

The background of the slide features a deep blue underwater scene with two whales. A large, semi-transparent watermark of the Roman numeral 'IX' is positioned on the left side, spanning most of the vertical height. The text 'Science & Education Report' is centered horizontally and partially overlaps the 'IX' watermark.

Science & Education Report

MS Spitsbergen

17–27 May 2026

The Scottish Isles —
Island Hopping in the Hebrides





Science & Education Programme

Our Science and Education Team accompanied you during your expedition to remote communities and spectacular nature of the islands of Scotland's Hebrides.

We had the opportunity to explore our destination's natural beauty, exceptional wildlife, and rich history. We organized lectures and interactive activities on board. We explored these destinations through excursions, on nature walks, and from our Zodiacs.

History & Culture

We had the unique opportunity to see some remains of the many different influences that have shaped the Scottish Isles. Celtic, Pict, Christian, and Norse cultures merge into the language, architecture, and the ways of life in the Hebrides, enriching the history of settlements with stories of conquests, clan fights, independence uprisings, and the Highland Clearances along the way.

We shared with you the survival, adaptation, and resilience that the Isles of the Hebrides represent.





St Kilda

A remote archipelago shaped by both nature and human resilience, St Kilda tells the story of a once-thriving island community living at the edge of the Atlantic Ocean.

Surrounded by dramatic cliffs and seabird colonies, the islands offer a powerful glimpse into a unique way of life that endured for centuries before the final evacuation in 1930.

Walking among the restored stone houses and ancient cleits, we explored the legacy of the islanders and reflected on the challenges of isolation, survival, and change in one of the most remarkable cultural landscapes in Scotland.

Isle of Iona

Known as the 'Cradle of Christianity' in Scotland, Iona has been a place of pilgrimage, learning, and spirituality for over 1,400 years. Founded by St Columba in AD 563, the island's abbey and monastery became an important centre of religion and culture throughout the medieval world.

During our visit, we explored the abbey, cloisters, and historic ruins while learning about the island's turbulent past: from Viking raids to centuries of restoration.

Today, Iona remains a peaceful and inspiring place where history, architecture, and spirituality come together.





Geological History

We investigated a variety of rocks along our journey.

We learned about the rocks that form the varied landscapes across the Hebridean Islands. Through our nature walks we were able to learn more about those landscapes both today and in the distant past.

We saw Lewisian gneiss dated at over 3 billion years old. We saw evidence of volcanic activity from just 60 million years ago. We experienced landscapes that were formed within the Ice Age: just 100,000 years ago.

Isle of Arran

The Isle of Arran is described as 'Scotland in miniature' by geologists since it exposes rocks of many different types formed in a variety of ways across an expanse of geological time. This is why Arran is visited by geology students and enthusiasts alike.

The Isle of Arran is dominated by a famous peak to its north: Goat Fell, created from a massive granite block called a batholith.





St Kilda Archipelago

Explosive volcanic eruptions created this unique and wonderful landscape on tiny isolated islands in the North Atlantic Ocean.

These eruptions occurred around 60 million years ago. The volcanoes have long since ceased to exist and as a result, the archipelago of islands is slowly being eroded away by the action of sea waves pounding at their bases. Today we see the steep cliffs and strangely shaped stacks that are today the home for thousands of seabirds.

Isle of Staffa and Fingal's Cave

The Isle of Staffa is known for its basalt structures. These hexagonal-shaped columns are formed from a lave flow that cooled slowly. As a result, the basalt created six-sided columns that reach vertically to make impressive cliffs.

Fingal's Cave, recorded beautifully in sound by Felix Mendelssohn in his overture 'The Hebrides', is formed within the columns where there is a weakness. This weakness we call a fault.

The soft turf of Staffa is the nesting grounds for the Atlantic puffin.





NASA GLOBE Cloud Observer

Together with our Environmental Scientist, David, you observed the clouds and submitted your observations to NASA GLOBE Observer on **one** occasion.

These cloud observations 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

Nature Walks

On several occasions throughout the voyage, guests joined our Expedition Team to explore destinations in small groups on guided nature walks in the Isle of Gigha and St Kilda.

From geology and birdlife to local history and island culture, these walks offered a closer look at the landscapes, wildlife, and stories that make each destination unique.





Exploring Intertidal Pools

During our stop in the Isle of Iona, we explored the intertidal zone, a habitat shaped by changing tides and challenging conditions.

Among the rock pools, we discovered anemones, crustaceans, periwinkles, shannies, and other shoreline life specially adapted to survive exposure, heat, and changing salinity, offering a fascinating glimpse into this dynamic coastal ecosystem.

iNaturalist

Throughout our expedition, we documented the flora and fauna of the Scottish Isles and uploaded all our findings to the iNaturalist Citizen Science biodiversity platform.

This effort contributes to the better understanding of the geographical distribution of species and can aid researchers in their ongoing studies and conservation efforts to protect them.

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





Science Boat

36 eager participants joined our **5** Science Boat outings in **Gigha, Tobermory, and Colonsay** to study plankton and the hydrography of our destination.

These participants helped monitor ocean clarity through participation in the Secchi Disk Citizen Science study, which contributes to important research on the distribution of phytoplankton blooms.

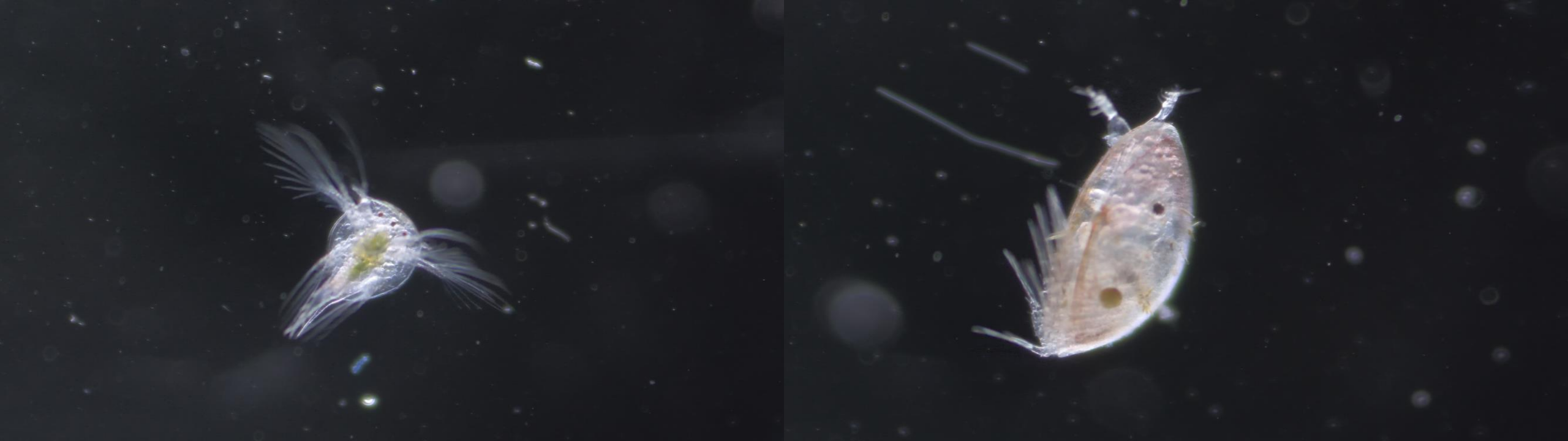
[View our data](#) submitted to the Secchi Disk Project

Plankton Samples

During a Science Centre discovery session, we explored the microscopic world of plankton using samples collected throughout the voyage.

In samples from Tobermory, we identified the cladoceran *Evadne nordmanni* and several copepods, while samples from Colonsay revealed plentiful diatoms and crab larvae like the specimen pictured here.







Beach Clean-up

Many of you demonstrated your dedication to protecting nature by taking part in our organised beach clean-ups.

Working alongside Monty Halls and his Big Blue Bag initiative, we removed approximately **18.5 kg** of litter from beaches on the Islands of Islay and Vatersay, while also carrying out some sand sampling to identify microplastic pollution.

A huge thank you to all those involved!

Guest Lecturer: Monty Halls

During our voyage, Guest Lecturer and HX Brand Ambassador Monty Halls joined us on board, sharing stories from his time living in the Galápagos, working as a crofter in the Hebrides, and researching the wartime history of the Commandos connected to the regions we explored.

Monty also introduced guests to 'The Big Blue Bag', an HX Foundation-supported project empowering coastal communities to monitor and document the health of their local shorelines.



Wildlife List — Seabirds



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>Morus bassanus</i>	Northern gannet	Basstölpel	Fou de Bassan
<i>Stercorarius parasiticus</i>	Arctic skua (parasitic jaeger)	Schmarotzerraubmöwe	Labbe parasite
<i>Stercorarius skua</i>	Great skua	Große Raubmöwe	Grand labbe
<i>Chroicocephalus ridibundus</i>	Black-headed gull	Lachmöwe	Mouette rieuse
<i>Larus canus</i>	Common gull	Sturmmöwe	Goéland cendré
<i>Larus argentatus</i>	Herring gull	Silbermöwe	Goéland argenté
<i>Larus fuscus</i>	Lesser black-backed gull	Heringsmöwe	Goéland brun
<i>Larus marinus</i>	Great black-backed gull	Mantelmöwe	Goéland marin
<i>Sterna hirundo</i>	Common tern	Flusseeschwalbe	Sterne pierregarin
<i>Sterna paradisaea</i>	Arctic tern	Küstenseeschwalbe	Sterne Arctique
<i>Rissa tridactyla</i>	Black-legged kittiwake	Dreizehenmöwe	Mouette tridactyle
<i>Fratercula arctica</i>	Atlantic puffin	Papageitaucher	Macareux moine
<i>Cephus grylle</i>	Black guillemot	Gryllteiste	Guillemot à miroir

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
<i>Uria aalge</i>	Common guillemot (common murre)	Trottellumme	Guillemot marmette
<i>Alca torda</i>	Razorbill	Tordalk	Petit pingouin



Auks

The Auks are the members of the family Alcidae, which is comprised of 25 species of puffins, murres, murrelets, razorbill, and guillemots, exclusively distributed in the Northern Hemisphere.

They are considered seabirds, as they spend most of their life at sea and only go to land to breed. By pursuit dives using their wings as propellers, they catch fish, squid, and krill. They are as agile at sea as they are clumsy on land, and they are fast, direct fliers.

Some species like the Atlantic puffin are facing conservation problems as climate change and sandeel fisheries are modifying their environment.





Wildlife List – Shore birds

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
<i>Cygnus olor</i>	Mute swan	Höckerschwan	Cygne tuberculé
<i>Anser anser</i>	Greylag goose	Graugans	Oie cendrée
<i>Branta canadensis</i>	Canada goose	Kanadagans	Bernache du Canada
<i>Anas platyrhynchos</i>	Mallard	Stockente	Canard colvert
<i>Somateria mollissima</i>	Common eider	Eiderente	Eider à duvet
<i>Mergus serrator</i>	Red-breasted merganser	Mittelsäger	Harle huppé
<i>Gavia immer</i>	Great northern diver (common loon)	Eistaucher	Plongeon huard
<i>Phalacrocorax carbo</i>	Great cormorant	Kormoran	Grand cormoran
<i>Phalacrocorax aristotelis</i>	European shag	Krähenscharbe	Cormoran huppé
<i>Ardea cinerea</i>	Grey heron	Graureiher	Héron cendré
<i>Haematopus ostralegus</i>	Eurasian oystercatcher	Austernfischer	Huïtrier pie
<i>Charadrius hiaticula</i>	Common ringed plover	Sandregenpfeifer	Pluvier grand-gravelot
<i>Calidris alpina</i>	Dunlin	Alpenstrandläufer	Bécasseau variable
<i>Arenaria interpres</i>	Ruddy turnstone	Steinwälzer	Tournepierrre à collier

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
<i>Numenius arquata</i>	Eurasian curlew	Großer Brachvogel	Courlis cendré
<i>Numenius phaeopus</i>	Whimbrel	Regenbrachvogel	Courlis corlieu
<i>Gallinago gallinago</i>	Common snipe	Bekassine	Bécassine des marais
<i>Tadorna tadorna</i>	Common shelduck	Brandgans	Tadorne de Belon





White-tailed Eagle

With a wingspan of 2.5 metres, the white-tailed eagle is the largest eagle in Scotland. Inhabits aquatic habitats like rivers and cliffs on the sea coast where it catches fish, its main prey. It was persecuted by humans for its reputation as 'lamb killer' until it was almost extinct in Europe in the 1800s.

The last white-tailed eagle was hunted in Scotland in 1918, and it was brought back from extinction in the late 1900s, after several successful reintroductions on some islands of the Hebrides. Today, it is estimated that 150 breeding pairs are thriving in Scotland and hopefully the population will continue to increase.

Wildlife List – Land birds

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
<i>Haliaeetus albicilla</i>	White-tailed eagle	Seeadler	Pygargue à queue blanche
<i>Aquila chrysaetos</i>	Golden eagle	Steinadler	Aigle royal
<i>Buteo buteo</i>	Common buzzard	Mäusebussard	Buse variable
<i>Columba livia domestica</i>	Feral pigeon	Stadttaube	Pigeon domestique
<i>Columba palumbus</i>	Common wood pigeon	Ringeltaube	Pigeon ramier
<i>Streptopelia decaocto</i>	Eurasian collared dove	Türkentaube	Tourterelle turque
<i>Cuculus canorus</i>	Common cuckoo	Kuckuck	Coucou gris
<i>Hirundo rustica</i>	Barn swallow	Rauchschnalbe	Hirondelle rustique
<i>Delichon urbicum</i>	Western (common) house martin	Mehlschnalbe	Hirondelle de fenêtre
<i>Riparia riparia</i>	Sand martin (bank swallow)	Uferschnalbe	Hirondelle de rivage
<i>Anthus petrosus</i>	Eurasian rock pipit	Strandpieper	Pipit maritime
<i>Anthus pratensis</i>	Meadow pipit	Wiesenpieper	Pipit farlouse
<i>Motacilla alba yarrellii</i>	Pied wagtail	Trauerbachstelze	Bergeronnette de Yarrell
<i>Prunella modularis</i>	Dunnock	Heckenbraunelle	Accenteur mouchet
<i>Erithacus rubecula</i>	European robin	Rotkehlchen	Rougegorge familier

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
<i>Oenanthe oenanthe</i>	Northern wheatear	Steinschmätzer	Traquet motteux
<i>Turdus merula</i>	Eurasian (common) blackbird	Amsel	Merle noir
<i>Turdus philomelos</i>	Song thrush	Singdrossel	Grive musicienne
<i>Sylvia communis</i>	Common whitethroat	Dorngrasmücke	Fauvette grisette
<i>Acrocephalus schoenobaenus</i>	Sedge warbler	Schilfrohrsänger	Phragmite des joncs
<i>Phylloscopus collybita</i>	Common chiffchaff	Zilpzalp	Pouillot véloce
<i>Phylloscopus trochilus</i>	Willow warbler	Fitis	Pouillot fitis
<i>Regulus regulus</i>	Goldcrest	Wintergoldhähnchen	Roitelet huppé
<i>Troglodytes troglodytes</i>	Eurasian wren	Zaunkönig	Troglodyte mignon
<i>Parus major</i>	Great tit	Kohlmeise	Mésange charbonnière
<i>Pariparus ater</i>	Coal tit	Tannenmeise	Mésange noire
<i>Cyanistes caeruleus</i>	Eurasian blue tit	Blaumeise	Mésange bleue
<i>Coloeus monedula</i>	Western (Eurasian) jackdaw	Dohle	Choucas des tours
<i>Corvus cornix</i>	Hooded crow	Nebelkrähe	Corneille mantelée
<i>Corvus corone</i>	Carrion crow	Rabenkrähe	Corneille noire
<i>Corvus frugilegus</i>	Rook	Saatkrähe	Corbeau freux
<i>Sturnus vulgaris</i>	European starling	Gemeiner Star	Étourneau sansonnet

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
<i>Passer domesticus</i>	House sparrow	Haussperling	Moineau domestique
<i>Fringilla coelebs</i>	Common chaffinch	Buchfink	Pinson des arbres
<i>Linaria cannabina</i>	Eurasian linnet	Bluthänfling	Linotte mélodieuse
<i>Acanthis flammea</i>	Redpoll	Birkenzeisig	Sizerin blanchâtre
<i>Carduelis carduelis</i>	European goldfinch	Stieglitz	Chardonneret élégant
<i>Chloris chloris</i>	European greenfinch	Grünfink	Verdier d'Europe
<i>Spinus spinus</i>	Eurasian sskin	Erlenzeisig	Tarin des aulnes
<i>Emberiza schoeniclus</i>	Common reed bunting	Rohrammer	Bruant des roseaux
<i>Crex crex</i>	Corn crake	Wachtelkönig	Râle des genêts
<i>Cinclus cinclus</i>	White-throated cipper	Wasseramsel	Cincle plongeur
<i>Circus cyaneus</i>	Hen harrier	Kornweihe	Busard Saint-Martin





St Kilda wren

The Eurasian wren (*Troglodytes troglodytes*) is a small but remarkably adaptable bird found across Europe and Asia. Despite its size, it is known for its powerful song and ability to thrive in a wide variety of habitats.

A small population reached the remote archipelago of St Kilda, where isolation over generations led to the development of the distinct St Kilda wren (*T. t. hirtensis*). Slightly larger and with unique vocal and genetic characteristics, it is recognised as a subspecies found nowhere else in the world.

The St Kilda wren stands as a remarkable example of adaptation and resilience in one of Britain's most remote environments.





eBird

During our wildlife watches and landings, our Ornithologist Andrés conducted detailed seabird surveys, recording observations for the Citizen Science platform eBird. We recorded **82** different species of birds in **40** checklists.

This initiative helps contribute valuable data to global bird conservation efforts, enhancing the 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	Petit rorqual
<i>Delphinus delphis</i>	Common dolphin	Gemeiner Delfin	Dauphin commun
<i>Phocoena phocoena</i>	Harbour porpoise	Schweinswal	Marsouin commun
<i>Halichoerus grypus</i>	Grey seal	Kegelrobbe	Phoque gris
<i>Phoca vitulina</i>	Harbour seal, common seal	Seehund	Phoque commun
<i>Tursiops truncatus</i>	Common bottlenose dolphin	Grosser Tümmler	Grand dauphin



Wildlife List — Other Fauna



Wildlife List – Other Fauna



SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
<i>Lepus europaeus</i>	Brown hare	Feldhase	Lièvre d'Europe
<i>Oryctolagus cuniculus</i>	European rabbit	Wildkaninchen	Lapin de garenne
<i>Cervus elaphus</i>	Red deer	Rothirsch	Cerf élaphe
<i>Capreolus capreolus</i>	Western roe deer	Reh	Chevreuil Européen

THX

Thank you for your
participation

