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Science & Education Report



MS Spitsbergen

28 May – 9 June 2026

Iceland, Jan Mayen & Svalbard
Island Hopping in and around the Arctic





Science & Education Programme

Our Science and Education Team accompanied you throughout the expedition into the remote wilderness of the Svalbard archipelago.

Together we explored the natural beauty, exceptional wildlife, and rich history of these destinations. We ran lectures and interactive activities on board, and ventured ashore on landings, nature walks, and outings from the water.

History & Culture

We cruised to remote regions with a distinctive history.

In Iceland, we saw the influence of the Norsemen; in Svalbard, the influence of trappers and whalers.



Iceland

Across the country, the influence of the first Norse settlers from Scandinavia is still easy to see and feel. The earliest of them — legend names Ingólfur Arnarson, who arrived in 874 — left a lasting mark. Icelandic language, mythology, and storytelling traditions all carry this heritage forward.

In the late nineteenth century, new fishing opportunities drew many farmers from inland areas to the growing coastal settlements, where the fishing industry flourished and remains central to life today. We saw clear traces of this history during our landings.





Jan Mayen & Ny-Ålesund

Our voyage included two stops that capture the scientific character of the Arctic.

On Jan Mayen, Norway's meteorological station and research programmes draw on the island's extreme isolation, offering rare conditions for atmospheric and environmental study. Farther north, Ny-Ålesund — the world's northernmost civilian settlement — is an international research hub where eleven nations work together under the Svalbard Treaty.

Together, these sites show how the High Arctic serves as a natural laboratory for understanding climate, ecosystems, and long-term environmental change.

Svalbard

During our landings in Svalbard, we encountered traces of the region's early whaling era and the more recent trapping period.

Scattered across the landscape were huts — some still maintained and in use — along with abandoned traps and the crumbling remains of old whaling ovens.

These relics offered vivid glimpses into the human history that shaped these remote shores.





Geological History

The geology of our voyage spanned a remarkable range of Earth's history, from some of the planet's youngest volcanic landscapes to some of its oldest continental foundations.

Each landing opened a different window into geological time: the fresh lava fields of Jan Mayen, the rift-driven terrains of Iceland, and the ancient Precambrian rocks of Svalbard. Together, these sites revealed how dynamic and diverse the North Atlantic and Arctic regions truly are.

Iceland

Iceland's geology is remarkably young, spanning only the last 16 million years — an instant in geological terms.

During our visit, we examined rocks formed as recently as 1973, a vivid reminder that geology is not confined to deep time, but actively shapes the landscape today.

We also encountered much older Tertiary formations, including a nunatak rising 500 metres above sea level — a solitary remnant of ancient volcanic activity amid the younger terrain.





Jan Mayen

Jan Mayen is a remote volcanic island, notoriously difficult to reach, which made our landing there especially rewarding. Its geology is striking: the high viscosity of its blocky and ‘a‘ā lava flows has produced rugged lava fields that dominate the landscape.

The island sits on a small microcontinent that rifted away from Greenland around 55 million years ago. The island itself, however, is geologically young — only about 700,000 years old — giving us a clear view of recent volcanic processes in the North Atlantic.

Svalbard

The geology of Svalbard is the oldest we encountered on the voyage.

With formations dating back to the Precambrian, the archipelago holds a remarkable record of Earth's deep past. Layer by layer, these rocks reveal the palaeoclimates Svalbard passed through as it drifted from the southern hemisphere to its present position in the High Arctic.

Few places hold such a complete geological archive of continental movement, climate shifts, and the long history of our planet.





Arts & Crafts

Many of you embraced the creative side of the voyage, starting with our first arts session: painting water bottles to turn them into personalised keepsakes. From there, the creativity grew. Clay creatures emerged during quiet afternoons, watercolour postcards captured favourite moments from the journey, and several guests crafted naturalist-style maps tracing our route through the North Atlantic.

Workshops

Throughout the voyage, we also ran a series of practical workshops that connected seamanship with exploration skills.

Guests built simple sextants to learn the principles of celestial navigation, practised the essential knots used in sailing and fieldwork, and joined a session on survival at sea. Each activity offered a hands-on appreciation of the techniques that have supported Arctic travel and scientific expeditions for generations.





NASA's GLOBE Cloud Observer

Together with our Environmental Scientist, Jean, you observed the clouds and submitted observations to NASA's GLOBE Cloud Observer on three occasions.

These cloud observations help NASA improve our understanding of Earth's atmosphere and climate, providing valuable data for scientific research and climate modelling.

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

iNaturalist

Throughout the expedition, we documented the flora and fauna of Svalbard and uploaded our findings to the biodiversity platform iNaturalist.

During the voyage, we submitted 186 observations of 86 different species. This effort contributes to a fuller understanding of how species are currently distributed across the archipelago, and supports researchers in their ongoing studies and conservation work.

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





Science Boat

44 eager participants joined our five science boat outings in Ísafjörður, Bamsebu, and Calypsobyen to study plankton and the hydrography of our destinations.

Together you helped monitor ocean clarity by taking part 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

After our science boat sessions, we explored the microscopic world of plankton — the tiny organisms that drift in our ocean.

Every plankton sample we collected contained copepods, the cornerstones of the North Atlantic marine food web. During the discovery session, we also observed other zooplankton: barnacle larvae, planktonic tunicates, mollusc larvae, and jellyfish — captured in the photographs on the following page.



Calanoid copepod
Calanus sp.



Barnacle cyprid larvae
Cirripedia



Larvacean (planktonic tunicate)
Appendicularia



Mollusc veliger larvae
Mollusca



Athebate hydroid jellyfish
Anthoathecata

Guest Scientist

During the voyage, we provided logistical support to seabird researcher Erlend Lorentzen and his team from the Norwegian Polar Institute, carrying them from Iceland to their remote field site on Jan Mayen.

The collaboration gave the researchers access to one of the most isolated islands in the North Atlantic, where long-term monitoring of seabird populations contributes valuable data to Arctic ecosystem research.

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





eBird

During our wildlife watches, our Ornithologist Julia and the Expedition Team conducted detailed seabird surveys, recording observations for the citizen science platform eBird.

This work contributes valuable data to global bird conservation efforts, deepening our understanding of seabird 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>Puffinus puffinus</i>	Manx shearwater	Atlantiksturmtaucher	puffin des Anglais
<i>Ardenna grisea</i>	sooty shearwater	Dunkler Sturmtaucher	puffin fuligineux
<i>Oceanodroma leucorhoa</i>	Leach's storm petrel	Wellenläufer	océanite cul-blanc
<i>Hydrobates pelagicus</i>	European storm petrel	Sturmschwalbe	océanite tempête
<i>Morus bassanus</i>	northern gannet	Basstölpel	fou de Bassan
<i>Stercorarius parasiticus</i>	Arctic skua (parasitic jaeger)	Schmarotzerraubmöwe	labbe parasite
<i>Stercorarius longicaudus</i>	long-tailed jaeger	Falkenraubmöwe	labbe à longue queue
<i>Stercorarius skua</i>	great skua	Große Raubmöwe	grand labbe
<i>Chroicocephalus ridibundus</i>	black-headed gull	Lachmöwe	mouette rieuse
<i>Larus argentatus</i>	herring gull	Silbermöwe	goéland argenté
<i>Larus hyperboreus</i>	glaucous gull	Eismöwe	goéland bourgmestre
<i>Larus fuscus</i>	lesser black-backed gull	Heringsmöwe	goéland brun
<i>Larus marinus</i>	great black-backed gull	Mantelmöwe	goéland marin
<i>Xema sabini</i>	Sabine's gull	Schwalbenmöwe	mouette de Sabine

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
<i>Sterna paradisaea</i>	Arctic tern	Küstenseeschwalbe	sterne arctique
<i>Rissa tridactyla</i>	black-legged kittiwake	Dreizehenmöwe	mouette tridactyle
<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>Uria lomvia</i>	Brünnich's guillemot (thick-billed murre)	Dickschnabellumme	guillemot de Brünnich
<i>Alca torda</i>	razorbill	Tordalk	petit pingouin



The Auks

From the ghost echo of the vanished **great auk**, to the dark, drifting rafts of **common guillemots** and the colourful **Atlantic puffins** off Heimaey; from the quicksilver flurries of **little auks** beating their wings like sparks in the wind off Jan Mayen, to the shy **Brünnich's guillemots** showing their darker shades as we sailed north, and the **black guillemots** standing barefoot on the cold fast ice of Burgerbukta — this voyage carried us through the full chorus of the North Atlantic's six alcids.







Northern fulmar

The sentinel of the North Atlantic accompanied us throughout the journey. From Scotland to Svalbard, fulmars followed the ship. We saw them nesting on the steep cliffs of Iceland and Jan Mayen, and resting at sea or on small icebergs in Svalbard. A species to remember – an emblem of the Arctic's beauty and resilience.

Wildlife List – Shore birds

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
<i>Haematopus ostralegus</i>	Eurasian oystercatcher	Austernfischer	huître pie
<i>Charadrius hiaticula</i>	common ringed plover	Sandregenpfeifer	pluvier grand-gravelot
<i>Pluvialis apricaria</i>	European golden plover	Goldregenpfeifer	pluvier doré
<i>Calidris alpina</i>	dunlin	Alpenstrandläufer	bécasseau variable
<i>Calidris maritima</i>	purple sandpiper	Meerstrandläufer	bécasseau violet
<i>Tringa totanus</i>	common redshank	Rotschenkel	chevalier gambette
<i>Numenius phaeopus</i>	whimbrel	Regenbrachvogel	courlis corlieu
<i>Limosa limosa</i>	black-tailed godwit	Uferschnepfe	barge à queue noire
<i>Gallinago gallinago</i>	common snipe	Bekassine	bécassine des marais
<i>Phalaropus lobatus</i>	red-necked phalarope	Odinshühnchen	phalarope à bec étroit
<i>Arenaria interpres</i>	ruddy turnstone	Steinwälzer	tournepierre à collier



Wildlife List – Water birds

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
<i>Cygnus cygnus</i>	whooper swan	Singschwan	cygne chanteur
<i>Anser anser</i>	greylag goose	Graugans	oie cendrée
<i>Anser brachyrhynchus</i>	pink-footed goose	Kurzschnabelgans	oie à bec court
<i>Branta leucopsis</i>	barnacle goose	Weißwangengans	bernache nonnette
<i>Anas platyrhynchos</i>	mallard	Stockente	canard colvert
<i>Anas crecca</i>	Eurasian teal	Krickente	sarcelle d'hiver
<i>Mareca penelope</i>	Eurasian wigeon	Pfeifente	canard siffleur
<i>Somateria mollissima</i>	common eider	Eiderente	eider à duvet
<i>Clangula hyemalis</i>	long-tailed duck	Eisente	harelde kakawi
<i>Histrionicus histrionicus</i>	harlequin duck	Kragenente	arlequin plongeur
<i>Mergus serrator</i>	red-breasted merganser	Mittelsäger	harle huppé
<i>Gavia immer</i>	great northern diver (common loon)	Eistaucher	plongeon huard
<i>Gavia stellata</i>	red-throated diver (red-throated loon)	Sterntaucher	plongeon catmarin
<i>Phalacrocorax carbo</i>	great cormorant	Kormoran	grand cormoran
<i>Gulosus aristotelis</i>	European shag	Krähenscharbe	cormoran huppé



Wildlife List – Land birds

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
<i>Falco columbarius</i>	merlin	Merlin	faucon émerillon
<i>Columba livia domestica</i>	feral pigeon	Stadttaube	pigeon domestique
<i>Anthus pratensis</i>	meadow pipit	Wiesenpieper	pipit farlouse
<i>Motacilla alba</i>	white wagtail	Trauerbachstelze	bergeronnette grise
<i>Oenanthe oenanthe</i>	northern wheatear	Steinschmätzer	traquet motteux
<i>Turdus iliacus</i>	redwing	Rotdrossel	grive mauvis
<i>Corvus corax</i>	northern (common) raven	Kolkrabe	grand corbeau
<i>Sturnus vulgaris</i>	European starling	Gemeiner Star	étourneau sansonnet
<i>Acanthis flammea</i>	redpoll	Birkenzeisig	sizerin flammé
<i>Plectrophenax nivalis</i>	snow bunting	Schneeammer	bruant des neiges
<i>Lagopus muta</i>	rock ptarmigan	Alpenschneehuhn	lagopède alpin
<i>Delichon urbicum</i>	common house martin	Mehlschwalbe	hirondelle de fenêtre
<i>Hirundo rustica</i>	barn swallow	Rauchschwalbe	hirondelle rustique



An aerial photograph of two whales breaching the surface of the ocean. The water is a deep, clear blue-green. Two distinct plumes of white spray rise from the whales' blowholes, indicating they are exhaling. The whales' dark, sleek bodies are partially visible above the water's surface, with some white foam from their breaching. The overall scene is dynamic and captures a moment of natural behavior in the wild.

Wildlife List – Marine Mammals



Fin whale · Finnwal · rorqual commun
Balaenoptera physalus



Sowerby's beaked whale · Sowerby-Zweizahnwal · mésoplodon de Sowerby
Mesoplodon bidens

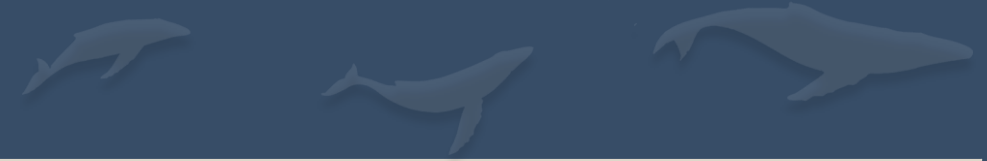


Atlantic white-sided dolphin · Weißseitendelfin · lagénorhynque à flancs blancs
Leucopleurus acutus



Long-finned pilot whale · Grindwal · globicéphale noir
Globicephala melas

Wildlife List – Marine Mammals



SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
<i>Balaenoptera physalus</i>	fin whale	Finnwal	rorqual commun
<i>Balaenoptera acutorostrata</i>	common minke whale	Zwergwal	rorqual à museau pointu
<i>Delphinapterus leucas</i>	beluga, white whale	Beluga, Weißwal	bélouga
<i>Physeter macrocephalus</i>	sperm whale, cachalot	Pottwal	cachalot
<i>Mesoplodon bidens</i>	Sowerby's beaked whale	Sowerby-Zweizahnwal	mésoplodon de Sowerby
<i>Orcinus orca</i>	killer whale, orca	Schwertwal	orque
<i>Globicephala melas</i>	long-finned pilot whale	Grindwal	globicéphale noir
<i>Leucopleurus acutus</i>	Atlantic white-sided dolphin	Atlantischer Weißseitendelfin	lagénorhynque à flancs blanc de l'Atlantique
<i>Lagenorhynchus albirostris</i>	white-beaked dolphin	Weißschnauzendelfin	lagénorhynque à bec blanc
<i>Phoca vitulina</i>	harbour seal, common seal	Seehund	phoque commun
<i>Odobenus rosmarus</i>	walrus	Walross	morse



Killer whales

We were fortunate to witness two remarkable encounters with the North-East Atlantic Type 1 ecotype of killer whales.

These orcas, common in Icelandic waters, are the largest members of the dolphin family and among the ocean's most sophisticated top predators. Known for their cooperative hunting strategies and tight social family groups, they move through these productive northern seas in pursuit of herring and other schooling fish. Watching them surface and travel alongside the ship offered a rare glimpse into the lives of one of the Arctic's most iconic marine species.

Happywhale

We submitted photographs of the identifying features of the marine mammals we encountered to the citizen science platform Happywhale.

Happywhale lets us follow individual whales and other marine mammals, and learn about their life history and migratory routes. This deepens our understanding of these animals and contributes to their conservation.

[View our submissions](#) to Happywhale



Wildlife

List – Other fauna



Wildlife List – Land Mammals & Fish



Land mammals

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
<i>Rangifer tarandus platyrhynchus</i>	Svalbard reindeer	Spitzbergen-Ren	renne du Svalbard
<i>Vulpes lagopus</i>	Arctic fox	Polarfuchs	renard arctique

Fish

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
<i>Cetorhinus maximus</i>	basking shark	Riesenhai	requin pèlerin

THANKS



Thanks for your
participation!