Science & Education Report

Photo: Oscar Farrera

MS Roald Amundsen 21 August – 14 September 2024

The Northwest Passage - In the Wake of the Great Explorers (Eastbound)

Photo: Sonja Storm

Photo: Sonja Storm

Science & Education Program

During our Northwest-Passage voyage, the science and education team provided a diverse onboard program to let you dive deeper into the nature, culture and history of the places we visited during our journey from the Bering Sea in Alaska eastwards through Arctic Canada to Greenland and across the Labrador Sea to the southeast coast of Canada.

We invited you to lectures, discovery sessions, citizen science projects, wildlife watches and cultural and history corners on various topics such as geology, birds, marine mammals, the gold rushes in Alaska, the archaeology and exploration of the Northwest Passage, the life of the Inuit in the Arctic from past to present, the history of Greenland and many more.

We hope you enjoyed gaining a deeper understanding of the landscapes, flora and fauna and of the people in this remote part of the world.

Arts, Crafts & Creativity

In our «Art Corners» you could become creative and immerse yourself in bottle and watercour postcard painting, creating clay creatures, make earrings, tablet weaving, scientific drawing, record your memories through travel journaling or become part of our Pole-to-Pole-Blanket knitting project.

Photo: Ursula Giger

Photo: Ursula Giger

Pole-to-Pole Voyage Blanket

After 2. voyage:

163 tiles from

27 guests of

10 nationalities

Archaeology

Our voyage through the Northwest Passage took us through Inuit Nunangat, ‘the place where Inuit live’.
Through visits to museums and exhibits on Herschel Island, in Cambridge Bay, Goa Haven and Sisimiut, and in presentations on board, we learned about the most ancient history of this land, from the first appearance of ancestral Inuit more than 5,000 years ago to the arrival of Europeans starting 500 years ago. Our nature walks on Borge and Murray Islands allowed us to wonder how people not only survived, but thrived, in lands that may seem to people who do not live there to be barren and inhospitable, but where we find almost everywhere archaeological sites left by Inuit and their ancestors. Our visit to the graves of three men of 1845 Franklin Expedition who are buried on Beechey Island reminded us that many of the Europeans who sought a sea route through the Northwest Passage failed to return home. At Dundas Harbour we visited an abandoned Royal Canadian Mounted Police Post that had been established there in 1924 to support Canada’s claim to the Arctic regions, but it was only able to function because of assistance provided to the police by Inuit who they sought to bring under Canadian laws.

Photo: Charles Arnold

Culture

Qujjannamiik, nakurmiik, quana, matna, thank you, merci and bedankt for coming on this journey. You visited places in Inuvialuit (Herschel Island, Ulukhatktok), Nunavut (Cambridge Bay, Gjoa Haven) and Greenland (Illulissat, Sisimiut). You learned about Inuit culture both modern and not so long ago. We shared some of our history, stories, music, food, myths, tattoos, language, games and oh so much more.

You came with open minds and open hearts, you asked wonderfully insightful questions and most importantly, you listened, You marvelled at the beauty of the land and people. You shared in our laughter and tears. You have given us strength. We sincerely hope you enjoyed your journey, we certainly did. Taima.

Cultural Ambassadors

Photo: Heidi Metcalf

History

We started our journey in Nome, a place that for thousands of years was a seasonal hunting settlement of the Inupiat until gold was discovered by prospectors in 1898. We entered the Bering Strait and ventured into the Arctic Ocean, our first glance into the Northwest Passage.

During this navigation we learned so much about Inuit history, including their early encounters with European explorers. We learned the reasons why the later came to these regions and how they, expedition after expedition, unveiled the secret, trecherous and intricate passages of the Canadian Arctic labyrint. We learned a great deal about the Lost Franklin Expedition, and even saw with our own eyes the famous tombs in Beechy Island.

On the second half of our voyage, we learned all about Roald Amundsen and his many successful expeditions, including his crossing of the Northwest Passage; about his mentor Fridtjof Nansen, the quest for the North Pole, amongst many other memorable names. Last but not least, we learned about the Norsemen in Greenland and the whaling history of Newfounland.

Photo: Matthew Gladhill

Science Boat

During our voyage we went out with the science boat seven times in six different places: Murray Island, Borge Island, Beechey Island, Dundas Harbour, Ilulissat and Red Bay. In order to study the change in plankton communities from west to east and in the different waters we sailed through, we took water samples and did measurements of the temperature, salinity and clarity of the water.

We did tows of the plankton net to collect water samples for investigation under the microscope and demonstrated how to use the Secchi disk to determine the clarity of the water, i.e. the abundance of phytoplankton. By deploying the CTD, we received information about the changes of temperature and salinity with depth in the water column.

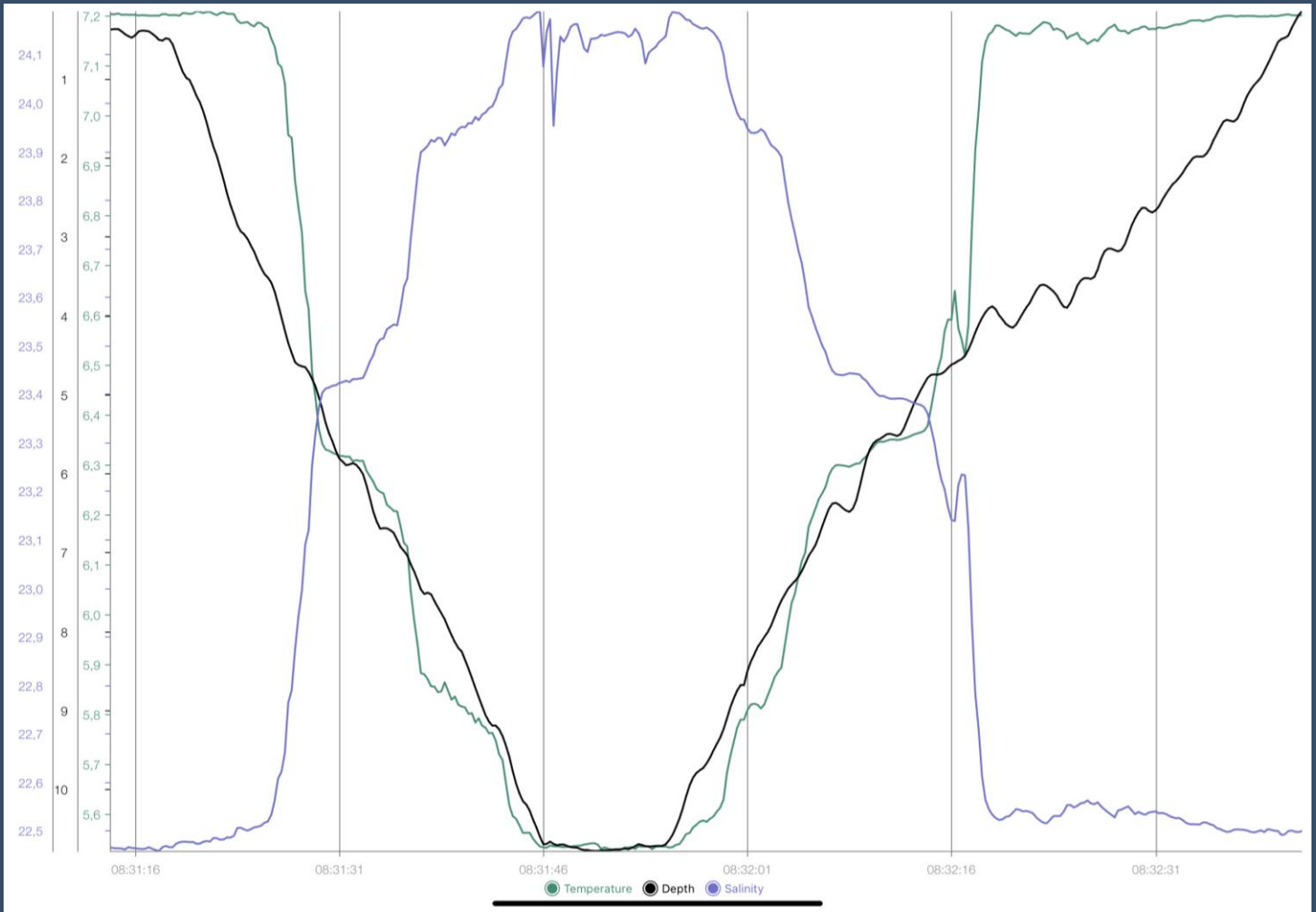

Photo: Matthew Gladhill

CTD

We utilize CTD (Conductivity, Temperature, Depth) profiles to analyze the stratification within the water column, as both temperature and salinity significantly influence water density. This stratification provides insights into nutrient replenishment at the surface, which is crucial for phytoplankton photosynthesis. Typically, salinity increases with depth while temperature decreases, since cold, salty water is denser than warm, less salty water.

We deployed the CTD in Borge Island, Beechey Island, Dundas Harbour, Ilulissat and Red Bay.
The profile show a similar trend except for that from Ilulissat where we had very different environmental conditions, i.e. icebergs from a calving glacier.
The following slides show the individual depth profiles.

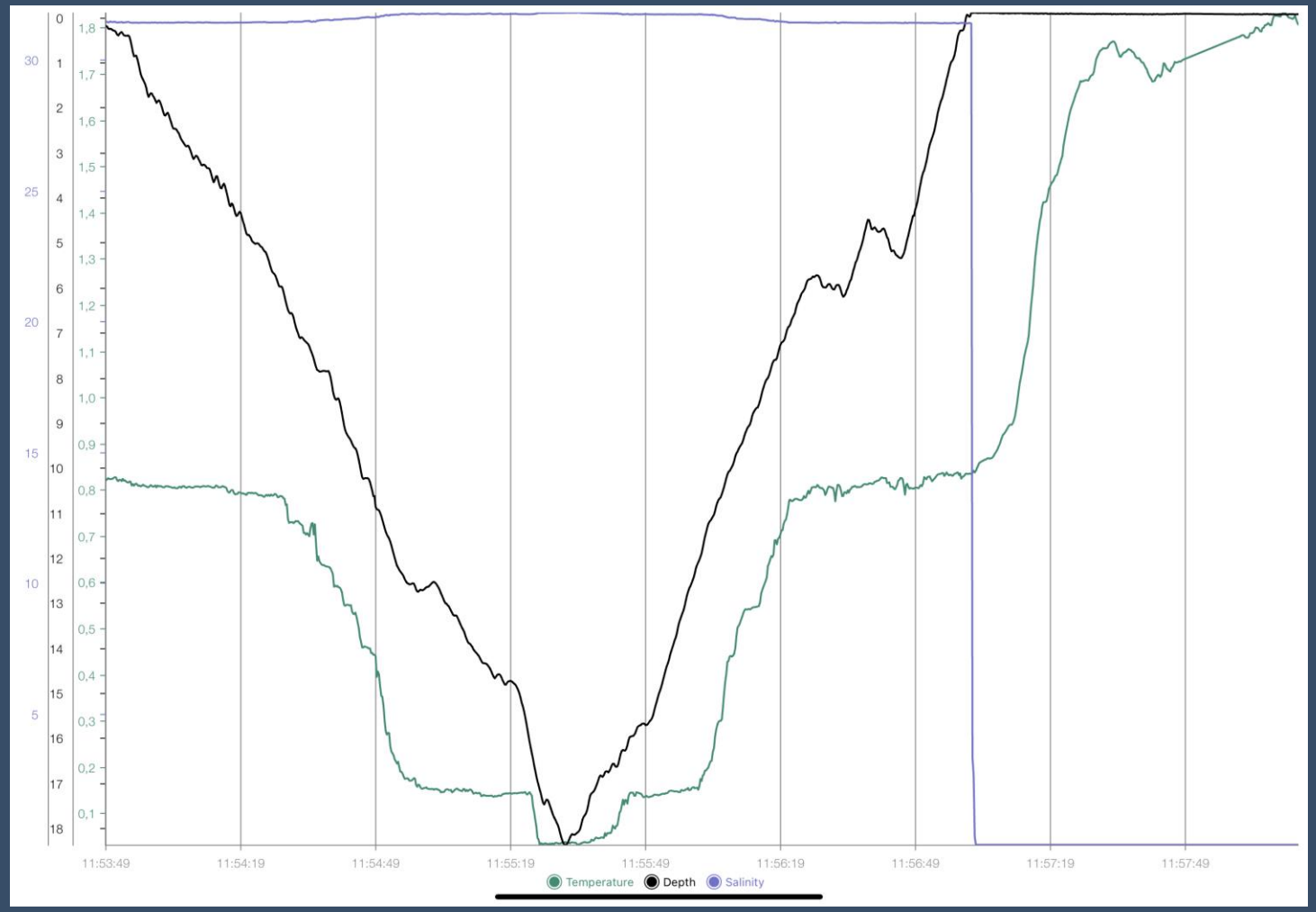
Depth Profile: Borge Island



Our CTD profile from Borge Island/NWP/Arctic Canada confirms the above described normal pattern, showing a clear increase in salinity and a decrease in temperature with depth. However, the relatively small changes suggest a well-mixed water column.

Temperature (°C)
Salinity (PSU)
Depth (m)

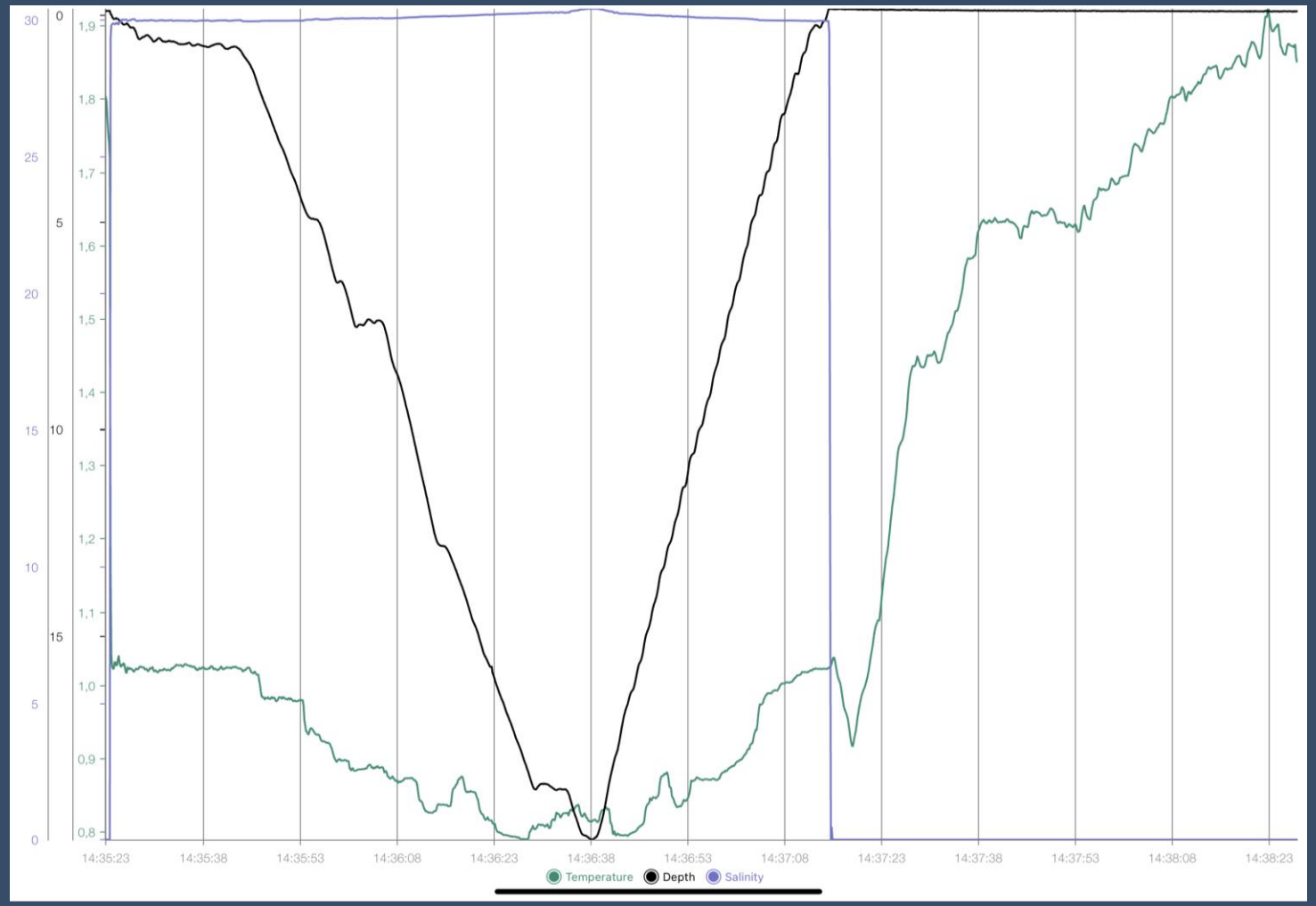
Depth Profile: Beechey Island



Our CTD profile from Beechey Island /NWP/Arctic Canada confirms the above described normal pattern, showing a clear increase in salinity and a decrease in temperature with depth. However, the relatively small changes suggest a well-mixed water column.

Temperature (°C)
Salinity (PSU)
Depth (m)

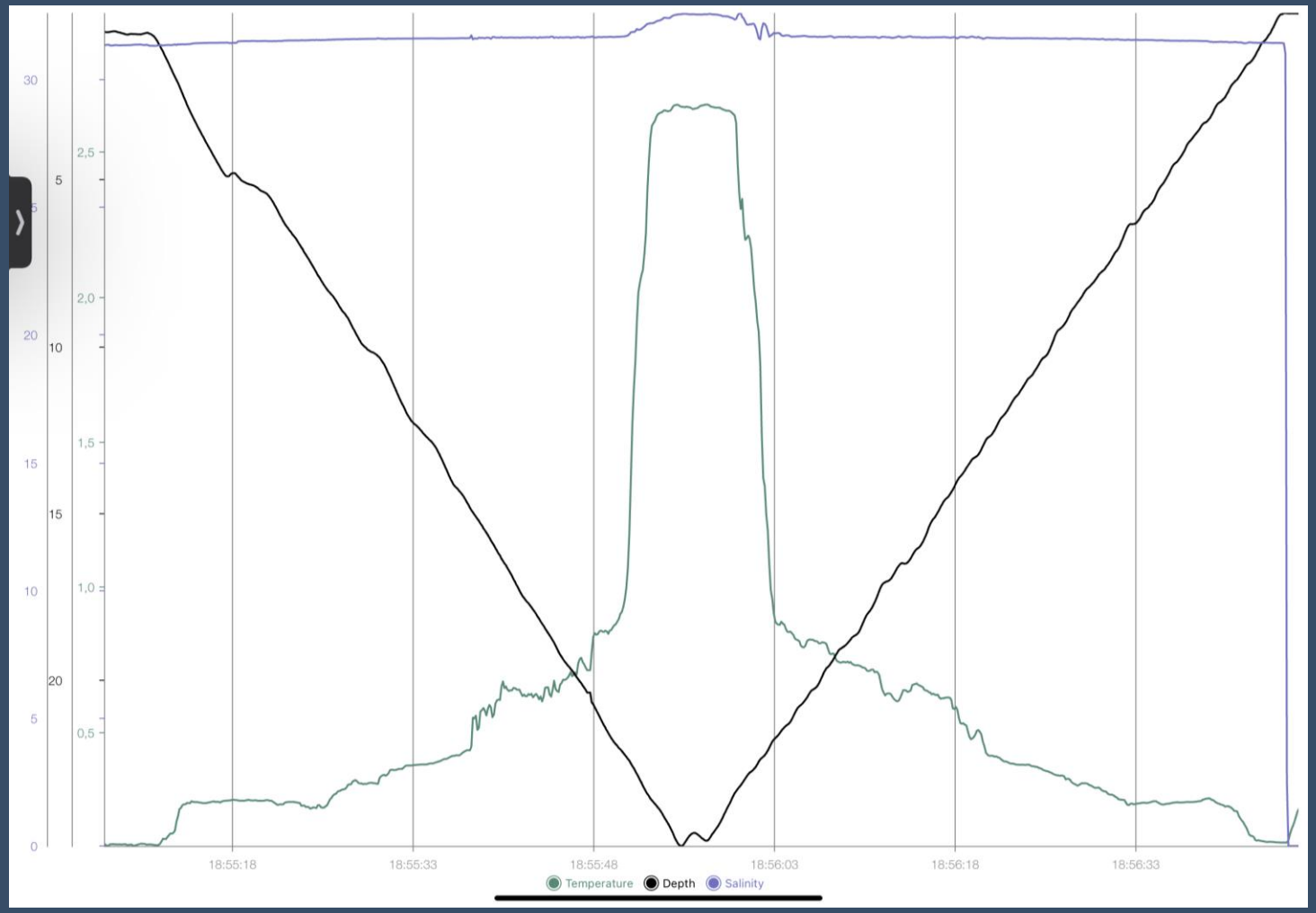
Depth Profile: Dundas Harbour



Our CTD profile from Dundas Harbour /NWP/Arctic Canada confirms this pattern, showing a clear increase in salinity and a decrease in temperature with depth. However, the relatively small changes suggest a well-mixed water column.

Temperature (°C)
Salinity (PSU)
Depth (m)

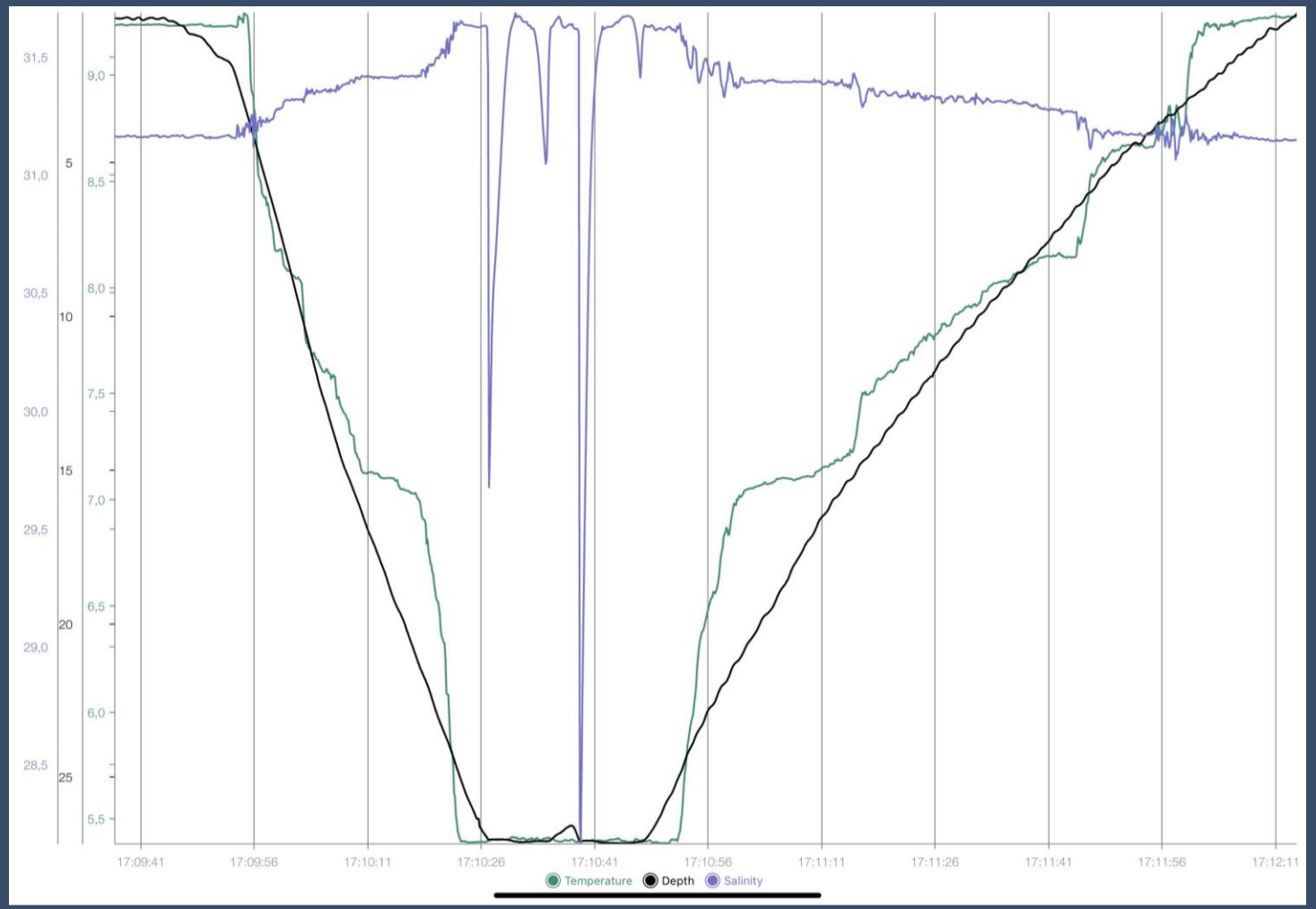
Depth Profile: Ilulissat



Temperature (°C)
Salinity (PSU)
Depth (m)

Our CTD profile from Ilulissat/Greenland shows an inversion of the temperature trend with increasing temperatures with depth. The salinity also increases with depth as expected. The temperature inversion is due to melting ice and cold freshwater input at the surface. At ca. 20 m depth the temperature jumps up by 2 °C. This creates a density boundary that might inhibit mixing of deeper water with surface water and therefore also nutrient transport from depth to the surface.

Depth Profile: Red Bay



Our CTD profile from Red Bay/Labrador confirms the above described normal pattern, showing a clear increase in salinity and a decrease in temperature with depth. However, the relatively small changes suggest a well-mixed water column.

Temperature (°C)
Salinity (PSU)
Depth (m)

Water Sampling

We collected water samples in nine different locations from west to east.
Three of those samples were collected from the ship: Point Barrow, Meeting point with Nansen near Smoking Hills and Ulukhaktok.
Six of the samples were taken from the science boat: Murray Island, Borge Island, Beechey Island, Dundas Harbour, Ilulissat and Red Bay.
The net was dragged fully submerged through the water for three minutes.

The net had a mesh size of 20µm which is suitable to catch phytoplankton.

Photo: Matthew Gladhill

Photo: Oscar Farrera

Plankton Samples

We investigated all of our water samples under the microscopes in the science center in oder to identify the different species of phytoplankton and zooplankton.
The images of the big research microscope could be projected to the screen so that everyone around could see what we found in the drops of water. Guests could also use the smaller binocular microscopes to get hands-on and try to find the tiny organisms in our water samples.

The following slides show a summary of the plankton for each sampling site!

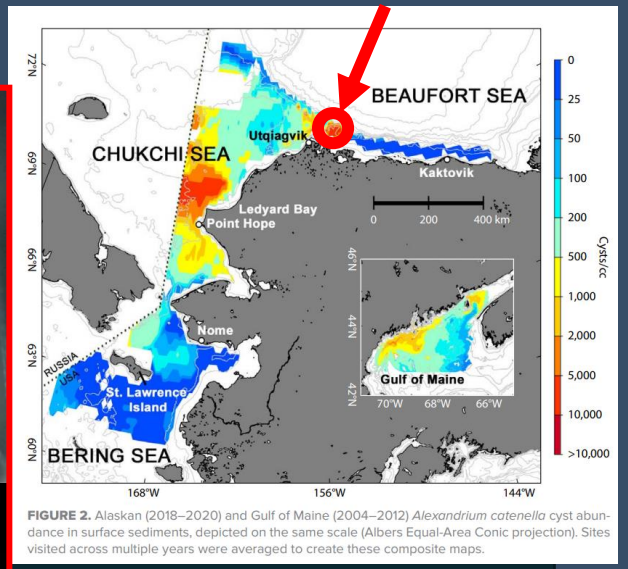
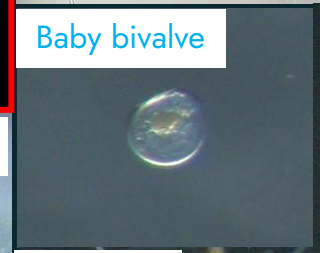


FIGURE 2. Alaskan (2018–2020) and Gulf of Maine (2004–2012) *Alexandrium catenella* cyst abundance in surface sediments, depicted on the same scale (Albers Equal-Area Conic projection). Sites visited across multiple years were averaged to create these composite maps.



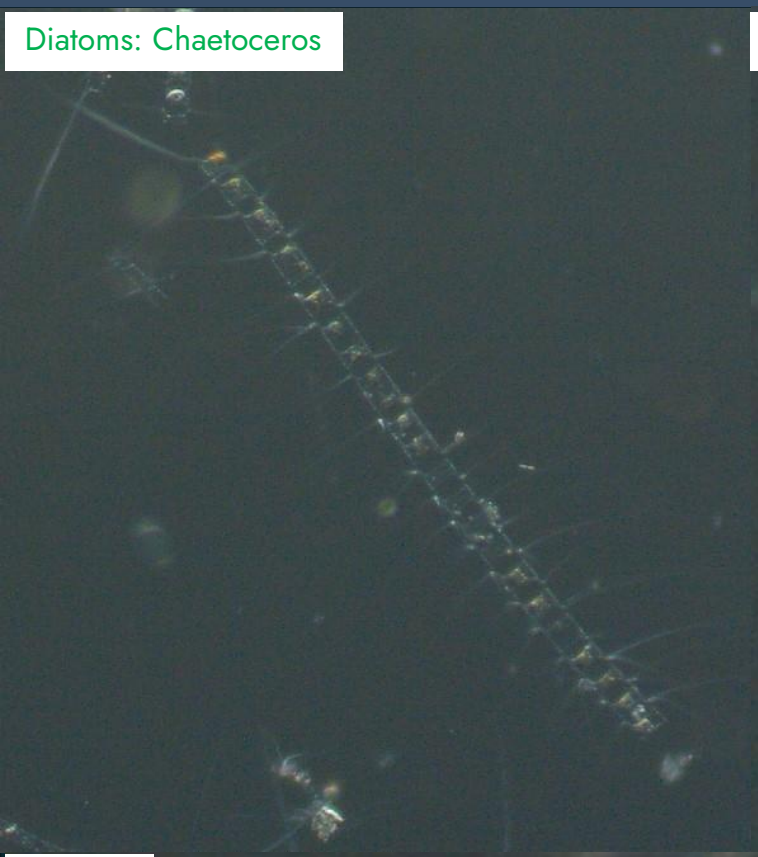
Point Barrow

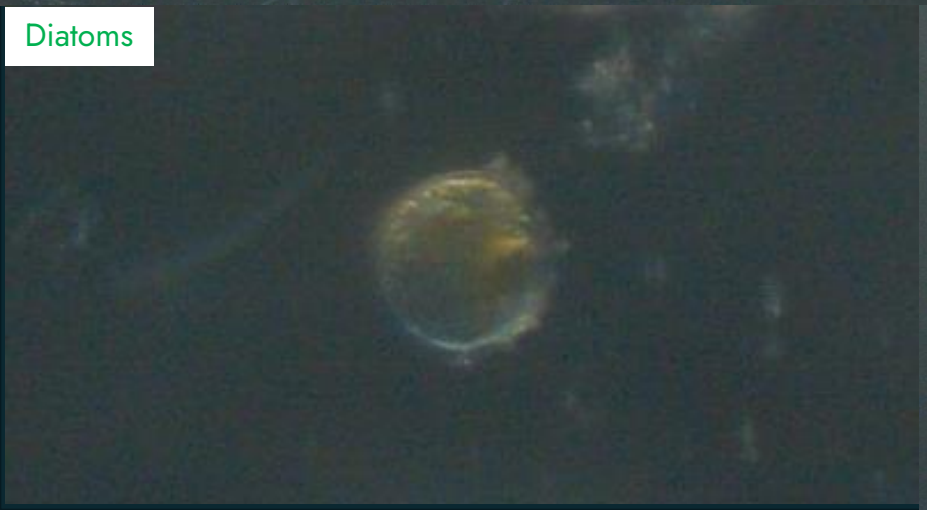
Water sampling for «Harmful Algal Bloom» (HAB) project:

- Stopped ship near Point Barrow
- 3 minute plankton tow from the tender garage
- Salinity 30ppm, air temp 2° C, water temp 5 ° C
- Investigation of 2 drops of water on gridded slide under the microscope
- 1 out of 7 harmful algae target species found:
  Diatom Chaetoceros (elevated abundance; clog fish gills);
- Data sent to „Harmful Algal Bloom“ Project
- No need to send samples

Learn more about the PMN's projects here: Phytoplankton Monitoring Network (PMN) - NCCOS Coastal Science Website (noaa.gov)

Phytoplankton Zooplankton

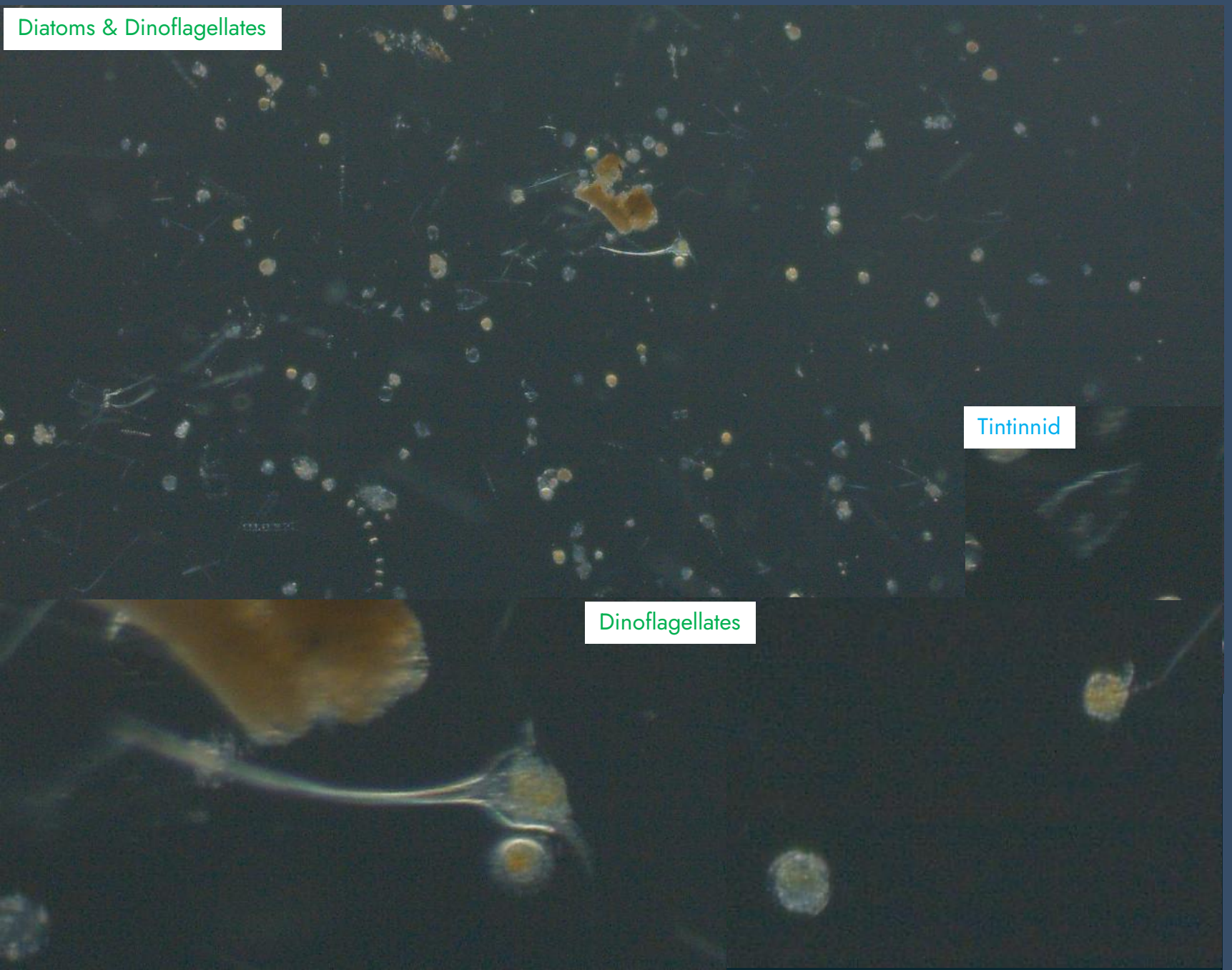




Murray Island

- Plankton tow from science boat for 3 minutes
- Mostly phytoplankton and only a few zooplankton
- Mostly diatoms
- Some dinoflagellates

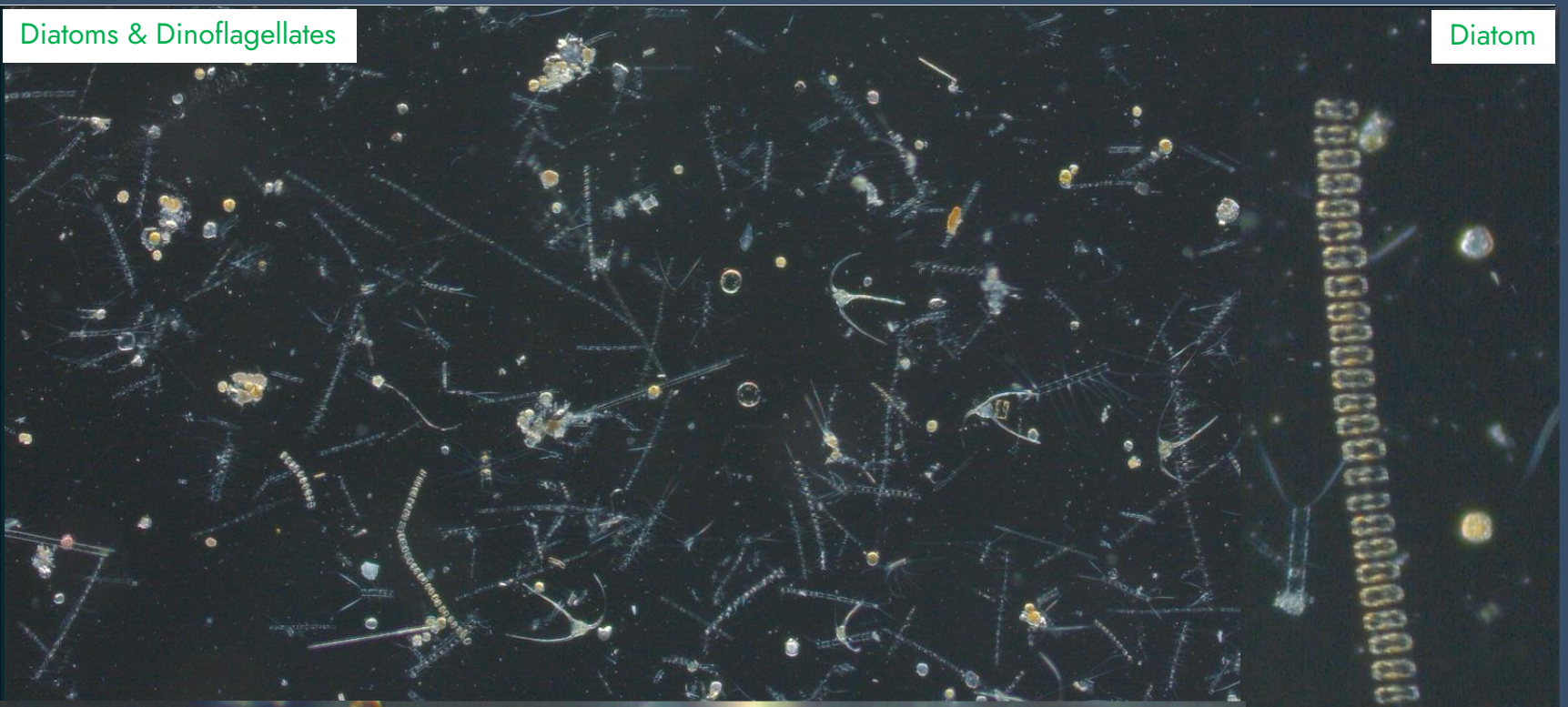
Phytoplankton Zooplankton

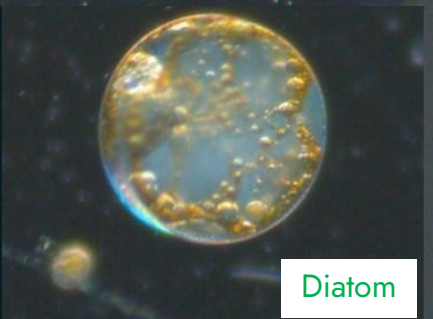


Meeting Nansen near Smoking Hills

- Plankton tow from tender pit
- Mostly phytoplankton, very few zooplankton
- Dinoflagellates & diatoms

Phytoplankton Zooplankton

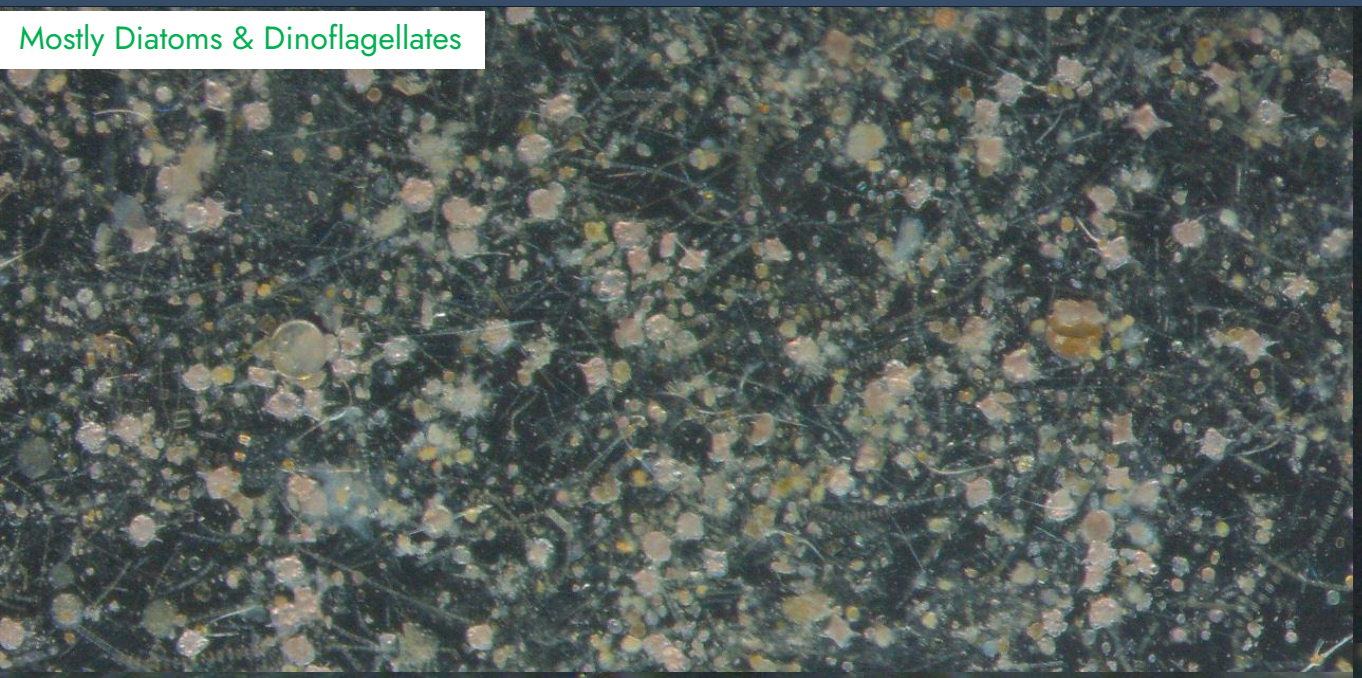


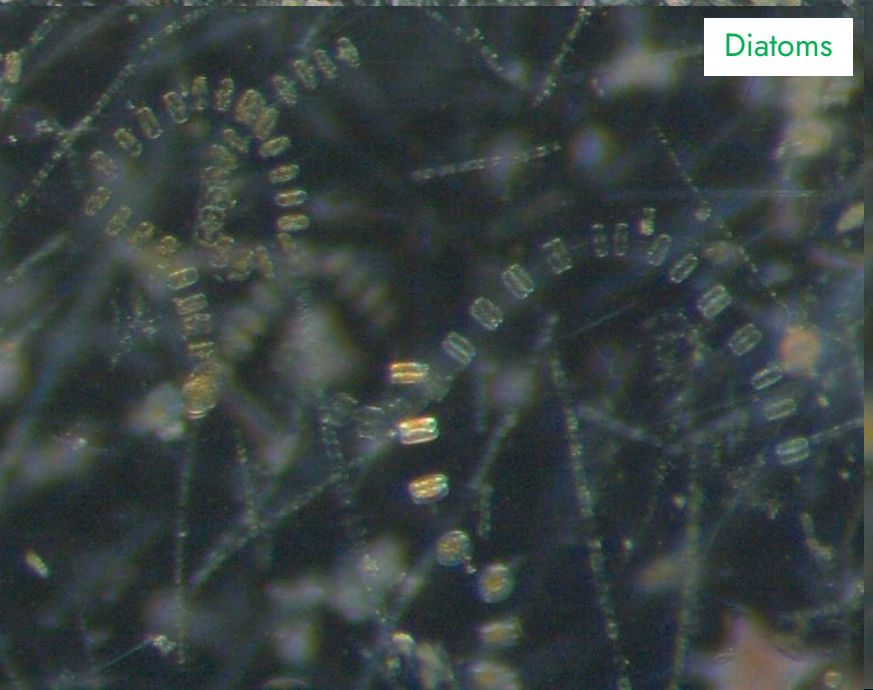


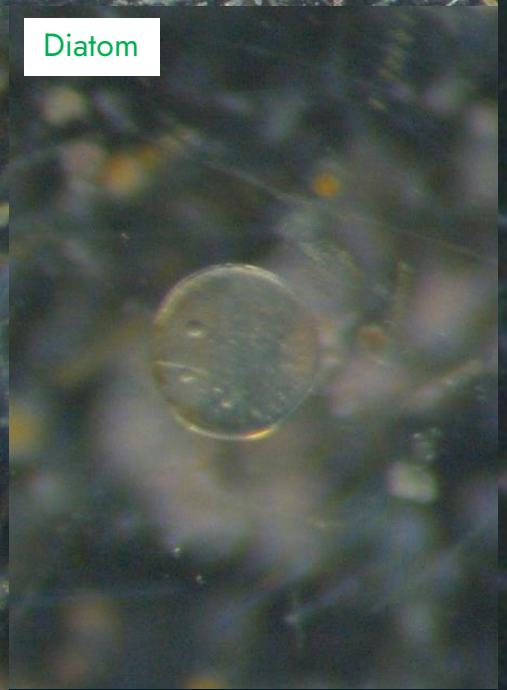
Borge Island

- Plankton tow from science boat
- Mostly phytoplankton: Dinoflagellates & diatoms
- Very few zooplankton: Tintinnids, copepods

Phytoplankton Zooplankton



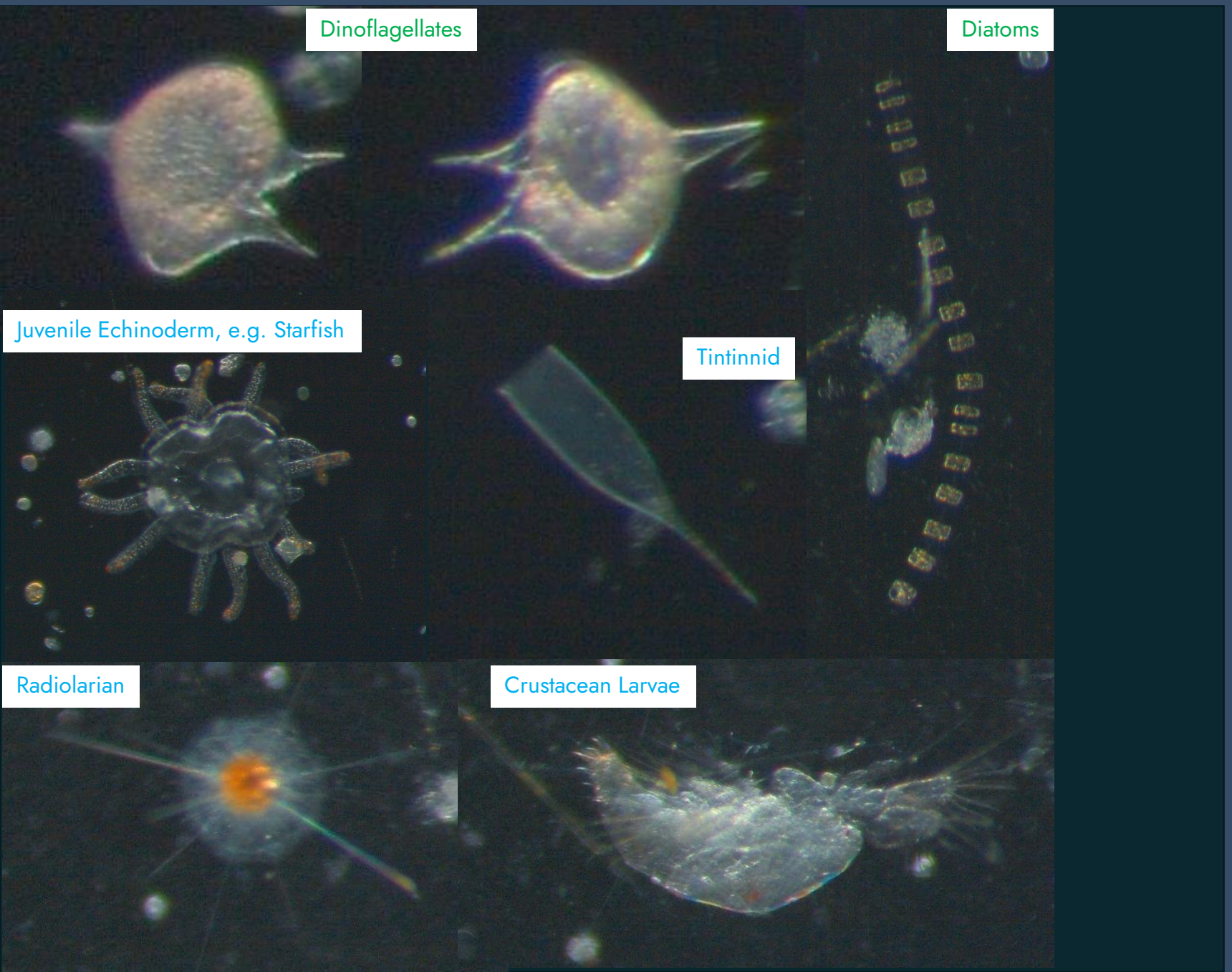




Beechey Island

- Plankton tow from science boat
- Mostly phytoplankton: Different species of dinoflagellates & diatoms
- Very few zooplankton: Tintinnids, copepods

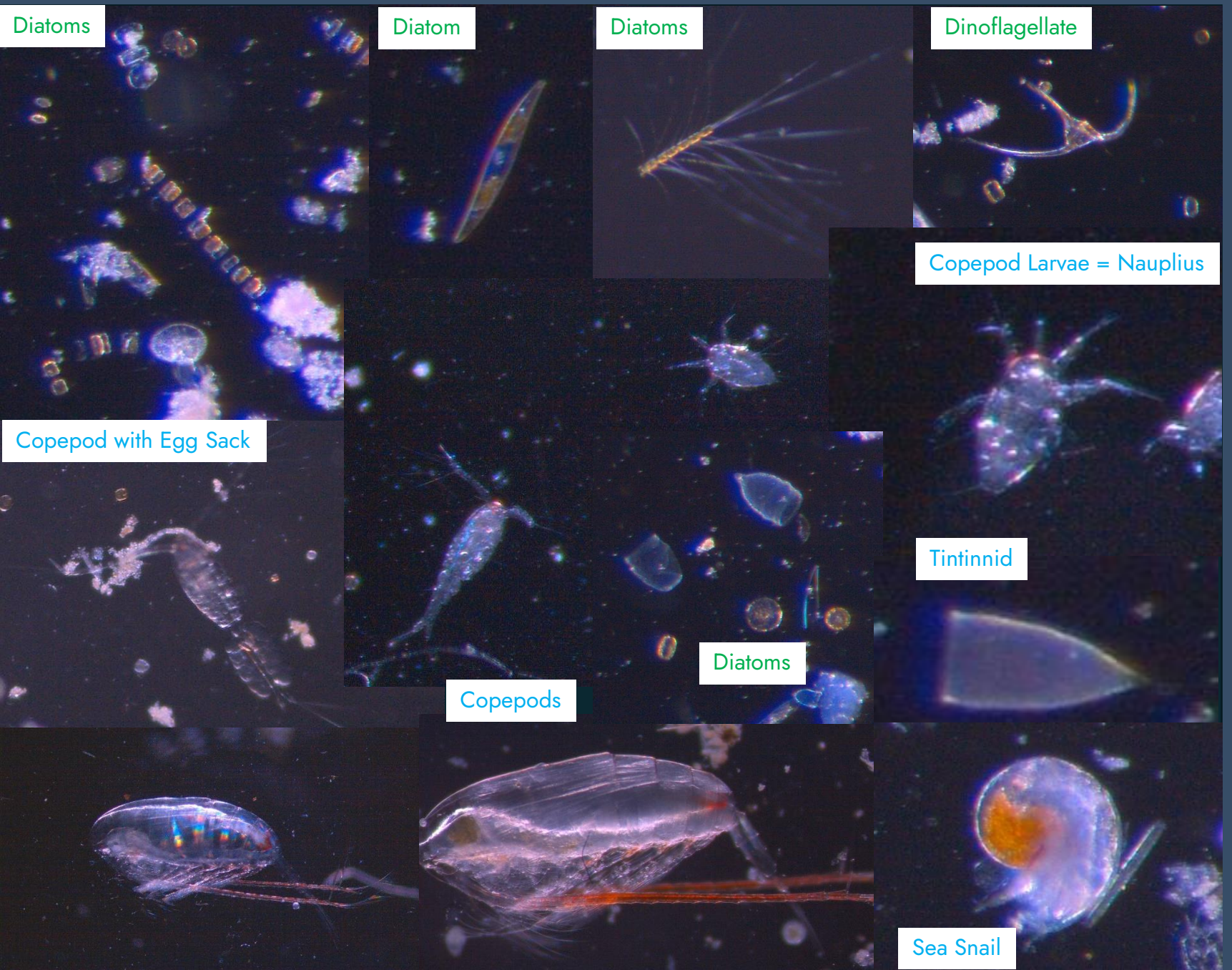
Phytoplankton Zooplankton



Dundas Harbour

- Plankton tow from science boat
- Phytoplankton:
  Dinoflagellates & diatoms
- Some zooplankton:
  Juvenile echinoderms such as starfish or sea urchins, tintinnid, copepod larvae, radiolarian

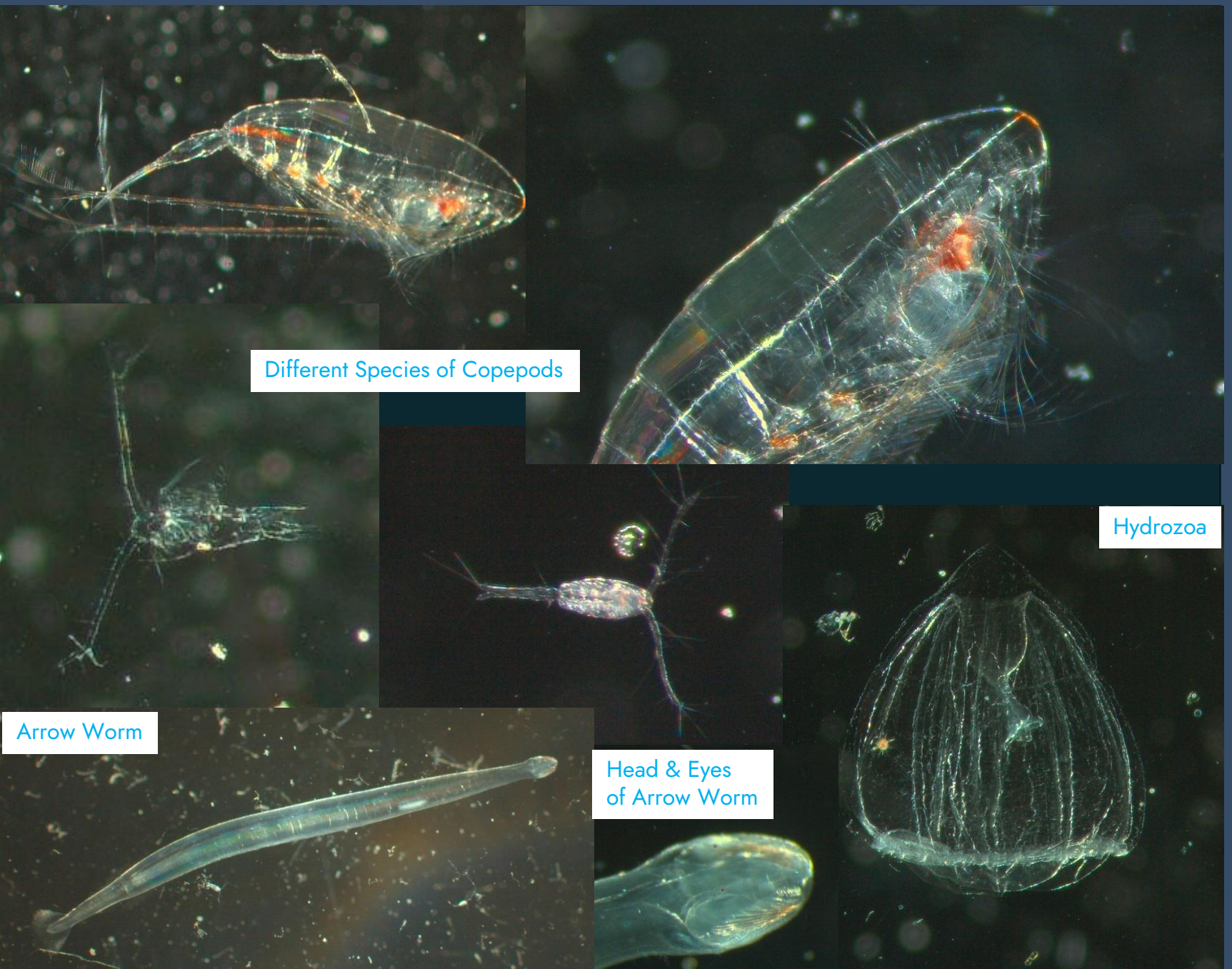
Phytoplankton Zooplankton



Ilulissat

- Plankton tow from science boat; lots of ice pieces around
- Abundant marine snow (=dead organic matter)
- Phytoplankton: Dinoflagellates & diatoms
- Zooplankton: Tintinnids, various stadiums of copepods, sea snail

Phytoplankton Zooplankton



Red Bay

- Plankton tow from science boat
- Phytoplankton: Dinoflagellates & diatoms
- Zooplankton: Different species of copepods, hydrozoa, arrow worm

Phytoplankton Zooplankton

Underwater Drone

We deployed our underwater drone from the science boat in Murray Island and Ilulissat.

In Murray Island the seafloor was quite barren due to ice scouring and a lack of nutrient input from the relatively barren island.

In Ilulissat we had the opportunity to watch small ice bergs and pieces of ice from below. We got to see kelp, fish and a sunflower sea star.

View the highlights from our underwater drone footage on HX Underwater Drone Footage YouTube Channel

29 Aug 2024
Murray Island

7 September 2024
Ilulissat

Photo: Matthew Gladhill

NASA Cloud Observer

Our NASA citizen scientists submitted 4 observations to the global database run by NASA. Our observations were matched to data from weather satellites orbiting above and will be used to better understand global weather phenomena.

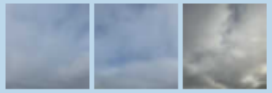
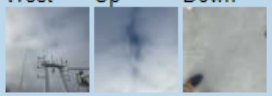
If you would like to continue cloud observations at home, you can download the app ‘GLOBE Observer.’

View our data on the global map

GLOBE Cloud Observations Paired with NASA Satellite Data

Total Satellite Comparisons: 153

Useful Resources: How to Read My NASA GLOBE Clouds Satellite Comparison Table, How to Compare My Cloud Observations with Satellite Data, Cloud Cover, Cloud Type, Cloud Opacity, Satellites

Observation	GLOBE	Terra Satellite
Universal Date/Time	2024-08-26 00:23:00	2024-08-26 00:07
Latitude	70.42	70.35 to 71.15
Longitude	-143.29	-143.91 to -143.11
Total Cloud Cover	Overcast (>90%)	Overcast 100.00%
High Clouds		
Mid Clouds		Cover: Few (1.93%) Altitude: 4.75 (km) Phase: Ice 249.4 (K) Opacity: Transparent
Low Clouds	 Stratus  Stratocumulus Cover: Overcast (>90%) Opacity: Translucent	Cover: Overcast 98.07% Altitude: 1.02 (km) Phase: Water 270.28 (K) Opacity: Translucent
GLOBE Cloud Photos and Corresponding NASA Satellite Images. Click image to view -->** *Note: Photos submitted though GLOBE need approval before being displayed, this may take a few days.*	GLOBE Photos North East South  West Up Down 	*MODIS Terra* Worldview  Worldview Tutorial

NASA Cloud Report

The „NASA GLOBE Cloud Satellite Match“ reports provide an overview of our observation (blue) compared with the satellites‘ observations (white).

This data is used by NASA to verify their satellite data and to improve forecasting the weather.

View our data on the global map

iNaturalist

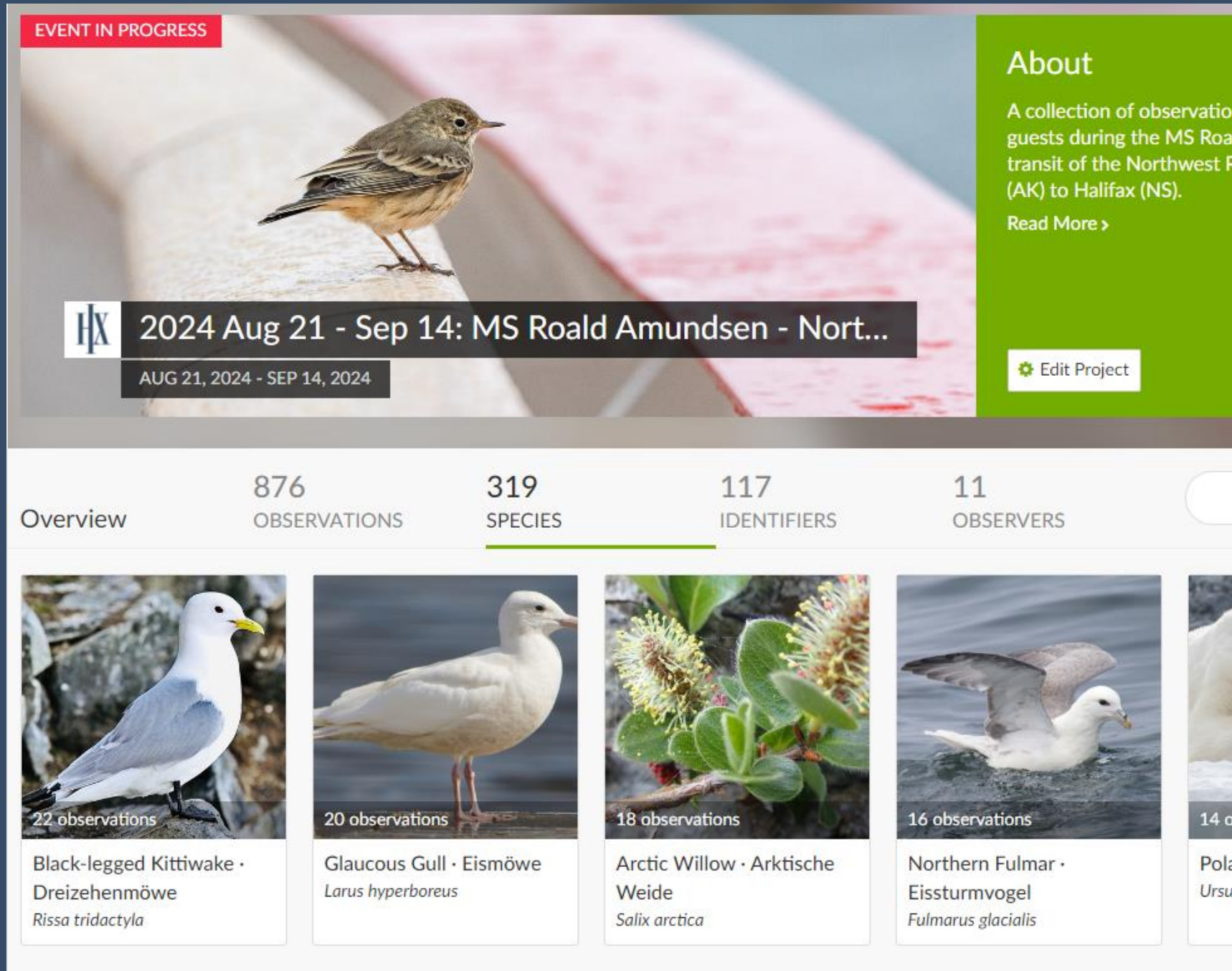
Our onboard naturalists and guests used the citizen science app iNaturalist to record the flora and fauna seen on our journey. Our observations are available to be used in scientific research around the world.

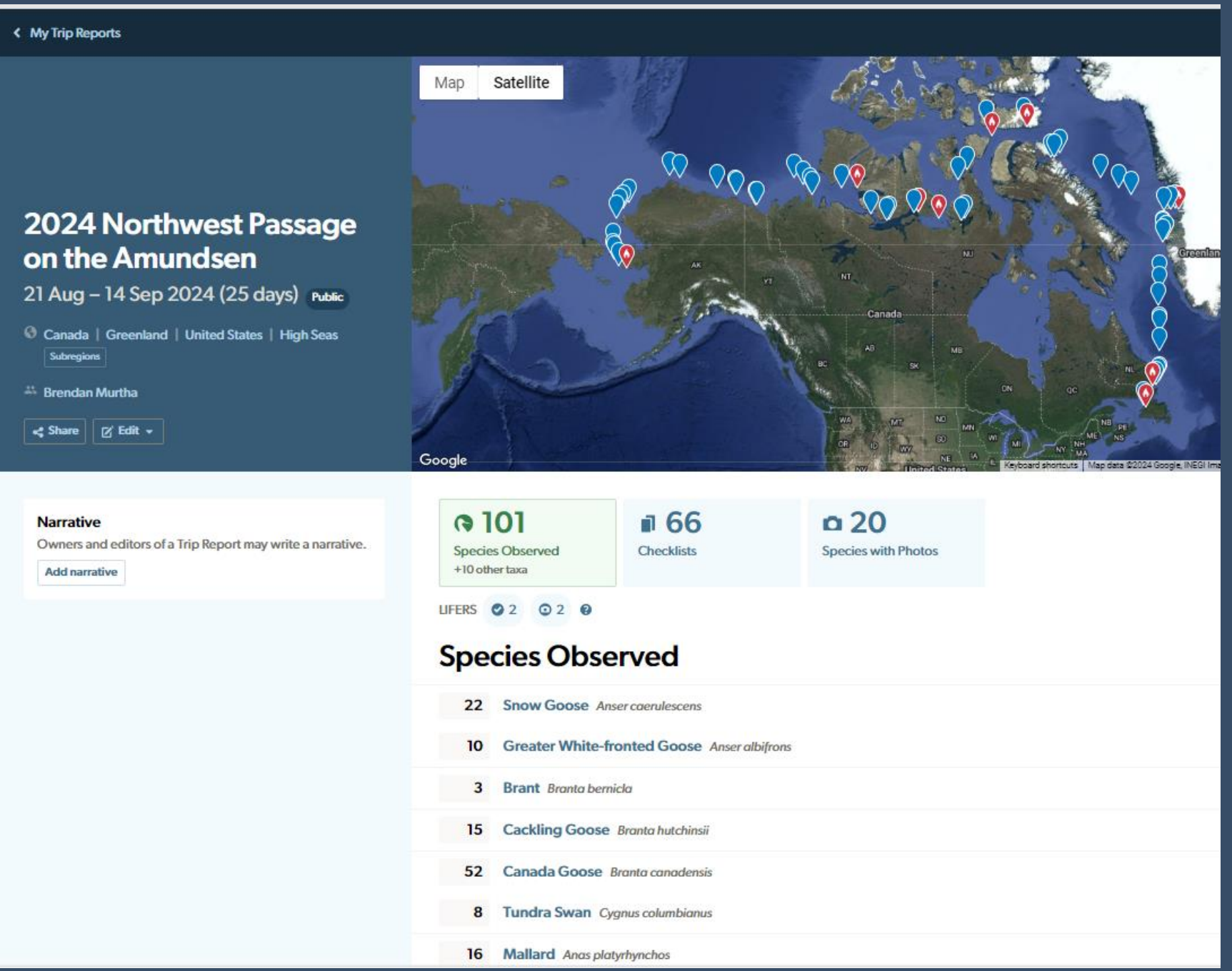
In total we recorded:
- 319 Species
- 876 Total Observations

Submissions are still possible!

View our data submitted on our iNaturalist project here:

[2024 Aug 21 - Sep 14: MS Roald Amundsen - Northwest Passage (AMNWP2407) · iNaturalist]





eBird

Our onboard ornithologist was constantly surveying the birdlife we encountered along our route. Including 23 formal Wildlife Watches we recorded 101 species across 66 eBird checklists. Through the eBird platform, the data we collected is available for scientists around the world.

View our data for this trip here: [2024 Northwest Passage on the Amundsen - eBird Trip Report]

Happywhale

We encountered 8 species of whales and dolphins during our NWP trip. We have submitted 4 humpback flukes to ID and received two matches, including one whale new to science! (Pictured right)
Our guests can also submit photos of individuals from this trip – especially the flukes of humpback whales – to Happywhale to add to their catalogue of identified whales across the world.

View the MS Roald Amundsen's submissions to Happywhale during our voyage: https://happywhale.com/user/11890;svy=107984

Wildlife List - Birds

Wildlife List – Birds

Scientific Name	English	Deutsch	Francais	Norsk
Anser caerulescens	**Snow Goose**	Schneegans	Oie des neiges	Snøgås
Anser albifrons	**Greater White-fronted Goose**	Blässgans	Oie rieuse	Tundragås
Branta bernicla	**Brant**	Ringelgans	Bernache cravant	Ringgås
Branta hutchinsii	**Cackling Goose**	Zwergkanadagans	Bernache de Hutchins	Polargås
Branta canadensis	**Canada Goose**	Kanadagans	Bernache du Canada	Kanadagås
Cygnus columbianus	**Tundra Swan**	Zwergschwan	Cygne siffleur	Dvergsvane
Anas platyrhynchos	**Mallard**	Stockente	Canard colvert	Stokkand
Anas rubripes	**American Black Duck**	Dunkelente	Canard noir	Rødfotand
Anas acuta	**Northern Pintail**	Spießente	Canard pilet	Stjertand
Anas crecca	**Green-winged Teal**	Krickente	Sarcelle d'hiver	krikkand
Somateria spectabilis	**King Eider**	Prachteiderente	Eider à tête grise	Praktærfugl
Somateria mollissima	**Common Eider**	Eiderente	Eider à duvet	Ærfugl
Somateria fischeri	**Spectacled Eider**	Plüschkopfente	Eider à lunettes	brilleærfugl
Polysticta stelleri	**Steller's Eider**	Scheckente	Eider de Steller	stellerand
Melanitta perspicillata	**Surf Scoter**	Brillenente	Macreuse à front blanc	Brilleand
Melanitta deglandi	**White-winged Scoter**	Höckersamtente	Macreuse à ailes blanches	amerikasjøorre
Clangula hyemalis	**Long-tailed Duck**	Eisente	Harelde kakawi	Havelle

Wildlife List – Birds

Scientific Name	English	Deutsch	Francais	Norsk
Bucephala clangula	**Common Goldeneye**	Schellente	Garrot à oeil d'or	kvinand
Mergus serrator	**Red-breasted Merganser**	Mittelsäger	Harle huppé	Siland
Columba livia	**Rock Pigeon**	Felsentaube	Pigeon biset	Klippedue (Bydue)
Antigone canadensis	**Sandhill Crane**	Kanadakranich	Grue du Canada	Kanadatrane
Charadrius vociferus	**Killdeer**	Keilschwanz-Regenpfeifer	Pluvier kildir	tobeltelo
Charadrius semipalmatus	**Semipalmated Plover**	Eskimoregenpfeifer	Pluvier semipalmé	amerikasandlo
Phalaropus lobatus	**Red-necked Phalarope**	Odinshühnchen	Phalarope à bec étroit	Svømmesnipe
Phalaropus fulicarius	**Red Phalarope**	Thorshühnchen	Phalarope à bec large	Polarsvømmesnipe
Tringa melanoleuca	**Greater Yellowlegs**	Großer Gelbschenkel	Grand Chevalier	Plystresnipe
Actitis macularius	**Spotted Sandpiper**	Drosseluferläufer	Chevalier grivelé	Flekksnipe
Arenaria interpres	**Ruddy Turnstone**	Steinwälzer	Tournepierre à collier	Steinvender
Calidris maritima	**Purple Sandpiper**	Meerstrandläufer	Bécasseau violet	Fjæreplytt
Calidris bairdii	**Baird's Sandpiper**	Bairdstrandläufer	Bécasseau de Baird	Gulbrystsnipe
Calidris fuscicollis	**White-rumped Sandpiper**	Weißbürzel-Strandläufer	Bécasseau à croupion blanc	Bonapartesnipe
Calidris melanotos	**Pectoral Sandpiper**	Graubrust-Strandläufer	Bécasseau à poitrine cendrée	Alaskasnipe
Calidris himantopus	**Stilt Sandpiper**	Bindenstrandläufer	Bécasseau à échasses	styltesnipe
Calidris alpina	**Dunlin**	Alpenstrandläufer	Bécasseau variable	myrsnipe

Wildlife List – Birds

Scientific Name	English	Deutsch	Francais	Norsk
Calidris pusilla	**Semipalmated Sandpiper**	Sandstrandläufer	Bécasseau semipalmé	sandsnipe
Caldris alba	**Sanderling**	Sanderling	Bécasseau sanderling	sandløper
Stercorarius longicaudus	**Long-tailed Jaeger**	Falkenraubmöwe	Labbe à longue queue	Fjelljo
Stercorarius parasiticus	**Parasitic Jaeger**	Schmarotzerraubmöwe	Labbe parasite	Tyvjo
Stercorarius pomarinus	**Pomarine Jaeger**	Spatelraubmöwe	Labbe pomarin	Polarjo
Fratercula cirrhata	**Tufted Puffin**	Gelbschopflund	Macareux huppé	Topplunde
Fratercula arctica	**Atlantic Puffin**	Papageitaucher	Macareux moine	Lunde
Fratercula corniculata	**Horned Puffin**	Hornlund	Macareux cornu	Hornlunde
Aethia pusilla	**Least Auklet**	Zwergalk	Starique minuscule	Flekkdvergalke
Aethia cristatella	**Crested Auklet**	Schopfalk	Starique cristatelle	Toppdvergalke
Aethia psittacula	**Parakeet Auklet**	Rotschnabelalk	Starique perroquet	Papegøyealke
Cepphus grylle	**Black Guillemot**	Grylleiste	Guillemot à miroir	Teist
Alca torda	**Razorbill**	Tordalk	Petit Pingouin	Alke
Alle alle	**Dovekie**	Krabbentaucher	Mergule nain	Alkekonge
Uria lomvia	**Thick-billed Murre**	Dickschnabellumme	Guillemot de Brünnich	Polarlomvi
Uria aalge	**Common Murre**	Trottellumme	Guillemot marmette	Lomvi
Rissa tridactyla	**Black-legged Kittiwake**	Dreizehenmöwe	Mouette tridactyle	Krykkje

Wildlife List – Birds

Scientific Name	English	Deutsch	Francais	Norsk
Xema sabini	**Sabine's Gull**	Schwalbenmöwe	Mouette de Sabine	Sabinemåke
Pagophila eburnea	**Ivory Gull**	Elfenbeinmöwe	Mouette blanche	ismåke
Larus delawarensis	**Ring-billed Gull**	Ringschnabelmöwe	Goéland à bec cerclé	Ringnebbmåke
Larus brachyrhynchus	**Short-billed Gull**	Kurzschnabel-Sturmmöwe	Goéland à bec court	kortnebbmåke
Larus smithsonianus	**Herring Gull**	Kanadamöwe	Goéland hudsonien	Amerikagråmåke
Larus marinus	**Great Black-backed Gull**	Mantelmöwe	Goéland marin	Svartbak
Larus hyperboreus	**Glaucous Gull**	Eismöwe	Goéland bourgmestre	Polarmåke
Larus fuscus	**Lesser Black-backed Gull**	Heringsmöwe	Goéland brun	Sildemåke
Larus glaucescens	**Glaucous-winged Gull**	Beringmöwe	Goéland à ailes grises	Gråvingemåke
Larus glaucoides	**Iceland Gull**	Polarmöwe	Goéland arctique	Grønlandsmåke
Sterna paradisaea	**Arctic Tern**	Küstenseeschwalbe	Sterne arctique	Rødnebbterne
Gavia stellata	**Red-throated Loon**	Sterntaucher	Plongeon catmarin	Smålom
Gavia pacifica	**Pacific Loon**	Pazifiktaucher	Plongeon du Pacifique	Amerikastorlom
Gavia immer	**Common Loon**	Eistaucher	Plongeon huard	Islom
Gavia adamsii	**Yellow-billed Loon**	Gelbschnabeltaucher	Plongeon à bec blanc	Gulnebblom
Fulmarus glacialis	**Northern Fulmar**	Eissturmvogel	Fulmar boréal	Havhest
Ardenna gravis	**Great Shearwater**	Großer Sturmtaucher	Puffin majeur	Storlire

Wildlife List – Birds

Scientific Name	English	Deutsch	Francais	Norsk
Ardenna grisea	**Sooty Shearwater**	Dunkler Sturmtaucher	Puffin fuligineux	Grålire
Ardenna tenuirostris	**Short-tailed Shearwater**	Kurzschwanz-Sturmtaucher	Puffin à bec grêle	Smalnebblire
Morus bassanus	**Northern Gannet**	Basstölpel	Fou de Bassan	Havsule
Nannopterum auritus	**Double-crested Cormorant**	Ohrenscharbe	Cormoran à aigrettes	Totoppskarv
Urile pelagicus	**Pelagic Cormorant**	Meerscharbe	Cormoran pélagique	beringskarv
Buteo lagopus	**Rough-legged Hawk**	Raufußbussard	Buse pattue	fjellvåk
Bubo scandiacus	**Snowy Owl**	Schneeeule	Harfang des neiges	snøugle
Dryobates pubescens	**Downy Woodpecker**	Dunenspecht	Pic mineur	Dunspett
Dryobates villosus	**Hairy Woodpecker**	Haarspecht	Pic chevelu	Indianerspett
Falco columbarius	**Merlin**	Merlin	Faucon émerillon	Dvergfalk
Falco rusticolus	**Gyrfalcon**	Gerfalke	Faucon gerfaut	Jaktfalk
Falco peregrinus	**Peregrine Falcon**	Wanderfalke	Faucon pèlerin	Vandrefalk
Cyanocitta cristata	**Blue Jay**	Blauhäher	Geai bleu	Blåskrike
Corvus brachyrhynchos	**American Crow**	Amerikakrähe	Corneille d'Amérique	Amerikakråke
Corvus corax	**Common Raven**	Kolkrabe	Grand Corbeau	Ravn
Poecile atricapillus	**Black-capped Chickadee**	Schwarzkopfmeise	Mésange à tête noire	Amerikameis
Corthylio calendula	**Ruby-crowned Kinglet**	Rubingoldhähnchen	Roitelet à couronne rubis	Rubinfuglekonge

Wildlife List – Birds

Scientific Name	English	Deutsch	Francais	Norsk
Turdus migratorius	**American Robin**	Wanderdrossel	Merle d'Amérique	Vandretrost
Oenanthe oenanthe	**Northern Wheatear**	Steinschmätzer	Traquet motteux	Steinskvett
Anthus rubescens	**American Pipit**	Pazifikpieper	Pipit d'Amérique	Myrpiplerke
Acanthis flammea	**Common Redpoll**	Birkenzeisig	Sizerin flammé	Gråsisik
Spinus tristis	**American Goldfinch**	Goldzeisig	Chardonneret jaune	Gulstillits
Calcarius lapponicus	**Lapland Longspur**	Spornammer	Plectrophane lapon	Lappspurv
Plectrophenax nivalis	**Snow Bunting**	Schneeammer	Plectrophane des neiges	Snøspurv
Junco hyemalis	**Dark-eyed Junco**	Winterammer	Junco ardoisé	Vinterjunko
Zonotrichia leucophrys	**White-crowned Sparrow**	Dachsammer	Bruant à couronne blanche	Hvitkronespurv
Zonotrichia albicollis	**White-throated Sparrow**	Weißkehlammer	Bruant à gorge blanche	Hvitstrupespurv
Passerculus sandwichensis	**Savannah Sparrow**	Grasammer	Bruant des prés	Musespurv
Melospiza lincolnii	**Lincoln's Sparrow**	Lincolnammer	Bruant de Lincoln	Gråbrynspurv
Euphagus carolinus	**Rusty Blackbird**	Roststärling	Quiscale rouilleux	Kanadatrupial
Quiscalus quiscula	**Common Grackle**	Purpurgrackel	Quiscale bronzé	Glanstrupial
Mniotilta varia	**Black-and-white Warbler**	Kletterwaldsänger	Paruline noir et blanc	Klatreparula
Setophaga ruticilla	**American Redstart**	Rotschwanz-Waldsänger	Paruline flamboyante	Rødstjertparula
Setophaga coronata	**Yellow-rumped Warbler**	Kronenwaldsänger	Paruline à croupion jaune	Myrteparula
Setophaga virens	**Black-throated Green Warbler**	Grünmantel-Waldsänger	Paruline à gorge noire	Grønnparula

Wildlife List - Marine Mammals

Wildlife List – Marine Mammals

SCIENTIFIC NAME	**ENGLISH**	DEUTSCH	FRANÇAIS	NORSK
Balaena mysticetus	**Bowhead whale**	Grönlandwal	Baleine du Groenland	Grønlandshval
Balaenoptera physalus	**Fin whale**	Finnwal	Rorqual commun	Finhval
Megaptera novaeangliae	**Humpback whale**	Buckelwal	Baleine à bosse	Knølhval
Orcinus orca	**Killer whale/Orca**	Schwertwal, Orca	Orque	Spekkhogger
Globicephala melas	**Long-finned pilot whale**	Grindwal	Globicéphale noir	Grindhval / Langsveivet grindhval
Lagenorhynchus albirostris	**White-beaked dolphin**	Weißschnauzendelfin	Lagénorhynque à bec blanc	Kvitnos
Lagenorhynchus acutus	**Atlantic white-sided dolphin**	Atlantischer Weißseitendelfin	Lagénorhynque à flancs blancs de l'Atlantique	Kvitskjeving
Delphinapterus leucas	**Beluga, white whale**	Beluga, Weißwal	Bélouga	Hvithval
Ursus maritimus	**Polar bear**	Eisbär	Ours blanc	Isbjørn
Phoca vitulina	**Harbor seal/Common seal**	Seehund	Phoque veau-marin	Steinkobbe
Erignathus barbatus	**Bearded seal**	Bartrobbe	Phoque barbu	Storkobbe
Pagophilus groenlandicus	**Harp seal**	Sattelrobbe	Phoque du Groenland	Grønlandssel

Wildlife List - Land Mammals

Wildlife List – Land Mammals

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS	NORSK
Tamiasciurus hudsonicus	**American Red-Squirrel**	Gemeines Rothoernchen	Ècureuil roux	Amerikansk rødekorn
Rangifer tarandus	**Caribou**	Ren	Renne	Karibu
Ovibus moschatus	**Muskox**	Moschusochse	Boeuf Musqué	Moskusokse
Lepus Arcticus	**Arctic Hare**	Polarhase	Lievre Arctique	Arktisk hare
Tamias striatus	**Eastern Chipmunk**	Rotes Eichhörnchen	Tamia Rayé	østlig jordekorn

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