.58	1134.3	Bott: 1133.0 (1 bottle) 400 (1 bottle) 200 (1 bottle) 100 (1 bottle) 50 (1 bottle) 25 (1 bottle) 22 (2 bottles) 10 (1 bottle) 5 (2 bottles)
V6_2	V6	V6_2	28.07.2016	N 78 54.42	E 007 45.63	1124.85	50 (3 bottles) 22 (3 bottles) 10 (3 bottles)
V6_3	V6	V6_3	28.07.2016	N 78 54.6	E 007 47.22	1119.55	Bott: 1133.0 (4 bottles) 22 (4 bottles) 5 (4 bottles)
KH_1	KH	KH_1	28.07.2016	N 79 03.0	E 006 58.85	1302.8	Bott: 1280.0 (2 bottles) 800 (1 bottle) 400 (1 bottle) 200 (1 bottle) 100 (1 bottle) 50 (1 bottle)

							28 (1 bottle) 25 (1 bottle) 10 (1 bottle) 5 (1 bottle)
KH_2	KH	KH_2	28.07.2016	N 79 03.56	E 007 01.89	1319.8	50 (4 bottles) 29 (4 bottles) 5 (4 bottles)
HG-IV_1	HG-IV	HG-4_1	01.08.2016	N 79 03.92	E 004 11.05	2394.26	Bott: 2447.0 (1 bottle) 1000 (1 bottle) 600 (1 bottle) 400 (1 bottle) 200 (1 bottle) 100 (1 bottle) 50 (1 bottle) 28 (1 bottle) 25 (1 bottle) 10 (1 bottle) 5 (2 bottles)
HG-IV_2	HG-IV	HG-4_2	01.08.2016	N 79 03.84	E 004 16.54	2354.1	50 (4 bottles) 43 (4 bottles) 5 (4 bottles)
FM_1	FM	FM_1	02.08.2016	N 79 03.48	E 011 05.34	280.43	Bott: 272.0 (1 bottle) 100 (1 bottle) 50 (1 bottle) 25 (1 bottle) 5 (1 bottle)
Kr1_1	Kr1	Kr1_1	02.08.2016	N 79 17.76	E 011 36.47	105.6	Bott: 189.0 (1 bottle) 100 (1 bottle) 50 (1 bottle) 25 (1 bottle) 5 (1 bottle)
R1_1	R1	R1_1	29.07.2016	80 07.53 N	022 09.15 E	203.8	Bott: 196.0 (2 bottles) 100 (1 bottle) 50 (1 bottle) 25 (1 bottle) 15 (2 bottles) 10 (1 bottle) 5 (2 bottles)
R1_2	R1	R1_2	29.07.2016	80 07.14 N	022 10.05 E	169.6	Bott: 162.0 (1 bottle) 25 (3 bottles) 17 (4 bottles) 5 (4 bottles)

R2_1	R2	R2_1	29.07.2016	80 10.35 N	022 09.67 E	187.6	Bott: 177.0 (2 bottles) 100 (1 bottle) 50 (1 bottle) 25 (2 bottles) 10 (1 bottle) 5 (2 bottles)
R2_2	R2	R2_2	29.07.2016	80 10.22 N	022 09.82 E	182.8	50 (3 bottles) 25 (3 bottles) 5 (3 bottles)
R3_1	R3	R3_1	29.07.2016	80 17.44 N	022 16.14 E	276.1	Bott: 268.0 (2 bottles) 200 (1 bottle) 100 (1 bottle) 50 (1 bottle) 10 (2 bottles) 5 (2 bottles)
R3_2	R3	R3_2	29.07.2016	80 17.08 N	022 17.73 E	235.0	50 (3 bottles) 24 (3 bottles) 5 (3 bottles)
R4_1	R4	R4_1	30.07.2016	80 39.34 N	022 05.22 E	151.2	Bott: 138.0 (2 bottles) 100 (1 bottle) 50 (1 bottle) 28 (2 bottles) 25 (2 bottles) 10 (2 bottles) 5 (2 bottles)
R4_2	R4	R4_2	30.07.2016	80 38.99 N	022 10.69 E	145.8	50 (3 bottles) 28 (3 bottles) 10 (3 bottles)
R4_3	R4	R4_3	30.07.2016	80 39.08 N	022 07.27 E	124.3	Bott: 123.0 (4 bottles) 28 (4 bottles) 5 (4 bottles)
R5_1	R5	R5_1	30.07.2016	80 54.10 N	022 05.01 E	131.9	Bott: 127.0 (2 bottles) 100 (1 bottle) 50 (1 bottle) 25 (2 bottles) 10 (1 bottle) 5 (2 bottles)
R5_2	R5	R5_2	30.07.2016	80 54.09 N	022 06.89 E	125.7	50 (3 bottles) 25 (3 bottles) 10 (3 bottles)
R6_1	R6	R6_1	30.07.2016	81 12.29 N	022 06.70 E	211.2	Bott: 204.0 (2 bottles)

							100 (1 bottle) 50 (1 bottle) 29 (2 bottles) 25 (1 bottle) 10 (1 bottle) 5 (2 bottles)
R6_2	R6	R6_2	30.07.2016	81 12.16 N	022 07.84 E	205.7	50 (4 bottles) 31 (3 bottles) 5 (3 bottles)
R7_1	R7	R7_1	30.07.2016	81 30.47 N	021 50.99 E	1029.8	Bott: 1033.0 (2 bottles) 600 (1 bottle) 400 (1 bottle) 200 (1 bottle) 100 (1 bottle) 50 (1 bottle) 25 (2 bottles) 10 (1 bottle) 5 (2 bottles)
R7_2	R7	R7_2	30.07.2016	81 30.68 N	021 50.88 E	1045.3	50 (3 bottles) 25 (3 bottles) 5 (3 bottles)
R7_3	R7	R7_3	30.07.2016	81 30.49 N	021 50.68 E	1035.61	Bott: 1037.0 (4 bottles) 25 (4 bottles) 5 (4 bottles)
R8_1	R8	R8_1	31.07.2016	81 32.40 N	021 40.92 E	1584.28	Bott: 1607.0 (1 bottle) 1000 (1 bottle) 600 (1 bottle) 400 (1 bottle) 200 (1 bottle) 100 (1 bottle) 50 (1 bottle) 25 (1 bottle) 20 (1 bottle) 10 (1 bottle) 5 (2 bottles)
R8_2	R8	R8_2	31.07.2016	81 32.30 N	021 41.85	1528.7	50 (3 bottles) 25 (3 bottles) 5 (3 bottles)
R9_1	R9	R9_1	31.07.2016	81 36.01 N	021 29.41 E	2513.9	Bott: 2724.0 (1 bottle) 1000 (1 bottle) 600 (1 bottle) 400 (1 bottle) 200 (1 bottle)

							100 (1 bottle) 50 (1 bottle) 30 (1 bottle) 25 (1 bottle) 10 (1 bottle) 5 (2 bottles)
R9_2	R9	R9_2	31.07.2016	81 35.42 N	021 22.76 E	2709.2	50 (3 bottles) 45 (4 bottles) 10 (3 bottles) 5 (2 bottles)

*Stations Kb0-Kb7 and V6-V12 have configuration file CTD_2016_04_20b.xmlcon

**Stations R1-R9, FM, KH and HG-IV have configuration file CTD_2016_04_20d.xmlcon

Appendix 4

Sample log glacier front sampling (helicopter sampling)

Norwegian Polar Data https://data.npolar.no/marine/biology/

Sample name	Station (CTD waypoint)	GPS waypoint	Latitude (deg)	Longitude (deg)	Instrument	Sample type	Contact person
CTD	114	130	78,00	12,00	CTD	CTD	Assmy
MET-118	114	130	78,00	12,00	Niskin	Methane	Fransson
MET-119	114	130	78,00	12,00	Niskin	Methane	Fransson
MET-120	114	130	78,00	12,00	Niskin	Methane	Fransson
AMM-164	114	130	78,00	12,00	Niskin	Ammonium	Duarte
AMM-165	114	130	78,00	12,00	Niskin	Ammonium	Duarte
AMM-166	114	130	78,00	12,00	Niskin	Ammonium	Duarte
DIC-118	114	130	78,00	12,00	Niskin	DIC/AT	Fransson
DIC-119	114	130	78,00	12,00	Niskin	DIC/AT	Fransson
DIC-120	114	130	78,00	12,00	Niskin	DIC/AT	Fransson
CDO-153	114	130	78,00	12,00	Niskin	CDOM	Granskog
CDO-154	114	130	78,00	12,00	Niskin	CDOM	Granskog
CDO-155	114	130	78,00	12,00	Niskin	CDOM	Granskog
OXY-153	114	130	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-154	114	130	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-155	114	130	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-156	114	130	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-157	114	130	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-158	114	130	78,00	12,00	Niskin	δ18 Oxygen	Granskog
NUT-165	114	130	78,00	12,00	Niskin	Nutrients	Assmy
NUT-166	114	130	78,00	12,00	Niskin	Nutrients	Assmy
NUT-167	114	130	78,00	12,00	Niskin	Nutrients	Assmy
NUT-168	114	130	78,00	12,00	Niskin	Nutrients	Assmy
NUT-169	114	130	78,00	12,00	Niskin	Nutrients	Assmy
NUT-170	114	130	78,00	12,00	Niskin	Nutrients	Assmy
CHL-131	114	130	78,00	12,00	Niskin	Chlorophyll a	Assmy
CHL-132	114	130	78,00	12,00	Niskin	Chlorophyll a	Assmy
CHL-133	114	130	78,00	12,00	Niskin	Chlorophyll a	Assmy
POC-135	114	130	78,00	12,00	Niskin	POC/PON	Assmy
POC-136	114	130	78,00	12,00	Niskin	POC/PON	Assmy
POC-137	114	130	78,00	12,00	Niskin	POC/PON	Assmy
CTD	120	133	78,00	12,00	CTD	CTD	Assmy
MET-121	120	133	78,00	12,00	Niskin	Methane	Fransson
MET-122	120	133	78,00	12,00	Niskin	Methane	Fransson
MET-123	120	133	78,00	12,00	Niskin	Methane	Fransson
DIC-121	120	133	78,00	12,00	Niskin	DIC/AT	Fransson
DIC-122	120	133	78,00	12,00	Niskin	DIC/AT	Fransson
DIC-123	120	133	78,00	12,00	Niskin	DIC/AT	Fransson
AMM-167	120	133	78,00	12,00	Niskin	Ammonium	Duarte

AMM-168	120	133	78,00	12,00	Niskin	Ammonium	Duarte
AMM-169	120	133	78,00	12,00	Niskin	Ammonium	Duarte
CDO-156	120	133	78,00	12,00	Niskin	CDOM	Granskog
CDO-157	120	133	78,00	12,00	Niskin	CDOM	Granskog
CDO-158	120	133	78,00	12,00	Niskin	CDOM	Granskog
OXY-159	120	133	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-160	120	133	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-161	120	133	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-162	120	133	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-163	120	133	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-164	120	133	78,00	12,00	Niskin	δ18 Oxygen	Granskog
NUT-171	120	133	78,00	12,00	Niskin	Nutrients	Assmy
NUT-172	120	133	78,00	12,00	Niskin	Nutrients	Assmy
NUT-173	120	133	78,00	12,00	Niskin	Nutrients	Assmy
NUT-174	120	133	78,00	12,00	Niskin	Nutrients	Assmy
NUT-175	120	133	78,00	12,00	Niskin	Nutrients	Assmy
NUT-176	120	133	78,00	12,00	Niskin	Nutrients	Assmy
CHL-134	120	133	78,00	12,00	Niskin	Chlorophyll a	Assmy
CHL-135	120	133	78,00	12,00	Niskin	Chlorophyll a	Assmy
CHL-136	120	133	78,00	12,00	Niskin	Chlorophyll a	Assmy
POC-138	120	133	78,00	12,00	Niskin	POC/PON	Assmy
POC-139	120	133	78,00	12,00	Niskin	POC/PON	Assmy
POC-140	120	133	78,00	12,00	Niskin	POC/PON	Assmy
CTD	105	135	78,00	12,00	CTD	CTD	Assmy
MET-124	105	135	78,00	12,00	Niskin	Methane	Fransson
MET-125	105	135	78,00	12,00	Niskin	Methane	Fransson
MET-126	105	135	78,00	12,00	Niskin	Methane	Fransson
DIC-124	105	135	78,00	12,00	Niskin	DIC/AT	Fransson
DIC-125	105	135	78,00	12,00	Niskin	DIC/AT	Fransson
DIC-126	105	135	78,00	12,00	Niskin	DIC/AT	Fransson
AMM-170	105	135	78,00	12,00	Niskin	Ammonium	Duarte
AMM-171	105	135	78,00	12,00	Niskin	Ammonium	Duarte
AMM-172	105	135	78,00	12,00	Niskin	Ammonium	Duarte
CDO-159	105	135	78,00	12,00	Niskin	CDOM	Granskog
CDO-160	105	135	78,00	12,00	Niskin	CDOM	Granskog
CDO-161	105	135	78,00	12,00	Niskin	CDOM	Granskog
OXY-165	105	135	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-166	105	135	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-167	105	135	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-168	105	135	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-169	105	135	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-170	105	135	78,00	12,00	Niskin	δ18 Oxygen	Granskog
NUT-177	105	135	78,00	12,00	Niskin	Nutrients	Assmy
NUT-178	105	135	78,00	12,00	Niskin	Nutrients	Assmy
NUT-179	105	135	78,00	12,00	Niskin	Nutrients	Assmy
NUT-180	105	135	78,00	12,00	Niskin	Nutrients	Assmy
NUT-181	105	135	78,00	12,00	Niskin	Nutrients	Assmy

NUT-182	105	135	78,00	12,00	Niskin	Nutrients	Assmy
CHL-128	105	135	78,00	12,00	Niskin	Chlorophyll a	Assmy
CHL-129	105	135	78,00	12,00	Niskin	Chlorophyll a	Assmy
CHL-130	105	135	78,00	12,00	Niskin	Chlorophyll a	Assmy
POC-132	105	135	78,00	12,00	Niskin	POC/PON	Assmy
POC-133	105	135	78,00	12,00	Niskin	POC/PON	Assmy
POC-134	105	135	78,00	12,00	Niskin	POC/PON	Assmy
CTD	106	138	78,00	12,00	CTD	CTD	Assmy
MET-127	106	138	78,00	12,00	Niskin	Methane	Fransson
MET-128	106	138	78,00	12,00	Niskin	Methane	Fransson
MET-129	106	138	78,00	12,00	Niskin	Methane	Fransson
DIC-127	106	138	78,00	12,00	Niskin	DIC/AT	Fransson
DIC-128	106	138	78,00	12,00	Niskin	DIC/AT	Fransson
DIC-129	106	138	78,00	12,00	Niskin	DIC/AT	Fransson
AMM-173	106	138	78,00	12,00	Niskin	Ammonium	Duarte
AMM-174	106	138	78,00	12,00	Niskin	Ammonium	Duarte
AMM-175	106	138	78,00	12,00	Niskin	Ammonium	Duarte
CDO-162	106	138	78,00	12,00	Niskin	CDOM	Granskog
CDO-163	106	138	78,00	12,00	Niskin	CDOM	Granskog
CDO-164	106	138	78,00	12,00	Niskin	CDOM	Granskog
OXY-175	106	138	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-176	106	138	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-171	106	138	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-172	106	138	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-173	106	138	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-174	106	138	78,00	12,00	Niskin	δ18 Oxygen	Granskog
NUT-183	106	138	78,00	12,00	Niskin	Nutrients	Assmy
NUT-184	106	138	78,00	12,00	Niskin	Nutrients	Assmy
NUT-185	106	138	78,00	12,00	Niskin	Nutrients	Assmy
NUT-186	106	138	78,00	12,00	Niskin	Nutrients	Assmy
NUT-187	106	138	78,00	12,00	Niskin	Nutrients	Assmy
NUT-188	106	138	78,00	12,00	Niskin	Nutrients	Assmy
CHL-125	106	138	78,00	12,00	Niskin	Chlorophyll a	Assmy
CHL-126	106	138	78,00	12,00	Niskin	Chlorophyll a	Assmy
CHL-127	106	138	78,00	12,00	Niskin	Chlorophyll a	Assmy
POC-129	106	138	78,00	12,00	Niskin	POC/PON	Assmy
POC-130	106	138	78,00	12,00	Niskin	POC/PON	Assmy
POC-131	106	138	78,00	12,00	Niskin	POC/PON	Assmy
CTD	104	140	78,00	12,00	CTD	CTD	Assmy
MET-130	104	140	78,00	12,00	Niskin	Methane	Fransson
MET-131	104	140	78,00	12,00	Niskin	Methane	Fransson
MET-132	104	140	78,00	12,00	Niskin	Methane	Fransson
DIC-130	104	140	78,00	12,00	Niskin	DIC/AT	Fransson
DIC-131	104	140	78,00	12,00	Niskin	DIC/AT	Fransson
DIC-132	104	140	78,00	12,00	Niskin	DIC/AT	Fransson
AMM-176	104	140	78,00	12,00	Niskin	Ammonium	Duarte
AMM-177	104	140	78,00	12,00	Niskin	Ammonium	Duarte

AMM-178	104	140	78,00	12,00	Niskin	Ammonium	Duarte
CDO-165	104	140	78,00	12,00	Niskin	CDOM	Granskog
CDO-166	104	140	78,00	12,00	Niskin	CDOM	Granskog
CDO-167	104	140	78,00	12,00	Niskin	CDOM	Granskog
OXY-177	104	140	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-178	104	140	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-179	104	140	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-180	104	140	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-181	104	140	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-182	104	140	78,00	12,00	Niskin	δ18 Oxygen	Granskog
NUT-189	104	140	78,00	12,00	Niskin	Nutrients	Assmy
NUT-190	104	140	78,00	12,00	Niskin	Nutrients	Assmy
NUT-191	104	140	78,00	12,00	Niskin	Nutrients	Assmy
NUT-192	104	140	78,00	12,00	Niskin	Nutrients	Assmy
NUT-193	104	140	78,00	12,00	Niskin	Nutrients	Assmy
NUT-194	104	140	78,00	12,00	Niskin	Nutrients	Assmy
CHL	104	140	78,00	12,00	Niskin	Chlorophyll a	Assmy
CHL	104	140	78,00	12,00	Niskin	Chlorophyll a	Assmy
CHL	104	140	78,00	12,00	Niskin	Chlorophyll a	Assmy
POC	104	140	78,00	12,00	Niskin	POC/PON	Assmy
POC	104	140	78,00	12,00	Niskin	POC/PON	Assmy
POC	104	140	78,00	12,00	Niskin	POC/PON	Assmy
CTD	124	143	78,00	12,00	CTD	CTD	Assmy
MET-133	124	143	78,00	12,00	Niskin	Methane	Fransson
MET-134	124	143	78,00	12,00	Niskin	Methane	Fransson
MET-135	124	143	78,00	12,00	Niskin	Methane	Fransson
DIC-133	124	143	78,00	12,00	Niskin	DIC/AT	Fransson
DIC-134	124	143	78,00	12,00	Niskin	DIC/AT	Fransson
DIC-135	124	143	78,00	12,00	Niskin	DIC/AT	Fransson
AMM-179	124	143	78,00	12,00	Niskin	Ammonium	Duarte
AMM-180	124	143	78,00	12,00	Niskin	Ammonium	Duarte
AMM-181	124	143	78,00	12,00	Niskin	Ammonium	Duarte
CDO-168	124	143	78,00	12,00	Niskin	CDOM	Granskog
CDO-169	124	143	78,00	12,00	Niskin	CDOM	Granskog
CDO-170	124	143	78,00	12,00	Niskin	CDOM	Granskog
OXY-183	124	143	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-184	124	143	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-185	124	143	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-186	124	143	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-187	124	143	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-188	124	143	78,00	12,00	Niskin	δ18 Oxygen	Granskog
NUT-195	124	143	78,00	12,00	Niskin	Nutrients	Assmy
NUT-196	124	143	78,00	12,00	Niskin	Nutrients	Assmy
NUT-197	124	143	78,00	12,00	Niskin	Nutrients	Assmy
NUT-198	124	143	78,00	12,00	Niskin	Nutrients	Assmy
NUT-199	124	143	78,00	12,00	Niskin	Nutrients	Assmy
NUT-200	124	143	78,00	12,00	Niskin	Nutrients	Assmy

CHL	124	143	78,00	12,00	Niskin	Chlorophyll a	Assmy
CHL	124	143	78,00	12,00	Niskin	Chlorophyll a	Assmy
CHL	124	143	78,00	12,00	Niskin	Chlorophyll a	Assmy
POC	124	143	78,00	12,00	Niskin	POC/PON	Assmy
POC	124	143	78,00	12,00	Niskin	POC/PON	Assmy
POC	124	143	78,00	12,00	Niskin	POC/PON	Assmy
CTD	122	146	78,00	12,00	CTD	CTD	Assmy
MET-136	122	146	78,00	12,00	Niskin	Methane	Fransson
MET-137	122	146	78,00	12,00	Niskin	Methane	Fransson
MET-138	122	146	78,00	12,00	Niskin	Methane	Fransson
DIC-136	122	146	78,00	12,00	Niskin	DIC/AT	Fransson
DIC-137	122	146	78,00	12,00	Niskin	DIC/AT	Fransson
DIC-138	122	146	78,00	12,00	Niskin	DIC/AT	Fransson
AMM-182	122	146	78,00	12,00	Niskin	Ammonium	Duarte
AMM-183	122	146	78,00	12,00	Niskin	Ammonium	Duarte
AMM-184	122	146	78,00	12,00	Niskin	Ammonium	Duarte
CDO-171	122	146	78,00	12,00	Niskin	CDOM	Granskog
CDO-172	122	146	78,00	12,00	Niskin	CDOM	Granskog
CDO-173	122	146	78,00	12,00	Niskin	CDOM	Granskog
OXY-189	122	146	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-190	122	146	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-191	122	146	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-192	122	146	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-193	122	146	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-194	122	146	78,00	12,00	Niskin	δ18 Oxygen	Granskog
NUT-201	122	146	78,00	12,00	Niskin	Nutrients	Assmy
NUT-202	122	146	78,00	12,00	Niskin	Nutrients	Assmy
NUT-203	122	146	78,00	12,00	Niskin	Nutrients	Assmy
NUT-204	122	146	78,00	12,00	Niskin	Nutrients	Assmy
NUT-205	122	146	78,00	12,00	Niskin	Nutrients	Assmy
NUT-206	122	146	78,00	12,00	Niskin	Nutrients	Assmy
CHL	122	146	78,00	12,00	Niskin	Chlorophyll a	Assmy
CHL	122	146	78,00	12,00	Niskin	Chlorophyll a	Assmy
CHL	122	146	78,00	12,00	Niskin	Chlorophyll a	Assmy
POC	122	146	78,00	12,00	Niskin	POC/PON	Assmy
POC	122	146	78,00	12,00	Niskin	POC/PON	Assmy
POC	122	146	78,00	12,00	Niskin	POC/PON	Assmy
CTD	115	149	78,00	12,00	CTD	CTD	Assmy
MET-139	115	149	78,00	12,00	Niskin	Methane	Fransson
MET-140	115	149	78,00	12,00	Niskin	Methane	Fransson
MET-141	115	149	78,00	12,00	Niskin	Methane	Fransson
DIC-139	115	149	78,00	12,00	Niskin	DIC/AT	Fransson
DIC-140	115	149	78,00	12,00	Niskin	DIC/AT	Fransson
DIC-141	115	149	78,00	12,00	Niskin	DIC/AT	Fransson
AMM-185	115	149	78,00	12,00	Niskin	Ammonium	Duarte
AMM-186	115	149	78,00	12,00	Niskin	Ammonium	Duarte
CDO-174	115	149	78,00	12,00	Niskin	CDOM	Granskog

CDO-176	115	149	78,00	12,00	Niskin	CDOM	Granskog
CDO-177	115	149	78,00	12,00	Niskin	CDOM	Granskog
OXY-195	115	149	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-196	115	149	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-197	115	149	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-198	115	149	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-199	115	149	78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY	115	149	78,00	12,00	Niskin	δ18 Oxygen	Granskog
NUT-207	115	149	78,00	12,00	Niskin	Nutrients	Assmy
NUT-208	115	149	78,00	12,00	Niskin	Nutrients	Assmy
NUT-209	115	149	78,00	12,00	Niskin	Nutrients	Assmy
NUT-210	115	149	78,00	12,00	Niskin	Nutrients	Assmy
NUT-211	115	149	78,00	12,00	Niskin	Nutrients	Assmy
NUT-212	115	149	78,00	12,00	Niskin	Nutrients	Assmy
CHL-149	115	149	78,00	12,00	Niskin	Chlorophyll a	Assmy
CHL-150	115	149	78,00	12,00	Niskin	Chlorophyll a	Assmy
CHL-151	115	149	78,00	12,00	Niskin	Chlorophyll a	Assmy
CHL-152	115	149	78,00	12,00	Niskin	Chlorophyll a	Assmy
CHL-153	115	149	78,00	12,00	Niskin	Chlorophyll a	Assmy
CHL	115	149	78,00	12,00	Niskin	Chlorophyll a	Assmy
POC-154	115	149	78,00	12,00	Niskin	POC/PON	Assmy
POC-155	115	149	78,00	12,00	Niskin	POC/PON	Assmy
POC-156	115	149	78,00	12,00	Niskin	POC/PON	Assmy
POC-157	115	149	78,00	12,00	Niskin	POC/PON	Assmy
POC-158	115	149	78,00	12,00	Niskin	POC/PON	Assmy
POC	115	149	78,00	12,00	Niskin	POC/PON	Assmy
GLACIER FRONT CTD TRANSECT							
CTD	GF-01		78,00	12,00	CTD	CTD	
OXY-200	GF-01		78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-201	GF-01		78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-202	GF-01		78,00	12,00	Niskin	δ18 Oxygen	Granskog
NUT-235	GF-01		78,00	12,00	Niskin	Nutrients	Assmy
NUT-236	GF-01		78,00	12,00	Niskin	Nutrients	Assmy
NUT-237	GF-01		78,00	12,00	Niskin	Nutrients	Assmy
AMM-187	GF-01		78,00	12,00	Niskin	Ammonium	Duarte
AMM-188	GF-01		78,00	12,00	Niskin	Ammonium	Duarte
AMM-189	GF-01		78,00	12,00	Niskin	Ammonium	Duarte
CHL-119	GF-01		78,00	12,00	Niskin	Chlorophyll a	Assmy
CHL-120	GF-01		78,00	12,00	Niskin	Chlorophyll a	Assmy
CHL-121	GF-01		78,00	12,00	Niskin	Chlorophyll a	Assmy
POC-123	GF-01		78,00	12,00	Niskin	POC/PON	Assmy
POC-124	GF-01		78,00	12,00	Niskin	POC/PON	Assmy
POC-125	GF-01		78,00	12,00	Niskin	POC/PON	Assmy
CTD	GF-02		78,00	12,00	CTD	CTD	Assmy
OXY-203	GF-02		78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-204	GF-02		78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-205	GF-02		78,00	12,00	Niskin	δ18 Oxygen	Granskog

NUT-238	GF-02		78,00	12,00	Niskin	Nutrients	Assmy
NUT-239	GF-02		78,00	12,00	Niskin	Nutrients	Assmy
NUT-240	GF-02		78,00	12,00	Niskin	Nutrients	Assmy
AMM-190	GF-02		78,00	12,00	Niskin	Ammonium	Duarte
AMM-191	GF-02		78,00	12,00	Niskin	Ammonium	Duarte
AMM-192	GF-02		78,00	12,00	Niskin	Ammonium	Duarte
CHL-122	GF-02		78,00	12,00	Niskin	Chlorophyll a	Assmy
CHL-123	GF-02		78,00	12,00	Niskin	Chlorophyll a	Assmy
CHL-124	GF-02		78,00	12,00	Niskin	Chlorophyll a	Assmy
POC-126	GF-02		78,00	12,00	Niskin	POC/PON	Assmy
POC-127	GF-02		78,00	12,00	Niskin	POC/PON	Assmy
POC-128	GF-02		78,00	12,00	Niskin	POC/PON	Assmy
CTD	GF-03		78,00	12,00	CTD	CTD	Assmy
OXY-206	GF-03		78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-207	GF-03		78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-208	GF-03		78,00	12,00	Niskin	δ18 Oxygen	Granskog
NUT-241	GF-03		78,00	12,00	Niskin	Nutrients	Assmy
NUT-242	GF-03		78,00	12,00	Niskin	Nutrients	Assmy
NUT-243	GF-03		78,00	12,00	Niskin	Nutrients	Assmy
AMM-193	GF-03		78,00	12,00	Niskin	Ammonium	Duarte
AMM-194	GF-03		78,00	12,00	Niskin	Ammonium	Duarte
AMM-195	GF-03		78,00	12,00	Niskin	Ammonium	Duarte
CHL-137	GF-03		78,00	12,00	Niskin	Chlorophyll a	Assmy
CHL-138	GF-03		78,00	12,00	Niskin	Chlorophyll a	Assmy
CHL-139	GF-03		78,00	12,00	Niskin	Chlorophyll a	Assmy
POC-142	GF-03		78,00	12,00	Niskin	POC/PON	Assmy
POC-143	GF-03		78,00	12,00	Niskin	POC/PON	Assmy
POC-144	GF-03		78,00	12,00	Niskin	POC/PON	Assmy
CTD	GF-04		78,00	12,00	CTD	CTD	Assmy
OXY-209	GF-04		78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-210	GF-04		78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-211	GF-04		78,00	12,00	Niskin	δ18 Oxygen	Granskog
NUT-242	GF-04		78,00	12,00	Niskin	Nutrients	Assmy
NUT-243	GF-04		78,00	12,00	Niskin	Nutrients	Assmy
NUT-244	GF-04		78,00	12,00	Niskin	Nutrients	Assmy
AMM-196	GF-04		78,00	12,00	Niskin	Ammonium	Duarte
AMM-197	GF-04		78,00	12,00	Niskin	Ammonium	Duarte
AMM-198	GF-04		78,00	12,00	Niskin	Ammonium	Duarte
CHL-140	GF-04		78,00	12,00	Niskin	Chlorophyll a	Assmy
CHL-141	GF-04		78,00	12,00	Niskin	Chlorophyll a	Assmy
CHL-142	GF-04		78,00	12,00	Niskin	Chlorophyll a	Assmy
POC-145	GF-04		78,00	12,00	Niskin	POC/PON	Assmy
POC-146	GF-04		78,00	12,00	Niskin	POC/PON	Assmy
POC-147	GF-04		78,00	12,00	Niskin	POC/PON	Assmy
CTD	GF-05		78,00	12,00	CTD	CTD	Assmy
OXY-212	GF-05		78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-213	GF-05		78,00	12,00	Niskin	δ18 Oxygen	Granskog

OXY-214	GF-05		78,00	12,00	Niskin	δ18 Oxygen	Granskog
NUT-247	GF-05		78,00	12,00	Niskin	Nutrients	Assmy
NUT-248	GF-05		78,00	12,00	Niskin	Nutrients	Assmy
NUT-249	GF-05		78,00	12,00	Niskin	Nutrients	Assmy
AMM-199	GF-05		78,00	12,00	Niskin	Ammonium	Duarte
AMM-200	GF-05		78,00	12,00	Niskin	Ammonium	Duarte
AMM-201	GF-05		78,00	12,00	Niskin	Ammonium	Duarte
CHL-143	GF-05		78,00	12,00	Niskin	Chlorophyll a	Assmy
CHL-144	GF-05		78,00	12,00	Niskin	Chlorophyll a	Assmy
CHL-145	GF-05		78,00	12,00	Niskin	Chlorophyll a	Assmy
POC-148	GF-05		78,00	12,00	Niskin	POC/PON	Assmy
POC-149	GF-05		78,00	12,00	Niskin	POC/PON	Assmy
POC-150	GF-05		78,00	12,00	Niskin	POC/PON	Assmy
CTD	GF-06		78,00	12,00	CTD	CTD	Assmy
OXY-215	GF-06		78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-216	GF-06		78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-217	GF-06		78,00	12,00	Niskin	δ18 Oxygen	Granskog
NUT-250	GF-06		78,00	12,00	Niskin	Nutrients	Assmy
NUT-251	GF-06		78,00	12,00	Niskin	Nutrients	Assmy
NUT-252	GF-06		78,00	12,00	Niskin	Nutrients	Assmy
AMM-202	GF-06		78,00	12,00	Niskin	Ammonium	Duarte
AMM-203	GF-06		78,00	12,00	Niskin	Ammonium	Duarte
AMM-204	GF-06		78,00	12,00	Niskin	Ammonium	Duarte
CHL-146	GF-06		78,00	12,00	Niskin	Chlorophyll a	Assmy
CHL-147	GF-06		78,00	12,00	Niskin	Chlorophyll a	Assmy
CHL-148	GF-06		78,00	12,00	Niskin	Chlorophyll a	Assmy
POC-151	GF-06		78,00	12,00	Niskin	POC/PON	Assmy
POC-152	GF-06		78,00	12,00	Niskin	POC/PON	Assmy
POC-153	GF-06		78,00	12,00	Niskin	POC/PON	Assmy
CTD	GF-07		78,00	12,00	CTD	CTD	Assmy
OXY-218	GF-07		78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-219	GF-07		78,00	12,00	Niskin	δ18 Oxygen	Granskog
OXY-220	GF-07		78,00	12,00	Niskin	δ18 Oxygen	Granskog
NUT-253	GF-07		78,00	12,00	Niskin	Nutrients	Assmy
NUT-254	GF-07		78,00	12,00	Niskin	Nutrients	Assmy
NUT-255	GF-07		78,00	12,00	Niskin	Nutrients	Assmy
AMM-205	GF-07		78,00	12,00	Niskin	Ammonium	Duarte
AMM-206	GF-07		78,00	12,00	Niskin	Ammonium	Duarte
AMM-207	GF-07		78,00	12,00	Niskin	Ammonium	Duarte
ZOT-092	120	132	78,00	12,00	WP2	Mesozooplankton	
ZOT-093	105	134	78,00	12,00	WP2	Mesozooplankton	
ZOT-094	106	136	78,00	12,00	WP2	Mesozooplankton	
ZOT-095	120	137	78,00	12,00	WP2	Mesozooplankton	
ZOT-096	114	139	78,00	12,00	WP2	Mesozooplankton	
ZOT-097	122	141	78,00	12,00	WP2	Mesozooplankton	
ZOT-098	124	142	78,00	12,00	WP2	Mesozooplankton	
ZOT-099	104	144	78,00	12,00	WP2	Mesozooplankton	

ZOT-100	115	145	78,00	12,00	WP2	Mesozooplankton	
ZOT-101	106	147	78,00	12,00	WP3	Mesozooplankton	
ZOT-102	114	148	78,00	12,00	WP3	Mesozooplankton	
ZOT-103	120	150	78,00	12,00	WP3	Mesozooplankton	
ZOT-104	105	151	78,00	12,00	WP3	Mesozooplankton	
ZOT-105	122	152	78,00	12,00	WP3	Mesozooplankton	
ZOT-106	115	153	78,00	12,00	WP3	Mesozooplankton	
ZOT-107	124	154	78,00	12,00	WP3	Mesozooplankton	
ZOT-108	104	155	78,00	12,00	WP3	Mesozooplankton	