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Science & Education Recap

MS Spitsbergen

Northern Lights Expedition 3rd February – 17th February 2024



Science & education program

Within our on board Science and Education program, we imparted meaningful context to the nature and culture of the destinations we explored.

Through on-board lectures, workshops, and interactive activities, we deepened our understanding of the landscapes and wildlife of Norway.



History & culture

Throughout our journey we learned about the history and culture of Norway – both ancient and modern. This included Viking history and mythology; the folklore and fairytales in Norway; the Polar Explorers; and coastal survival in Norway



Arts & crafts

We provide a variety of inspiring options for our art workshops, ranging from photography workshops with our on-board photographer, to creating your own souvenirs with our Historian, Andrea.

Our guests had the opportunity to immerse themselves in workshops including sea waves doodles, creating clay trolls, sami symbols, and scientific drawing.



NASA cloud observer



Led by David, we observed the clouds and submitted our observations via NASA GLOBE Observer on four occasions.

Our 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



Observation data: 5th Feb 2024

 NASA Cloud Observation and Satellite Match			
Satellite <small>(Understanding the Satellite Match)</small>		Terra	Your Observation
Universal Date/Time 2024-02-05		10:57	10:45
Latitude Range Longitude Range		57.11 to 57.91 3.83 to 4.63	Latitude 57.483200 Longitude 4.287000
Total Cloud Cover		Overcast 100.00%	Overcast (>90%)
H I G H	Cloud Cover Cloud Altitude Cloud Phase Cloud Opacity		
M I D	Cloud Cover Cloud Altitude Cloud Phase Cloud Opacity	Overcast 100.00% 4.6 (km) Mixed 255.34 (K) Opaque	
L O W	Cloud Cover Cloud Altitude Cloud Phase Cloud Opacity		 Status Overcast (>90%) Opaque

iNaturalist

We uploaded our observations of anything living and wild to the biodiversity platform iNaturalist.

6 observers contributed 45 observations of 28 different species to our voyage's project.

Contributing our sightings in data-deficient areas helps fill knowledge gaps, enabling researchers to better understand and conserve biodiversity in those regions.

View the observations submitted on our [iNaturalist project](#)



iNaturalist Project

MS Spitsbergen 2024 3rd February – 17th February

EVENT IN PROGRESS



MS Spitsbergen 2024 3rd Feb - 17th Feb
FEB 3, 2024 - FEB 17, 2024

About

Explore the wonderful fauna and flora we spot on our travels with MS Spitsbergen on our Northern Lights expedition.





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Overview **45** OBSERVATIONS **28** SPECIES **31** IDENTIFIERS **6** OBSERVERS [Stats](#)

Recent Observations [View All](#)

 <p>Herring Gull <i>Larus argentatus</i> 1 7h</p>	 <p>Hooded Crow <i>Corvus cornix</i> 1 7h</p>	 <p>Common Moorhen <i>Gallinula chloropus</i> 4 7h</p>	 <p>Tufted Duck <i>Aythya fuligula</i> 4 7h</p>
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Most Species

 1st daan96	12
	6
	2
	1
	0
	0

[View All](#) [View Yours](#)

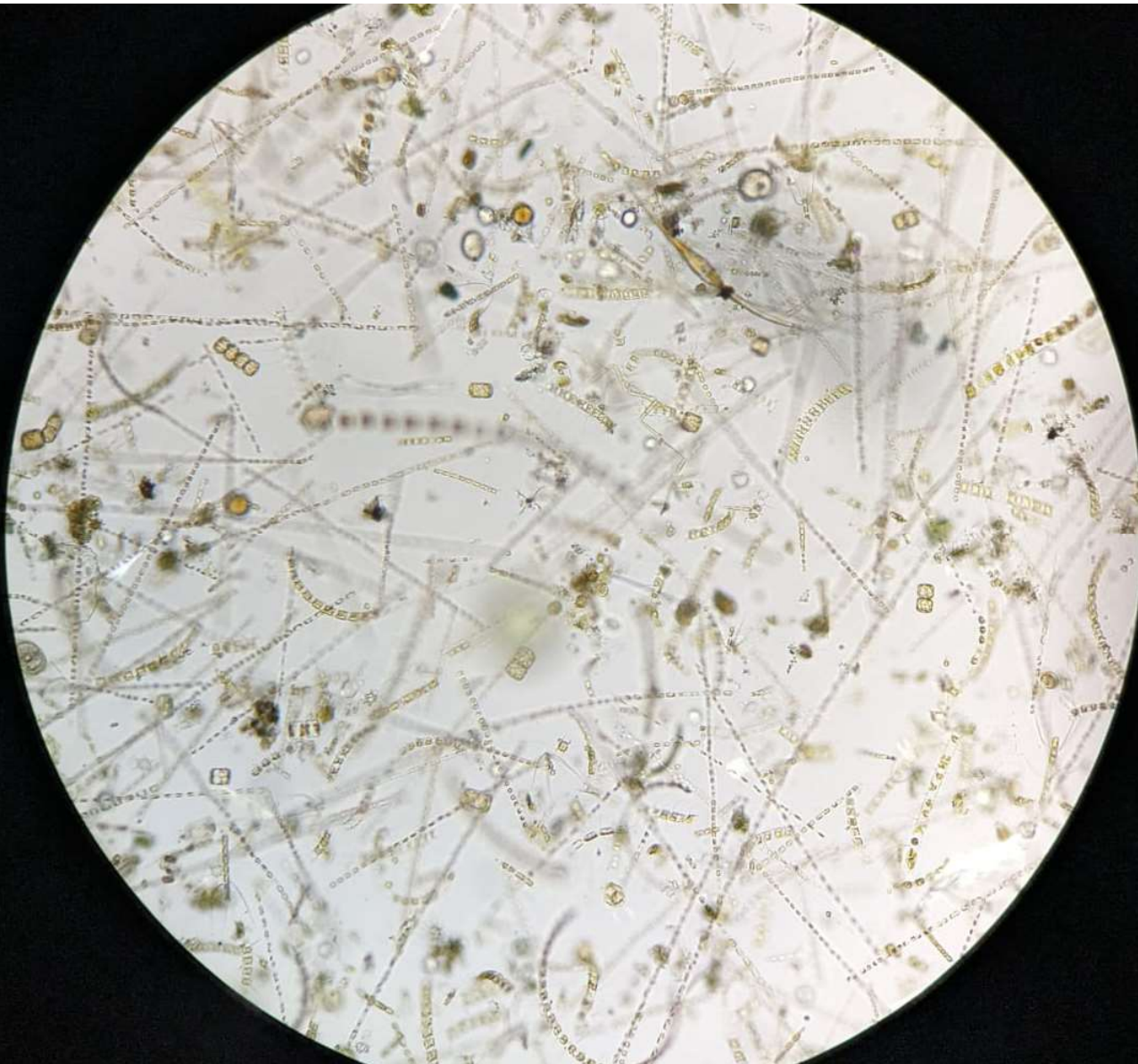


Science boat

In Svolvær, Torsken, and Fjærland we took part in citizen science experiments to determine plankton density and diversity.

We used a secchi disk and chlorophyll detector to determine plankton abundance, as well as collecting data on sea temperature and salinity. We then collected samples of plankton to explore back in our science centre.





Mixed phytoplankton sample:

Fjærland 14th Feb
2024

Phytoplankton are microscopic algae which, like terrestrial plants, photosynthesise producing energy and oxygen. Phytoplankton produce over 50% of earth's oxygen and are a vital part of the marine food web. In the image to the left we can see phytoplankton species including diatom chains, nitzschia, and thalassiosirales.

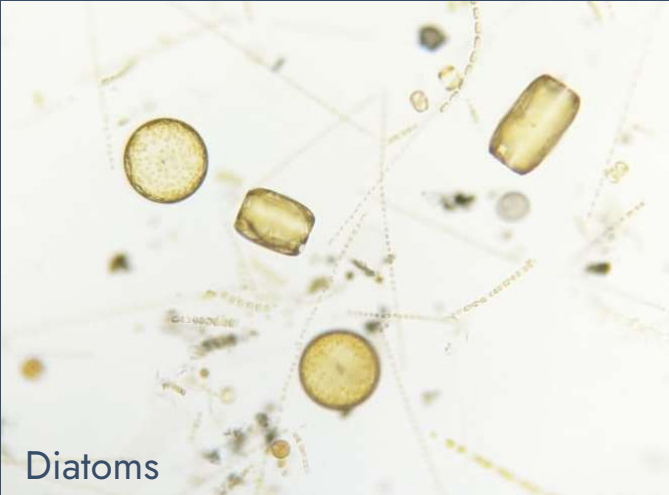
Plankton – Svolvær, Torsken, Fjærland



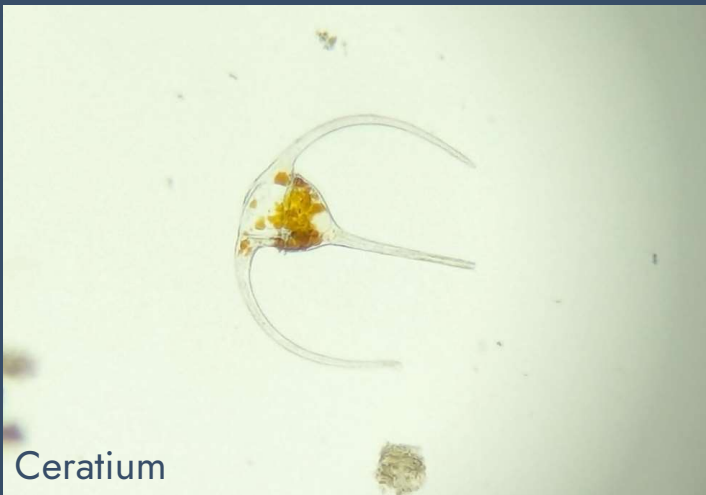
Sea snail larvae



Copepod



Diatoms



Ceratium

Aurorasaurus

Whilst in northern Norway we submitted images of the aurora borealis twice.

The main colours we saw in the aurora were green and red. Both of these colours are caused by charged sun particles hitting oxygen in our atmosphere, however at different altitudes. The green colour occurs at 120-180km, and red at 200km altitude.

Our observations will help scientists improve our understanding of auroras, and help to improve prediction methods.

[Submit your photos](#) to Aurorasaurus



A bald eagle is shown in flight, its wings spread wide, flying over a body of water. The eagle has a yellow beak and a yellow patch on its head. The background is a blurred landscape with trees and a cloudy sky.

Wildlife List: Birds

Bird List: 33 species

Species Name	Latin Name
Brent Goose	Branta bernicla
Whooper (common) swan	Cygnus cygnus
Mallard	Anas platyrhynchos
Common Eider	Somateria mollissima
Long-tailed Duck	Clangula hyemalis
Red-breasted Merganser	Mergus serrator
Tufted Duck	Aythya fuligula
Eurasian coot	Fulica atra
Great Crested Grebe	Podiceps cristatus
Common Scoter	Melanitta nigra
Common Guillemot	Uria aalge
Black Guillemot	Cepphus grille
Black-legged Kittiwake	Rissa tridactyla
Black-headed Gull	Chroicocephalus ridibundus
Herring Gull	Larus argentatus
Great Black-backed Gull	Larus marinus
Glaucous gull	Larus hyperboreus
Northern Gannet	Morus bassanus
Northern Fulmar	Fulmarus glacialis
European Shag	Gulosus aristotelis
Great Cormorant	Phalacrocorax carbo
Grey Heron	Ardea cinerea
White-tailed Eagle	Haliaeetus albicilla
Eurasian Magpie	Pica pica
Rock Pigeon (Feral)	Columba livia
Hooded Crow	Corvus cornix
Eurasian Jackdaw	Corvus monedula
Common Raven	Corvus corax
Eurasian Blue Tit	Cyanistes caeruleus
Great Tit	Parus major
European Greenfinch	Chloris chloris
Eurasian Blackbird	Turdus merula
House Sparrow	Passer domesticus

Most common: Herring Gull, Great Cormorant

White-tailed eagle: 6 days

E-bird

During wildlife watches we recorded bird species seen with eBird.

16 different species of birds were observed in a total of 3 separate checklists.

Our checklists 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](#)

The screenshot displays an eBird trip report for the Netherlands, dated February 17, 2024. The interface includes a header with location and date information, a map of the region, and a summary of observations. A 'Narrative' section is present but empty. The 'Species observed' list includes the following:

Count	Species	Checklist Status
7	Whooper Swan	✓
5	Mallard	✓
3	Tufted Duck	✓
35	Common Eider	
2	Long-tailed Duck	✓
1	Red-breasted Merganser	✓
8	Great Crested Grebe	✓
2	Eurasian Coot	✓
1	Eurasian Oystercatcher	
13	Black-headed Gull	✓
22	Herring Gull	
2	Great Black-backed Gull	

Wildlife List: Mammals



Mammals: 4 species

Species name	Latin Name
Harbour Porpoise	<i>Phocoena phocoena</i>
Eurasian otter	<i>Lutra lutra</i>
Red deer	<i>Cervus elaphus</i>
Reindeer	<i>Rangifer tarandus</i>



Thank you for participating!

