

THE BARBA PROJECT

IMPACT REPORT 2023



ABOUT THIS DOCUMENT

An aerial photograph of a white boat on a dark blue ocean. Two blue whale breaches are visible in the water, one to the left and one to the right of the boat. The background is a deep, dark blue.

This report serves as an overview, delving into the Foundation's noteworthy achievements throughout 2023 as well as outlining our visionary approach for the future.

By examining the tangible outcomes of our key initiatives, this document aims to provide an understanding of the impactful progress we have made in 2023, setting the stage for the journey that lies ahead.

**CRUISING ALONG SIDE TWO BLUE
WHALES IN SVALBARD 2021**

Photo: Tord Karlsen



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A MESSAGE FROM THE BARBA CAPTAIN, ANDREAS B. HEIDE



I hope this message finds you well and filled with the same sense of pride and accomplishment that I am experiencing as I reflect on our journey together through the year 2023. It brings me immense joy to share with you our latest Impact Report, a testament to the incredible strides we have made in our mission of advancing the protection of the arctic through storytelling and scientific exploration. Here are some key highlights of the year:

Arctic Sense 2023: Upon revisiting Svalbard we successfully supplemented our educational content catalogue, expanded the Barba team with more diverse members and improved our expedition capabilities.


Working with The Nordic Council of Ministers: In 2023 we solidified and built up our collaboration with the Nordic Council of Ministers. This involved presenting educational content at Norway's largest political conference, Arendalsuka, to students and esteemed guests including Ministers Espen Barth Eide and Anne Beathe Tvinningem.

Our collective efforts have not only contributed to advancing the protection of the arctic but have also rippled outwards, inspiring positive change in the wider community.

I want to express my deepest gratitude to each and every one of you—our team, contributors, audience, and our partners. Your contributions, whether big or small, have played a crucial role in bringing us to where we are today and the successes we've had in 2023. It is because of your passion and dedication that we can celebrate the positive change we are creating together.

Thank you for being an integral part of this incredible journey.

With gratitude,



Andreas B. Heide
Founder



2023 CORE TEAM



ANDREAS B. HEIDE

Projects Leader &
Founder of BARBA

MSc Marine Biology &
former Naval officer
From Norway



**EIVIND EGELAND
OLSEN**

MSc finance
Former CIO at Nysnø
From Norway



ANTOINE DRANCEY

Photographer & ROV
operator
BBC & Natgeo contributor
From France



AMADEA KOSTRZEWA

MSc Communication &
former director of Energy
Observer
From France



TAWANDA CHIKASHA

Sailor & journalist
From Zimbabwe



MARTA TRODAHL

PhD in Oceanography
From Norway



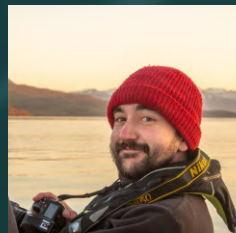
**JAAP VAN
RIJCKEVORSEL**

World champion in sailing
From the Netherlands



FABRICE SCHNOLLER

VR / 360 photographer
From France



CONOR MCDONNELL

Photographer
Ambassador for Nikon and
WWF
From England



AMALIE KIVIJARVI

Photographer and
organiser
From Norway



RUBY JENSEN

MSc International
Development
From England



2023 IN NUMBERS

1

Expedition

12+

Speaking Engagements

20+

Crew nationally and internationally

10,000+

Kilometres travelled

4+

Scientific collaborators

10+

Nationalities onboard



The image is a satellite-style map of the North Atlantic region, showing the Arctic Ocean, Iceland, Svalbard, and the northern part of Europe. A white dotted line traces a route starting from the coast of Norway, heading north through the Norwegian Sea, then westward and northward towards Svalbard. The text 'THE ARCTIC SENSE 2023 EXPEDITION' is overlaid in the bottom left corner. Below the title, the distance of the journey is given in both nautical miles and kilometers. The labels 'ICELAND', 'SVALBARD', and 'NORWAY' are placed over their respective geographical locations. A small white dog icon is visible in the bottom right corner.

THE ARCTIC SENSE 2023 EXPEDITION

A 4500 NAUTICAL MILES
8000 KILOMETERS
INVESTIGATIVE JOURNEY



**WALRUS ENCOUNTERS
SVALBARD 2023**

Photo: Antoine Drancey

ARCTIC SENSE 2023

June-September

In 2023, our team revisited Svalbard, building upon the foundation laid during the 2021 expedition. Our mission was twofold: to supplement educational content from the Arctic Sense 2021 expedition and to further develop the Barba team and expedition expertise.



THE JOURNEY

We followed the Norwegian coast from Stavanger to Andenes, and eventually Tromsø. Then, we headed further north to Bear Island and Longyearbyen, Svalbard.

Our main expedition focused on two tours to the pack ice at 80°N.

The three-month journey covered 4500 nautical miles (8000 km) and concluded on 11th of September in Stavanger, Norway.



**DRONE CAPTURE OF BEAR ISLAND WITH BARBA
IN THE DISTANCE**

Photo: Tord Karlsen





ALEXA MALONEY, A SILVER MEDALIST IN SAILING AT THE RIO 2016 OLYMPICS



TAWANDA CHIKASHA WITH THE OTHER CREW MEMBERS EIVIND OLSEN AND KRISTIAN NYGÅRD



TEACHER, SALLY EARTHROWL, DEPLOYED ON AN ICE SHEET

THE EXPEDITION TEAM

The expedition had a rotating crew, including Sally Earthrowl, a school teacher from the UK, Alex Maloney, a silver medalist in sailing at the Rio 2016 Olympics, and Tawanda Chikasha, sailor and journalist, who stayed on board for almost the full three-months. Andreas B. Heide, who was the only one to stay onboard for the full duration of the expedition.

The scientific portion of the expedition was covered by Marta Trodahl, Ph.D. in Oceanography, and the ROV operator Antoine Drancey.



ANDREAS B. HEIDE & TAWANDA CHIKASHA
LAUNCHING THE ROV DURING THE
EXPEDITION IN SVALBARD

Photo: Antoine Drancey



THE ROV

The ROV, owned by Antoine Drancey, was a key part of the Arctic Sense 2023 expedition.

This high-performance device can dive up to 500 meters for 12 hours of autonomous exploration.





ANTOINE DRANCEY SETTING UP THE ROV



PREPARING FOR FLIGHT



Arctic Sense 2023

ANDREAS B. HEIDE DRIVING WITH AN UNDERWATER SCOOTER AND ROV

BEHIND THE SCENES



VOYAGE HIGHLIGHTS

- Documenting awe-inspiring wildlife encounters and breathtaking scenery, to be showcased in museum exhibitions and utilised in educational partnerships.
- Successfully coordinating a 17-member, seven-nationality crew on an extensive expedition through the Arctic.
- Presenting lectures live to schoolchildren from Barba via Starlink.
- Capturing and communicating the spectacular polar region, in alignment with Barba's mission of sustainable research and storytelling.



ALKEFJELLET, SVALBARD

Photo: Tord Karlsen



NORDSØEN OCEANARIUM **EXHIBITION** May 2023

We collaborated with the UK-based NGO Whale Wise and the University of Iceland to create an interactive virtual reality (VR) exhibition showcasing the Arctic Sense 2021 expedition.

The exhibition, part of a Nordplus educational program funded by The Nordic Council of Ministers, is currently on display at the Nordsøen Oceanarium in Hirtshals, Denmark.

It offers a unique opportunity for visitors to learn about the Arctic, its significance, and the challenges of climate change and plastic pollution in our seas.



THE ARCTIC SENSE 2021 EXHIBITION FEATURED AT THE NORDSØEN OCEANARIUM IN DENMARK 2023



ARENDALSUKA

August 2023

During the summer, we hosted an event at Arendalsuka, a political conference.

The Nordic Council of Ministers organised the event, featuring esteemed guests, including **Ministers Espen Barth Eide** and **Anne Beathe Tvinnereim**.

The collaborative effort involved Nordic Co-operation and Agder XR, and attracted 40 enthusiastic school children.

Attendees had the chance to experience a virtual reality journey to the Arctic, immersing themselves in the sights and sounds of a sailing expedition through VR goggles.



ANDREAS B. HEIDE PRESENTING AT ARENDALSUKA

GETTING THE VR EXPERIENCE READY FOR NORWEGIAN FOREIGN MINISTER ESPEN BARTH EIDE



IMMERSING IN THE BARBA SAILING EXPERIENCE THROUGH VR



MAIN PARTNERS

SUMMAEGUITY

Video S1). In waters with large numbers of dead/almost dead fish, the whale raised its upper jaw in 10 times, a motion associated with engulfing the fish (Figure 1, Video S1). We defined this behaviour as “pick-up feeding” since whales caught discarded fish from fishermen. There was no lunge feeding signal in behavioural data of whale mn17_026LLa throughout tag period. However, several lunge feeding signals in behavioural data of whales mn17_022LLa and mn17_022LLb were detected with values of jerk and swim speed changing abruptly and largely (Figure 2). Fluke stroke rates during a diving of whale mn17_026LLa during pick-up feeding

and whales mn17_022LLa and mn17_022LLb during lunge feeding were 8.4 ± 2.5 (SD) ($n=22$ dives), 13.3 ± 1.6 ($n=5$ dives), and 10.4 ± 1.7 ($n=9$ dives) per minutes respectively. Fluke stroke rates during pick-up feeding were significantly lower than fluke stroke rates during lunge feeding ($mn17_026LLa < mn17_022LLa$ ($p < .001$), $mn17_026LLa < mn17_022LLb$ ($p < .05$), Dunnett Contrasts). Maximum swim speed during a diving of whale mn17_026LLa during pick-up feeding and whale mn17_022LLa and mn17_022LLb during lunge feeding were $2.4 \pm 0.7 \text{ ms}^{-1}$, $4.8 \pm 0.1 \text{ ms}^{-1}$, and $4.7 \pm 0.4 \text{ ms}^{-1}$ respectively. Maximum swim speed during pick-up feeding were

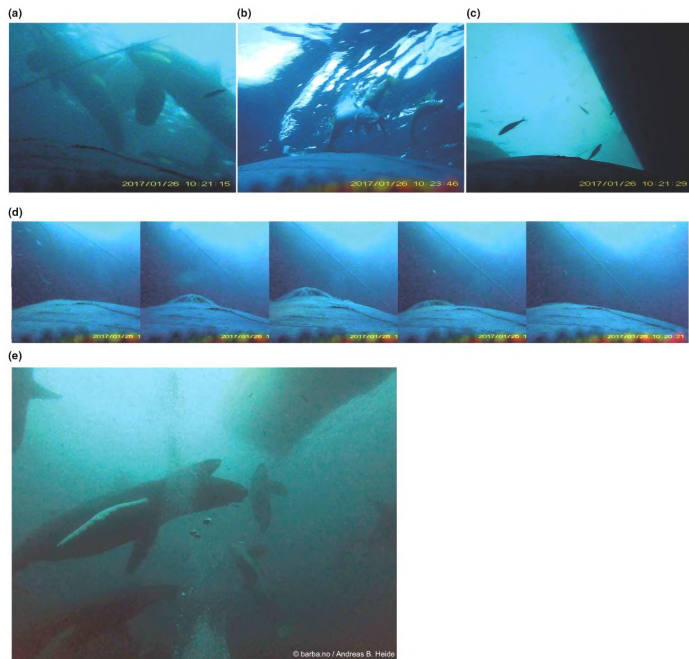


FIGURE 1 Underwater video footage from a whale mn17_026LLa. Images of (a), (b), (c), and (d) were recorded by animal-borne video camera and an image of (e) was taken by an underwater camera of documentary program industry staff (taken by Andreas B. Heide from the sailing vessel Barba). (a) killer whales and fishing ropes. (b) dead cod. (c) dead herring. (d) a tagged whale raised its upper jaw, presumably a motion associated with engulfing the fish. (e) a humpback whale and killer whales feed fish together around fishing boats (photo by Andreas B. Heide).

SCIENTIFIC PUBLICATION

international journal of behavioural biology
ethology
November 2023

In 2017, we collaborated with a scientific team studying humpback whales' feeding behaviour using cameras on whales.

Six years later, our findings were featured in an article by Takashi Iwata from Japan, published in November 2023.

[Click HERE to read the research article](#)



ROV DISPLAYED AT

November 2023

In a key event at UNESCO's Paris headquarters, ROV operator and cinematographer Antoine Drancey presented his state-of-the-art ROV, or underwater drone, capable of diving to 500 meters.

The ROV provides a safe way to film up close footage of animals such as the 1,500 kg Walrus with limited risk.

We utilized the technology during the Arctic Sense 2023 expedition to explore the pack-ice at 80°N. provided a safe way to get up close and film these magnificent animals with limited risk.

Antoine is the co-founder of **Black Whale Pictures** and a collaborative partner with the Barba Foundation.





Photo: Antoine Drancey



Photo: Antoine Drancey

ARCTIC ODYSSEY

December 2023

'Arctic Odyssey,' a video capturing our 3-week ROV mission in Svalbard during the Arctic Sense 2023 expedition.

In collaboration with Black Whale Pictures, the film showcases close encounters with polar bears and walrus using cutting-edge technology, offering a behind-the-scenes look at operations amidst the pack ice at 80°N.

[Click HERE to watch our film, Arctic Odyssey](#)



COMIC STRIP

December 2023

The comic, created by artist Jenny Jinya ([link to IG post](#)) in collaboration with Barba and the charity [Rewriting Extinction](#), brings attention to the lesser-known impact of marine plastic pollution on reindeers, particularly reindeer getting entangled in fishing nets. This man made predicament results in a slow and agonising death for the animals.

The comic was inspired by a real-life incident, after Barba's founder Andreas B. Heide, encountered a tragic event such as this involving a reindeer in the Arctic.

Click on the respective logos to learn more.

Jenny Jinya

Rewriting
EXTINCTION



MARK ROMANOV WITH THE REINDEER SKULL
DISCOVERED IN SVALBARD 2021

Photo: Tord Karlsen

Instagram



2



99,406 likes

22 December 2023



LATEST NEWS

Nordplus Award

In January 2024, the Arctic Sense 360 educational project earned noteworthy recognition by being chosen as a distinguished green 'best practice' initiative! Our project stood out among 130 contenders, with only 12 others selected alongside us.



Nordplus

Bergen Aquarium

Bergen Aquarium will be showcasing a 12-minute version of our short film 'Arctic Odyssey' starting in spring 2024, with an estimated two years of streaming. The museum typically attracts 200,000 visitors per year.



AKVARIET

I BERGEN



The New York Times Magazine

January 21, 2024



Photo: Conor McDonnell

The
Whale
Who Went
AWOL

How do you
solve a
problem
like Hvaldimir?
By Ferris Jabr

WE MADE THE COVER

January 2024

In November 2023 the team were fortunate to have an incredible encounter with Hvaldimir, arguably the world's most famous whale, in the fjords of Rogaland.


[Click HERE for further information](#)

This encounter, captured by photographer and **Barba** team member, [Conor McDonnell](#), featured on the front page of **The New York Times Magazine** in January 2024.



ASSORTED

PODCAST



Royal Geographical Society with IBG

Saving our seas with Sally Earthrowl

Sally Earthrowl is a British geographer and educator who has a wealth of experience in exploring our seas and oceans.



Tawanda presenting to school classes during one of many online presentations. Exploring by The Seat of your pants.



Front page of the November 2023 issue of Yachting World

Podcast with teacher Sally Earthrowl discussing the Barba experience and more.

[Click HERE to listen](#)



A diver in a black wetsuit is swimming horizontally in the foreground, facing left. The diver is wearing a mask and has a light on their forehead. In the background, several orcas are swimming in the same direction. The water is a deep blue color with some light reflections on the surface.

NEXT EXPEDITION, 2024

Looking ahead, our next big voyage will be the winter of 2024/25, spending our fifth season documenting orcas in Northern Norway.

Embarking on this ambitious journey, we aim to continue our exploration of the Arctic region, leveraging cutting-edge technology and a dedicated team of researchers to advance contributions to polar exploration, science, and education.



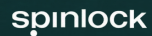
SPECIAL THANKS



COLLABORATING PARTNERS



TECHNICAL SPONSORS





Thank you for your contribution in making this happen!

TO BE CONTINUED...

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