

The background features two whales swimming in deep blue water. One whale is in the foreground, larger and more detailed, while another is behind it. Large, semi-transparent letters 'IHW' are overlaid on the scene. The 'I' is on the left, 'H' is in the middle, and 'W' is on the right. The text 'Science & Education Report' is centered over the 'H' and 'W' in white. Below it, 'MS FRAM' is written in a smaller white font.

Science & Education Report

MS FRAM

MS FRAM
23rd August
– 11th
September
2024

**North West Passage – In the
Wake of the Great Explorers**



History, culture and crafts

Together with the cultural ambassadors and onboard historians you explored Inuit culture and the history of the North West Passage. We were also treated to fantastic cultural performances in many of the places we visited, including Nuuk, Pond Inlet and Gjøa Haven. Many of you also tried your hands at Arctic inspired arts and crafts.



Picture by Yuri Choufour



Science Boat

On our voyage we conducted 4 Science Boats during which we collected Secchi disc measurements, plankton samples, and CTD (Conductivity, Temperature and Depth) readings.

[Click here to view the Secchi data on Google Earth.](#)

[Click here to visit the Secchi Disc Project.](#)

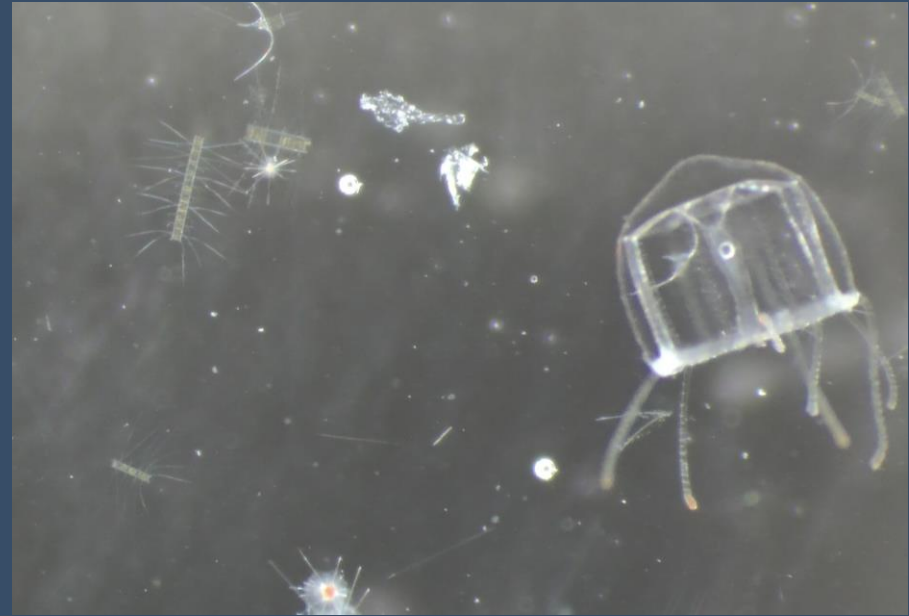


Plankton samples

As part of the Science Boats we collected plankton samples which contained a wide variety of zooplankton and phytoplankton, like this beautiful sea butterfly *Limacina helicina*.



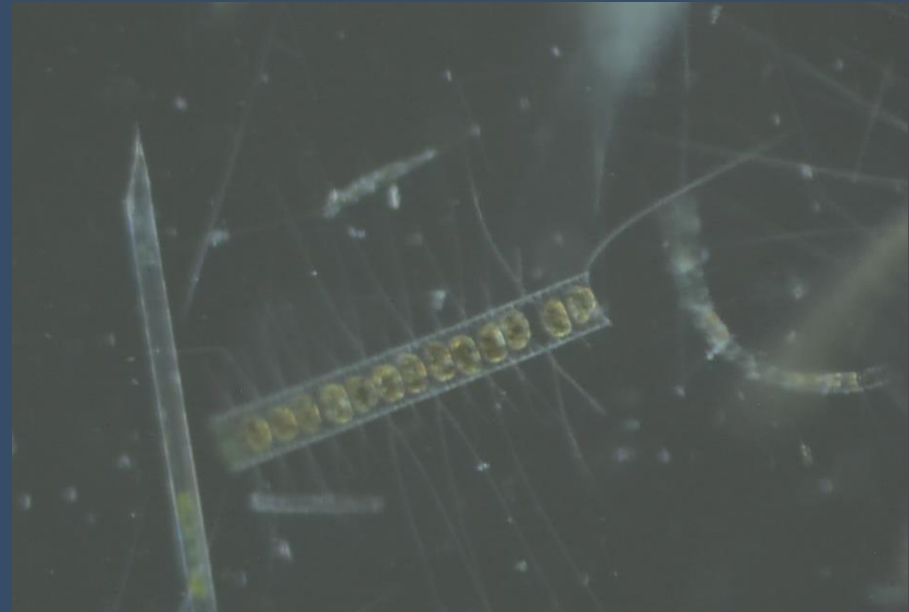
A Sea Angel (*Clione limacina*) with its belly full of sea butterflies.



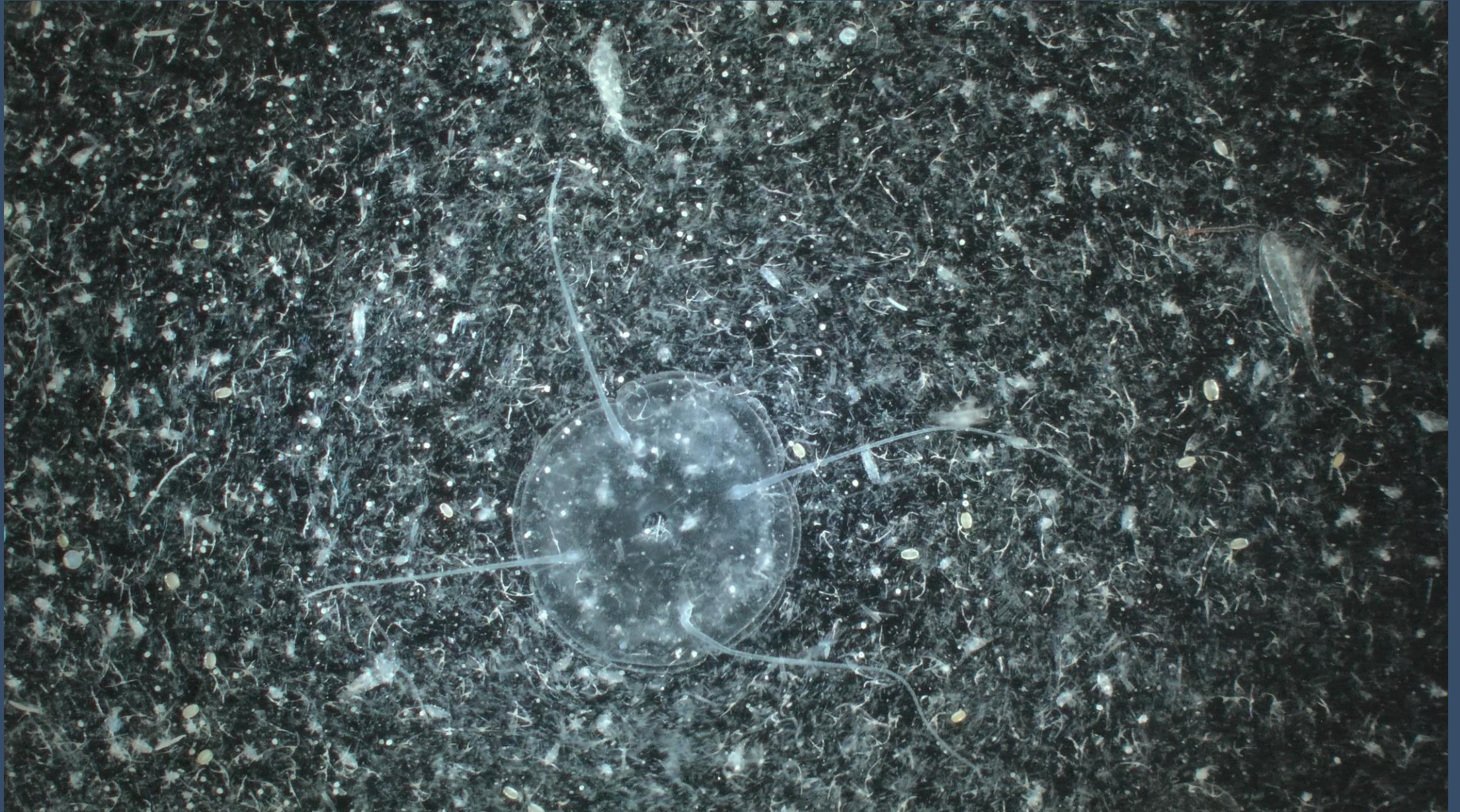
Hydrozoan (a relative to jellyfish), diatoms (on the left) and radiolarian (at the bottom of the picture).



Copepod (a type of crustacean) naupilus larvae.



Diatoms (a type of phytoplankton) with clearly visible chloroplasts.



Plankton soup with an abundance of species, including a small jellyfish (in the middle) and an adult copepods (on the right).



Bog Bilberry (*Vaccinium uliginosum*),
Picture by Vivi Bolin

iNaturalist

We submitted a total of 89 observations of 76 different species using the citizen science app iNaturalist, including 6 different species of birds, 5 different species of mammals, and 28 different species of plants. A big thank you to everyone who contributed by submitting their observations!

View our iNaturalist observations by [clicking this link.](#)

Happywhale

Whilst no ID photos of whales were captured during this trip, guests were shown how to upload old photos they may have at home. These are extremely valuable to see whether whales sighted more recently have been alive and photographed in the years/decades prior. One such photo was submitted for a guest who had a humpback tail-fluke photo from a trip with us in 2015, we are excited to find out the result. The picture is of a humpback whale from a previous Fram voyage.

[View our submissions to Happywhale](#)



Picture by Lauren Yuri Choufour



E-bird

Together with our onboard ornithologist, you identified and counted 33 different species of birds and submitted 42 checklists to Ebird.

View our Ebird data by [clicking this link.](#)

Guest scientist

We had the privilege of hosting Sophie Cox and Lauren McWhinnie from Heriot-Watt University. Sophie and Lauren have been onboard carrying out some exciting whale research for the WAVE project, that aims to understand how whales might be impacted by vessels in the Arctic. Sophie and Lauren have been collecting their data from the bridge of the ship and with guests' help from the bow on deck 5. They counted a total of 15 species of marine mammals during this Northwest Passage Expedition.

Visit the [WAVE](#) website to find out more



Picture by Lauren McWhinnie

Wildlife List - Birds



Picture by Yuri Choufour

Wildlife List – Birds

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
<i>Alca torda</i>	Razorbill	Tordalk	Petit Pingouin
<i>Alle alle</i>	Little Auk/Dovkie	Krabbentaucher	Mergule nain
<i>Cephus grylle</i>	Black Guillemot	Gryllteiste	Guillemot à miroir
<i>Fratercula arctica</i>	Atlantic Puffin	Papageitaucher	Macareux moine
<i>Uria aalge</i>	Common Murre	Trottellumme	Guillemot marmette
<i>Uria lomvia</i>	Brünnich's Guillemot Thick-billed Murre	Dickschnabellumme	Guillemot de Brünnich
<i>Larus fuscus</i>	Lesser Black-backed Gull	Heringsmöwe	Goéland brun
<i>Larus glaucooides</i>	Iceland Gull	Polarmöwe	Goéland arctique
<i>Larus hyperboreus</i>	Glaucous Gull	Eismöwe	Goéland bourgmestre
<i>Larus marinus</i>	Great Black-backed Gull	Mantelmöwe	Goéland marin
<i>Rissa tridactyla</i>	Black-legged Kittiwake	Dreizehenmöwe	Mouette tridactyle
<i>Sterna paradisaea</i>	Arctic Tern	Küstenseeschwalbe	Sterne arctique
<i>Xema sabini</i>	Sabine's Gull	Schwalbenmöwe	Mouette de Sabine
<i>Ardenna gravis</i>	Great Shearwater	Großer Sturmtaucher	Puffin majeur
<i>Fulmarus glacialis</i>	Northern Fulmar	Eissturmvogel	Fulmar boréal
<i>Puffinus puffinus</i>	Manx Shearwater	Atlantiksturmtaucher	Puffin des Anglais

Wildlife List – Birds

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
<i>Stercorarius parasiticus</i>	Arctic Skua/ Parasitic Jaeger	Schmarotzerraubmöwe	Labbe parasite
<i>Stercorarius pomarinus</i>	Pomarine Skua/Jaeger	Spatelraubmöwe	Labbe pomarin
<i>Stercorarius skua</i>	Great Skua	Skua	Grand Labbe
<i>Morus bassanus</i>	Northern Gannet	Basstölpel	Fou de Bassan
<i>Ardenna grisea</i>	Sooty Shearwater	Dunkler sturmtaucher	Puffin fuligineux
<i>Rhodostethia rosea</i>	Ross Gull	Rosenmöwe	Mouette de Ross
<i>Anas platyrhynchos</i>	Mallard	Stockente	Canard colvert
<i>Clangula hyemalis</i>	Long-tailed Duck	Eisente	Harelde kakawi
<i>Cygnus cygnus</i>	Whooper Swan	Singschwan	Cygne chanteur
<i>Cygnus columbianus</i>	Tundra Swan	Zwergschwan	Cygne siffleur
<i>Gavia pacifica</i>	Pacific Loon	Pazifiktaucher	Plongeon du Pacifique
<i>Gavia adamsii</i>	Yellow-billed Loon	Gelbschnabeltaucher	Plongeon à bec blanc
<i>Gavia stellata</i>	Red-throated Diver/Loon	Sterntaucher	Plongeon catmarin
<i>Arenaria interpres</i>	Ruddy Turnstone	Steinwalzer	Tourneepierre  collier
<i>Phalaropus fulicarius</i>	Grey/Red Phalarope	Thorshuhnchen	Phalarope  bec large
<i>Phalaropus lobatus</i>	Red-necked Phalarope	Odinshuhnchen	Phalarope  bec troit

Wildlife List – Birds

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
<i>Haliaeetus albicilla</i>	White-tailed Eagle	Seeadler	Pygargue à queue blanche
<i>Calcarius lapponicus</i>	Lapland Bunting/Longspur	Spornammer	Plectrophane lapon
<i>Plectrophenax nivalis</i>	Snow Bunting	Schneeammer	Plectrophane des neiges
<i>Columba livia</i>	Rock Dove	Felsentaube	Pigeon biset
<i>Corvus corax</i>	Northern Raven	Kolkrabe	Grand Corbeau
<i>Falco columbarius</i>	Merlin	Merlin	Faucon émerillon
<i>Falco peregrinus</i>	Peregrine Falcon	Wanderfalke	Faucon pèlerin
<i>Falco rusticolus</i>	Gyrfalcon	Gerfalke	Faucon gerfaut
<i>Acanthis flammea</i>	Common Redpoll	Birkenzeisig	Sizerin flammé
<i>Oenanthe oenanthe</i>	Northern Wheatear	Steinschmätzer	Traquet motteux
<i>Eremophila alpestris</i>	Horned Lark	Ohrenlerche	Alouette hausse-col

Wildlife List - Mammals



Picture by Yuri Choufour

Wildlife List – Mammals



SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
<i>Balaenoptera borealis</i>	Sei whale	Seiwal	Rorqual de Rudolphi
<i>Balaenoptera physalus</i>	Fin whale	Finnwal	Rorqual commun
<i>Megaptera novaeangliae</i>	Humpback whale	Buckelwal	Baleine à bosse
<i>Delphinapterus leucas</i>	Beluga, white whale	Beluga, Weißwal	Bélouga
<i>Physeter macrocephalus</i>	Sperm whale	Pottwal	Cachalot
<i>Globicephala melas</i>	Long-finned pilot whale	Grindwal	Globicéphale noir
<i>Lagenorhynchus acutus</i>	Atlantic white-sided dolphin	Atlantischer Weißseitendelfin	Lagénorhynque à flancs blancs de l'Atlantique
<i>Orcinus orca</i>	Killer whale, orca	Schwertwal, Orca	Orque
<i>Phocoena phocoena</i>	Harbour porpoise	Schweinswal	Marsouin commun
<i>Odobenus rosmarus</i>	Walrus	Walross	Morse
<i>Erignathus barbatus</i>	Bearded seal	Bartrobbe	Phoque barbu
<i>Pagophilus groenlandicus</i>	Harp/Greenland seal	Sattelrobbe	Phoque du Groenland
<i>Pusa hispida</i>	Ringed seal	Ringelrobbe	Phoque annelé
<i>Ursus maritimus</i>	Polar bear	Eisbär	Ours blanc
<i>Alopex lagopus</i>	Arctic fox	Polarfuchs	Renard arctique



HX

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inner scientist**