

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

From Iceland to Hamburg – Half Circumnavigation of the Land of Ice and Fire

MS Spitsbergen

21 September – 5 October 2026



Science & Education Programme

Our Science & Education Team accompanied you on your expedition into the remote nature of the North Atlantic.

Together, we explored the natural beauty, exceptional wildlife, and rich history of our destinations. The Expedition Team organised lectures and interactive sessions on board, and we explored each destination during excursions, nature walks, and from the water.



History & Culture

Across Iceland, the Faroe Islands, and the Northern Scottish Isles, history and culture formed a continuous thread. Each stop revealed a different chapter in the movement of Norse and Celtic settlers across the North Atlantic, followed by centuries of trade and rule under Norway, Denmark, and Scotland. Each place also retained a distinct identity. Iceland preserved its sagas, the Faroese sustained their language through song, and the Northern Isles carried their Norse heritage through place names, dialect, and music.

Travelling from island to island, we encountered closely connected cultures, each shaped by the sea and expressed in its own voice.



Iceland

Iceland welcomed us with a landscape shaped by fire and ice and a culture with a strong sense of identity.

Norse and Celtic settlers arrived around 870, and the Alþingi was founded in 930, making it the world's oldest surviving parliament. During the long winters, Icelanders shared stories aloud and preserved them in the Eddas and sagas that inform much of our understanding of Norse mythology.

That storytelling tradition remains visible today in Iceland's enduring enthusiasm for literature.





Faroe Islands

In the Faroe Islands, culture could be heard, seen, and shared.

We joined a traditional chain dance, holding hands in a circle while singing ballads — some hundreds of verses long and performed without instruments. This oral tradition helped sustain the Faroese language during a period when schools and churches used Danish.

Local people welcomed us into their homes and church, offering a personal view of everyday life in the islands.

Northern Scottish Isles

In Shetland and Orkney, connections with the Norse past remained visible in local music, dialect, and place names.

We heard these influences in the lively rhythms of traditional fiddle music and encountered traces of Old Norse in the language of the islands. We also walked through landscapes inhabited for thousands of years.

These layers of history placed the voyage within a much longer story of people, culture, and movement across the North Atlantic.





Geological History

The voyage crossed three geological regions shaped by volcanic activity, moving tectonic plates, and ice.

In Iceland, we encountered a landscape still being formed along the Mid-Atlantic Ridge. The Faroe Islands revealed layers of ancient basalt, exposed in towering cliffs and glacial valleys. In the Northern Scottish Isles, much older rocks and coastlines recorded an even longer geological history.

Together, these landscapes illustrated how fire, ice, and erosion have shaped the North Atlantic over millions of years.

Arts & Crafts

We explored our creativity throughout the voyage, beginning with painted water bottles transformed into personalised keepsakes.

Later sessions produced clay creatures, watercolour postcards, and naturalist-style maps tracing the route around northern Iceland. Each creation became a personal record of the journey.





NASA's Globe Cloud Observer

Together with our Environmental Scientist, Zoe, we observed the clouds and submitted our observations to NASA's GLOBE Cloud Observer on four 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.

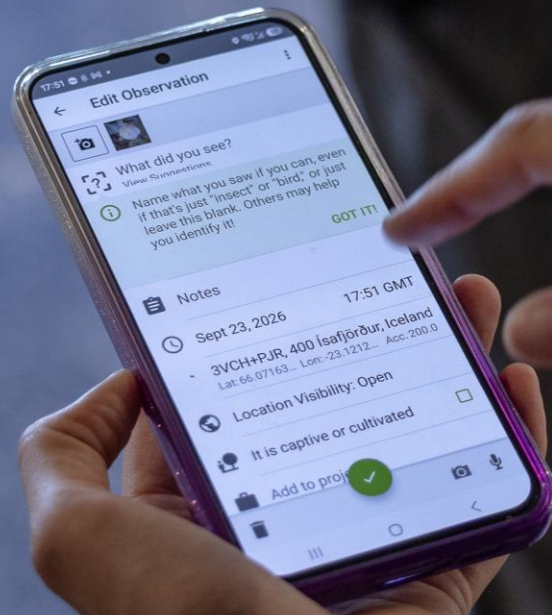
[View our data](#) on the global map

Weather & Climate

Alongside the region's geology, we explored the forces that shape the North Atlantic today. Through lectures on oceanography, weather, and the aurora, we learned how the Gulf Stream carries warmth northwards and how powerful low-pressure systems generate the winds and seas for which this region is known. We experienced those forces first-hand, with frequently windy conditions and changing weather throughout the voyage.

From seabird colonies and whale sightings to volcanic coastlines, fjords, and island landscapes, the journey showcased an extraordinary range of natural phenomena across all regions.





iNaturalist

Throughout our expedition, we documented the flora and fauna of Iceland and beyond and uploaded all our findings to the iNaturalist platform.

During our voyage, we submitted 130 observations of 80 different species. This effort contributes to a comprehensive understanding of the current distribution of species worldwide and can aid researchers in their ongoing studies and conservation efforts.

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

Nature Walks

Guided nature walks gave us the opportunity to explore some of our destinations more closely.

Along the way, Expedition Team members shared insights into geology, birdlife, local history, and island culture, helping connect each landscape with the stories and wildlife that shaped it.





Aurorasaurus

We contributed to aurora science by submitting a boots-on-the-ground report of the Northern Lights we saw as we left Iceland.

This information will assist Aurorasaurus scientists in collecting data from East Iceland, a region with relatively few residents.

If you would like to contribute your own observations, there is still time to do so.

[Visit Aurorasaurus](#) to add your sightings



Science Boat Sessions

In Akureyri, 14 eager guests joined our two science boats to study plankton and the hydrography of our destination.

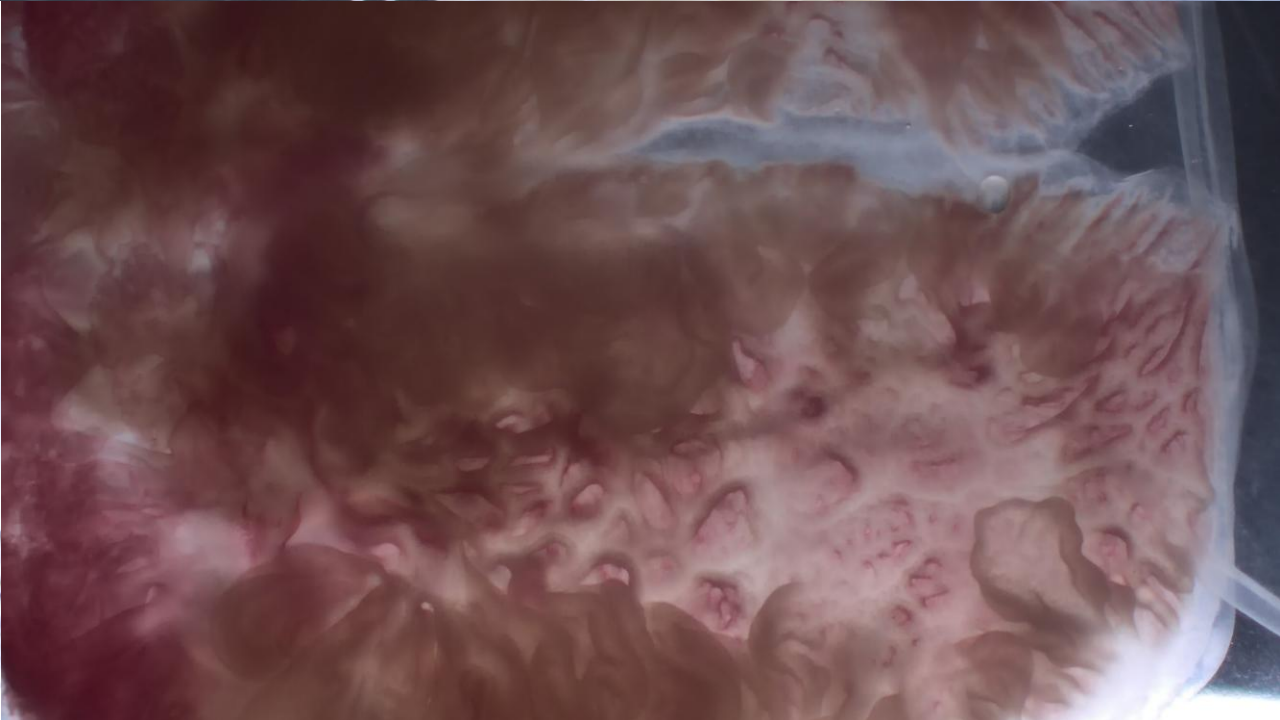
Together, we monitored ocean characteristics such as salinity and temperature using the CTD, and used plankton nets of different mesh sizes to collect samples of both phytoplankton and zooplankton to bring back for our onboard microscope sessions.

Plankton Samples

We explored the microscopic world of plankton, the tiny organisms that drift in our ocean.

In the plankton samples collected from Akureyri, we found a variety of phytoplankton and zooplankton, and observed species such as the copepod captured in the picture during our microscope sessions.

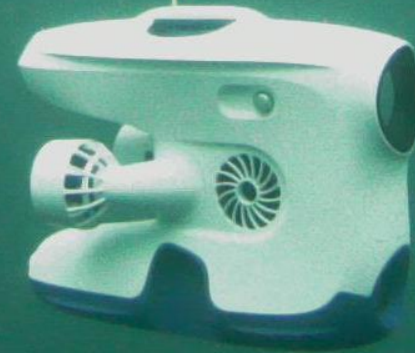




Underwater Drone

We used a Blueye Pioneer underwater drone to explore beneath the surface at Elduvík in the Faroe Islands.

View the highlights from our underwater drone footage [on YouTube](#)



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>Ardena grisea</i>	sooty shearwater	Dunkler Sturmtaucher	puffin fuligineux
<i>Morus bassanus</i>	northern gannet	Basstölpel	fou de Bassan
<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 glaucoides</i>	Iceland gull	Polarmöwe	goéland arctique
<i>Larus fuscus</i>	lesser black-backed gull	Heringsmöwe	goéland brun
<i>Larus marinus</i>	great black-backed gull	Mantelmöwe	goéland marin
<i>Rissa tridactyla</i>	black-legged kittiwake	Dreizehenmöwe	mouette tridactyle
<i>Thalasseus sandvicensis</i>	Sandwich tern	Brandseeschwalbe	sterne caugék

Wildlife List – Seabirds

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
<i>Cephus grylle</i>	black guillemot	Gryllteiste	guillemot à miroir
<i>Uria aalge</i>	common guillemot/murre	Trottellumme	guillemot marmette
<i>Alca torda</i>	razorbill	Tordalk	petit pingouin
<i>Phalacrocorax aristotelis</i>	European shag	Krähenscharbe	cormoran huppé
<i>Phalacrocorax carbo</i>	great cormorant	Kormoran	grand cormoran



Wildlife List — Water Birds

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
<i>Cygnus cygnus</i>	whooper swan	Singschwan	cygne chanteur
<i>Cygnus olor</i>	mute swan	Höckerschwan	cygne tuberculé
<i>Anser anser</i>	greylag goose	Graugans	oie cendrée
<i>Mareca penelope</i>	Eurasian wigeon	Pfeifente	canard siffleur
<i>Anas platyrhynchos</i>	mallard	Stockente	canard colvert
<i>Aythya fuligula</i>	tufted duck	Reiherente	fuligule morillon
<i>Somateria mollissima</i>	common eider	Eiderente	eider à duvet
<i>Aythya marila</i>	greater scaup	Bergente	fuligule milouinan
<i>Mergus serrator</i>	red-breasted merganser	Mittelsäger	harle huppé

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>Calidris maritima</i>	purple sandpiper	Meerstrandläufer	bécasseau violet
<i>Tringa totanus</i>	common redshank	Rotschenkel	chevalier gambette
<i>Arenaria interpres</i>	ruddy turnstone	Steinwälzer	tourne-pierre à collier
<i>Limosa lapponica</i>	bar-tailed godwit	Pfuhschnepfe	barge rousse
<i>Ardea cinerea</i>	grey heron	Graureiher	héron cendré

Wildlife List — Land Birds

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
<i>Falco columbarius</i>	merlin	Merlin	faucon émerillon
<i>Corvus corax</i>	northern (common) raven	Kolkrabe	grand corbeau
<i>Corvus cornix</i>	hooded crow	Nebelkrähe	corneille mantelée
<i>Corvus frugilegus</i>	rook	Saatkrähe	corbeau freux
<i>Corvus corone</i>	carrion crow	Rabenkrähe	corneille noire
<i>Pica pica</i>	Eurasian magpie	Elster	pie bavarde
<i>Sturnus vulgaris</i>	European starling	Gemeiner Star	étourneau sansonnet
<i>Columba livia domestica</i>	feral pigeon	Stadttaube	pigeon domestique
<i>Streptopelia decaocto</i>	Eurasian collared dove	Türkentaube	pigeon ramier
<i>Columba palumbus</i>	common wood pigeon	Ringeltaube	tourterelle turque
<i>Anthus petrosus</i>	Eurasian rock pipit	Strandpieper	pipit maritime
<i>Turdus iliacus</i>	redwing	Rotdrossel	grive mauvis
<i>Turdus merula</i>	Eurasian (common) blackbird	Amsel	merle noir
<i>Turdus philomelos</i>	song thrush	Singdrossel	grive musicienne

Wildlife List — Land Birds

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
<i>Regulus regulus</i>	goldcrest	Wintergoldhähnchen	roitelet huppé
<i>Fringilla coelebs</i>	common chaffinch	Buchfink	pinson des arbres
<i>Phylloscopus collybita</i>	common chiffchaff	Zilpzalp	pouillot véloce
<i>Sylvia atricapilla</i>	Eurasian blackcap	Mönchsgrasmücke	fauvette à tête noire
<i>Linaria cannabina</i>	common linnet	Bluthänfling	linotte mélodieuse
<i>Fringilla montifringilla</i>	brambling	Bergfink	pinson du nord
<i>Oenanthe oenanthe</i>	northern wheatear	Steinschmätzer	traquet motteux
<i>Saxicola rubicola</i>	European stonechat	Schwarzkehlchen	tarier pâtre
<i>Parus major</i>	great tit	Kohlmeise	mésange charbonnière
<i>Erithacus rubecula</i>	European robin	Rotkehlchen	rougegorge familier
<i>Motacilla alba</i>	white wagtail	Bachstelze	bergeronnette grise
<i>Acanthis flammea</i>	redpoll	Birkenzeisig	gråsisik
<i>Passer domesticus</i>	house sparrow	Haussperling	gråspurv
<i>Lagopus muta</i>	rock ptarmigan	Alpenschneehuhn	fjellrype



Rock Ptarmigan

With their autumn plumage and peculiar calls, rock ptarmigan caught our attention throughout this voyage. These resident land birds have adapted to some of the harshest conditions on our planet: the Arctic winter. Soon they will trade their brown feathers for a completely white coat. On the island of Hrísey, we had the privilege of watching them play a lazy, ptarmigan-style 'football match'.





eBird

During our wildlife watches and excursions, our Ornithologist, Julia, conducted detailed bird surveys and recorded observations for the Citizen Science platform eBird. In total, we observed 61 bird species and recorded 51 of these in 16 eBird checklists.

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

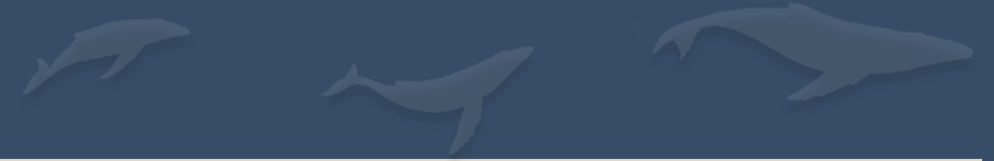
View our data on our [eBird trip report](#)

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>Balaenoptera physalus</i>	fin whale	Finnwal	rorqual commun
<i>Megaptera novaeangliae</i>	humpback whale	Buckelwal	baleine à bosse
<i>Lagenorhynchus albirostris</i>	white-beaked dolphin	Weißschnauzendelfin	lagénorhynque à bec blanc
<i>Orcinus orca</i>	orca	Schwertwal	orque
<i>Phoca vitulina</i>	harbour seal, common seal	Seehund	phoque commun
<i>Halichoerus grypus</i>	grey seal	Kegelrobbe	phoque gris

Happywhale

We submitted pictures of the identifying features of the marine mammals we encountered to the Citizen Science platform Happywhale. In total, we submitted two observations, both matched to known individuals named 'Glacier' and 'LeftX'.

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





THX

Thanks for your
participation!