

The background of the slide features two humpback whales swimming in a deep blue ocean. A large, semi-transparent watermark with the letters 'HIX' is overlaid on the left side of the image. The text 'Science Recap' is centered in a white, bold, sans-serif font.

Science Recap

MS FRAM

MS FRAM 15th – 27th July 2025

Circumnavigating Svalbard



Credit: Jan Hvizdal/ HX



Citizen Science

NASA Globe Observer

We Collected 3 observations for NASA. You can [view our data](#) on the global map.

Inaturalist

We submitted 26 observations to Inaturalist. You can [view our observations by clicking here.](#)

Ebird

We submitted 18 checklists to Ebird. You can view the [trip report for your voyage by clicking here.](#)

HappyWhale

We submitted XXX observations.

Planktonics Project – eDNA around Svalbard.

We collected water samples twice during this voyage.



NASA CLOUD OBSERVER

We collected 3 observations for NASA. You can [view our data](#) on the global map.

Our observation matched once with a satellite overpass on July 23rd. Review it on the next slides. Finally we observed interesting structures called lenticular clouds, generated by high speed winds at high altitudes.
















Don't hesitate to continue looking at the sky back home, since every contributions helps the scientists.



GLOBE Cloud Observations Paired with NASA Satellite Data

Total Satellite Comparisons: 352

Useful Resources: [How to Read My NASA GLOBE Clouds Satellite Comparison Table](#), [How to Compare My Cloud Observations with Satellite Data](#), [Cloud Cover](#), [Cloud Type](#), [Cloud Opacity](#), [Satellites](#)

Observation	GLOBE	NOAA-20 Satellite
Universal Date/Time	2025-07-23 09:45:00	2025-07-23 09:57
Latitude	79.92	79.52 to 80.32
Longitude	29.83	29.27 to 30.07
Total Cloud Cover	Overcast (>90%) 	Overcast 94.25% 
High Clouds		Cover: Isolated 12.42%  Altitude: 7.24 (km) Phase: Ice 239.51 (K) Opacity: Opaque
Mid Clouds		Cover: Broken 79.10%  Altitude: 3.92 (km) Phase: Ice/Water Mix 258.76 (K) Opacity: Opaque
Low Clouds	 Stratus  Stratocumulus Cover: Overcast (>90%)  Opacity: Opaque	Cover: Few (2.73%)  Altitude: 1.99 (km) Phase: Water 262.87 (K) Opacity: Opaque
GLOBE Cloud Photos and Corresponding NASA Satellite Images. Click image to view ---> <i>Note: Photos submitted though GLOBE need approval before being displayed, this may take a few days.</i>	GLOBE Photos North East South    West Up Down   	VIIRS NOAA-20 Worldview  Worldview Tutorial
Sky Conditions, Surface Conditions and Observer Comments	Sky Conditions Sky Visibility : no report Sky Color : no report Surface Conditions Snow/Ice : No Standing Water : Yes Muddy : No Dry Ground : No Leaves on Trees : No Raining or Snowing : No	Are there any comments you would like to add? Be sure to add the name of the satellite for our record. <div></div> <div>Submit Comment</div>

Lenticular clouds





iNaturalist

On our voyage we submitted 26 observations covering a wide range of living species, from plants to animals passing to planktonic creatures.

Thank you very much for your contribution, and feel free to contribute to our project for this voyage when you are back home reviewing your photos.

[Click here to visit the iNaturalist Project for this voyage.](#)



eBird

On our voyage we conducted 31 surveys, observed 20 bird species and counted a total of 1261 individuals. These data are crucial to document the abundance and distribution of emblematic polar and cosmopolitan species around Svalbard, both terrestrial and marine species.

Thank you very much for joining Enzo during our wildlife watch and help us contributing to the greatest birding project at a worldwide scale !

[Click here to visit the Ebird Project for this voyage.](#)



HappyWhale

During our circumnavigation around Svalbard, we saw a diversity of marine mammals including minke whales, sperm whales, belugas and even the elusive blue whale. But also common seals, walruses, and polar bears.

If you managed to take photographs of whale flukes, or any markings or scarring on other whales or seals, you can still submit these to happywhale.com once you are home. You can do the same for any older photos you may have from years gone by!

Thank you very much for joining Jenna during our wildlife watches.

[Click here to visit the HappyWhale Project.](http://happywhale.com)

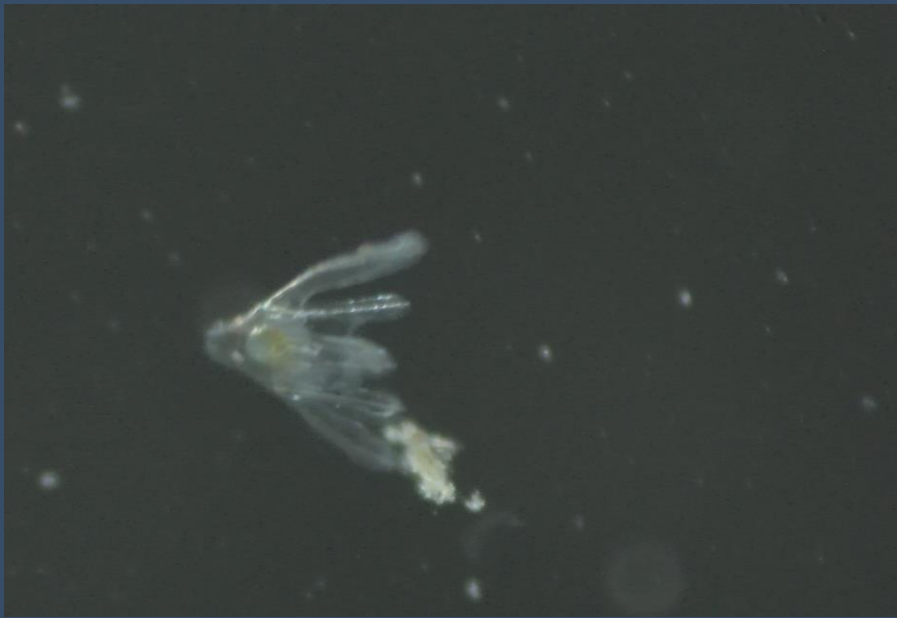


Science Boat

On our voyage we conducted 7 Science Boats during which we realized Secchi disc measurements & CTD profiles to characterize the water column parameters, and collected plankton & Niskin bottle samples for eDNA.

We used the microscopes in the science centre to identify plankton caught during the science boats. Phytoplankton was almost null whereas zooplankton was abundant, with a variety of copepods, invertebrates larvae and eggs found in our samples. Please see the following slide for more pictures of plankton caught during our voyage.

[Click here to visit the Secchi Disc Project and view the Secchi data.](#)



Echinoderm larvae.



Cnidarian larvae.



Marine worm.



Amphipod.

Planktonics Project – eDNA around Svalbard

This project aims to describe the diversity of organisms present in waters around the archipelago of Svalbard using the eDNA technics. This consists of filtering water, extract and amplify the DNA preserved on the filters targeting specific groups of species. During our Science boat, we managed to collect twice (Palanderbukta & Bamsebu), in two different locations for this project. Filters were kept frozen in our facilities until they will be picked up by the scientists to be analysed in the laboratory. This project has been founded in part by the HX Foundation.



Geology reports

Svalbard is a paradise for geologists — a land where deep time rises to the surface. Its mountains and valleys reveal a story stretching back over 2.5 billion years. Here, you'll find rich seams of coal formed in tropical swamps, marine fossils of ichthyosaurs and ammonites from long-vanished seas, and even the preserved footprints of dinosaurs pressed into Cretaceous sandstone.

The next slides highlights the surprising rocks formation we discovered during our voyage.





1) Volcanic Hearted Print



2) Marine Worm Fossils



3) Marine Fossils



- 1) Sandstones



- 2) Polygonic Rocks from Permafrost deglaciation

Wildlife List - Marine & Land Mammals



Cetaceans

Scientific Name	English	Deutsch	Francais	Norsk	16/07	17/07	18/07	19/07	20/07	21/07	22/07	23/07	24/07	25/07	26/07	27/07
<i>Balaenoptera acutorostrata</i>	Common Minke Whale	Zwergwal	Petit rorqual	Vågehvæl	X		X		X	X						
<i>Balaenoptera musculus</i>	Blue Whale	Blauwal	Rorqual bleu	Blåhvæl					X		X					
<i>Balaenoptera physalus</i>	Fin Whale	Finnwal	Rorqual commun	Finhvæl						X					X	
<i>Megaptera novaeangliae</i>	Humpback Whale	Buckelwal	Baleine à bosse	Knølhval				X	?			X				
<i>Delphinapterus leucas</i>	Beluga Whale	Weißwal	Béluga	Hvithval											X	
<i>Lagenorhynchus albirostris</i>	White-beaked Dolphin	Weißschnauzendelfin	Lagénorhynque à bec blanc	Kvitnos											X	
<i>Physeter macrocephalus</i>	Sperm Whale	Pottwal	Grand cachalot	Spermhval						X						
-	Unidentified whale	Nicht identifizierter Wal	Non identifié Baleine	Uidentifisert Hval		X	X		X	X					X	

Pinnipeds and Polar Bear

Scientific Name	English	Deutsch	Francais	Norsk	16/07	17/07	18/07	19/07	20/07	21/07	22/07	23/07	24/07	25/07	26/07	27/07
<i>Erignathus barbatus</i>	Bearded Seal	Bartrobbe	Phoque barbu	Storkobbe			X	X						X		
<i>Phoca vitulina</i>	Harbour Seal, Common Seal	Seehund	Phoque veau-marin	Steinkobbe	X										X	
<i>Pusa hispida</i>	Ringed Seal	Ringelrobbe	Phoque annelé	Ringsel		X								X		
<i>Odobenus rosmarus</i>	Walrus	Walross	Morse	Hvalross			X	X			X	X	X			
<i>Ursus maritimus</i>	Polar Bear	Eisbär	L'ours blanc	Isbjørn		X		X				X	X	X		

Land Mammals

[illegible]

Wildlife List — Birds



Birds - Wildlife List - MS FRAM 15/07 to 27/07 2025																
Scientific Name	English	Deutsch	Francais	Norsk	16/07	17/07	18/07	19/07	20/07	21/07	22/07	23/07	24/07	25/07	26/07	27/07
<i>Alle alle</i>	Little Auk/Dovekie	Krabbentaucher	Mergule nain	Alkekonge	X				X	X	X					
<i>Anser brachyrhynchus</i>	Pink-footed Goose	Kurzschnabelgans	Oie à bec court	Kortnebbgås									X			
<i>Arenaria interpres</i>	Ruddy turnstone	Steinwälzer	Tournepierre à collier	Steinvender												
<i>Branta bernicla</i>	Brant Goose	Ringelgans	Bernache cravant	Ringgås										X		
<i>Branta leucopsis</i>	Barnacle Goose	Weißwangengans	Bernache nonnette	Hvitkinngås	X					X						
<i>Calidris alba</i>	Sanderling	Sanderling	Bécasseau sanderling	Sandløber												
<i>Calidris maritima</i>	Purple Sandpiper	Meerstrandläufer	Bécasseau violet	Fjæreplytt	X	X	X	X		X					X	
<i>Cephus grylle</i>	Black Guillemot	Gryllteiste	Guillemot à miroir	Teist	X	X	X	X		X	X		X	X	X	
<i>Charadrius hiaticula</i>	Common Ringed Plover	Sandregenpfeifer	Pluvier grand-gravelot	Sandlo	X					X					X	
<i>Clangula hyemalis</i>	Long-tailed duck	Eisente	Harelde boréale	Havelle		X				X						
<i>Fratercula arctica</i>	Atlantic Puffin	Papageitaucher	Macareux moine	Lunde	X	X			X	X				X		
<i>Fulmarus glacialis</i>	Northern Fulmar	Eissturmvogel	Fulmar boréal	Havhest	X	X	X	X	X	X	X	X	X	X	X	
<i>Gavia stellata</i>	Red-throated Diver/Loon	Sternaucher	Plongeon catmarin	Smålom			X			X				X	X	
<i>Lagopus mytus</i>	Rock Ptarmigan	Alpensneehuhn	Lagopède alpin	Fjellrype												
<i>Larus hyperboreus</i>	Glaucous Gull	Eismöwe	Goéland bourgmestre	Polarmåke	X	X	X	X			X	X	X	X	X	
<i>Mergus serrator</i>	Red-breasted Merganser	Mittelsäger	Harle huppé	Siland												
<i>Pagophila eburnea</i>	Ivory Gull	Elfenbeinmöwe	Mouette blanche	Ismåke											X	
<i>Phalaropus fulicarius</i>	Grey/Red Phalarope	Thorshühnchen	Phalarope à bec large	Polarsvømmesnipe												
<i>Plectrophenax nivalis</i>	Snow Bunting	Schneeammer	Plectrophane des neiges	Snøspurv	X	X	X				X		X		X	
<i>Pluvialis apricaria</i>	European Golden Plover	Goldregenpfeifer	Pluvier doré	Heilo												
<i>Polgsticta stileri</i>	Steller's Eider	Scheckente	Eider de Steller	Stellerand											x	
<i>Rissa tridactyla</i>	Black-legged Kittiwake	Dreizehenmöwe	Mouette tridactyle	Krykkje	X	X	X	X	X	X	X	X	X	X	X	
<i>Somateria mollissima</i>	Common Eider	Eiderente	Eider à duvet	Ærfugl	X	X	X			X	X		X	X	X	
<i>Somateria spectabilis</i>	King Eider	Prachteiderente	Eider à tête grise	Praktærfugl						X						
<i>Stercorarius longicaudus</i>	Long-tailed Skua/Jaeger	Falkenraubmöwe	Labbe à longue queue	Fjelljo												
<i>Stercorarius parasiticus</i>	Arctic Skua/ Parasitic Jaeger	Schmarotzerraubmöwe	Labbe parasite	Tyvjo	X	X	X	X		X	X	X	X	X		
<i>Stercorarius pomarinus</i>	Pomarine Skua/Jaeger	Spatelraubmöwe	Labbe pomarin	Polarjo												
<i>Stercorarius skua</i>	Great Skua	Skua	Grand Labbe	Storjo												
<i>Sterna paradisaea</i>	Arctic Tern	Küstenseeschwalbe	Sterne arctique	Rødnebbterne	X	X	X	X		X	X		X	X	X	
<i>Uria lomvia</i>	Brünnich's Guillemot / Thick-billed Murre	Dickschnabellumme	Guillemot de Brünnich	Polarlomvi	X	X	X		X	X	X	X	X	X	X	



Thank you all
for your
contribution
to science!