

APPLICATION FOR CONSENT TO CONDUCT MARINE SCIENTIFIC RESEARCH

1. General Information

1.1 Cruise name and/or number:	F2025-035-Blue Green Expeditions
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1.2 Sponsoring institution(s):		
Name	Address	Name Of Director
The Seabirds Foundation	5422 NE 51st Circle, Vancouver, WA, 98661 +1 (360) 931-0826 ashley@theseabirds.org	Ashley Bugge

1.3 Scientist in charge of the project:	
Name:	Ashley Bugge
Country:	United States
Affiliation:	The Seabirds Foundation
Address:	5422 NE 51st Cir Vancouver, Washington 98661 United States
Telephone:	3609310826
Email:	ashley@theseabirds.org

1.4 Entity(ies) /Participant(s) from coastal State involved in the planning of the project:	
Name:	See Section 6.2
Country:	
Affiliation:	
Address:	
Telephone:	
Fax:	
Email:	
Website (for CV and photo):	

1.5 Submitting officer:	
Name:	Cristina Moore
Affiliation:	The Seabirds Foundation
Address:	7021 venetian way, west palm beach, fl 33406 West Palm Beach, Florida 33406 United States
Telephone:	7862866274
Fax:	
Email:	cristie@theseabirds.org

2. Description of Project

2.1 Nature and objectives of the project:	We are a team of female citizen scientists on a tour vessel proposing the deployment of hydrophones in the remote and data-scarce waters of Greenland, Svalbard (Spitsbergen), and Iceland. Our mission is to create a free and open-source, context-rich database that blends underwater acoustics with visual media (photos, videos, drone footage), environmental data (including Secchi disk measurements, CTD Castaway readings, pH levels), and precise geolocation. By combining storytelling with science, we aim to offer a more accessible, engaging, and comprehensive view of these understudied marine regions. Our unique access to these Arctic and sub-Arctic zones positions us to contribute critical baseline data to global ocean knowledge, helping scientists, educators, students, and everyday people like us better understand and protect our shared ocean.
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2.2 Relevant previous or future research projects:
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As citizen scientists and ocean advocates, our work is rooted in a deep commitment to making the ocean more accessible and relatable to all, with the goal of fostering widespread conservation efforts. We believe that storytelling and diverse educational approaches—blending science with personal experience—can bridge the gap between data and public engagement. In the past, we've participated in self-funded expeditions as private citizens to remote and ecologically significant regions, including Antarctica, Arctic Norway, and the Silver Bank in the Dominican Republic. Now, with access to hydrophones and supporting instruments, we seek to enrich our education and reach by capturing the underwater soundscapes of these regions. These recordings will complement our visual and environmental data to offer a more immersive and emotionally compelling understanding of ocean life. In addition to the upcoming Blue Green Expedition, we plan to return to Arctic Norway in November 2025 to continue this work and further expand our open-source, multi-sensory ocean database.

2.3 Previous publications relating to the project:

N/A

3. Geographical Areas

3.1 Indicate geographical areas in which the project is to be conducted (with reference in latitude and longitude, including coordinates of cruise track/ way points):

Krossfjorden: 79.1496° N, 11.7469° E
 Raudfjorden: 79.6667° N, 12.0000° E
 Forlandsundet: 78.2493° N, 12.5069° E
 Phippsøya: 80.7094° N, 20.7931° E
 Parryøya: 80°37'0" N, 20°40'0" E
 Segelsällskapet's Fjord: 72.42884° N, 24.97275° W
 Boons Kyst: 70.1167° N, 23.7500° W
 Sydkap: 60.00° N, 40.00° W
 Akureyri: 65.6826° N, 18.0907° W

3.2 Attach chart(s) at an appropriate scale (1 page, high-resolution) showing the geographical areas of the intended work and, as far as practicable, the location and depth of sampling stations, the tracks of survey lines, and the locations of installations and equipment.

Chart provided - see Section 10.1.

4. Methods and Means to be Used

4.1 Particulars of Vessel:

Name:	Ortelius
Type/Class:	Ship : P/V
Nationality (Flag state):	Netherlands
Identification Number/Lloyds #/MMSI #:	244180151
Owner:	Oceanwide Expeditions
Operator:	Oceanwide Expeditions
Overall length:	90.95 meters
Maximum draught:	5.4 meters
Displacement/Gross tonnage:	4,090.0
Propulsion:	6 ZL 40/48 SULZER
Cruising:	10,5 knots
Maximum speed:	
Call sign:	
INMARSAT number and method and capability of communication (including emergency frequencies):	https://oceanwide-expeditions.com/our-fleet/m-v-ortelius?utm_source=chatgpt.com
Name of master:	Captain Ernesto Barria
Number of crew:	44
Number of scientists on board:	100

4.2 Other craft in the project, including its use:

N/A

4.3 Particulars of methods and scientific instruments:

Types of samples and measurements	Methods to be used	Instruments to be used
Water sample for pH data	Collecting 1 cup of surface water	Refractometer

Turbidity - no sample collected	Deploy a secchi disk (maximum distance 50 feet)	Secchi disk
Conductivity, temperature, and latitude/longitude - no sample collected	Deploy a Castaway conductivity temperature device (Sontek Castaway CTD)	Sontek Castaway CTD
Photo and video - no samples collected	Guests onboard taking photos and video	DSLR cameras, GoPros, cell phones, mirrorless cameras, and drone
Underwater acoustic recordings - no samples collected	Deploy hydrophone overboard	SQ26-H1 Hydrophone

4.4 Indicate nature and quantity of substances to be released into the marine environment:

No

4.5 Indicate whether drilling will be carried out. If yes, please specify:

No

4.6 Indicate whether explosives will be used. If yes, please specify type and trade name, chemical content, depth of trade class and stowage, size, depth of detonation, frequency of detonation, and position in latitude and longitude:

No

4.7 Indicate whether protected species be studied. If yes, please specify:

No

4.8 Indicate whether scientific acoustic equipment will be used.:

Yes

4.9 Indicate whether fishing/trawling will be used.:

No

5. Installations and Equipment

5.1 Details of installations and equipment (including dates of laying, servicing, method and anticipated timeframe for recovery, locations and depth, and measurements):

No

6. Dates

6.1 Estimated overall project start and end dates:

Project Start Date: 8/17/2025

Project End Date: 8/30/2025

6.2 Coastal State-specific details:	
Coastal Area	Norway
Estimated Entry Date:	8/17/2025
Estimated Departure Date:	8/21/2025
Estimated Research Start Date:	8/18/2025
Estimated Research End Date:	8/21/2025
Explanation of multiple entries:	N/A
Research will be performed:	Between 12-200 nm
Extent to which Norway will be enabled to participate or to be represented in the research project:	We are paying guests onboard the ship and anyone onboard is welcome to participate.
Name, affiliation and contact information for all participants from Norway:	N/A
Coastal Area	Greenland
Estimated Entry Date:	8/22/2025
Estimated Departure Date:	8/28/2025
Estimated Research Start Date:	8/22/2025
Estimated Research End Date:	8/28/2025
Explanation of multiple entries:	N/A
Research will be performed:	Between 12-200 nm
Extent to which Greenland will be enabled to participate or to be represented in the research project:	We are paying guests onboard the ship and anyone onboard is welcome to participate.
Name, affiliation and contact information for all participants from Greenland:	N/A
Coastal Area	Iceland
Estimated Entry Date:	8/28/2025
Estimated Departure Date:	8/30/2025
Estimated Research Start Date:	8/28/2025
Estimated Research End Date:	8/29/2025
Explanation of multiple entries:	N/A
Research will be performed:	Between 12-200 nm
Extent to which Iceland will be enabled to participate or to be represented in the research project:	We are paying guests onboard the ship and anyone onboard is welcome to participate.
Name, affiliation and contact information for all participants from Iceland:	N/A

7. Port Calls

7.1 List of Port Calls				
Port	Arrival Date	End Date	Special Logistical Requirements	Shipping Agent
Akureyri	8/29/2025	8/29/2025	Cruise departs from Longyearbyen on 8/17/2025 and arrives in Akureyri on 8/30/2025 where we disembark.	Arranged through Oceanwide Expeditions

8. Participation of the representative of the coastal State

8.1 Modalities of the participation of the representative of the coastal State in the research project:
See Section 6.2
8.2 Proposed dates and ports for embarkation/disembarkation:
See Section 6.2

9. Access to Data, Samples and Research Results

9.1 Expected dates of submission to coastal State of preliminary report, which should include the expected dates of submission of the data and research results:
No more than 3 months from the end date of the research as provided in Section 6.1.
9.2 Anticipated dates of submission to the coastal State of the final report:
No more than 2 years from the end date of the research as provided in Section 6.1.
9.3 Proposed means for access by coastal State to data (including format) and samples:
Data will be provided through official channels at no cost to the coastal State(s). Samples will be provided upon request.
9.4 Proposed means to provide coastal State with assessment of data, samples and research results:
Assessment of data, samples and research results will be provided at no cost to the coastal State(s).
9.5 Proposed means to provide assistance in assessment or interpretation of data, samples and research results:
Assistance in further assessment or interpretation will be provided upon request.
9.6 Proposed means of making results internationally available:
All data collected during the expedition will be compiled into a comprehensive spreadsheet, organized by location and categorized by date. A one-sheet post-expedition trip report will summarize key findings and include direct links to the full dataset. Once input, all data will be accessible via our open-source database, which will be made available at no cost to the coastal states and international partners. We are also happy to provide samples or assist with data interpretation upon request.

10. List of Supporting Documentation

10.1 List of attachments, such as additional forms required by the coastal State, etc.:			
Attachment Type	Description	Attachment	Submission Date
Proposed Cruise Track	Svalbard, Greenland, Iceland	Proposed Cruise Track for Blue Green Expedition.docx.pdf	3/31/2025 2:27 PM
Supplemental Material	Hydrophone user guide/manual with specs. In reference to Svalbard, Greenland, Iceland.	CRT-40P Hydrophone User Guide R3.pdf	3/31/2025 2:28 PM
Supplemental Material	Seabirds foundation info one-pager. Svalbard, Greenland, Iceland.	Arctic 2025 Seabirds Citizen Science.pdf	3/31/2025 2:29 PM
Supplemental Material	Greenland Form	Notification of Proposed Research Cruise_Denmark-Greenland.pdf	4/2/2025 3:59 PM
Supplemental Material	Additional Greenland Form	Greenland_Genetic Resources - Application New.docx.pdf	4/14/2025 4:36 PM
Supplemental Material	Greenland Form	Notification of Proposed Research Cruise_Denmark-Greenland.docx.pdf	4/14/2025 4:37 PM
Supplemental Material	Additional Form for Norway	Notification of Proposed Research Cruise_Norway - Svalbard.docx (1).pdf	4/14/2025 4:39 PM

Executed: 4/14/2025 8:41:02 PM (Coordinated Universal Time)

THE SEABIRDS FOUNDATION

Teach. Reach. Explore.

WHO WE ARE

The Seabirds Foundation is a 501(c)(3) nonprofit organization founded on the belief that *anyone*—regardless of age, education, background, or scientific training—can contribute meaningfully to ocean science and conservation. Our team is an intergenerational and international collective of citizen scientists, ranging in age from 6 to 86, who come from a wide variety of professional, educational, and cultural backgrounds. What unites us is a shared commitment to protecting and understanding the ocean through ethical, community-based exploration and data collection.

OUR APPROACH TO SCIENCE

We believe that meaningful ocean science can be conducted by anyone, anywhere—with the right tools and a shared sense of purpose. The Seabirds travel to data-poor regions like the high Arctic, Antarctica, and remote coral reefs and equip everyday explorers—families, travelers, sailors, students, and adventurers—with accessible tools to collect valuable ocean data. Whether through visual observations, sound recordings, or easy-to-use scientific instruments, we make *science participatory, purposeful, and empowering*. Our work prioritizes:

- ♦ **Responsible Observations & Data Collection** – We gather information on ocean health through observations captured by camera and video lens, water quality monitoring, and acoustic recordings using citizen science-friendly tools. Our data is collected by citizen scientists with methodology guided by scientists, engineers, and experts in the field.
- ♦ **Collaborative Exploration** – We work onboard expedition vessels with anyone interested in learning more about our oceans and things we can do to help protect them.
- ♦ **Non-Invasive Methods** – Our data collection techniques are low-impact and non-extractive, prioritizing environmental stewardship and cultural respect.
- ♦ **Education & Inclusion** – We are committed to involving underrepresented groups in citizen science, creating learning opportunities and cultural exchange through hands-on, place-based exploration.

TEACH, REACH, AND EXPLORE

By creating “living echoes” of these places—where scientific rigor meets artistic storytelling—we aim to foster a deeper connection to the ocean and inspire further study and conservation efforts. By pairing hard data with immersive media, The Seabirds amplify the voices of the sea and empower communities to take meaningful action, ensuring these ecosystems have lasting echoes far into the future.

WHY WE SEEK PERMISSION TO WORK IN YOUR WATERS

The Seabirds Foundation respectfully applies for permission to conduct citizen science observations and non-invasive ocean data collection in your country’s marine regions. Our goal is to contribute to broader ocean knowledge while elevating local marine narratives and fostering environmental stewardship.

OUR EXPERIENCE & CREDENTIALS

Our members have contributed to polar citizen science programs, community conservation projects, and international education initiatives. While our backgrounds are diverse—ranging from educators, engineers, and scientists to sailors, students, and artists—we are united in our commitment to ethical science and global collaboration.

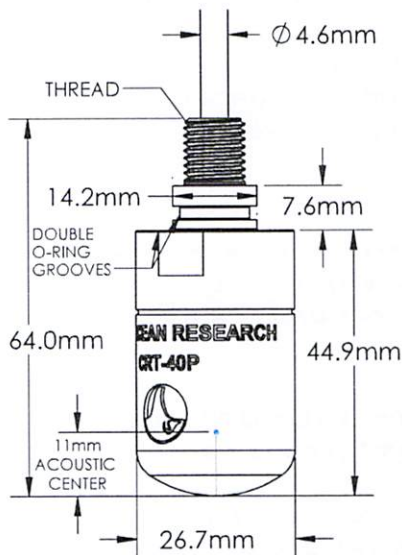


CETACEAN RESEARCH TECHNOLOGY

+1(330) 419-2520 (TOLL FREE & WHATSAPP)
CRTINFO@CETRETEC.COM WWW.CETRETEC.COM

CRT-40P HYDROPHONE KIT: **GUIDE & SPECIFICATIONS**

TECHNICAL SPECIFICATIONS



SPECIFICATIONS	
LINEAR FREQUENCY RANGE (± 3 DB) [KHz]	0.015 – 43
USEABLE FREQUENCY RANGE (+3/-12dB) [KHz]	0.005 – 75
TRANSDUCER SENSITIVITY [dB, RE 1V/MPa]	-194
PREAMPLIFIER GAIN [dB]	30
EFFECTIVE SENSITIVITY* [dB, RE 1V/MPa]	-164
SPL EQUIV. NOISE AT 1KHz [dB, RE 1MPa/√Hz]	43
POWER REQUIREMENT [VDC]	2.4 TO 5.5 PLUG-IN POWER 24V OR 48V PHANTOM POWER
RMS OVERLOAD ACOUSTIC PRESSURE [dB, RE 1MPa]	156 (PLUG-IN POWER) 169 (PHANTOM POWER)
MAXIMUM OPERATING DEPTH [M]	250
OPERATING TEMPERATURE RANGE [°C]	-40 TO 85
DIMENSIONS [MM]	SEE IMAGE AT LEFT
DRY-END CONNECTOR	3.5MM STEREO PLUG
DIRECTIONALITY	OMNI. BELOW 10KHz
INTEGRAL WEIGHT AND MATERIAL	75 GRAM; 316 STAINLESS

*EFFECTIVE SENSITIVITY IS TRANSDUCER SENSITIVITY + GAIN; SENSITIVITY RATINGS MAY VARY FROM PUBLISHED VALUES UP TO 3dB

GENERAL OPERATION DIRECTIONS

1. THE CRT-40P HYDROPHONE IS POWERED BY THE **PLUG-IN** POWER FEATURE OF A DIGITAL AUDIO FIELD RECORDER OR OTHER SIMILAR MEANS OF POWER THAT IS 2.4V TO 5V.
 - A. ALTERNATIVELY, YOU CAN USE A 3.5MM TO XLR ADAPTER TO RUN THE HYDROPHONE OFF COMMONLY AVAILABLE 24V OR 48V PHANTOM POWER IN A SIMILAR MANNER.
2. PLACE THE SENSOR END OF THE HYDROPHONE AT LEAST 2M (6 FEET) BELOW THE WATER'S SURFACE FOR BEST RESULTS. **DO NOT SUBMERGE THE RECORDER.**
3. THOROUGHLY READ THE OWNER'S MANUAL FOR THE RECORDER TO BECOME FAMILIAR WITH ITS OPERATION.
4. REMEMBER TO TURN OFF THE RECORDER.
5. **RINSE** YOUR HYDROPHONE WITH FRESH WATER AND DRY IT OFF WHEN FINISHED USING IT.
6. **DO NOT LEAVE THE SENSOR END OF YOUR HYDROPHONE IN DIRECT SUNLIGHT WHILE IT IS OUT OF THE WATER.** TEMPERATURES EXCEEDING 194 °F (90 °C) CAN PERMANENTLY DECREASE ITS SENSITIVITY.

ZOOM H1N DIGITAL RECORDER GENERAL OPERATION

1. TURN THE ZOOM RECORDER ON.
2. CONNECT THE HYDROPHONE TO THE 3.5MM “**LINE IN**” JACK ON THE RIGHT.
3. USING THE DIAL ON THE TOP CENTER OF THE ZOOM RECORDER, ADJUST THE INPUT LEVEL AS NEEDED TO GET A GOOD SIGNAL.
4. PRESS THE “**REC**” BUTTON TO START RECORDING. PRESS THE BUTTON A SECOND TIME TO STOP RECORDING, WHICH ALSO SAVES THE FILE.
5. USE THE SUPPLIED USB CABLE TO CONNECT THE ZOOM RECORDER TO YOUR COMPUTER FOR TRANSFERRING FILES TO THE COMPUTER.
6. READ THE USER MANUAL AND CHANGE THE SAMPLE RATE AND OTHER SETTINGS AS YOU SEE FIT.
7. PLUG HEADPHONES INTO THE 3.5MM “**LINE OUT**” JACK ON THE LEFT.
8. SET THE “**VOLUME**” CONTROL ON THE LEFT SIDE OF THE ZOOM RECORDER TO A LOW SETTING AND SLOWLY ADJUST THE VOLUME FOR BEST LISTENING.

SPEAKER OPERATION

*YOU MAY CONNECT ANY AMPLIFIED SPEAKER, MARINE STEREO, PA SYSTEM, CAMCORDER, ETC. TO THE 3.5MM “**LINE OUT**” JACK ON THE ZOOM RECORDER OR ATTACH WITH THE XLR ADAPTER TO 24V OR 48V PHANTOM POWERED DEVICES. BELOW ARE DIRECTIONS FOR USE WITH THE SPEAKER CETACEAN RESEARCH SUPPLIES*

1. FOR USE WITH 3.5MM CABLE: CONNECT THE ZOOM RECORDER “**LINE OUT**” JACK TO THE *SPEAKER’S* “**AUX**” JACK USING A 3.5MM CABLE. THE “**AUX**” JACK IS USUALLY LOCATED ON THE BACK OR SIDE OF THE SPEAKER.
2. FOR USE WITH BLUETOOTH TRANSMITTER: CONNECT THE BLUETOOTH TRANSMITTER TO THE “**LINE OUT**” JACK OF THE ZOOM RECORDER. TURN ON THE ZOOM RECORDER, BLUETOOTH TRANSMITTER AND *THE* SPEAKER. PAIR THE ZOOM RECORDER TO THE SPEAKER BY PRESSING THE BUTTON ON THE SPEAKER THAT IS FOR BLUETOOTH CONNECTION (USUALLY TWO LINES, OR AN “**M**” SYMBOL). MAKE SURE THE BLUETOOTH TRANSMITTER IS IN TRANSMIT MODE (USUALLY A SWITCH MARKED “**TX**” OR SIMILAR).
3. ADJUST/INCREASE THE ZOOM RECORDER VOLUME, THE SPEAKER VOLUME, AND THE BLUETOOTH TRANSMITTER VOLUME AS DESIRED.
4. ALTERNATIVELY, IT IS POSSIBLE ON SOME OF OUR SPEAKERS TO PLUG THE HYDROPHONE DIRECTLY INTO THE “**DC 5V**” JACK ON THE SIDE OF THE SPEAKER.



VIDEO DEMO QR CODE
[WWW.YOUTUBE.COM/@CETACEANRESEARCH](https://www.youtube.com/@CETACEANRESEARCH)

CETACEAN RESEARCH™ HYDROPHONES CARRY A 90-DAY LIMITED WARRANTY. DEFECTIVE UNITS WILL BE REPAIRED OR REPLACED AT THE MANUFACTURER'S DISCRETION. DAMAGE TO THE CABLE OR OTHER MISUSE VOIDS THE WARRANTY. YOUR HYDROPHONE MODEL/SERIAL NUMBER IS LOCATED ON THE HYDROPHONE BODY.

Proposed Cruise Track for Blue Green Expedition

Departing on 8/17/2025 from Longyearbyen: 78.2253° N, 15.6256° E

Krossfjorden: 79.1496° N, 11.7469° E

Raudfjorden: 79.6667° N, 12.0000° E

Forlandsundet: 78.2493° N, 12.5069° E

Phippsøya: 80.7094° N, 20.7931° E

Parryøya: 80°37'0" N, 20°40'0" E

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Boons Kyst: 70.1167° N, 23.7500° W

Sydkap: 60.00° N, 40.00° W

Arriving/Disembarking on 8/30/2025 in Akureyri: 65.6826° N, 18.0907° W