Science & Education Report

MS Spitsbergen

23.08. – 02.09.2024

Circumnavigating Svalbard
The Ultimate Expedition

Tommy Simonsen / HX

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Science & Education Program

Our Science and Education Team accompanied you during your expedition to the remote nature of the Svalbard archipelago.

We had the opportunity to explore our destination's natural beauty, exceptional wildlife, and rich history. We organized lectures and interactive activities onboard and explored our destinations during landings, nature walks, and from the water.

History & Culture

On land and as well as on the water we learned and experienced the rich history of Svalbard.

Visits to cultural remains such as the beluga graveyard in Bamsebu and the cabin in Gnålodden allowed us to step back in time to experience the rich trapping and whaling history of our destination.

NASA Globe Cloud Observer

Together with our Environmental Scientist Liam you observed the clouds and submitted your observations to NASA GLOBE Observe.

Cloud observations like these can help NASA improve our understanding of Earth's atmosphere and climate by providing valuable data for scientific research and climate modelling.

View our data on the global map

iNaturalist

Throughout our expedition, we documented the flora and fauna of Svalbard and uploaded all our findings to the biodiversity platform iNaturalist.

During our voyage, we submitted 151 observations of 46 different species. This effort contributes to the creation of a comprehensive understanding of the current distribution of species in the archipelago and can aid researchers in their ongoing studies and conservation efforts to protect these species.

View our data submitted on our iNaturalist project

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Charlotte Kirchner/ HX

Science Boat

34 eager participants joined our 5 Science Boats in Texas Bar, Gnålodden and Hemsedalen to study the biological and physical oceanography of our destination.

We used a CTD probe to generate profiles for the salinity, temperature and chlorophyll-a concentrations in the water column and collected zooplankton with a plankton net.

Secchi Disk Study

We measured the turbidity of the water column with our Secchi disk in 3 locations.

By monitoring the ocean clarity through participation in the Secchi Disk citizen science study, we contributed to important research on the distribution of phytoplankton blooms.

View our data submitted to the Secchi Disk Projectx

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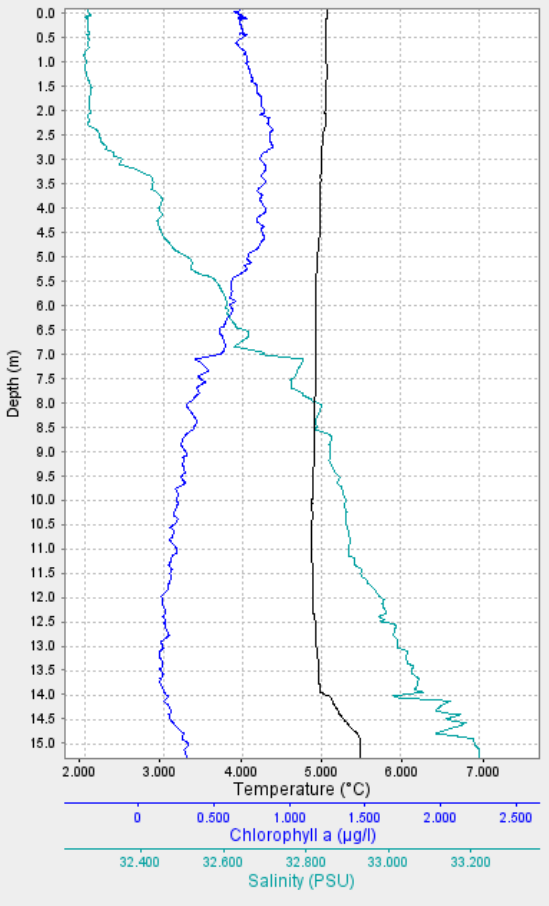
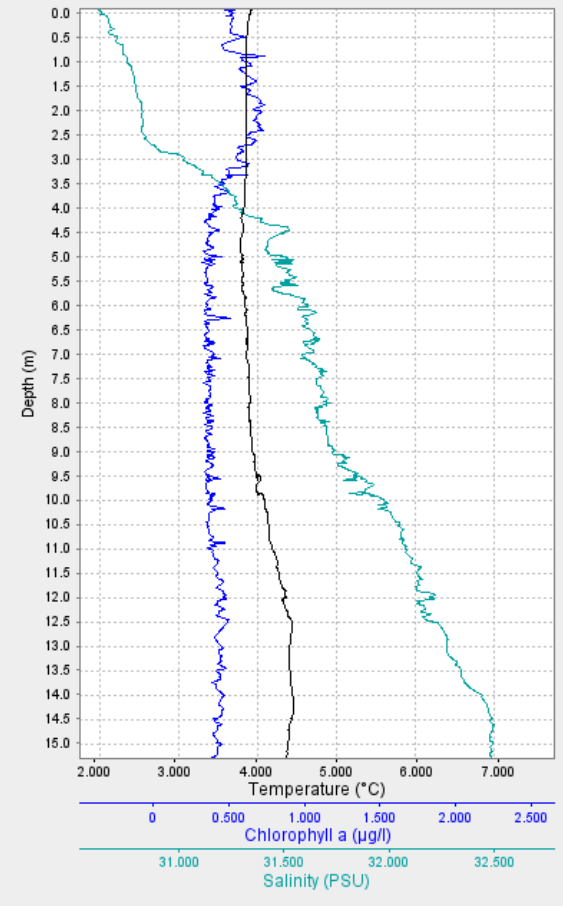
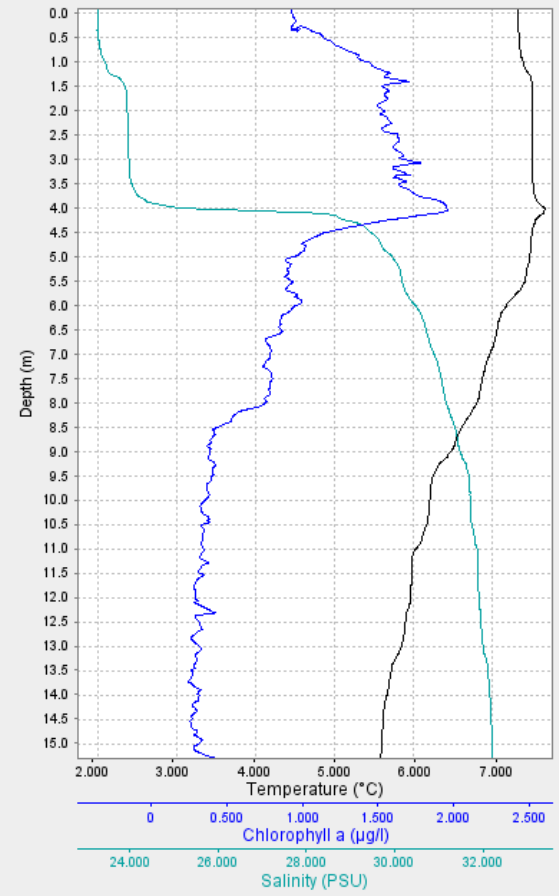
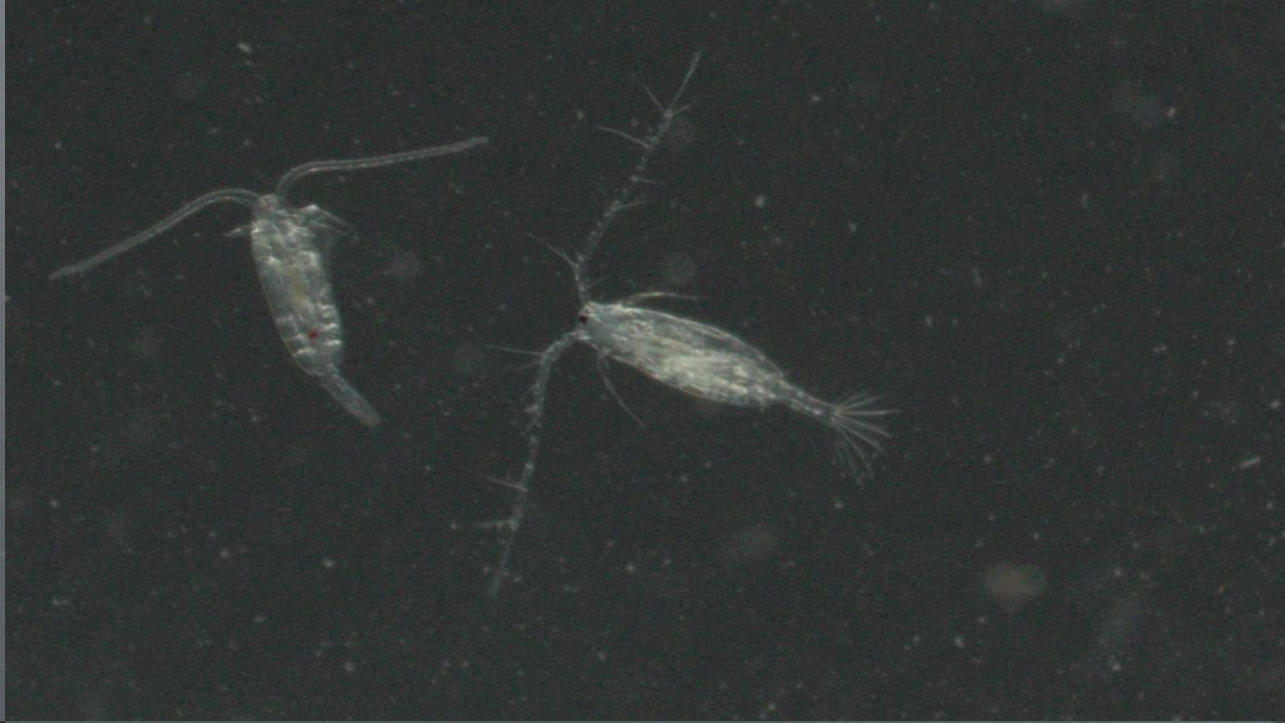
	Texas Bar	Gnålodden	Hemsedalen
Date	26.08.	30.08.	01.09.
Secchi Depth	5.2m	2.0m	1.1m
CTD			

Plankton Samples

We explored the microscopic world of plankton, the tiny organisms that drift in our ocean.

In the plankton samples collected from Texas Bar we found the stars of the zooplankton in the North Atlantic, copepods, while in Hemsedalen marine snail larvae dominated our samples. During our discovery session, we also observed various types of zooplankton, such as this planktonic bristle worm found in Gnålodden captured in the picture.

Charlotte Kirchner / HX

EPIC Project

During two of our Science Boats in Texas Bar and Gnålodden, we also collected environmental DNA samples with a Niskin bottle at 20m depth for the EPIC project.

Our samples will contribute to groundbreaking research by capturing eDNA from the waters we traversed, helping to build a comprehensive picture of marine biodiversity in the North Atlantic-Arctic interface. This effort supports the scientific community in monitoring ecosystem health and understanding the impacts of environmental changes.

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Beach Clean-up

Over the course of our voyage, we participated in the Clean up Svalbard initiative.
Together, we collected 240 kg of general litter, as well as 4 kg of fishing lines and nets that can be upcycled by our partners at Bracenet, who will transform them into useful products like lanyards, highlighting the importance of recycling and waste reduction.

Our efforts in the Clean up Svalbard project contributed directly to the preservation of Arctic ecosystems, enhancing environmental sustainability and fostering a cleaner, healthier future for the region.

Wildlife List - Birds


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Wildlife List – Seabirds

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
Cepphus grylle	Black guillemot	Grylllteiste	Guillemot à miroir
Uria lomvia	Brünnich's guillemot	Dickschnabellumme	Guillemot de Brünnich
Alle alle	Little auk	Krabbentaucher	Mergule nain
Fratercula arctica	Atlantic puffin	Papageitaucher	Macareux moine
Fulmarus glacialis	Northern fulmar	Eissturmvogel	Fulmar boréal
Fulmarus glacialis	Northern fulmar	Eissturmvogel	Fulmar boréal
Larus hyperboreus	Glaucous gull	Eismöwe	Goéland bourgmestre
Pagophila eburnea	Ivory gull	Elfenbeinmöwe	Mouette blanche
Xema sabini	Sabine's gull	Schwalbenmöwe	Mouette de Sabine
Sterna paradisaea	Arctic tern	Küstenseeschwalbe	Sterne arctique
Stercorarius longicaudus	Long-tailed skua	Falkenraubmöwe	Labbe à longue queue
Stercorarius parasiticus	Arctic skua	Schmarotzerraubmöwe	Labbe parasite
Stercorarius pomarinus	Pomarine skua	Spatelraubmöwe	Labbe pomarin
Stercorarius skua	Great skua	Große Raubmöwe	Grand Labbe

Wildlife List – Water birds and Waders

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
Anas acuta	Northern Pintail	Spießente	Canard pilet
Gavia stellata	Red-throated diver	Sterntaucher	Plongeon catmarin
Anser brachyrhynchus	Pink-footed goose	Kurzschnabelgans	Oie à bec court
Branta bernicla	Brant goose	Ringelgans	Bernache cravant
Branta leucopsis	Barnacle goose	Weißwangengans	Bernache nonnette
Clangula hyemalis	Long-tailed duck	Eisente	Harelde kakawi
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Somateria spectabilis	King eider	Prachteiderente	Eider à tête grise
Calidris alpina	Dunlin	Alpenstrandläufer	Bécasseau variable
Calidris maritima	Purple sandpiper	Meerstrandläufer	Bécasseau violet

Wildlife List – Land birds

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
Plectrophenax nivalis	Snow Bunting	Schneeammer	Plectrophane des neiges
Lagopus muta	Rock ptarmigan	Alpenschneehuhn	Lagopède alpin

Dougie Wainwright / HX

e-Bird

During our Wildlife Watches and ashore, our ornithologist Matthew and Environmental Scientist Liam conducted detailed bird surveys, recording observations for the citizen science platform eBird. We recorded 25 different species of birds in 67 checklists.

This initiative helps contribute valuable data to global bird conservation efforts, enhancing our understanding of seabird populations and their habitats.

View our data on our eBird trip report

Wildlife List - Marine Mammals

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Wildlife List – Marine Mammals

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
Balaenoptera acutorostrata	Common minke whale	Zwergwal	Rorqual à museau pointu
Balaenoptera physalus	Fin whale	Finnwal	Rorqual commun
Megaptera novaeangliae	Humpback whale	Buckelwal	Baleine à bosse
Delphinapterus leucas	Beluga, white whale	Beluga, Weißwal	Bélouga
Lagenorhynchus albirostris	White-beaked dolphin	Weißschnauzendelfin	Lagénorhynque à bec blanc
Erignathus barbatus	Bearded seal	Bartrobbe	Phoque barbu
Phoca vitulina	Harbour seal (common seal)	Seehund	Phoque veau-marin
Pagophilus groenlandicus	Harp seal	Sattelrobbe	Phoque du Groenland
Odobenus rosmarus	Walrus	Walross	Morse
Ursa maritimus	Polar bear	Eisbär	Ours polaire

Wildlife List - Land Mammals

Wildlife List – Land mammals

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
Rangifer tarandus platyrhynchus	Svalbard reindeer	Spitzbergen-Ren	Renne de Svalbard
Vulpes lagopus	Arctic fox	Polarfuchs	Renard arctique


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