

The image features two whales swimming in a deep blue ocean. The whale in the foreground is larger and more prominent, while the second whale is slightly behind and to the left. The background is a gradient of blue, with large, semi-transparent letters 'H' and 'W' overlaid. The text 'Science & Education Report' is centered in white.

# Science & Education Report

# MS Roald Amundsen

08 - 24 Jan 2024

Antarctic Circle Expedition





# Science & education program

Our Science and Education Team accompanied you during your expedition to the remote areas of the Antarctic Peninsula.

We explored the natural landscapes, abundant wildlife and rich history of our destination.  
We hosted lectures and practical activities on board and explored our destinations during small boat cruises and landings.

# History & culture

We learned about the history of Antarctic exploration and visited several historic research bases during our landings.



# Arts & crafts

To relax and boost creativity, we carried out several art workshops, including water bottle painting, scientific drawing of plankton and knitting.





# NASA Cloud Observer

We observed the clouds and submitted our observations via NASA GLOBE Observer on **4** occasions.

Our cloud observations will help NASA improve our understanding of Earth's atmosphere and climate by providing valuable data for scientific research and climate modeling.

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

# iNaturalist

We recorded our observations of anything living and wild on the biodiversity platform iNaturalist.

**9** observers contributed pictures of **132** observations of **40** different species to our voyage's project.

Contributing our sightings in remote areas like Antarctica helps fill knowledge gaps, enabling researchers to better understand and conserve biodiversity in these regions.

View our data submitted on this voyage on our [iNaturalist Project](#)





# Science Boat

**116** enthusiastic participants joined our **15** Science Boats during our voyage, contributing to the FjordPhyto project through hands-on sampling.

We explored oceanographic research tools and techniques.

Our collected data and samples will aid FjordPhyto in studying how environmental changes affect Antarctic phytoplankton communities.





# Plankton samples

We examined our plankton samples from our science boats under our state-of-the-art microscopes, observing key phytoplankton like diatoms. We also had sessions on the zooplankton, like Antarctic krill, which are essential species in the Antarctic food web.

# Guest scientists

In the past year, HX has contributed over 1000 cruise nights to scientists on ships throughout fleet to, conduct their research in some of the most remote areas on Earth.

Learn more about the guest scientists that joined our voyage on the following pages.

[Visit our Science & Education Hub online](#)  
to find out more



# Polar Whale Watch

Polar Whale Watch deployed teams of marine mammal observers on our vessel to estimate whale abundance and distribution, in the Antarctic Peninsula and Scotia and Ross seas.

During our voyage, Elling and Mariana counted 219 whales: most of which humpback whales (78%), with some orcas (10%), fin whales (5%), Antarctic Minke whales (2%) and unidentified cetaceans (6%).



# Snow algae

Our guest researchers Colby and Molly from Western Washington University joined our voyage to investigate snow algae.

The study of these microorganisms that grow on snow and ice is important as they significantly influence polar ecosystems, by affecting snowmelt and global climate patterns.



# University of St Andrews

17 Students and two staff from the University of St Andrews (Scotland) joined our expedition as part of their 10<sup>th</sup> student expedition to Antarctica.

During this time students were trained in marine research methods, including sea bird and cetacean surveys, behavioural studies and investigation of microplastics.

[Visit the St Andrews Students in the Antarctic Blog online](#) to find out more



# Wildlife List - Birds





# Wildlife List – Seabirds

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS	NORSK
<i>Larus dominicanus</i>	Kelp Gull	Dominikanermöwe	Goéland dominicain	Taremåke
<i>Leucophaeus scoresbii</i>	Dolphin Gull	Blutschnabelmöwe	Goéland de Scoresby	Magellanmåke
<i>Sterna hirundinacea</i>	South American Tern	Falklandseeschwalbe	Sterne hirundinacée	Svaleterne
<i>Sterna vittata</i>	Antarctic Tern	Antarktikseeschwalbe	Sterne couronnée	Sørhavsterne
<i>Stercorarius antarcticus</i>	Brown Skua	Subantarktiskua	Labbe antarctique	Sørhavsjo
<i>Stercorarius maccormicki</i>	South Polar Skua	Antarktiskua	Labbe de McCormick	Sørjo
<i>Stercorarius chilensis</i>	Chilenian Skua	Chileskua	Labbe du Chili	Kaneljo
<i>Diomedea epomophora</i>	Southern Royal Albatross	Südkönigsalbatros	Albatros royal	Kongéalbatross
<i>Phoebetria palpebrata</i>	Light-mantled Albatross	Graumantelalbatros	Albatros fuligineux	Gråalbatross
<i>Thalassarche melanophris</i>	Black-browed Albatross	Schwarzbrauenalbatros	Albatros à sourcils noirs	Svartbrynalbatross
<i>Fregetta tropica</i>	Black-bellied Storm Petrel	Schwarzbauch-Sturmschwalbe	Océanite à ventre noir	Svartbukstormsvale
<i>Oceanites oceanicus</i>	Wilson's Storm Petrel	Buntfuß-Sturmschwalbe	Océanite de Wilson	Wilsonstormsvale
<i>Ardenna grisea</i>	Sooty Shearwater	Dunkler Sturmtaucher	Puffin fuligineux	Grålire
<i>Daption capense</i>	Cape Petrel	Kapsturmvoegel	Damier du Cap	Flekkpetrell
<i>Fulmarus glacialisoides</i>	Southern Fulmar	Silbersturmvoegel	Fulmar argenté	Sørhavhest



# Wildlife List – Seabirds

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS	NORSK
<i>Halobaena caerulea</i>	Blue Petrel	Blausturmvogel	Prion bleu	Blåpetrell
<i>Macronectes giganteus</i>	Southern Giant Petrel	Riesensturmvogel	Pétrel géant	Sørkjempepetrell
<i>Macronectes halli</i>	Northern Giant Petrel	Hallsturmvogel	Pétrel de Hall	nordkjempepetrell
<i>Pachyptila desolata</i>	Antarctic Prion	Taubensturmvogel	Prion de la Désolation	Antarktishvalfugl
<i>Pagodroma nivea</i>	Snow Petrel	Schneesturmvogel	Pétrel des neiges	Snøpetrell
<i>Thalassoica antarctica</i>	Antarctic Petrel	Antarktissturmvogel	Pétrel antarctique	antarktispetrell
<i>Pterodroma mollis</i>	Soft-plumaged Petrel	Weichfeder-Sturmvogel	Pétrel soyeux	silkepetrell
<i>Procellaria aequinoctialis</i>	White-chinned Petrel	Weißkinn-Sturmvogel	Puffin à menton blanc	Hvithakepetrell
<i>Aptenodytes forsteri</i>	Emperor Penguin	Kaiserpinguin	Manchot empereur	keiserpingvin
<i>Pygoscelis adeliae</i>	Adelie Penguin	Adeliepinguin	Manchot d'Adélie	Adeliepingvin
<i>Pygoscelis antarcticus</i>	Chinstrap Penguin	Kehlstreifpinguin	Manchot à jugulaire	Ringpingvin
<i>Pygoscelis papua</i>	Gentoo Penguin	Eselspinguin	Manchot papou	Bøylepingvin
<i>Spheniscus magellanicus</i>	Magellanic Penguin	Magellanpinguin	Manchot de Magellan	Magellanpingvin

# Wildlife List – Seabirds

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS	NORSK
<i>Pelecanoides urinatrix</i>	Common Diving Petrel	Subantarktis-Lummensturmvogel	Puffinure plongeur	smalnebbdykkpetrell
<i>Leucocarbo atriceps</i>	Imperial Shag	Kaiserscharbe	Cormoran impérial	Knoppskarv
<i>Leucocarbo bransfieldensis</i>	Antarctic Shag	Antarktikscharbe	Cormoran antarctique	Antarktisskarv
<i>Phalacrocorax magellanicus</i>	Rock Shag (Magellanic Cormorant)	Felsenscharbe	Cormoran de Magellan	Magellanskarv

# Wildlife List – Water & Land birds

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS	NORSK
<i>Chloephaga picta</i>	Upland Goose	Magellangans	Ouette de Magellan	Sebragås
<i>Chionis albus</i>	Snowy Sheathbill	Weißgesicht-Scheidenschnabel	Chionis blanc	Antarktisslirenebb
<i>Haematopus leucopodus</i>	Magellanic Oystercatcher	Magellanausternfischer	Huîtrier de Garnot	Magellantjeld
<i>Theristicus melanopis</i>	Black-faced Ibis	Schwarzzügelibis	Ibis à face noire	patagoniaibis
<i>Cathartes aura</i>	Turkey Vulture	Truthahngeier	Urubu à tête rouge	kalkunkondor



# E-bird

We recorded checklists of the birds during our wildlife deck watches and on shore.

A total of **37** different bird species were observed across **40** checklists uploaded to eBird.

Our submissions help eBird to enhance the scientific understanding of bird distribution and abundance, contributing valuable data for conservation efforts and ornithological research.

View our data on our e-Bird trip report:  
[08 - 24 Jan 2024: Antarctic Circle Expedition on the Amundsen - eBird Trip Report](#)

A photograph of two whales breaching the surface of the ocean. The water is a deep blue-green color, and the whales are dark grey or black. White spray of water is being ejected from their blowholes. The whales are positioned diagonally across the frame, with the one on the right slightly ahead of the one on the left. The text 'Wildlife List - Marine Mammals' is overlaid in white, bold, sans-serif font across the center of the image.

# Wildlife List - Marine Mammals



# Wildlife List – Marine Mammals

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS	NORSK
<i>Balaenoptera bonaerensis</i>	Antarctic minke whale	Südlicher Zwergwal	Rorqual à museau pointu de l'Antarctique	Antarktis Vågehval
<i>Balaenoptera borealis</i>	Sei whale	Seiwal	Rorqual de Rudolphi	Seihval
<i>Balaenoptera physalus</i>	Fin whale	Finnwal	Rorqual commun	Finhval
<i>Megaptera novaeangliae</i>	Humpback whale	Buckelwal	Baleine à bosse	Knølhval
<i>Orcinus orca</i>	Killer whale, orca	Schwertwal, Orca	Orque	Spekkhogger
<i>Lagenorhynchus obscurus</i>	Dusky dolphin	Schwarzdelfin	Lagénorhynque obscur	Mørkdelfin
<i>Otaria byronia</i>	South American sea lion	Mähnenrobbe	Lion de mer d'Amérique du Sud	Søramerikansk sjøløve
<i>Hydrurga leptonyx</i>	Leopard seal	Seeleopard	Léopard de mer	Leopardsel
<i>Leptonychotes weddellii</i>	Weddell seal	Weddelrobbe	Phoque de Weddell	Weddellsel
<i>Lobodon carcinophaga</i>	Crabeater seal	Krabbenfresser	Phoque crabier	Krabbeetersel
<i>Mirounga leonina</i>	Southern elephant seal	Südlicher See-Elefant	Eléphant de mer austral	Sydlig sjøelefant
<i>Arctocephalus gazella</i>	Antarctic fur seal	Antartischer Seebär	Otarie à fourrure antarctique	Antarktis pelssel

# Happywhale

We submitted our photos of the identifying features of the cetaceans we observed to Happywhale to learn more about the whales we spotted on our voyage.

If any of our whales has been spotted before, Happywhale will share their findings about the individuals with us!

[View our submissions](#) to Happywhale







**HX**

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inner scientist**