## Science & Education Report

MS Roald Amundsen 2025



Photo: Oscar Farrera

## MS Roald Amundsen

Antarctic Circle Expedition 13 Feb 2025 – 01 Mar 2025





## Science & Education Program

From Ushuaia to the vast white expanse of Antarctica, the Science and Education Team journeyed with you, uncovering the wonders of this remote world.

Through lectures, hands-on workshops, and cultural visits ashore, we explored the resilience of wildlife, the region's storied history, and the dynamic forces shaping this frozen frontier.

We hope these moments—watching penguins waddle along icy shores or listening to the distant crack of calving glaciers—have deepened your appreciation for Antarctica and inspired a lasting curiosity for the natural world.

## History

History isn't just something that happens to us it's something we create. And this voyage has proven that. You are now part of the 0.00002% of humanity to have crossed the Antarctic Circle. If that isn't making history, what is?

Along the way, we've encountered history in the most unexpected places—weathered plaques, abandoned bases, rusting whale oil tanks, and empty whaling stations. Seeing these human traces in such a stark, untamed landscape is a powerful reminder of the resilience and grit of those who ventured here before us.

Thanks to our onboard historians, we've explored the value of cultural heritage and debated why Shackleton might just be the Rocky Balboa of exploration. Perhaps you found yourself drawn into stories you never expected to care about, only to realize that history is not just about the past—it's the business of the present.

So wherever your travels take you next, give history some love. After all, you've just made a little bit of it yourself.



## History

What is it about explorers that captivates us? Is it their skill, determination, resilience—or just the undeniable cool factor? No matter who you are, every tale of exploration has something to offer.

On this journey, we've revisited legends like Amundsen and Shackleton, but also shed light on lesser-known pioneers, like Jackie Ronne—the first woman to winter in Antarctica. Yet, we've only scratched the surface. As you return home, we hope you continue uncovering the incredible stories of the golden age of exploration.

And remember, you're now part of this exclusive club. You braved the Antarctic challenge, faced its wild beauty head-on, and emerged (mostly) unscathed. It's been an honour to stand beside you in the far south, and we can't wait to join you on your next adventure.





The Antarctic Peninsula is a testament to the power of deep time, its geology dominated by ancient igneous and metamorphic rocks. This dramatic landscape was forged between 201 and 66 million years ago, when the oceanic Phoenix Plate plunged beneath Gondwana's eastern margin, driving the subduction that shaped the region.

Today, the legacy of that fiery past is revealed in the exposed Antarctic Peninsula Batholith—a massive body of intrusive igneous rock that cooled and solidified over millions of years. Erosion has since stripped away the overlying layers, unveiling striking formations like the frostweathered pink granite of Red Rock Ridge and the dark gabbro of Horseshoe Island, streaked with brilliant green veins of copper.

Every towering peak, every polished shoreline, every rock beneath your feet tells a story of deep Earth processes that continue to shape our planet today. By understanding Antarctica's geology, we gain insight not only into its past but also into the forces still at work across the globe—reminding us that the world beneath us is always shifting, always evolving, and always worth exploring.



![](_page_6_Picture_0.jpeg)

Few places showcase the raw power of our planet like Deception Island. This active volcano, one of only two in Antarctica known to erupt in modern times, is a flooded caldera formed by a cataclysmic eruption 4,000 years ago. The remnants of that explosive past are still visible today, from the jagged cliffs of Neptune's Bellows to the ghostly ruins of the Chilean research station at Pendulum Cove, buried by a violent eruption in 1969.

Beneath the surface, Deception Island plunges 1,400 meters into the sea, its geothermal heat rising through the waters of Port Foster. Steam curls from the shoreline, the air tinged with the scent of sulfur-a stark reminder that this landscape is alive, shifting, and unpredictable. Standing here, we are reminded that Earth is constantly in motion. Volcanic forces shape the land, impact ecosystems, and, in some cases, disrupt human endeavors. As observers and citizen scientists, we don't just witness these dynamic processes—we contribute to understanding them. Deception Island challenges us to see the world as ever-changing and reminds us of our role in studying, respecting, and protecting the planet we call home.

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## Cryosphere

An iceberg blocked our passage into the Lemaire Channel—an awe-inspiring reminder of the scale and power of the ice that defines this continent. With skilful manoeuvring, our captain navigated us through, turning a moment of challenge into one of exhilaration for everyone watching from the deck.

Antarctica's vast, frozen landscapes are more than just breathtaking—they are vital. The glaciers, sea ice, and towering icebergs we have explored together form part of the cryosphere, a key regulator of our planet's climate. Ice reflects sunlight, helps stabilize global temperatures, and stores the world's largest reservoir of freshwater. It is not just Antarctica's lifeblood, but ours as well.

Yet, as we admire its beauty, we cannot ignore the signs of change. Climate shifts are altering this frozen world at an alarming rate, threatening not only polar ecosystems but global weather patterns and sea levels. Understanding the cryosphere is not just about studying Antarctica it's about understanding our planet's future.

May the memories of this journey remind you that what happens here affects us all. Carry this knowledge forward, share what you've seen, and become an advocate for the ice that sustains life on Earth.

![](_page_7_Picture_5.jpeg)

## Arts, Crafts & Creativity

Antarctica's beauty is more than something to be seen—it's something to be felt, interpreted, and expressed. Through watercolour painting, wildlife origami, and clay modelling, you transformed inspiration into art, capturing the essence of this remote and breathtaking world.

No prior experience was needed—just an open mind and a willingness to explore creativity in new ways. From delicate brushstrokes to carefully folded paper, each creation became a personal tribute to the landscapes and wildlife that surrounded us.

More than just an artistic escape, these sessions provided a space to connect sharing stories, laughter, and quiet moments of reflection as the icy world drifted by. May these creations serve as reminders of this journey, sparking inspiration long after you've returned home.

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## () HORSHOE BAY ()

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## Wildlife Watch

As we sailed through the icy waters of Antarctica, you were invited to step onto the deck and take in the breathtaking scenery—an ever-changing panorama of towering glaciers, sculpted icebergs, and endless ocean. But the true magic came in the moments of discovery, as we scanned the horizon for signs of life.

Together, we spotted a remarkable array of wildlife, from the soaring South Polar skuas and curious snowy sheathbills to the bustling colonies of Adélie and Gentoo penguins. The ocean revealed its giants as well—graceful humpback whales, elusive Antarctic minkes, and Crabeater seals resting on drifting ice.

Each sighting was a reminder that Antarctica is anything but empty; it is alive, dynamic, and teeming with stories waiting to be observed. May these moments stay with you, inspiring a deeper appreciation for the fragile and extraordinary life of the Southern Ocean.

![](_page_14_Picture_0.jpeg)

## **Science Boat**

Over sixteen science boat sessions, we ventured beyond observation, diving into hands-on exploration of the Antarctic Ocean. With each drop of a net, each measurement taken, and each sample collected, we weren't just witnessing science—we were part of it.

Using a plankton net, we revealed the tiny, drifting organisms that sustain Antarctica's entire marine ecosystem. A CTD device helped us uncover the hidden world beneath the surface, measuring the ocean's temperature, salinity, and depth. And with a simple Secchi disk, we gauged water clarity, offering insights into the abundance of phytoplankton—the foundation of this fragile food web.

These sessions weren't just about data collection; they were about curiosity, discovery, and connection. Science isn't something distant—it's a way of seeing, questioning, and understanding the world around us. As you return home, may this journey inspire you to keep exploring, keep asking questions, and never stop being amazed by the natural world.

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## FjordPhyto

Science in Antarctica isn't just for researchers—it's for all of us. Through **FjordPhyto**, you stepped into the role of a scientist, helping to uncover how glacial melt is shaping the Antarctic marine ecosystem.

Armed with a plankton net, you carefully towed the waters, gathering samples teeming with microscopic life. Using a filtration system, you concentrated phytoplankton onto filters—tiny organisms that fuel the entire food web. These samples, now bound for microscopic and DNA analysis, will contribute to ongoing research on how climate change is altering phytoplankton communities.

During our voyage, we collected samples from Horseshoe Island, Danco Island, and Orne Harbour, each site offering a unique snapshot of Antarctic fjord ecosystems. Your participation in this project wasn't just an activity—it was a meaningful step in understanding and protecting this fragile environment. Science thrives on curiosity, and by taking part, you've helped advance knowledge that reaches far beyond these icy waters.

![](_page_18_Picture_4.jpeg)

## Secchi Disk

Gazing into the Antarctic waters, it's easy to forget they are full of hidden life. With a simple tool—the **Secchi Disk**—you helped reveal what the eye alone cannot see. By lowering the disk into the water and noting the depth at which it disappeared, you measured clarity, offering clues about plankton abundance and shifting ocean conditions.

Some days, strong currents made measurements impossible—a reminder that nature sets the terms here. But on calmer days, each reading became part of something bigger: a global effort to track water transparency and a key addition to FjordPhyto's research on Antarctic fjords. What may have felt like a simple act watching a disk sink into the depths—was a moment of discovery. By taking part, you helped scientists better understand a changing ocean, one measurement at a time.

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## CTD

Beneath the surface, the ocean holds stories of change—stories revealed through science. With the CTD device, you helped uncover key details about Antarctic waters, measuring **salinity**, **temperature**, and **depth** to paint a picture of ocean conditions.

Lowered on a tethered line, the CTD captured water column profiles, offering insights into how glacial melt shapes fjords, how currents mix the sea, and where phytoplankton thrive. These data are not just numbers—they are puzzle pieces in understanding a changing climate. Each measurement taken adds to a growing body of research, helping scientists track long-term shifts in Antarctic ecosystems. By participating, you've played a role in unravelling the mysteries of these remote waters—one drop at a time.

#### **Depth Profile: Danco Island**

#### **Depth Profile: Horseshoe Island**

![](_page_21_Figure_2.jpeg)

Our CTD profiles from Danco Island and Horseshoe Island revealed a familiar ocean pattern—salinity increasing and temperature decreasing with depth. These subtle yet steady changes suggest a well-mixed water column, where deep waters stir and circulate, replenishing vital nutrients at the surface.

This mixing is essential for phytoplankton, the foundation of the Antarctic food web. With nutrients brought upward, these microscopic organisms can thrive, fueling the entire ecosystemfrom tiny krill to massive whales. What may seem like slight shifts in temperature and salinity are, in fact, clues to the ocean's invisible rhythms. With each measurement, we deepen our understanding of how these waters sustain life in the extreme of most one environments on Earth.

Temperature (°C) Salinity (PSU)

## Water Sampling

During our expedition, we collected water samples from **six locations**—Pendulum Cove, Hanusse Bay, Horseshoe Island, Danco Island, Orne Harbour, and Spert Island.

From the science boat, we deployed **plankton nets**, towing them through the water for 5–10 minutes to capture these drifting life forms. The **phytoplankton net** (20µm mesh) gathered microscopic plant-like organisms, while the **zooplankton net** (200µm mesh) caught tiny marine animals, each playing a vital role in the Antarctic food web.

Every tow provided a glimpse into the hidden world beneath the surface, helping us understand how these foundational species sustain life in the Southern Ocean.

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## Plankton Samples

Back in the science centre, we brought the ocean into focus—examining our water samples under the microscope to uncover the hidden world of **phytoplankton** and **zooplankton**.

Using microscopes, we projected magnified images onto the screen, allowing everyone to see the intricate details of these tiny organisms. Smaller binocular microscopes offered a hands-on experience, inviting you to search for life in each drop of water.

The samples revealed a world dominated by diatoms, a type of phytoplankton that forms the foundation of the Antarctic food web. What seemed invisible to the eye became a vivid reminder that even the smallest life forms shape this vast and wild ecosystem.

#### A) Chain of diatoms - phytoplankton

B) Harpacticoida (copepod) - zooplankton

#### C) Corethron pennatum - phytoplankton

D) Euphasia superba (krill) - zooplankton

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## NASA Cloud Observer

During our voyage, we contributed to NASA's **GLOBE Cloud Observations**, collecting data on:

- February 15th (At-sea)
- February 20th (Horseshoe Island)

By comparing your ground-based observations with satellite measurements, scientists can refine cloud classifications, enhance climate models, and improve weather predictions—advancing our understanding of Earth's atmosphere and climate.

Curious to continue? You can keep observing and submitting data from home using the **GLOBE Observer** app, turning everyday cloud-watching into real scientific impact.

<u>View our data on the global map</u>

![](_page_27_Picture_1.jpeg)

#### S'COOL Cloud Identification Chart

![](_page_27_Picture_3.jpeg)

## NASA Cloud Observer

High Clouds (Base above 6,000 meters):

**Cirrus**: Thin, wispy clouds composed of ice crystals. They often appear as delicate streaks or feathery wisps high in the sky.

**Cirrostratus**: Thin, sheet-like clouds that cover large portions of the sky. They can create a halo around the sun or moon.

**Cirrocumulus**: Small, fluffy clouds in a regular pattern, resembling fish scales or ripples.

#### Medium Clouds (Base between 2,000 and 6,000 meters):

**Altocumulus**: Puffy, grayish-white clouds with rounded edges. They often form parallel rows or patches.

**Altostratus**: Thick, grayish clouds that partially obscure the sun or moon. They lack the distinct features of cirrostratus.

#### Low Clouds (Base below 2,000 meters):

**Stratus**: Uniform, grayish clouds that cover the sky like a blanket. They can bring drizzle or light rain.

**Stratocumulus**: Low, lumpy clouds with defined edges. They often appear in rows or patches.

Nimbostratus: Thick, dark gray clouds associated with steady rain or snow.

Remember that these cloud types can vary in appearance and behaviour, but this basic classification helps meteorologists understand weather patterns and atmospheric conditions. If you'd like to explore more examples, you can check out NASA's <u>On-Line Cloud Chart</u>.

View our data on the global map

## iNaturalist

Throughout this voyage, you played a vital role in documenting the incredible biodiversity of Antarctica. By capturing and submitting images of wildlife and plant life, you contributed to a global effort to track species distribution and monitor ecosystems in one of the most remote places on Earth.

Together, we gathered: 529 Observations 64 Species Identified 30 Observers Participating

Each observation helps scientists build a clearer picture of biodiversity in polar regions. Want to explore our findings? Scan the **QR code** to view our collective data and see the impact of your contributions:

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### AMANT2503 – MS Roald Amundsen 13.2-01.3.2025

#### Map of Observations

![](_page_29_Picture_2.jpeg)

## AMANT2503 – MS Roald Amundsen 13.2-01.3.2025

Stats

![](_page_30_Figure_2.jpeg)

![](_page_31_Picture_0.jpeg)

## eBird

Bird-watching isn't just a hobby—it's a powerful tool for science. eBird, a global citizen science platform, allows bird enthusiasts to record and share sightings, contributing valuable data for research and conservation.

During our voyage, our onboard ornithologists conducted 15 wildlife watches, completing 102 checklists and recording 41 bird species along the way. Every entry adds to a growing database that helps scientists track migration patterns, monitor populations, and understand bird behaviour in remote regions like Antarctica. Scan the QR code to explore our data and see how your observations contribute to a global effort in avian research:

![](_page_31_Picture_4.jpeg)

#### eBird

K My Trip Reports

#### Submit Explore My eBird Science About News Help

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#### < Previous

#### Antarctic Circle on the Amundsen, 13/02 - 01/03 2025

13 Feb – 1 Mar 2025 (17 days) Public

- Antarctica | Argentina | Chile | High Seas
  Subregions
- Brendan Murtha, Andrés de Miguel,
  Ingvild Riska, Geoff Hutchinson,
  M/S Roald Amundsen Science Center
  +1 more...

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## Happywhale

Throughout this voyage, we were fortunate to encounter five whale species, witnessing these magnificent creatures in their natural habitat.

A total of **39 humpback whale fluke photos** were uploaded to **Happywhale**, with **18 individuals matched** in their global catalogue. Each identification adds to a growing database, helping scientists track whale movements, population trends, and migration patterns worldwide.

If you captured photos of individual whales, you can submit them to **Happywhale**, contributing to this global effort. Every fluke tells a story—your sightings could help uncover the next chapter in understanding and protecting these ocean giants.

View the MS Roald Amundsen's submissions to Happywhale during our voyage: <u>https://happywhale.com/user/11890;svy=12</u> <u>0597</u>

![](_page_33_Picture_5.jpeg)

## **Guest Scientists**

## Snow algae

Antarctica's icy landscape may seem inhospitable, but even here, life finds a way. The Snow Algae Project investigates microscopic algae that thrive in melting snow, turning it shades of red, green, or orange. These blooms, primarily from the *Chlamydomonas* genus, flourish in nutrient-rich meltwater, creating vibrant streaks across the frozen terrain.

Beyond their striking colours, snow algae play a vital role in polar ecosystems. They influence biogeochemical cycles, provide nutrients to microbial communities, and even impact surface albedo—the ability of snow to reflect sunlight. As climate change accelerates melting, these algae may further contribute to ice loss, creating a feedback loop that scientists are eager to understand.

Through field sampling and lab analysis, researchers are uncovering how these tiny organisms survive in extreme conditions and what their presence reveals about Antarctica's changing environment. Every snow sample collected brings us closer to understanding the delicate balance of life in one of the harshest places on Earth.

![](_page_35_Picture_4.jpeg)

## Snow Algae

We collected and filtered...

## What's next?

- Wet lab processing:
  - Nutrients in snow
  - Trace metals in snow
  - Snow algae cell density and pigmentation
- Model albedo using the SNICAR model
- Compare results to our snow algae studies in Alaska and Washington, USA

3 snow samples 2 rBC samples

4 snow samples 2 rBC samples

7 snow samples

11 snow samples 2 rBC samples

9 snow samples 2 rBC samples

7 snow samples 2 rBC samples

![](_page_36_Picture_15.jpeg)

## Underwater Drone

During this voyage, the **Exploring the Unseen** team deployed an underwater drone, offering a rare glimpse into the hidden world beneath Antarctica's icy waters. This technology allows us to observe marine life, glacial formations, and seafloor landscapes in a way that would otherwise be impossible. Each dive reveals new perspectives, bringing us closer to understanding the rich and dynamic ecosystems that thrive below the

View the highlights from our underwater drone footage on HX Underwater Drone Footage <u>YouTube Channel</u>

surface.

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![](_page_38_Picture_0.jpeg)

![](_page_38_Picture_1.jpeg)

### **HX** Foundation

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#### SUMMARY

- 2 Antarctic Circle Expeditions (Jan 28<sup>th</sup> Mar 1<sup>st</sup> 2025)
- 12 sites explored
- Deception Island (62°S) Stonington (68°S)
- 14 ROV deployments
- ~40 min/deployment. ~560 min / ~ 9,3 h footage

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#### UNDERWATER DRONE FOOTAGE FINAL RECAP DECK 10

# Wildlife

# List - Birds

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## Wildlife List – Birds

| Scientific Name          | English                     | Deutsch                    | Français                  | Chinese |
|--------------------------|-----------------------------|----------------------------|---------------------------|---------|
| Stercorarius antarcticus | Brown Skua                  | Subantarktikskua           | Labbe antarctique         | 棕贼鸥     |
| Stercorarius maccormicki | South Polar Skua            | Antarktikskua              | Labbe de McCormick        | 麦氏贼鸥    |
| Larus dominicanus        | Kelp Gull                   | Dominikanermöwe            | Goéland dominicain        | 黑背鸥     |
| Sterna vittata           | Antarctic Tern              | Antarktikseeschwalbe       | Sterne couronnée          | 南极燕鸥    |
| Pygoscelis adeliae       | Adelie Penguin              | Adeliepinguin              | Manchot d'Adélie          | 阿德利企鹅   |
| Pygoscelis papua         | Gentoo Penguin              | Eselspinguin               | Manchot papou             | 白眉企鹅    |
| Pygoscelis antarcticus   | Chinstrap Penguin           | Kehlstreifpinguin          | Manchot à jugulaire       | 纹颊企鹅    |
| Eudyptes chrysolophus    | Macaroni Penguin            | Goldschopfpinguin          | Gorfou doré               | 长眉企鹅    |
| Eudyptes chrysocome      | Southern Rockhopper Penguin | Felsenpinguin              | Gorfou sauteur            | 南方石鲈企鹅  |
| Diomedea exulans         | Snowy Albatross             | Wanderalbatros             | Albatros hurleur          | 漂泊信天翁   |
| Phoebetria palpebrata    | Light-mantled Albatross     | Graumantelalbatros         | Albatros fuligineux       | 灰背信天翁   |
| Thalassarche chrysostoma | Grey-headed Albatross       | Graukopfalbatros           | Albatros à tête grise     | 灰头信天翁   |
| Thalassarche melanophris | Black-browed Albatross      | Schwarzbrauenalbatros      | Albatros à sourcils noirs | 黑眉信天翁   |
| Oceanites oceanicus      | Wilson's Storm Petrel       | Buntfuß-Sturmschwalbe      | Océanite de Wilson        | 烟黑叉尾海燕  |
| Fregetta tropica         | Black-bellied Storm Petrel  | Schwarzbauch-Sturmschwalbe | Océanite à ventre noir    | 黑腹舰海燕   |
| Macronectes giganteus    | Southern Giant Petrel       | Riesensturmvogel           | Pétrel géant              | 巨鹱      |
| Macronectes halli        | Northern Giant Petrel       | Hallsturmvogel             | Pétrel de Hall            | 霍氏巨鹱    |
| Fulmarus glacialoides    | Southern Fulmar             | Silbersturmvogel           | Fulmar argenté            | 银灰暴风鹱   |

## Wildlife List – Birds

| Scientific Name            | English              | Deutsch                      | Français               | Chinese |
|----------------------------|----------------------|------------------------------|------------------------|---------|
| Daption capense            | Cape Petrel          | Kapsturmvogel                | Damier du Cap          | 花斑鹱     |
| Pagodroma nivea            | Snow Petrel          | Schneesturmvogel             | Pétrel des neiges      | 雪鹱      |
| Pterodroma mollis          | Soft-plumaged Petrel | Weichfeder-Sturmvogel        | Pétrel soyeux          | 柔羽圆尾鹱   |
| Pterodroma inexpectata     | Mottled Petrel       | Regensturmvogel              | Pétrel maculé          | 斑纹海燕    |
| Pachyptila desolata        | Antarctic Prion      | Taubensturmvogel             | Prion de la Désolation | 鸽锯鹱     |
| Pachyptila belcheri        | Slender-billed Prion | Dünnschnabel-Sturmvogel      | Prion de Belcher       | 细嘴锯鹱    |
| Procellaria aequinoctialis | White-chinned Petrel | Weißkinn-Sturmvogel          | Puffin à menton blanc  | 白颏风鹱    |
| Procellaria cinerea        | Gray Petrel          | Grausturmvogel               | Puffin gris            | 灰海燕     |
| Ardenna grisea             | Sooty Shearwater     | Dunkler Sturmtaucher         | Puffin fuligineux      | 灰鹱      |
| Leucocarbo bransfieldensis | Antarctic Shag       | Antarktikscharbe             | Cormoran antarctique   | 南极鸬鹚    |
| Chionis albus              | Snowy Sheathbill     | Weißgesicht-Scheidenschnabel | Chionis blanc          | 白鞘嘴鸥    |
| Aptenodytes forsteri       | Emperor Penguin      | Kaiserpinguin                | Manchot empereur       | 帝企鹅     |

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## Wildlife List – Marine Mammals

| Scientific Name          | English                 | Deutsch               | Français                                 | Chinese |
|--------------------------|-------------------------|-----------------------|--|---------|
| Balaenoptera bonaerensis | Antarctic minke whale   | Südlicher Zwergwal    | Rorqual à museau pointu de l'Antarctique | 南极小须鲸   |
| Balaenoptera physalus    | Fin whale               | Finnwal               | Rorqual commun                           | 长须鲸     |
| Megaptera novaeangliae   | Humpback whale          | Buckelwal             | Baleine à bosse                          | 大翅鲸     |
| Orcinus orca             | Killer whale, Orca      | Schwertwal, Orca      | Orque                                    | 虎鲸      |
| Globicephala melas       | Long-finned pilot whale | Grindwal              | Globicéphale noir                        | 长肢领航鲸   |
| Lagenorhynchus obscurus  | Dusky dolphin           | Schwarzdelfin         | Dauphin obscur                           | 白鱀豚     |
| Arctocephalus gazella    | Antarctic fur seal      | Antartischer Seebär   | Otarie à fourrure antarctique            | 南极毛皮海狮  |
| Leptonychotes weddellii  | Weddell seal            | Weddelrobbe           | Phoque de Weddell                        | 韦德尔氏海豹  |
| Hydrurga leptonyx        | Leopard seal            | Seeleopard            | Léopard de mer                           | 豹海豹     |
| Lobodon carcinophaga     | Crabeater seal          | Krabbenfresser        | Phoque crabier                           | 食蟹海豹    |
| Mirounga leonina         | Southern elephant seal  | Südlicher See-Elefant | Eléphant de mer austral                  | 南象海豹    |
| Otaria byronia           | South American sea lion | Mähnenrobbe           | Lion de mer d'Amérique du Sud            | 南海狮     |

![](_page_47_Picture_0.jpeg)

Antarctic fur seal (Arctocephalus gazella)

Weddell seal (Leptonychotes weddellii)

Credit: Ted Gatlin/HX

![](_page_49_Picture_0.jpeg)

Crabeater seal (Lobodon carcinophaga)

## Connect With Your Inner Scientist

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