

EXPEDITION GLACIALIS

A SCIENTIFIC VENTURE INTO THE ARCTIC



The project


Glacialis is an innovative scientific expedition to monitor marine mammals in one of the Earth's last wilderness areas. The project team consists of three marine scientists, and a professional photographer. A community of partners supports this research effort. Our vision is to improve knowledge about the Arctic and produce open data in collaboration with a maximum of stakeholders.

A light blue, stylized graphic of an ice formation or glacier, with jagged edges and a central peak, serving as a background for the contact information.

JOIN
EXPEDITION
GLACIALIS

www.glacialis.ch
info@glacialis.ch

Assess climate change impacts - Develop innovative, replicable scientific methods - Improve knowledge of Arctic species and habitats - Raise awareness and promote marine conservation and interdisciplinary collaborations.

A satellite map of the Labrador Sea and Baffin Bay. A teal line traces a path through the water, labeled with months: June, July, August, September, and October. A dashed white box is located in the upper left portion of the map, covering parts of the landmasses.

August

July

September

June

October

Itinerary

From May to September 2021, we will monitor marine mammals in the Labrador Sea and Baffin Bay.

This part of the expedition will be our pilot study. Collaboration with local communities and institutions will help us to better understand this environment and its biodiversity in the context of global warming.

In the following years we will venture further into the Northwest Passage.

2021 - 2022

2022 - 2023





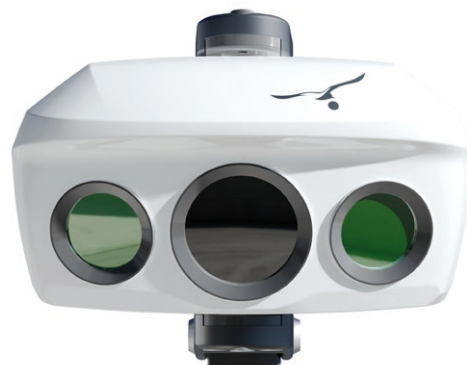
Visual monitoring

Expedition Glacialis will create a visual inventory, photo identification and drone footage of marine mammals in collaboration with ROMM, Cohabys, R&E and Azura. Seabird and fish observations will also be systematically recorded. Data will be shared on open and artificial intelligence platforms such as OGSL and Flukebook and with other relevant stakeholders to promote open science and collaborations.



Thermal imaging

We will work with our industrial partners BSB Marine and Merinov to develop species identification. Linking our visual observations to thermal imaging will also help the development of automated navigational aid to find waterways and avoid collisions with whales, icebergs and macro-waste.

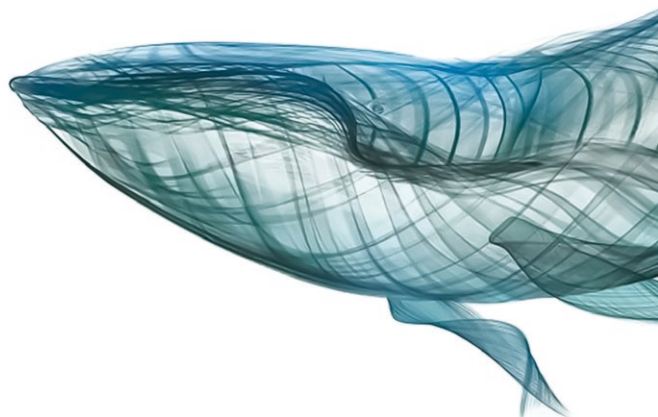


With its day and night vision, OSCAR augments the crew's vigilance 24/7



Acoustic

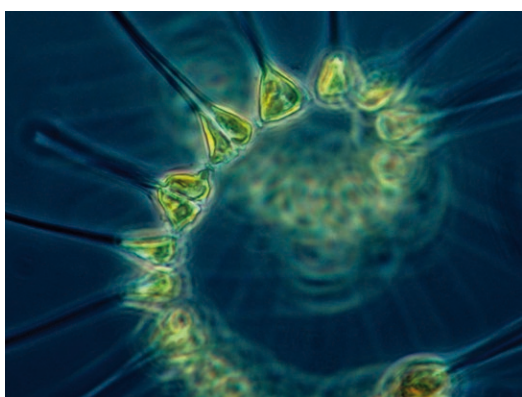
Expedition Glacialis allies with Michel André from the Barcelona Laboratory of Applied Bioacoustics [LAB] to monitor marine fauna and the effects of human activities. State-of-the-art acoustic devices will be on board and will allow real-time acoustic monitoring. We are also in partnership with RS Aqua for their passive acoustic monitoring devices (RS ORCA).





Macro pollution & micro plastic

Macro pollution will be visually monitored. Regular microplastic sampling will be done in collaboration with Oceaneye. These data will inform about pollution and direct threats to wildlife.



Plankton & physicochemical parameters

Plankton, salinity, temperature, pH, chlorophyll-A and other parameters can be easily collected along our other protocols.



© Stéphane Granzotto

The Swiss Cetacean Society

We will represent the Swiss Cetacean Society, a 22 year old NGO with extensive experience in logistics, scientific research, participative science and marine mammals protection.

<https://www.swisscetaceansociety.org>

Atlas expeditions

A swiss non profit organisation dedicated to the preservation of natural and cultural heritage. Atlas Expeditions supports the organization of scientific, educational and artistic projects on board the sailing vessel Atlas.

<https://www.sailingatlas.org>





The Atlas: a very tough 43ft steel expedition vessel

Our vessel

The Atlas offers ample room for scientific equipment and is an ideal platform to develop deployment solutions. She was designed in the Netherlands by Dick Koopmans and built in compliance to the highest standards. Her stainless steel deck and pilothouse offers a secure all-weather observation platform.

A small research platform

Micro research platforms are getting more and more popular in the field of oceanography. Small vessels are more flexible, less expensive and less invasive than larger research ships.

We are working in partnership with ARCO Marine to engineer specific deployment solutions for our instrumentation (thermal camera, underwater camera, hydrophone, lidar drone, multiparameter probe).



Media & communication

Our talented team of photography and communication experts will produce captivating media to bridge the gap between art and science:

Radiophonic piece: Julie Hénoc - Radio and visual Arts producer - POWA.

Documentary film: Richard Mardens - Cameraman and biologist - RM.

Large format photography: Arnaud Conne - Professionnal photographer - SAB.



RM RICHARD MARDENS



We will share the venture, our logbooks and results on our partner's blogs and on social networks to bring the web community together around the concerns of the Arctic.



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[*Eubalaena glacialis* - The North Atlantic Right whale] © NOAA