



Science & Education Report

MS Spitsbergen

20.08.- 01.09.2025

The Ultimate Fjord and
National Park
Expedition





Science & Education Program

Our Science and Education Team accompanied you during your expedition to the remote nature of Scoresbysund and the National Park

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

Your trip's statistics!

Science and Education Program

- 20 Lectures
- 9 Tiny Talks
- 6 Workshops
- 12 Discovery Sessions
- 2 Science Boats

Citizen Science contributions

- 2 Secchi Disk submissions
- 5 eDNA samples for EPIC/University of Bergen
- 6 GLOBE Cloud submissions
- 47 eBird checklists with 41 species observed
- 156 iNaturalist observations of 83 different species



History & Culture

During our expedition, we explored historical sites that reveal Greenland's rich history of human activity.

In this photo, you can see examples of maps—but not the kind you might expect. The Thule people didn't use paper maps. Instead, they carved **tactile wooden charts** that could be read by touch.

These pieces represented coastlines, islands, and fjords, allowing navigators to feel the landscape with their fingers. They were vital for traveling through East Greenland's icy, foggy waters where visibility was often poor.

Remarkably, early explorers later noted that these "driftwood charts" were often more accurate than European maps of the same period. They demonstrate the Thule people's profound geographical knowledge of the Arctic.



History & Culture

Our visit to Ittoqqortoormiit offered a glimpse into the blending of Greenlandic and European history and culture. This fusion is reflected in the local traditions, the village layout, and the vibrant colors of the houses. We also witnessed how the harsh natural environment continues to shape daily life here.

This year is particularly significant, as the village celebrates its 100th anniversary—a remarkable milestone for this remote community in East Greenland.



Ella ø

Ella Ø, or Ella Island, is located in East Greenland's King Oscar Fjord. It was named during early Danish expeditions in the 1890s. In the 1930s, Norway briefly occupied the island during its territorial claims in East Greenland. During World War II, a German weather station was established here to support Arctic operations, but it was destroyed by Allied patrols in 1944.

After the war, Denmark reasserted control and later built an outpost on the island. From the 1950s onward, Ella Ø served as a base for Danish military and scientific missions.

Today, the remaining ruins and cabins stand as a reminder of the island's strategic role in Arctic geopolitics.



NASA Globe Cloud Observer

Together with our Environmental Scientists Lois and Liam you observed the clouds and submitted your observations to NASA GLOBE Observer on 6 occasions. We will soon receive an email comparing your observations with satellite data. In the meantime, you can already see on the map how few observations there are in Greenland — which highlights just how valuable your data collection is for scientists studying clouds and climate.

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.

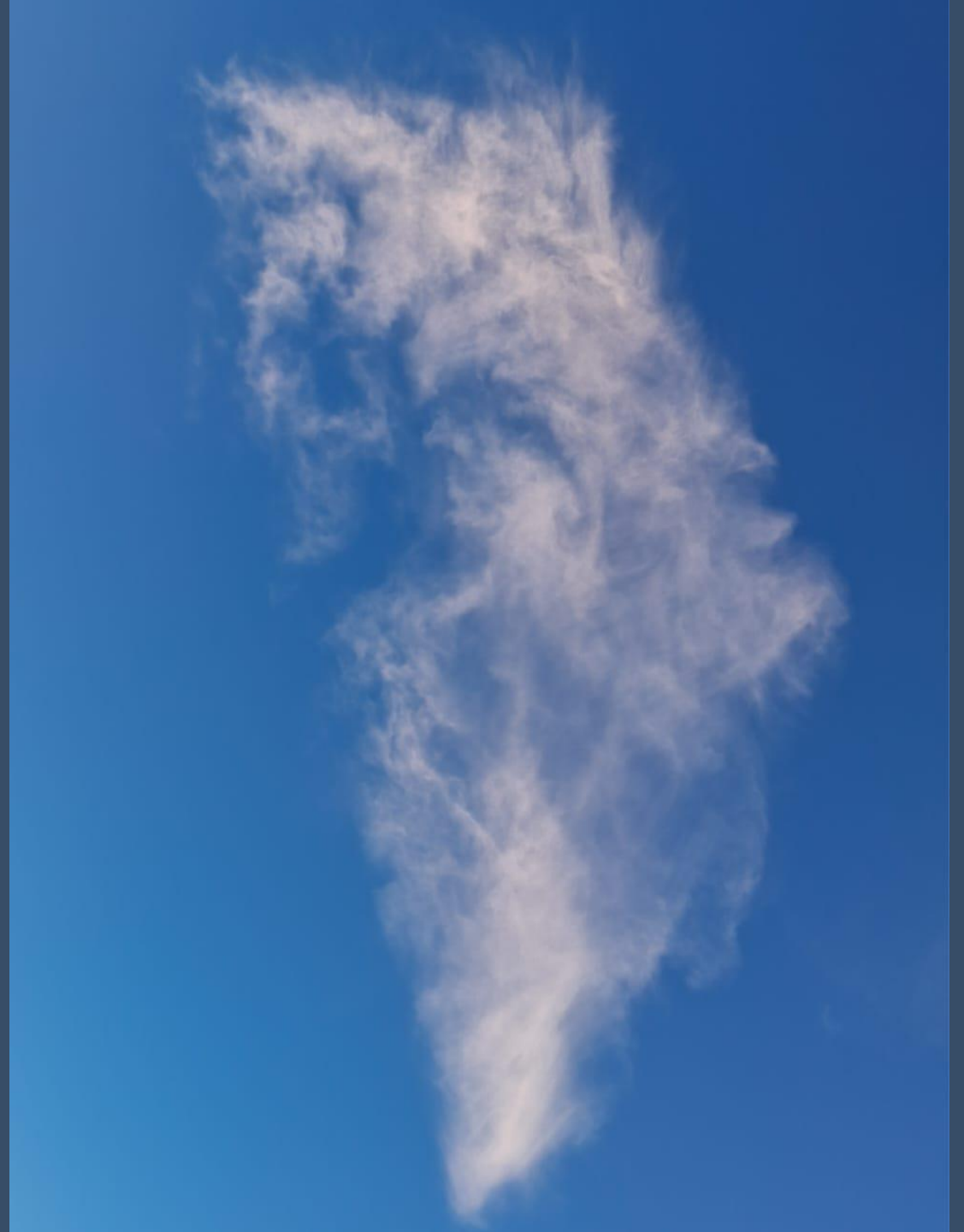
[View our data](#) on the global map



NASA Globe Cloud Observer

You had a great trip observing clouds this trip, you spotted high level clouds like cirrus, fog/stratus clouds and sometimes clouds which are only known in locations in cold areas with mountains like Lenticular clouds. East Greenland is perfect for these types of clouds, but generally they are not common world wide.

This is an example of a high level cloud taken in East Greenland during this trip, if you look closely it actually looks like Greenland - you can even spot Scoresby sound!



Geology of East Greenland

On your voyage you discovered a landscape that told a story through geological time from 3 billion years ago to the present day! The oldest rocks were just by your feet as you visited the community of Ittoqqortoormiit. You saw some spectacular geology including microbial mats — a type of ancient fossil and beautiful stripe formations of the sedimentary rock around Elleanor bay. As you sailed through the Scoresby sound fjord system the high mountains peak all around you uplifted by the Caledonian mountain belt 400million years ago!

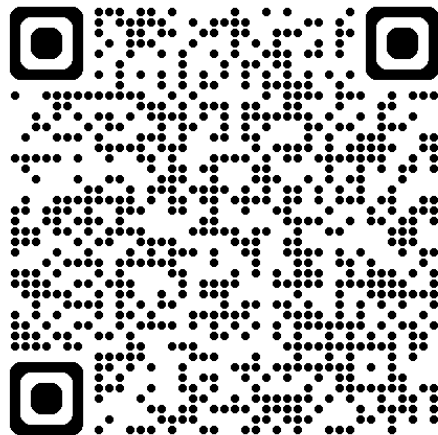


iNaturalist

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 150 observations of 80 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 project by scanning the QR code



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The screenshot displays the iNaturalist web interface. At the top, four statistics are shown: 156 OBSERVATIONS, 83 SPECIES, 32 IDENTIFIERS, and 8 OBSERVERS. Below these are navigation buttons: Grid, List, Identify, and Search. The main area features a map of Svalbard with red squares indicating observation locations. Labels on the map include 'Summit Station', 'Rogøya', 'Haggholmen', and 'JAN MAYEN'. At the bottom, a row of six small images shows various specimens: a mossy ground, a spherical white object, a greenish-grey rock, a yellowish star-shaped object, a reddish-brown object, and a cluster of small green plants. The word 'Observations' is partially visible on the left side of the map area.

156
OBSERVATIONS

83
SPECIES

32
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8
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Grid List Identify Search

Summit Station

Rogøya

Haggholmen

JAN MAYEN

Observations

Keyboard shortcuts Map data



Science Boat

14 eager participants joined our 2 Science Boats in to study plankton and the hydrography of our destination.

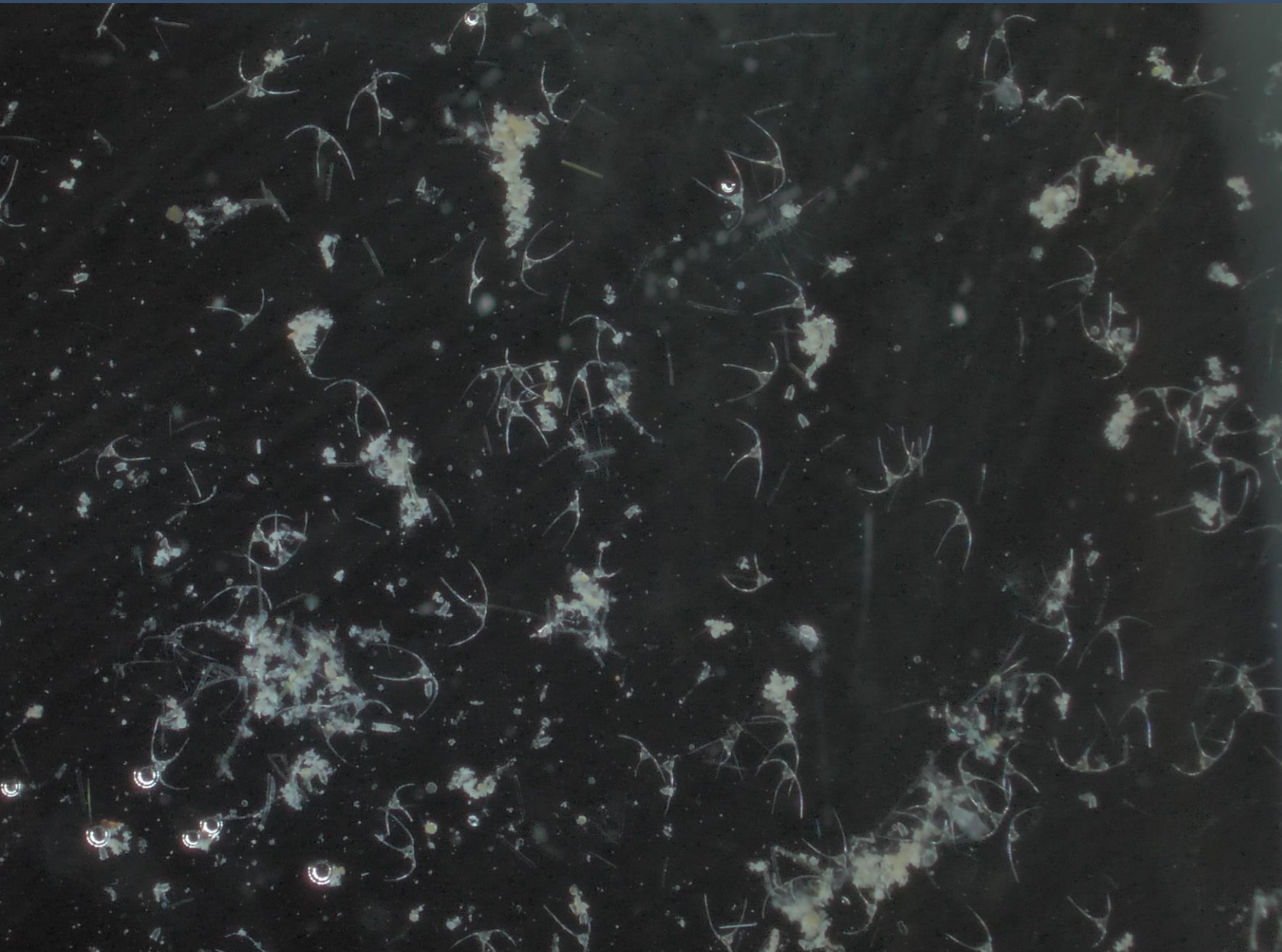
Together we collected oceanographic information to better understand the marine environment and used a plankton tow net to collect samples of the microscopic creatures that are the foundation of the ecosystem.

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 phytoplankton, such as the dinoflagellates captured in the picture.



Phytoplankton - Dinoflagellates



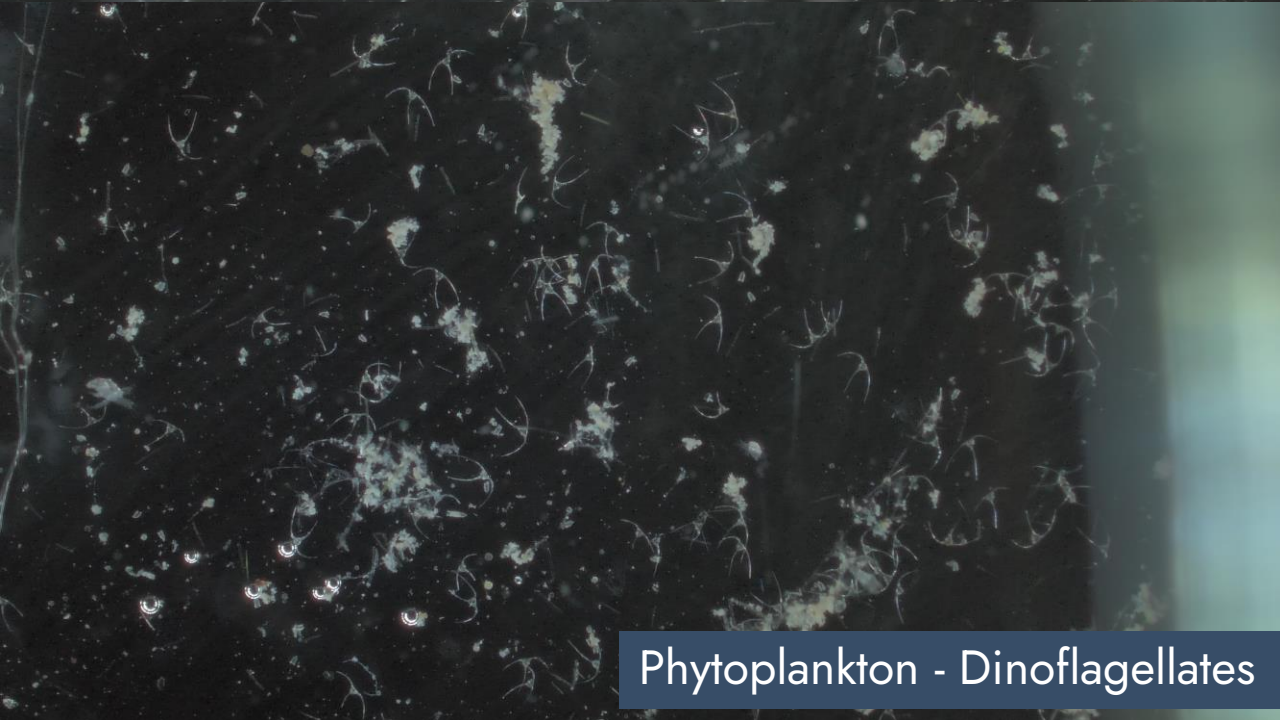
Copepod



Copepods at different developmental stages



Juvenile Copepod, called Nauplii



Phytoplankton - Dinoflagellates



EPIC Project

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

The five samples we collected at two locations 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.

eBird

A free, easy way to report
the birds you find
anywhere in the world

Upland Goose (Bar-breasted) © Dominic Garcia-Hall / Macaulay L



eBird

During our wildlife watches and landings, our naturalists conducted detailed bird surveys, recording observations for the citizen science platform eBird. We recorded 41 different species of birds in 47 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 [eBird Trip Report](#)

Wildlife List - Birds



Wildlife List — Seabirds

Scientific Name	English	Deutsch	Français
<i>Fulmarus glacialis</i>	Northern Fulmar	Eissturmvogel	Fulmar boréal
<i>Ardenna gravis</i>	Great Shearwater	Kappensturmtaucher	Puffin Majeur
<i>Ardenna grisea</i>	Sooty Shearwater	Dunkler Sturmtaucher	Puffin Fuligineux
<i>Puffinus puffinus</i>	Manx Shearwater	Schwarzschnabelsturmtaucher	Puffin des Anglais
<i>Morus bassanus</i>	Northern Gannet	Basstölpel	Fou de Bassan
<i>Stercorarius skua</i>	Great Skua	Große Raubmöwe	Grand Labbe
<i>Stercorarius pomarinus</i>	Pomarine Skua (Pomarine Jaeger)	Spatelraubmöwe	Labbe pomarin
<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>Xema sabini</i>	Sabine's Gull	Schwalbenmöwe	Mouette de Sabine
<i>Chroicocephalus ridibundus</i>	Black-headed Gull	Lachmöwe	Mouette rieuse
<i>Larus argentatus</i>	European Herring Gull	Silbermöwe	Goéland argenté
<i>Larus hyperboreus</i>	Glaucous Gull	Eismöwe	Goéland Bourgmaster
<i>Larus fuscus</i>	Lesser Black-backed Gull	Heringsmöwe	Goéland brun
<i>Larus marinus</i>	Great Black-backed Gull	Mantelmöwe	Goéland marin
<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 grylle</i>	Black Guillemot	Gryllteiste	Guillemot à miroir
<i>Uria aalge</i>	Common Guillemot (Common Murre)	Trottellumme	Guillemot marmette
<i>Alca torda</i>	Razorbill	Tordalk	Petit Pingouin

Wildlife List — Water 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>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)	Sterntaucher	Plongeon catmarin
<i>Phalacrocorax carbo</i>	Great Cormorant	Kormoran	Grand Cormoran
<i>Clangula hyemalis</i>	Long-tailed duck	Eisente	Harelde boréale

Wildlife List — Waders/Shorebirds

Scientific Name	English	Deutsch	Français
<i>Charadrius hiaticula</i>	Common Ringed Plover	Sandregenpfeifer	Pluvier grand-gravelot
<i>Calidris alba</i>	Sanderling	Sanderling	Bécasseau sanderling
<i>Calidris canutus</i>	Red Knot	Knutt	Bécasseau maubèche
<i>Calidris maritima</i>	Purple Sandpiper	Meerstrandläufer	Bécasseau violet
<i>Calidris alpina</i>	Dunlin	Alpenstrandläufer	Bécasseau variable
<i>Arenaria interpres</i>	Ruddy Turnstone	Steinwälzer	Tournepierre à collier

Wildlife List — Land birds

Scientific Name	English	Deutsch	Français
<i>Lagopus muta</i>	Rock Ptarmigan	Alpenschneehuhn	Lagopède alpin
<i>Oenanthe oenanthe</i>	Northern Wheatear	Steinschmätzer	Traquet motteux
<i>Acanthis flammea</i>	Redpoll	Birkenzeisig	Sizerin flammé
<i>Corvus corax</i>	Northern (Common) Raven	Kolkrabe	Grand corbeau
<i>Plectrophenax nivalis</i>	Snow Bunting	Schneeammer	Bruant des neiges
<i>Nyctea scandiaca</i>	Snowy owl	Schneeule	Harfang des neiges
<i>Falco rusticolus</i>	Gyr Falcon	Gerfalke	Faucon gerfaut

Species Spotlight: Snowy Owl

A moment of inspiration from our Expedition Leader, Marcus, gave us an unexpected bonus: an extra morning landing with breathtaking views of the magnificent snowy owl. These remarkable birds nest on small hummocks, giving them commanding views across the tundra — a perfect vantage point for spotting prey. Lemmings, beware!

Photo by Marcus



Species Spotlight: Gyrfalcon

At Myggbukta, a beautiful white bird flew out to inspect the ship — the regal **gyrfalcon**. The largest of all falcons, a true Arctic falcon. It comes in an assortment of plumages, but the white variant is a speciality of Greenland. Once taken from the wild for falconry, the gyrfalcon was the preserve of kings and emperors.

It nests on cliff ledges, often sites that have been used for hundreds of years — one Greenland site was built on guano dating back 2500 years....

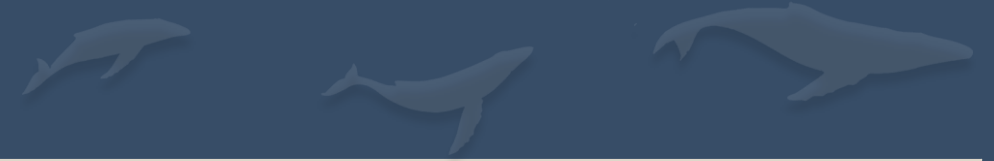
Photo by Marcus



Wildlife List - Marine Vertebrates



Wildlife List — Marine



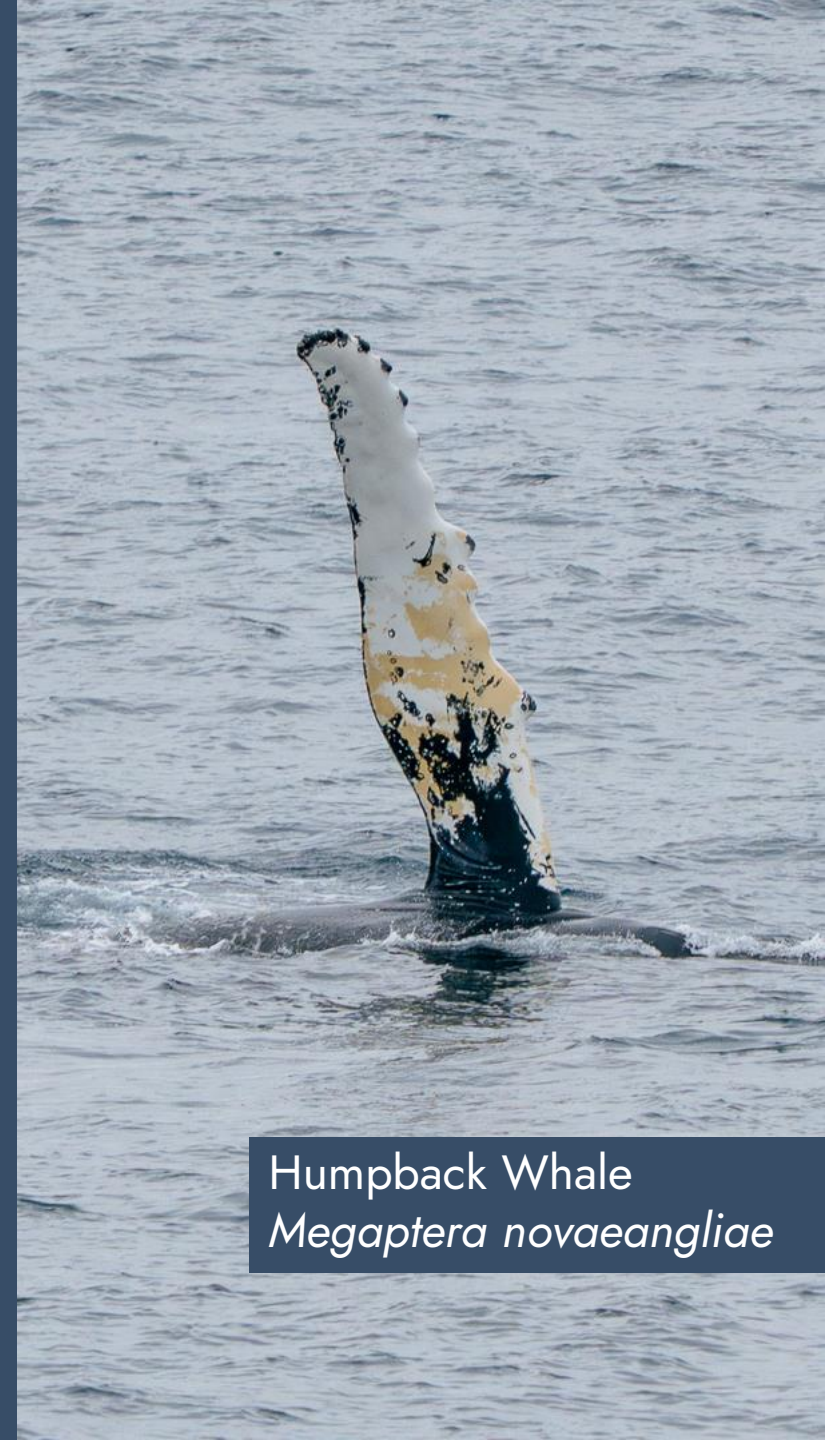
SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
<i>Balaenoptera physalus</i>	Fin Whale	Finnwal	Rorqual commun
<i>Megaptera novaeangliae</i>	Humpback Whale	Buckelwal	Baleine à Bosse
<i>Balaenoptera acutorostrata</i>	Common Minke Whale	Zwergwal	Rorqual à museau pointu
<i>Lagenorhynchus albirostris</i>	White-beaked Dolphin	Weißschnauzendelfin	Lagénorhynque à bec blanc
<i>Orcinus Orca</i>	Orca, Killer Whale	Orca, Schwertwal	Orque
<i>Pusa hispida</i>	Ringed Seal	Ringelrobbe	Phoque Annelé
<i>Erignathus barbatus</i>	Bearded Seal	Bartrobbe	Phoque Barbu
<i>Ursus maritimus</i>	Polar Bear	Eisbär	Ours polaire



Killer Whale
Orcinus orca



Humpback Whale
Megaptera novaeangliae



Humpback Whale
Megaptera novaeangliae

Happywhale

We submitted pictures of the identifying features of the marine mammals that we encountered to the citizen science platform, Happywhale. In total six individual Humpback Whales were submitted, of which at least one could be matched to a known individual.

Happywhale allows us to follow individual whales and other marine mammals and learn about their life history and migratory routes. This helps us better understand these fascinating creatures and contributes to their conservation.

[View our submissions](#) to Happywhale





Ringed Seal
Pusa hispida



Polar Bear
Ursus maritimus



Polar Bear
Ursus maritimus

Wildlife List - Land Mammals



Wildlife List – Land mammals



SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
<i>Dicrostonyx groenlandicus</i>	Northern Collared Lemming	Nördlicher Halsbandlemming	Lemming du Groenland
<i>Lepus arcticus</i>	Arctic Hare	Polarhase	Lièvre Arctique
<i>Ovibos moschatus</i>	Muskox	Moschusochse	Boeuf Musqué
<i>Vulpes lagopus</i>	Arctic Fox	Polarfuchs	Renard Arctique

Arctic Hare
Lepus arcticus



Northern collared lemming
Dicrostonyx groenlandicus



Muskox
Ovibos moschatus



Arctic Fox
Vulpes lagopus



**Thanks for exploring
with us!**

THX

