Science & Education Report

MS FRAM





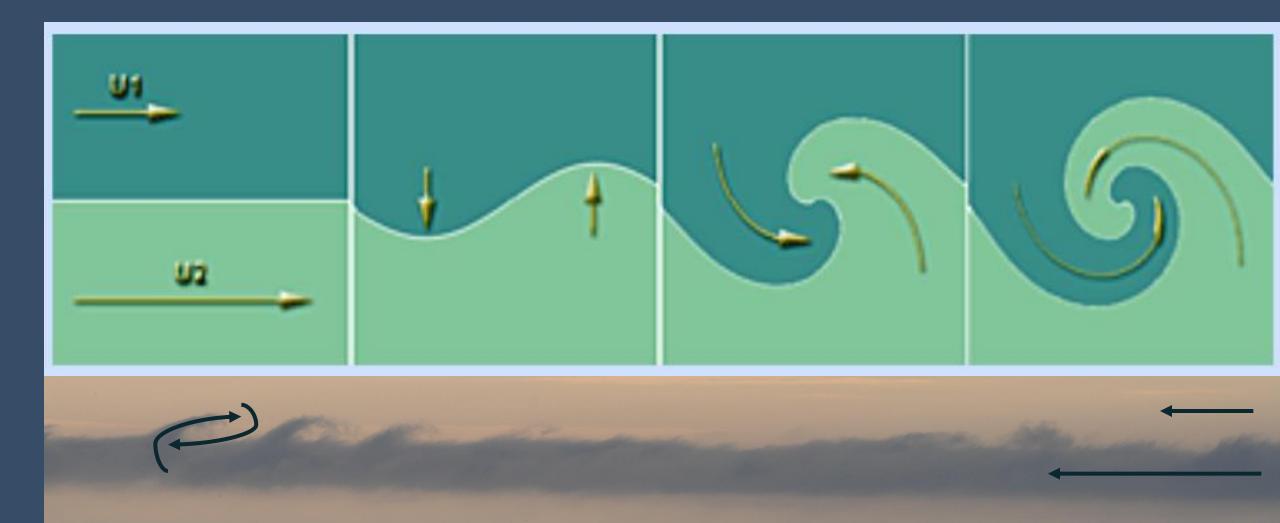
NASA Globe Cloud Observer

Together with Laura and Ashton, you collected 4 observations of clouds for the citizen science project of NASA.

The clouds pictured here are Kelvin-Helmholtz clouds, also known as wave clouds. These clouds form due to wind shear, where two layers of air move at different speeds and/or different directions, creating an instability at the interface between the layers.

<u>Click here to view our data</u> on the global map.

Kelvin-Helmholtz clouds



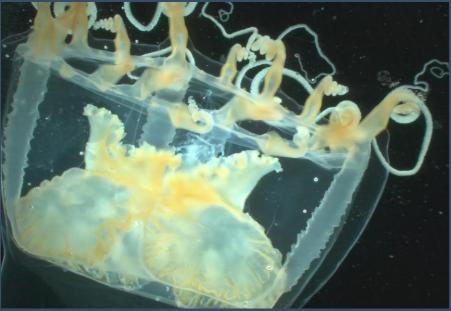


Science Boat

On our voyage we conducted 4 Science Boats during which we collected Secchi disc measurements, plankton samples, and hydrophone recordings.

The abundance and diversity of plankton was impressive. Please see the following slide for pictures.

<u>Click here to visit the Secchi Disc Project</u> and view the Secchi data.



Jellyfish



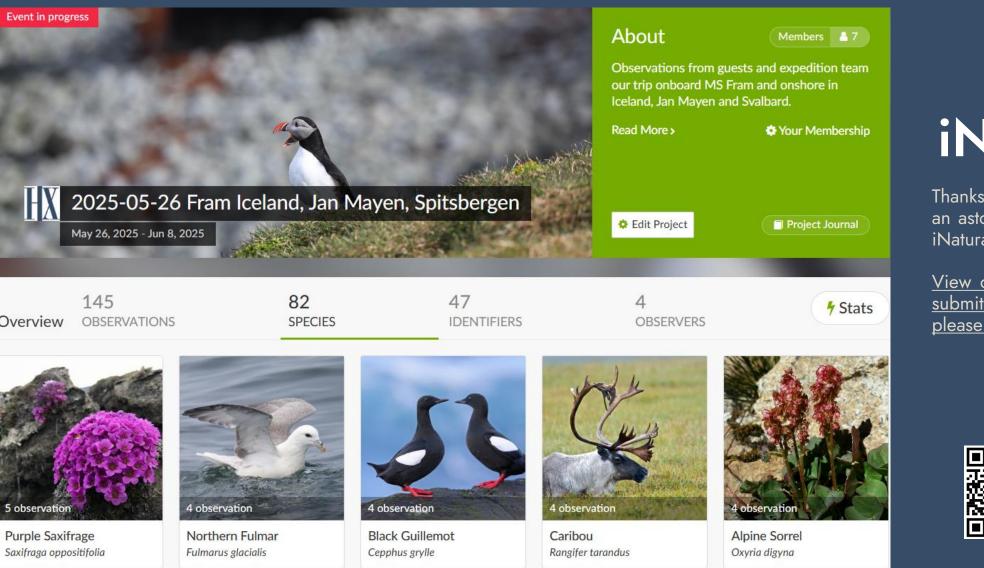
Copipod larvae and adult



Barnacle and polychete larvae



Close up of stomach of barnacle larvae showing phytoplankton



iNaturalist

Thanks to your efforts, we collected an astonishing 145 observations for iNaturalist.

<u>View our iNaturalist project and to</u> <u>submit your own observations</u> <u>please click here.</u>





e-Bird

Your onboard ornithologists completed 39 eBird checklists of 67 different species.

<u>View our data in our e-Bird trip report.</u>



Marine Mammals sightings

Species name	Days sighted
Blue whale	2
Fin whale	2
Humpback whale	3
Minke whale	3
Norther Bottlenose whale	2
White-beaked dolphin	1
Unidentified whale	1
Walrus	1
Harbour (Common) seal	1



This trip was a big success in terms of diversity. We observed at least 9 different species of marine mammals, from the biggest whale in the world to the second biggest pinniped. Thank you for spending some hours on open deck looking for wildlife

Photo: Lilia Gonzalez / HX

Happywhale

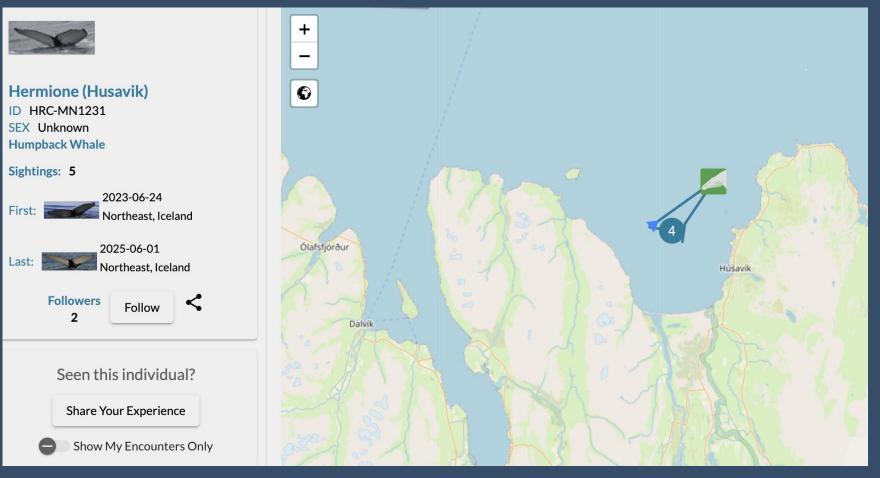




Photo: Lilia Gonzalez /HX

One humpback whale fluke was submitted during this trip to Happywhale for identification

Happywhale





It was successfully identified as Hermione Husavik, and it is a whale that has been sighted in the same area five times since 2023. You can follow its story <u>here</u>

Please continue to upload any individually identifiable pictures of whales, dolphins, or seals, you may have to happywhale.com when home, especially old photos from past encounters (the older the better!). Finally, a big thank you to all of you that provided your pictures and videos for submission on board.

View our submissions to Happywhale



Mammals and Birds Wildlife Lists

All of the species seen and the days they were spotted!

Marine Mammals - Wildlife List - MS FRAM 26/05 to 08/06 2025

Scientific Name	English	Deutsch	Francais	Norsk	26/05	27/05	28/05	29/05	30/05	31/05	01/06	02/06	03/06	04/06	05/06	06/06	07/06	08/06
Balaenoptera acutorostrata	Common Minke Whale	Zwergwal	Petit rorqual	Vågehval				x		x					x			
Balaenoptera musculus	Blue Whale	Blauwal	Rorqual bleu	Blåhval						Х		Х						
Balaenoptera physalus	Fin Whale	Finnwal	Rorqual commun	Finhval						Х		Х						
Megaptera novaeangliae	Humpback Whale	Buckelwal	Baleine à bosse	Knølhval				х	x	x								
Delphinapterus leucas	Beluga Whale	Weißwal	Béluga	Hvithval														
Lagenorhynchus albirostris	White- beaked Dolphin	Weißschnauze ndelfin	Lagénorhynque à bec blanc	Kvitnos					x									
-	Unidentitied	Nicht identifizierter Wal	Non identifié Baleine	Uidentifisert Hval							x							
Hyperoodon ampullatus		Nördlicher Entenwal	Hypérodon boréal	Nebbhval						x	x							
Erignathus barbatus	Bearded Seal	Bartrobbe	Phoque barbu	Storkobbe														
Phoca vitulina	Harbour Seal, Common Seal	Seehund	Phoque veau-marin	Steinkobbe													x	
Pusa hispida	Ringed Seal	Ringelrobbe	Phoque annelé	Ringsel														
Odobenus rosmarus	Walrus	Walross	Morse	Hvalross												Х		
Ursus maritimus	Polar Bear	Eisbär	L'ours blanc	Isbjørn														

Land Mammals - Wildlife List - MS FRAM 26/05 to 08/06 2025

Scientific Name	English	Deutsch	Francais	Norsk	26/05	27/05	28/05	29/05	30/05	31/05	01/06	02/06	03/06	04/06	05/06	06/06	07/06	08/06
Rangifer tarandus	Reindeer	Rentier	Renne	Reinsdyr										Х	Х		Х	
Alopex lagopus	Arctic Fox	Polarfuchs	Renard arctique	Fjellrev										x			x	
Mustela erminea	Ermine/Sto at	Hermelin	Hermine	Hermelin														
Spermophilus parryii	Ground	Arktische Ziesel	Écureuil terrestre arctique															
Lepus sp.	Hare	Hase	Lievre	Hare														

eBird

Submit Explore My eBird Science About News He

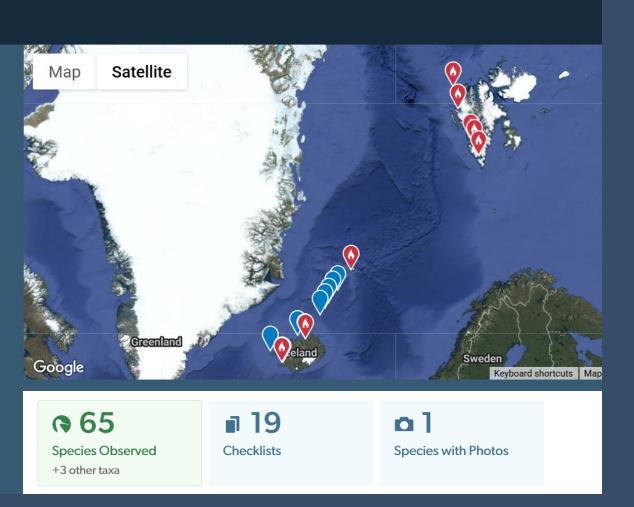
My Trip Reports

2025 May26th -June 08th Iceland, Jan Mayen, Spitsbergen – Arctic Islands Discovery (Eastbound)

26 May – 8 Jun 2025 (14 days) Public

Subregions Subregions

Science Coordinator MS FRAM, George Swan



At 19 different locations we were able to observe an impressive 65 different species of birds. Two of my favourite were the short-eared owl seen during the walk in Husavik and the pomarine skua near Jan Mayen (this was rare enough for eBird to ask for a photo as proof!).

Birds - Wildlife List - MS FRAM 26/05 to 08/06 2025

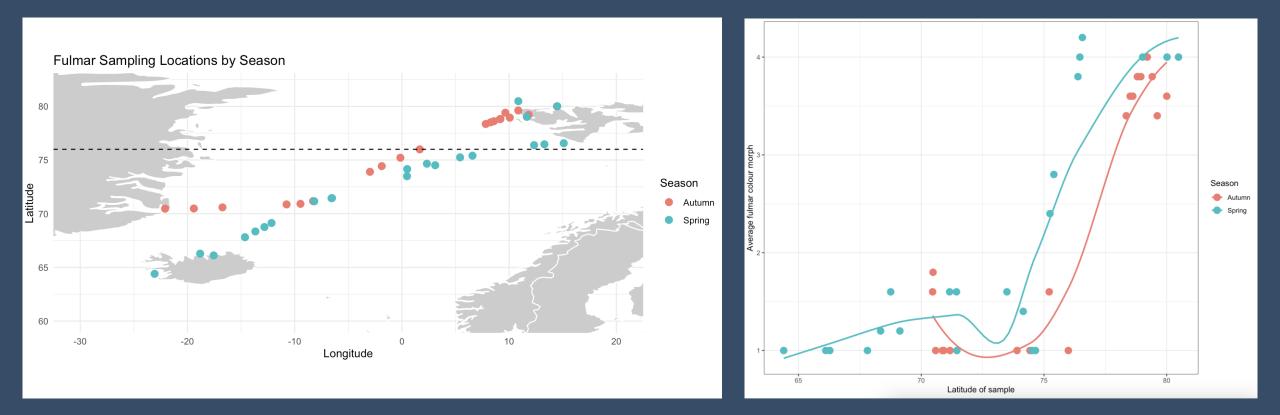
Scientific Name	English	Deutsch	Francais	Norsk	26/05	27/05	28/05	29/05	30/05	31/05	01/06	02/06	03/06	04/06	05/06	06/06	07/06	08/06
Stercorarius parasiticus	Arctic Skua/ Parasitic Jaeger	Schmarotzerraubmöwe	Labbe parasite	Тучјо		х		х	х				x	x	х	х	x	
Sterna paradisaea	Arctic Tern	Küstenseeschwalbe	Sterne arctique	Rødnebbterne		х	х	х	х									
Fratercula arctica	Atlantic Puffin	Papageitaucher	Macareux moine	Lunde		х		х	х	Х	Х	х				Х	Х	
Cepphus grylle	Black Guillemot	Gryllteiste	Guillemot à miroir	Teist		х		х		Х		х			Х	Х	х	
Chroicocephalus ridibundus	Black-headed Gull	Lachmöwe	Mouette rieuse	Hettemåke		х	х	х										
Rissa tridactyla	Black-legged Kittiwake	Dreizehenmöwe	Mouette tridactyle	Krykkje		х	х	х	Х	Х	Х	Х	х	х	Х	Х	Х	
Limosa limosa	Black-tailed Godwit	Uferschnepfe	Barge à queue noire	Svarthalespove		х												
Branta bernicla	Brant Goose	Ringelgans	Bernache cravant	Ringgås		х								х				
Uria lomvia	Brünnich's Guillemot	Dickschnabellumme	Guillemot de Brünnich	Polarlomvi						Х	Х	х	х	х	Х	Х	Х	
Gavia immer	Common Diver/Loon	Eistaucher	Plongeon huard	Islom		х		х	Х									
Somateria mollissima	Common Eider	Eiderente	Eider à duvet	Ærfugl		х	х	х					х	х				
Uria aalge	Common Guillemot/Murre	Trottellumme	Guillemot marmette	Lomvi				х										
Tringa totanus	Common Redshank	Rotschenkel	Chevalier gambette	Rødstilk		х	х											
Charadrius hiaticula	Common Ringed Plover	Sandregenpfeifer	Pluvier grand-gravelot	Sandlo		х					Х				Х			
Gallinago gallinago	Common Snipe	Bekassine	Bécassine des marais	Enkeltbekkasin		Х												
Calidris alpina	Dunlin	Alpenstrandläufer	Bécasseau variable	Myrsnipe		х												
Haematopus ostralegus	Eurasian Oystercatcher	Austernfischer	Huîtrier pie	Tjeld		х	х											
Pluvialis apricaria	European Golden Plover	Goldregenpfeifer	Pluvier doré	Heilo		х	х											
Phalacrocorax aristotelis	European Shag	Krähenscharbe	Cormoran huppé	Toppskarv														
Larus hyperboreus	Glaucous Gull	Eismöwe	Goéland bourgmestre	Polarmåke		х	х	х			Х	х	х	х	Х	Х	Х	
Larus marinus	Great Black-backed Gull	Mantelmöwe	Goéland marin	Svartbak		х	х	х		Х								
Phalacrocorax carbo	Great Cormorant	Kormoran	Grand Cormoran	Storskarv		Х												
Stercorarius skua	Great Skua	Skua	Grand Labbe	Storjo							Х		х			Х		
Phalaropus fulicarius	Grey/Red Phalarope	Thorshühnchen	Phalarope à bec large	Polarsvømmesnipe											Х			
Anser anser	Greylag Goose	Graugans	Oie cendrée	Grågås		Х	х											

Birds - Wildlife List - MS FRAM 26/05 to 08/06 2025

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Larus argentatus	Herring Gull	Silbermöwe	Goéland argenté	Gråmåke	,	x	x	x		Í		<u> </u>					İ	
Larus glaucoides	Iceland Gull	Polarmöwe	Goéland arctique	Grønlandsmåke														
Pagophila eburnea	Ivory Gull	Elfenbeinmöwe	Mouette blanche	Ismåke														
Somateria spectabilis	King Eider	Prachteiderente	Eider à tête grise	Praktærfugl														
Larus fuscus	Lesser Black-backed Gull	Heringsmöwe	Goéland brun	Sildemåke		х	х	Х										
Alle alle	Little Auk/Dovekie	Krabbentaucher	Mergule nain	Alkekonge						х	Х	Х	Х	х	Х	Х	х	
Clangula hyemalis	Long-tailed Duck	Eisente	Harelde kakawi	Havelle		х								х				
Stercorarius longicaudus	Long-tailed Skua/Jaeger	Falkenraubmöwe	Labbe à longue queue	Fjelljo						х		х						
Anas platyrhynchos	Mallard	Stockente	Canard colvert	Stokkand		Х	Х											
Fulmarus glacialis	Northern Fulmar	Eissturmvogel	Fulmar boréal	Havhest		Х	х	Х	х	х	Х	Х	Х	х	Х	Х	х	
Morus bassanus	Northern Gannet	Basstölpel	Fou de Bassan	Havsule		х		Х		х								
Anser brachyrhynchus	Pink-footed Goose	Kurzschnabelgans	Oie à bec court	Kortnebbgås									Х	х				
Stercorarius pomarinus	Pomarine Skua/Jaeger	Spatelraubmöwe	Labbe pomarin	Polarjo						х								
Calidris maritima	Purple Sandpiper	Meerstrandläufer	Bécasseau violet	Fjæreplytt									х	х				
Alca torda	Razorbill	Tordalk	Petit Pingouin	Alke														
Calidris canutus	Red Knot	Knutt	Bécasseau maubèche	Polarsnipe		х										Х		
Mergus serrator	Red-breasted Merganser	Mittelsäger	Harle huppé	Siland		х												
Phalaropus lobatus	Red-necked Phalarope	Odinshühnchen	Phalarope à bec étroit	Svømmesnipe		х												
Gavia stellata	Red-throated Diver/Loon	Sterntaucher	Plongeon catmarin	Smålom		х												
Lagopus mytus	Rock Ptarmigan	Alpenschneehuhn	Lagopède alpin	Fjellrype														
Arenaria interpres	Ruddy Turnstone	Steinwälzer	Tournepierre à collier	Steinvender		х				х						Х		
Xema sabini	Sabine's Gull	Schwalbenmöwe	Mouette de Sabine	Sabinemåke														
Calidris alba	Sanderling	Sanderling	Bécasseau sanderling	Sandløber		х										Х		
Podiceps auritus	Slavonian/Horned Grebe	Ohrentaucher	Grèbe esclavon	Horndykker		х												
Plectrophenax nivalis	Snow Bunting	Schneeammer	Plectrophane des neiges	Snøspurv										х	Х	Х	х	
Aythia fuligula	Tufted Duck	Reiherente	Fuligule morillon	Tppand		Х	х											
Numenius phaeopus	Whimbrel	Regenbrachvogel	Courlis corlieu	Småspove		Х												
Cygnus cygnus	Whooper Swan	Singschwan	Cygne chanteur	Sangsvane		Х	Х											

Wildlife List Marine Manhals

George's fulmar project



We used the journey to conduct a little project on how fulmar plumage changes with latitude. By grading the plumage of fulmars on a 5 point scale (1 being lightest and 5 being darkest) at 42 locations during our voyage (and a previous one in late July 2024) we were able to show 1. that mutation that results in very dark birds is fairly localised in the Svalbard population, 2. that that fulmar in the north Atlantic below 76 degrees (the dashed line on the map) are probably birds from Iceland coming up and not the birds from Svalbard coming down and 3, that these ranges shift about 2 degrees (about 220km) north during the summer.

Connect with your inner scientist

1