Science & Education Report

MS Spitsbergen

20. – 29.07.2025

Circumnavigating Spitsbergen
In the Realm of the Polar Bear

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 community visits, nature landings and from the water.

History & Culture

In Ny-Ålesund, we explored the transformation of Svalbard from a resource-based settlement to a hub of international scientific collaboration.

Once a coal mining town, Ny-Ålesund is now the northernmost year-round research community in the world. Here, scientists from multiple nations conduct critical research on climate change, Arctic ecology, and environmental monitoring, illustrating the region's growing importance in global scientific efforts.

History & Culture

During our expedition, we visited historical sites that provided insight into Svalbard's early human activity.

At former trapping and whaling stations, simple wooden cabins told the story of the individuals who lived and overwintered in this remote Arctic region. These visits offered a glimpse into the harsh conditions of the past and highlighted the resilience, adaptability, and resourcefulness required to survive in such an extreme environment.

Observation	GLOBE	NOAA-20 Satellite
Universal Date/Time	2025-07-24 11:27:00	2025-07-24 11:20
Latitude	81.47	81.03 to 81.83
Longitude	17.38	17.12 to 17.92
Total Cloud Cover	Overcast (>90%)	Overcast 99.76%
High Clouds		
Mid Clouds		Cover: Few (0.53%) Altitude: 3.05 (km) Phase: Ice/Water Mix 264.55 (K) Opacity: Opaque
Low Clouds	 Stratus Cover: Overcast (>90%) Opacity: Opaque	Cover: Overcast 99.23% Altitude: 0.69 (km) Phase: Ice/Water Mix 269.83 (K) Opacity: Opaque
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 	***VIIRS NOAA-20*** Worldview  Worldview Tutorial
Sky Conditions, Surface Conditions and Observer Comments	**Sky Conditions** Sky Visibility : no report Sky Color : no report **Surface Conditions** Snow/Ice : Yes Standing Water : Yes Muddy : No Dry Ground : No Leaves on Trees : No Raining or Snowing : No	Are there any comments you would like to add? Be sure to add the name of the satellite for our record. Submit Comment

NASA Globe Cloud Observer

Together with our Environmental Scientist Jean you observed the clouds and submitted your observations to NASA GLOBE Observer on the 24th of July. The data you gathered on that day could not match better the satellite data, as you can read in the report.

These cloud observations 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 iNaturalist platform.

During our voyage, we submitted 110 observations of 47 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

Science Boat

33 eager participants joined our 5 Science Boats in Alicehamna, Kinnvika, Boltodden, Gnålodden and Bamsebu to study plankton and the hydrography of our destination.

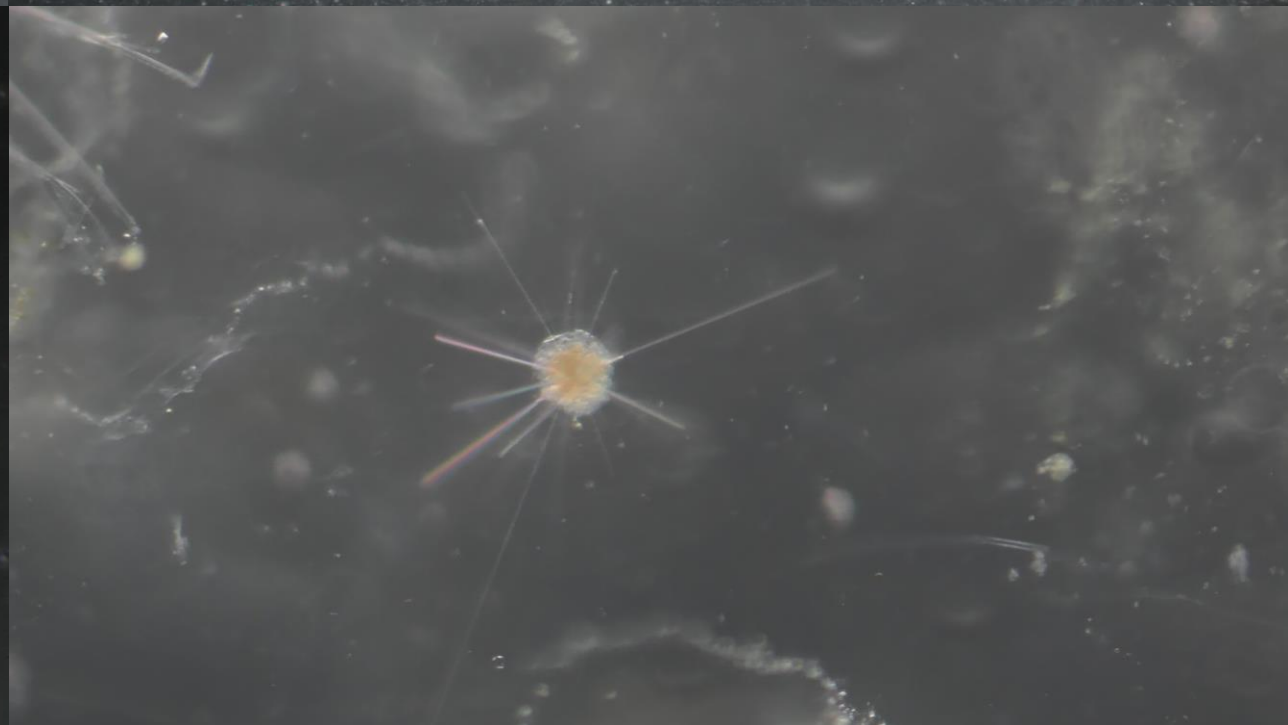
They helped monitor ocean clarity through participation in the Secchi Disk citizen science study, contributing to important research on the distribution of phytoplankton blooms.

View our data submitted to the Secchi Disk Project

Plankton Samples

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

In all of our plankton samples we found copepods, the keystone organism of the marine food web in the Arctic.
During our discovery session, we also observed various types of zooplankton, such as the crab larva captured in the picture.



EPIC Project

During our Science Boats, we also collected environmental DNA samples for the EPIC project (Innovative approaches to understanding marine pelagic ecosystems through eDNA biodiversity data).

The 11 samples collected during our trip 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.

Beach Clean-up

Over the course of our voyage, we participated in the Clean up Svalbard initiative.

Together, we collected around 13 kg of general litter, fishing lines and nets that washed up on the shores of Svalbard.

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

Wildlife List - Birds

EN Snow Bunting **DE** Schneeammer **NO** Snøspurv

Plectrophenax nivalis

EN Black-legged Kittiwake **DE** Dreizehenmöwe **NO** Krykkje
Rissa tridactyla

EN Little Auk **DE** Krabbentaucher **NO** Alkekonge
Alle alle

EN Brünnich's Guillemot **DE** Dickschnabellumme **NO** Polarlomvi
Uria lomvi

EN Northern Fulmar **DE** Eissturmvogel **NO** Havhest
Fulmarus glacialis

Wildlife List – Seabirds

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
Fulmarus glacialis	**Northern Fulmar**	Eissturmvogel	Fulmar boréal
Stercorarius skua	**Great Skua**	Große Raubmöwe	Grand Labbe
Stercorarius parasiticus	**Arctic Skua (Parasitic Jaeger)**	Schmarotzerraubmöwe	Labbe parasite
Rissa tridactyla	**Black-legged Kittiwake**	Dreizehenmöwe	Mouette tridactyle
Xema sabini	**Sabine's Gull**	Schwalbenmöwe	Mouette de Sabine
Pagophila eburnea	**Ivory Gull**	Elfenbeinmöwe	Mouette blanche
Larus hyperboreus	**Glaucous Gull**	Eismöwe	Goéland Bourgmestre
Sterna paradisaea	**Arctic Tern**	Küstenseeschwalbe	Sterne Arctique
Alle alle	**Little Auk**	Krabbentaucher	Mergule nain
Fratercula arctica	**Atlantic Puffin**	Papageitaucher	Macareux moine
Cepphus grylle	**Black Guillemot**	Grylllteiste	Guillemot à miroir
Uria lomvia	**Brünnich's Guillemot (Thick-billed Murre)**	Dickschnabellumme	Guillemot de Brünnich

Wildlife List – Water birds

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
Anser brachyrhynchus	**Pink-footed Goose**	Kurzschnabelgans	Oie à bec court
Branta leucopsis	**Barnacle Goose**	Weißwangengans	Bernache nonnette
Somateria mollissima	**Common Eider**	Eiderente	Eider à duvet
Somateria spectabilis	**King Eider**	Prachteiderente	Eider à tête grise
Clangula hyemalis	**Long-tailed Duck**	Eisente	Harelde kakawi
Gavia stellata	**Red-throated Diver (Red-throated Loon)**	Sterntaucher	Plongeon catmarin
Charadrius hiaticula	**Common Ringed Plover**	Sandregenpfeifer	Pluvier grand-gravelot
Calidris maritima	**Purple Sandpiper**	Meerstrandläufer	Bécasseau violet
Calidris canutus	**Red Knot**	Knutt	Bécasseau maubèche
Phalaropus fulicarius	**Red Phalarope (Grey Phalarope)**	Thorshühnchen	Phalarope à bec large

Wildlife List – Land birds

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
Lagopus muta	**Rock Ptarmigan**	Alpenschneehuhn	Lagopède alpin
Plectrophenax nivalis	**Snow Bunting**	Schneeammer	Bruant des neiges

eBird

During our wildlife watches and landings, our ornithologist Julia and marine biologist Lauren conducted detailed bird surveys, recording observations for the citizen science platform eBird. We recorded 23 different species of birds in 20 checklists.

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

View our data on our e-Bird trip report

Wildlife List - Marine Mammals

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
Phoca vitulina	Harbour Seal, Common Seal	Seehund	Phoque Commun
Pusa hispida	Ringed Seal	Ringelrobbe	Phoque Annelé
Erignathus barbatus	Bearded Seal	Bartrobbe	Phoque Barbu
Odobenus rosmarus	Walrus	Walross	Morse
Ursus maritimus	Polar Bear	Eisbär	Ours Blanc

Wildlife List - Land Mammals

Wildlife List – Land mammals

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
Rangifer tarandus ssp. platyrhynchus	Svalbard Reindeer	Spitzbergen-Ren	Renne de Svalbard
Vulpes lagopus	Arctic Fox	Polarfuchs	Renard Arctique

Connect with your inner scientist