



# IA

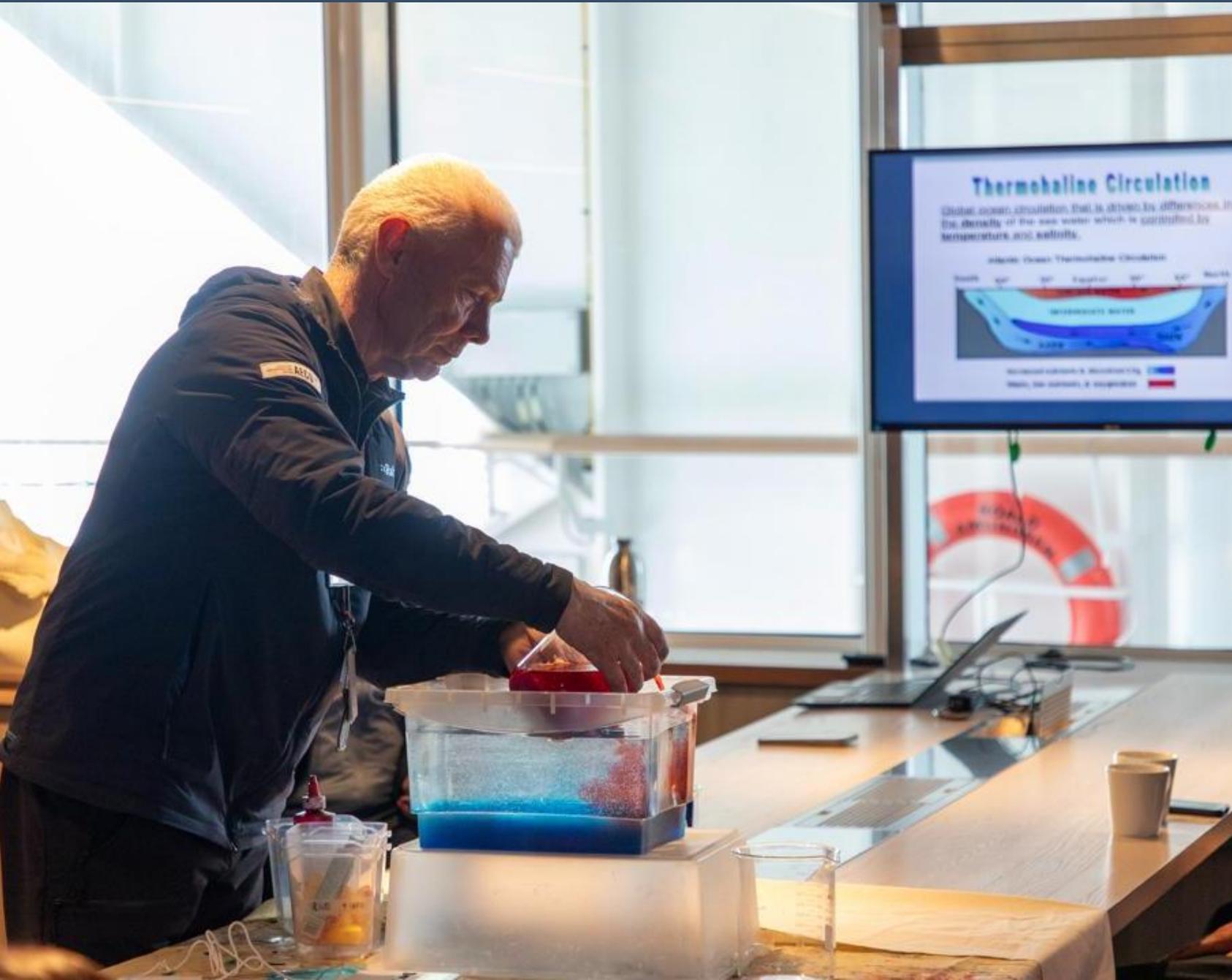
## Science & Education Report

# MS Roald Amundsen 19.2 – 7.3.2026

## Antarctic Circle Expedition

On MS Roald Amundsen, you stepped aboard an expedition ship designed for research and education, fully equipped as a floating laboratory. While on board, you contributed to scientific studies and deepened your understanding of the world around you. Let's reflect on the discoveries and accomplishments of our voyage.





# Science & Education Programme

Our onboard naturalists and guest scientists guided guests in using scientific tools to explore the world around us. Through lectures, discovery sessions, zodiac cruises, science boat outings, and visits ashore, we aimed to make every day of the expedition a memorable and unique learning experience.

# Arts, Crafts, Workshops & Creativity

We experienced the breathtaking landscapes of Antarctica and were inspired to create art reflecting our surroundings, including watercolour postcards, clay creatures, penguin ID guides, and journals. Henryk also taught us practical navigation using charts, as well as astronavigation.



# History & Culture:

## Deception Island

Whalers Bay is a site of stark, natural beauty, defined by its volcanic black sand beaches and a uniquely sheltered harbour. It also stands as a poignant intersection of different historical eras:

**Hektor Whaling Station (1912–1931):** Originally a Norwegian operation, this land-based factory employed around 150 workers at peak summer seasons. The skeletal remains of oil containers and processing facilities offer a haunting glimpse into the whaling industry and the challenging lives of its crews.

**Operation Tabarin & Station B:** Established by Britain in 1944 during World War II, Station B served a strategic dual purpose. Its primary mission was to deny Nazi Germany access to regional resources, while also asserting British sovereignty against competing Chilean and Argentine claims. The site's history in aerial operations is still visible today, with the remaining hangar standing as a silent witness to that era.

**Volcanic Legacy:** Following a series of violent eruptions between 1967 and 1969, the base was permanently abandoned on 23 February 1969.



# History & Culture:

## Antarctic Bases

Today, these bases stand as living museums and active scientific research stations, serving a dual purpose that bridges past and present. As historical witnesses, they preserve the material culture of early Antarctic occupation - including original buildings, equipment, and artifacts - that tell the story of human perseverance in one of Earth's harshest environments. The data collected at these stations contributes to our understanding of global environmental systems, from ozone depletion to ice sheet dynamics.

The image on the right shows Stonington Island base, where the first women—Jackie Ronne and Jenny Darlington—overwintered in Antarctica in 1947.





# Science Boat

During our voyage, we conducted plankton sampling to assess the abundance and types of plankton in the waters we sailed through. The samples and data you recorded provided invaluable contributions to the **FjordPhyto** and **Secchi Disk** projects, which monitor plankton abundance and species in the Antarctic Peninsula.

During the science boat sessions, we used a **CTD** to create a physical profile of the water column, measured turbidity to estimate phytoplankton abundance, and deployed a plankton net to collect samples.

# Science Boat: Damoy Point CTD data

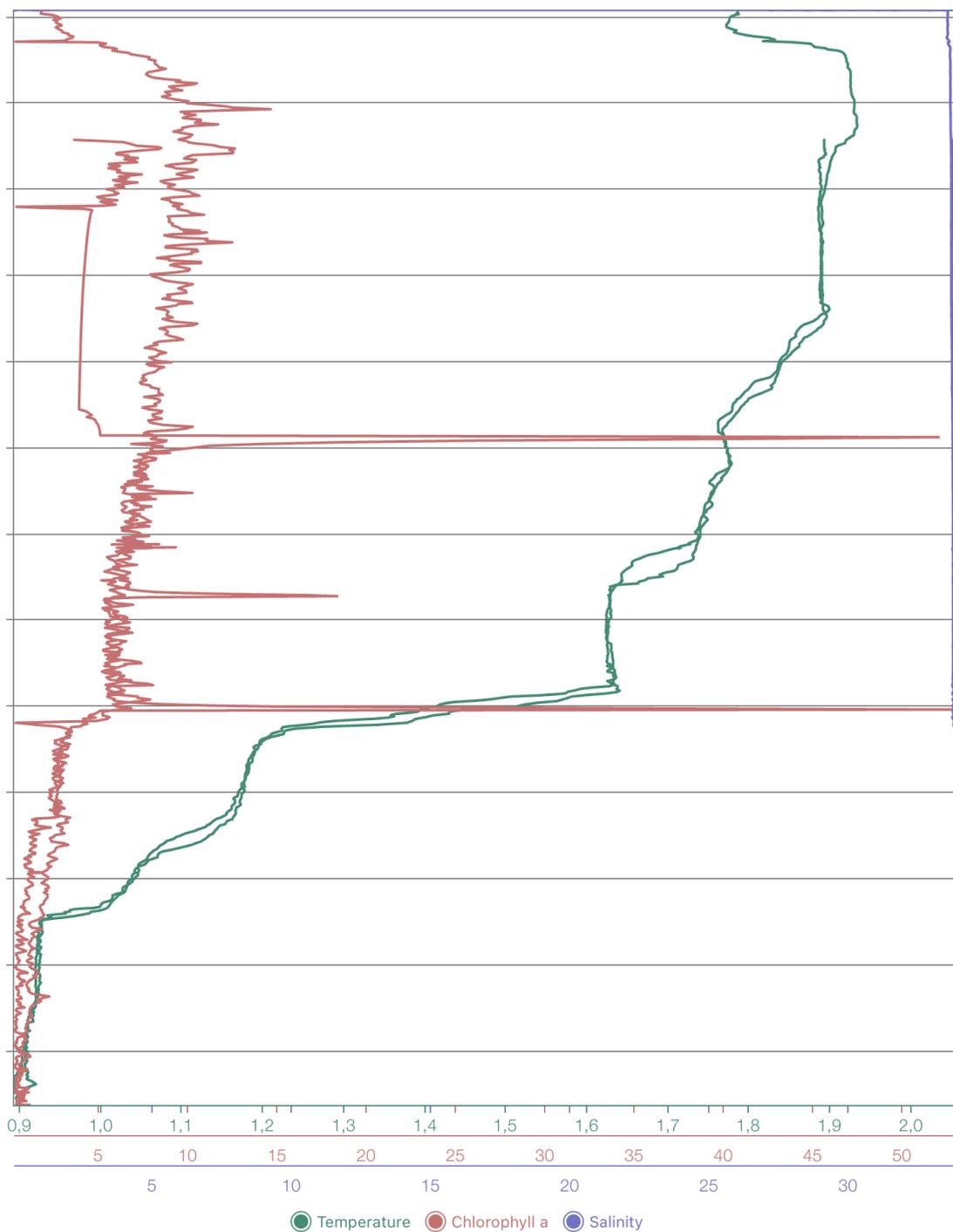
Our CTD casts provided insight into how salinity, temperature, and chlorophyll vary with depth. On this occasion, we deployed the CTD to around 65 m.

As depth increases, salinity (blue line) rises slightly, as saltier, denser water sinks.

Temperature (green line) shows a warmer surface layer (1.7–2 °C), decreasing to 0.9 °C at 52 m.

Chlorophyll—the photosynthetic pigments in phytoplankton (red line)—gives information on phytoplankton abundance. Typically, higher chlorophyll concentrations are found in the upper 30 m, where sunlight penetrates. At Damoy, we observed a broad peak between 5–35 m of approximately 10  $\mu\text{g/L}$ , indicating a very high phytoplankton concentration.

Overall, this CTD cast reflects a typical late Antarctic summer profile. Glacial melt forms a stable freshwater layer at the surface, while nutrient-rich waters below support phytoplankton growth. The highest concentrations are not always at the surface; instead, they often form a subsurface layer around 20 m, where light and nutrients are optimally balanced.



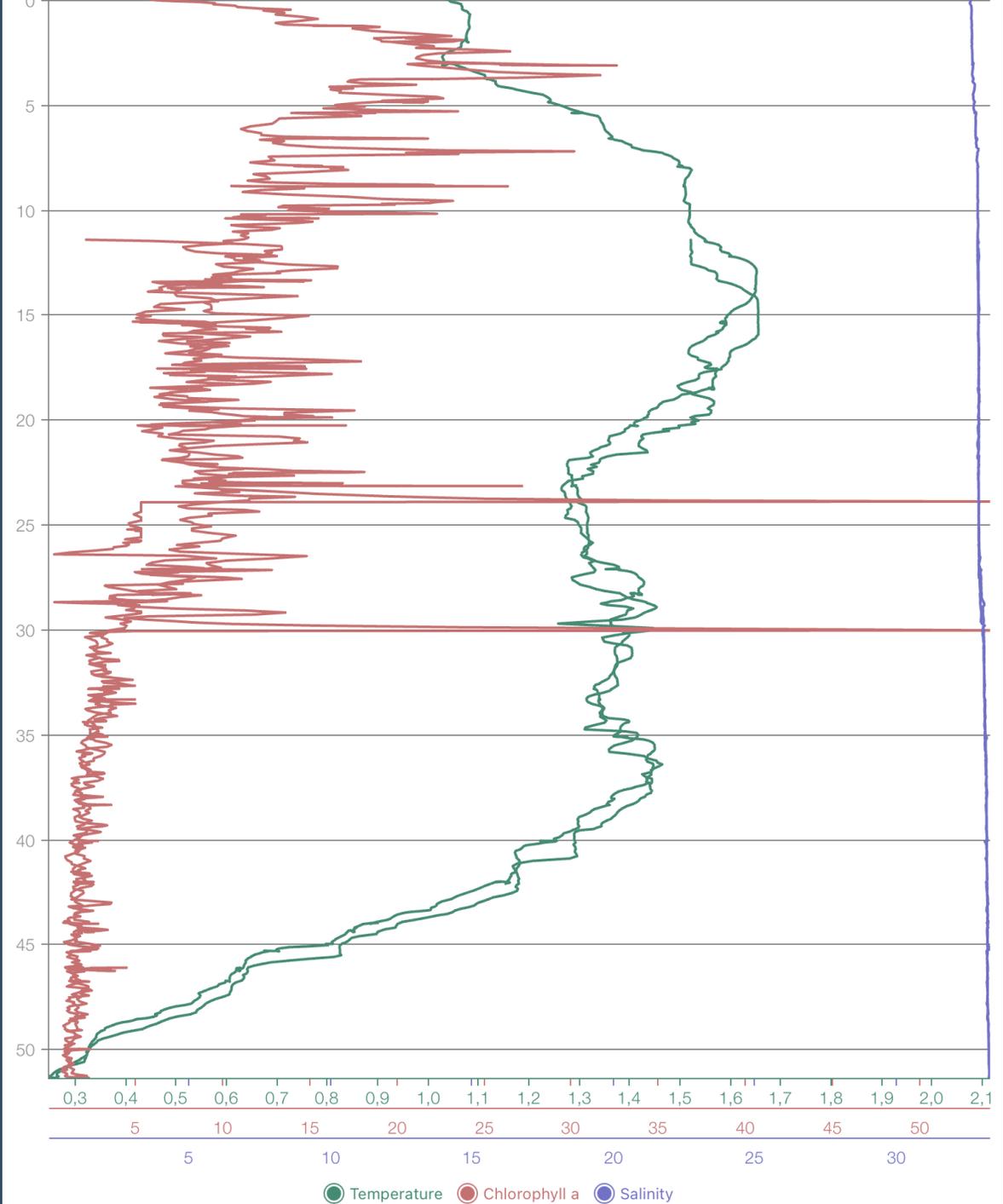
# Science Boat: Red Rock Ridge CTD data

This CTD cast shows the following:

**Temperature (green):** increases from approximately  $0.9^{\circ}\text{C}$  at the surface to  $1.6^{\circ}\text{C}$  at 15 m, then decreases to  $0.3^{\circ}\text{C}$  at 50 m.

**Salinity (blue):** rises from around 32.75 PSU at the surface to 34.2 PSU at 50 m, indicating fresher water near the surface and saltier, denser water at depth.

**Chlorophyll (red):** Unlike at Damoy, chlorophyll—and therefore phytoplankton—is highest at the surface (0–10 m), with a peak of  $25\ \mu\text{g/L}$ , suggesting a late-summer phytoplankton bloom. Below 25 m, concentrations drop off, indicating strong light availability and recent mixing that brings nutrients to the surface.

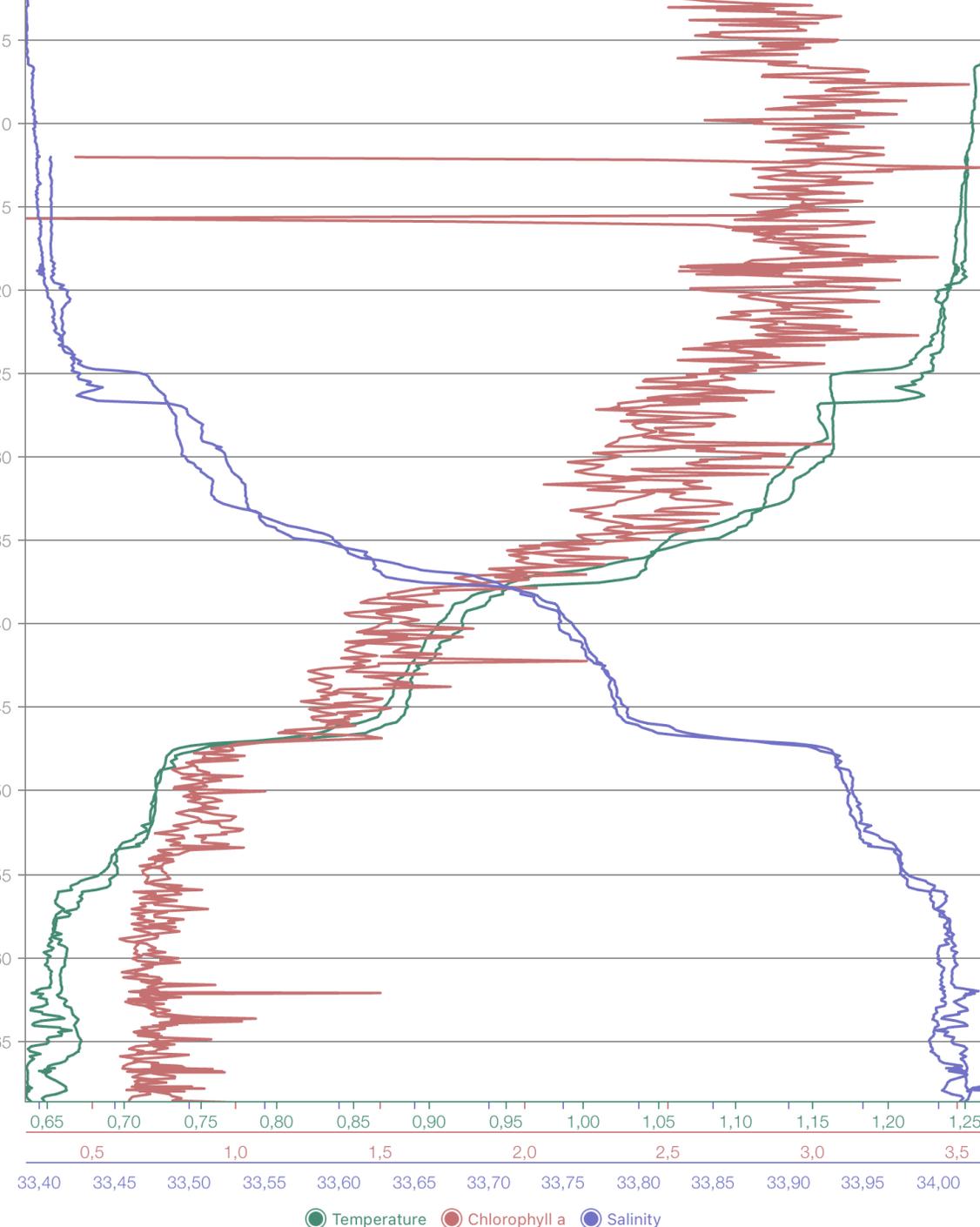


# Science Boat: Petermann Island CTD data

Here our CTD cast shows:

- **Temperature (green)** a fairly constant 'warm' temperature from 0 -25m of around 1.25 °c which then decreases to 0.65 °c at 55m
- **Salinity (blue)** increases from 33.4 PSU to 34 PSU.
- **Chlorophyll (red)** is shows a peak of around 3ug/l from 0-35m and then decreases with depth.

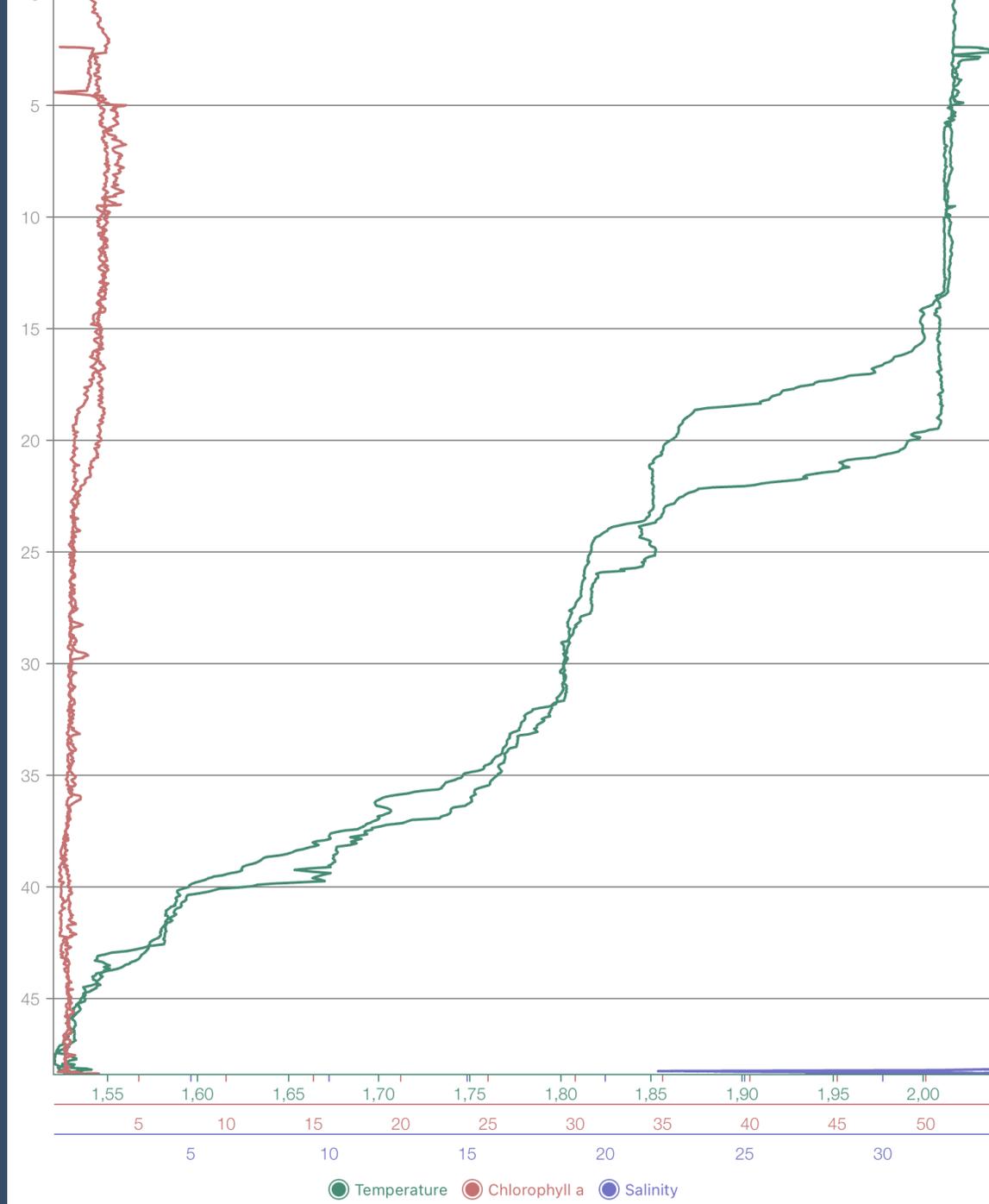
This profile shows that near the surface we see fresher water produced by melting glaciers around Petermann Island. This creates a stable layer that traps phytoplankton near the sunlight to around 35m depth.



# Science Boat: Whalers Bay CTD data

Here our CTD cast shows:

- **Temperature (green)** a warm surface temperature of 2.05°C which steadily decreases to 1.5 °C at 50m.
- **Salinity (blue)** remains constant at 34.1 PSU. The distinct salinity profiles show that as Whalers Bay sits near Neptune's Bellows, there is more dynamic mixing near the caldera opening to the Bransfield Strait and therefore greater exchange with external waters.
- **Chlorophyll (red)** Chlorophyll is not particularly high (around 1.5-2 ug/l) suggesting some nutrient exchange and phytoplankton, but not as much as glacial meltwater driven blooms in the western Antarctic peninsula.





# Plankton samples

Plankton are ocean drifters, carried by currents and tides, lacking the ability to navigate against these natural forces. Both animal plankton (zooplankton) and plant-like algae (phytoplankton) play a vital role in supporting the marine food web and the overall health of our oceans.

The image on the left shows a plankton sample from **Whalers Bay, Deception Island**, including a copepod (zooplankton) and various phytoplankton species such as *Coscinodiscus* and *Thalassiosira*.

# Phytoplankton



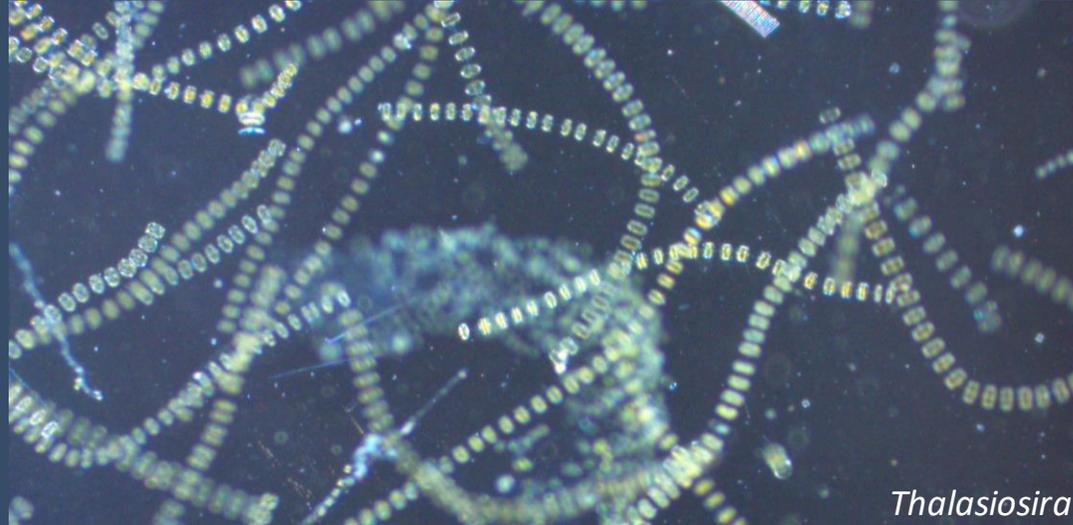
*Odontella and Fragilaria*



*Thalassiosira, Coscinodiscus, Fragilaria*



*Corethron pennatum*

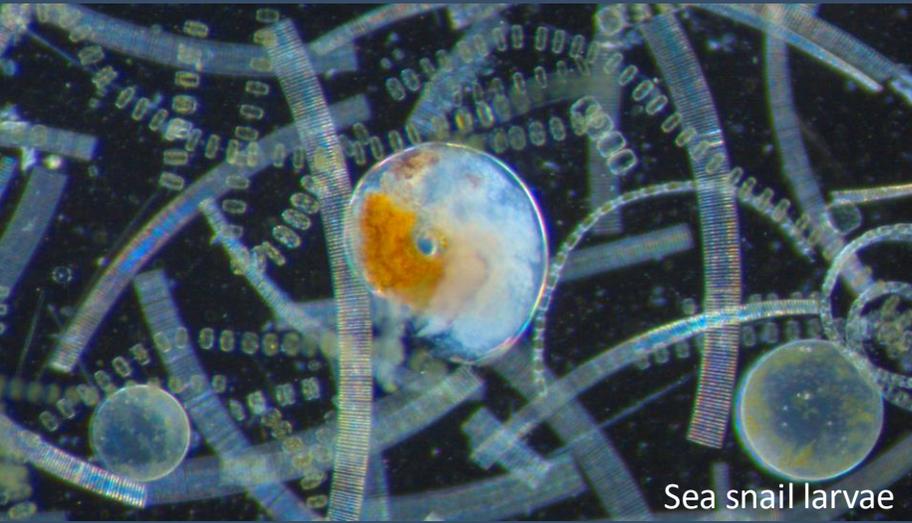


*Thalassiosira*

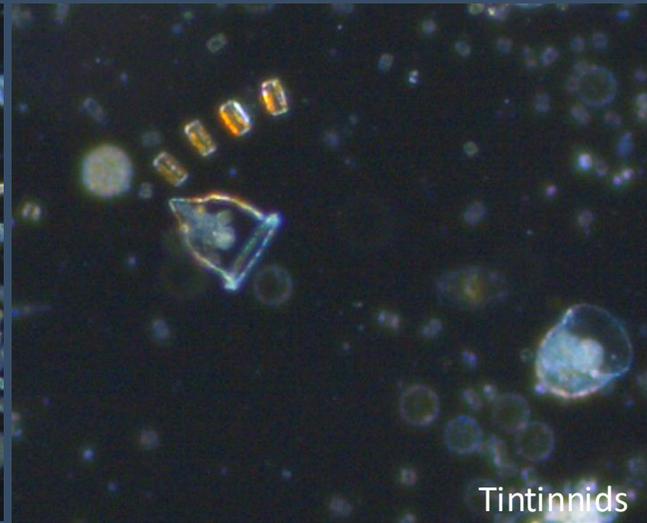
Phytoplankton form the foundation of the Antarctic marine food web. Like plants on land, they contain photosynthetic pigments—chlorophyll and fucoxanthin—that convert sunlight into energy and oxygen, while also sequestering carbon dioxide. We collected phytoplankton samples at **Damoy Point, Stonington, Red Rock Ridge, The Gullet, Petermann, Orne Island**, and both **Telefon** and **Whalers Bay** in Deception Island. The most prominent species we found was *Corethron pennatum*, a favourite food of krill and arguably one of the most important (and beautiful!) Antarctic species—not that we're biased... We recorded data on the abundance and types of phytoplankton present for our partner project, **FjordPhyto**.

# Zooplankton

We also recorded a variety of zooplankton species, including copepods at **Deception Island** and **Red Rock Ridge**, krill in **Charlotte Bay**, tintinnids at Deception Island, sea snail larvae at Red Rock Ridge, and rare bryozoans in **George VI Sound**—the identities of which are still being debated by experts. The photos captured through our microscopes have also been added to our **iNaturalist** project, helping to monitor plankton biodiversity.



Sea snail larvae



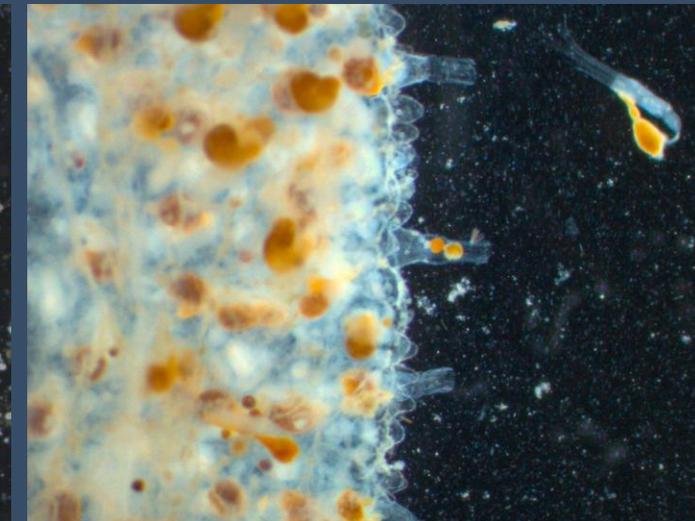
Tintinnids



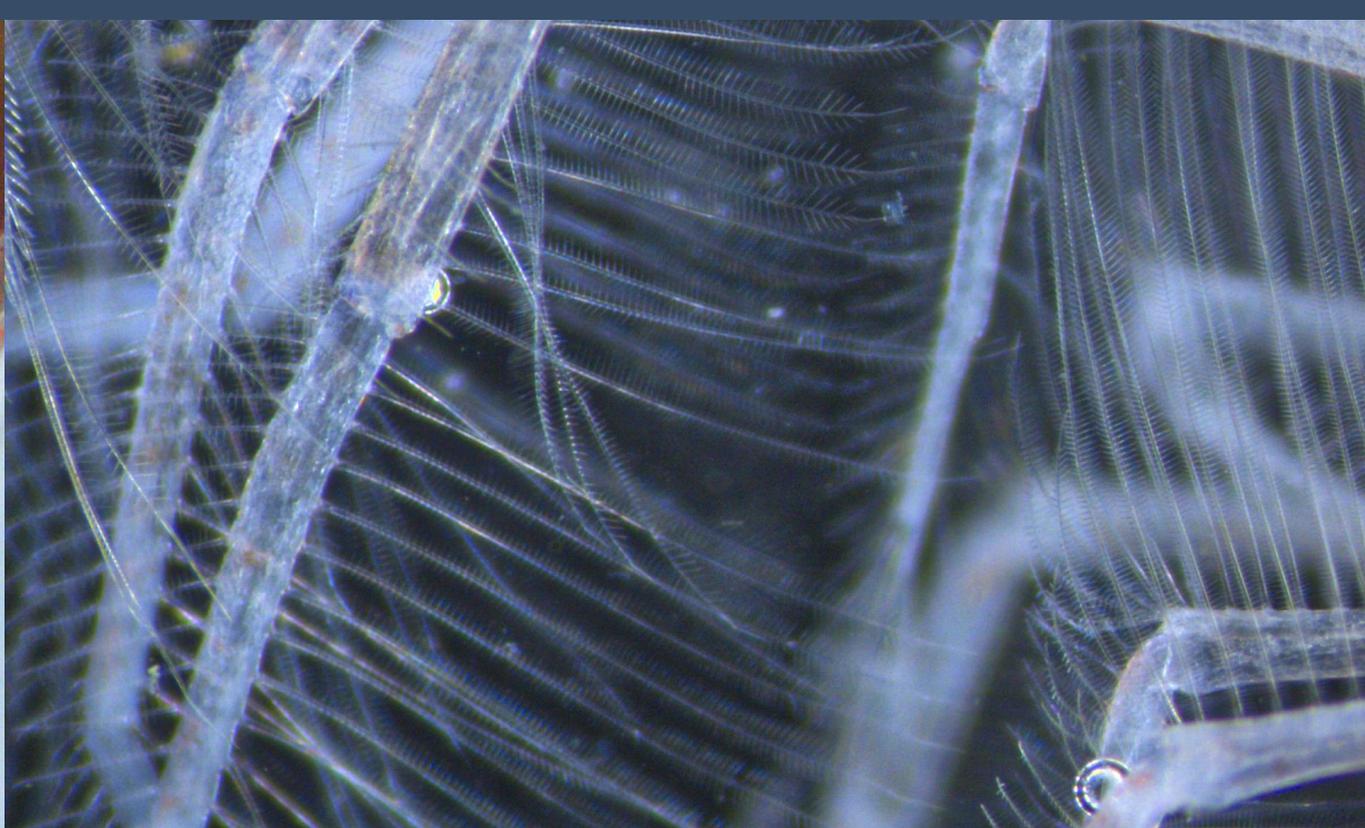
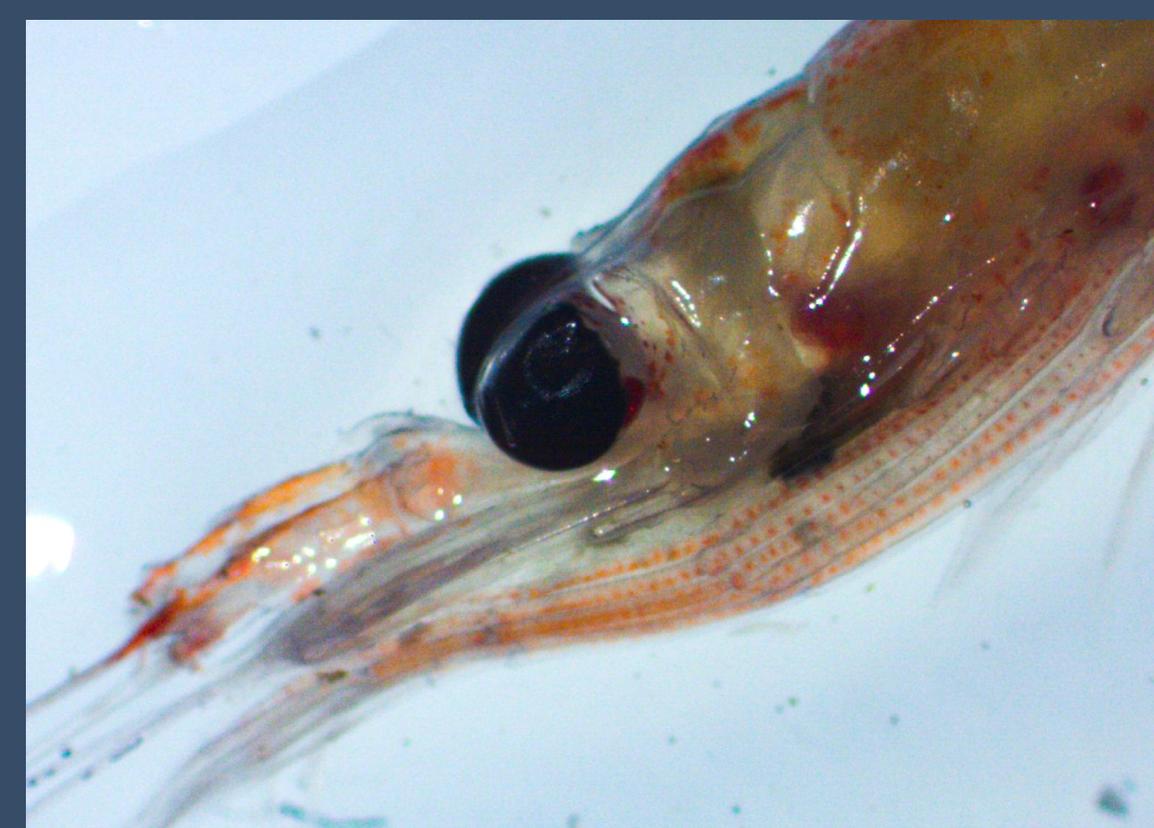
Krill (*Euphasia superba*)



Copepod



Bryozoan (unknown)



# Zooplankton: Krill (*Euphasia superba*)

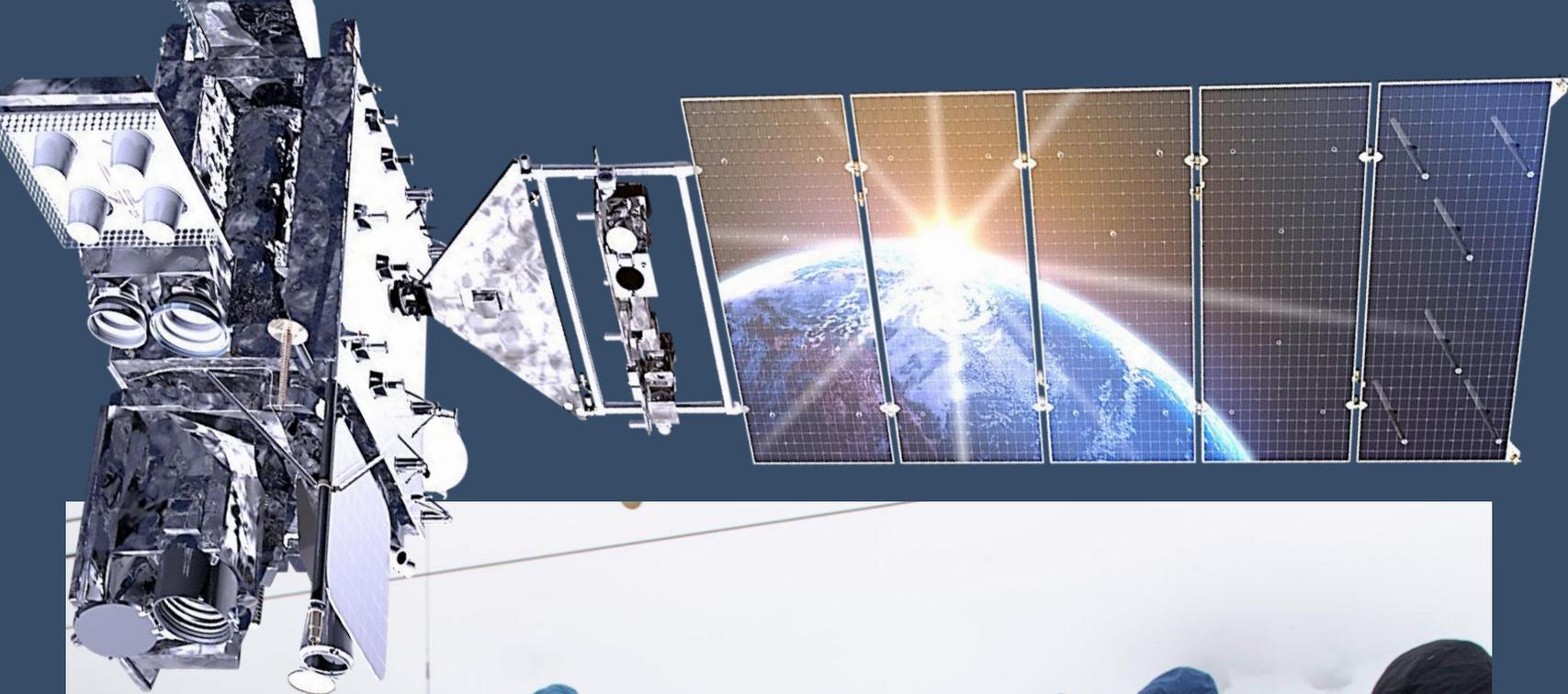
Antarctic krill is a small, free-swimming crustacean found throughout the Southern Ocean and serves as a vital food source for penguins, whales (including humpback and minke), seals, and seabirds. Current estimates place krill biomass at nearly 500 million tonnes, with around 70% concentrated near the Antarctic Peninsula. In 2025, approximately 620,000 tonnes of krill were harvested for human use—mainly by Norway, China, South Korea, and Chile—for salmon farming and omega-3 supplements.

The red pigment we observed in krill from **Charlotte Bay** and **Deception Island** is caused by astaxanthin, a type of carotenoid that also gives salmon and flamingos their pink or red colouring. This pigment helps protect cells from oxidative stress in the cold Antarctic waters and provides photoprotection against UV radiation.



**'Blood Red' Moon**

**2 March 2026, Prospect Point**



# Citizen Science NASA Cloud Observer

Clouds aren't just shapes in the sky; they are key components of Earth's heat budget and energy balance. Knowing when, where, and what types of clouds form helps scientists better understand Earth's climate and climate change. Through NASA's **GLOBE Cloud Observer** program, we contribute to this important research. Our Citizen Scientists submitted four observations to NASA's global database. These observations may be compared with data from orbiting weather satellites and will help improve our understanding of global weather phenomena.



Altitude of Cloud Base		THE GLOBE PROGRAM	
3000	Stratocumulus	Altostratus	Altostratus
2000	Altostratus	Altostratus	Altostratus
1000	Altostratus	Altostratus	Altostratus
500	Altostratus	Altostratus	Altostratus
0	Altostratus	Altostratus	Altostratus

Observation	GLOBE	NOAA-20 Satellite
<b>Universal Date/Time</b>	2026-02-22 19:11:00	2026-02-22 19:15
<b>Latitude</b>	-61.5	-61.93 to -61.13
<b>Longitude</b>	-64.12	-64.48 to -63.68
<b>Total Cloud Cover</b>	Few (<10%)	Few 6.56%
<b>High Clouds</b>	Cirrus Cover: Few (<10%) Opacity: Transparent	Cover: Few (0.21%) Altitude: 6.2 (km) Phase: Ice/Water Mix 232.56 (K) Opacity: Transparent
<b>Mid Clouds</b>		Cover: Few (2.34%) Altitude: 4.05 (km) Phase: Ice/Water Mix 248.15 (K) Opacity: Transparent
<b>Low Clouds</b>		Cover: Few (4.01%) Altitude: 1.14 (km) Phase: Ice/Water Mix 268.9 (K) Opacity: Transparent
<b>GLOBE Cloud Photos and Corresponding NASA Satellite Images.</b>	<b>GLOBE Photos</b> North East South West Up Down 	<b>VIIRS NOAA-20</b> <a href="#">Worldview</a> <a href="#">Worldview Tutorial</a>
<b>Click image to view ---&gt;</b>		
<b>Note: Photos submitted through GLOBE need approval before being displayed, this may take a few days.</b>		
<b>Sky Conditions, Surface Conditions and Observer Comments</b>	<b>Sky Conditions</b> Sky Visibility : Somewhat Hazy Sky Color : Light Blue  <b>Surface Conditions</b> Snow/Ice : No Standing Water : Yes Muddy : No Dry Ground : No Leaves on Trees : No Raining or Snowing : No	Are there any comments you want to add the name of the satellite?  <a href="#">Submit Comment</a>

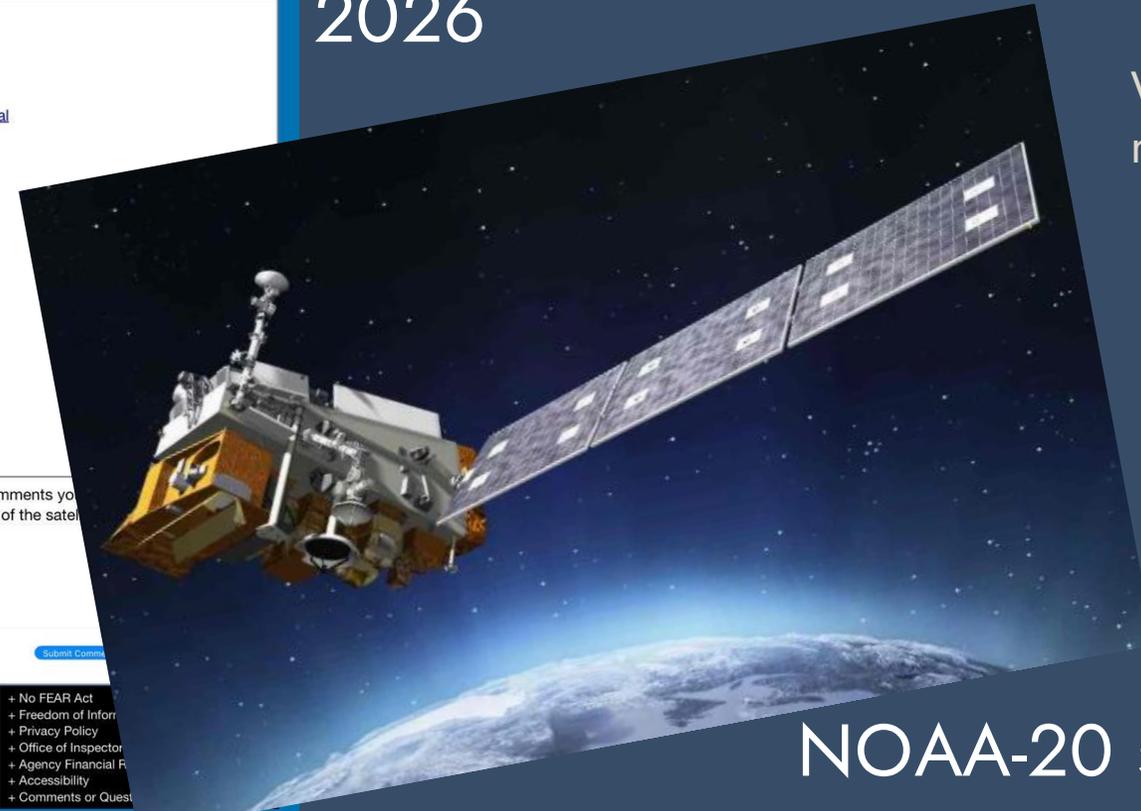
22<sup>nd</sup> February  
2026

# NASA Cloud Observer

The image on the left shows a comparison between our ground-based observations looking up into the atmosphere and satellite data from **NOAA-20**.

An online tutorial is available to help you interpret and better understand these observations.

We hope you will continue making observations at home.



NOAA-20 satellite



Stonington Island



## Geological Highlight: Precious Mess: Information from Glacial Deposits

Glaciers are untidy: they relentlessly carry everything in their path from one place to another—unchanged, unorganised, unpolished. No matter how colourful and diverse the result may appear, the deposit will always include pointy, sharp-edged rocks of all sizes.



Aplitic intrusion



"Troll Bread"



Gneiss from Red Rock

Then comes the meltwater. Enormous, fast-flowing streams do what the ice cannot—they sort the material by size and grind rock against rock, sometimes leaving behind a layer of beautifully shaped, uniformly sized pebbles.

Of course, between these two extremes are all kinds of intermediate stages. A wonderful example can be found at **Stonington Island**. It's a place that will test your neck muscles—you'll spend much of your time looking down at a fascinating kaleidoscope of volcanic, subvolcanic, metamorphic, and weathered rocks of multiple origins. Analysing these rocks can provide valuable information about the provenance of the glacier itself.



Typical glacier deposit with subsequent water activity



# Geological Highlight: Deception Island

In the middle of the south-western part of the Bransfield Strait, we had the chance to see what is probably the most unusual volcano in the world: **Deception Island**.

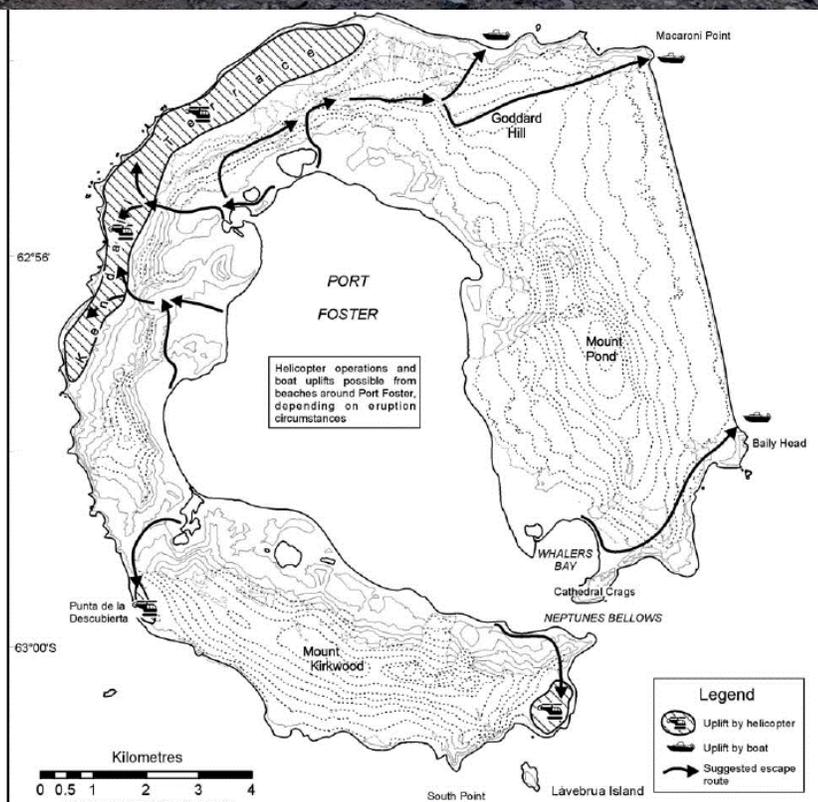
a) It is an active volcano, constantly reminding us of its power.

b) It is navigable. When the 3,000 m-high volcanic structure collapsed around 10,000 years ago, it left behind a large rocky ring—a caldera. The ocean entered through the infamous *Neptune's Bellow*, forming **Port Foster**, a 9.5 × 7 km wide lake that allows ships to sail in and out.

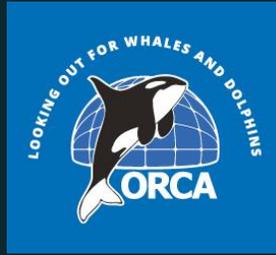
c) It is one of only two active volcanoes in Antarctica—the last place on Earth you would expect to find one. A simple rule of thumb: anything that looks like a crater on Deception Island is indeed a crater.

At **Telefon Bay**, we even had the chance to hike along the crater's rim.

The geology of the island is so dynamic that there's even an evacuation plan—just in case... When might it be needed? That's the million-dollar question! We may even live to see it.



# Citizen Science ORCA



During your journey to Antarctica and back, you were joined by ORCA ocean conservationist Maria, who collected data during wildlife watches of whales, dolphins, and porpoises. This information was sent to ORCA and shared with numerous organisations involved in cetacean conservation. It will also be available on ORCA's interactive website map, allowing anyone to see what species can be found in different locations.



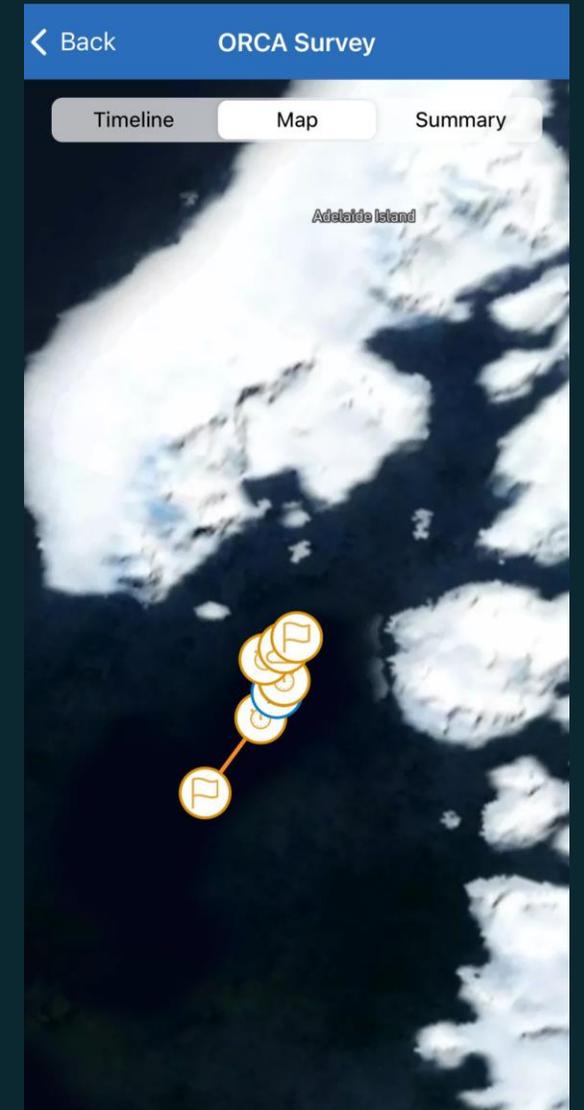
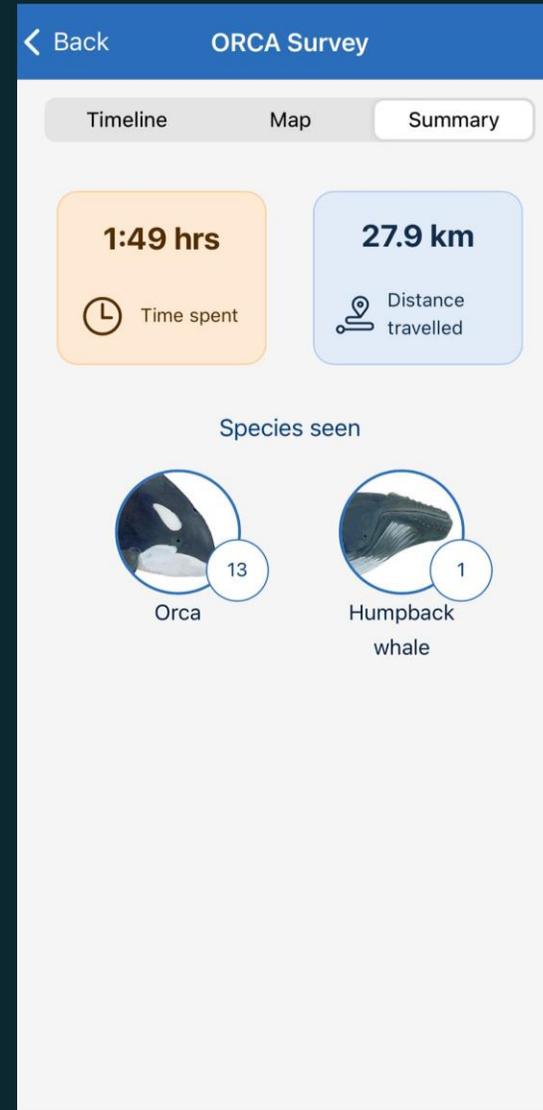
© Maria Snell

# ORCA: OceanWatchers Survey

On this journey, a total of 23 hours and 24 minutes of data was collected, covering over 392 km.

A huge thank you to everyone who joined the naturalists for wildlife watches in both sun and snow. Sightings were not guaranteed, but it was wonderful getting to know you all out on deck!

During the surveys, two species were recorded, with a total of 77 cetaceans observed.



## What Species Did We See?

Species Name	Number of Individuals Seen
Humpback whale	62
Orca	13
Unidentified whale	2

A close-up photograph of two King penguins standing on a snowy surface. The penguins are facing each other, with their heads tilted downwards. They have black heads and necks with a prominent yellow patch on the throat. Their bodies are primarily white with black wings and tails. The background is a soft, out-of-focus white snow.

eBird



My Trip Reports

Previous

# AMANT2514 - Antarctic Circle - 20 Feb - 07 Mar

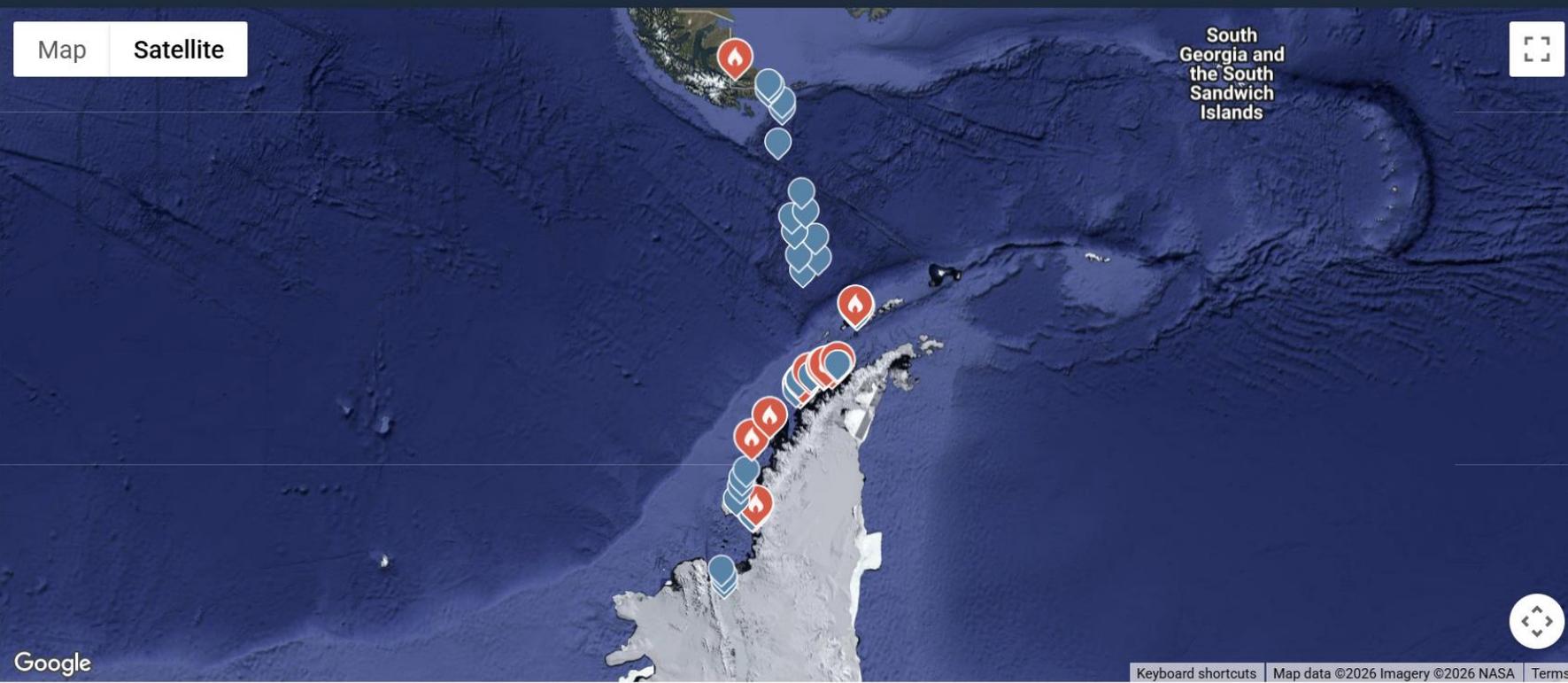
20 Feb - 7 Mar 2026 (16 days) [Link-only](#)

Antarctica | Argentina | Chile | High Seas [Subregions](#)

M/S Roald Amundsen Science Center, Bernardo Alps, Rob Lidstone-Scott

[Share](#) [Edit](#)

Map **Satellite**



South Georgia and the South Sandwich Islands

DATA FOR: **Group (all people)**

**34**  
Species Observed  
+6 other taxa

**54**  
Checklists

# 44,150 birds

**Narrative**  
Owners and editors of a Trip Report may write a narrative.

**Comments**

# Species Observed

Species Observed			ADDITIONAL TAXA		
8	<b>Snowy Sheathbill</b> <i>Chionis albus</i>	41	<b>Black-browed Albatross</b> <i>Thalassarche melanophris</i>	89	skua sp. <i>Stercorarius sp. (skua sp.)</i>
2	<b>Chilean Skua</b> <i>Stercorarius chilensis</i>	249	<b>Wilson's Storm-Petrel</b> <i>Oceanites oceanicus</i>	4000	penguin sp. <i>Spheniscidae sp.</i>
1	<b>Brown Skua</b> <i>Stercorarius antarcticus</i>	41	<b>Black-bellied Storm-Petrel</b> <i>Fregetta tropica</i>	8	storm-petrel sp. <i>Oceanitidae/Hydrobatidae sp.</i>
24	<b>South Polar Skua</b> <i>Stercorarius maccormicki</i>	33	<b>Southern Giant-Petrel</b> <i>Macronectes giganteus</i>	42	Southern/Northern Giant-Petrel <i>Macronectes giganteus/halli</i>
4	<b>Brown-hooded Gull</b> <i>Chroicocephalus maculipennis</i>	13	<b>Northern Giant-Petrel</b> <i>Macronectes halli</i>	16	prion sp. <i>Pachyptila sp.</i>
3	<b>Dolphin Gull</b> <i>Leucophaeus scoresbii</i>	323	<b>Southern Fulmar</b> <i>Fulmarus glacialoides</i>	1	diving-petrel sp. <i>Pelecanoides sp.</i>
361	<b>Kelp Gull</b> <i>Larus dominicanus</i>	1	<b>Pintado Petrel</b> <i>Daption capense</i>		
195	<b>Antarctic Tern</b> <i>Sterna vittata</i>	19	<b>Snow Petrel</b> <i>Pagodroma nivea</i>		
14	<b>Emperor Penguin</b> <i>Aptenodytes forsteri</i>	6	<b>Kerguelen Petrel</b> <i>Aphrodroma brevirostris</i>		
115	<b>Adelie Penguin</b> <i>Pygoscelis adeliae</i>	28	<b>Soft-plumaged Petrel</b> <i>Pterodroma mollis</i>		
8518	<b>Gentoo Penguin</b> <i>Pygoscelis papua</i>	5	<b>Antarctic Prion</b> <i>Pachyptila desolata</i>		
1541	<b>Chinstrap Penguin</b> <i>Pygoscelis antarcticus</i>	8	<b>White-chinned Petrel</b> <i>Procellaria aequinoctialis</i>		
1	<b>Northern Royal Albatross</b> <i>Diomedea sanfordi</i>	8	<b>Great Shearwater</b> <i>Ardenna gravis</i>		
5	<b>Southern Royal Albatross</b> <i>Diomedea epomophora</i>	315	<b>Sooty Shearwater</b> <i>Ardenna grisea</i>		
4	<b>Snowy Albatross</b> <i>Diomedea exulans</i>	7	<b>Common Diving-Petrel</b> <i>Pelecanoides urinatrix</i>		
6	<b>Light-mantled Albatross</b> <i>Phoebastria palpebrata</i>	1	<b>Magellanic Cormorant</b> <i>Leucocarbo magellanicus</i>		
6	<b>Gray-headed Albatross</b> <i>Thalassarche chrysostoma</i>	267	<b>Imperial Cormorant</b> <i>Leucocarbo atriceps</i>		

# Citizen Science iNaturalist

We had the chance to explore many different ecosystems, from the lush Beagle Channel to the windy Drake Passage, and the icy paradise of Antarctica. We observed a huge variety of phytoplankton, marine invertebrates, birds and mammals.

In total, we recorded:

- **148** Species
- **1019** Observations

... and counting; as you upload more photos from home, our dataset grows. Through iNaturalist, these observations can now be used as data in global scientific research.

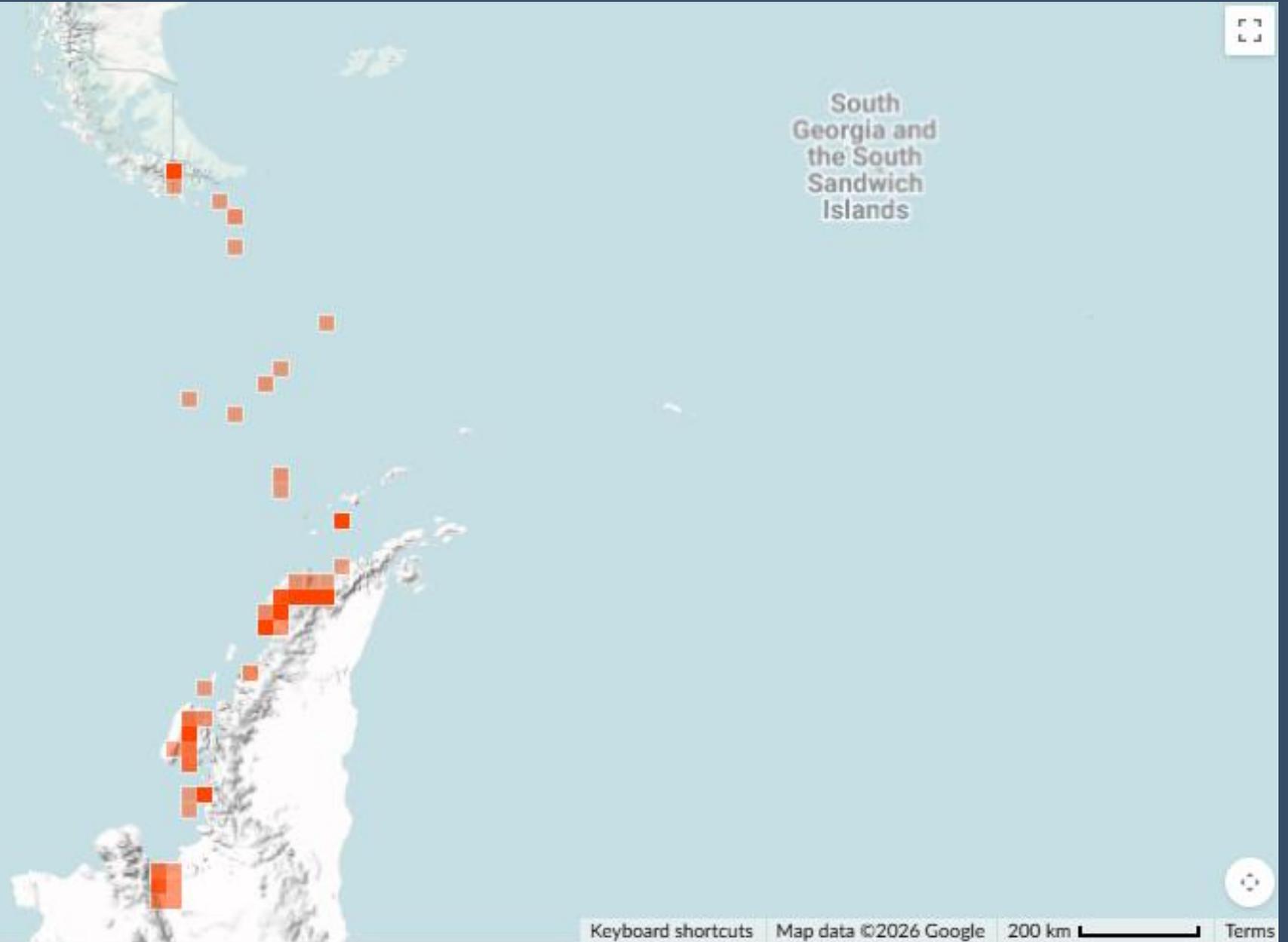
Thank you for joining the project and contributing to this incredible Citizen Science platform.

View our data submitted on our iNaturalist project here:

[2026 Jan 18 - Feb 03: MS Roald Amundsen: Antarctic Circle Expedition](#)



# Where Have We Observed?



# What Have We Observed?



**Gentoo Penguin**  
*Pygoscelis papua*



**Humpback Whale**  
*Megaptera novaeangliae*



**Antarctic Fur Seal**  
*Arctocephalus gazella*



**Weddell Seal**  
*Leptonychotes weddellii*



**Crabeater Seal**  
*Lobodon carcinophaga*



**Southern Giant Petrel**  
*Macronectes giganteus*



**Kelp Gull**  
*Larus dominicanus*



**Leopard Seal**  
*Hydrurga leptonyx*



**South Polar Skua**  
*Stercorarius maccormicki*



**Chinstrap Penguin**  
*Pygoscelis antarcticus*



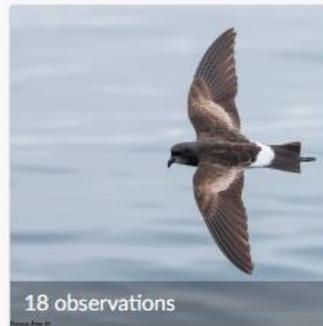
20 observations



20 observations



19 observations

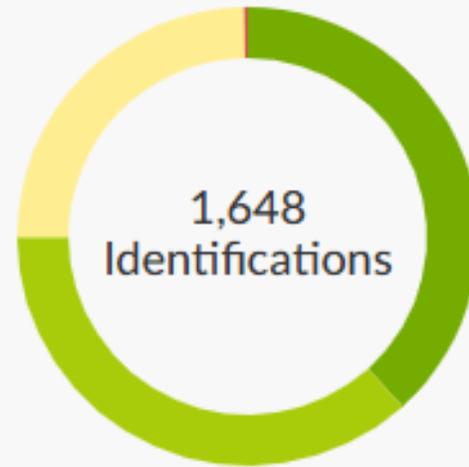
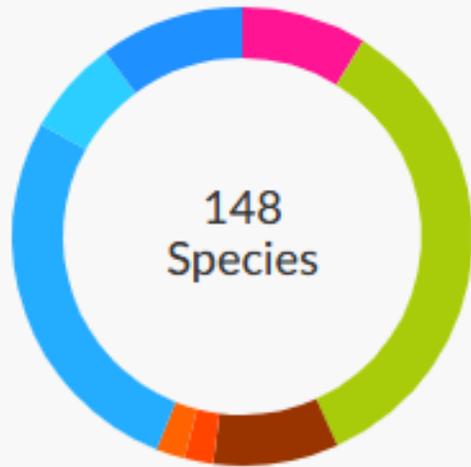


18 observations



18 observations

# What Have We Observed?



## Species

- 40 Birds
- 10 Mammals (Seals, Whales)
- 13 Fungi
- 51 Plants

- 57.7% are already research grade

# Who Has Observed?

Most Observations		Most Species	
 1st clairedut	203	 1st clairedut	59
 marionfr	198	 marionfr	43
 laravdp	99	 wow_look_at_that	32
 holly513	91	 holly513	31
 mike_donald	80	 belconaturalist	30
 vivistu	55	 laravdp	28
<a href="#">View All</a>		<a href="#">View All</a>	

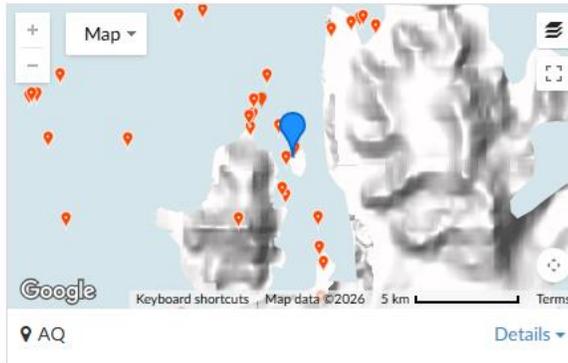
25 members  
159 identifiers



 **vivistu**  
📍 1,379 observations ⏪ ⏩

Observed:  
Mar 2, 2026 · 12:08 PM -03:00

Submitted:  
Mar 4, 2026 · 10:36 AM -03:00



# Special Observation:

## A leucistic Southern Giant Petrel: White Nelly



By Viviane Stuckel



# Citizen Science

# Happywhale



Cetaceans— whales, dolphins, and porpoises— capture our imaginations and our hearts whenever we witness them.

And, doing something as simple as taking a photo of them can help scientists learn more about these animals. That's where Happywhale comes in: by using AI to match images of whales submitted by users, they can track individuals as they migrate across the world and through their lives.

When you submit a photo of a cetacean or seal, you will be notified of any past and future matches of that individual.

Our team and guests uploaded photo observations of **83 encounters so far**. This includes **64 humpback whales, up to 9 orcas, 1 minke whale, 4 Weddell seals, 3 crabeater seals, and 1 leopard seal. 33 humpbacks were matched to past sightings of known individuals!**

Others are still awaiting confirmation of any known or new ID.



Humpback whale HW-MN1304046, seen 23.02.26 in Wilhelmina Bay while we were small boat cruising, is now known as Nina after a successful naming auction raising €2,700 for Happywhale! Photo taken and submitted by

Bernardo Alps (HX Ornithologist)

[View](#) the MS Roald Amundsen's submissions to Happywhale during our voyage



Photos by Martin Barreiro during Wilhelmina Bay small boat cruising



One couple on board even submitted fluke photos of a whale they had ALSO seen six years ago in the same area—amazing! It is not too late to upload your own photos to **Happywhale.com**, whether from this trip or from whale and seal sightings from decades past. Historic submissions help scientists estimate the age of recently sighted animals and track their long-term movements.

Submissions this voyage



HX Expeditions

2026-02-20 - 2026-03-07

Boat MS Roald Amundsen

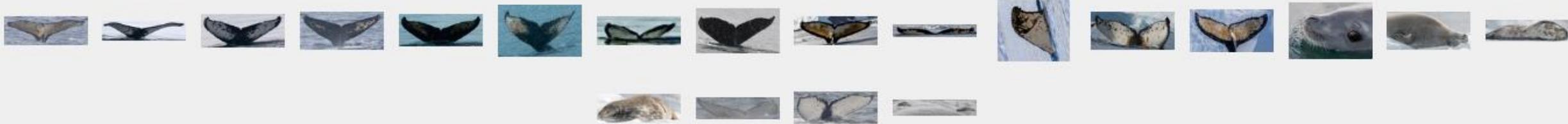
# Trip

You can also 'follow' the whales from our voyage to receive an email if they're ever sighted again by signing up on [happywhale.com](http://happywhale.com) if you haven't already

## Encounters 1-20/83



## Encounters 21-40/83



## Encounters 41-60/83



## Encounters 61-80/83



# Guest Scientists and Lecturers:

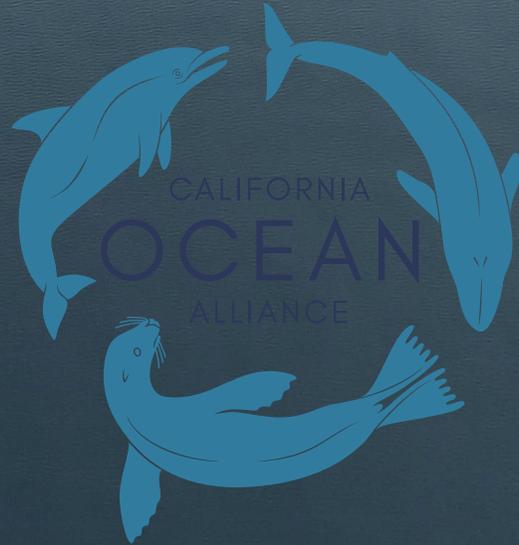
University of Tasmania & IMAS: Sophie &  
Milan

California Ocean Alliance: Natalia & Emily



# California Ocean Alliance

Bio-telemetry and Behavioral Ecology Laboratory



61 unique humpback whales

54 adults + juveniles

7 calves

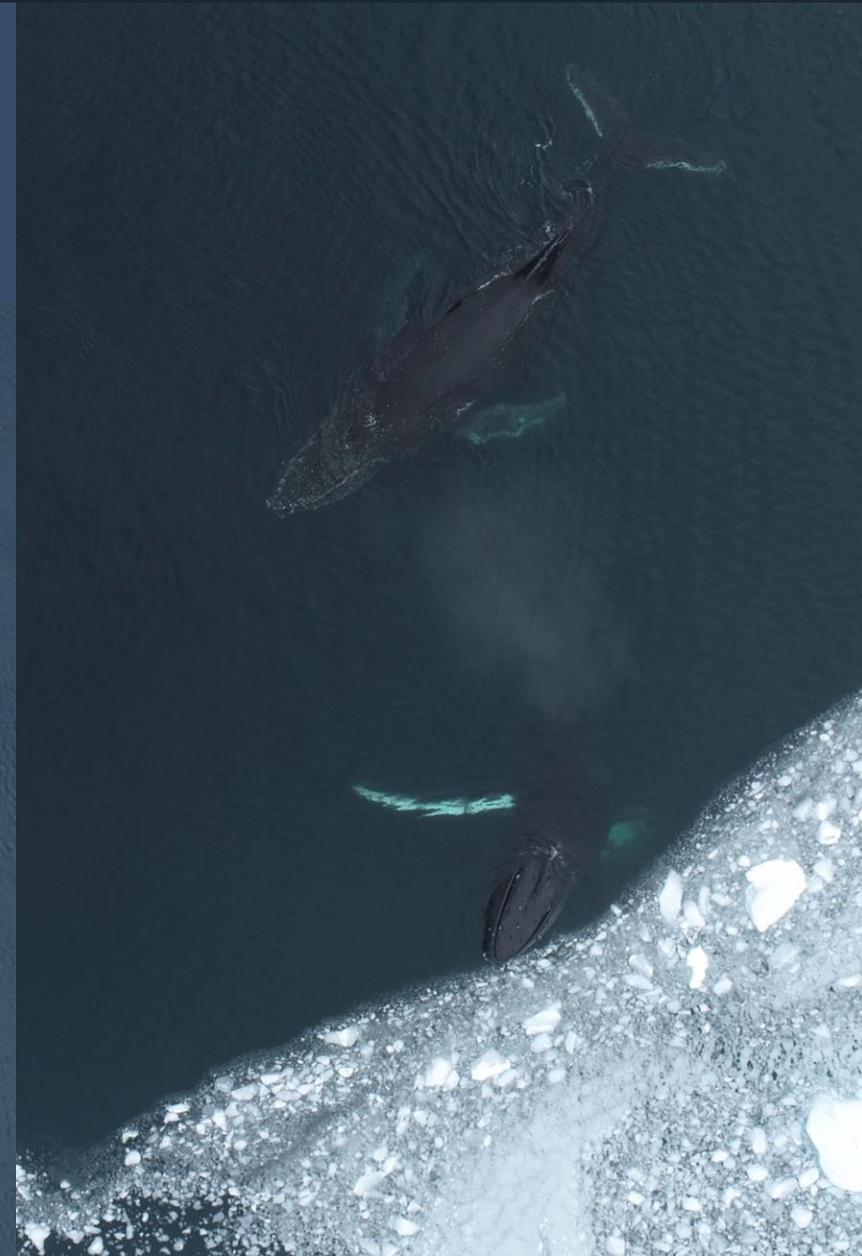
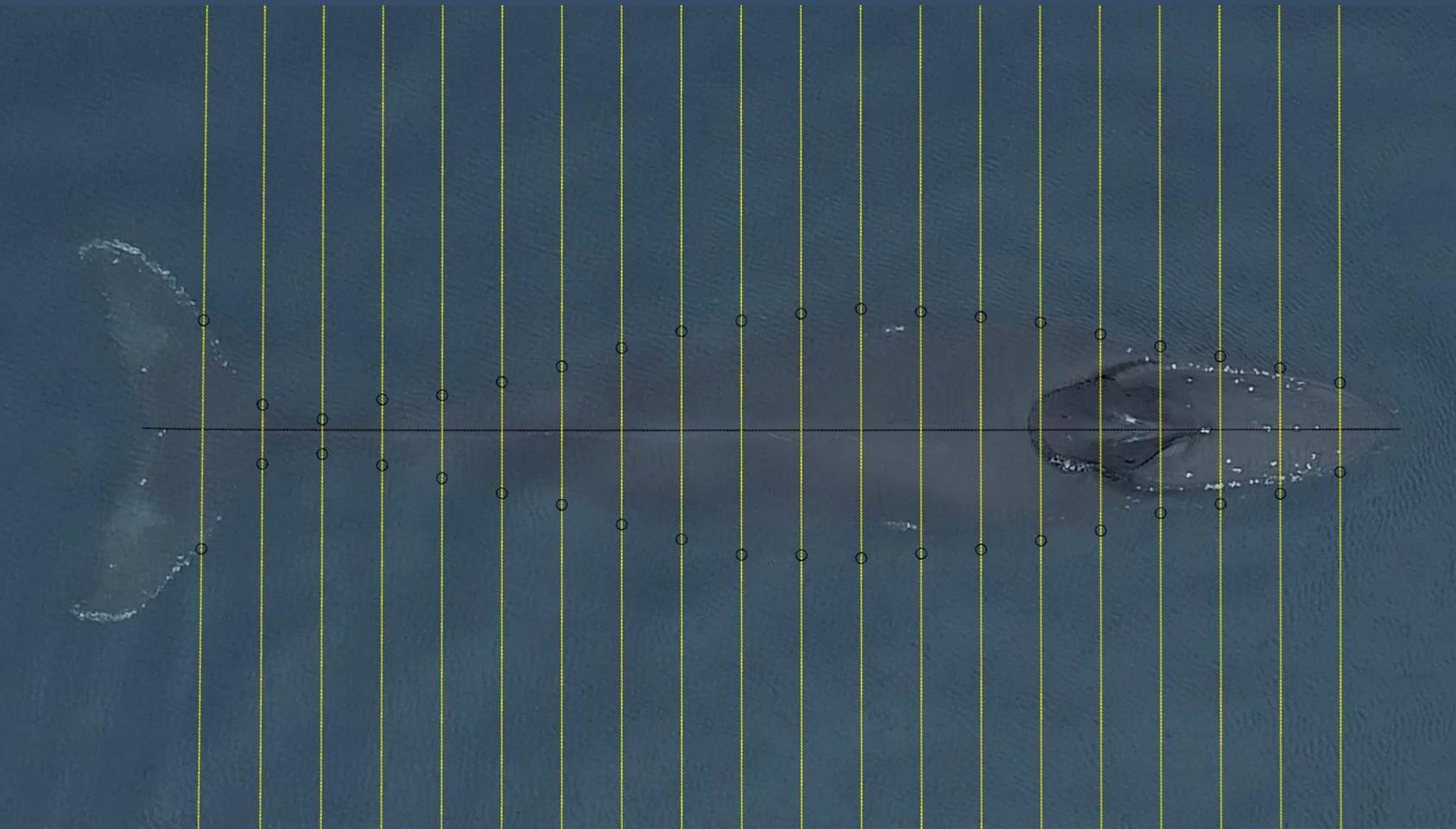
# Remote Biopsy

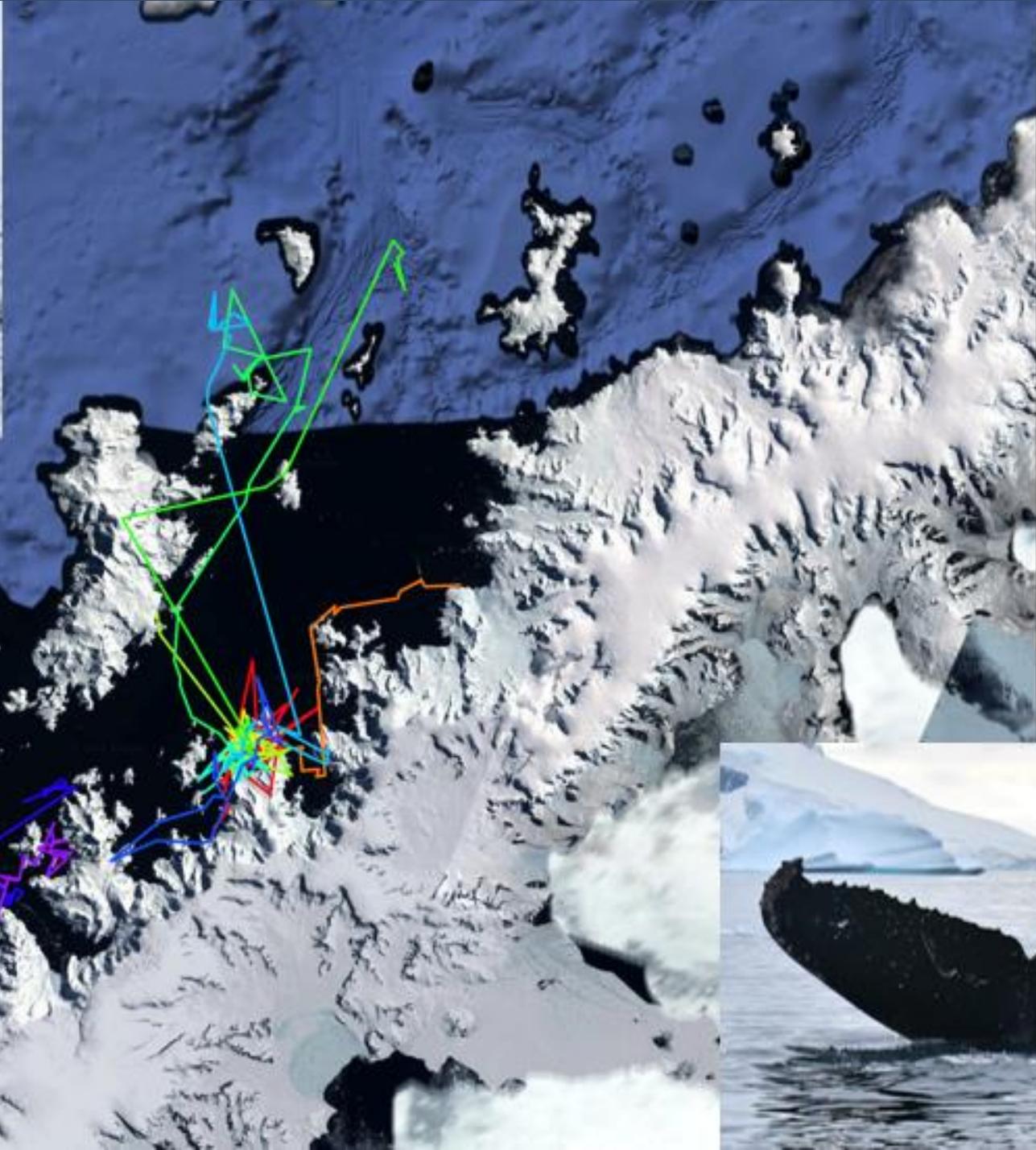
37 skin + blubber samples



# sUAS Operations

## 61 photogrammetry samples





#### DEPLOYMENTS

- PTT Decimal: 47768
- PTT Decimal: 47773
- PTT Decimal: 47791
- PTT Decimal: 35386
- PTT Decimal: 35384
- PTT Decimal: 35387
- PTT Decimal: 35388
- PTT Decimal: 47789
- PTT Decimal: 47790
- PTT Decimal: 35389
- PTT Decimal: 261461
- PTT Decimal: 261459
- PTT Decimal: 261458



# FRIEDLAENDER LAB

Bio-telemetry and Behavioral Ecology



HX

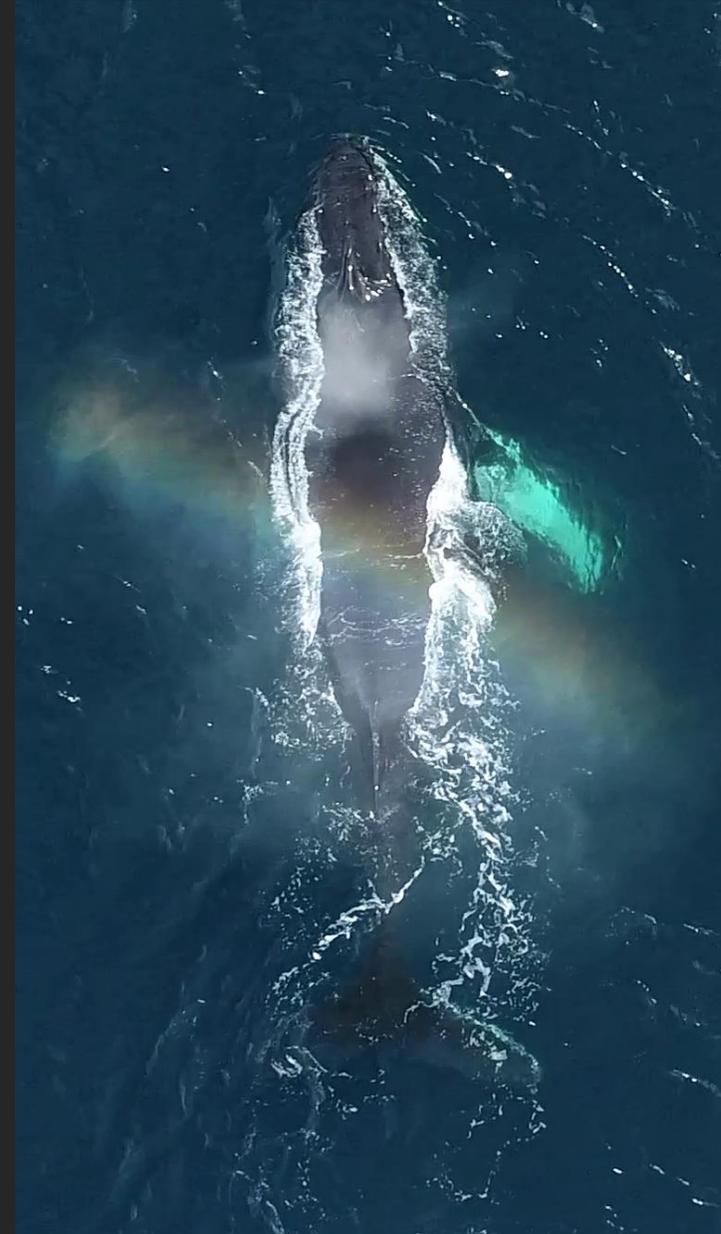
# Follow along with our operations...



@CALIFORNIAOCEANALLIANCE



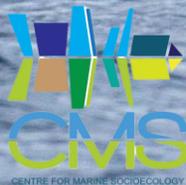
@FRIEDLAENDER\_LAB





# POLAR WHALE WATCH

## Trip summary



**AWR** | ANTARCTIC WILDLIFE  
RESEARCH FUND



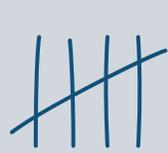
**ANTARCTIC**  
SCIENCE FOUNDATION



**AUSTRALIAN  
ANTARCTIC  
PROGRAM**

Photo credit: Goddard\_Photography

## Observations



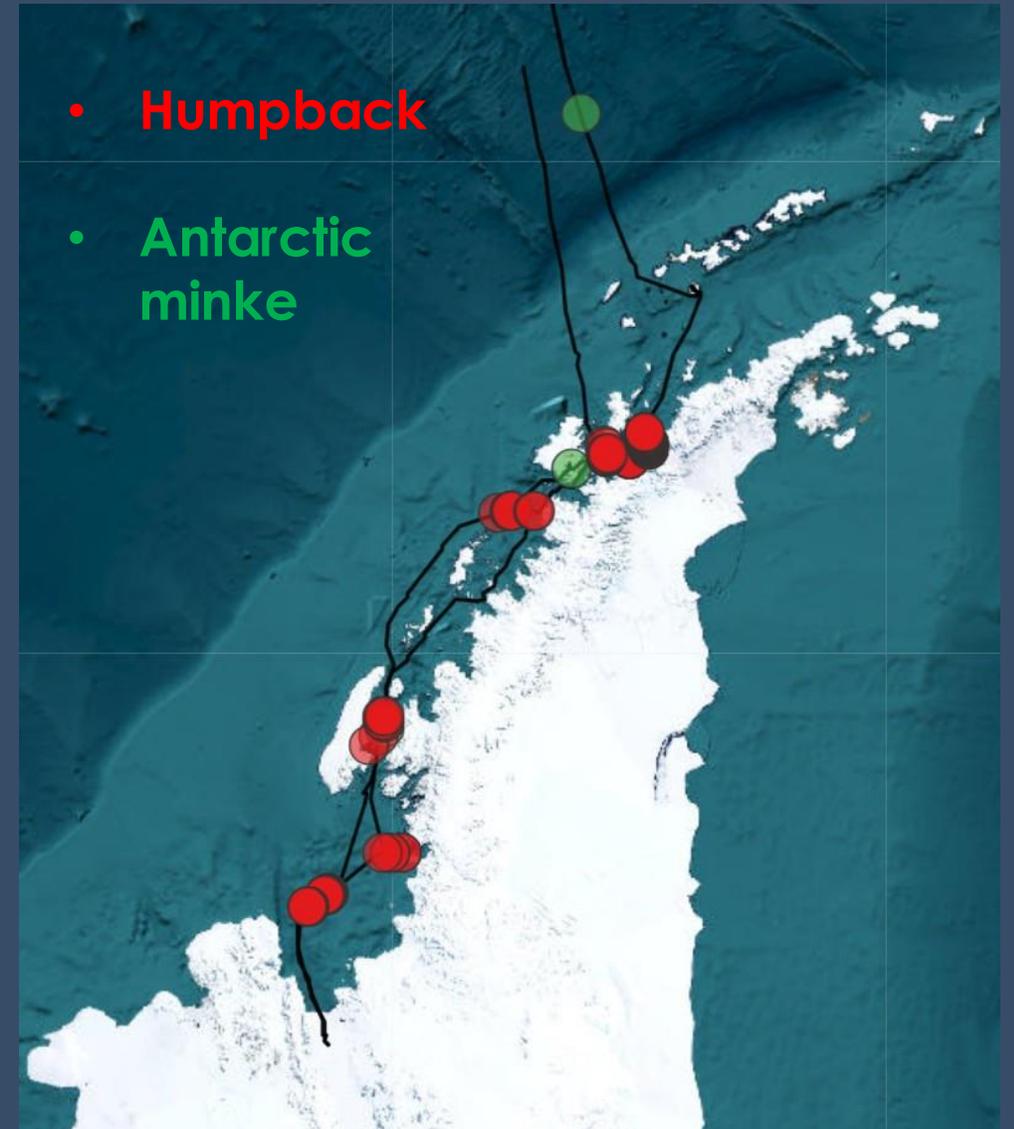
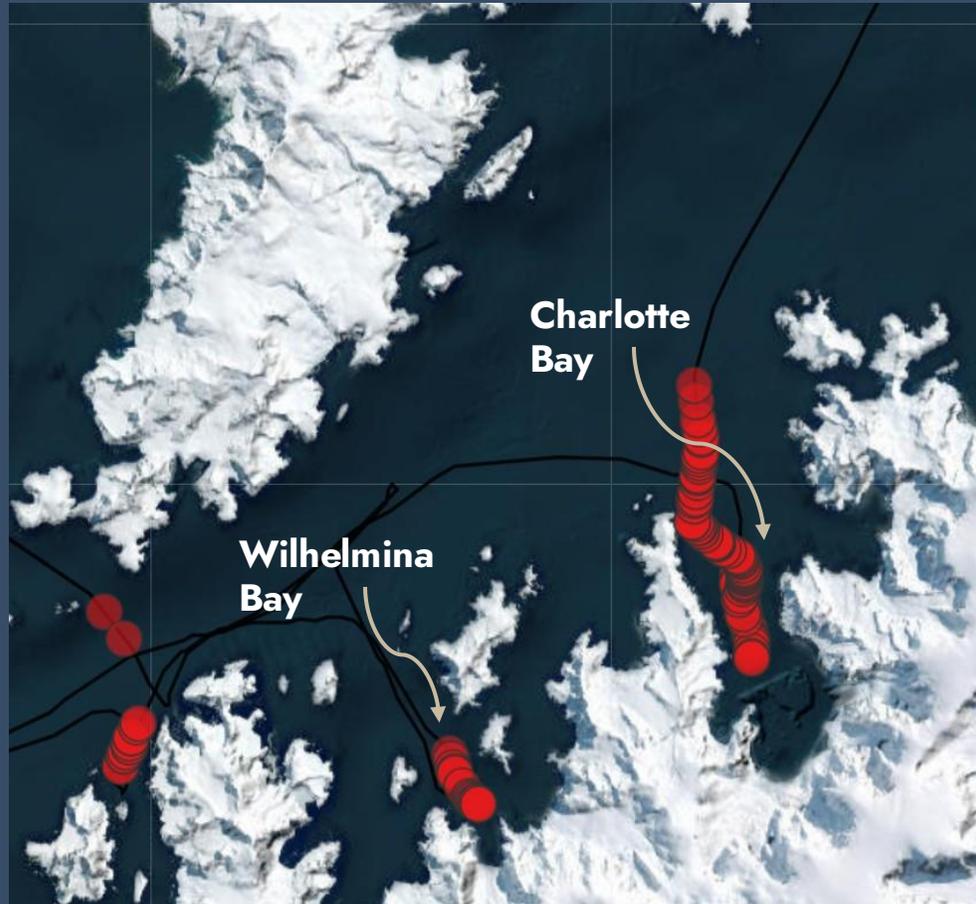
## Key findings: list of species we spotted and how many

Species Name	Number of Sightings	Number of Individuals
Antarctic minke whale	2	2
Humpback whale	134	214
Killer whale	2	8
Like Minke whale	1	2
Like Humpback whale	2	3
<b>Total</b>	<b>141</b>	<b>229</b>

# Observations



## Key findings: Where did we spot these whales?



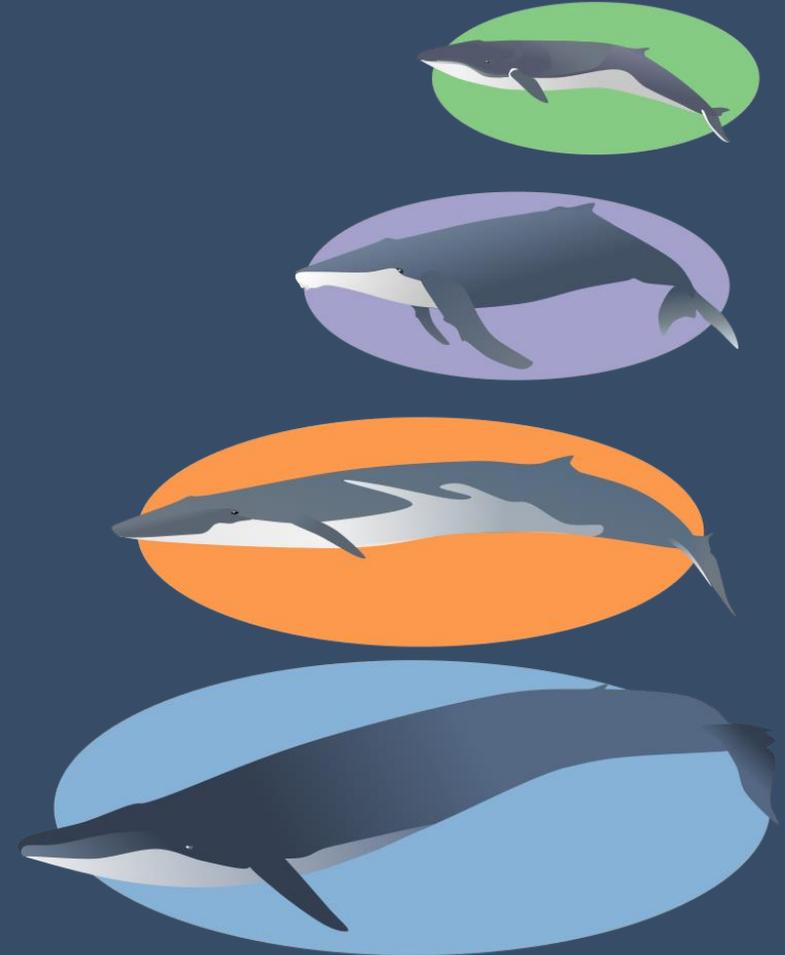
What next?

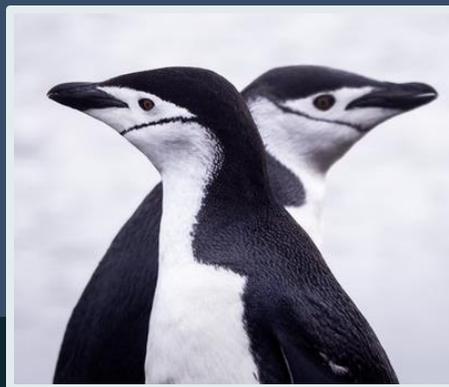


CCAMLR

- 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. **Data passed to CCAMLR**
- **Results used in PhD and masters Research**
- This data was collected as a part of lead researcher Angus Hendersen's PhD framework.

Enter your email here for project updates.





# PATHOGEN SURVEILLANCE IN ANTARCTIC SEABIRDS AND SEALS

## Trip Summary

# Observations

## Key Findings...

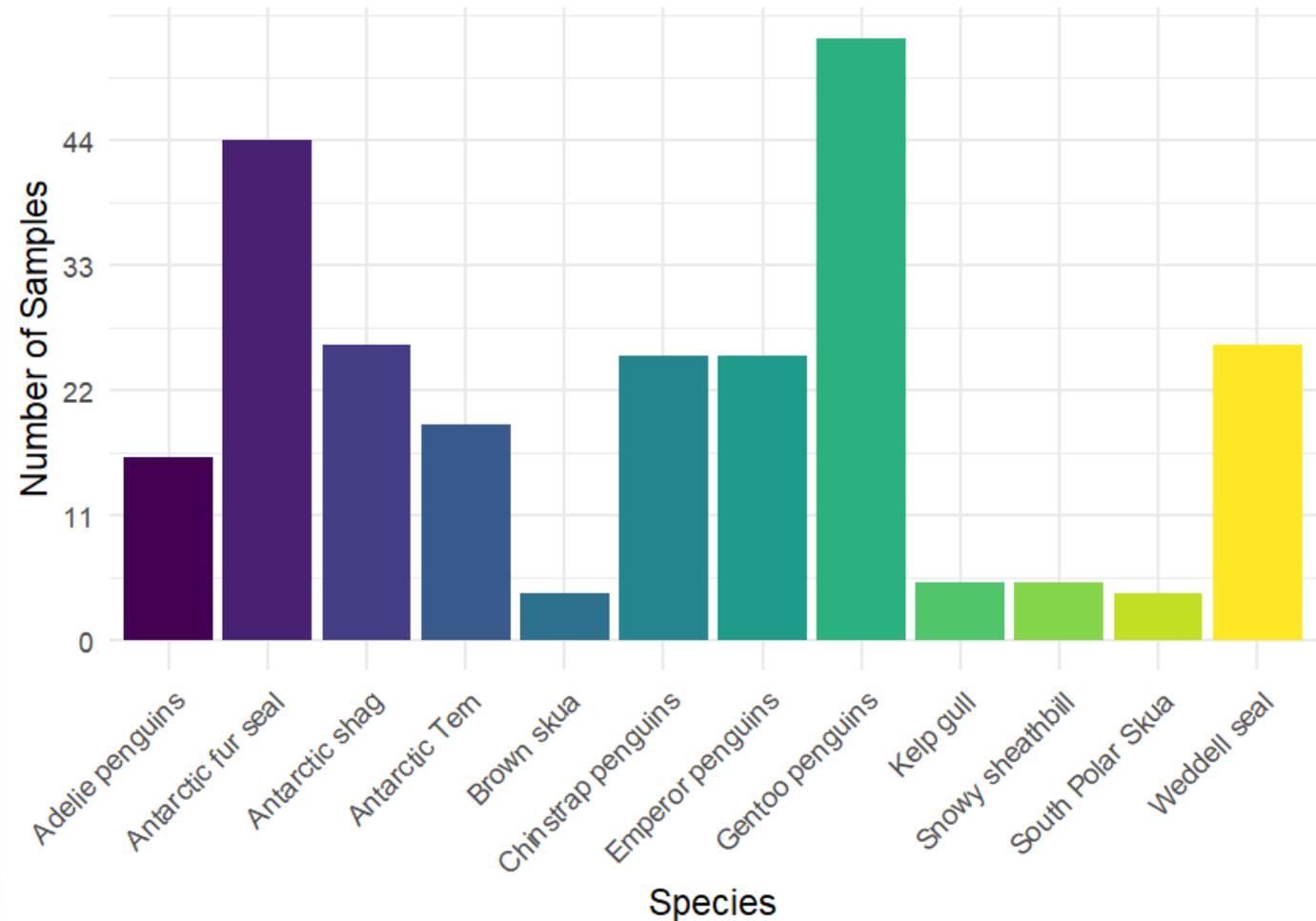
Very successful - we sampled 12 different species!

Penguin species	No:
Adelie	16
Chinstrap	25
Emperor	25
Gentoo	53

Seal species	No:
Antarctic fur seal	44
Weddell seal	26

Flying birds	No:
Antarctic shag	26
Antarctic tern	19
Brown Skua	4
South Polar Skua	4
Kelp Gull	5
Snowy sheathbill	5

Number of Samples per Species

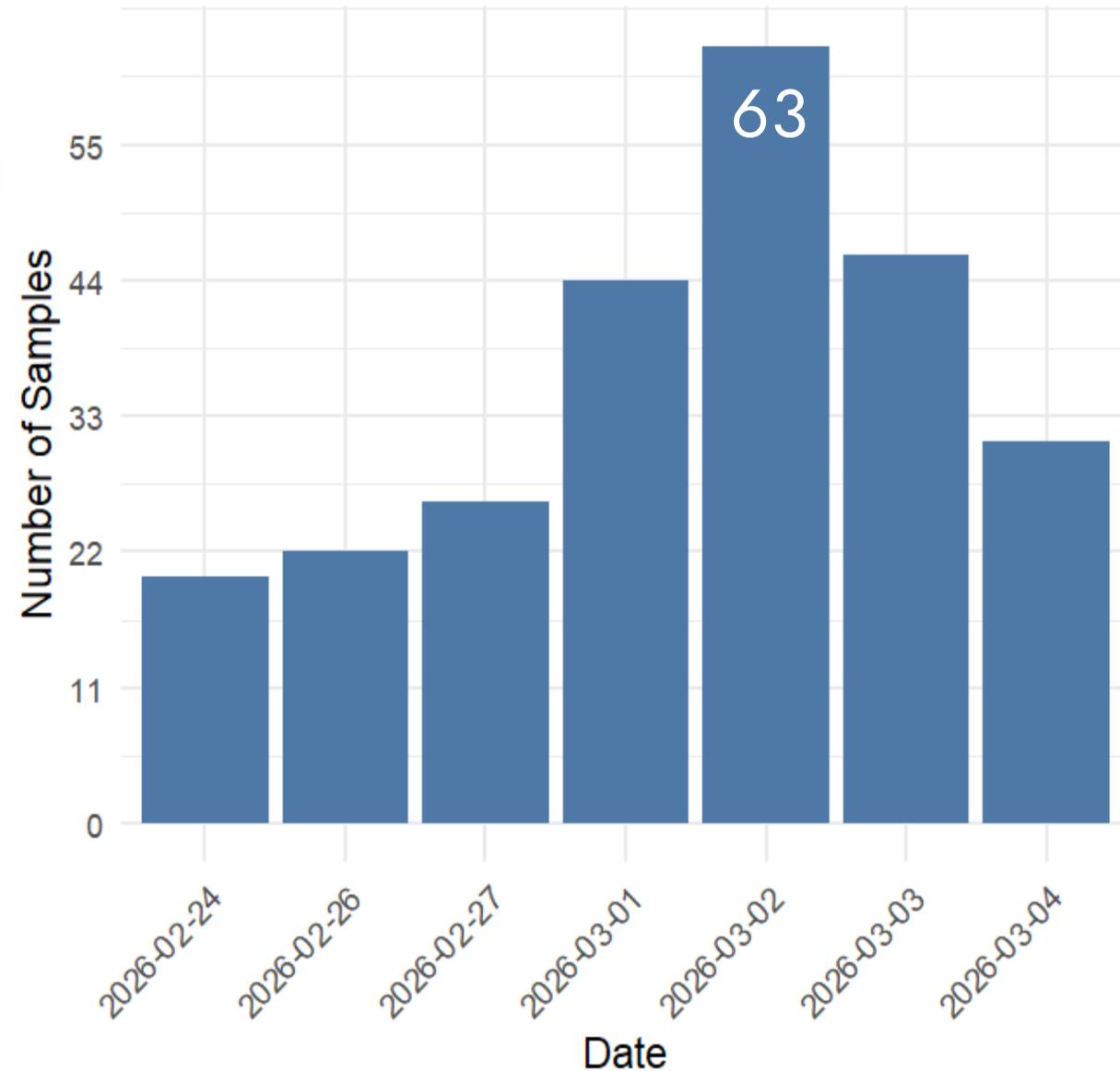


# Key Findings...

How many samples did we collect at each landing site?

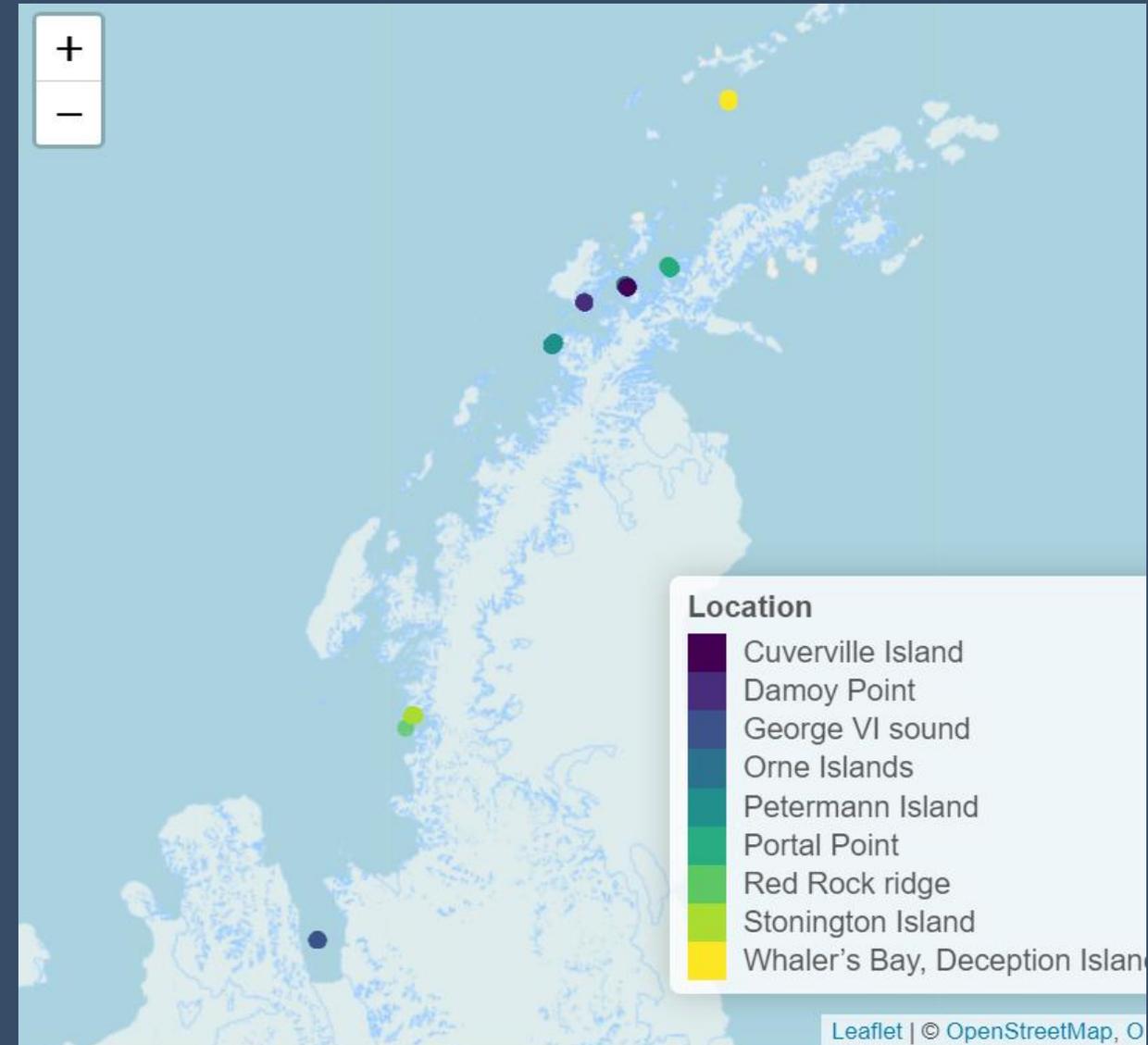
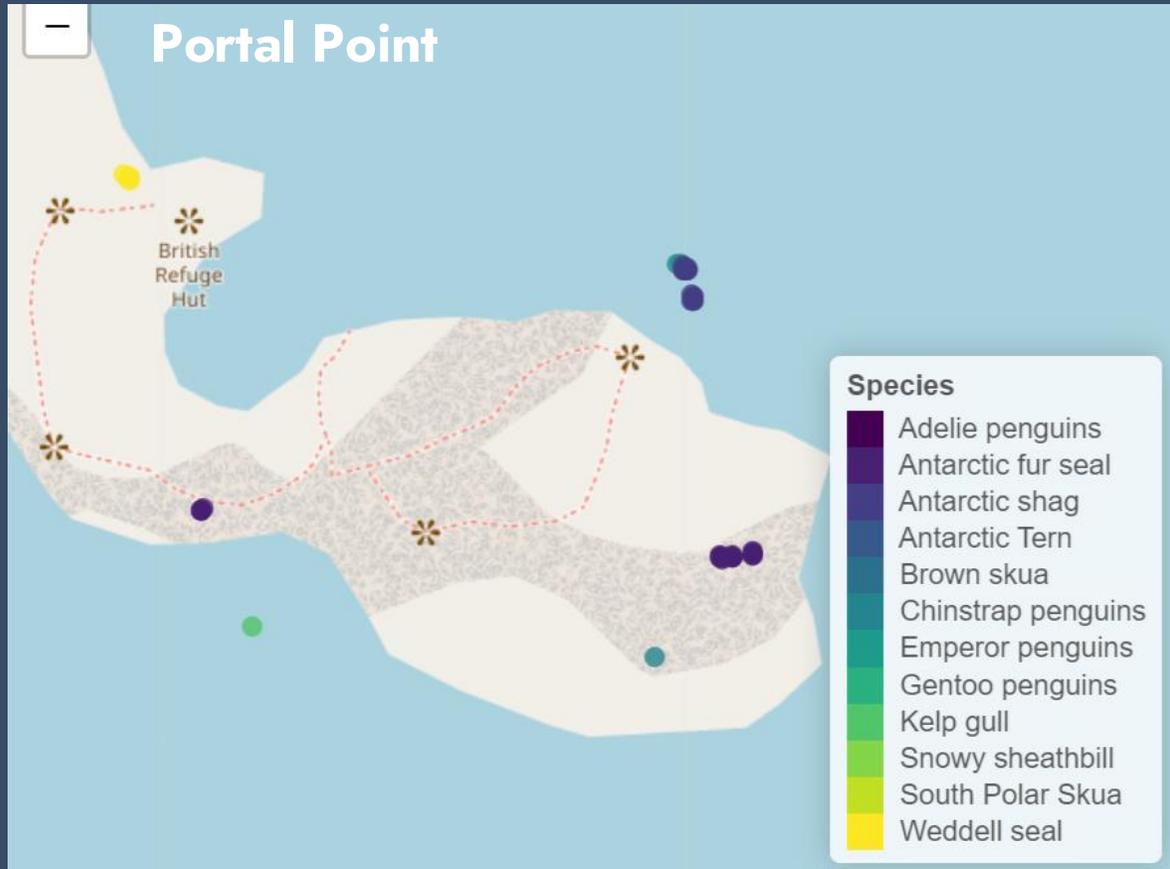
Landings	No:
Damoy Point	20
Stonington Island	21
Red Rock Ridge	1
George VI Sound	26
Petermann Island	44
Cuvernville Island	43
Orne Island	20
Portal Point	46
Deception Island	31
<b>TOTAL</b>	<b>252</b>

## Number of Samples per Day



# Locations

Link to interactive map:  
[leaflet-Amunsen1.html](http://leaflet-Amunsen1.html)

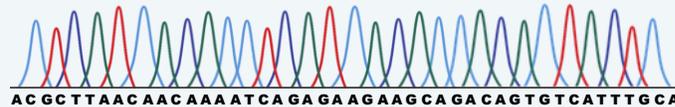


# What's next...

Samples will be frozen and transported back to the University of Tasmania, Australia (over 8600kms from Ushuaia).



Viral DNA and RNA will be extracted and sequenced to identify viruses in Antarctic seabirds and seals.



From the identified viruses, we can start to paint a clearer picture of disease diversity across Antarctic wildlife.



Photo: Dave Bone

By better understanding Antarctic wildlife disease diversity, we can track changes and better predict viral outbreaks, behaviour, and spread.

These findings will contribute to PhD research, support many years of future studies, and, most importantly, aid in the conservation of these exquisite and unique Antarctic species.



**THANK  
YOU!**



Photo: Ruth Wielinga

EMAIL UPDATES



A humpback whale is captured in the middle of a breach, its dark, ribbed back and white, mottled pectoral fin cutting through the deep blue ocean. The whale's head is tilted upwards, and a splash of white water is visible around its neck. The sky above is a pale, overcast blue. Overlaid on the left side of the image are large, white, semi-transparent letters 'T' and 'Y'.

Thank you for your participation!