

Science & Education Report

Circumnavigating Iceland





Science & Education Program

The science and education team onboard accompanied you in an expedition cruise circumnavigating Iceland – the land of ice and fire. Through lectures, discovery sessions, and visits ashore we aimed to make every expedition day a memorable and unique learning experience.

Rosie Barrett

Lectures

We held a variety of lectures and short talks covering everything from Vikings to geology, and from mythology to cetaceans of Iceland.





Workshops

Hands on, interactive sessions were also held in the science centre to introduce you to the wonderful world of plankton, the geology Iceland, our microscope detective quiz, and our citizen science projects such as iNaturalist and HappyWhale.

Arts, Crafts and Activities

During the voyage we took part in a variety of arts, crafts, and cultural workshops both onboard and ashore.

This included our arctic circle ceremony with our very own Njord! Treasure hunt and lost at sea games, and art workshops such as water bottle painting and clay workshops.



History and Culture

This journey has been overflowing with historical landmarks, archaeological sites, and unique cultural traditions. We have seen everything from the oldest boat in Iceland, to sea monster museums, to the traditional dishes of the Icelandic kitchen.

Understanding the history of a place allows you to truly immerse in the overwhelming landscapes we explore, giving depth to the natural splendor via stories and echoes of times gone by.

Though we have seen too many things to mention it all, some historical themes kept on returning time and time again. In the following slides, we have listed some of the most significant cultural and historical experiences of our trip.

Enjoy and don't forget to live historically!

Niek, Historian



Vikings!

Yes, we have certainly seen our fair share of Vikings on this trip, and your on-board historian has wasted no opportunity to remind you of them. Some of the Viking places we have visited though are amongst the most exclusive locations our favorite Scandinavian marauders ever came upon. Iceland is the prime Pilgrimage place for all those Viking enthusiasts out there in the world, literally walking in the footsteps of our Viking Ancestors.

In the following slides we have gathered some of the absolute Viking related highlight and some suggestions for further reading should you be interested!



Very important to remember...

Myth: Vikings were unwashed, uncultured barbarians who only raided and plundered.

Truth: Vikings were skilled sailors, traders, and settlers. Plus, they were meticulous about grooming, often using combs and bathing regularly.

Myth: Vikings only existed to raid coastal villages.

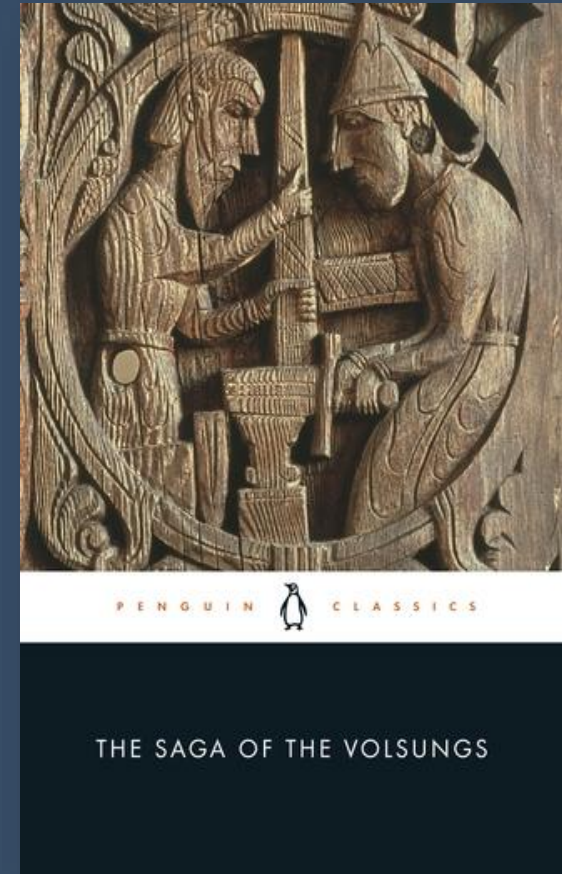
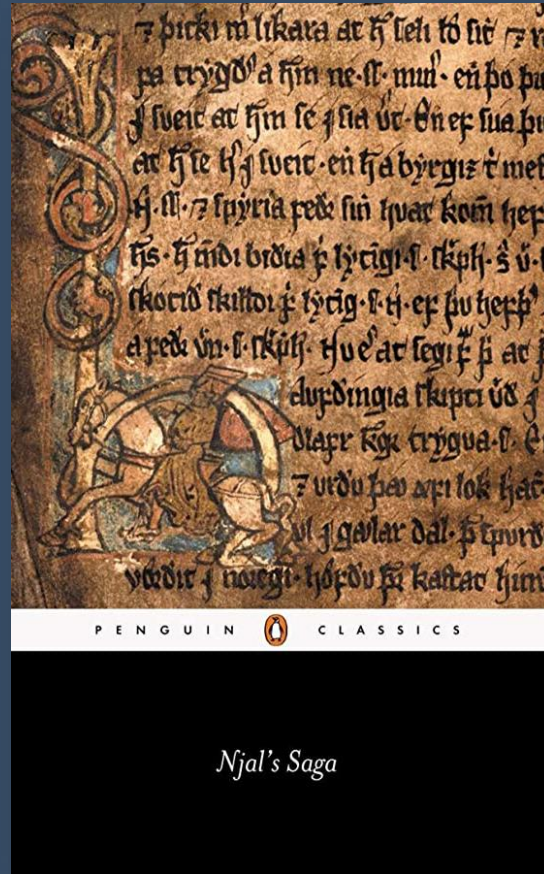
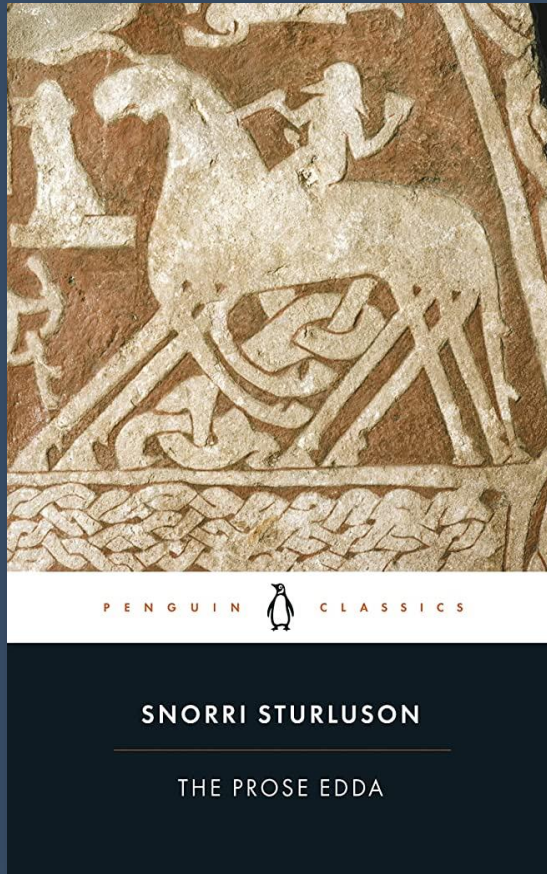
Truth: While raiding was part of Viking life, they were also explorers, traders and settlers. They founded colonies in Greenland and even reached North America.

Myth: Vikings always wore helmets with horns.

Truth: Horned helmets are a myth, popularized by 19th-century artists and operas



Recommended reading!



Myth and Legend

All the places we have visited are full of the seen, and unseen. From mighty gods to sneaky critters, we have encountered our fair share of legendary creations. One of the most striking must be the wide selection of Hidden people we have seen, or not seen. Our lives are lived in the here and now, but don't forget to try and find the magical in the everyday. A small poem for you all will hopefully remind you of the mystical in the mundane.

*Where are you now
Where have you been?
I know you're here,
Though you can't be seen.
Your magic touch a curse or gift,
Or something more in between,
No matter what I treat you well,
For we all love mother earth,
And we both have our stories to tell.,*



Hildur, queen of the elves

In a dramatic Icelandic tale, a farmer named Sigurdur stumbled upon a glowing, ethereal figure in the moonlit forest—Hildur, Queen of the Elves. She pleaded for his help, as her elven kingdom was under a dark curse. Sigurdur bravely agreed, facing treacherous mountains and enchanted beasts to retrieve a magical stone. With the stone in hand, he returned to Hildur, who lifted the curse, saving her people. As a reward, she granted Sigurdur prosperity beyond his dreams, but with a warning never to reveal her secret. He kept his promise, and his farm flourished under the elves' protection, forever marked by the mystique of Hildur's gratitude.

How this story came to be known, no one knows...



Icelandic Sweater (Lopapeysa)

The Icelandic sweater, known as lopapeysa, became popular in the mid-20th century as a response to Iceland's need for practical, warm clothing. Lopapeysa is distinct for its circular yoke patterns, usually incorporating traditional Icelandic motifs. These sweaters are made from lopi, the unspun wool from Icelandic sheep, which provides exceptional warmth and water resistance. The design is inspired by both local and international knitting traditions, with influences from Scandinavian and Greenlandic patterns.



Geology Highlights

Skútústaðir Pseudo Craters were formed when a lava flow flowed over marshy ground causing the water to turn into steam which blasted its way through the lava to create what look like volcanic craters. They are also known as rootles cones.



Geology Highlights

In Northern Iceland we saw irregular mounds which were glacial deposits. These are formed when a crevasse becomes filled with material from the melting glacier. When the glacier melts these infilled crevasses form mounds known as Kames

In the same area we saw a long sinuous ridge which, during glaciation was a sub-glacial river channel which had been filled with deposits. When the ice melted the ridge that was left known as an Esker shows the shape of the sub-glacial river channel



Geology Highlights

Basalt Columns, Grimsey

These are formed when a basalt lava flow begins to cool and shrink resulting in hexagonal cracks on the surface which then work their way into the lava flow.



Geology Highlights

Námaskarð, Mývatn

A geothermal area near lake Mývatn where sulphur used to be extracted. The area has many mud pools and steam vents.

The area is very colourful due to the sulphur deposits.





NASA GLOBE CLOUDS

During our voyage we took observations of clouds from the ground up, and compared this with satellite observations.

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

Scan to view our data on the global map



iNaturalist

We uploaded our observations of flora and fauna to the biodiversity platform 'iNaturalist'. Contributing sightings helps us to fill knowledge gaps in species distribution, enabling researchers to better understand and conserve nature.

MS Maud 2024 6th - 16th August

164 Observations

88 Species

7 Observers

View our data submitted to our iNaturalist Project by photographing the QR code



iNaturalist

MS Maud 2024 6th – 16th August

Our most frequently recording sighting was of Field Forget Me Nots (*Myosotis arvensis*) which are known as 'Gleym-mér-ei' in Icelandic.



EVENT IN PROGRESS



MS Maud 2024: 6th - 16th August
AUG 6, 2024 - AUG 16, 2024

About Members 9




Naturalist project for Hurbignuten Expeditions MS Maud: Circumnavigation of Iceland. Join and add pictures of any animals and plants that you see along our trip with us. Your observations will contribute to the iNaturalist database used by scientist all over the world to better understand the natural world.

[Read More >](#) [Your Membership](#)

[Edit Project](#) [Project Journal](#)

Overview **164** OBSERVATIONS **88** SPECIES **25** IDENTIFIERS **7** OBSERVERS [Stats](#)

Recent Observations [View All](#)

 <p>Bellflowers Genus <i>Campanula</i> 1 1d</p>	 <p>Garden Angelica <i>Angelica archangelica</i> 1 1d</p>	 <p>Harbor Seal <i>Phoca vitulina</i> 1 1d</p>	 <p>Genus <i>Navicula</i> 1 2d</p>
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Science Boat

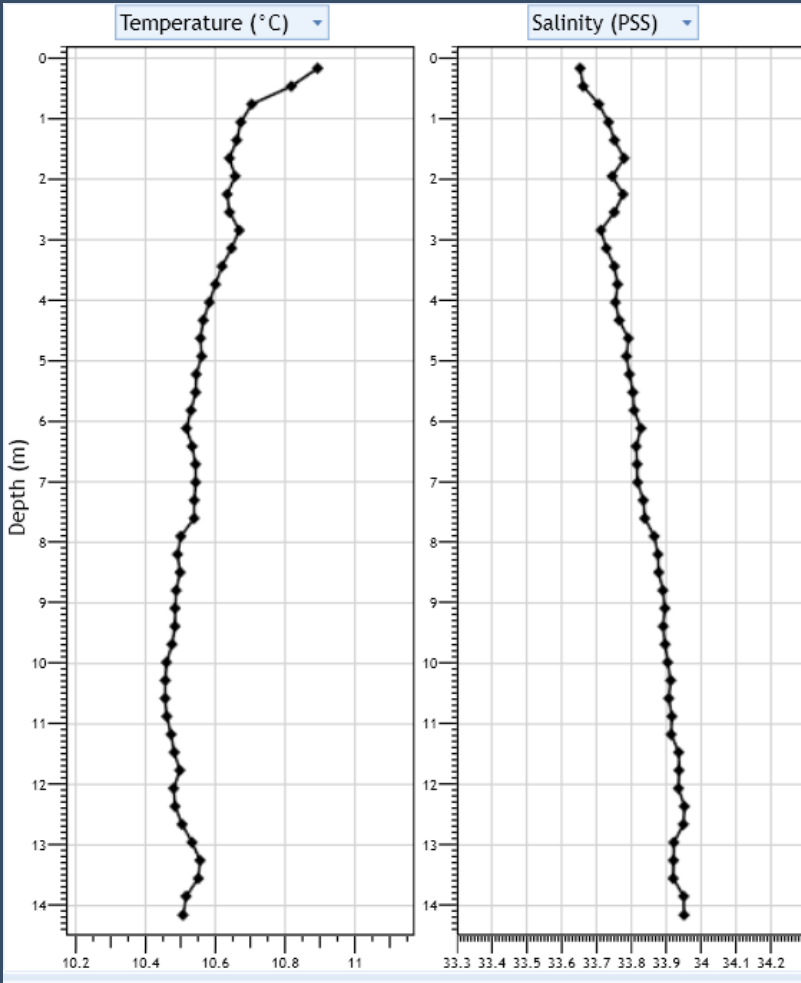
During our science boat sessions we studied the abundance and types of plankton present in Patreksfjordur, Holmavik, and Husavik by recording the 'Secchi depth', and collecting plankton samples.

We also recorded under water sounds using our hydrophone – unfortunately we heard no whale songs, however we did here boat motors, which are a common source of noise pollution.

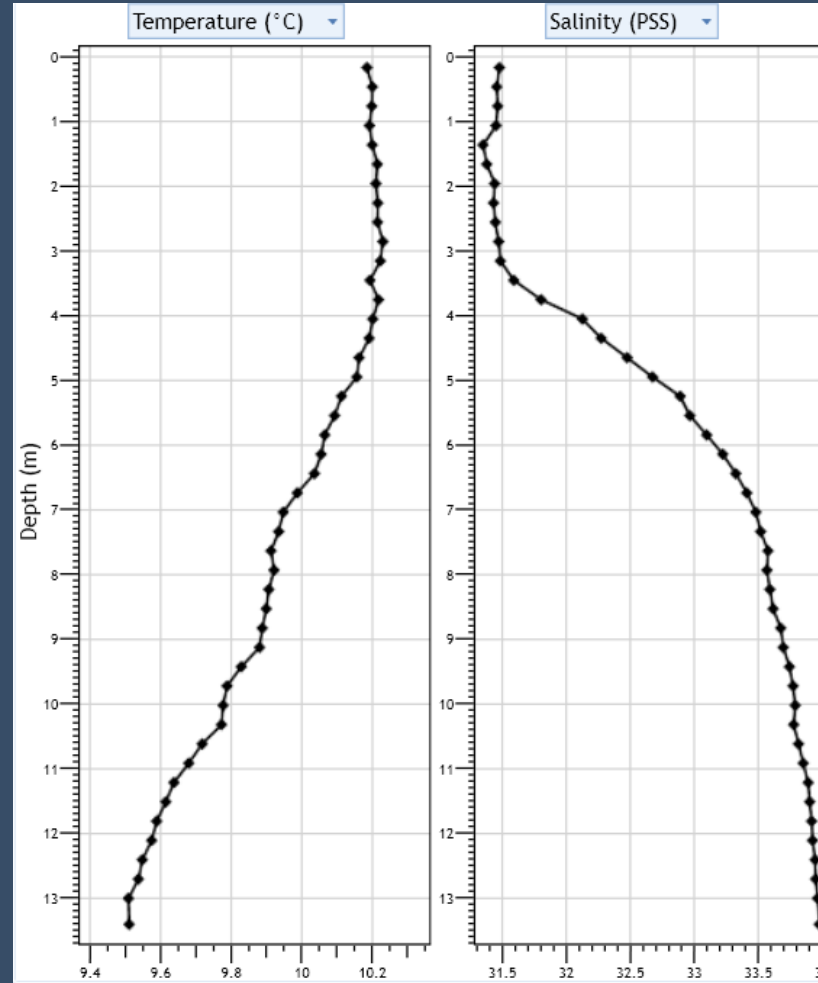
Scan the QR code to view data submitted to the Secchi Disk Project



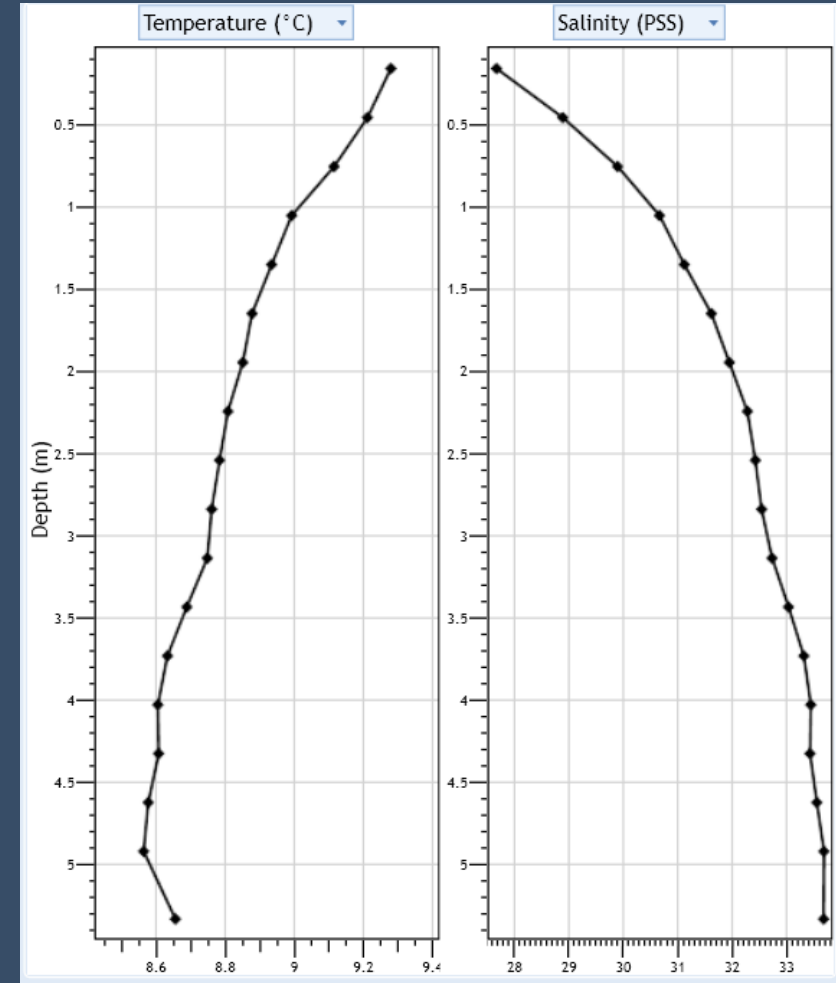
Patreksfjordur – 8th August



Holmavik – 9th August



Husavik – 13th August



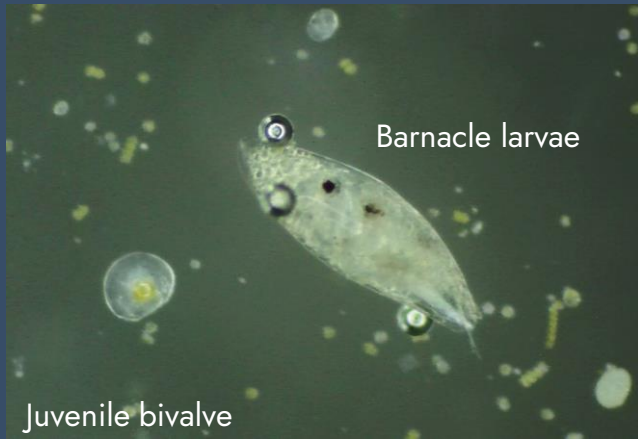
In our three samples the temperature ranged from 10.9°C to 8.5°C, with cooler temperatures seen at greater depths

Salinity is measured on the 'Practical Salinity Scale' which in northern Europe, usually runs from freshwater (0), to sea water (35). Our samples had an average salinity ranging from 31.5 to 33.8 suggesting mainly salt water, with some fresh water mixed in. Salinity is generally quite stable in our data, with a slight increase in salinity at deeper depths – this is likely due to more saline water being denser and therefore sinking to lower depths.

Plankton Samples

Plankton are ocean drifters transported by currents and tides, and lack the ability to navigate against these natural forces. Animals (zooplankton) and plant-like algae (phytoplankton), play a key role in supporting the marine food web and health of our oceans.

We collected plankton samples in Patreksfjordur and Husavik, some examples of the species we found can be viewed on the left.



Barnacle larvae

Juvenile bivalve



Starfish larvae



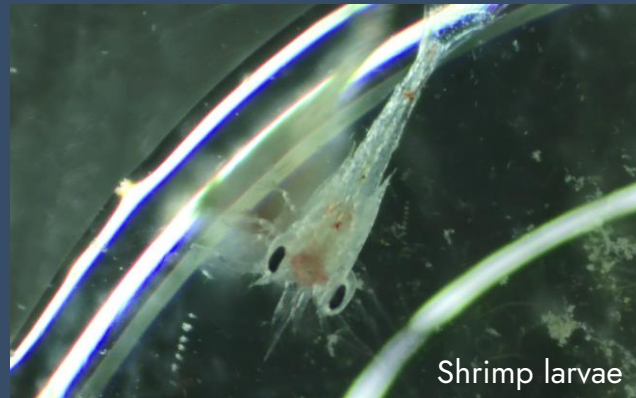
Water flea



Phytoplankton – ceratium sp.



Calanoida copepod



Shrimp larvae

ORCA Ocean Conservationist — Holly



On behalf of whale and dolphin conservation charity ORCA, expedition team member Holly carried out surveys to collect data on the distribution of whales and dolphins we encountered during our trip.

Our voyage offered some incredible sightings, with humpback whales stealing the spotlight. After a couple hours out of Hólmavík, things got particularly exciting! We watched humpback whales feeding and fluking as they dived. Soon after, white beaked dolphins joined in on the feeding frenzy. These sightings were not surprising, as Icelandic waters are a crucial feeding ground for humpback whales, thanks to the area's high productivity and abundant prey.



HappyWhale



Whales added to HappyWhale:

3 Humpback Whales, none have been identified
— yet !

Did you know?

The 'fluke' (tail fin) pigmentation pattern of a humpback whale is unique to the individual, so marine scientists can use photo ID to identify and track individual whales. This reveals more about their behavior and migration patterns.

View our submissions and
add your own to
HappyWhale





6 checklists

19 species

416 birds

eBird

TOP 3

1. Atlantic Puffin
2. Northern fulmar
3. Black Legged Kittiwake





Thank you for participating

THANK