

The background of the slide features a deep blue underwater scene with two whales. A large, semi-transparent watermark consisting of the Roman numerals 'IX' is positioned on the left side of the image. The text 'Science & Education Report' is centered horizontally across the middle of the image.

# Science & Education Report

# MS Spitsbergen

03 - 10.06.2025

Svalbard in the Spring  
— Return of the Sun







Copepod

# Science & Education Program

Our Science and Education Team accompanied you during your expedition to the remote nature of the North East Atlantic.

We had the opportunity to explore Svalbard's natural snow-covered beauty, exceptional wildlife, and rich history. We enjoyed lectures and interactive activities onboard and explored our destinations from Land and the Sea.



# Lectures & Workshops

We had a wonderful time onboard with a diversity of lectures and workshops. Together we learned about the history, geology, animals and birds of Svalbard. In total we had 7 lectures, 4 tiny talks, 7 workshops, and 3 art sessions!



# History

Over the course of this trip, we were able to view the domestic and industrial relics of those who were in Svalbard during the last 400 years. Vast piles of whale bones bore witness to the whaling and sealing history; huts showed us how these hunters and trappers lived. Rotting boats and rusting machinery provided evidence of the intensity and breadth of the economies which boomed then collapsed within this archipelago.





# Culture

Svalbard is a place without an endemic population for most of its history. It presents a fascinating case study of a place formed and shaped fairly recently by a multitude of diverse and different cultures. Settlements such as Ny-Alesund show us how people of varied backgrounds and cultures call this archipelago home, whilst united in a common pursuit of scientific research — for the greater good.



## Bellsund, tectonic structures


# Geology

Svalbard's dramatic geological story only peaked through the blanketed the landscape. The archipelago's ancient sedimentary rocks, formed over millions of years from tropical seas to polar conditions, were visible in the steep mountain faces, exposed cliff sections and intertidal areas. Much later they were compressed violently by the converging continents while forming the Caledonian Mountain Range, until the rocks yielded, either breaking or folding. All this happened long before the ice took care of the final sculpting of the landscape.

Stacked sediments,  
broken & repeated

Same sediments,  
folded





Beautiful cirrus clouds, photographed over 79° north above the island of Moffen. The name cirrus is derived from a Latin word meaning “lock of hair”, due to their wispy appearance. They allow the sun’s heat to penetrate our lower atmosphere, but prevent the energy from escaping back into space. Thanks to them, the weather on May 25 was as warm as it can be at this very high latitude!

# NASA Globe Cloud Observer

Together with our Environmental Scientist Jeanne you observed the clouds and submitted your observations to NASA GLOBE Observer on 3 occasions.

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.

You conducted two NASA Globe Cloud Observer citizen science projects. That means three submissions went to NASA for climate study in areas you visited, at sea, along our voyage. Below is a link to our data.

[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 69 observations of 40 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](#)





# Wildlife List - Birds







Little Auk — Krabbentaucher – Mergule nain



Northern Fulmar — Eissturmvogel - Fulmar boréal

Julia Finger / HX



Eider ducks — Eiderente - Eider



Brünnich's Guillemot - Dickschnabellumme - Guillemot de Brünnich

Marcus Bergstrom / HX

# Wildlife List — Seabirds

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
<i>Fulmarus glacialis</i>	Northern Fulmar	Eissturmvogel	Fulmar boréal
<i>Stercorarius skua</i>	Great Skua	Große Raubmöwe	Grand Labbe
<i>Stercorarius parasiticus</i>	Arctic Skua (Parasitic Jaeger)	Schmarotzerraubmöwe	Labbe parasite
<i>Stercorarius longicaudus</i>	Long-tailed Skua (Long-tailed Jaeger)	Falkenraubmöwe	Labbe à longue queue
<i>Rissa tridactyla</i>	Black-legged Kittiwake	Dreizehenmöwe	Mouette tridactyle
<i>Larus hyperboreus</i>	Glacous Gull	Eismöwe	Goéland Bourgmestre
<i>Sterna paradisaea</i>	Arctic Tern	Küstenseeschwalbe	Sterne Arctique
<i>Alle alle</i>	Little Auk	Krabbentaucher	Mergule nain
<i>Fratercula arctica</i>	Atlantic Puffin	Papageitaucher	Macareux moine
<i>Cephus grille</i>	Black Guillemot	Gryllteiste	Guillemot à miroir
<i>Uria lomvia</i>	Brünnich's Guillemot (Thick-billed Murre)	Dickschnabellumme	Guillemot de Brünnich



# Shorebirds

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
<i>Anser brachyrhynchus</i>	<b>Pink-footed Goose</b>	Kurzschnabelgans	Oie à bec court
<i>Branta leucopsis</i>	<b>Barnacle Goose</b>	Weißwangengans	Bernache nonnette
<i>Somateria mollissima</i>	<b>Common Eider</b>	Eiderente	Eider à duvet
<i>Somateria spectabilis</i>	<b>King Eider</b>	Prachteiderente	Eider à tête grise
<i>Clangula hyemalis</i>	<b>Long-tailed Duck</b>	Eisente	Harelde kakawi
<i>Gavia stellata</i>	<b>Red-throated Diver (Red-throated Loon)</b>	Sterntaucher	Plongeon catmarin
<i>Charadrius hiaticula</i>	<b>Common Ringed Plover</b>	Sandregenpfeifer	Pluvier grand-gravelot
<i>Calidris maritima</i>	<b>Purple Sandpiper</b>	Meerstrandläufer	Bécasseau violet
<i>Calidris alpina</i>	<b>Dunlin</b>	Alpenstrandläufer	Bécasseau variable
<i>Calidris alba</i>	<b>Sanderling</b>	Sanderling	Bécasseau sanderling

# Land birds

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
<i>Plectrophenax nivalis</i>	<b>Snow Bunting</b>	Schneeammer	Bruant des neiges
<i>Lagopus muta</i>	<b>Rock Ptarmigan</b>	Alpenschneehuhn	Lagopède alpin



# eBird

During our Wildlife Watches, our team conducted detailed seabird surveys, recording observations for the citizen science platform eBird. We recorded 27 different species of birds in 21 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 [e-Bird trip report](#)



A photograph of two humpback whales breaching the surface of the ocean. The whales are dark grey or black, and their blowholes are visible, each emitting a thick, white spray of water. The water around them is a deep blue-green color, with ripples and small waves. The whales are positioned diagonally across the frame, with one slightly ahead of the other.

# Wildlife List - Marine Mammals

# Wildlife List — Marine Mammals



SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
<i>Balaenoptera acutorostrata</i>	Common minke whale	Zwergwal	Rorqual à museau pointu
<i>Erignathus barbatus</i>	Bearded seal	Bartrobbe	Phoque barbu
<i>Delphinapterus leucas</i>	Beluga Whale	Weißwal	Béluga
<i>Phoca vitulina</i>	Harbour Seal	Seehund	Phoque commun
<i>Odobenus rosmarus</i>	Walrus	Walross	Morse
<i>Ursus maritimus</i>	Polar bear	Eisbär	Ours polaire



# Species Spotlight

At the historic whaling site of Smeerenburg, at first it seemed as if the local walrus were not at home. However a splash and a dark shape told us otherwise. Then before our eyes, five walrus foraged along the shoreline, snoozing on sandbanks for a few minutes between snacks. Then, as we were heading back to the ship, these charismatic emblems of the high arctic began to haul out on shore. To ensure peace and quiet for this splendid animals, we closed our operation and headed back to the ship. From the decks of Spitsbergen we were able to watch through our binoculars and see them settle down for a snooze. However as an extra treat, we also enjoyed a more intimate look through the ship's GSS high magnification camera!

Photo Timo Heinz





# Wildlife List - Land Mammals





# Wildlife List — Land mammals



SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
<i>Rangifer tarandus platyrhynchus</i>	Svalbard Reindeer	Rentier	Renne du Spitzberg
<i>Vulpes lagopus</i>	Arctic Fox	Polarfuchs	Renard Arctique

# THX



Thank you for  
joining us!