21/22 ANNUAL REPORT

Photo: Alexander Turner, Unsplash

Contents

Annual Report 2021-22

Letter from Leadership

Throughout the past decade, MEOPAR has worked effectively with numerous partners from different sectors to support a coordinated, Canadian approach to addressing risks and opportunities of the marine environment through development and sharing of improved approaches to ocean observation, prediction and response. In 2021-2022, MEOPAR continued along this path, despite disruptions arising from the COVID pandemic, and continued to support the work of its network researchers, highly qualified personnel (HQP), and partners.

MEOPAR's research and training programs supported 88 network researchers with project funding and other opportunities, and 425 highly qualified personnel (HQP) participated in events and training activities offered by the network.

In addition to support to individuals and, especially, teams of researchers, MEOPAR has continued to develop and support major initiatives that address coordination gaps and/or issues of major national importance. Over the past year, this has included continued support to the Canadian Integrated Ocean Observing System and the National Research Vessel Task Team (NRVTT), which are national structures that were established by MEOPAR and partners to address national-scale gaps in ocean data management and vessel infrastructure operations and planning, respectively. The Tracer Release Experiment (TReX), which is jointly supported by MEOPAR and theRéseau Québec maritime (RQM), is an example of a major project with national-scale involvement, that seeks to improve understanding of marine dispersion in order to advance national capacity to respond to marine accidents and spills and better understand and predict phenomena such as coastal deoxygenation.

The NRVTT's identification of the critical lack of access for Canadian scientists to vessels required for ocean research, led to MEOPAR's Modular Ocean Research Infrastructure Initial Development and Demonstration (MORI IDD) project. Over the past year, this project supported a highly diverse group of researchers to get to sea with sophisticated equipment, on board non-specialized Canadian vessels. The expeditions will improve understanding and prediction of marine fog, assess the effectiveness of marine protected areas in protecting benthic biodiversity and allowed deploy major ocean climate monitoring systems in deep water off Canada's coasts. More significantly, the project demonstrated a cost-effective and innovative way to support Canadian ocean researchers to pursue world-leading ocean research.

MEOPAR also provided engaging opportunities for its Canada-wide network to meet to discuss research results and priorities, as well as to access training materials and continue to promote equity, diversity, inclusion, and accessibility (EDIA) within Canada's marine research community. Given the ongoing pandemic, MEOPAR's annual training and research meetings in 2021-2022 were held in a virtual format for the 2nd year running. The meeting provided opportunities to address topical issues together; for example via a well-attended workshop on "Anti-Racism and Equity in Science." A wide range of Knowledge Mobilization initiatives continued over the past year, including advanced planning for the network's second "National Forum on Coastal Community Resilience".

As we reflect on the successes of the past decade, MEOPAR's leadership, Board of Directors and Administrative Centre can't help but celebrate our accomplishments. In reflecting on the past, we also look towards the future. MEOPAR continues to remain a critical connector in the ocean science landscape (and seascape) in Canada. We enter our second decade with eagerness to strengthen the existing partnerships that we have created, while fostering new and exciting initiatives and projects.

KAREN DODDS, Chair of the Board
DOUG WALLACE, Scientific Director
RON PELOT, Associate Scientific Director

About MEOPAR

Established in 2012, The Marine Environmental Observation, Prediction and Response Network (MEOPAR) is a national Network of Centres of Excellence linking Canada's top marine researchers and highly qualified personnel with partner organizations and communities across the country. Driven by the vision of a coordinated Canadian approach to ocean research, MEOPAR funds leading-edge science, mobilizes results, overcomes barriers to collaboration and trains the next generation of marine professionals. MEOPAR is an independent non-profit hosted at Dalhousie University in Halifax, Nova Scotia, and our researchers, HQP, field sites and partnerships stretch across nearly every province and territory.

VISIT **meopar.ca** FOR MORE INFORMATION.

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Photo: TReX seascape, Doug Wallace

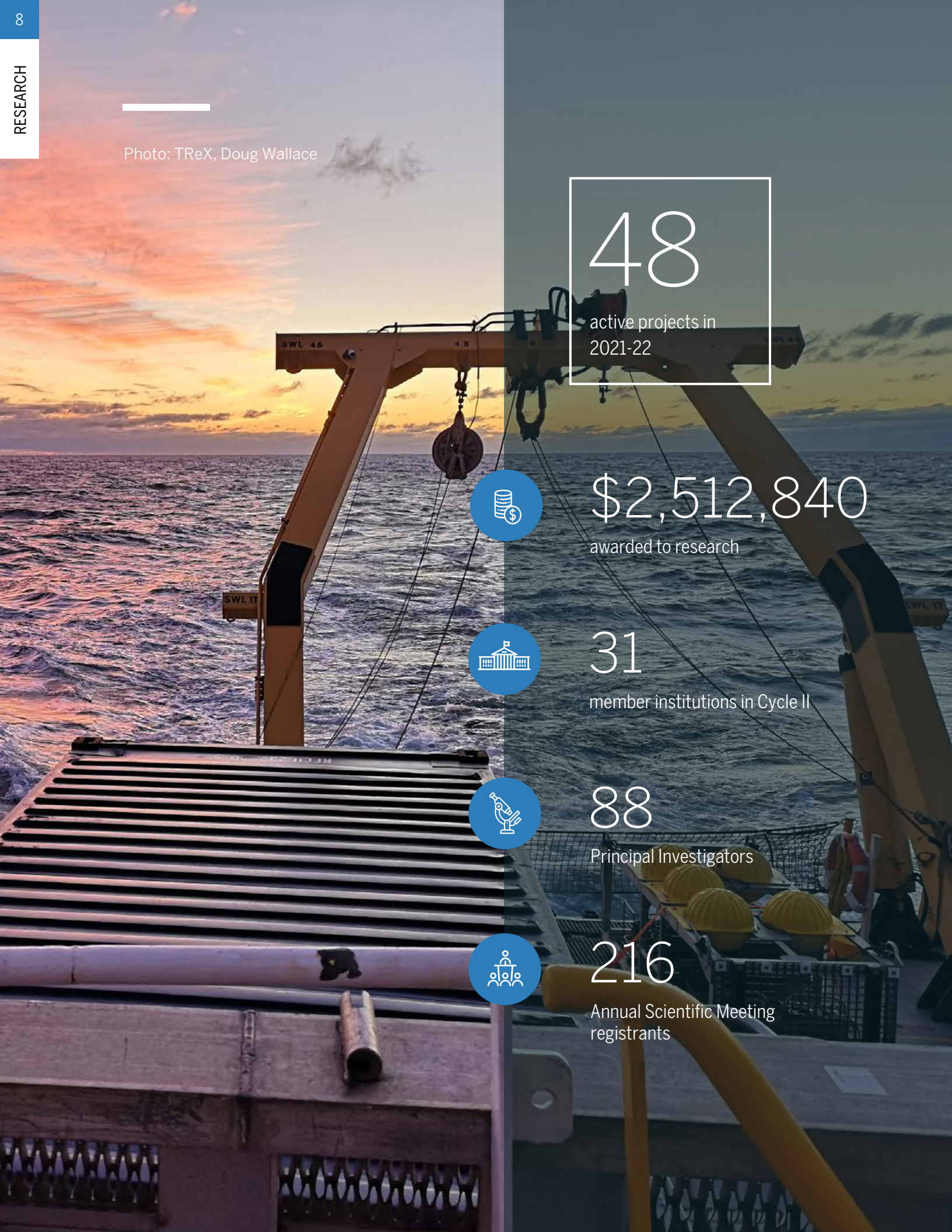


Photo: TReX, Doug Wallace

48
active projects in 2021-22

$2,512,840
awarded to research

31
member institutions in Cycle II

88
Principal Investigators

216
Annual Scientific Meeting registrants

HIGHLIGHTS: Research Program

The Research Program supports a networked, multi-disciplinary approach to exploring the physical, ecological, economic, and technological changes and phenomena associated with marine risk—and translating that knowledge into valuable solutions for Canadians. The research program achievements in 2021-2022 are the result of 252 Network researchers and 425 HQPs across 22 institutions and dozens of partner organizations.

TREX GOES DEEP

Over the last year, the Tracer Release Experiment (TReX) project, in partnership with the Réseau Québec Maritime (RQM), continued its multisectoral, multidisciplinary experiments. TReX's second surface and first deep-water cruises occurred this year, using tracked dye and drifters, the simulated marine spills explored ocean dispersion in the Gulf of St. Lawrence.

PDFS JOIN THE TREX PROJECT

Following initial success of the TReX Graduate Student Award, MEOPAR and RQM expanded their joint funding program to postdoctoral fellows in 2021. This call for proposals supported four postdoctoral fellows and two Masters of Science students to participate in the TReX project. As the projects near completion, they have gained valuable research experience during the cruises, hands-on training with more senior researchers, and professional development opportunities, preparing them for the next phases of their careers.

SUPPORTING EARLY CAREER FACULTY

MEOPAR's Early Career Faculty (ECF) training program supports ocean scientists establishing their paths as new academic fellows. The ECF in the Network are seeking more opportunities for professional skills to complement their academic and research skills to help them establish themselves as leaders of their own team. In the fall of 2021, MEOPAR provided a free, four-part *Project Team Management* virtual training series, hosted by Robyn Roscoe (PMP, Lyric Management). The series was recorded and published online to continue to be a resource for others.

Photo: Mahalon Blake, Unsplash

Pandemic delay leads to research refinement

PROJECT TITLE	Holyrood Sub-Arctic Coastal Observatory
FUNDING CALL	Early Career Faculty Award

While COVID-19 created major challenges for Network researchers, they have also taken advantage of new opportunities. One example is Dr. Katleen Robert, Canada Research Chair (Tier II) in Ocean Mapping at the Fisheries and Marine Institute of Memorial University of Newfoundland and Labrador.

Based at the Marine Institute and in partnership with Ocean Networks Canada's (ONC), the Holyrood Underwater Observatory in Newfoundland and Labrador, the project planned to use a cabled (Internet- and power-connected) platform that hosts oceanographic sensors, video, and time-lapse photography that can be used to study movement of invertebrates in response to environmental variability. Although pandemic-related delays caused the deployment of the observatory to also be delayed, Dr. Robert's team used this time to their advantage.

The team built strong national cooperation into this project, involving Ocean Networks Canada (ONC) and Fisheries and Oceans Canada. Thanks to this connection, Dr. Robert's student, Ryland Command, was able to employ pre-existing datasets collected on the Pacific coast, including the response of the deep-sea pink urchin *Strongylocentrotus fragilis* to a sudden environmental change: a Marine Heat Wave (MHW) off the coast of Vancouver Island.

By the time the observatory was deployed in February 2021, Dr. Robert and her team had refined the project, using the methodologies developed and experience gained by studying the Pacific coast datasets. The observatory has multiple purposes, including support for ocean science, advancement of Canada's blue economy as an industry sensor test bed and for ocean education, as well as outreach and public engagement. It monitors currents, waves, water temperature, salinity, and underwater sounds, and features a high-resolution camera developed by SubC Imaging of Newfoundland and Labrador to collect time-lapse video of nearby flora and fauna. As a result of the studies during the pandemic, a fluorometer was added to measure chlorophyll concentration.

The year of data now gathered in Holyrood Inlet showed high-frequency variability in the benthic environment during the transition from winter to spring, and the unexpected, sudden emergence of more than 200 *Psolus* sp. sea cucumbers, coinciding with the arrival of phytodetritus at the seafloor in spring.

Now that the cabled observatory is in place, disruptions from events like the pandemic won't affect continuing data collection. Operating 24/7, data can be accessed in real time through Ocean3.0, ONC's data management system. The project will continue to contribute to the Holyrood Underwater Observatory and collect data for years to come.

Photo: Rich McCue, Unsplash

Engaging research on the Salish Sea

PROJECT TITLE	Model of Impact of Dilbit and Oil Spills in the Salish Sea (MIDOSS)
FUNDING CALL	Partnered Call with Ocean Networks Canada (ONC)

On the Pacific coast, a MEOPAR-funded project is working to improve the scientific knowledge and tools to support evidence-based planning in preparation for, and in response to, an oil spill.

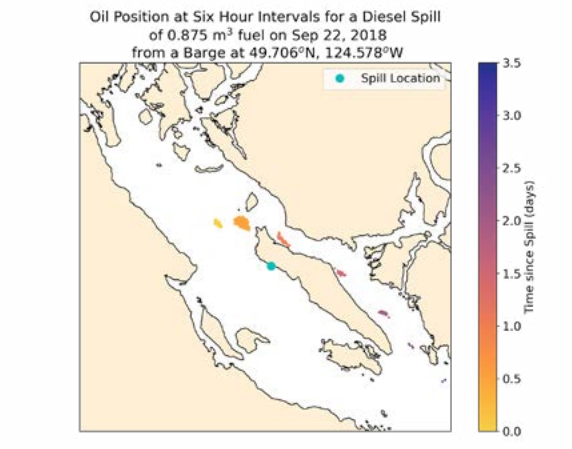
Dr. Susan Allen's (University of British Columbia) project models the behaviour of oil and Dilbit spills. Dilbit is bitumen which has been diluted, making it easier to transport.

Dr. Allen and her co-investigators, Dr. Stephanie Chang (University of British Columbia) and Dr. Haibo Niu (Dalhousie University) examined how a Dilbit spill would behave in the Salish Sea and which coastal areas are most likely to be impacted. This builds on Dr. Allen's previous project (from MEOPAR Cycle I) which resulted in a model now widely used by decision makers called SalishSeaCast NEMO Model.

This project has been a powerful engagement and networking tool. Thanks to engagement with numerous stakeholders, such as the Canadian Coast Guard, Canadian Meteorological Service of Canada, Environment and Climate Change Canada and local governments in coastal communities, they've learned how spill risk can be effectively represented and communicated.

The maps produced by the project team were well received and understood by stakeholders during the project final workshop in July 2021. The current maps are now being used by end users, including the Canadian Hydrographic Service.

The model developed from the project is now being evaluated by decision makers at Environment Canada with the ultimate goal of integrating it into their operational models.



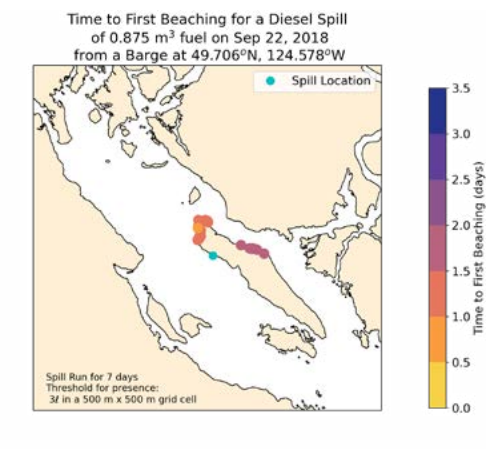


Photo: Laura Lefurgey-Smith, Unsplash

Connecting coastal communities with critical research

PROJECT TITLE	Resilient Coasts Canada Platform
FUNDING CALL	Response Core

With increasing natural threats and a changing climate, coastal areas are facing major challenges and decisions. The Resilient Coasts Canada Platform, Resilient-C, is an online tool to facilitate sharing knowledge, experience, and resources between coastal communities for risk reduction.

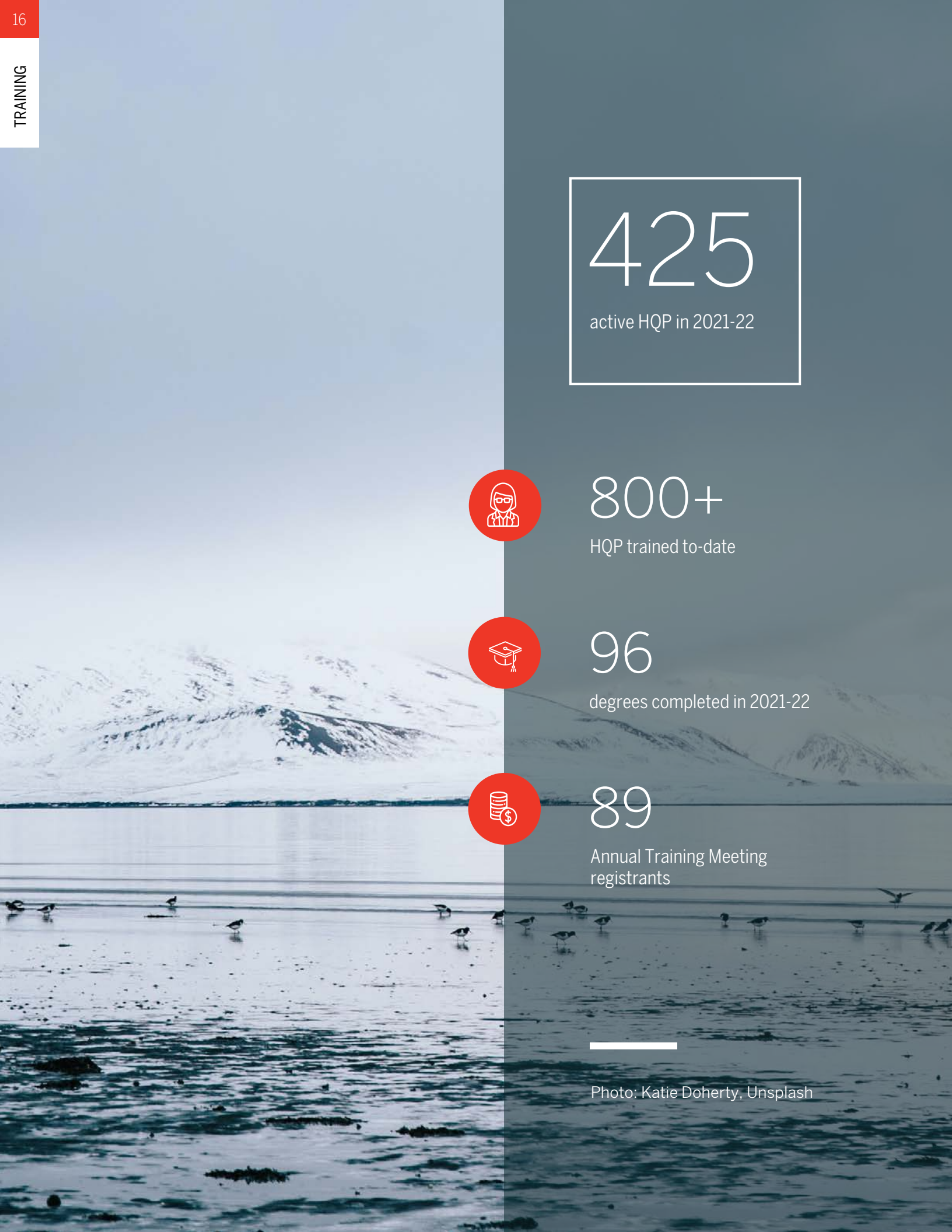
Initially released in beta form with information on 50 British Columbia communities, the Resilient-C platform has since undergone considerable improvement and expansion: the platform now includes 182 coastal communities in seven provinces and includes information on over 2,100 risk reduction actions (e.g., coastal land use planning measures) being undertaken.

The open platform allows professionals from various geographic areas to access valuable information for decision-making and planning. Community planners, engineers, disaster management professionals, NGOs, and more can review hazard vulnerability indicators and connect directly with other communities facing similar hazards to get inspiration and adapt tools to their own needs.

Data in the Resilient-C database is being analyzed, presented, and published, including a paper under review based on HQP David Righter's Master of Science thesis on coastal adaptation implementation. Another tool, the "Community-based Ocean-acidification Risk Analysis" (CORA) tool, has been completed, with a framework to integrate projections about ocean acidification with biological and socio-economic information on potential impacts of ocean acidification on coastal communities in Atlantic Canada.

This year, Resilient-C launched version 3.4 of the platform (August 2021) with release of the final version (4.0) nearing completion. The final platform reflects updated and expanded content as well as platform refinements to respond to user feedback.

Resilient-C is a project of MEOPAR's Response Core, a focal point of expertise, information, and engagement focused on developing solutions to address the likelihood and consequences of marine-related hazards. All of the Core's activities aim to support coastal risk reduction by bridging research and practice and Resilient-C is used nationally to share grassroot experience and best practices in that field.



425

active HQP in 2021-22

800+

HQP trained to-date

96

degrees completed in 2021-22

89

Annual Training Meeting registrants

Photo: Katie Doherty, Unsplash

HIGHLIGHTS: Training Program

MEOPAR is training the next generation of early career researchers (ECR) and early career ocean professionals (ECOPs) to champion cross-sectoral challenges. This is essential to build Canada's capacity to observe, predict and respond to coastal and marine risks. In 2021-2022, MEOPAR's Training Program helped forge connections between highly qualified people (HQP, ECR, and ECOPs) nationally and internationally, and worked with experts to facilitate innovative programming.

POSTDOCTORAL FELLOWSHIP AWARDS

The third cohort of our Postdoctoral Fellowship (PDF) Program has continued to excel, building interdisciplinary and international collaborations. Dr. Danielle Denley (Simon Fraser University) has fostered collaboration with the Central Coast Indigenous Resource Alliance (CCIRA) to assess how warming ocean temperatures may impact the persistence of giant kelp beds. Dr. Natasha Hardy (University of Alberta) grew a collaborative network with the National Oceanic and Atmospheric Association (NOAA). Dr. Christian Marchese (University of British Colombia) headed to the Institute of Marine Sciences in Italy as an international visiting research fellow, investigating the connections between phytoplankton dynamics and physical forcing factors in this bioregion.

PARTNERING WITH ARCTICNET

In June 2021, ArcticNet and MEOPAR launched a joint Postdoctoral Fellowship (PDF) Award call for Arctic Marine Research. Designed to improve capacity and mobilize knowledge to support the next generation of Arctic researchers and Northern Communities, it is co-funded over two years. The Joint PDF Program is supporting five qualified individuals in addressing topics of concern for Northern communities, spanning improving access to environmental information for better shipping navigation, Arctic char stock resiliency, traditional diet health, Arctic sea-ice monitoring, and climate change and anthropogenic impacts to Arctic seabirds.

LEARNING AND CONNECTING

MEOPAR has excelled in equipping HQP from across Canada with additional skills needed to be leaders in their areas of expertise. Opportunities in 2021-2022 focused on science communication, growing professional networks, and building capacity for intersectoral and interdisciplinary research. A needs assessment survey of the Network's HQP in August 2021 indicated strong demand for science communication and intersectoral training opportunities. The 2021 Annual Training Meeting, "Building Future Skills to Address Canada's Marine Challenges," provided capacity-building programming and networking opportunities for HQP with a series of sessions on science communication, interdisciplinary collaboration, knowledge mobilization, and career development in the digital era. The most popular sessions were the "UN Decade" Panel Discussion, "Why Hope Matters" Webinar, "Anti-Racism and Equity in Science" Workshop, and "Bringing Your Whole Self to Your Science" workshop on personal branding.

Photo: Diversity of Nature

Diversifying scientific outreach with Diversity of Nature

PROJECT TITLE	Science Outreach Training for Diverse and Early-Career Researchers
FUNDING CALL	Workshop Training Award

"Give a student an outreach opportunity, and they'll communicate science for a day; teach them to do outreach, and they'll communicate science for a lifetime!" This sentiment guided Suchinta Arif and Melanie Duc Bo Massey, co-founders of Diversity of Nature (DoN), as they led three science outreach opportunities this year. These were MEOPAR-supported and were directed at diverse and early-career researchers.

Diversity of Nature is a non-profit scientific outreach organization run by and for Black, Indigenous, and People of Colour (BIPOC). This year, Diversity of Nature received funding from MEOPAR's Training Program and previously received funding from MEOPAR's Fathom Fund, which, along the founding support from Dalhousie University, SuperNOVA Camps, and Imhotep's Legacy Academy, established a strong foundation for a long-term, BIPOC-led, scientific outreach organization. They have reached hundreds of BIPOC youth across Nova Scotia.

Arif and Massey held a one-hour interactive presentation, "Translating Marine Science into Effective Science Outreach," at MEOPAR's Annual Training Meeting in November 2021. Participants were guided through best practices and examples, and then worked in groups to brainstorm a plan for an imagined outreach activity, allowing all to put new learning into practice.

The graduate module they created and delivered in the winter term at Dalhousie University effectively trained six graduate students, one undergraduate student and one postdoctoral fellow on how to create and implement their own outreach initiatives, inspiring four-spin off workshops and the creation of Halifax Shark Week (for underrepresented youth and families to learn about sharks, shark scientists, and the marine environment).

"Opportunities like this certainly have a rippling effect for the community," Arif and Massey said in their project report. "All participants of our Scientific Outreach and Communication Module have let us know that they plan to continue to lead scientific outreach events for their communities, and we could not be more proud!"

In March 2022, they ran a first-of-its-kind Ecological Science Communication Conference (online) invited 15 early-career STEM professionals from historically excluded groups, including racialized people, women, first-generation immigrants, and queer people, to present to over 200 participants from around the world. EcoSciComm topics included new approaches for engaging underrepresented audiences and conducting conservation and climate change outreach. Participants said the workshop was "one of a kind" and "inspiring."

Arif and Massey continue to plan Diversity of Nature outreach events for youth in Nova Scotia. They hope to put on another EcoSciComm in 2023.

Photo: Erik Mclean, Unsplash

Collaboration and co-design with the Canadian Ocean Literacy Coalition

PROJECT TITLE	Why the Ocean Decade Matters: Co-designing Engaging & Inclusive Communication for Canadians
FUNDING CALL	Workshop Training Award

In February 2022, a group of Early Career Ocean Professionals (ECOPs) came together with a collection of mentors from diverse ocean and communications backgrounds. Together, they co-designed a campaign to help young people in Canada connect with the United Nations Decade for of Ocean Science for Sustainable Development.

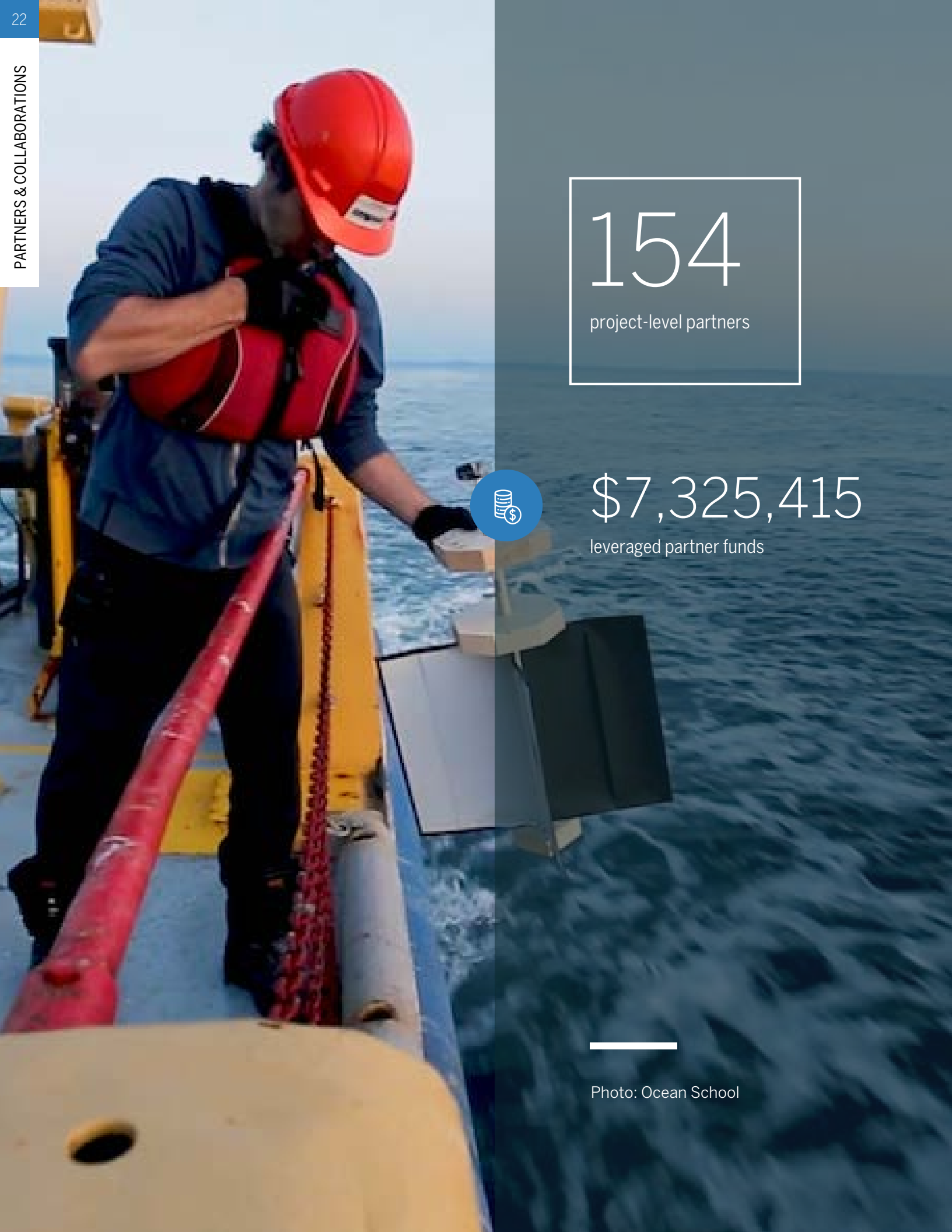
The series was led by the Canadian Ocean Literacy Coalition (COLC)'s National Lead Lisa (Diz) Glithero, and Communications and Design Lead, Meghan Callon, supported by MEOPAR's Workshop Training Award, and included partners ECOP Canada, The Hakai Institute, and Ocean Networks Canada. Through the workshops, the intergenerational team of 27 co-designed a campaign called the Coastal Connection Challenge. The goal of this campaign is to encourage people living in Canada, in particular young people aged 16-30, to explore their connection to the ocean and local waterways.

Participants are challenged to get outside and use people-powered movement (walking, running, cycling, swimming, paddling, using a wheelchair-accessible trail, etc.) to personally connect with local waterways. They track their distance and log the distance on the Challenge website. Through this collective initiative, participants travel, virtually, the distance of Canada's coastline and along some major inland freshwater shorelines.

While the campaign's success so far is promising, taking this campaign from ideation through realization was a key learning opportunity for the young ocean professionals involved.

"Working with COLC on the Ocean Decade Campaign has been a wonderful opportunity to meet and collaborate with some of the incredible diversity of Canadian ocean sector creatives," said Aneri Garg, Marine Ecologist & Science Communicator. "As a participant in this workshop series I've been consistently impressed with their communication, how they've curated networking opportunities with multi-disciplinary ocean mentors, and their commitment to inclusivity & transparency throughout the process."

The campaign is ongoing through 2022, and anyone can join through the Coastal Connection Challenge website.



154

project-level partners

$7,325,415

leveraged partner funds

Photo: Ocean School

HIGHLIGHTS: Partnerships

Over the past decade, MEOPAR has established an important role as a coordinator, bringing organizations and individuals together, to work towards our vision of a coordinated Canadian approach to ocean research, bridging partners from different sectors.

CONFRONTING BARRIERS TO OCEAN RESEARCH

MEOPAR's National Research Vessel Task Team (NRVTT) brings together over 35 Canadian and international researchers, industry, and government partners to address the lack of research vessel capacity needed by Canada's ocean researchers. Under the leadership of Dr. Melissa Anderson, Dr. Doug Wallace, and Doug Bancroft, the NRVTT has supported a suite of initiatives.

An innovative partnership between Amundsen Science and la Flotte Océanographique Française allows ship time to be bartered, providing access to the Arctic for French researchers and flexible access to the ocean, globally, for Canadian scientists. The NRVTT also launched a national User Demand Survey to help evaluate the nature and impact of the limited access to vessel capacity. The results of this survey will inform the work of task team going forward. The NRVTT also supports the Modular Ocean Research Infrastructure project. For more on that project's successes, see page 25.

LAUNCHING CANADA INTO THE OCEAN DECADE

The United Nations declared 2021 to 2030 as the Decade of Ocean Science for Sustainable Development. This initiative calls on the ocean science community around the world to focus on sustainable development for a healthy, resilient ocean. Partners around the world create Actions and Activities which support this mission and submit them to be official endorsed by the Ocean Decade.

MEOPAR will play an active role in Canada's contribution to the Ocean Decade, engaging with government and like-minded research networks and organizations across the country and establishing a Community of Practice. The Steering Committee includes the Canadian Meteorological and Oceanographic Society (CMOS), Canadian National Committee for SCOR (CNC/SCOR), Québec Océan, ArcticNet, Association for the Sciences of Limnology and Oceanography, the Tula Foundation, and Early Career Ocean Professionals (ECOP) Canada, amongst others.

With a vast coastline and extensive expertise in marine research, Canada has an important role to play in the Ocean Decade. MEOPAR is committed to supporting and advancing that role internationally.

Photos: Dan Gibson

MORI successfully sets sail

This year, the Modular Ocean Research Infrastructure Initial Development and Demonstration (MORI IDD) project took to the sea with its first research cruises. MORI research units are embarked on non-research vessels to broaden opportunities for research cruises, demonstrating this project is an alternative pathway to support sophisticated, vessel-based ocean research.

The first cruise, in August 2021, was led by the Offshore Energy Research Association (OERA) onboard the Atlantic Condor and collected core samples at hydrocarbon seep sites. Preliminary geochemical and microbiological analysis was conducted onboard in the containerized labs.

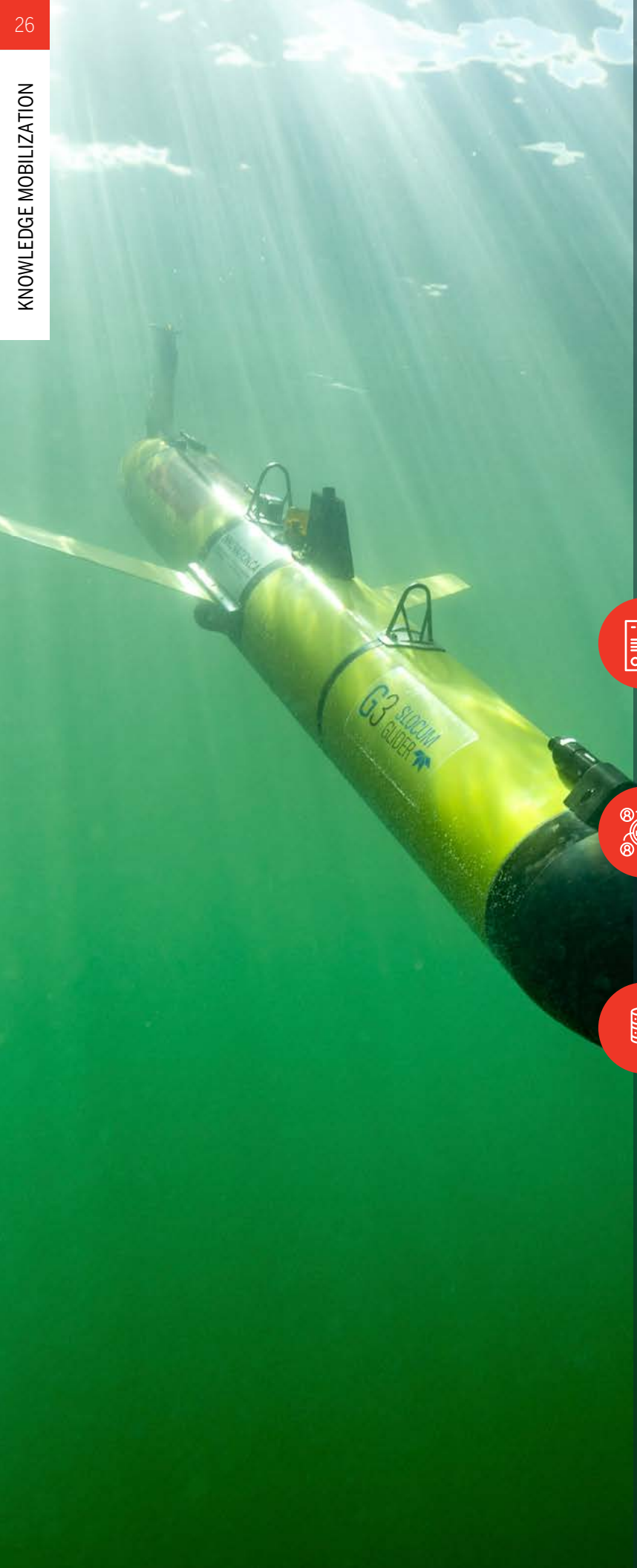
The second cruise, in September 2021, included researchers from Dalhousie University's Oceanography and Biology Departments and collaborators from Scripps Institution of Oceanography. They investigated the interactions between the atmosphere, sea surface and deep ocean in the North Atlantic. The cruise also deployed the SeaCycler, a new, sophisticated mooring system which can collect measurements at a range of depths in the water column.

On September 23, 2021, MEOPAR with the Centre for Ocean Ventures and Entrepreneurship (COVE), hosted a MORI media and demo day, welcoming representatives from Irving Shipbuilding Inc., Dalhousie, Fisheries and Oceans Canada, Hawboldt Industries, and media.

"MORI is an excellent example of industry and scientific researchers working together to advance innovation in the ocean technology ecosystem. I am excited to see the benefits expand across multiple sectors to grow our blue economy, from marine transportation to energy," said Melanie Nadeau, the CEO of COVE.

In its inaugural season, the MORI IDD project successfully initiated its flexible, economical, and scalable partnership to address the urgent needs of the ocean research community. The project would not have been possible without partners like Irving Shipbuilding Inc. (ISI), who have contributed $2 million towards the project. MEOPAR has also invested over $1 million in the MORI IDD project.
The project also has support from the National Research Vessel Task Team (for more on the NRVTT see page 23), COVE Ocean, the National Research Council, Natural Resources Canada, the Department of Fisheries and Oceans, Defense Research and Development Canada, and Hawboldt Industries.

Watch MORI in action on MEOPAR's YouTube Page



1028

Community of Practice members over 10 CoPs

220

publications by MEOPAR researchers

31

Fathom Fund crowdfunding backers

$13,100

crowdfunding dollars raised

An OTN Teledyne Marine Slocum glider deployed off the coast of Nova Scotia. Photo: Nicolas Winkler Photography, courtesy of the Ocean Track Network

HIGHLIGHTS: Knowledge Mobilization

Knowledge Mobilization Program is core to MEOPAR's mission. By sharing research and successes from across the Network, we facilitate collaboration and knowledge transfer, across disciplines, across the country, and across sectors.

COMMUNITIES OF PRACTICE FOSTER CONNECTION

Sharing knowledge and fostering innovative, interdisciplinary collaborations has been made easier thanks to the success of MEOPAR's Communities of Practice (CoPs). MEOPAR supported the launch of three new communities of practice, the Canadian Ocean Mapping Research and Education Network (COMREN), the Canadian NEMO Ocean Modeling Forum (NEMO), as well as the Ocean Decade Community of Practice (read more on page 23). By focusing on improving external communications strategies, last year the CoPs saw membership grow by an average of 17.5%.

Two noteworthy successes this year stem from the Canadian Marine Shipping Risk Forum (CMSRF) CoP, which produced an online Inventory of Shipping Risks activities and actors in Canada (to be completed later this year). CMSRF also supported development of the Salish Sea Transboundary Working Group (SSTWG) to share work, ideas, concerns, questions, and issues with USA counterparts about marine shipping risk in the Salish Sea region.

KNOWLEDGE MOBILIZATION FUND TAKES OFF

The Knowledge Mobilization (KM) Fund saw 10 more KM Fund projects supported this year, disseminating information to end-users, partners, decision-makers, and the public. Here are just three of the KM Fund projects underway.

Dr. Dana Lepofsky's project "Empowering a Nation" will share research done in partnership with the Gitga'at First Nation, in Northern British Columbia through an interactive website. Incorporating both oral tradition and western scientific perspectives, it will guide users through the long-term and place-based history of the Gitga'at in a dynamic coastal river system.

A film project called "Coastal Communities Face the Future," from Dr. Tony Charles, will share research findings about the threats facing coastal communities and innovative solutions being implemented across the country.

Dr. Randall Scharien will create an Arctic sea ice change visualization tool for public use, translating MEOPAR-supported research to help Northern residents who rely on sea ice for travel, hunting, and more.

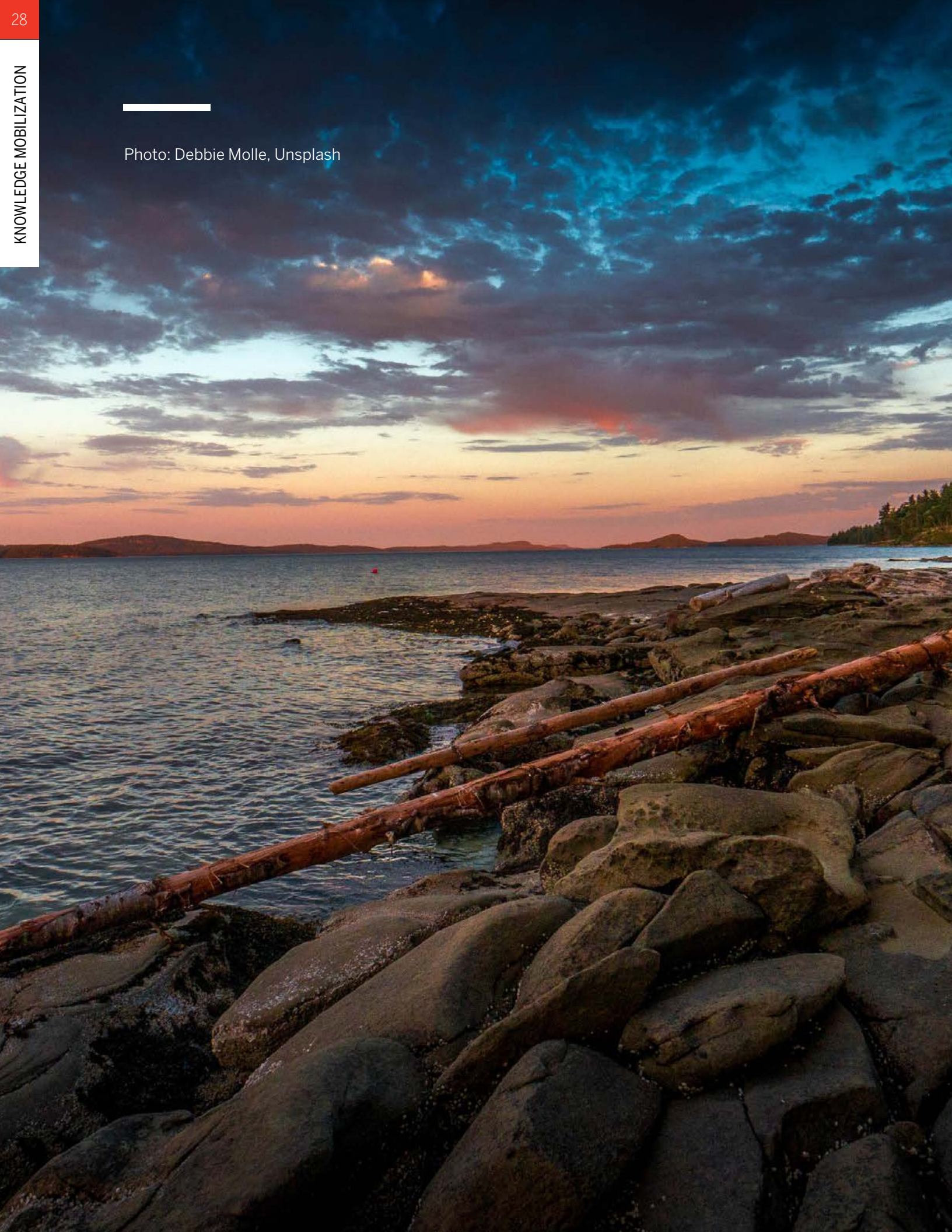


Photo: Debbie Molle, Unsplash

Enhancing household preparedness with an App

PROJECT TITLE	Canadian Hazards Emergency Response and Preparedness (CHERP) App
FUNDING CALL	Knowledge Mobilization Fund

With a changing climate and increasing frequency of natural disasters, Canadians in coastal communities are living with and preparing for an increasing number of threats. A new app aims to prepare Canadians for disasters and spread awareness about household disaster preparedness and local hazard risks. The BC-based KM project led by Dr. Ryan Reynolds will communicate local hazards and risks and assist users in making emergency plans using the Canadian Hazards Emergency Response and Preparedness (CHERP) App.

"The potential long-term impact of the mobile app is difficult to estimate but has the potential to help thousands of homes to become better prepared for local and regional emergencies," said Reynolds, who is a Postdoctoral Fellow in the School of Community and Regional Planning at the University of British Columbia. "Improved household-level preparedness can contribute to increased community resilience and improved recovery outcomes in the event of a significant disaster in one of our partner communities."

Working with six communities in British Columbia, version 1.0 of the CHERP mobile app incorporates local hazard mapping. It allows users to enter their home address and learn about local risks and create emergency response plans for their family. Communities Tahsis, Tofino, Parksville, Qualicum Beach, City of Nanaimo, and the Alberni-Clayoquot Regional District plan to launch in 2022, with a final community, Oak Bay, expected to come online late in 2022 or 2023 once local hazard mapping efforts are complete. Once the app is operational in the first seven communities, it will be able to reach 34,000 households (approximately 77,000 people).

Since Reynolds partnered with community Chief Administrative Officers, Emergency Program Coordinators, and Emergency Response Planners, the COVID-19 pandemic and recent wildfire, flooding, and landslide disasters across Vancouver Island and the Lower Mainland have slowed down the launch efforts. However, the extra time allowed the team to incorporate more planning features, such as profile information for local muster points and safe evacuation destinations.

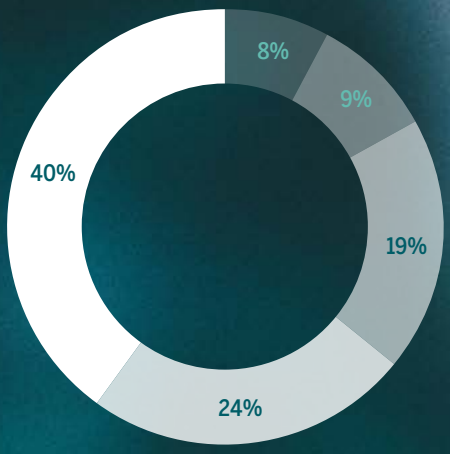
"The value of these relationships cannot be overstated, and discussions around CHERP with our partners have already led to discussions around several potential new projects focused on local risk in these communities," said Reynolds.

Plans for next steps are already underway. The team is exploring how to meet the unique needs of First Nations and other Indigenous communities, while several new municipalities have so far shown interest. Along with expansion to more areas, the next phase would include an Android version of the app and adding more local hazards. There's also interest in a version of the app for community planners, emergency managers and first responders.

CHERP has now completed beta testing. The high level of interest in the project, prior to the app's launch, is encouraging and speaks to a need for the CHERP app and the service it aims to provide.

Communities of Practice at a Glance

Membership



1028 members

8%	Industry
9%	NGO & Non-profit
19%	Other (Indigenous, individual, etc.)
24%	Government
40%	University

26% growth
in membership

based on membership reported in 2021 and 2022

Funding

$2+ million
in funding from MEOPAR

60% of CoPs
accessed new funding beyond MEOPAR in 2021-2022

Accomplishments

292+ media outputs & projects comprising:

81+	events
124+	blogs
20+	research projects
35+	reports & publications
23	newsletters
2	policy briefs
7	other undertakings

Featured in:

THE GLOBE AND MAIL · The New York Times · CBC · The Guardian · NATIONAL POST

Network Members in 2021-2022

1. ACADIA UNIVERSITY
2. BROCK UNIVERSITY
3. DALHOUSIE UNIVERSITY
4. LAKEHEAD UNIVERSITY
5. MCGILL UNIVERSITY
6. MEMORIAL UNIVERSITY OF NEWFOUNDLAND
7. NOVA SCOTIA COMMUNITY COLLEGE
8. QUEENS UNIVERSITY
9. SAINT MARY'S UNIVERSITY
10. SIMON FRASER UNIVERSITY
11. ST. FRANCIS XAVIER UNIVERSITY
12. TORONTO METROPOLITAN UNIVERSITY (FORMERLY RYERSON UNIVERSITY)
13. UNIVERSITÉ DU QUÉBEC À MONTRÉAL
14. UNIVERSITÉ DU QUÉBEC À RIMOUSKI
15. UNIVERSITÉ LAVAL
16. UNIVERSITY OF ALBERTA
17. UNIVERSITY OF BRITISH COLUMBIA
18. UNIVERSITY OF CALGARY
19. UNIVERSITY OF GUELPH
20. UNIVERSITY OF MANITOBA
21. UNIVERSITY OF MONCTON
22. UNIVERSITY OF NEW BRUNSWICK
23. UNIVERSITY OF OTTAWA
24. UNIVERSITY OF PRINCE EDWARD ISLAND
25. UNIVERSITY OF SASKATCHEWAN
26. UNIVERSITY OF THE FRASER VALLEY
27. UNIVERSITY OF VICTORIA
28. UNIVERSITY OF WATERLOO
29. UNIVERSITY OF WINDSOR
30. UNIVERSITY OF WESTERN ONTARIO
31. YORK UNIVERSITY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PROJECTS: Active Projects in 2021-22

BRIDGING THE GAP PROJECTS

1. A Multi-Stakeholder Approach for Developing Observation and Response Strategies for the Changing Coastal Arctic

DR. BRENT ELSE, UNIVERSITY OF CALGARY

CORES

2. Observation Core

DR. BRAD DEYOUNG, MEMORIAL UNIVERSITY OF NEWFOUNDLAND

3. Prediction Core

DR. PAUL MYERS, UNIVERSITY OF EDMONTON

4. Response Core

DR. STEPHANIE CHANG, UNIVERSITY OF BRTISH COLUMBIA

EXACTEARTH

5. Whale Watching AIS Vessel Movement Evaluation

DR. CHRIS BONE/DR. DAVID ATKINSON, UNIVERSITY OF VICTORIA

OCEAN NETWORKS CANADA

6. Model of Impact of Dilbit and Oil Spills in the Salish Sea (MIDOSS)

DR. SUSAN ALLEN, UNIVERSITY OF BRITISH COLUMBIA

7. Oxynet: a Network to Examine Ocean Deoxygenation Trends and Impacts

DR. PHILPPE TORTELL, UNIVERSITY OF BRITISH COLUMBIA

8. Spatiotemporal Dynamics of The Coastal Ocean Biogeochemical Domains of British Columbia and Southeast Alaska - Following the Migration Route of Juvenile Salmon

DR. MAYACIRA COSTA, UNIVERSITY OF BRITISH COLUMBIA

OPEN CALL

9. Arctic ULINNIQ: Underwater Listening Network for Novel Investigations of Quakes

DR. MLADEN NEDIMOVIC, DALHOUSIE UNIVERSITY

10. Baselines and Biodegradation Potential in Atlantic Canada's Deepwater Offshore Oil Prospects

DR. CASEY HUBERT, UNIVERSITY OF CALGARY

11. Coastal Flood Risk Governance in a Changing Climate

DR. DANIEL HENSTRA, UNIVERSITY OF WATERLOO

12. Comment Passe-T-On a L'action avec les Plans D'adaptation et de Résilience? Projet de Recherche en Zone Côtière et Riveraine du Québec et de l'Ontario (2018-2021)

DR. STEVE PLANTE, UNIVERSITÉ DU QUÉBEC (À RIMOUSKI)

13. Investigating and Informing Indigenous Marine Monitoring and Management as a Climate Change Adaptation Strategy

DR. NATALIE BAN, UNIVERSITY OF VICTORIA

14. Whales, Habitat and Listening Experiment II

DR. CHRIS TAGGART, DALHOUSIE UNIVERSITY

YEAR OF POLAR PREDICTION

15. Forecasting Regional Arctic Sea Ice from A Month to Seasons (FRAMS)

DR. BRUNO TREMBLAY, MCGILL UNIVERSITY

RÉSEAU QUÉBEC MARITIME (RQM)

16. INtercomparison of scalE and DImensionality of predictioN tools for multi-risk assessment: erosion, coastal floodINg, icE jamming (INEDINE)

DR IOAN NISTOR, UNIVERSITY OF OTTAWA & DR. DAMIEN PHAM VAN BANG, INSTITUT NATIONAL DE LA RECHERCHE SCIENTIFIQUE (INRS)

17. Monitoring Natural Hazards During Coastal to Offshore Sediment Remobilization and its Impacts on Primary Productivity Dynamics in the Lower St. Lawrence Estuary

DR AUDREY LIMOGES, UNIVERSITY OF NEW BRUNSWICK & DR JEAN-CARLOS MONTERO-SERRANO, UNIVERSITÉ DU QUÉBEC (À RIMOUSKI)

18. The Gulf of St. Lawrence Tracer Release Experiment (TReX)

DR. CÉDRIC CHAVANNE, UNIVERSITÉ DU QUÉBEC (À RIMOUSKI)

MEOPAR/RQM TREX GRADUATE STUDENTS AND POSTDOC AWARDS

19.Tracking of Rhodamine Dye in a Coastal Estuary Using Autonomous and Remotely Operated Underwater Vehicle Technology

ALLISON SUEYI CHUA/DR. DOUGLAS WALLACE, DALHOUSIE UNIVERSITY

20. Large eddy simulation of surface layer mixing in the Saint Lawrence Estuary

DR. ANNEKE M.M. TEN DOESCHATE/DR. RUTH MUSGRAVE, DALHOUSIE UNIVERSITY

21. Sea spray aerosol production estimated during the tracer release surface experiment

DR. CRYSTAL WEAGLE/DR. RACHEL CHANG, DALHOUSIE UNIVERSITY

22. Simultaneous Absorption and Fluorescence Using an Inlaid Microfluidic Approach for Tracer Rhodamine Experiments in the Gulf-of-St. Lawrence

JOSHUA JOHANNES CREELMAN/DR. VINECENT SIEBEN, DALHOUSIE UNIVERSITY

23. Dispersion à la surface de l'estuaire maritime du Saint-Laurent

MANAL NOURI/DR. JEAN CLARY/DR. CÉDRIC CHAVANNE, UNIVERSITÉ DU QUÉBEC À RIMOUSKI

24. Measuring Subsurface Dispersion with Inexpensive Lagrangian Floats

SAMUEL STEVENS/DR. RICH PAWLOWICZ, UNIVERSITY OF BRITISH COLUMBIA

25. Estimation of Dispersion Regimes and Simulation of the Observed Dye Spreading from HF Radar Data

SHUMIN LIN/DR. RICH PAWLOWICZ, UNIVERSITY OF BRITISH COLUMBIA

26. Surface drift and small-scale dispersion due to Langmuir circulation

DR. TAMKPANKA TAMTARE /DR. DANY DUMONT, UNIVERSITÉ DU QUÉBEC À RIMOUSKI

27. Prediction of contaminant dispersion in the Gulf of St. Lawrence via Deep Learning

DR. URIEL ZAJACZKOVSKI/ADITYA JAIN/DR. CHRISTOPHER WHIDDEN, DALHOUSIE UNIVERSITY

POSTDOCTORAL FELLOWSHIPS

28. Seasonal prediction of freeze-up dates and ice coverage in the St-Lawrence Seaway using Artificial Intelligence

DR. AMÉLIE BOUCHAT/DR. BRUNO TREMBLAY, MCGILL UNIVERSITY

29. Future-proofing marine conservation planning in the North-West Atlantic Ocean

DR. ANDREA BRYNDUM-BUCHHOLZ/DR. TYLER EDDY, MEMORIAL UNIVERSITY

30. Designing Solutions to the Hidden Impacts of Climate Change on Canada's Undersea Forests

DR. DANIELLE DENLEY/DR. ANNE SOLOMON, SIMON FRASER UNIVERSITY

31. Linking fisheries, food security, and health, to changing marine food webs in the Canadian Arctic

DR. MARIANNE FALARDEAU-CÔTÉ/DR. MELANIE LEMIRE, DR. JEAN-SÉBASTIEN MOORE, UNIVERSITÉ LAVAL

32. Ecological trait indicators for predictive modelling of tuna fisheries productivity and distribution to inform Canadian and US fisheries management under climate change

DR. NATASHA HARDY/DR. STEPHANIE GREEN, UNIVERSITY OF ALBERTA

33. Ocean Remote Sensing and spatial-temporal dynamic of coastal marine biophysical provinces of British Columbia and Southeast Alaska

DR. CHRISTIAN MARCHESE/DR. MAYCIRA COSTA/ DR. BRIAN HUNT, UNIVERSITY OF BRITISH COLUMBIA/ UNIVERSITY OF VICTORIA

34. Assessment of nitrogen cycling in coastal benthic ecosystems

DR. LUDOVIC PASCAL/ DR. GWENAËLLE CHAILLOU, UNIVERSITÉ DU QUÉBEC (À RIMOUSKI)

35. Historical Variability and Drivers of Sea Ice Along Coastal Labrador

DR. CHRISTOPH RENKL/DR. ERIC OLIVER, DALHOUSIE UNIVERSITY

36. Cumulative Human Impacts and Resilience of Kelp Forests in a Changing Climate

DR. ANDY STOCK/DR.KAI CHAN, INSTITUTE FOR RESOURCES, ENVIRONMENT AND SUSTAINABILITY, UNIVERSITY OF BRITISH COLUMBIA

JOINT ARCTICNEXT-MEOPAR POSTDOCTORAL FELLOWSHIPS

37. Assessing the risk of climate change and anthropogenic stressors to Arctic seabirds in northern Hudson Bay

DR. EMILY CHOY/DR. KYLE ELLIOT, MCGILL UNIVERSITY

38. Improving weather, water, ice, and climate information for better ship navigation through the Canadian Arctic

DR. JEAN HOLLOWAY/DR. JACKIE DAWSON, UNIVERSITY OF OTTAWA

39. Advancing sea ice monitoring in the Canadian Arctic

DR. MALLIK MAHMUD/DR. JOHN YACKEL, UNIVERSITY OF CALGARY

40. The environmental physiology of Arctic char in Canada's rapidly changing north

DR. MATTHEW GILBERT/DR. BEN SPEERS-ROESCH, UNIVERSITY OF NEW BRUNSWICK

41. Country Foods for Good Health

DR. SONJA OSTERTAG/DR. BRIAN LAIRD, UNIVERSITY OF WATERLOO

EARLY CAREER FACULTY

42. Air Quality Co-Benefits of Decarbonizing Maritime Shipping For Coastal Communities

DR. AMANDA GIANG, UNIVERSITY OF BRITISH COLUMBIA

43. Co-Developing Innovative Approaches with Indigenous Partners to Foster Coastal Resilience, Food Security and Sustainable Marine Harvests While Enhancing Community Capacity to Proactively Respond to Marine Risks

DR. MÉLANIE LEMIRE, UNIVERSITÉ LAVAL

44. Drivers, Predictability and Fisheries Impacts of Ocean Temperature Extremes

DR. ERIC OLIVER, DALHOUSIE UNIVERSITY

45. FISH DIP: Dam Impacts on Pelagic Fish Ecology in a Subarctic Estuary (Lake Melville, Labrador)

DR. MAXIME GEOFFROY, MEMORIAL UNIVERSITY OF NEWFOUNDLAND

46. Globally Transforming the Ocean Biogeochemical Domain Using Lab-On-Chip Technology

DR. VINCENT SIEBEN, DALHOUSIE UNIVERSITY

47. Holyrood Sub-Arctic Coastal Observatory

DR. KATLEEN ROBERT, MEMORIAL UNIVERSITY OF NEWFOUNDLAND

48.Horizontal Capacity-Mapping to Support Capability-Based Planning and Capacity-Building for Community-Based Maritime and Coastal Search and Rescue and Emergency Response in the Kitikmeot Region of Nunavut

DR. PETER KIKKERT, ST. FRANCIS XAVIER UNIVERSITY

49. Hydro and Sediment Dynamics in the Skeena Estuary

DR. EVA KWOLL, UNIVERSITY OF VICTORIA

50. The Influence of Climate-Driven Prey Shortage on Endangered Whales and Their Coexistence with Ocean-Going Industries

DR. KIMBERLEY DAVIES, UNIVERSITY OF NEW BRUNSWICK

51. Monitoring Juvenile American Lobster (Homarus Americanus) to Forecast Productivity in the Growing Newfoundland Lobster Fishery

DR. ARNAULT LE BRIS, MEMORIAL UNIVERSITY OF NEWFOUNDLAND

52. A Physical Oceanographic Prediction Framework for Cambridge Bay, Nunavut

DR. QI ZHOU, UNIVERSITY OF CALGARY

53. Predicting the Future of Seagrass Meadows Along the Eastern Coast of Canada: An Innovative Functional Approach in the Context of Global Change

DR. FANNY NOISETTE, UNIVERSITÉ DU QUÉBEC (À RIMOUSKI)

54. Predicting and Mitigating Sulfide Accumulation in Aquaculture Impacted Coastal Sediments

DR. CHRISTOPHER ALGAR, DALHOUSIE UNIVERSITY

55. Predicting Physical & Biogeochemical Properties on the BC Central Coast DR.

STEPHANIE WATERMAN, UNIVERSITY OF BRITISH COLUMBIA

56. Shipping Accident Oil Spill Consequences and Response Effectiveness in Arctic Marine Environments (iSCREAM)

DR. FLORIS GOERLANDT, DALHOUSIE UNIVERSITY

57.URIAS: Understanding and Predicting the Effects of Increased Shipping on Arctic Seabirds & Seals

DR. KYLE ELLIOT, MCGILL UNIVERSITY

58. Vulnerability of Small-Island Freshwater Resources to Climate Change

DR. BARRET KURYLYK, DALHOUSIE UNIVERSITY

FATHOM FUND

59. Vulnerability of the Coastal Ecosystems of Sable Island National Park Reserve Under a Changing Climate

DR. ANDREW MEDEIROS, DALHOUSIE UNIVERSITY

60. From combatting invasive species in National Parks to Producing Degradable Plastics: A Green Solution

DR. AUDREY MOORES, MCGILL UNIVERSITY

61. Diversity of Nature: A BIPOC-focused Ecological Field Expedition for Secondary Students

DR. AARON MACNEIL/CATALINA ALBURY, SUCHINTA ARIF, MELANIE DUC BO MASSEY, DALHOUSIE UNIVERSITY

KNOWLEDGE MOBILIZATION

62. CASTNet website

DR. JACKIE DAWSON, UNIVERSITY OF OTTAWA

63. Interactive and Community Co-developed Website to Present Results on the Effects of Climate Change in the Canadian Arctic

DR. MELANIE LEMIRE/ DR. SARA PEDRO, UNIVERSITÉ LAVAL

64. Canadian Hazards Emergency Response and Preparedness Program

DR. STEPHANIE CHANG/DR. RYAN REYNOLDS, UNIVERSITY OF BRITISH COLUMBIA

65. Community-based Observing of Nunatsiavut coastal Ocean Circulation (CONOC) Atlas

DR. ERIC OLIVER/BREANNA BISHOP, DALHOUSIE UNIVERSITY

66. Laboratory Life

DR. MAX LIBOIRON, MEMORIAL UNIVERSITY OF NEWFOUNDLAND

67. Bringing Sable Island to Canadians: Knowledge Mobilization Through a Novel Wireless Sensor Network

DR. BARRET KURYLYK, DALHOUSIE UNIVERSITY; DR. SCOTT KETCHESON, ATHABASCA UNIVERSITY

68. Changing Coasts–Identifying What Works, and What Doesn't, In Supporting Resilience to Large-Scale Changes within Canada's Coastal Fishing Communities of Practice

DR. PHIL LORING/DR. HANNAH HARRISON, UNIVERSITY OF GUELPH

69. Manger Notre Saint-Laurent

DR. MELANIE LEMIRE, CENTRE DE RECHERCHE DU CHU DE QUÉBEC-UNIVERSITÉ LAVAL

70. Indigenous Ocean Knowledge: A Story of Risk and Resilience of the Squamish Ocean Canoe Family

DR. DAVID ZANDVLIET/DR. LILIA YUMGULOVA, SIMON FRASER UNIVERSITY

71. Empowering a Nation: The Laxgalts'ap website and app project, Gitga'at territory, northern coastal British Columbia

DR. DANA LEPOFSKY, SIMON FRASER UNIVERSITY

72. Mobilizing Arctic Corridors and Northern Voices Research: Enhancing Inuit self-determination in marine policy development

DR. JACKIE DAWSON/DR. NATALIE CARTER, DR. JEAN HOLLOWAY, UNIVERSITY OF OTTAWA

73. Knowledge mobilization of Salish Sea oil transport and oil spill fate toward building Coast Salish equity and inclusion in Salish Sea marine research

DR. SUSAN ALLEN/DR. RACHAEL D. MUELLER, UNIVERSITY OF BRITISH COLUMBIA

74. Interactive data visualization tool for public understanding of seasonal and inter-annual changes in sea ice-climate indicators

DR. RANDALL SCHARIEN, UNIVERSITY OF VICTORIA

75. Resilient-C KM

DR. STEPHANIE CHANG, UNIVERSITY OF BRITISH COLUMBIA

76. Enhancing knowledge exchange among MEOPAR researchers and Indigenous communities through SIKU: The Indigenous Knowledge Social Network

DR. PHILLIPE TORTELL, UNIVERSITY OF BRITISH COLUMBIA/REBECCA SEGAL, ARCTIC EIDER SOCIETY

77. Enhancing knowledge exchange among MEOPAR researchers and Indigenous communities through SIKU: The Indigenous Knowledge Social Network (Phase 2)

DR. PHILLIPE TORTELL, UNIVERSITY OF BRITISH COLUMBIA/REBECCA SEGAL, ARCTIC EIDER SOCIETY

79. SIREN Open Access Book

DR. DAVID BRISTOW, UNIVERSITY OF VICTORIA/DR. RON PELOT, DALHOUSIE UNIVERSITY

79. Coastal Communities Face the Future

DR. TONY CHARLES, SAINT MARY'S UNIVERSITY

80. Waterlution-A Water Learning Experience (Waterlution)

DR. ROBERT NEWELL, UNIVERSITY OF THE FRASER VALLEY/KAREN KUN, WATERLUTION

WORKSHOP TRAINING AWARDS

81. DEB2021: Forecasting in a changing world

DR. RAMÓN FIGUERA, DALHOUSIE UNIVERSITY

82. Science Outreach Training for Diverse and Early-Career Researchers: Workshop, Graduate Module &Ecological Science Communication Conference

MELANIE DU BO MASSEY, SUCHINTA ARIF/DR. AARON MACNEIL, DALHOUSIE UNIVERSITY

83. Why the Ocean Decade Matters: Co-designing Engaging & Inclusive Communication for Canadian

DR. LISA (DIZ) GLITHERO, UNIVERSITY OF VICTORIA

Photo: Shlomo Shalev, Unsplash

Financials

The following are extracts from the audited financial statements. Full audited financial statements are available at meopar.ca

Grant Thornton

Independent auditor's report

Grant Thornton LLP
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Halifax, NS
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To the Board of Directors of
MEOPAR Incorporated

Opinion

We have audited the financial statements of MEOPAR Inc. (the "Network"), which comprise the statement of financial position as at March 31, 2022 and the statements of operations, changes in net assets and cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying financial statements present fairly in all material respects, the financial position of MEOPAR Inc. as at March 31, 2022, and its results of operations and its cash flows for the year then ended in accordance with Canadian accounting standards for not-for-profit organizations.

Basis for opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the financial statements* section of our report. We are independent of the Network in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of management and those charged with governance for the financial statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian accounting standards for not-for-profit organizations, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Network's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Network or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Network's financial reporting process.

The following are extracts from the audited financial statements. Full audited financial statements are available at **meopar.ca**

Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Network's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Network's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Network to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Grant Thornton LLP

Halifax, Canada
June 6, 2022

Chartered Professional Accountants

The following are extracts from the audited financial statements. Full audited financial statements are available at **meopar.ca**

MEOPAR Incorporated
Statements of operations and changes in net assets

Year ended March 31	2022	2021
Revenue		
Government assistance – NSERC and SSHRC	**$ 5,290,378**	$ 5,907,748
Partnership	**281,847**	395,557
Other	**67,095**	15,797
	5,639,320	6,319,102
Grants		
Research	**1,956,594**	3,202,097
Partnership	**555,396**	759,053
Joint research and development	**326,228**	674,809
	2,838,218	4,635,959
Excess revenue over grants	**2,801,102**	1,683,143
Expenses		
Program Expenses		
Communications and networking	**54,279**	86,073
Knowledge mobilization	**1,520,802**	427,704
Research programs	**3,996**	30,861
Training programs	**372,714**	518,295
	1,951,791	1,062,933
Administrative		
Operations and management	**117,075**	94,617
Salaries	**610,289**	508,205
	727,364	602,822
Operating		
Amortization	**59,970**	-
	2,739,125	1,665,755
Excess of revenue over expenses	**$ 61,977**	$ 17,388
Net assets, beginning of year	**$ 114,943**	$ 97,555
Excess of revenue over expenses	**61,977**	17,388
Net assets, end of year	**$ 176,920**	$ 114,943

The following are extracts from the audited financial statements. Full audited financial statements are available at **meopar.ca**

MEOPAR Incorporated
Statement of cash flows

March 31	2022	2021
Increase (decrease) in cash and cash equivalents		
Operating		
Excess of revenue over expenses	**$ 61,977**	$ 17,388
Items not affecting cash and cash equivalents		
Amortization	**59,970**	-
	121,947	17,388
Change in non-cash operating working capital		
Receivables	**8,540**	1,159
Funds held in trust by Dalhousie University	**543,885**	(1,735,971)
HST receivable	**(61,279)**	(3,704)
Prepaid expenses	**3,076**	-
Payables and accruals	**(43,922)**	60,502
Deferred revenue	**257,373**	1,232,765
	829,620	(427,861)
Investing		
Purchase of capital assets	**(891,701)**	-
Decrease in cash and cash equivalents	**(62,081)**	(427,861)
Cash and cash equivalents		
Beginning of year	**142,220**	570,081
End of year	**$ 80,139**	$ 142,220

The following are extracts from the audited financial statements. Full audited financial statements are available at **meopar.ca**

MEOPAR Incorporated
Statement of financial position

March 31	2022	2021
Assets		
Current		
Cash and cash equivalents	$ 80,139	$ 142,220
Receivables	17,423	25,963
Funds held in trust by Dalhousie University (Note 3)	2,477,430	3,021,315
HST receivable	69,210	7,931
Prepaid expenses	1,879	4,955
	2,646,081	3,202,384
Capital assets (Note 4)	831,731	-
	$ 3,477,812	$ 3,202,384
Liabilities		
Current		
Payables and accruals	$ 51,754	$ 95,676
Deferred revenue (Note 5)	3,249,138	2,991,765
	3,300,892	3,087,441
Net assets		
Unrestricted net assets	176,920	114,943
	$ 3,477,812	$ 3,202,384

Commitments (Note 6)

On behalf of the Board

Director

See accompanying notes to the financial statements.

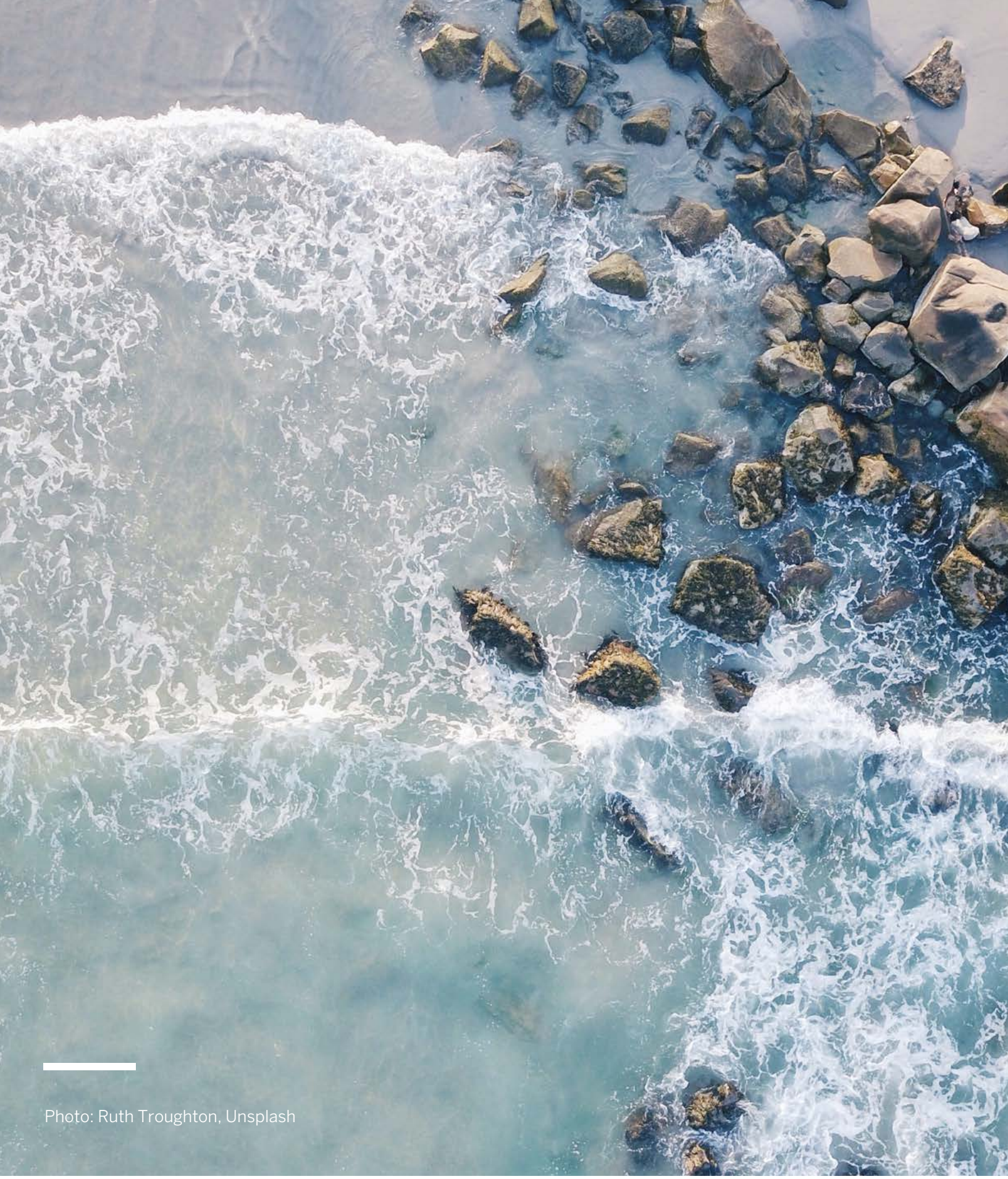

Photo: Ruth Troughton, Unsplash

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