

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

27.05 – 03.06.2025

Svalbard in the Spring
– Return of the Sun





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.

History

Guests joined us with an abundance of curiosity about nature, wildlife and the impact of humans on this pristine environment. The human history of this archipelago is intrinsically bound to its wildlife. As we travelled, we observed much evidence of how hunting and trapping changed from subsistence living to big industry. The industries whose ancient and modern structures we visited, showed us how the mineral mining industry, especially coal, shaped the lives of hundreds of people and fuelled the furnaces of the mainland.



Culture

For centuries, Svalbard has been a source of animal and mineral exploitation. However at Ny Alesund in Kongsfjord, there was a startling contrast between the human impact on Svalbard and what the scientists are doing today. Not only did we see the conserved buildings from the coal mining era in the 20th century, but also the international research stations from 10 countries. In this northern-most settlement in the world, scientists work year round on climate change and the natural sciences.




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 2 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 two 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 12 observations of 11 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.

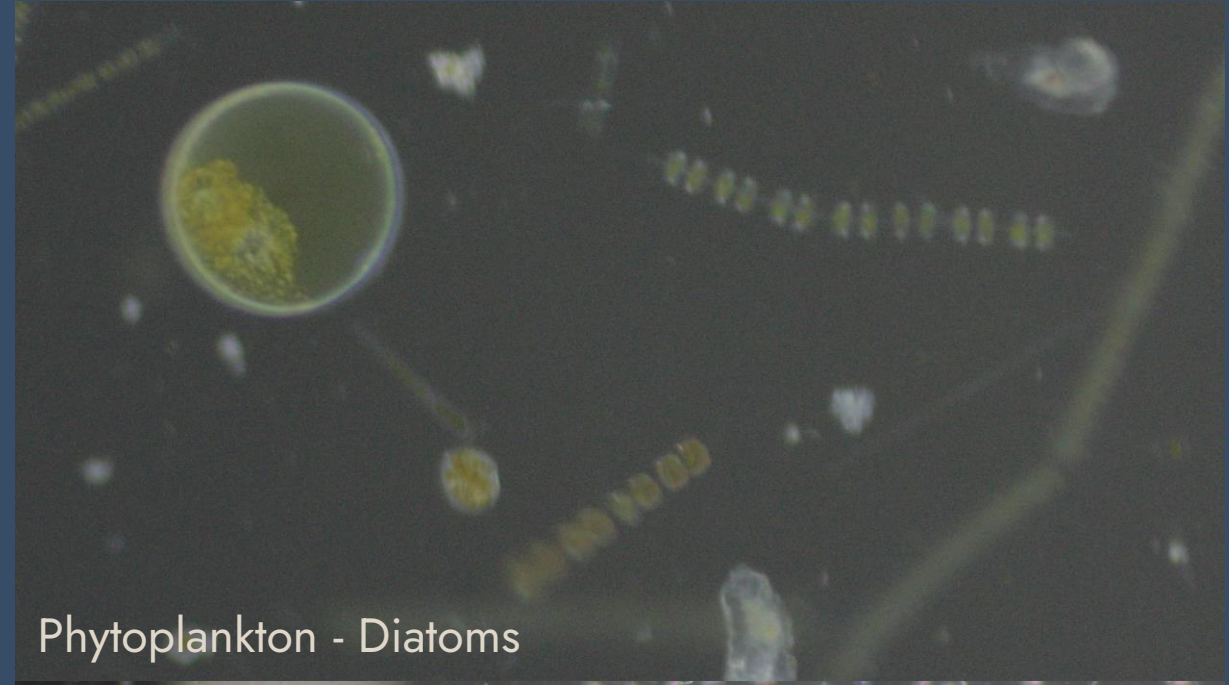
View our data submitted on our [iNaturalist project](#)



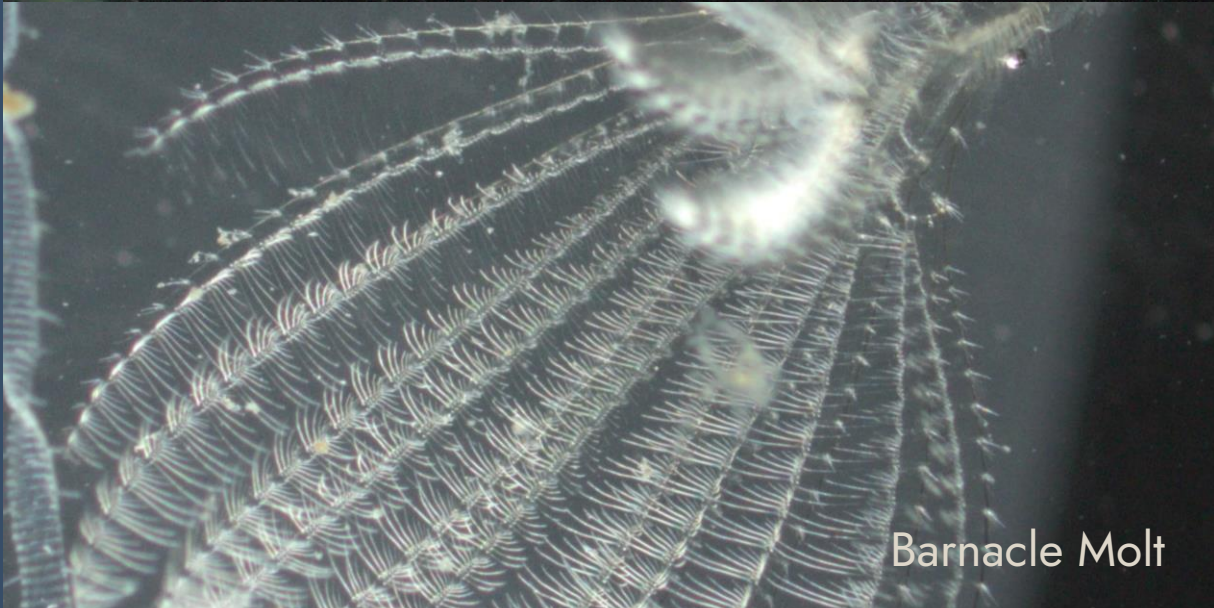
Plankton — Drifters of the Ocean



Baby Jellyfish



Phytoplankton - Diatoms



Barnacle Molt



Zooplankton - Copepod

Wildlife List - Birds





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>Rissa tridactyla</i>	Black-legged Kittiwake	Dreizehenmöwe	Mouette tridactyle
<i>Larus hypervoreus</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>Cepphus grille</i>	Black Guillemot	Gryllteiste	Guillemot à miroir
<i>Uria lomvia</i>	Brünnich's Guillemot (Thick-billed Murre)	Dickschnabellumme	Guillemot de Brünnich

Wildlife List — Shore birds

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
<i>Anser brachyrhynchus</i>	Pink-footed Goose	Kurzschnabelgans	Oie à bec court
<i>Branta leucopsis</i>	Barnacle Goose	Weißwangengans	Bernache nonnette
<i>Branta bernicla</i>	Brent Goose	Ringelgans	Bernache cravant
<i>Somateria mollissima</i>	Common Eider	Eiderente	Eider à duvet
<i>Somateria spectabilis</i>	King Eider	Prachteiderente	Eider à tête grise
<i>Gavia stellata</i>	Red-throated Diver (Red-throated Loon)	Sternaucher	Plongeon catmarin
<i>Charadrius hiaticula</i>	Common Ringed Plover	Sandregenpfeifer	Pluvier grand-gravelot
<i>Calidris canutus</i>	Red Knot	Knutt	Bécasseau maubèche
<i>Calidris maritima</i>	Purple Sandpiper	Meerstrandläufer	Bécasseau violet

Wildlife List — Land birds



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



e-Bird

During our Wildlife Watches, our Team conducted detailed seabird surveys, recording observations for the citizen science platform eBird. We recorded 14 different species of birds in 6 checklists.

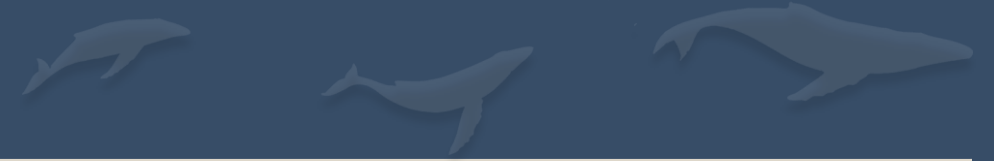
This initiative helps contribute valuable data to global bird conservation efforts, enhancing our understanding of seabird populations and their habitats.

View our data on our [e-Bird trip report](#)



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>Delphinapterus leucas</i>	Beluga Whale	Weißwal	Béluga
<i>Erignathus barbatus</i>	Bearded Seal	Bartrobbe	Phoque Barbu
<i>Odobenus rosmarus</i>	Walrus	Walross	Morse
<i>Ursus maritimus</i>	Polar Bear	Eisbär	Ours polaire

Species Spotlight

We were lucky enough to encounter these fascinating animals three times on our voyage. During the zodiac cruise through Bjornfjorden, some of us were lucky enough to see some walrus swimming in the water. Although the walrus expected in Smeerenburg had unexpectedly departed, at Moffen the previous day, we could observe the walrus not only on the beach, but there were also several groups in the water who whilst also diving for food, showed great curiosity and swam closer to our ship.



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!