

MS Fridtjof Nansen

08 – 18 Dec 2024

Highlights of Antarctica





Science & education program

During this voyage, we ran **6 citizen** science projects in total: eBird, HappyWhale, Inaturalist, Nasa Cloud observer, SecchiDisk project & Fjord Phyto project. You were able to enrich your mind with **21 lectures** on different topics from birds to rocks. You also took part in the **13 discovery sessions** we put on.

We had guest scientist on from two different projects that were collecting data whilst you were onboard. The Freidlander lab was collecting biopties and drone fotage. Where the Ocean watchers were collecting data on sightings made during the voyage.

A lot of you were very interested in the scientific aspect of our voyage and we thank you all for your enthusiasm. Here we provide a resume of our science activities.



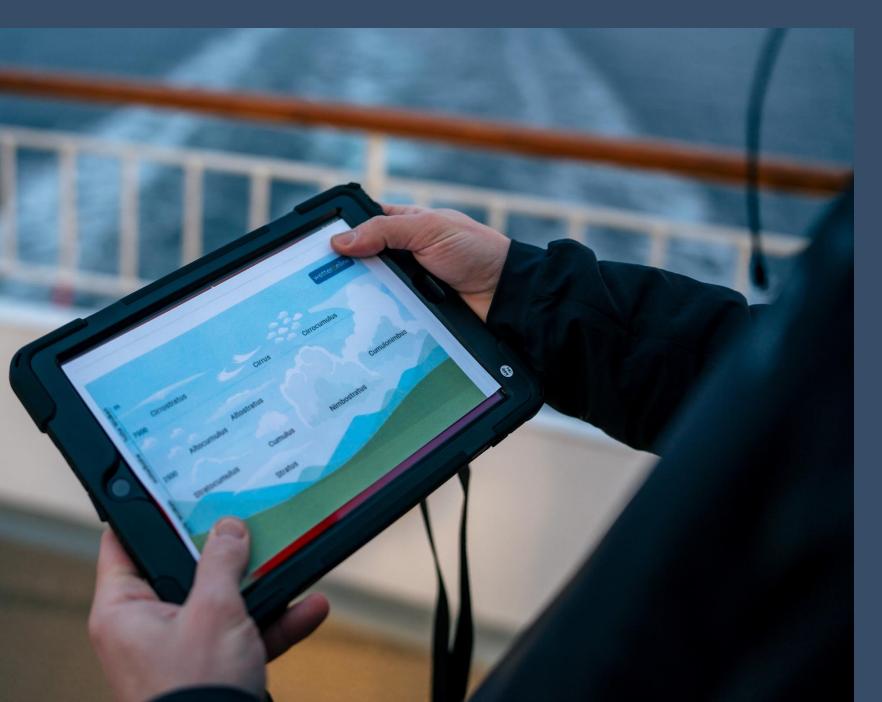
Lectures & Discovery sessions

- Lectures
- Discovery sessions
- Citizence science projects
- Science boats
- Guest Scienti projects



Wildlife Watch

54 Species:8 Mammals26 Birds





NASA cloud observer

On this expedition for the Highlights of Antarctica, we were able to conduct one training cloud observation as we headed south on the infamous Drake Passage.

Thank you to the Cloud Observers who participated in the program, and remember you can continue to do this at home!

As this was a training observation it was not timed with a satellite flyover, so we have not received any matching reports. Do not forget to register your email with the program to receive the reports for your observations post voyage.

ARGENTINA Falkland Islands CHILE O Punta Arenas Isla Grande de Tierra del Fuego O Río Grande Drake Passage SOUTHERN Adobe Stock | #518922932 Antarctic Peninsula Ice Shelf Charcot I

NASA cloud observer



View our data on the global map

1 Observation Locations recorded. Total Sessions: 1 Total Submissions: 4

Trip Report on eBird



MS Fridtjof Nansen 2024 # Antarctic Highlights - 8th to 18th of December

8 – 18 Dec 2024 (11 days) Public

- Antarctica | Argentina | Chile | High Seas
 Subregions
- Julia Victoria Grohmann Finger, Ingvild Riska, Stephen Feng, Liam Northfield





A HX - Hurtigruten Expeditions voyage to the Antactic Penninsula on board MS Fridtjof Nansen.

Edit narrative

DATA FOR: Group (all people) -



Species Observed

+5 other taxa



Checklists



Species Observed Show all details					
1	Flying Steamer-Duck Tachyeres patachonicus	÷ m 1			
4	Crested Duck Lophonetta specularioides	+ m 1			
1	Rock Pigeon Columba livia *	→ m11			
7	Snowy Sheathbill Chionis albus	→ ■ 4			
1	Southern Lapwing Vanellus chilensis	+ m 1			
4	Brown Skua Stercorarius antarcticus	→ 1 2			
25	South Polar Skua Stercorarius maccormicki	→ 📶 5			
22	Dolphin Gull Leucophaeus scoresbii	→ <u>m</u> 1			
138	Kelp Gull Larus dominicanus	▶ ⋒ 8			
29	South American Tern Sterna hirundinacea	▶ 			
37	Antarctic Tern Sterna vittata	▶ 			
8	Adelie Penguin Pygoscelis adeliae	▶ 			
42	Gentoo Penguin Pygoscelis papua	▶ ⋒ 9			
326	Chinstrap Penguin Pygoscelis antarcticus	▶ ⋒ 6			
3	Southern Rockhopper Penguin Eudyptes chrysocome	→ m 1			
3	Southern Royal Albatross Diomedea epomophora	▶ 📶 3			
21	Light-mantled Albatross Phoebetria palpebrata	→ m 11			
8	Gray-headed Albatross Thalassarche chrysostoma	→ 			
71	Black-browed Albatross Thalassarche melanophris	▶ 👔 21			
53	Wilson's Storm-Petrel Oceanites oceanicus	▶ 📶 13			
5	Black-bellied Storm-Petrel Fregetta tropica	→ 📶 3			
18	Southern Giant-Petrel Macronectes giganteus	▶ 			
41	Southern Fulmar Fulmarus glacialoides	▶ 1 12			

1	Antarctic Petrel Thalassoica antarctica	→ m 1
220	Pintado Petrel Daption capense	▶ 🗖 24
1	Snow Petrel Pagodroma nivea	→ m 1
1	Kerguelen Petrel Aphrodroma brevirostris	→ m 1
206	Blue Petrel Halobaena caerulea	▶ 👖 16
15	Antarctic Prion Pachyptila desolata	▶ 📶 6
8	Slender-billed Prion Pachyptila belcheri	▶ 🗖 2
9	White-chinned Petrel Procellaria aequinoctialis	→ 📶 7
5	Great Shearwater Ardenna gravis	▶ 📶 3
126	Sooty Shearwater Ardenna grisea	▶ 📶 3
1	Magellanic Diving-Petrel Pelecanoides magellani	→ m 1
2	Magellanic Cormorant Leucocarbo magellanicus	→ m]1
47	Imperial Cormorant Leucocarbo atriceps	→ m 11
154	Antarctic Shag Leucocarbo bransfieldensis	▶ 📶 6
1	Black-crowned Night Heron Nycticorax nycticorax	→ m1 1
1	Austral Thrush Turdus falcklandii	→ m 1
ADDITION	NAL TAXA	
7	skua sp. Stercorarius sp. (skua sp.)	▶ 1 3
7	penguin sp. Spheniscidae sp.	▶ 🗖 2
3	storm-petrel sp. Oceanitidae/Hydrobatidae sp.	→ 📶 3
1	Southern/Northern Giant-Petrel Macronectes giganteus/halli	∍ mil
45	prion sp. Pachyptila sp.	▶ 🖪 8

eBird



iNaturalist

16 observers contributed more than 420 observations identifying 44 species of everything living and wild.

The most observed species were Gentoo Penguin and Light-mantled Albatross.

It is still time to join our project once you are back home and have time to go through your photos. Helping us document the local biodiversity will help international researchers to monitor the changes of distribution and abundance of the most iconic Antarctic species.

View our data submitted on our <u>iNaturalist</u> <u>project</u>



Naturalist



About

Members 22

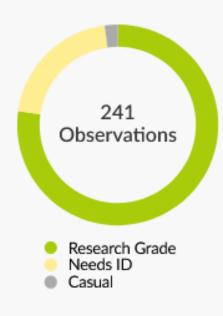
Shared observations from guests and Expedition Team onboard MS Fridtjof Nansen during the expedition cruise "Highlights of Antarctica" from 8th - 18th December, aiming to collect data on the local biodiversity Read More >

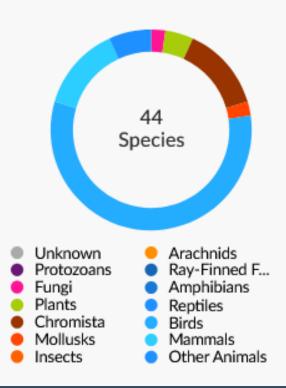
PROJECT MEMBERS ONLY

☐ Project Journal

Naturalist

Stats









Gentoo Penguin Pygoscelis papua



Light-mantled Albatross Phoebetria palpebrata



Pintado Petrel Daption capense



Humpback Whale Megaptera novaeangliae



Chinstrap Penguin Pygoscelis antarcticus



Adelie Penguin Pygoscelis adeliae



Southern Fulmar Fulmarus glacialoides



Snowy Sheathbill Chionis albus



Gray-headed Albatross Thalassarche chrysostoma



Antarctic Shag Leucocarbo bransfieldensis



South Polar Skua Stercorarius maccormicki



Crabeater Seal Lobodon carcinophaga



Wilson's Storm-Petrel Oceanites oceanicus



Weddell Seal Leptonychotes weddellii



White-chinned Petrel Procellaria aequinoctialis

Naturalist



© Timo Heinz / HX

HappyWhale

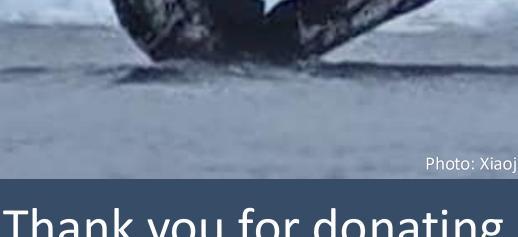
This voyage was a success in terms of marine mammals sightings. We submitted a total of 7 Humpback flukes, and photos to identify a Southern Rightwhale and a Weddell seal.

If you find you have any fluke photo's when you go over your photo's, do not hesitate to upload them your self to Happywhale.

Thank you so much for helping us gathering amazing pictures moments!







Thank you for donating your photos!







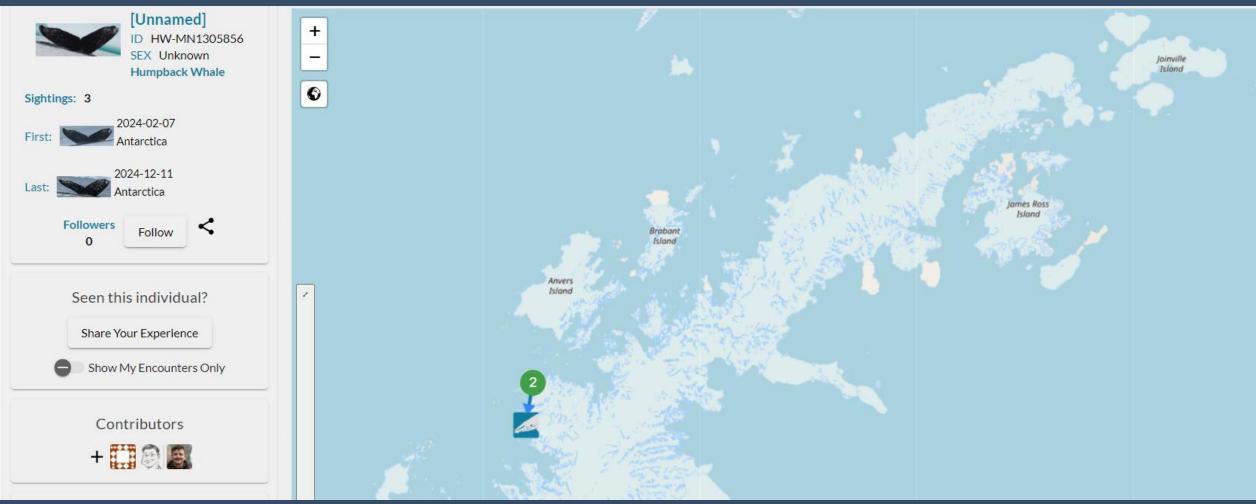


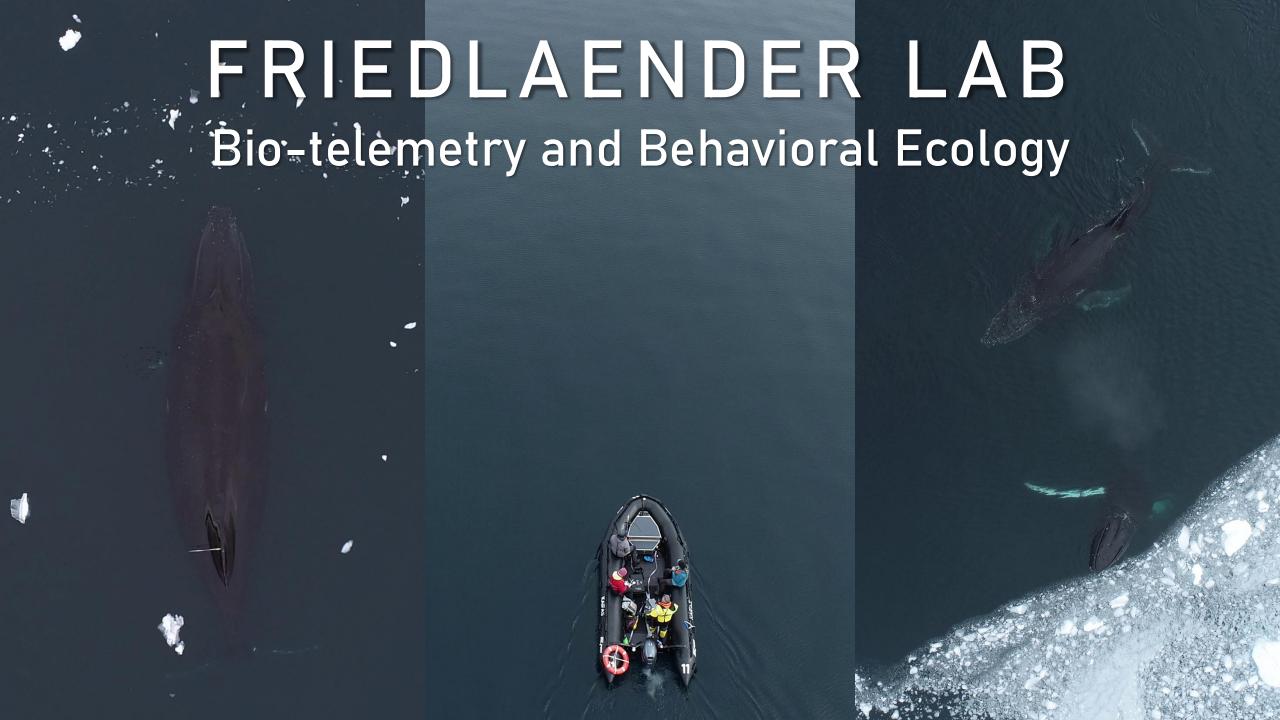


Weddell seal

We have a match!







18 unique humpback whales

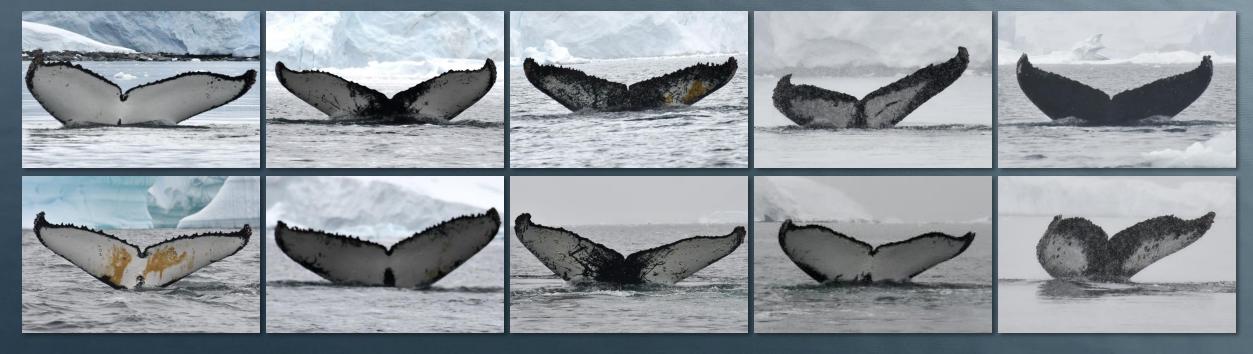
17 adults + juveniles

calf



11 fluke photographs

Permit ACA 2025-020



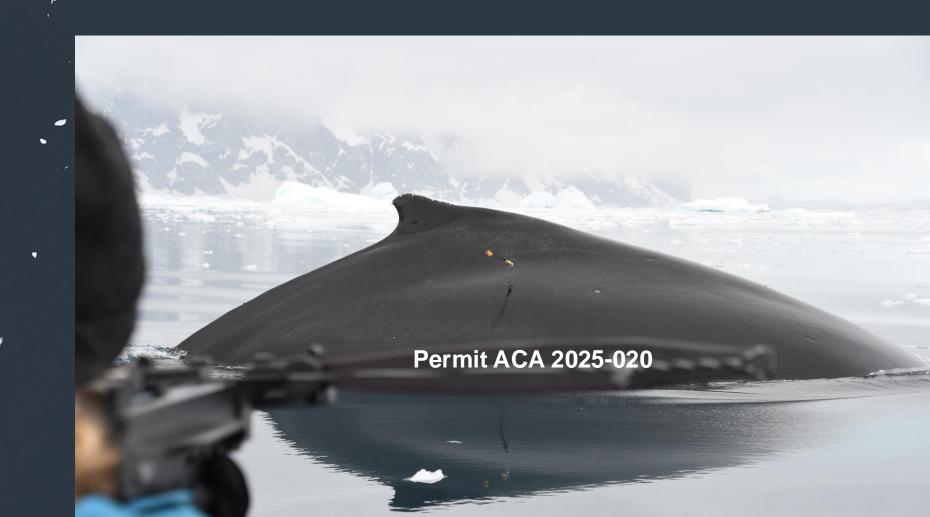
Surveys



and Photo-ID

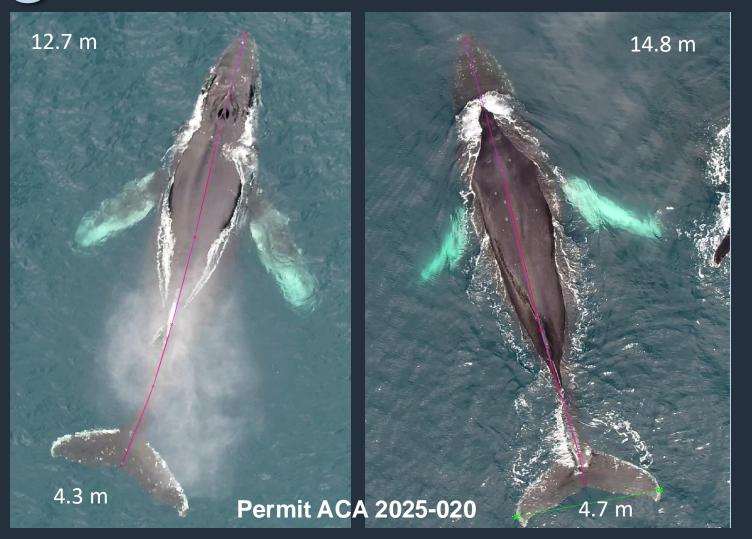
Remote Biopsy

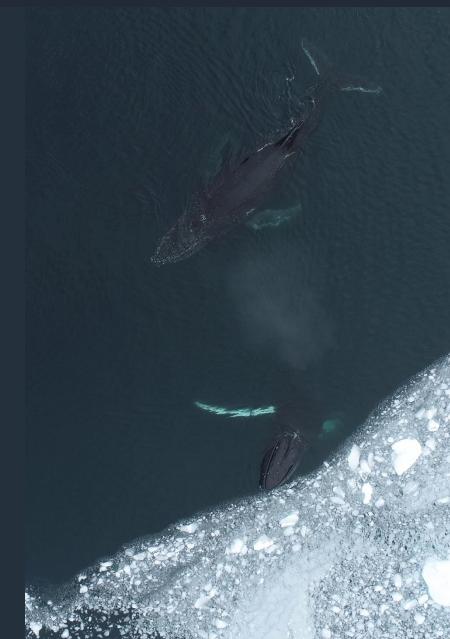
skin sample 13 skin + blubber samples



UAS Operations

3 photogrammetry samples





FRIEDLAENDER LAB

Bio-telemetry and Behavioral Ecology











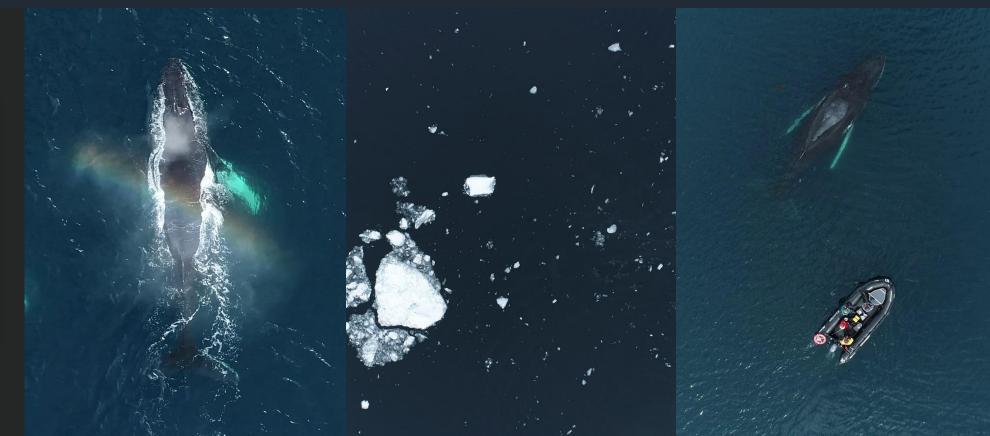
HURTIGRUTEN EXPEDITIONS

FRIEDLAENDER LAB

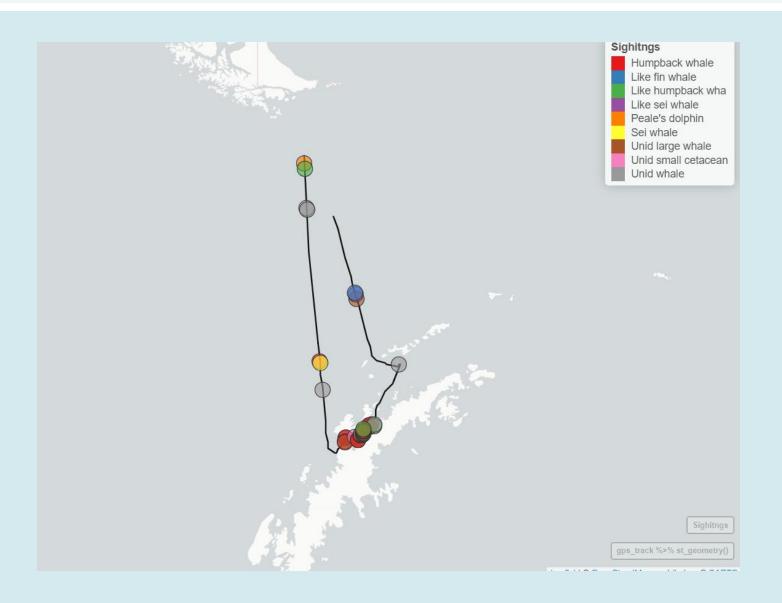
Bio-telemetry and Behavioral Ecology

Follow along with our operations...













Unid whale	6 33 Sighti		
Unid small cetacean	1	1	
Unid large whale	2	4	
Sei whale	1	1	
Peale's dolphin	1	2	
Like sei whale	1	1	
Like humpback wha	6	9	
Like fin whale	1	1	
Humpback whale	14	22	
SpeciesName	Number_of_sightings	Number_of_animals	









What next?





Data passed to CCAMLR

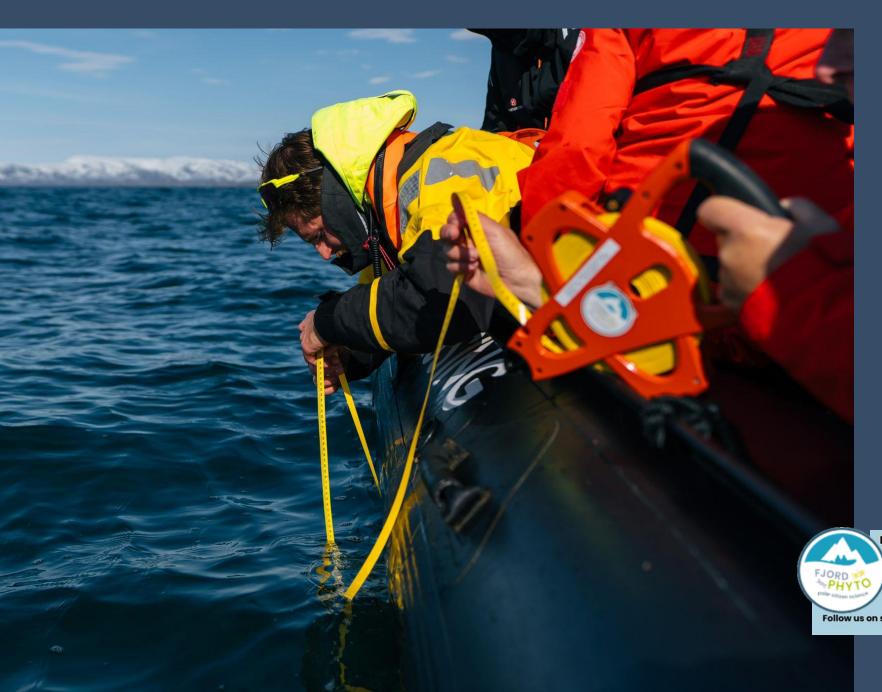
- The observations made on this trip will be added to a database.
- Shared with krill fishery managers & Convention for the conservation of Antarctic living resources.
- Results published in a PhD
- This data was collected as a part of lead researcher Angus Hendersen's PhD framework.











Science Boat

We had 10 science boat sessions during this trip in: Wilhelmina Bay, Brown Station Orne Islands & Whalers Bay. We sampled for different projects. With the secchi disk measurements to document turbidity/clarity of the water and assess the abundance of phytoplankton. And for the fjord phyto project. This project aims to monitor the changes in abundance and distribution of phytoplankton in Antarctic & Arctic waters in relation with glaciar ice melting. We towed a plankton net of 20 um mesh size to gather water samples, deployed our CTD sensor to understand the oceanographical parameters of the water (temperature, salinity, chlorophyll a) and preserved meltwater samples to measure later on dissolved oxygen. The whole mission was a success, thank you for participating with us!

If you like to help us make the project a success





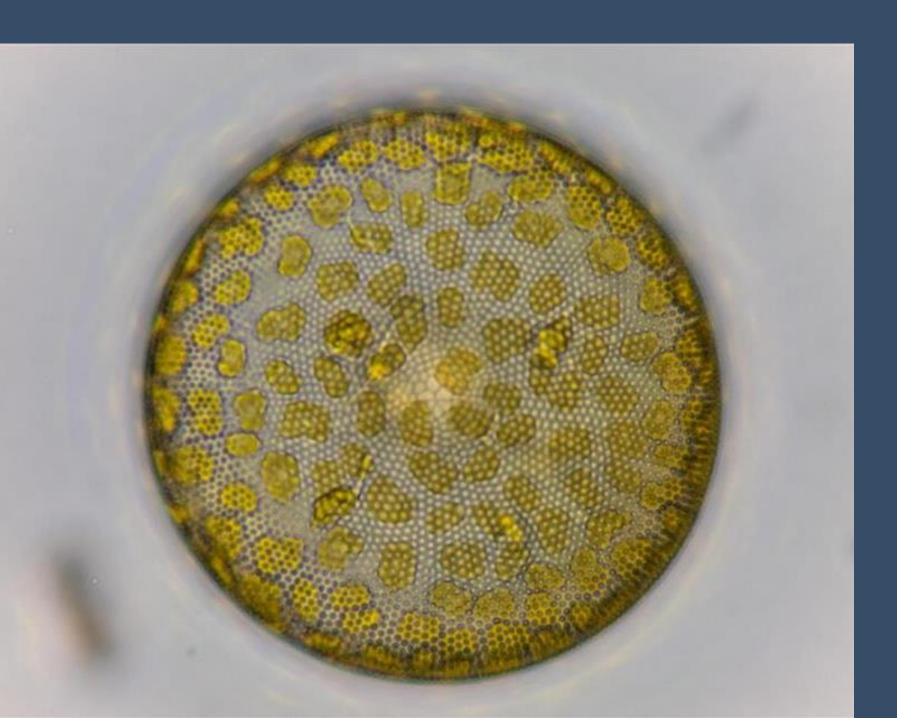
Follow us on social media @fjordphyto





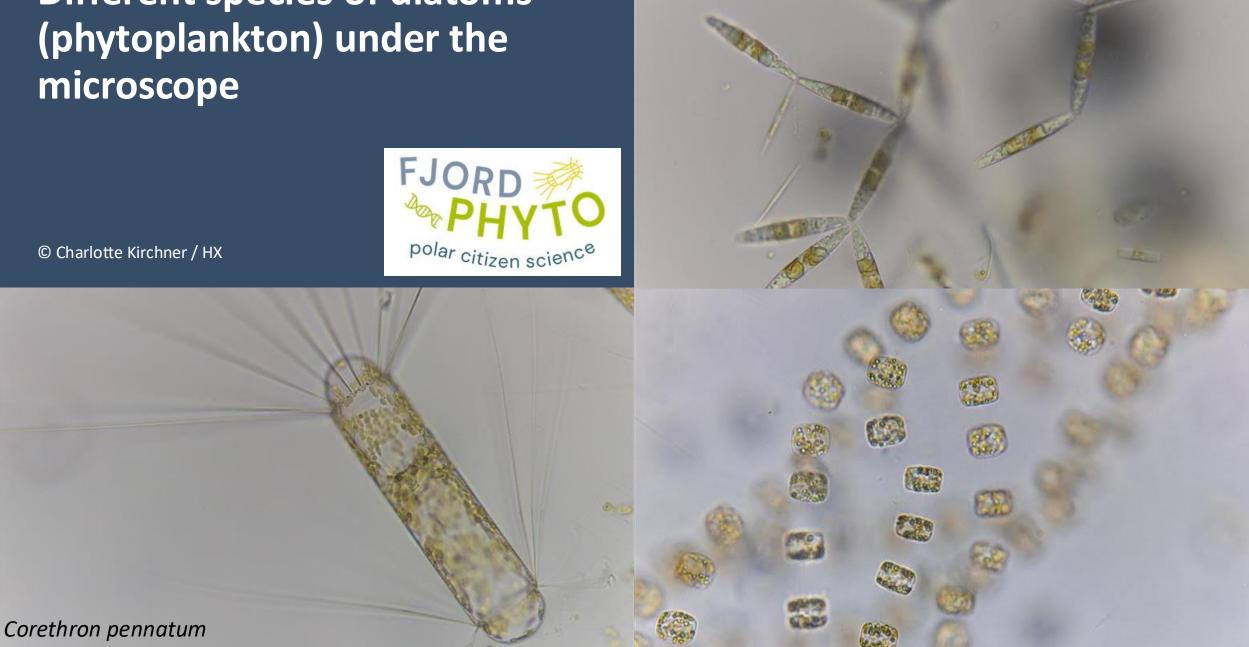


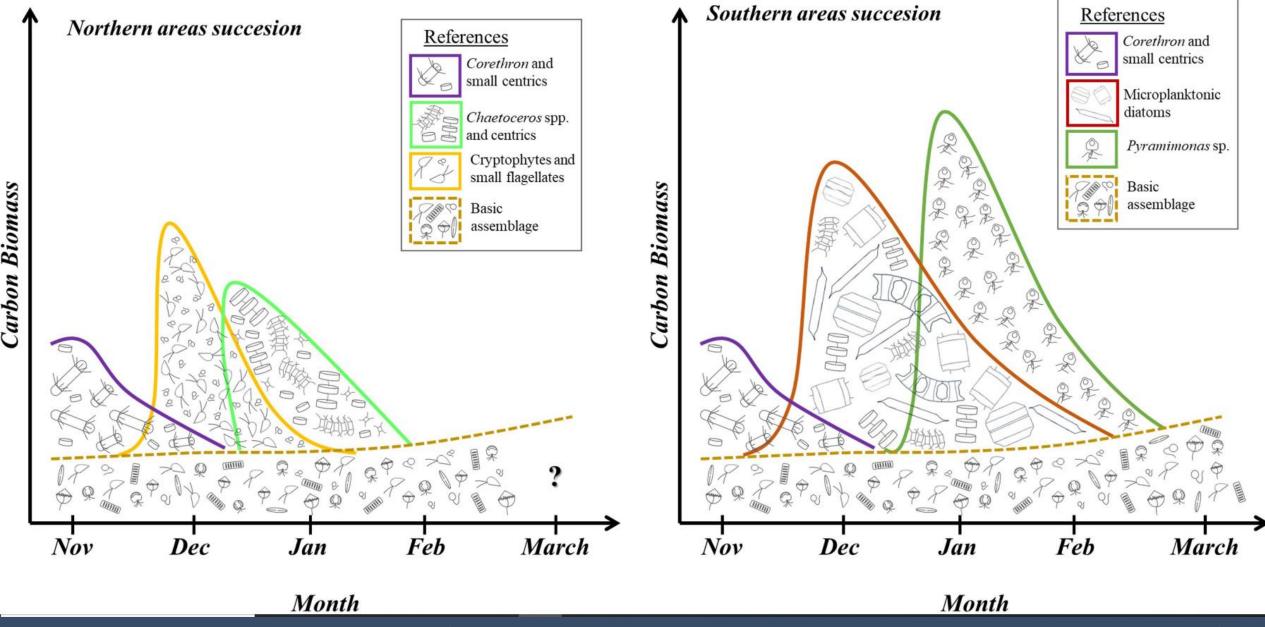
View our data submitted to the Secchi Disk Project



Plankton samples

Different species of diatoms





Here is a diagram that explains the temporal succession of phytoplankton communities. Our voyage allowed us to visit both the Northern and Southern areas of the Gerlache Strait. We observed big differences in the abundance and diversity of species between the north (Lemaire) and the south (Marguerite Bay), with higher and richer waters towards the south, matching those results. Data obtained thanks to the FjordPhyto project participants. Marscioni et al 2023.



MS Fridtjof Nansen - Wildlife List | Ushuaia to Antarctica



BIRDS

Species		December											
		8	9	10	11	12	13	14	15	16	17		
Pygoscelis papua EN: Gentoo Penguin FR: Manchot papou DE: Eselspinguin NO: Bøylepingvin 中文: 巴布亚企鹅/白眉企鹅	Credit: Kay Fochtmann/HX		•		•	•	•	•	•				
Pygoscelis adeliae EN: Adelie Penguin FR: Manchot d'Adélie DE: Adeliepinguin NO: Adeliepingvin 中文: 阿德利企鹅	Credit fed Gallin/HX				•	•		•	•				
Pygoscelis antarcticus EN: Chinstrap Penguin FR: Manchot à jugulaire DE: Zügelpinguin NO: Ringpingvin 中文: 帽带企鹅/纹颊企鹅	Credit: Martin Hain/HX			•	•	•		•	•				
Spheniscus magellanicus EN: Magellanic Penguin FR: Manchot de Magellan DE: Magellanpinguiin NO: Magellanpingvin 中文: 南美企鹅/麦哲伦企鹅	Credit: Kim Rarmark/HX												

Species		8	9	10	11	12	13	14	15	16	17	
Leucocarbo bransfildensis EN: Antarctic (Blue-eyed) Shag FR: Cormoran antarctique DE: Antarktisscharbe NO: Antarktisskarv 中文: 南极鸬鹚	Credit: Martin Hain/HX				•	•	•	•	•			
Leucocarbo atriceps EN: Imperial Shag FR: Cormoran impérial DE: Kaiserscharbe NO: Knoppskarv 中文: 蓝眼鸬鹚	Credit: Caliponle/Wikipedia											
Stercorarius antarcticus EN: Subantarctic Brown Skua FR: Labbe antarctique DE: Subantarktikskua NO: Sørhavsjo 中文: 棕贼鸥	Credit: Ted Gallin/HX								•			
Stercorarius maccormicki EN: South Polar Skua FR: Labbe de McCormick DE: Antarktikskua NO: Sørjo 中文: 南极贼鸥/麦氏贼鸥	Credit: Kay Fochtmann/HX				•	•	•	•	•			
Stercorarius chilensis EN: Chilean Skua FR: Labbe du Chili DE: Chileskua NO: Kaneljo 中文: 智利贼鸥	Credit: Arthur Chapman/Wikipedia											

Species		8	9	10	11	12	13	14	15	16	17
En: Kelp Gull FR: Goéland dominicain DE: Dominikanermöwe NO: Taremåke 中文: 黑寶鴎	Credit: Kay Fochtmann/HX	•			•	•	•	•	•		
Sterna vittata EN: Antarctic Tern FR: Sterne couronnée DE: Antarktikseeschwalbe NO: Sørhavsterne 中文: 南极燕鸥	Credit: Ted Gallin/HX				•	•	•	•	•		
Sterna hirundinacea EN: South American Tern FR: Sterne hirundinacée DE: Falklandseeschwalbe NO: Svaleterne 中文: 南美燕鸥	Credit: Dfaulder/Wikicommons	•									
Chionis albus EN: Snowy Sheathbill FR: Chionis blanc DE: Weißgesicht-Scheidenschnabel NO: Antarktisslirenebb 中文: 白鞘嘴鸥	Credit: Kay Fochtmann/HX				•		•	•	•		
Diomedea epomophora EN: Southern Royal Albatross FR: Albatros royal DE: Königsalbatros NO: Kongealbatross 中文: 南方皇家信天翁	Credit:]] Harrison/Wikicommons		•								•

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Species		8	9	10	11	12	13	14	15	16	17
Diomedea exulans EN: Wandering Albatross FR: Albatros hurleur DE: Wanderalbatros NO: Vandrealbatross 中文: 漂泊信天翁	Credit: Tim Hoffmann/HX		•								•
Thalassarche chrysostoma EN: Grey-headed Albatross FR: Albatros à tête grise DE: Graukopfalbatros NO: Gråhodealbatross 中文: 灰头信天翁	Credit: Kay Fochtmann/HX		•	•						•	
Thalassarche melanophris EN: Black-browed Albatross FR: Albatros à sourcils noirs DE: Schwarzbrauenalbatros NO: Svartbrynalbatross 中文: 黑眉信天翁	Credit: Kay Fochtmann/HX	•	•	•					•	•	•
Phoebetria palpebrata EN: Light-mantled Albatross FR: Albatros fuligineux DE: Graumantelalbatros NO: Gråalbatross 中文: 灰背信天翁	Credit: Kay Fochtmann/HX		•	•						•	
Macronectes halli EN: Northern Giant Petrel FR: Pétrel de Hall DE: Hallsturmvogel NO: Nordkjempepetrell 中文: 霍氏巨鹱	Credit: Tim Hoffmann/HX										

Species		8	9	10	11	12	13	14	15	16	17
Macronectes giganteus EN: Southern Giant Petrel FR: Pétrel géant DE: Riesensturmvogel NO: Sørkjempepetrell 中文: 南方巨鹱	Credit: Kay Fochtmann & Ted Gallin/HX	•	•	•	•		•		•	•	•
Fulmarus glacialoides EN: Southern Fulmar FR: Fulmar argenté DE: Silbersturmvogel NO: Sørhavhest 中文: 银灰暴风鹱	Credit: Kay Fochtmann/HX		•	•	•	•	•	•	•		
Daption capense EN: Cape Petrel FR: Damier du Cap DE: Kapsturmvogel NO: Flekkpetrell 中文: 花斑鹱	Credit: Júlia Finger/HX		•	•			•		•	•	•
Thalassoica antarctica EN: Antarctic Petrel FR: Pétrel antarctique DE: Antarktissturmvogel NO: Antarktispetrell 中文: 南极鹱	Credit: Júlia Finger/HX										
Procellaria aequinoctialis EN: White-chinned Petrel FR: Puffin à menton blanc DE: Weißkinn-Sturmvogel NO: Hvithakepetrell 中文: 白颏风鹱	Credit:]] Harrison/Wikipedia		•							•	•

Species		8	9	10	11	12	13	14	15	16	17	
Ardenna grisea EN: Sooty Shearwater FR: Puffin fuligineux DE: Dunkelsturmtaucher NO: Grålire 中文: 灰鹱	Credit: Marcus Bergström/HX										•	
Halobaena caerulea EN: Blue Petrel FR: Prion bleu DE: Blausturmvogel NO: Blåpetrell 中文: 蓝鹱	Credit: Kim Rarmark/HX		•	•						•	•	
Pachyptila desolata EN: Antarctic Prion FR: Prion de la Désolation DE: Taubensturmvogel NO: Antarktishvalfugl 中文: 鸽锯鹱	Credit: Júlia Finger/HX		•	•						•		
Pachyptila belcheri EN: Slender-billed Prion FR: Prion de Belcher DE: Dünnschnabel-Sturmvogel NO: Smalnebbhvalfugl 中文: 细嘴锯鹱	Credit: Marcus Bergström/HX		•									
Pagodroma nivea EN: Snow Petrel FR: Pétrel des neiges DE: Schneesturmvogel NO: Snøpetrell 中文: 雪鹱	Credit: Marcus Bergström/HX						•					

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Species		8	9	10	11	12	13	14	15	16	17
Oceanites oceanicus EN: Wilson's Storm Petrel FR: Océanite de Wilson DE: Buntfuß-Sturmschwalbe NO: Wilsonstormsvale 中文: 黃蹼洋海燕	Credit: Ethan Rudnitsky/Wikipedia		•	•	•	•	•	•		•	
Fregetta tropica EN: Black-bellied Storm Petrel FR: Océanite à ventre noir DE: Schwarzbauch-Sturmschwalbe NO: Svartbukstormsvale 中文: 黑腹舰海燕	Credit: Kay Fochtmann/HX		•					•		•	



Species						Dece	embe	r			
		8	9	10	11	12	13	14	15	16	17
Balaenoptera musculus											
EN: Blue Whale											
FR: Baleine bleue											
DE: Blauwal											
NO: Blahval	Credit: Massimo Demma/Ocean Conservation Society										
中文: 蓝鲸	Credit. Massimo Denina/Ocean Conservation Society										
Balaenoptera physalus	_										
EN: Fin Whale											
FR: Rorqual commun	20 10 10 10 10 10 10 10 10 10 10 10 10 10										
DE: Finnwal											
NO: Finhval											
中文: 長須鯨	Credit: Massimo Demma/Ocean Conservation Society										
Megaptera novaeangliae											
EN: Humpback Whale											
FR: Baleine a bosse					•			•		•	
DE: Buckelwal					_	_		_		•	
NO: Knolhval											
中文: 座头鲸	Credit: Massimo Demma/Ocean Conservation Society										
Balaenoptera borealis											
EN: Sei Whale											
FR: Rorqual de Rudolphi											
DE: Seiwal											
NO: Seihval	ACAA Fisheries										
中文: 塞鲸	Credit: NOAA Fisheries										

Species						Dece	mbe	r			
		8	9	10	11	12	13	14	15	16	17
Eubalaena australis EN: Southern Right Whale FR: Baleine franche australe DE: Südkaper NO: Sørkaper 中文: 南露脊鯨	Credit: Eden Killer Whale Museum				•						
Balaenoptera bonaerensis EN: Antarctic Minke Whale FR: Petit rorqual de l'Antarctique DE: Antarktischer Zwergwal NO: Antarktisk vågehval 中文: 南极小须鲸	Credit: SEAMMO (Sea Mammal Monitoring Organisation)										
Physeter macrocephalus EN: Sperm Whale FR: Grand cachalot DE: Pottwal 中文: 抹香鲸	Credit: Massimo Demma/Ocean Conservation Society										
Orcinus orca EN: Killer Whale FR: Orque DE: Orca o Schwertwal NO: Spekkhogger 中文: 虎鯨	Credit: Massimo Demma/Ocean Conservation Society						•				
Hyperoodon planifrons EN: Southern Bottlenose Whale FR: Hyperoodon austral DE: Südlicher Entenwal 中文: 南瓶鼻鯨											

Species						Dece	embe	r			
		8	9	10	11	12	13	14	15	16	17
Cephalorhynchus eutropia EN: Chilean dolphin FR: Céphalorhynque noir DE: Weißbauchdelfin NO: Chiledelfin 中文: 智利矮海豚	N										
Cephalorhynchus commersonii EN: Commerson's dolphin FR: Céphalorhynque de Commerson DE: Commerson-Delfin NO: Commersondelfin 中文: 花斑噱头海豚/康氏矮海豚											
Lagenorhynchus obscurus EN: Dusky dolphin FR: Lagenorhynque obscur DE: Schwarzdelfin NO: Morkdelfin 中文: 暗色斑纹海豚											
Lagenorhynchus cruciger EN: Hourglass dolphin FR: Lagénorhynque sablier DE: Stundenglasdelfin NO: Timeglassdelfin 中文: 间纹斑纹海豚/沙漏斑纹海豚			•								
Globicephala melas EN: Long-finned pilot whale FR: Globicéphale noir DE: Grindwal NO: Grindhval 中文: 长肢领航鯨											

Species					Dece	embe	r			
	8	9	10	11	12	13	14	15	16	17
Lissodelphis peronii EN: Southern Right Whale Dolphin FR: Dauphin de Peron DE: Südlicher Glattwaldelfin 中文: 南露脊海豚										
Lagenorhynchus australis EN: Peale's dolphin FR: Lagénorhynque de Peale DE: Peale-Delfin NO: Peales delfin 中文: 皮氏斑纹海豚										

SEALS – TRUE AND EARED SEALS

Smarian						Dece	embe	r			
Species		8	9	10	11	12	13	14	15	16	17
Leptonychotes weddellii EN: Weddell Seal FR: Phoque de Weddell DE: Weddelrobbe NO: Weddellsel 中文: 韋德爾氏海豹	Credit: Kay Fochtmann/HX				•				•		
Lobodon carcinophaga EN: Crabeater Seal FR: Phoque crabier DE: Krabbenfresser NO: Krabbeetersel 中文: 食蟹海豹/锯齿海豹	Credit: Martin Johansen				•		•	•			

SEALS — TRUE AND EARED SEALS

Sancias		December									
Species		8	9	10	11	12	13	14	15	16	17
Hydrurga leptonyx EN: Leopard Seal FR: Léopard de mer DE: Seeleopard NO: Leopardsel 中文: 豹海豹	Credit: Kay Fochtmann/HX										
Mirounga leonina EN: Southern Elephant Seal FR: Eléphant de mer austral DE: Südlicher See-Elefant NO: Sydlig sjøelefant 中文: 南象海豹	Credit: Martin Hain/HX				•	•					
Arctocephalus gazella EN: Antarctic Fur Seal FR: Otarie à fourrure antarctique DE: Antarktischer Seebär NO: Antarktis pelssel 中文: 南极海狗/南极毛皮海狮	Credit: Kay Fochtmann/HX										
Arctocephalus australis EN: South American Fur Seal FR: Otarie à fourrure australe DE: Südamerikanischer Seebär NO: Søramerikansk pelssel 中文: 南美毛皮海狮	Credit: Lilia Gonzalez										
Otaria flavescens EN: South American Sea Lion FR: Lion de mer d'Amérique du Sud DE: Mähnenrobbe NO: Søramerikansk sjøløve 中文: 南海狮	Credit: Lilia Gonzalez	•									

