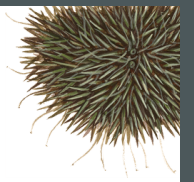


tidepool

2023-2024

Editor-in-Chief: Aidan Hicks & Méliane Deshaies
Cover Photo: Kyle Warman

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Thank you for reading!

Thank you for reading the next edition of tidepool! With the continued support from members within the department, the current newsletter contains all sorts of exciting updates from our community.

As always, our goal is to increase transparency, communication and help to build a stronger sense of community at the Department of Ocean Sciences / Ocean Sciences Centre (OSC).

If there are any recommendations for future issues of tidepool or you would like to become involved on the editorial team, please email Méliane at mdeshaies@mun.ca



Photography by Aidan Hicks



Faculty Spotlight: Dr. Paul Snelgrove



Hello from Paul Snelgrove, University Research Professor, Departmental Advisor to Fisheries and Oceans Canada and Associate Scientific Director of the Ocean Frontier Institute. I arrived at Memorial in 1996, first at the Marine Institute and for the last 20 years at Ocean Sciences. Our research group focuses broadly on seafloor ecology of invertebrates and fishes, spanning sedimentary subtidal to deep-sea habitats. Much of our work takes place in Newfoundland and Labrador, but some of our projects extend into the Arctic and the Pacific.

Many of our projects involve paired field and lab experiments, noting that each approach has its advantages and disadvantages. Our questions focus on the critical contributions of marine species and biodiversity to how ecosystems function, whether that means creating habitat for other species, cycling nutrients, seeding adjacent regions with offspring, or sequestering carbon. Our work uses remotely operated vehicles, shipboard incubations, laboratory flume experiments, and other tools such as otoliths, acoustic tracking, and genetics, particularly in collaboration with colleagues at Fisheries and Oceans Canada (DFO), and at other universities in Canada and internationally. We do much of this work in support of marine



conservation, and strive to make our science topical and understandable to those involved in ocean policy. For example, many of our group participated in the Canadian Healthy Oceans Network (2008-2021), which delivered policy briefs to managers at Fisheries and Oceans Canada. Some of us contribute to DFO

advisory processes that provide science advice to the federal government.

We have welcomed students and postdocs from North and South America, Europe, Asia, and Australia, spanning diverse interests and backgrounds in marine ecology. Our alumni include researchers now at Fisheries and Oceans Canada in St. John's, Quebec, and Nova Scotia, as well as faculty members at universities in Canada and beyond.

More information can be found at <https://www.mun.ca/osc/dr-paul-snelgrove/>

Best wishes, Paul Snelgrove (psnelgrove@mun.ca)

Dr. Pat Gagnon

A word from the Department Head

Greetings!

I hope everyone took advantage of a gorgeous summer and that the transition into another busy fall semester was as enjoyable and smooth as can be. Time certainly flies and here we are with another edition of our very own and soothing Tidepool!

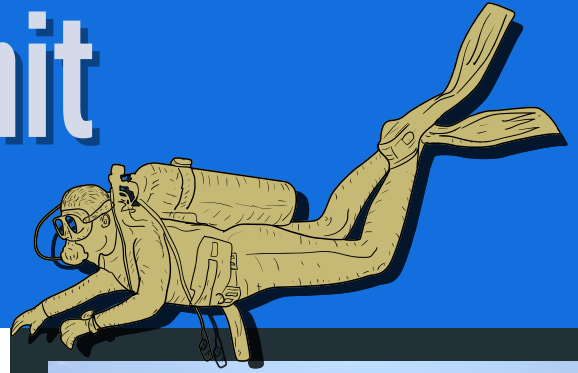
Before jumping into the next pages, I would like to wish everyone, in particular our new students, staff, collaborators, and clients, a productive journey at MUN's flagship Ocean Sciences Centre (OSC). Like me, you have the privilege of being a part of an exceptional team of dedicated people working together to advance knowledge about oceans. It is guided by its vision "To be the international centre for research and education in cold ocean bioscience" that the Department of Ocean Sciences (DOS)/OSC community has proudly led oceans research for decades provincially, nationally, and internationally. As ambassadors and champions, we must be very proud of who we are and our many accomplishments and successes. I have all confidence that our legendary talent, creativity, and resilience will grow even further with time and keep us sail through despite a sea that can be agitated at times.

Thanks to the Tidepool editorial board for their wonderful work! I wish everyone a pleasant read.

Best
Pat Gagnon



Field Services Unit Update



The Field Services Unit (FSU) had a very successful and busy summer taking on new and recurring annual projects, with over 20 projects and 150 dives completed. This fall we will be involved in returning specimens for safe keeping over the winter, along with cluing up ongoing projects before winter sets in and the dive boat gets wrapped up for the season.

In June 2023, FSU participated in Marine Institute flagship event and World Ocean Day. World Ocean day took place at the MI's main campus, and the Ocean Sciences Centre exhibit was a crowd favorite! June month has also included our annual trip to the Bonne Bay Aquarium and Research Station for specimen collection, in order to get their tanks ready to open to the public.

Additionally, we welcome Greg Radford as he accepted the role of Dive Technician I in early June 2024!

-Kyle Warman



CDRF News

As we begin the busy fall semester, there are many exciting ongoing and upcoming projects happening at the Cold-Ocean Deep-Sea Research Facility (CDRF).

The CDRF continues to offer pay-per-use as well as annual subscription plans for use of the analytical equipment housed in our facility. In addition to the biocontainment lab facility and IPOCAMP deep-sea chambers, we have a variety of analytical equipment available for use. Feel free to reach out about the different tools we have available here at CDRF and how they may contribute to your lab group's research projects.

- A fully equipped histology suite (microtomes, cryostat, processing & embedding workstations, auto-stainer)
- Zeiss digital slide scanner
- BD FACS-Aria flow cytometer
- Phenom scanning electron microscope (SEM)
- Numerous Nikon microscopes (brightfield and fluorescence, including the confocal)



We offer the Intro Plan, the Explorer Plan and the Expert Plan, with the option of upgrading your subscription midway through the annual term. This summer, we also implemented a pay-per-cycle or annual subscription fee structure for use of the autoclaves in CDRF. This will help us keep these vital pieces of equipment operational for users of the CDRF and others at the OSC.

We have established a regularly scheduled liquid nitrogen delivery for the purposes of long-term sample storage in our dewar in the AQC3 biocontainment lab. We are offering space in this dewar to those who would be interested in using it for long-term sample storage (i.e. cell line stocks). For anyone who would be interested in availing of this service, we can assist with establishing protocols for freezing cell line stocks and other samples. All users must be trained by CDRF staff prior to being granted access to the liquid nitrogen storage dewar.

Reach out to us for more information.

-DOS/OSC Main Office



Public Education Update

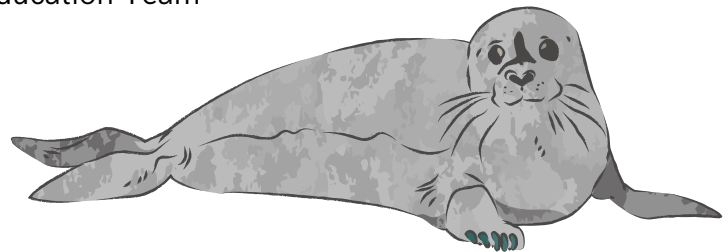


The touch tank is now closed after another successful summer! We would like to say thank you to our marine interpreters this summer as they welcomed thousands of visitors to our outdoor program!

It is with a heavy heart that we have said good-bye to our resident seals, Tyler and his daughter Deane. As of October 2023, they have been relocated to Huntsman Marine Science Center (HMSC) in New-Brunswick to enjoy their retirement. You can follow them on social media, along with their new friend Snorkel!

Thank you to everyone involved for another great summer!

-Public Education Team



Follow the Ocean Science public education team on Instagram, or join the Facebook group. More information can also be found on the OSC Public Education Program website.



Ocean Sciences,
Memorial University



@munocean



www.mun.ca/osc

Transportation Update



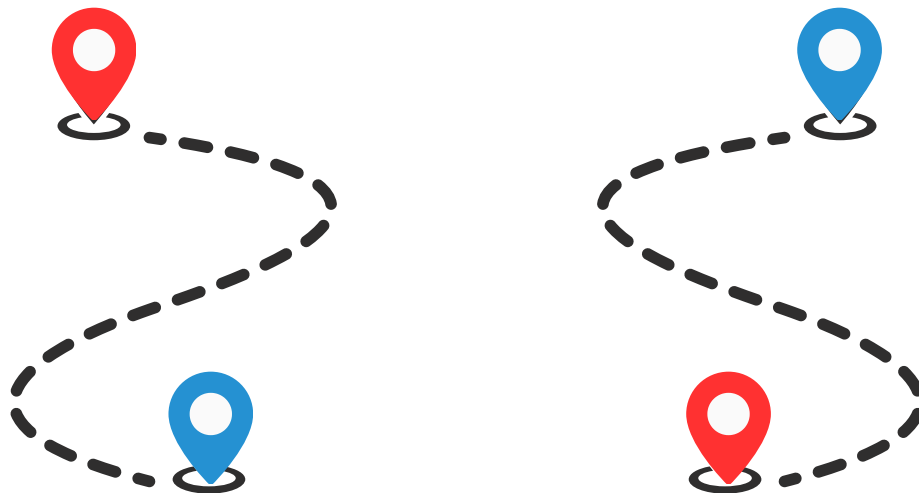
As of September 1st 2023, the shuttle between Main Campus in St. John's and the OSC has been removed from service. A taxi service will now insure transport between the two campuses for all OSC students requiring it.

To use the taxi service, students need to book by Friday noon the week before. Last minute changes can be done a day in advance, before 2 pm.

Contact ostransport@mun.ca for bookings.

Consult www.mun.ca/osc/transportation-/ for more information.

Schedule



From Main Campus to OSC:
8:30 am / 1:15 pm

From OSC to Main Campus:
1 pm / 4:45 pm

OSGSA News



Welcome to all new students & researchers who have joined the Department of Ocean Sciences this semester! The Ocean Science Graduate Student Association (OSGSA) is a graduate student society responsible for organizing events to foster connections and community in our department. Follow us on Facebook (MUN Ocean Sciences Graduate Student Association), Instagram (@munosgsa) and with our Departmental Newsletter!



Executive Members 2024



Chairperson - Victoria Heath
vlsheath@mun.ca



Treasurer - Andrew Tucker
ajtucker@mun.ca



Graduate Development Coordinator- Hallie Arno
hearno@mun.ca



Event Coordinator-
Brooklyn Bolstad
bbolstad@mun.ca



Event Coordinator -
Zintis Stasko
zpstasko@mun.ca



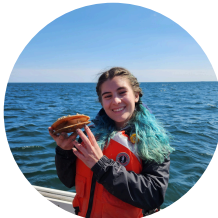
Communication Coordinator - Letitia Chen
lypchen@mun.ca



Graduate Studies Representative- Jose Ignacio Vasquez
ivasquezsolli@mun.ca



Food Coordinator -
Yuthika Jalim
yjalim@mun.ca



Tidepool Editor-in-chief -
Méliane Deshaies
mdeshaies@mun.ca



Tidepool Assistant Editor-
Sathees Duglas
sduglas@mun.ca

Updates & Events 2024

The OSGSA is excited to start a new school year! The OSGSA strives to organize events to both promote student community and contribute to academic development. Keep an eye on our Newsletter and social platforms to stay updated on our events!

Past Events



September 24:
Welcoming BBQ and
Orientation day at the OSC

September 25:
Annual General
Meeting with OSGSA



September 27:
Graduate students
Bar Crawl

October 23:
Taxi Service Meeting



October 25:
Halloween Party at
Quidi Vidi

Upcoming Events



November 4:
R Workshop for Graduate students.
3-5 pm on Main Campus, CSF Room
1302
All are welcome!
Contact Hallie Arno for more
information. (hearano@mun.ca)

November 7:
Seminar Series! Guest lecturer:
Dr. Edgar Becerril Garcia



December
Holiday Party for
graduate students!
Exact date and
information to come.

Seminar Series!

Weekly seminars are back on this semester!
Schedule: Thursdays, 3:30 pm in the Challenger room.

OSGSA News



A huge thank you to our 2023 OSGSA Executive team! They have done amazing work throughout last year, and have organized multiple successful events.



Executive Members 2023



Chairperson - Victoria Heath



Treasurer -
Chantelle Clairmont



**Graduate Development
Coordinator** - Eleanor Barry



Event Coordinator -
Rahana Ebrahim



Seminar Series Coordinator -
Stephan Hamisch



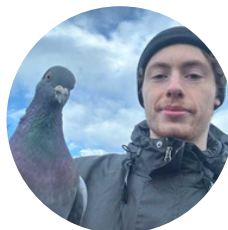
**Fundraising & Communication
Coordinator** - Hallie Arno



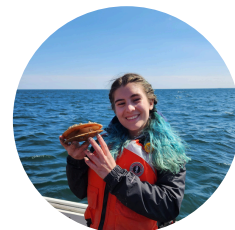
**Graduate Studies
Representative** -
Colleen McBride



**Food Coordinator & GSU
Representative** -
Sara Jobson



Tidepool Editor-in-chief -
Aidan Hicks



**Tidepool Assistant Editor &
Communication Coordinator** -
Méliane Deshaies

MIGS

The Marine Institute Graduate Society (MIGS) is a society for graduate students studying Marine studies, Fisheries studies and Ocean technology at the Marine Institute of Memorial University.

MIGS and OSGSA frequently work together to organize larger scale events, and to support our students.

You can contact us through email (migs@mi.mun.ca) or join our Facebook group "Marine Institute Graduate Society (MIGS)". Everyone is welcome!



Marine Institute Graduate Society (MIGS)



migs@mi.mun.ca

BGSA

The Biology Graduate Student Association brings together the graduate students part of the Biology Department of the faculty of Science.

BGSA and OSGSA work particularly close together as multiple students.

Follow us on our social media platforms to stay updated on our events! Our Instagram account (@munbgsa) or our Facebook group "MUN Biology Graduate Student Association".



MUN Biology Graduate Student Association



[@munbgsa](https://www.instagram.com/munbgsa)



Happy start to the Fall Semester! OceanUS is an undergrad society for Ocean Sciences and Marine Biology students that organizes events to create a community within our faculty!

While OceanUS is an undergraduate society, we work alongside the graduate student association (OSGSA) on informational events about graduate studies, and offer support to undergrad students aiming to pursue higher degrees.

Feel free to follow our Instagram account (@mun_oceanus) or join our Facebook group ("OCEANUS - Ocean Sciences Undergrad Society") to stay in the loop with our upcoming events!



OCEANUS - Ocean Sciences Undergrad Society



@mun_oceanus

Welcome!

Hallie Arno



Cameron MacPhail



Rachael Stephan



to New Arrivals 2023

Hallie Arno is interested in researching anadromous fish and understanding the impacts of people on the marine environment. She grew up in the northeast United States and attended College of the Atlantic in Bar Harbor, Maine, where she majored in Human Ecology. At Memorial, she is working in Dr. Ian Fleming's lab to compare thermal tolerance between aquaculture salmon and wild salmon.

I'm originally from Vancouver and did my undergrad at Queen's. My interests lie in understanding natural systems and how society interacts with them in order to inform pragmatic, sustainable approaches to management and conservation. I am in the Fleming lab and my project will investigate some of the triggers for, and impacts of, alternate life histories in Atlantic Salmon here in Newfoundland.

Rachael Stephan is a 4th year undergraduate marine biology student. Her hometown is Stratford, Ontario and she has two dogs that she adores. Rachael is starting their Honour's project in Dr. Pat Gagnon's lab. She will be investigating physiological aspects of *Laminaria digitata*.

Welcome!

Lauren Gover



Yuthika Jalim



Méliane Deshaies



Ella Vivian



to New Arrivals

My name is Lauren and I'm from St. John's, Newfoundland. I just completed my undergraduate degree at MUN in biology, with a concentration in aquatic life, and a minor in chemistry. I am sticking around this year to complete the biology Honour's program. I am in Dr. Annie Mercier's lab and my research will focus on the ecology of sea cucumbers in the Arctic.

My name is Yuthika and I'm from Mauritius, a tiny gem in the Indian Ocean! I completed my undergraduate Honours in marine biology at MUN on deep sea corals and associated communities on vertical rock walls off SW Greenland. I recently joined the Mercier lab as a grad student and will be working on the trophic role and ecology of sea cucumbers.

Bonjour! I am Méliane, from Québec, and recently arrived in St. John's. I did my undergrad at Montréal University in Biological Sciences. I had the chance to spend a semester abroad in French Polynesia at the Université de la Polynésie Française, where I studied Marine Ecology and Biodiversity. I am now in Dr. Annie Mercier's lab as a new M.Sc grad student, studying benthic communities and carbon cycling in the Arctic.

My name is Ella and I'm from St. John's. I'm doing my Undergraduate degree here at MUN in Marine Biology. I am an honours student in Dr. Uta Passow's lab studying microplastics!

Welcome!

Kera Whitten



Aqsa Maqsood



Tia Chen



to New Arrivals

My name is Kera Whitten, and I'm from Paradise, Newfoundland. I am going into my fourth and final year of my B.Sc. in Marine Biology. I am starting my Honour's project with Dr. Annie Mercier this September studying deep-sea corals, after working in the Mercier lab all last year. I recently presented a poster at the SEA Conference in April and won the best undergraduate ocean science presentation. I've also worked with the resident seals at the OSC for about two years, as well as the public education program last summer. I am the fourth-year representative on the OceanUS executive team for this coming year! This summer, I attended Dalhousie University to take part in four field courses such as ornithology, coastal ecology, marine mammals, and conservation of sharks, skates & rays. I got hands-on experience in marine mammal & shark necropsies, blue shark tagging, and photo identification studies on long-finned pilot whales.

This is Aqsa Maqsood here. I am from Lahore, Pakistan. I did my B.Sc. (hons.) in applied Microbiology from University of Veterinary and Animal Sciences. I am a M.Sc. Marine Biology graduate going to work under the supervision of Dr. Javier Santander in department of Ocean Sciences.

Hi there! I'm Tia, a new M.Sc. candidate in Marine Biology joining the Snelgrove lab. I was born and raised in Ottawa, Canada. I completed my B.Sc. in Biology at the University of Ottawa with an honours project studying the dispersal prospects of North American bumblebees under future climate change scenarios. At the time of writing, I am still unsure what I'll be studying here at the OSC, but if you give me two years, I will have a very detailed answer for you! I'm excited to live near the ocean and take in all that NL and MUN have to offer.

Welcome!

Mary Londero



Isis Rojas



to New Arrivals

Hello! My name's Mary Londero and I'm an Ocean Sciences student who's completing my undergraduate honours thesis with Dr. Ratana Chuenpagedee (Geography) and Dr. Joe Wroblewski with a focus on marine conservation in Newfoundland. I've worked in Dr. Pat Gagnon's lab for three semesters and this semester I will be working in Dr. Iain McGaw's lab. I spent the summer working on a salmon weir along the Taku watershed as part of a transboundary river program to sample and count Sockeye and Chinook salmon!

Hi, my name is Isis Rojas. I have a degree in Aquaculture from Venezuela, my home country. I did my Ph.D. in Chile where I worked with immunology and physiology in scallops. Now, I just started as Postdoctoral researcher here in the OSC with Dr. Gamperl and we are currently working with "winter mortalities" in salmon. I have experience in gene expression analysis, biochemical assays, and oxygen consumption techniques. I am interested in the improvement of fish welfare through nutrition, and in how climate change will affect fish physiology in the coming years.

Welcome!

Fiona Durnford



to New Arrivals 2024

Hello! my name is Fiona Durnford. I am originally from the Netherlands, but I did my undergraduate degree in Marine Biology at the University of Plymouth on the Southwest coast of England. During my undergraduate degree, I developed an interest in Physiology and wanted to learn more about how environmental stressors impact marine organisms and their physiology. I therefore looked for a research master in this area so I could explore this further. I am as of January part of Gamperl lab, studying how increasing temperatures affect the performance of fishes. In my free time I like to do acrobatics and other sports, diving is a hobby of mine but usually when I am in a warmer area (vowed to dive here next summer though!), I love to go for coffees with friends or watch Sci-Fi's and scary movies together. Please stop me for a chat if you see me walking past. I love to meet new people and hear all about what is keeping you busy here in Newfoundland.

Welcome!

Raja Gurung



Kiley Sims



to New Arrivals

Hello! I'm Raja Gurung, hailing from the breathtaking mountainous landscapes of Nepal. I completed my undergraduate studies in microbiology at Tribhuvan University. Currently, I have the privilege of working under the guidance of Associate Professor Javier Santander, where I am investigating the early cellular immune response of Atlantic salmon against *Francisella noatunensis* bacteria across various thermal conditions. My goal is to uncover the intricate immune dynamics between host and pathogen in marine environments, contributing to our understanding of these critical interactions. In my free time, I enjoy diving into self-help books, exploring nature and people via hiking, playing guitar, and engaging in various outdoor games.

I am Kiley Sims and I am an MSc student co-supervised by Drs. Ian Fleming and Sarah Lehnert. I was born and raised in Deep River, Ontario and completed my undergraduate degree in Ashland, Wisconsin at Northland College. I received my degree in Natural Resources with an emphasis in Fisheries and Wildlife Ecology while also pursuing a dream of playing NCAA hockey. I plan to study hybridization of Atlantic salmon and brown trout in the Avalon Peninsula. I am exploring hybridization rates and if they have changed over time along with looking at anadromous versus ouananiche salmon in the watersheds and if there is a difference in the frequency of hybridization rates with brown trout. In my research I would also like to look at the genetics and direction of hybridization and if morphology changes depending on the direction.

Welcome!

Brooklyn Bolstad



to New Arrivals

Brooklyn comes from the landlocked plains of Calgary, and is elated to be living by the ocean once more. She did her undergraduate degree at the University of Alberta in conservation biology, and fell in love with mosses and weird plants while there. It makes sense that she has decided to study weird marine plants now! Having joined Dr. Gagnon's lab in May 2024, Brooklyn is looking at the effects of changing environmental conditions on coralline algae physiology and hopes to frame this research within the lens of ocean warming and acidification in the northern Atlantic.

Zintis Stasko



“Hey! My name is Zintis, but you can call me Z for short. I started my Master's degree in May under the supervision of Dr. Gagnon. My project revolves around the Kelp and investigating how kelp beds change over time using remote sensing tools such as drones and satellites. I completed my undergraduate degree in biology at Carleton University in Ottawa and decided to move to Newfoundland to carry out some saltier aquatic science. In my future research I hope to include some more scuba diving as I am a fully certified scientific diver.

Welcome!

Andrew Tucker



Jack de Swart



to New Arrivals

My name is Andrew and I am from Iqaluit, Nunavut. I did my undergrad at MUN and graduated in 2021. Afterwards I worked with DFO for 2 1/2 years and now I am starting my Masters. I am in the Mercier Lab, and I am hoping to study eDNA in benthic Arctic environments.



My name is Jack, and I am from Gatineau, Québec. I did my undergrad at Dalhousie University, and I joined the AEON Lab studying with Dr. Uta Passow. I will be completing a Master's on the microplastics impacts on aggregation and distribution dynamics. Fun fact about myself, I am a classically trained bassoon player!

Departmental Accomplishments

Awards 2023

Nomination to the Sigma Xi Scientific Research Honour Society - **Jose I. Vasquez Solis de Ovando**

OFI Seed Fund and Genome Atlantic grant - **Albert Caballero-Solares**

Dr. Jon Lien Memorial Recruitment Scholarship - **Hallie Arno**

Scientific Endeavours in Academia (SEA) Conference 2023

Best Ocean Sciences talk (graduate) - **Nova Hanson**

Best Ocean Sciences poster (graduate) - **Méliane Deshaies**

Best Ocean Sciences presentation (undergraduate) - **Ella Vivian**

Best Innovation and Aquaculture presentation (Graduate) - **Sathees Duglas**

Aldrich Conference 2023

Best Ocean Sciences talk - **Sara Jobson & Raquel Ruiz-Diaz**

Congratulations all!

Departmental Art & Photography



Photography by:
Stephan Hamisch





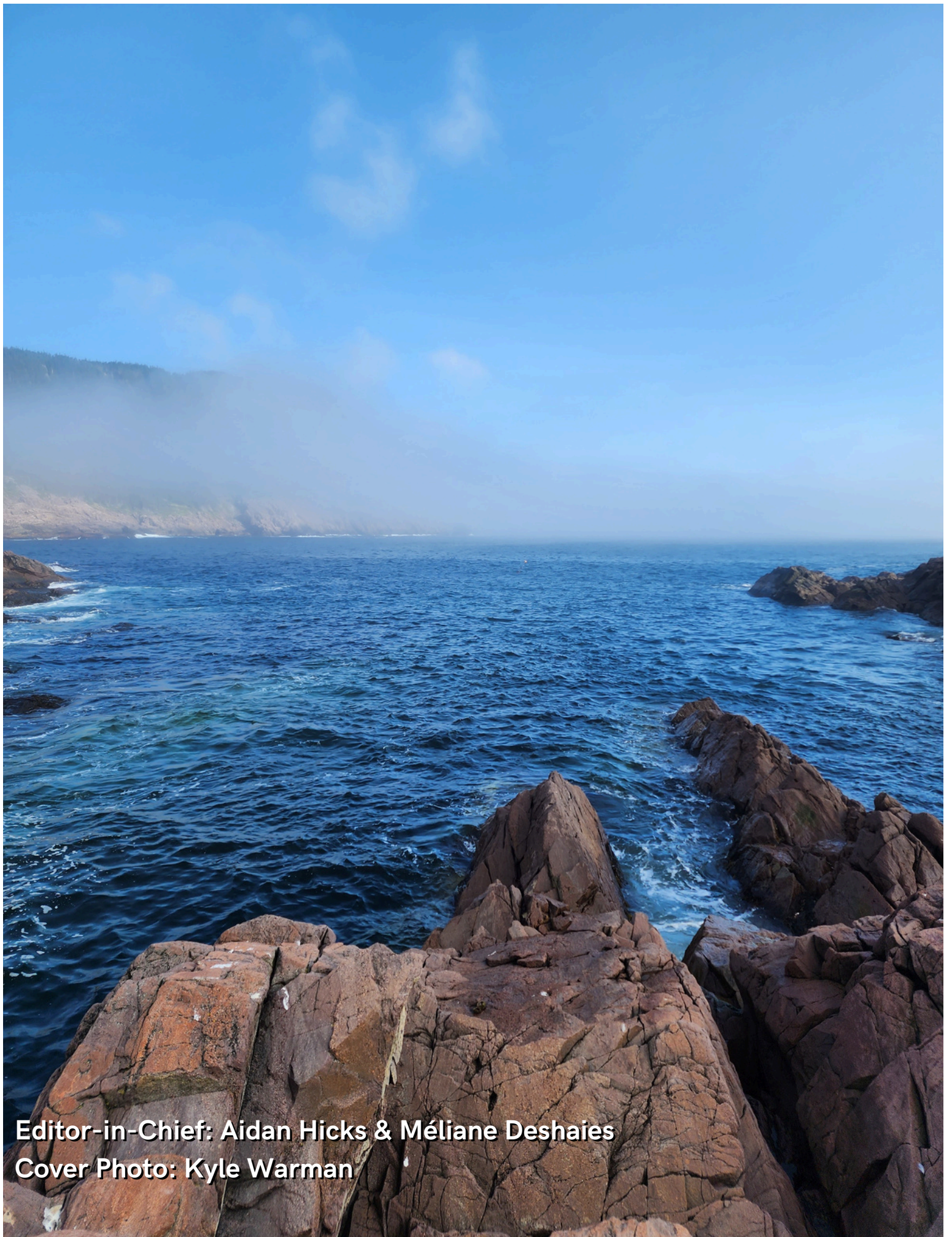
Photography by:
Stephan Hamisch





Photography by: Chantelle Clermont





Editor-in-Chief: Aidan Hicks & Méliane Deshaies
Cover Photo: Kyle Warman