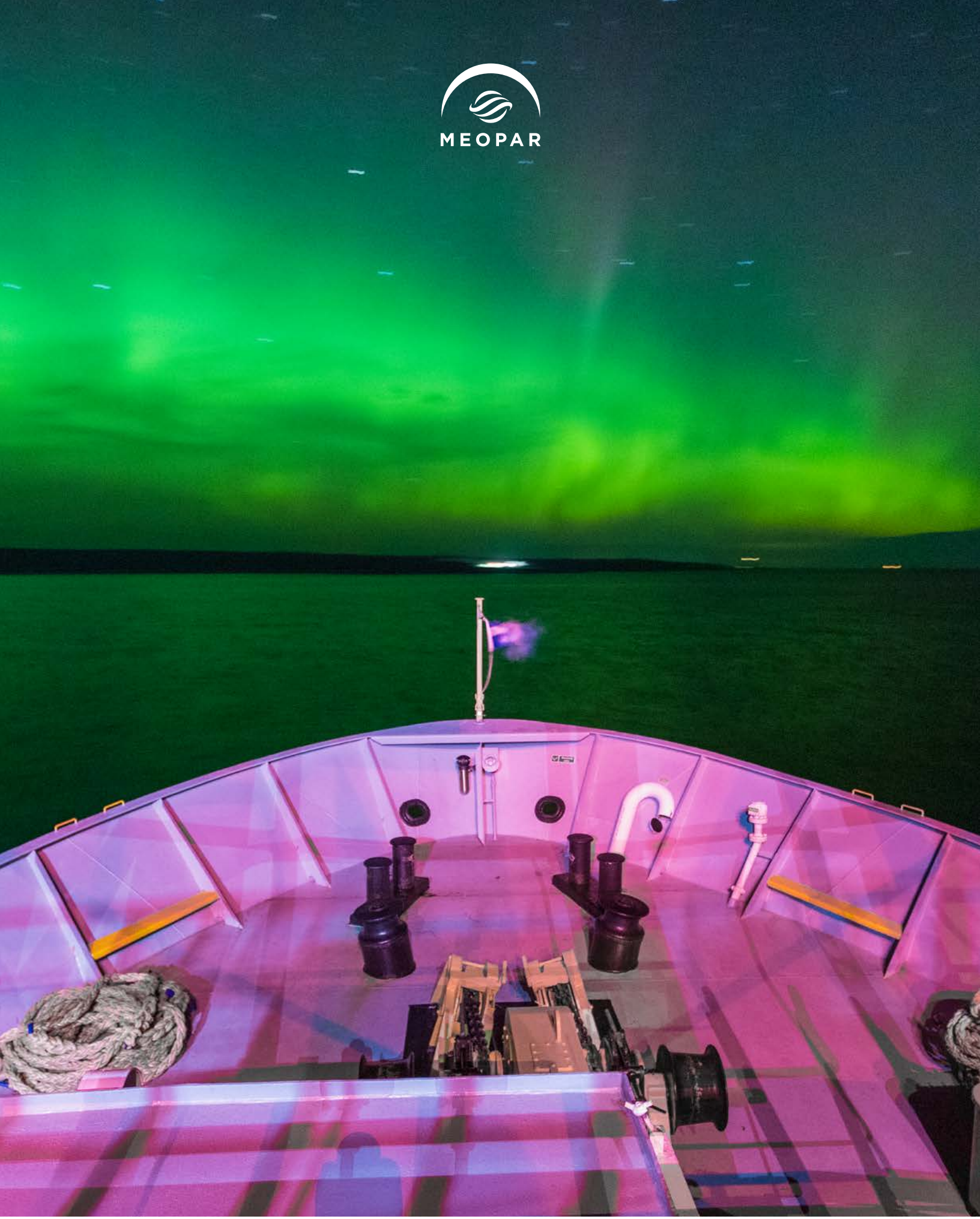
MEOPAR



22/23 ANNUAL REPORT

MEOPAR

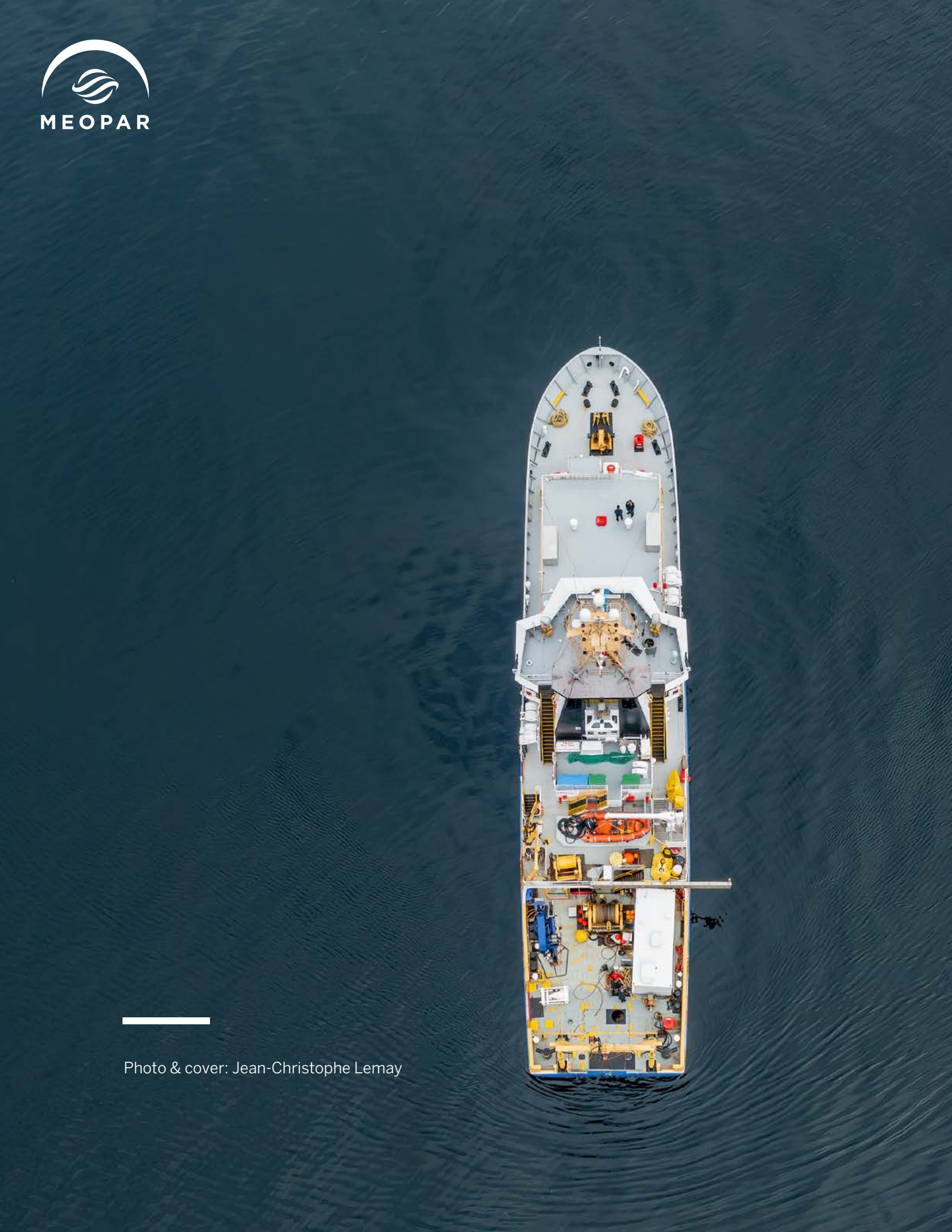


Photo & cover: Jean-Christophe Lemay

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Annual Report 2022-23

Letter from Leadership

Over the last decade, MEOPAR has played a pivotal role in fostering a coordinated, Canadian approach to addressing marine environmental risks and opportunities through improved ocean observation, prediction, and response. As we sailed through 2022-2023, MEOPAR proudly celebrated its 10th anniversary, marking a decade of impactful contributions to the marine research community.

Despite facing challenges due to delayed decisions regarding our application to the Strategic Science Fund (SSF), MEOPAR remained committed to supporting its network researchers, highly qualified personnel (HQP), and partners throughout 2022-2023. During this time, MEOPAR's research and training programs provided project funding and opportunities to 28 network researchers, while 192 HQP actively participated in network events and training activities.

Throughout 2022-23, MEOPAR continued to support critical initiatives addressing national-scale gaps and issues of importance. Notable examples include ongoing support to the Tracer Release eXperiment (TReX), a partnership with Réseau Québec maritime (RQM), and the National Research Vessel Task Team (NRVTT). The latter, established by MEOPAR and partners in 2020, played a key role in addressing the lack of access for Canadian scientists to vessels required for ocean research. As a result, MEOPAR initiated the Modular Ocean Research Infrastructure Initial Development and Demonstration (MORI IDD) project, which developed a modular system of transportable, interoperable laboratories and research infrastructure that are deployed on non-specialized vessels. The MORI IDD project provided a diverse group of researchers with opportunities to conduct research on board non-specialized Canadian vessels. These expeditions contributed to advancements in understanding marine fog, assessing the effectiveness of marine protected areas in preserving benthic biodiversity, and deploying major ocean climate monitoring systems in deep waters off Canada's coasts.

The 2022-2023 fiscal year also brought about a significant change in MEOPAR's scientific directorship. As we welcome the new era, Ron Pelot has passed the torch of scientific directorship to Dr. Fanny Noisette and Dr. Brent Else. With their expertise and dedication, we are confident that MEOPAR will continue to flourish and drive innovative research initiatives. We also remember, with heartfelt appreciation, the contributions of Keith Thompson, one of the founders of MEOPAR who sadly passed away in 2022. Based on Keith's vision and wisdom, MEOPAR has thrived as a critical connector in Canada's ocean science landscape.

MEOPAR remains committed to promoting equity, diversity, inclusion, and accessibility (EDIA) within Canada's marine research community. Throughout 2022-2023, the network also continued its knowledge mobilization efforts, culminating in the delivery of the second "National Forum on Coastal Community Resilience", a unique platform to discuss ocean-related challenges that coastal communities are facing.

As we reflect on the past decade's successes, we celebrate the contributions of MEOPAR's leadership, Board of Directors, and Administrative Centre in propelling marine research forward in Canada. As we look to the future, MEOPAR eagerly anticipates morphing into an essential pan-Canadian connector in marine sciences, strengthening existing partnerships and nurturing new initiatives and projects in our second decade of operation. With the continued support and collaboration of our diverse network of partners, we are poised to make even greater strides in understanding, protecting, and sustainably managing Canada's precious marine environment.

KAREN DODDS, Chair of the Board
DOUG WALLACE, Scientific Director
FANNY NOISETTE, Associate Scientific co-Director
BRENT ELSE, Associate Scientific co-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 (HQP) 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.

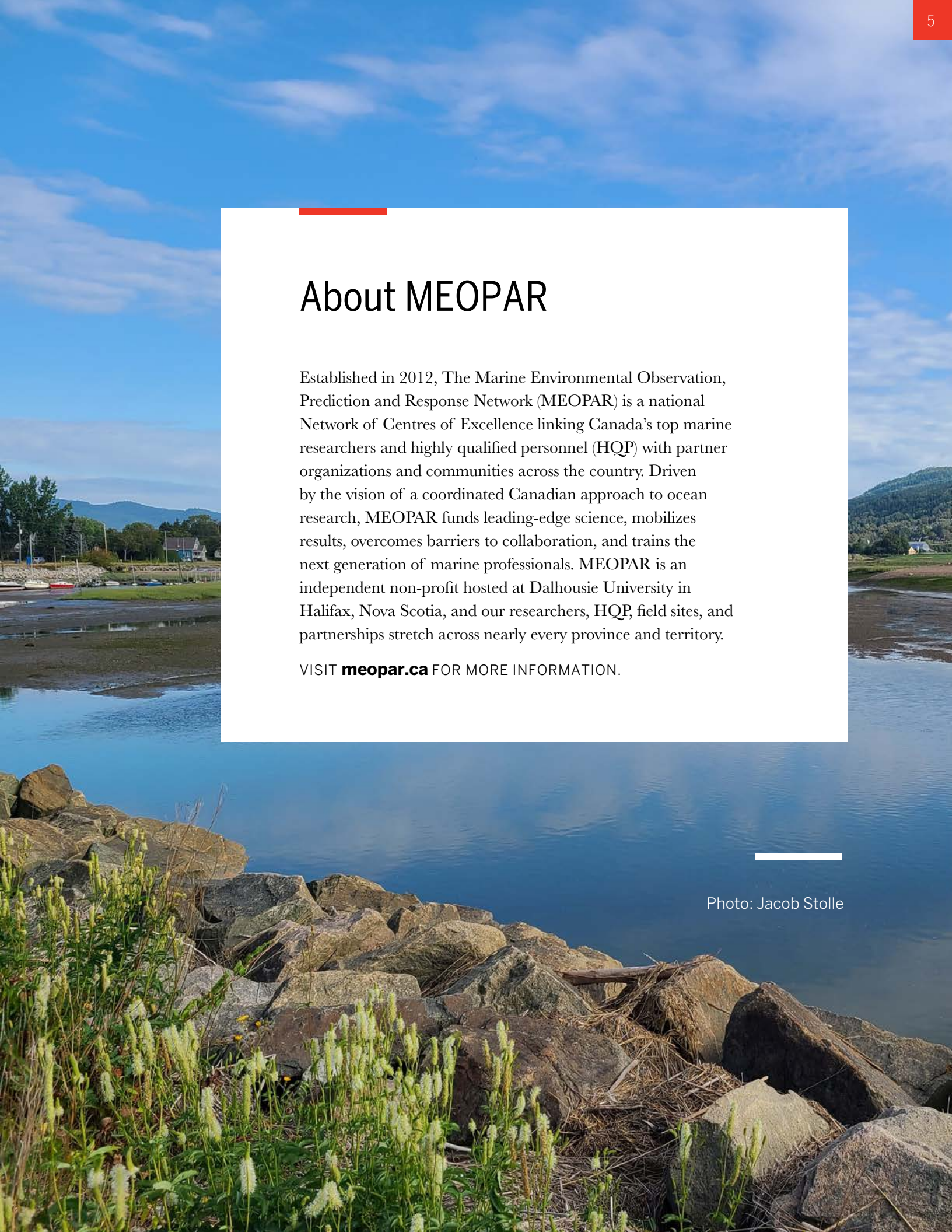


Photo: Jacob Stolle

Board of Directors, 2021-22

CHAIR: **Dr. Karen Dodds**, Retired Assistant Deputy Minister, Environment and Climate Change Canada

Dr. Pierre Baril, Administrateur d'état retraité, Ministère de L'Environement et de la lutte contre les changements climatiques

Mr. Thomas Beaver, Retired Chief Audit Executive and Head, Risk Management at the Canadian Food Inspection Agency

Dr. Neil Bose, Vice President (Research), Memorial University

Ms. Amanda Dean, Vice President, Atlantic, Insurance Bureau of Canada

Dr. Brent Else, Associate Scientific co-Director, MEOPAR, (Observer)

Ms. Angie Gillis, Senior Director, The Confederacy of Mainland Mi'kmaw, Mi'kmaw Conservation Group

Mr. David Henry, Director General, Atmospheric Science and Technology Directorate, Environment and Climate Change Canada

Ms. Susan Hunt, President Elect, Marine Technology Society

Dr. Kate Moran, President and CEO of Ocean Networks Canada

Dr. Fanny Noisette, Associate Scientific co-Director, MEOPAR (Observer)

Dr. John Osler, Chief Scientist, Atlantic Research Centre, Defence Research and Development Canada

Dr. Guillaume St. Onge, Director, Institut des sciences de la mer de Rimouski

Dr. Bernard Vigneault, Director General, Ecosystem Science, Fisheries and Oceans Canada

Dr. Anya Waite, Associate Vice-President Research, Oceans, Dalhousie University

Dr. Douglas Wallace, Scientific Director, MEOPAR

Dr. Wendy Watson-Wright, Retired Executive Secretary and Assistant Director General, Intergovernmental Oceanographic Commission (IOC) of UNESCO

Mr. Christopher Kelly, Deputy Director, Colleges and Network Division, Network of Centres of Excellence (Observer)

International Scientific Advisory Committee (ISAC)

Chair: Dr. Jan Newton, Executive Director, NANOOS; Senior Principal Oceanographer and Affiliate Professor, University of Washington

Dr. Brent Else, Associate Scientific co-Director, MEOPAR (Since August 2022)

Dr. Albert Fischer, Director, WMO Integrated Global Observing System Branch, Infrastructure Department

Dr. James Ford, Professor, Priestley Chair in Climate Adaptation, University of Leeds (Until August 2022)

Dr. Emma McKinley, Chair, Marine Social Sciences Network; faculty member, Cardiff University

Dr. Fanny Noisette, Associate Scientific co-Director (Since August 2022)

Dr. David Paterson, Executive Director, The Marine Alliance for Science and Technology for Scotland (MASTs)

Dr. Ron Pelot, Associate Scientific Director, MEOPAR (Until July 2022)

Dr. Nadia Pinardi, Professor of Oceanography, Bologna University; Vice-President of the Infrastructure Commission of the World Meteorological Organization

Dr. Michael Schulz, Deputy Chairman of the Executive Board, German Marine Research Alliance, Director of MARUM Center for Marine Environmental Science

Dr. Tricia Wachtendorf, Head of Disaster Research Centre, University of Delaware

Dr. Doug Wallace, Scientific Director, MEOPAR

Research Management Committee

Chair: Dr. Douglas Wallace, MEOPAR

Dr. Susan Allen, University of British Columbia

Dr. Gwénaëlle Chaillou, Université du Québec à Rimouski

Dr. Stephanie Chang, University of British Columbia

Dr. Ashlee Cunsolo, Labrador Institute of Memorial University

Dr. Brad deYoung, Memorial University

Dr. Dany Dumont, Université du Québec à Rimouski

Dr. Brent Else, University of Calgary

Mr. Christopher Kelly, Deputy Director, Colleges and Network Division, Network of Centres of Excellence (non-voting)

Dr. Susanna Fuller, Oceans North

Dr. Maxime Geoffroy, Memorial University of Newfoundland

Dr. Sherilee Harper, University of Alberta

Dr. Jennifer Jackson, Hakai Institute (until November 2022), Fisheries and Oceans Canada (since December 2022)

Dr. Diane Lavoie, Fisheries and Oceans Canada

Dr. Phil Loring, University of Guelph

Dr. William (Bill) Merryfield, University of Victoria/Environment Climate Change Canada

Dr. Paul Myers, University of Alberta

Dr. Rich Pawlowicz, University of British Columbia

Dr. Ronald Pelot, Dalhousie University

Mr. Jamal Shirley, Nunavut Research Institute

Dr. Nadja Steiner, Fisheries and Oceans Canada

Dr. Ludovic Pascal, Université du Québec à Rimouski (HQP, non-voting) (Until October 2022)

Dr. Jason Thistlethwaite, University of Waterloo

Dr. Isabelle Tremblay, MEOPAR

Dr. Crystal Weagle, Dalhousie University (HQP, non-voting) (Until January 2023)

Staff

Dr. Douglas Wallace, Scientific Director

Dr. Ronald Pelot, Associate Scientific Director (Until July 2022)

Dr. Brent Else, Associate Scientific co-Director (Since August 2022)

Dr. Fanny Noisette, Associate Scientific co-Director (Since August 2022)

Rodrigo Menafra, Managing Director

Kate Vickers (Chipman), Financial Controller (On parental leave)

Alexa Goodman, Training Program Manager

Dan Gibson, MORI IDD Project Manager

Bridget Graham, Operations Manager

Evelyn Hornbeck, Communications Manager (Until February 2023)

Isabelle Tremblay, Research Program Manager

Photo: Jean-Christophe Lemay

15

active projects in 2022-23

$247,219

awarded to research

31

member institutions in Cycle II

28

Principal Investigators

Photo: Doug Wallace

HIGHLIGHTS: Research Program

MEOPAR's Research Program supports a networked, multi-disciplinary approach to observing and anticipating physical, ecological, economic, and technological changes and phenomena associated with marine risk—and translating that knowledge into valuable solutions for Canadians. With the wind-down of the NCE program, most research projects received their final funding installments in 2021-2022 and were completed during 2022-2023, but engagement with network members and partners continues.

TREX: PARTNERED RESEARCH AND CAPACITY BUILDING IN GROUND-BREAKING OCEAN SCIENCE

The Tracer Release Experiment (TReX) project, a partnership with the Réseau Québec maritime (RQM), continued its multisectoral, multidisciplinary experiments to develop capabilities for observing and forecasting marine dispersion and responding to maritime incidents in coastal areas. The deep-water portion of the project had a very active field season with a total of three complementary scientific cruises involving 24 days of ship time, work which produced a better understanding of deep-water circulation and mixing. The final five TReX Graduate Student and Postdoctoral Fellowship Award projects, funded jointly by RQM and MEOPAR, were also completed this year. The monitoring of the inert tracer of the TReX project continues in 2023, as scientists sample the water of the St. Lawrence Estuary to study the supply of oxygen of the subsurface ecosystems and consider mitigation options for hypoxia.

SUPPORTING EARLY CAREER FACULTY INTO MID-CAREER

MEOPAR's Early Career Faculty (ECF) training program supports ocean scientists in establishing their paths as new academic fellows. This year, two sessions entitled, "Moving into Mid-career," offered 12 ECF the opportunity to talk with academic researchers further along in their careers about challenges faced, and lessons learned. The goal of these sessions was to offer space and time to connect with mid-career researchers in a safe environment. A report will be available on MEOPAR's website, highlighting key pieces of advice based on the sessions and feedback provided by participants in the ECF Program, including academic pathways, strategic skills, career and professional development, funding and tenure.

CORES: LONG-TERM, REGIONALLY FOCUSSED RESEARCH

Over the years, MEOPAR's Cores (Observation, Prediction, and Response) have provided opportunities for long-term research support in three geographically focused nodes: Salish Sea (led by UBC), Gulf of St. Lawrence (led by UQAR) and Atlantic shelf (led by Dalhousie University). MEOPAR's support for the Bedford Basin Monitoring and Research Program provided the setting and core data for a large number of projects conducted by HQP who benefitted from regular year-round access to the ocean. In the Lower St. Lawrence Estuary, the deployments of high-frequency radars allowed the long-term monitoring of ocean parameters such as current velocity and wave state. The data collected helped show how this type of measurement can be incorporated into existing ocean numerical models used for search and rescue operations, as well as oil spill tracking. On the west coast, modelling efforts allowed the development of a three-dimensional ocean model that can be used to evaluate storm surge risk to the communities bordering the Salish Sea.

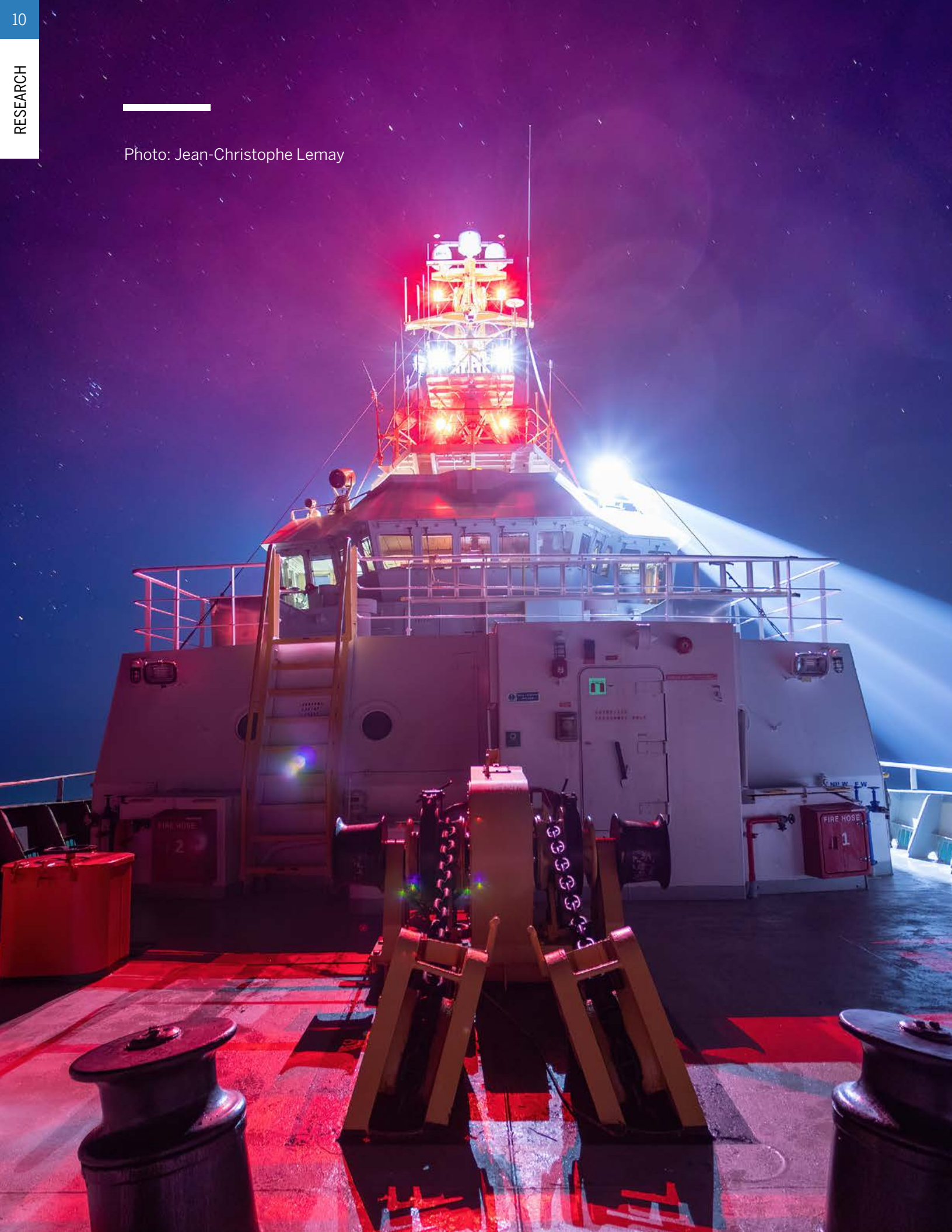


Photo: Jean-Christophe Lemay

Breaking down barriers between the disciplines

PROJECT TITLE	Monitoring natural hazards during coastal to offshore sediment remobilization and its impact on primary productivity dynamics in the Lower St. Lawrence Estuary
FUNDING CALL	RQM-MEOPAR joint call

Led by Dr. Audrey Limoges (University of New Brunswick) and Dr. Jean-Carlos Montero-Serrano (Université du Québec à Rimouski), this project brought together researchers in natural and social sciences from Dalhousie University, Université Laval, and UQAR. The project team studied the role of the remobilization of sediments as a factor influencing the development of harmful algal blooms. They also studied the geomorphology of the Lower St. Lawrence Estuary to understand its influence on the productivity dynamic of the water in that area. Despite challenges caused by the COVID-19 pandemic, the team was able to collect a tremendous amount of data over three fieldwork seasons from the project's start in 2020 until 2022, including four oceanic cruises and extensive coastal surveys and sampling.

This multi-disciplinary project contributed greatly to the training of HQP, allowing them to develop strong scientific skills and gain fieldwork experience alongside experienced scientists from diverse disciplines. They also had the unique opportunity to see their work connected with the arts. Indeed, the project had an educational mandate that resulted in the exhibition Fathom the depth of the Saint Lawrence Estuary: Art & Science, which was showcased at the University of New Brunswick Art Centre in the winter of 2023 and at the Terminal de Croisière de Québec in June 2023. The exhibit featured the photographs of Jean-Christophe Lemay, a Rimouski-based nature photographer, who captured life aboard the research vessel Coriolis II during research cruises, as well as the poetry from a writer collective from UQAR. Poems were also published as a literary notebook.

The project showcased what is possible when barriers between the natural and social sciences are overcome, enriched the professional development of team members, and reinforced working relationships across provinces.

Photo: Didier Perret

Supporting coastal resilience efforts in Baie-Saint-Paul, Qc

PROJECT TITLE	INtercomparison of scalE and DImensionality of predictioN tools for multi-risk assessment: erosion, coastal floodINg, icE jamming (INEDINE)
FUNDING CALL	RQM-MEOPAR joint call

The goal of this project was to develop a comprehensive set of methodologies and tools to anticipate changes in Baie-Saint-Paul, Québec and define best practices to reduce risk to the local community. This region is exposed to natural hazards such as earthquakes, strong tides, storms, and ice jams and these hazards are expected to be exacerbated by the effects of climate change.

Led by Dr. Ioan Nistor (University of Ottawa) and Dr. Damien Pham Van Bang (Institut national de la recherche scientifique – Eau, Terre, Environnement), with researchers from Québec at the Université de Montréal and Ontario at Brock University, the INEDINE project fostered a multi-disciplinary and intersectoral approach that included input from decision-makers at the federal, provincial, and municipal levels. Regular engagement with the local municipality partner helped identify the community's needs and priorities with regard to coastal resilience. This led to the project team focussing their work on soft methods of coastal protection, such as nature-based solutions using local vegetation.

Combining natural sciences and civil engineering, researchers identified hazards, studied site conditions, and defined preventive solutions. The team carried out four field missions throughout 2020 and 2021, during which they characterized the geomorphology of the site, sampled sediments and coastal vegetation, measured the tide, and did a topographic survey of the area. The project team also studied erosion processes in the laboratory, by re-creating a dune using vegetation from the study site and simulating wave action with a hydraulic channel. Large and small-scale experiments were carried out at the INRS in Québec City, as well as at the National Research Council's Ocean, Coastal and River Engineering Research Centre in Ottawa.

In the end, INEDINE provided the municipality of Baie-Saint-Paul with a better understanding of their coastal environment and enhanced their knowledge of using nature-based solutions as a way to protect against coastal erosion. Data and results from this project helped the municipality to develop their file for submission to the Bureau des Audiences Publiques sur l'Environnement (BAPE) for support for a coastal erosion protection strategy. Results from the project will also support the development of new design guidelines and recommendations for the use of coastal marshes as protection against coastal erosion, which could be applied to other sites facing similar challenges.

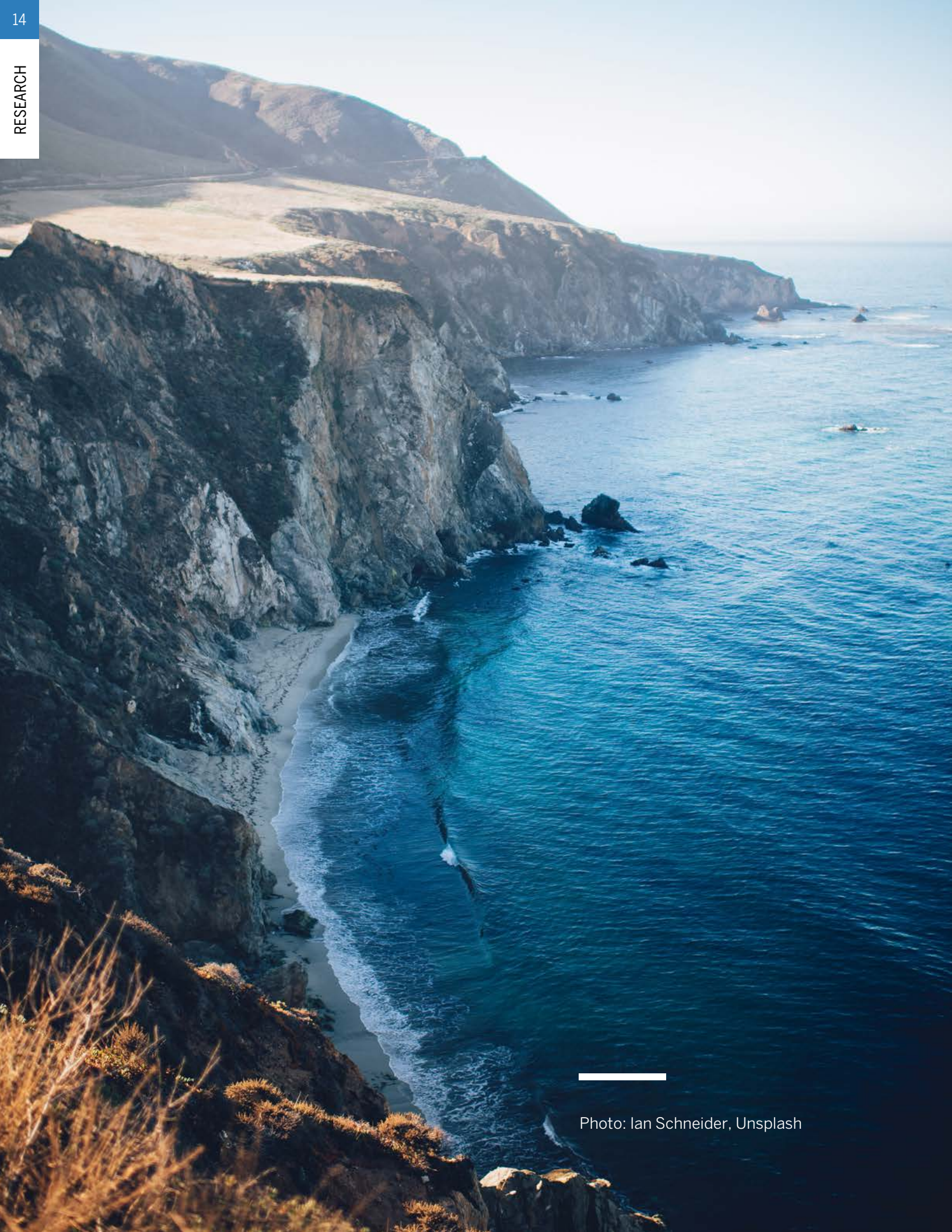


Photo: Ian Schneider, Unsplash

The Canadian Ocean deoxygenation research community is getting organized

PROJECT TITLE	OxyNet: A network to examine ocean deoxygenation trends and impacts
FUNDING CALL	Partnered Call – Ocean Networks Canada

Over the last few years, researchers from the University of British Columbia (UBC) and the University of Victoria (U.Vic.) have been examining current trends, future trajectories, and potential impacts of oceanic oxygen loss. This research team, led by UBC's Dr. Phillippe Tortell, compiled observations and analyzed trends, patterns, and drivers of deoxygenation in our ocean. The project's results supported the development of improved numerical models to inform future projections of ocean deoxygenation and an evaluation of the potential economic impacts of deoxygenation on British Columbia's salmon aquaculture and groundfish distributions.

As a final activity, the project team held a one-day virtual workshop in June 2022, bringing together the Canadian ocean deoxygenation community to share knowledge and discuss challenges related to deoxygenation research in Canadian waters. The workshop that gathered 48 scientists from over 20 institutions (mostly from Canada) highlighted the need for improved coordination across the ocean deoxygenation research community and multidisciplinary collaboration. Priorities were identified for future workshops, proposals, and collaborations and a report on the workshop was produced and shared with the attendees.

Following the workshop, a group of researchers took the lead on developing lines of communication within the Canadian ocean deoxygenation community and, building on the momentum of the first workshop, planned a second workshop, which was held during MEOPAR's Annual Network Meeting on November 28, 2022. During this workshop, attendees were invited to contribute to the discussion about how to shape and develop the ocean deoxygenation community in Canada.

Monthly newsletters are now distributed amongst the members and researchers are taking advantage of conferences to continue the conversation, build collaborations, and work on developing the community.

182

active HQP in 2022-23

900+

HQP trained to-date

36

degrees completed in 2022-23

Marine Spatial Planning training workshop
Photo: Marinez Scherer

HIGHLIGHTS: Training Program

Training the next generation of early career researchers (ECR) and early career ocean professionals (ECOPs) to champion cross-sectoral challenges is essential for building Canada's capacity to observe, predict, and respond to coastal and marine risks. In 2022-2023, MEOPAR's Training Program focused its efforts on strategic career planning, growing professional networks nationally and internationally, and building capacity for improving equity, diversity, inclusion and accessibility (EDIA) within the ocean research sector. By providing value-added learning experiences, MEOPAR continues to excel in equipping HQP from across Canada with the knowledge and skills needed to be leaders in their areas of expertise.

BLUE PLANNING IN PRACTICE

Practitioners in charge of coastal and marine planning and management are often limited in their implementation of management plans because of a lack of capacity in marine spatial planning (MSP). Providing training in this area promotes the mobilization of knowledge required for the effective implementation of solutions in coastal zones. In June 2022, MEOPAR supported an in-person Marine Spatial Planning (MSP) training workshop at the University of Victoria. The workshop was attended by 17 participants from a variety of backgrounds, including the federal government, consulting companies, First Nations, and graduate students, all with varying understandings of MSP. The four-day workshop provided networking opportunities and facilitated the formation of new partnerships between participants while opening the door to potential new training opportunities in the future.

SUPPORTING NETWORKING VIA ICES-PICES

In July 2022, MEOPAR proudly sponsored the fourth International Council for the Exploration of the Sea (ICES) and the North Pacific Marine Science Organization (PICES) Early Career Scientists Conference (ECSC4), held in St. John's, Newfoundland, on the ancestral homelands of the Mi'kmaq and Beothuk peoples. Over 100 participants from 22 countries attended the conference, which was aimed at fostering international networking and collaboration in line with the United Nations Decade of Ocean Science for Sustainable Development; MEOPAR backed the participation of 20 Early Career Scientists (ECS) and hosted a networking event as part of the event. The conference provided a valuable platform for ECS to expand their professional network, gain inspiration, delve into science communication and applied research and rediscover the benefits of such events.

SMRTS PROFESSIONAL DEVELOPMENT RECOGNITION PROGRAM

During the last fiscal year, the SMRTS (Sharing Multi-network Resources for Trainee Success) Program launched an exciting new initiative called the SMRTS Professional Development Recognition Program. This customizable training opportunity provides participants with a micro-credential certificate upon completing six hours of independent learning in communication, project management, social media, budgeting, and EDIA (Equity, Diversity, Inclusion, and Accessibility). Since its launch in January 2023, the program has engaged six English-speaking and three French-speaking participants from the SMRTS Network who have praised its impact on their career prospects. The SMRTS Seminars Program—a collaboration among 14 research institutes and provincial and national networks (including MEOPAR)—offers regular professional development opportunities that are open to all.

Photo: Jean-Christophe Lemay

Postdoctoral Fellowship Program showcases non-stop progress

FUNDING CALL Postdoctoral Fellowship (PDF) Program

Funding for the MEOPAR Postdoctoral Fellowship (PDF) Program's third cohort concluded in October 2022, but the PDFs have continued to mobilize their research. In 2022-2023, they produced four new publications and had eight additional manuscripts in preparation for submission. PDFs supported by MEOPAR contributed to knowledge mobilization by partnering with several rights-holders and stakeholders.

On the west coast, Dr. Danielle Denley of Simon Fraser University collaborated with the Central Coast Indigenous Resource Alliance (CCIRA) to produce a plain language report about the effects of warming on giant kelp, in order to share results and management recommendations with the four member Nations of the CCIRA (Heiltsuk, Kitasoo/Xai'xais, Nuxalk, and Wuikinuxv Nations). In 2022, the team also produced a cinematically captivating and informative knowledge mobilization video titled A'axsilaK'aladi; Taking Care of Giant Kelp Patches.

On the east coast, Dr. Andrea Bryndum-Buchholz of Memorial University of Newfoundland developed an ecopath EcoSim model for marine conservation planning in the North-West Atlantic Ocean. To mobilize model results, she prepared a policy brief that was shared with Fisheries and Oceans Canada (DFO) and the 2022 United Nations Ocean Conference in Portugal. Dr. Bryndym-Buccholz also presented at the fifth International Symposium on Effects of Climate Change on the World's Ocean in Bergen, Norway.

In July 2022, ArcticNet and MEOPAR's Joint Postdoctoral Fellowship program launched its second award call for Arctic marine research, and later proudly announced the new cohort. Fellows under this program demonstrate excellence in Arctic coastal and marine research and a commitment to supporting Inuit-led research through the Inuit Qaujisarnirmut Pilirijjutit (IQP).

MEOPAR is proud of all supported PDFs and their excellent achievements and career development. Of note this year, Dr. Emily Choy—a Joint PDF recipient in 2021—has started a position as an Assistant Professor in McMaster University's Department of Biology.

Photo: Jean-Christophe Lemay

Building a stronger sector with a commitment to EDIA

PROJECT TITLE EDIA Action Plan

The principles of equity, diversity, inclusion, and accessibility (EDIA) continue to be a priority for MEOPAR at all levels of the organization. Gender balance, regional diversity, range of sectors and backgrounds, and inclusion of underrepresented groups are considered not only with respect to research and training awards, but also when recruiting for the network's Board of Directors—which is 50% women—as well as its RMC. Both the Board of Directors and the International Science Advisory Committee (ISAC) are chaired by women, but our commitment to supporting gender-diverse people moves beyond the binary. As MEOPAR moves forward, we will be working to recruit more committee members of gender-diverse backgrounds.

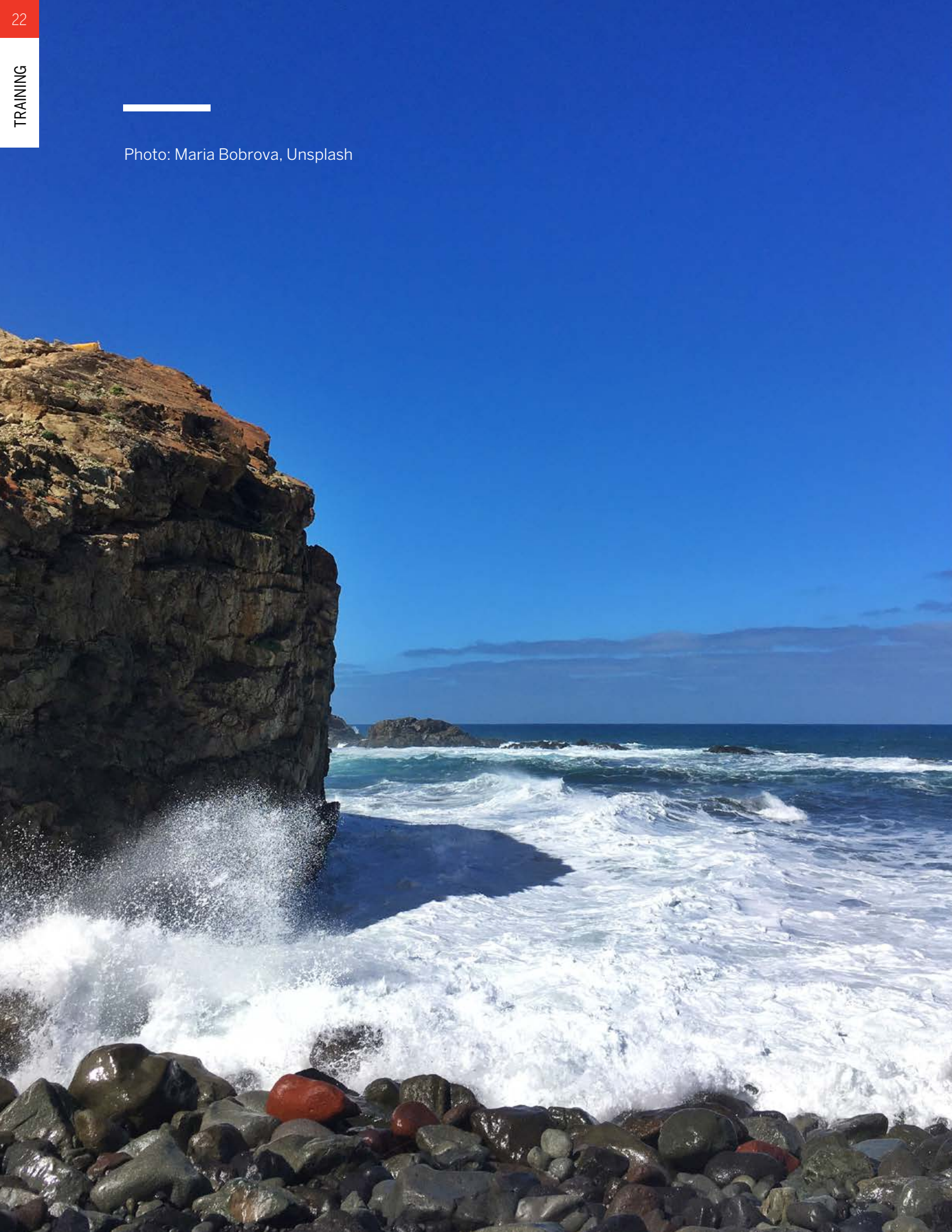
In September 2022, MEOPAR launched a four-fold EDIA Action Plan, working in partnership with Simply Good Form Inc. This plan aimed at building capacity to initiate change within the ocean sector by mobilizing EDIA knowledge and supporting marginalized communities, such as BIPOC and LGBTQIA2S+. The goal was also to improve MEOPAR's operations and programming to foster a welcoming and safe working and learning environment for all. The plan includes workshops for the network, hosted at events like the Annual Network Meeting, and asynchronous e-learning on Inclusive Leadership, and efforts to support community and knowledge mobilization. MEOPAR aims to support a strong organizational culture and improve knowledge mobilization around EDIA best practices: On episode 34 of SGF's podcast, Hey, Cis! MEOPAR members spoke about the importance of inclusion and representation of LGBTQIA2S+ and BIPOC voices in the ocean research community.

The MEOPAR EDIA Action Plan also included a training course for all staff, leadership, and governance committee members (Board of Directors, RMC, ISAC and thought-leaders). This opportunity was shared with the wider network, issuing over 60 access codes for the course. In 2022-23, MEOPAR also completed and passed an inclusion audit to be recognized as a Rainbow Registered Organization, accredited by Canada's LGBT+ Chamber of Commerce (CGLCC).

"Thank you for arranging for the Beyond Binary course and workshop. I found it very useful and it helps to make me more comfortable with the pronouns and terminology," said Cindy Marven, CORC CoP Coordinator. "I have many friends and family members who range along the gender and sexual orientation continuum and helping all of us feel welcomed and loved both at work and in our home environments is vitally important."

Rainbow Registered
Arc-en-ciel Officiel

Photo: Maria Bobrova, Unsplash



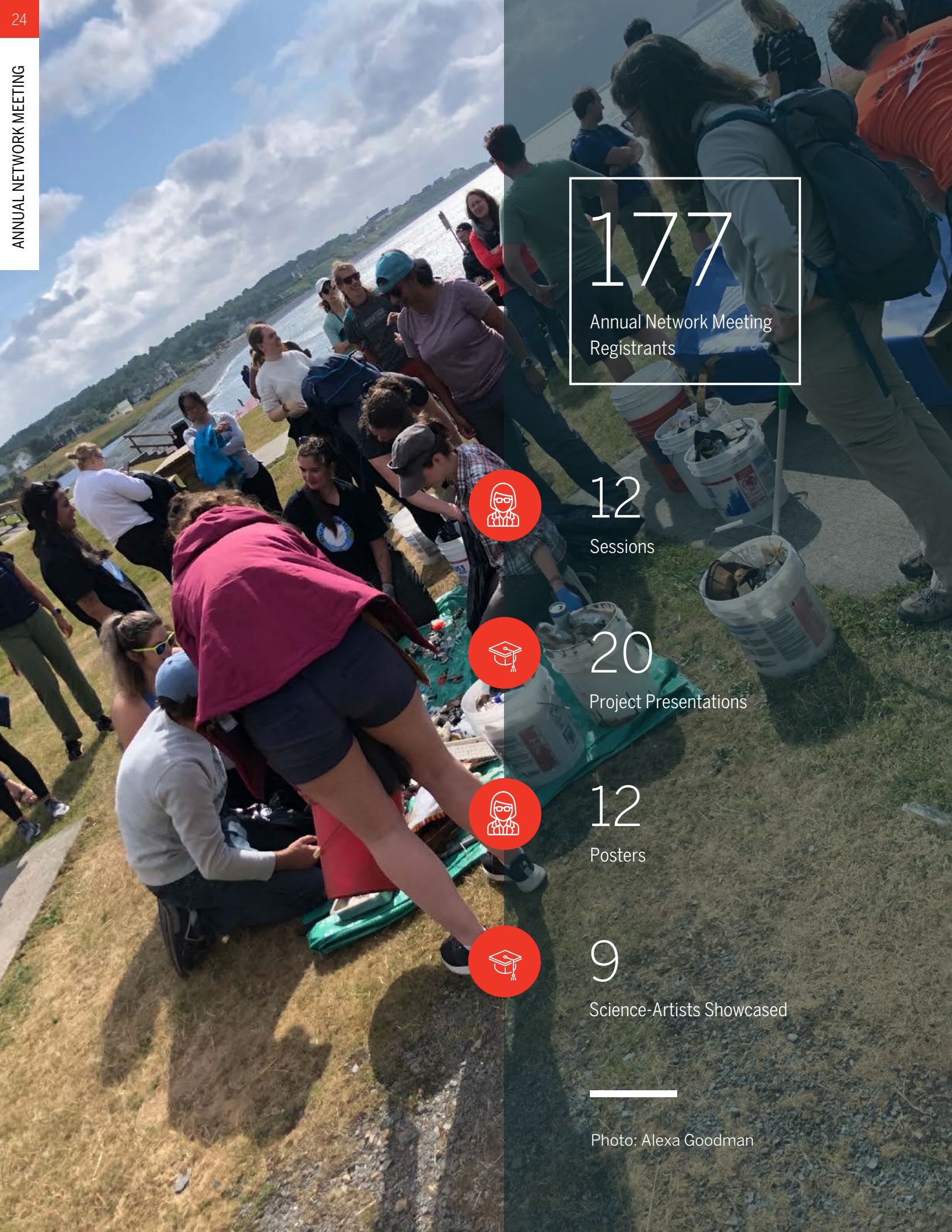
Fostering career growth and confidence with Robyn Roscoe

PROJECT TITLE Career Coaching Program

During the fall of 2022, MEOPAR offered a Career Coaching Program led by the esteemed Project Management Professional, Robyn Roscoe. The program provided invaluable guidance to students and ECOPs through three enlightening webinars that were made available to the entire MEOPAR community. These webinars focused on essential topics like goal setting and cultivating strengths, offering space for interactive discussions and addressing participant queries.

Additionally, eight exceptional ECOP participants received exclusive access to three personalized one-on-one career coaching sessions. It's worth celebrating the remarkable success of one participant who secured a new full-time job thanks to the dedicated support provided by their coach during contract navigation and negotiation.

"Through this program, I have now identified goals for both my career and my personal life, and will be entering the job hunt with considerably more confidence, a stellar LinkedIn profile, and a sharp resume!" said one participant. "I am so grateful to all who made this program possible." MEOPAR remains committed to empowering future leaders and fostering career growth, where similar programming will be provided under the next generation of MEOPAR.



177
Annual Network Meeting Registrants

12
Sessions

20
Project Presentations

12
Posters

9
Science-Artists Showcased

Photo: Alexa Goodman

HIGHLIGHTS: Annual Network Meeting

In November 2022, MEOPAR held its Annual Network Meeting (ANM), combining the Annual Training Meeting and Annual Scientific Meetings and gathering 177 participants for four days of virtual networking. Highlights from the meeting, which focused on supporting research excellence for ocean protection and coastal community resilience in Canada, included presentations on the vision for MEOPAR's future, the Climate Science 2050 plan, achievements of the MORI IDD project, the Science-Art Symbiosis Showcase, and discussions on ocean deoxygenation. The event also featured project presentations and a virtual poster session.

CANADA'S CLIMATE SCIENCE 2050 PLAN

This joint session from Environment and Climate Change Canada (ECCC) and Fisheries and Oceans Canada (DFO) provided an opportunity for our network members to learn more about the upcoming Climate Science 2050: Canada's Climate Change Science & Knowledge Plan (CS2050). The CS2050 Plan identifies priority science activities for investment across the climate change science and knowledge ecosystem in Canada over the next five years. While ECCC provided an overview of the plan, the DFO presentation focused on the ocean sector and areas where MEOPAR and its extended community could contribute.

MORI IDD

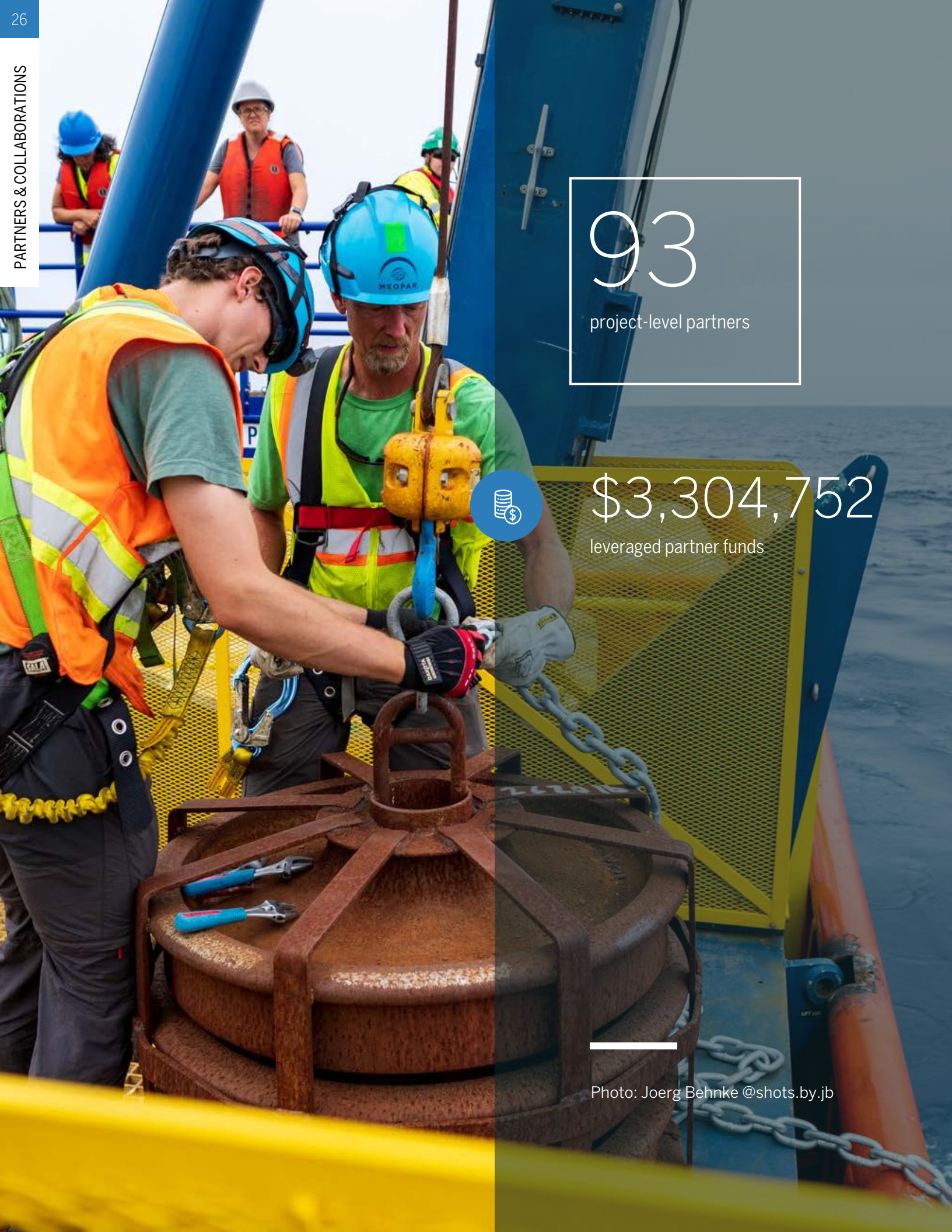
Since its inception in the spring of 2021, the MORI IDD project has acquired a broad suite of modular ocean research equipment, mobilized the components in various configurations onboard the Atlantic Condor (Atlantic Towing Ltd.), and supported five ocean research cruises. This session provided an overview of the MORI IDD project from a logistics perspective, as well as insights from Chief Scientists about the work accomplished during their scientific missions. This was followed by a panel discussion oriented towards the need for access to ocean research vessels and non-conventional research platforms for ocean sector research in Canada.

INCLUSIVE LEADERSHIP TRAINING WITH SIMPLY GOOD FORM

During the "Beyond Barriers 4 Inclusion: Breaking Binary Biases" workshop by Simply Good Form Inc., we discussed how "binary biases" have contributed to systemic barriers to equitable workplace cultures and systems of oppression for transgender and non-binary people; what bias is, why it is harmful, and how it creates barriers for both individuals and their communities. This workshop helped people distinguish between gender identity and sexual orientation, including gender expression variations, and how to apply those lessons in their jobs. Using discussion, participants learned how subconscious bias and language perpetuate stigma and barriers for marginalized communities.

BURSTING THE BUBBLE: SCIENCE COMMUNICATION BEST PRACTICES

Our science communication best practices session showed practitioners how to make their science and research results stand out by emphasizing clear messaging and using the best science communication tools and techniques to break through the traditional model of sharing results in research papers. Guided by a group of experts from across the ocean sector, participants put their newfound knowledge into practice with an interactive workshop using the Compass 'Message Box' to address Challenge Area 6 of the Ocean Decade: Increasing community resilience to ocean hazards.



93

project-level partners

$3,304,752

leveraged partner funds

Photo: Joerg Behnke @shots.by.jb

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. The 2022-23 fiscal year was no different, with connections and collaborations spanning coast to coast to coast and beyond.

LAUNCHING CANADA INTO THE OCEAN DECADE

MEOPAR continues to be actively involved in supporting the United Nations Decade of Ocean Science for Sustainable Development, a global initiative focused on promoting a healthy and resilient ocean through sustainable development. As part of this commitment, MEOPAR has hosted official IOC-UNESCO endorsed events—including the Virtual International Networking Connector in collaboration with the Ocean Frontier Institute and Integrated Marine Biosphere Research (IMBeR)— and hired a Community of Practice Research Assistant to facilitate collaboration with Fisheries and Oceans Canada and other stakeholders.

In 2022, MEOPAR embraced the intersection of science and art by collaborating with interdisciplinary scientist and artist Samantha Jones to deliver the three-part Science-Art Symbiosis Programme, including an interactive workbook, inspiration session, and showcase at our Annual Network Meeting. This IOC-endorsed Ocean Decade initiative (which has already reached over 220 people worldwide) aims to inspire researchers to integrate artistic expression into their work, enhancing outreach and science communication skills.

Our dedication to the UN Ocean Decade also brought us to the 2022 ArcticNet Annual Scientific Meeting in Toronto. In addition, Dr. Brent Else, Co-Scientific Director of MEOPAR, and Research Assistant Jia Yi Fan participated in the conference and MEOPAR sponsored and facilitated an ECOP Canada workshop on Ocean Decade objectives.

IMPROVING EQUITY, DIVERSITY, INCLUSION AND ACCESSIBILITY IN THE WEATHER, WATER AND CLIMATE WORKFORCE

Last winter, MEOPAR teamed up with the Canadian Meteorological and Oceanographic Society (CMOS), the Black Environmental Initiative (BEI), and the Canadian Water Resource Association (CWRA) to work together on their Equity, Diversity and Inclusivity (EDI) Initiative funded by Environment and Climate Change Canada (ECCC). This initiative aims to identify gaps, barriers, and initiatives, as well as recommendations to enable a more inclusive, diverse, and accessible workforce. This will enable increased representation of Black and Indigenous people, and people living with disabilities. The secondary objective of the initiative is to enhance interest in STEM (science, technology, engineering & mathematics) by assessing and refining programs and initiatives offered by project partners. The resulting project report provides CMOS with the research required to begin addressing EDIA within all aspects of their organization, laying the groundwork for future action within the larger weather, water, and climate enterprise (WWC).

Photos: Dan Gibson

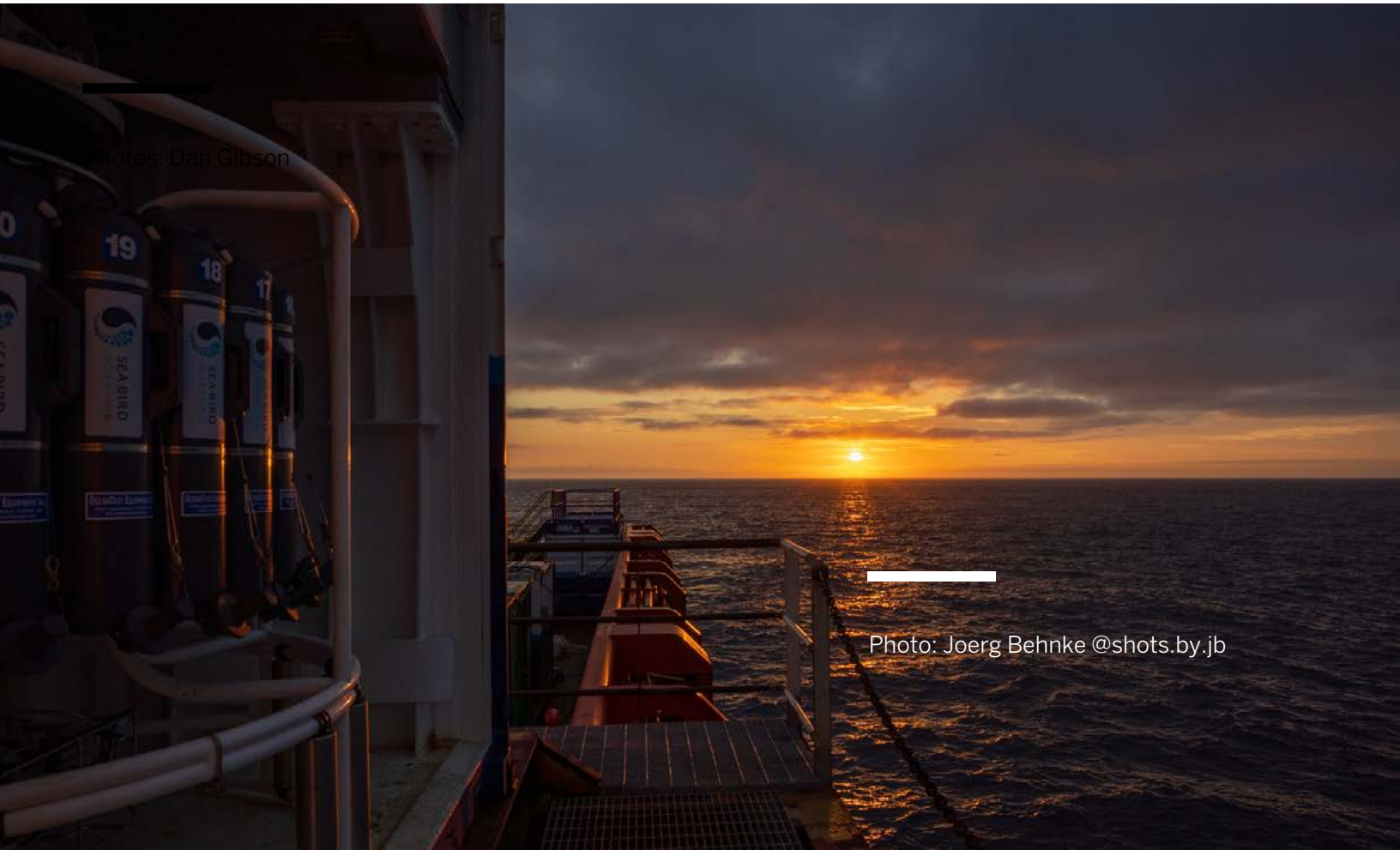


Photo: Joerg Behnke @shots.by.jb

Setting Sail for Scientific Success

MORI IDD PROJECT CHARTS NEW WATERS IN OCEAN RESEARCH

In 2022, the National Research Vessel Task Team (NRVTT) and MEOPAR collaborated on the successful completion of the second season of the Modular Ocean Research Infrastructure Initial Development and Demonstration (MORI IDD) project. This year involved conducting three major scientific missions aboard the Atlantic Condor vessel, totalling 45 days at sea and 20 days of mobilization and demobilization. The research covered a wide range of oceanographic and atmospheric studies, including fog analysis, comprehensive water column investigations, and in-depth surveys of deep-sea coral habitats. These missions supported various initiatives such as the US Office of Naval Research's FATIMA program, NSERC's Coral and Water Column Paleoceanography cruise, and the deployment of the Seacycler profiling mooring in collaboration with the Ocean Frontier Institute and Canada Foundation for Innovation.

MORI has proven to be an adaptable, cost-effective, and scalable solution for vessel-based ocean research, offering Canadian scientists the means to conduct sophisticated investigations when specialized vessels are not available. This year, MORI added a CTD (conductivity, temperature, depth) Marine Mission Module (a custom CTD launch and recovery system) and two new storage containers with flat racks to its broad suite of modular ocean research equipment. MEOPAR's involvement in the MORI-IDD project has not only facilitated its own research programs but also fostered meaningful partnerships with organizations across Canada, positioning the country as a leading proponent in advancing the modular approach to ocean exploration. The project's success was made possible through the support of key stakeholders, including Irving Shipbuilding Inc., which contributed $2 million, alongside MEOPAR's investment of over $1 million. Additional support was provided by the NRVTT, Centre for Ocean Ventures & Entrepreneurship (COVE), the National Research Council, Natural Resources Canada, the Department of Fisheries and Oceans, Defense Research and Development Canada, and Hawboldt Industries.

As we set our sights on the future, we eagerly anticipate the expansion of MORI units onto additional vessels in the upcoming season, as well as our ongoing efforts to enhance vessel access through the NRVTT. We extend our heartfelt gratitude to Melissa Anderson for their invaluable contribution as co-chair from 2020 to 2022.

Photo: Andrew Tang, Unsplash

Ongoing support for Polar Prediction

YEAR OF POLAR PREDICTION (YOPP) FINAL SUMMIT

MEOPAR was thrilled to be a sponsor of the Year of Polar Prediction (YOPP) Final Summit, held in Montreal, Quebec from August 29 to September 1, 2022. This exciting event brought together polar science experts from around the world to celebrate the achievements of YOPP and discuss its lasting impact. The conference welcomed participants from academia, research institutes, government agencies, corporations, as well as northern communities and end-users. MEOPAR had the opportunity to present a plenary session and engage with attendees at the exhibit hall, fostering meaningful connections and knowledge sharing.

YOPP, an initiative of the World Meteorological Organization (WMO), aimed to enhance environmental prediction capabilities in polar regions through extensive observing, modeling, verification, and user-engagement activities. During Cycle II, MEOPAR collaborated with Polar Knowledge Canada and the Arctic Research Foundation to launch a call for research proposals for the Year of Polar Prediction to drive Canadian involvement in the project. This initiative supported innovative projects such as improving visibility forecasting in summer polar fog, predicting the future of renewable energy in Canada's Arctic, enhancing Arctic Ocean monitoring with autonomous sensors, and more.

At the YOPP Final Summit, MEOPAR showcased posters based on research supported by our organization, including studies on aerosol and fog microphysical parameters in Tuktoyaktuk, a likely mechanism for an ice-free Arctic, and seasonal predictability of minimum sea ice extent in the Arctic Ocean. These contributions highlighted the valuable outcomes of MEOPAR-supported research and its impact on polar prediction.

MEOPAR's participation in the YOPP Final Summit was a testament to our commitment to advancing polar science and fostering collaboration among global experts.

FROM LEFT TO RIGHT:
Evelyn Hornbeck, Dany Dumont, Isabelle Tremblay, Greg Smith, Paul Myers, Charles Brunette

1028

Community of Practice members over 9 CoPs

110

publications by MEOPAR researchers

145

presentations at conferences or workshops by MEOPAR members

10

conferences or workshops hosted or organized by MEOPAR members

Photo: Wendy Duble, Unsplash

HIGHLIGHTS: Knowledge Mobilization

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

EMPOWERING COLLABORATION THROUGH COMMUNITIES OF PRACTICE

Over the past fiscal year, MEOPAR supported the launch of three new CoPs: the Canadian Ocean Mapping Research and Education Network (COMREN), the Canadian NEMO Ocean Modeling Forum (NEMO) and the Ocean Decade Community of Practice, (the latter is now integrated into MEOPAR's general programming). Since then, each new CoP has grown its initial membership by an average of 62%.

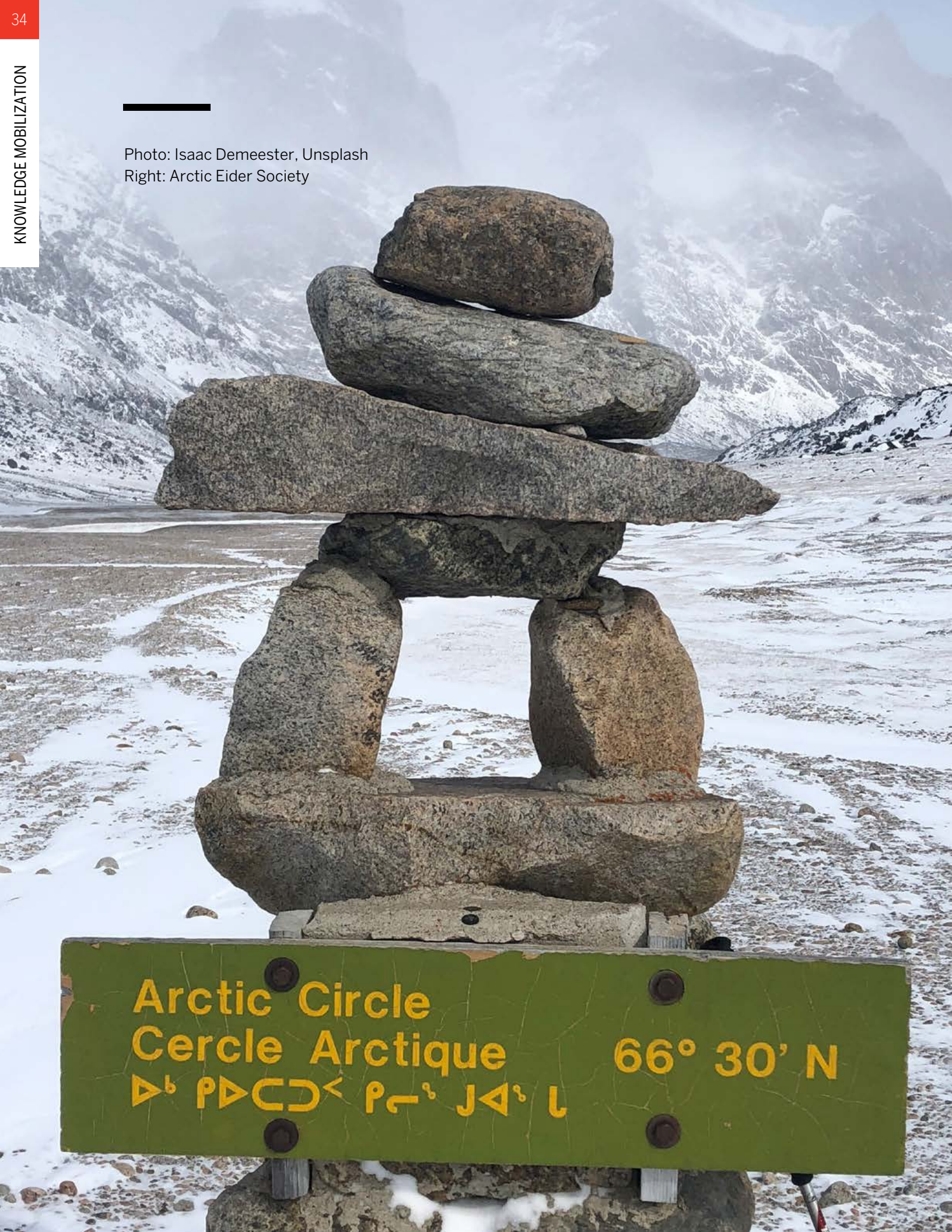
Taking a new approach to data and information sharing, COMREN created a Notion Team Site as a portal for sharing announcements and documents. The CoP has also participated in two French podcast episodes, has secured nine new funding opportunities for COMREN activities, and created a working group to recruit students from underrepresented groups into the field of ocean mapping. The Coast and Ocean Risk Communication CoP had noteworthy success in 2022, with high-impact risk communication efforts being featured on CTV and Global News.

The value of the CoPs' coordinated, structured approach to multi-sectoral conversations and partnerships was highlighted in the second Virtual CoP Symposium "Why Canada Needs Communities of Practice" held in March 2023.

IGNITING CLIMATE CURIOSITY WITH THE DISCOVERY CENTRE

The partnership with the Nova Scotia Discovery Centre to bring local climate change research into the classroom was one of the highlights from MEOPAR's knowledge mobilization outcomes. The Discover our Climate partnership took MEOPAR's world-class research and resources (including research by 12 MEOPAR-supported network members) to make climate science and action accessible, informative and fun for youth and communities. The resulting bilingual teaching tools for students of all grades include eight climate topics, such as ocean acidification, saltwater intrusion, coastal erosion, and plastic pollution. The features enable teachers and students to integrate climate change research and ocean literacy into their classrooms through fun, engaging, and accessible research topics.

Photo: Isaac Demeester, Unsplash
Right: Arctic Eider Society



Bridging Indigenous Knowledge and technology for climate research

PROJECT TITLE	Enhancing knowledge exchange among MEOPAR researchers and Indigenous communities through SIKU: The Indigenous Knowledge Social Network
FUNDING CALL	Knowledge Mobilization Fund

The SIKU Indigenous Knowledge Social Network is a ground-breaking initiative that brings together Indigenous knowledge and cutting-edge technology to study the changing Arctic environment. Led by the Arctic Eider Society (AES), the collaboration involves a diverse group of partners, including Inuit communities, scientists, and technology experts. The project harnesses the power of SIKU, a mobile app that allows users to share observations of sea ice, weather conditions, and wildlife in real time.

This community-driven approach empowers Inuit communities to actively participate in monitoring and documenting the impacts of climate change on their traditional territories. The collaboration not only fosters knowledge exchange and co-production of research but also promotes Indigenous leadership and ownership of Arctic research initiatives. By combining traditional knowledge with scientific expertise and innovative technology, the SIKU Research Collaboration is paving the way for a more inclusive and comprehensive understanding of the Arctic ecosystem and its vulnerabilities in the face of a rapidly changing climate.

Since its launch, SIKU has acquired over 12,000 users. Its evolution continues to be guided by the priorities of Indigenous communities and regional organizations such as Inuit Tapiriit Kanatami's National Inuit Strategy on Research (2018), which "targets governments, academia, and research institutions and identifies areas for partnership and action that can strengthen the impact, efficacy, and usefulness of Inuit Nunangat research for Inuit." Support from MEOPAR's Knowledge Mobilization Fund has allowed the AES Outreach team to run SIKU training workshops for academic researchers.

"One of the many ways we use SIKU is to document where we travel around Sanikiluaq, what we are doing on the ice and the locations of our sampling. We also use SIKU to exchange sampling information; the local Inuit field team collects water samples and deploys CTDs and we are able to view the details of the trip on SIKU, including sampling data, from our offices in Winnipeg," said Annie Eastwood, Field Scientist for Oceans North and Research Partner with Centre for Earth Observation Science, Coastal Oceanography Team, University of Manitoba. "Most importantly, SIKU has enabled our team to advance our outreach efforts, providing almost real-time updates to the Hunters and Trappers Organization and community members about what we are doing on the ice."

Photo: Jacob Stolle

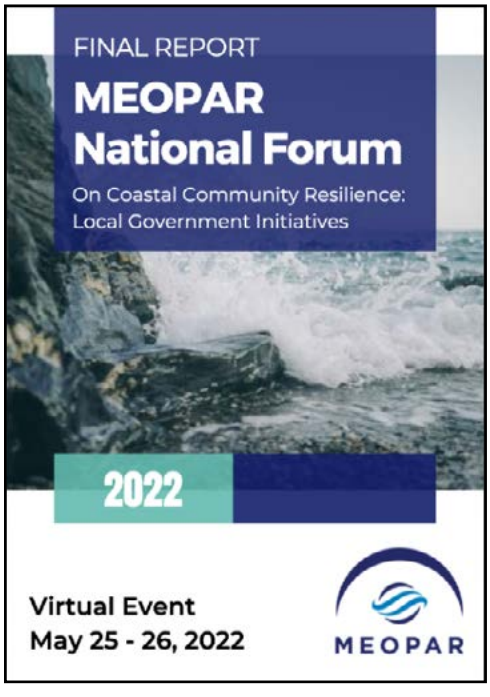
National Forum on Coastal Community Resilience explores new ways of working

FUNDING CALL MEOPAR Core; Communities of Practice

In May of 2022, the second MEOPAR National Forum on Coastal Community Resilience: Local Government Initiatives brought together researchers, communities, and decision-makers from coastal areas across Canada. This dynamic event provided a platform for professionals nationwide to engage with coastal community representatives, discussing initiatives and challenges in building resilience against diverse coastal hazards. With over 120 participants representing various regions across the country, the forum delved into two key themes: "Resilience Planning and Partnerships" and "Disaster Recovery and Lessons." Attendees were treated to community "snapshot" presentations, insightful panel discussions with representatives from multiple government agencies, non-governmental organizations, and the research community, as well as interactive breakout room discussions.

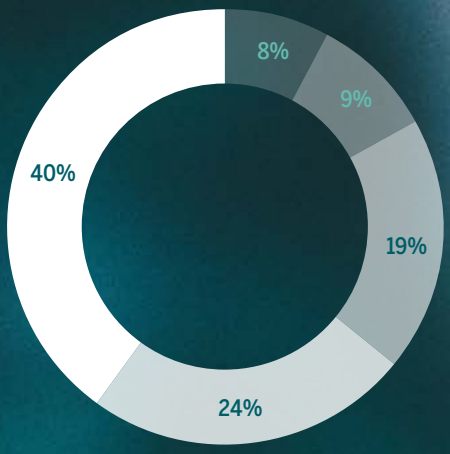
Throughout the forum, several key messages resonated strongly. The importance of transformative change and innovation was emphasized, highlighting the need for new ways of working. The discussions also underscored the value of adopting a mixed suite of adaptation solutions, including managed retreat, to effectively address coastal challenges. Funding constraints were identified as an issue requiring attention, and the significance of inter-jurisdictional coordination and partnership across sectors was emphasized.

While the forum showcased diverse local government initiatives, it also highlighted the need to connect local realities on a broader scale. By fostering a national approach to coastal risk and community adaptation, new solutions can emerge, and communities can learn from similar cases. Recognizing the significance of local context, the Forum Report was published, serving as a valuable resource for further knowledge mobilization. As the forum concluded, the energy and momentum generated will continue to drive progress toward a more resilient and sustainable coastal future for all.



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 2022-2023

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 2022-23

CORES

1. Observation Core

DR. BRAD DEYOUNG, MEMORIAL UNIVERSITY OF NEWFOUNDLAND

2. Response Core

DR. STEPHANIE CHANG, UNIVERSITY OF BRTISH COLUMBIA

OCEAN NETWORKS CANADA

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

DR. PHILPPE TORTELL, UNIVERSITY OF BRITISH COLUMBIA

OPEN CALL

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

DR. MLADEN NEDIMOVIC, DALHOUSIE UNIVERSITY

5. Whales, Habitat and Listening Experiment II

DR. CHRIS TAGGART, DALHOUSIE UNIVERSITY

RÉSEAU QUÉBEC MARITIME (RQM)

6. 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)

7. 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)

8. 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

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

ALLISON SUEYI CHUA/DR. DOUGLAS WALLACE, DALHOUSIE UNIVERSITY

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

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

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

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

12. Measuring Subsurface Dispersion with Inexpensive Lagrangian Floats

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

13. 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

14. 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

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

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

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

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

17. 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

18. 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

19. 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

20. Assessment of nitrogen cycling in coastal benthic ecosystems

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

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

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

22. 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

23. Characterization and quantification of nanoparticles in the Canadian Arctic and impacts on the food web and resources of local communities

DR. CHARLOTTE CARRIER-BELLEAU, UNIVERSITÉ LAVAL

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

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

25. Advancing Sea ice monitoring in the Canadian Arctic

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

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

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

27. Co-producing research questions and solutions to coastal erosion in Nunatsiavut

DR. EMMA HARRISON, DALHOUSIE UNIVERSITY

EARLY CAREER FACULTY

28. Holyrood Sub-Arctic Coastal Observatory

DR. KATLEEN ROBERT, MEMORIAL UNIVERSITY OF NEWFOUNDLAND

29. Predicting Physical & Biogeochemical Properties on the BC Central Coast

DR. STEPHANIE WATERMAN, UNIVERSITY OF BRITISH COLUMBIA

FATHOM FUND

30. Stories for Stream2Sea: Mapping Changing Ocean Relationships and ACTION in Canadian Communities

DR. DIZ GLITHERO/DR. JEN MCRUER, UNIVERSITY OF VICTORIA

KNOWLEDGE MOBILIZATION

31. 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

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

DR. ERIC OLIVER/BREANNA BISHOP, DALHOUSIE UNIVERSITY

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

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

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

DR. DANA LEPOFSKY, SIMON FRASER UNIVERSITY

35. 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

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

DR. RANDALL SCHARIEN, UNIVERSITY OF VICTORIA

37. Resilient-C KM

DR. STEPHANIE CHANG, UNIVERSITY OF BRITISH COLUMBIA

38. 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

39. 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

40. SIREN Open Access Book

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

41. Coastal Communities Face the Future

DR. TONY CHARLES, SAINT MARY'S UNIVERSITY

42. Waterlution-A Water Learning Experience (Waterlution)

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

WORKSHOP TRAINING AWARDS

43. Blue Planning in Practice: Marine Spatial Planning (MSP) Training

NORMA SERRA, UNIVERSITY OF VICTORIA

44. ROV Youth Engagement in Unama'ki

TEALA CHAMBERS/DR. DOUGLAS WALLACE, DALHOUSIE UNIVERSITY

Photo: Jean-Christophe Lemay

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