Canadian National Committee for SCOR
Comité national canadien pour SCOR

Scientific Committee on Oceanic Research

CANADIAN OCEAN SCIENCE NEWSLETTER
LE BULLETIN CANADIEN DES SCIENCES DE L'OCÉAN

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OCEAN SCIENCE NEWS

Une approche novatrice pour améliorer la qualité du homard

De UQAR, Actualités en recherche

Jean-François Bouchard, jean-francois_bouchard@uqar.ca

Une équipe intersectorielle de l'UQAR, du Cégep de la Gaspésie et des Îles (CGÎ) / Merinov et des Fruits de Mer Madeleine inc. développe, en collaboration avec le Centre d'expertise en gestion des risques d'incidents maritimes (CEGRIM), une plateforme de biotests pour l'industrie de la pêche au homard. Cette plateforme a pour but d'assurer les plus hauts standards de qualité de cette ressource prisée par les amateurs de fruits de mer. Un projet de recherche où l'innovation et la préservation de ce crustacé se marient afin d'assurer une pêche plus durable et de favoriser l'autonomie alimentaire du Québec.

Photos: Martin Toulgoat, Merinov

La gestion de la qualité du homard a peu évolué au fil du temps, observe la directrice de la qualité et de la certification de l'entreprise Les Fruits de Mer Madeleine, Pascale Chevarie, qui est diplômée à la maîtrise en gestion des ressources maritimes à l'UQAR. « Avant d'être vendu aux consommateurs, le homard est trié en fonction de son poids et de sa qualité apparente. Ceux qui sont abîmés, dont une pince est manquante ou qui ont l'air faibles sont transformés, tandis que ceux qui sont identifiés comme étant de bonne qualité sont gardés en vivier pour être vendus en poissonnerie et sur le marché de l'exportation. »

Lorsque l'évaluation visuelle est satisfaisante, le homard subit une ponction d'hémolymphe afin de déterminer son taux de protéines sanguines. « Cette ponction est déjà bien implantée dans l'industrie. Elle sert à évaluer l'indice de Brix, qui est le seul paramètre quantitatif illustrant l'état métabolique global du homard. Seuls les homards ayant un indice de Brix élevé sont retenus pour être gardés en vivier », précise Nicolas Toupoint, chercheur industriel chez Merinov, affilié

au Cégep de la Gaspésie et des Îles, et diplômé au doctorat en océanographie de l'UQAR. Pour l'équipe de recherche, l'hémolymphe prélevée en usine représente une source peu exploitée d'information sur la santé du homard.

Or, l'indice de Brix ne permet pas d'évaluer l'état des homards à la suite des stress environnementaux, comme le réchauffement, la sous-oxygénation, l'acidification ou l'exposition aux contaminants. « Ces stress physico-chimiques peuvent ensuite favoriser l'apparition de stress de nature biologique, comme des infections, un déficit des réserves énergétiques ou encore une exposition aux phytotoxines. La santé globale des homards peut être affectée et cela se répercute sur la qualité de leur chair », explique le professeur de chimie Richard Saint-Louis.

C'est afin de doter l'industrie de la pêche au homard d'outils technologiques permettant la surveillance étroite de l'état de la ressource et de contribuer au développement de produits nutritifs à haute valeur ajoutée que le projet « HOMADIAG » a été amorcé l'automne dernier. Dirigée par M. Saint-Louis, M. Toupoint et Mme Chevarie, l'équipe rassemble Camille Berthod, candidate au doctorat en océanographie à l'UQAR, Robin Bénard, docteur en océanographie et adjoint exécutif au CEGRIM et Juliette Bernier, étudiante au premier cycle en biologie à l'UQAR depuis le trimestre d'hiver 2022. Le Rassemblement des pêcheurs et pêcheuses des côtes des Îles (RPPCÎ), qui compte plus de 180 capitaines-propriétaires, agit à titre de collaborateur du milieu utilisateur.

Le projet « HOMADIAG » consiste à cibler et à développer les biotests les plus pertinents permettant d'évaluer la qualité des homards aux premiers stades de la chaîne de commercialisation. « L'idée est d'adapter les biotests commerciaux, utilisés en santé humaine et avec les animaux de laboratoire, pour la mesure de marqueurs cellulaires et biochimiques dans l'hémolymphe du homard. C'est, en quelque sorte, établir leur bilan sanguin au moment de la capture et avant la mise en marché. L'appareil de lecture utilisé est facile à prendre en main et permet d'obtenir des résultats rapidement. Nous testerons notre plateforme de diagnostic, validée à l'UQAR puis testée chez Merinov, pendant la saison de pêche 2022 aux Îles-de-la-Madeleine, pour générer un ensemble de données nous permettant de dresser avec les partenaires un premier portrait de l'état de santé des homards. Par la suite, nous allons compléter le transfert de connaissances et de la technologie aux entreprises », indique Mme Berthod.

Les Fonds de recherche du Québec – Nature et technologie (FRQNT) appuient la réalisation de ce projet d'innovation dans le cadre de son programme Impulsion - Agroalimentaire. « Nos travaux vont se poursuivre jusqu'à l'été. Notre objectif est que la plateforme de diagnostic réponde aux besoins actuels et futurs de l'industrie de la pêche, notamment pour optimiser les conditions contrôlées de stockage de la ressource en vivier. Ultimement, nous souhaitons que nos biotests puissent être développés pour d'autres espèces de crustacés marins, et même qu'ils puissent déterminer la salubrité de la ressource en cas d'incidents maritimes impliquant des matières dangereuses », conclut le professeur Saint-Louis.

Mori’s Second Season Launches with International Research Cruise

This week, MEOPAR is launching the second cruise season of the Modular Ocean Research Infrastructure (MORI) initial development and demonstration project, transforming non-specialized vessels into complex ocean research vessels. Thanks to the MORI project, this year, two scientific research cruises will have access to the ship time they need at a time when that access is dwindling.

“What’s exciting is that 12 months ago, MORI was simply a vision. It was just an idea of what could be. Last year we started to turn that vision into a reality with our first cruise season, and we learned a lot of lessons. Now we’re using those lessons learned in the second season, moving further along that path of turning that original vision into a reality,” said Dan Gibson, Project Manager for MORI.

A unique solution for ocean research

MORI is an alternative pathway for vessel-based ocean research using a modular system of containerized, interoperable laboratories and research infrastructure. These can be used to transform a range of non-specialized vessels into temporary research vessels.

MEOPAR's Jeshua Becker and Daniel Gibson stand in front of a containerized CTD Launch and Release system.

This model is potentially more flexible, economical, scalable and can be delivered faster than the construction or purchase of a new fleet of specialized research vessels. The infrastructure will also be ready for use on new, low-carbon vessels of the near future.

MORI holds major potential to transform how ocean research is conducted in Canada. It also opens up new opportunities for the Canadian marine industry. Read more about MORI’s first cruise season here.

Access to research ship time is dwindling for Canadian researchers. Earlier this year, the Canadian Coast Guard Ship Hudson was retired, ending decades of research cruises supporting three generations of Canada’s ocean scientists.

Second season cruises

Mobilization to change the industry vessel Atlantic Condor of Atlantic Towing Ltd. into a temporary research vessel will begin on Friday, June 22, 2022, with the ship slated to depart the week after.

The first cruise is part of the Fog and Turbulence Interactions in the Marine Atmosphere (FATIMA) project and will set sail for the waters east of Sable Island and then up to Newfoundland. The project involves scientists from several US universities, funded by US Office of Naval Research, along with Canadian researchers from Environment and Climate Change Canada and Dalhousie University. Principal investigators are Harindra Joseph (Joe) Fernando (University of Notre Dame), Clive Dorman (University of California, San Diego), Eric Pardyjak (University of Utah), Lian Shen (University of Minnesota), Qing Wang (Naval Postgraduate School). MEOPAR-supported researcher Rachel Chang of Dalhousie University is also part of the study.

The second cruise will be led by scientists from Dalhousie University and five other Canadian Universities, with support from the Department of Fisheries and Oceans, researching deep-water coral, sponge, and seep habitats along the Northwest Atlantic shelf and slope. That cruise is set to begin in early August. The principal investigators are Owen Sherwood (Dalhousie University) Chris Algar (Dalhousie University), Evan Edinger (Memorial University), Casey Hubert (University of Calgary), Audrey Limoges (University of New Brunswick), Annie Mercier (Memorial University), Katleen Robert (Memorial University), Paul Snelgrove (Memorial University), and Brett Walker (University of Ottawa).

MORI's Initial Development and Demonstration (IDD) phase is supported by Irving Shipbuilding Inc. with $2 million in funding as part of the company's Industrial and Technical Benefits commitment under the National Shipbuilding Strategy. MEOPAR has committed a $1 million contribution to research cruise support. The project also has support from COVE Ocean – Centre for Ocean Ventures & Entrepreneurship, where the Atlantic Condor transformation is occurring, as well as from the National Research Council, Natural Resources Canada, the Department of Fisheries and Oceans, Defence Research and Development Canada, and Hawboldt Industries.

For more information, contact Evelyn Hornbeck, Communications Manager, MEOPAR Evelyn.hornbeck@meopar.ca, 902-403-6804

The press release

Honours

Many people from our oceanography community have recently received awards. Several of these were CMOS awards, some were from other organizations presented online at CMOS and one was presented at an international conference.

Brian Petrie honoree ICES/NAFO

Brian Petrie was awarded a honoree career award at the Symposium on Decadal Variability of the North Atlantic and its Marine Ecosystems: 2010-2019 held in Bergen, Norway. This recognizes the contribution of individuals on the understanding of the north Atlantic and its monitoring. In addition to Brian's incredible scientific record, his contribution to ICES and NAFO (as well as its role in the creation of the AZMP) were determinant aspects for this rewards.

Awards presented in the CMOS online ceremony

Maya Bhatia 2022 CNC-SCOR Early Career Ocean Scientist Award

Dr. Bhatia, Assistant professor in the Department of Earth and Atmospheric Sciences, University of Alberta, is an oustanding researcher who is undertaking cutting-edge research focused on ocean bigoechemistry and oceanography in northern Canada, while also working on projects related to the cryosphere and mountain environments. Her work is providing significant advances in our understanding of the ocean is changing in a warming climate, and the role of glaciers in providing nutrients to the ocean.

In particular, her nominees wanted to bring attention to the outstanding contributions Maya has made in the following areas:

- notable leadership in securing funding
- remarkable achievements in building collaborations
- excellence in student mentorship
- outstanding success in leading field work under challenging circumstances in the far north of Canada, in and around Jones Sound
- a genuine commitment to building positive relationships with the local Inuit community

In summary, Dr. Bhatia is an outstanding early career scientist navigating the challenges of establishing a sustained research program in Canada's North with remarkable care and success. She is an outstanding role model for being an engaged and conscientious environmental scientist at this critical time. And thus, an excellent winner of the 2022 CNC-SCOR Early Career Ocean Scientist Award.

David B. Fissel CMOS Fellow

For outstanding contributions to ocean science, especially in the Arctic; the development of vibrant high technology private sector science services; and to the Society, the latter culminating in making the Congress 2021 such a success.

Carolyn Buchwald President's Prize

For her 2016 paper Constraining the role of iron in environmental nitrogen transformations: Dual stable isotope systematics of abiotic NO2 reduction by Fe (II) and its production of N2O, published in the Geochimica et Cosmochimica Acta. Dr. Buchwald's paper elucidated the isotope systematics of nitrogen; helping to disentangle the reaction pathways of nitrogen in relation to ecosystem function, the production of greenhouse gases, and the reconstruction of the evolution of iron and nitrogen-based metabolic and abiotic pathways.

Richard Dewey François J. Saucier Prize in Applied Oceanography

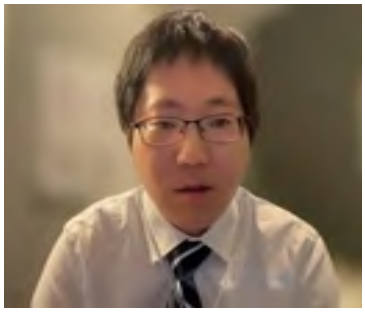
For two decades of sustained technical efforts supporting ocean science. He was co-founder and science manager of the VENUS cabled ocean observatory, now part of Ocean Network Canada's ocean observing systems. He currently leads the science services division at ONC, forming the liaison between outside scientists and the staff that run the observatory that is critical to its scientific success.

Ana C. Franco Roger Daley Postdoctoral Publication Award

For the published article titled Anthropogenic and climatic contributions to observed carbon system trends in the Northeast Pacific, for the importance of her subject, the hard work related to long-term data processing, the fact that her research "has already changed the carbon community perception" and the "careful, honest, (even disappointing) uncertainty estimates" she did.

Tertia M.C. Hughes Memorial Graduate Student Prizes

three 2021 winners / $500 each



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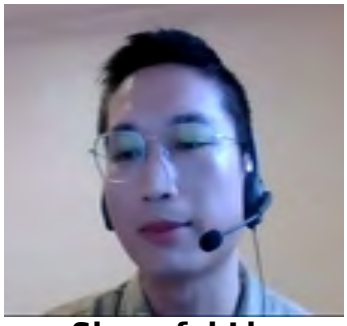

Shangfei Lin

Clark Pennelly

Audrey Scanlan CMOS Undergraduate Scholarship

The CMOS Undergraduate Scholarships are awarded to students applying while in their penultimate undergraduate year at any Canadian University who, in their final year, will be taking four or more half courses in meteorology, oceanography, limnology, hydrology or climatology .

Kristen Simonson Project Ocean AMS Summer Workshop

This is a summer workshop for K-12 teachers on oceanographic science topics sponsored by the American Meteorological Society (AMS). Presentations at the workshop are made by some of the most respected American scientists in the field of oceanographic sciences. Participants have returned with material, resources and teaching modules readily adaptable to classroom presentations.

Kenneth T. Frank DFO Timothy R. Parsons Medal

Awarded for distinguished accomplishments in multidisciplinary facets of ocean sciences while working for Canadian Institutions or for the benefit of Canadian science.
Awarded for excellence during the lifetime of the recipient or for a recent outstanding achievement, both being equally eligible.

This section of your newsletter provides an opportunity to highlight your research programs to the Ocean Science Community. *Your are invited to send contributions to David Greenberg,* *davidgreenberg@alumni.uwaterloo.ca*	*Mettez en valeur vos programmes de recherche en publiant un article dans cette première section de votre bulletin.* *Faites parvenir vos contributions à David Greenberg,* *davidgreenberg@alumni.uwaterloo.ca*

MEETINGS

CMOS Congress last and next

Congress 2022: "Science serving Society"

Congratulations to Francis Zwiers (Scientific Program Chair) and Yanping Li (Local Arrangements Committee) for a very successful 56th Congress, which again was offered virtually,and jointly with the CGU and Eastern Snow Conference. There were 862 registrations. 486 oral presentations, 57 poster presentations, six plenary speakers and the public lecture. The eventmobi site remains active for a year for viewing recorded sessions.

Congress 2023: "Connecting on the Rock: from the Marine Environment to the Blue Economy"

May 28 - June 1, 2023 (Hybrid)

This will be a hybrid meeting, limited to around 300 in-person attendees, with the remainder of participants being virtual. The Congress will be at the Sheraton Hotel in St. John's NL from 28 May to 01 June.

This will be our first in-person Congress in several years. Based on the success of the last Congress held in St. John's in 2007, we expect demand for in-person registrations to be high. Stay tuned for updates on hotel and registration details, as well as the call for session proposals in the Fall.

ArcticNet Annual Scientific Meeting 2022

Beanfield Centre, Toronto, December 5-8, 2022, *In Person*.

The ArcticNet Annual Scientific Meeting 2022 Conference (ASM2022) is the largest Arctic Scientific meetings held each year in Canada. It will feature 13 scientific sessions on Marine Sciences as well as many other Sessions on Health, Knowledge Transfer, Northern Policy and Development, Terrestrial Sciences and other topics. Abstracts are being accepted now through to Sept. 14, 2022.

ArcticNet
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Interdisciplinary cooperation and knowledge sharing, across the Arctic and the North, as well as innovative and evidence-based research, are key in achieving climate change adaptation and proposing sound mitigation strategies. As a hub for Arctic research in Canada, the ASM brings together a broad range of research in and about the Arctic and northern regions of Canada and the world. The ASM2022 advances our collective understanding with an inclusive view of the North spanning from Inuit Nunangat, across the Canadian territories and provinces, circumpolar Arctic regions, and beyond.

Conference Website
Abstract submission

Abstract deadline September 14, 2022

Year of Polar Prediction (YOPP) Final Summit

Montreal, QC, 29 August – 1 September, 2022

Note there has been a date change from the original schedule.

The Year of Polar Prediction (YOPP) Final Summit will take place at the Centre Mont-Royal, Montréal, Québec, Canada on 29 August - 1 September, 2022 to review progress, share key findings and success stories, and discuss and shape the legacy of the Polar Prediction Project. The summit will bring together polar science experts from operational prediction centres, academia and research institutes, government, and corporate representatives as well as northern communities and users of polar prediction services.

The Year of Polar Prediction (YOPP) is the flagship activity of the WWRP Polar Prediction Project (PPP), with the aim of enabling a significant improvement in environmental prediction capabilities for the polar regions and beyond, by coordinating a period of intensive observing, modelling, verification, user-engagement and education activities.

Website

The Effects of Climate Change on the World's Oceans

Bergen, Norway, 17-21 April 2023

ECCWO5 will host events on a diverse and exciting range of topics and disciplines within and across the natural and social sciences that can potentially contribute to; the Seventh Assessment Report of the Intergovernmental Panel on Climate Change (AR7), the UN Decade of Ocean Science for Sustainable Development, implementation of actions identified in the post-2020 Global Biodiversity Framework, the UN Sustainable Development Goals, and the goals and climate negotiations in COP27.

We welcome you to be part of this exciting opportunity and to help lead these discussions. Your input will be critical to the success of this important forum and we invite you to contribute to the development of the program.

Website

Abstract deadline November 1, 2022

Please send meeting announcements to David Greenberg, davidgreenberg@alumni.uwaterloo.ca	*SVP faites parvenir vos annonces de réunion à David Greenberg, davidgreenberg@alumni.uwaterloo.ca*

POSITIONS AVAILABLE

Physical Scientist I and II

Fisheries and Oceans Canada, St. John's NL

The intent is to staff several PC-01 and PC-02 positions on a time-limited term and permanent basis. A pool will be established and may be used to staff these and/or similar positions on a temporary or permanent basis in St. John's, NL.

Physical Scientist I

Under the direction of Physical Scientists and Research Scientists in the Environmental Sciences Division at the Northwest Atlantic Fisheries Centre the incumbent(s) will assist in the adaptation of existing numerical models (physical and biological) and data analysis methodologies. The incumbent(s) will also participate in the development of scientific information and advice for clients, including the preparation of data products, scientific reports and publications.

Physical Scientist II

Under the direction of Research Scientists in the Environmental Sciences Division at the Northwest Atlantic Fisheries Centre the incumbent(s) will be responsible for supporting and leading analysis of ocean modelling and observational data (both in situ and satellite remote sensing) of ocean circulation, hydrography, sea ice, biogeochemical variables and atmospheric driver fields, and assisting the development of new ocean circulation models, biogeochemical models and data analysis methodologies. The incumbent(s) will also be responsible for providing scientific knowledge, data, information, analysis, advice and recommendations to scientists and managers within the Department and to other external organizations including the general public.

Preference will be given to veterans first and then to Canadian citizens and permanent residents, with the exception of a job located in Nunavut, where Nunavut Inuit will be appointed first.

Details

Closing date: 7 August 2022

Post Doc, or Junior Scientist, or Scientist, Two Positions

CMCC Foundation, Lecce, Italy

The CMCC Foundation is a scientific research center on climate change and its interactions with the environment, the society, the world of business and policy makers.

Position 1: Numerical Modeller on coupled coastal climate

Post Doc, or Junior Scientist or Scientist

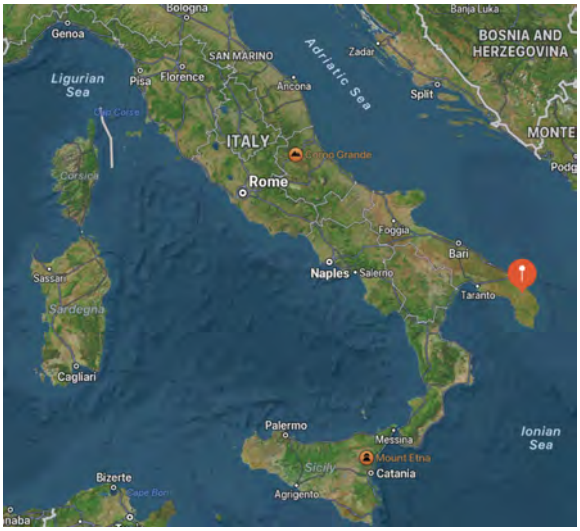
Our Division of Ocean Prediction and Application (OPA) is looking for a talented, motivated and proactive Ocean Modeller to support the research and the ocean modeling activities.

The primary purpose for this position is to take on a pivotal role within the integrated climate modelling team in implementing, developing and testing numerical models, designing and executing experiments for coupled modelling systems (atmosphere, hydrology, waves and

circulation), also improving the parameterization of air-sea and land-sea fluxes. The activities will be focused both on research developments and on transition to the operational forecasting activities of the OPA division. The duties will also include processing and interpreting simulation-based and observational data sets.

It is desired to hold following qualifications:

- PhD in Physical Oceanography, Coastal Engineering and the other scientific disciplines dealing with numerical modelling e.g physics, mathematics, environmental science;
- experience in numerical modeling development;
- good knowledge and skills in programming language (i.e Python and Fortran);
- knowledge of UNIX/Linux operating systems and script languages (i.e. *nix shell);
- knowledge of parallel programming on HPC architectures;
- fluency in English.



Details Numerical Modeller on coupled coastal climate

Deadline: September 10, 2022

Position 2: Numerical Modeller on Estuarine dynamics

Post Doc, or Junior Scientist

Our Division of Ocean Prediction and Application (OPA) is looking for a talented, motivated and proactive Ocean Modeller to support the research and the ocean modeling activities.

The primary purpose for this position is to take on a pivotal role in implementing and testing a coupled river-sea forecasting system in areas selected within the framework of the supporting project and other collaborations, with a focus on integrating the ocean and the hydrological modelling components. A gained experience with the finite difference numerical models (e.g. hydrodynamics NEMO and hydrology WRF-Hydro), and/or the unstructured grid models for the ocean (e.g. SHYFEM, FVCOM, SCHISM) are required.

It is desired to hold following qualifications:

- PhD in Physical Oceanography, Coastal Engineering and the other scientific disciplines dealing with numerical modelling e.g physics, mathematics, environmental science;
- experience in numerical modeling development;
- good knowledge and skills in programming language (i.e Python and Fortran);
- knowledge of UNIX/Linux operating systems and script languages (i.e. *nix shell);
- knowledge of parallel programming on HPC architectures;
- fluency in English.

Details Numerical Modeller on Estuarine dynamics

Deadline: September 10, 2022

Postdoc coupled biological/chemical/physical ocean modelling

Earth, Ocean & Atmospheric Sciences, UBC, Vancouver

The Department of Earth, Ocean & Atmospheric Sciences at the University of British Columbia invites applications for a Postdoctoral Fellow in the field of coupled biological/chemical/physical ocean modelling. The successful applicant will conduct research as part of a group developing SalishSeaCast, a coupled numerical model, based on the NEMOmodel, of the Salish Sea. The physical model is fully coupled to a biological model (SMELT)and a carbon model (SKOG). This post-doctoral fellow will focus on oxygen, including evaluation of the model, dynamics of oxygen within the Salish Sea and impact of anthropogenic nutrient sources on oxygen.

The position is for one-year, renewable for a second and third year and preferred start dates are Sep-Oct 2022.

Project and Responsibilities

This project will focus on oxygen with the Salish Sea and in particular, within the Puget Sound Region. The candidate will confirm the oxygen formulation within SalishSeaCast and evaluate the oxygen results against available Canadian and US observations. They will update the nutrient fluxes, particularly the nitrate flux, from the rivers and add those appropriate for the municipal outfalls. The next step of the project will be to investigate the main controls of oxygen in the system and compare to previous analyses, including those for nitrate and carbon. Sensitivity to the parameters/parameterizations of the major controls will be estimated. The applied component of the project will include nutrient manipulations from rivers and municipal outfalls to determine the impact of these loadings on the system.

In collaboration with the larger group at UBC, an investigation of the past and future oxygen cycling will be possible.

Details

Deadline: August 10, 2022

Looking for work? Try the CMOS site (click).	*Vous recherchez un emploi? Visitez le site SCMO (click).*

GENERAL
Canadian NEMO Ocean Modelling Forum

The Marine Environmental Observation, Prediction and Response Network (MEOPAR's) Communities of Practice (CoPs) are vital to disseminating findings and enriching research through interactions among researchers, practitioners, policy-makers, and community members and groups. They're also an ideal forum for informing MEOPAR researchers (and others) about leading-edge developments, and identifying gaps and opportunities for new research.

CoPs are defined as "groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly." CoPs are a way of developing social capital, nurturing and sharing new knowledge, and stimulating innovation. CoPs connect people and outputs can include best practices, guidelines, knowledge repositories, discussions about technical problems and solutions, working papers, and strategies.

The Nucleus for European Modelling of the Ocean (NEMO) model is now widely used in Canada, by both the academic community and federal government scientists. Groups using the model interact, but often at an individual and ad hoc level. For a number of years there have been informal discussions about working to bring the Canadian NEMO modelling community closer together to enhance collaboration, information sharing and knowledge transfer, as well as increase HQP opportunities. The virtual nature of research during these past Covid inflicted years has suggested that regular monthly or bi-monthly events (linking seminars, information sharing and training activities), in combination with regular Workshops (virtual or in person when allowed), can be an effective way to share knowledge and build community cohesion. Additionally, given the release of a new NEMO version (v4.0 and v4.2) and interest in the development of a new Canadian regional downscaling system (CanTODS) using NEMO, there is a greater need for community coordination, including sharing of plans, code repositories, forcing fields, etc. Yet, given federal government firewalls and computational limitations, it is difficult for researchers in different departments (e.g. DFO, ECCC) to share, and even more difficult to link in the academic community and HQP. Thus we believe the timing is right to enhance community interactions through a CoP, and leaders of the DFO/ECCC/DND CONCEPTS initiative encompassing numerous governmental NEMO modelling efforts share this view. Our plans include regular events to facilitate communication, coordination and training, as well as a web portal to enable sharing of code, tools and model outputs.

The goal of the website (https://canadian-nemo-ocean-modelling-forum-community-of-practice.readthedocs.io) is to be a central hub of Canadian NEMO modelling expertise. We have designed it to be relatively easy for various NEMO modelling groups to join and share their projects, research goals, documents, configurations, publications/presentations, media, and so forth. The website is built using restructured text (.rst) files, github to manage the repository, and ReadTheDocs.org to host and build the site. We have included a User Guide to make joining the forum relatively easy, and we are in the process of adding additional features to further enable communication between users (slack, mailing list, discussion boards, etc.). NEMO groups can inquire about/join the forum by emailing Clark (Pennelly@ualberta.ca) or Paul (pmyers@ualberta.ca).

The CoP also aims to share knowledge among the community by setting up bi-monthly virtual meetings. These would typically consist of 3 15-20 minute presentations – 1 of a technical nature (code, theory, software), 1 of a science application using NEMO and 1 early career scientist/student presentation. Time would also be made available for sharing of information and

informal discussions. If you are interested in signing up to a mailing list announcing such events, please contact Paul Myers (pmyers@ualberta.ca).

Finally, the CoP has been asked to development a report or white paper on the state of NEMO Modelling in Canada (and future prospects). Details of how this will be developed will be discussed at one of the CoPs upcoming bi-monthly virtual events.

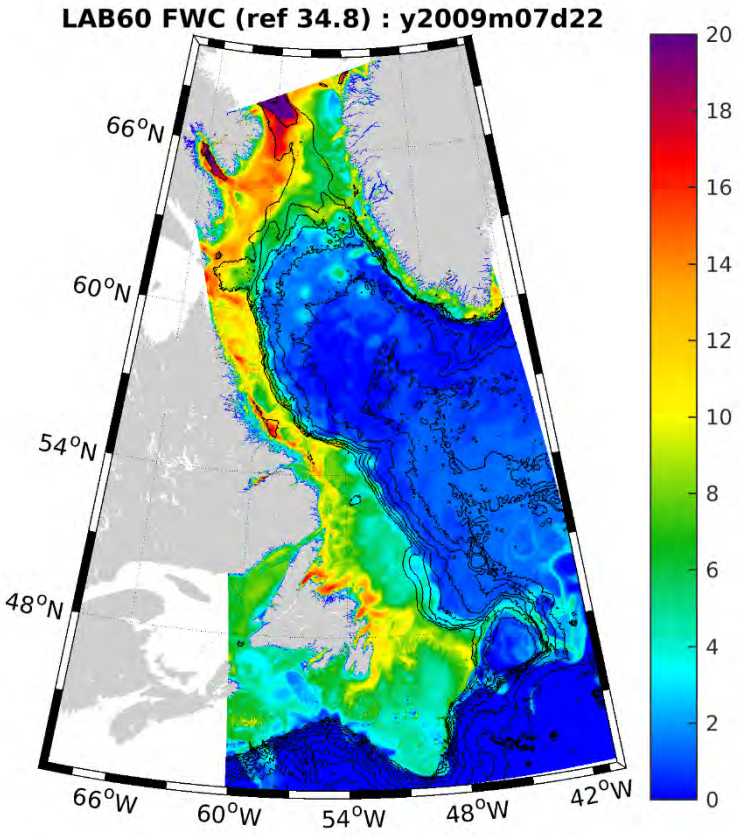


Figure: Sample output of freshwater content (relative to 34.8) from a high resolution NEMO configuration of the Labrador Sea, using two AGRIF nests.

News from SCOR International

Call for Applications for an Early-Career Scientist to Join the SCOR Executive Committee

The 2022 call for applications for an Early-Career Scientist (ECS) to join the SCOR Executive Committee is open. The ECS in the SCOR Executive Committee will help reaching out to the broader early-career community and get it involved into SCOR activities.

Position Description: The early-career scientist will have the same responsibilities as other SCOR Executive Committee members (see https://scor-int.org/scor/about/officers/job-descriptions/) with a term of appointment of two years to start in October 2022.

Requirements: Applicants should be no more than 10 years from PhD not counting time for family leaves, and should be affiliated to an ocean science organization, institution, or government agency. Applicants should have good communication skills in English, both speaking and writing. Candidates from developing countries are encouraged to apply.

More information about the position and application instructions can be found here.

Deadline for submission of applications: 26 August 2022.

Please email the completed application form and requested documents to the SCOR Secretariat (secretariat@scor-int.org).

Website application Link

2022 SCOR Annual Meeting

Busan, Korea, 4-6 October 2022 *Hybrid*
4-6 October 9:00-17:00 (UTC+9)
SCOR annual meetings are open to any participant and there is no registration fee.
The purpose of the SCOR Annual Meetings is to make it possible for national SCOR committees and partner organizations to learn of SCOR accomplishments in the past year, to oversee the work of SCOR, and to approve new working groups and the SCOR budget for the coming year. SCOR meetings also provide an opportunity for international marine science projects and organizations to provide updates about their current work and plans for the future.
Events

- 4 October 2022. Day 1: Opening, discussion of new WG proposals
- 5 October 2022. Day 2: Reports/updates from current SCOR Working Groups and research projects
- 6 October 2022. Day 3: Reports/updates from infrastructural projects, affiliated organizations and capacity development activities, closing of meeting

The Website for the meeting contains a link for registering, as well as additional information related to the event including logistics and the reports of activities from the SCOR Working Groups and Projects.
Travel Logistics Document

New SOLAS Master Programme on Ocean, Atmosphere and Climate at NUI Galway

SOLAS is pleased to announce a new Master of Science (MSc) programme on Ocean, Atmosphere and Climate in collaboration with the National University of Ireland (NUI) Galway, Ireland.

The MSc course bridges the boundaries between ocean and atmosphere and provides graduates with a broad understanding of how this coupled system works, affects and is affected by climate and human activities.

The application is now open for the academic term starting in September 2022.

More information here.

Course Overview

The course combines taught and research elements and is designed for students who want to develop careers in this vibrant, global, and multidisciplinary area. It includes a seven-month research placement in a world-leading partner organisation under SOLAS, to work with renowned scientists in the respective areas. Owing relationships with major stakeholders, these placements offer students an opportunity to develop the necessary skills to continue with PhD studies or work in marine/atmosphere related industry settings.

Minimum Entry Requirements

National Qualifications Authority of Ireland (NQAI) Level 8 honours degree or equivalent to a minimum standard of Second Class Honours, Grade 1 or equivalent in an appropriate discipline.

When to Apply

NUI Galway does not set a deadline for receipt of applications (with some exceptions). Candidates are encouraged to apply as early as possible.

Contact

Individuals interested in the programme can contact Dr. Jessica Gier.

Mace Head Atmospheric Research Station, http://macehead.org/

Canadian Ocean Science Newsletter
Le Bulletin Canadien des Sciences de l'Océan

Previous newsletters may be found on the CNC-SCOR web site. The CNC-SCOR website is hosted by CMOS.

Newsletter #**126** will be distributed in **September 2022**.

Please send contributions to David Greenberg *davidgreenberg@alumni.uwaterloo.ca*

Subscribing and Unsubscribing

If you wish to subscribe to this newsletter or cancel your subscription, please visit the website:

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Les bulletins antérieurs se retrouvent sur le site web du CNC-SCOR. Le site du CNC-SCOR est hébergé par le SCMO.

Le Bulletin #**126** sera distribué en **septembre 2022**.

Veuillez faire parvenir vos contributions à David Greenberg, *davidgreenberg@alumni.uwaterloo.ca*

Abonnement et désabonnement

Si vous souhaitez vous abonner à cette newsletter ou annuler votre inscription, veuillez visiter le site web:

http://www.mailman.srv.ualberta.ca/mailman/listinfo/cnc-scor

CNC-SCOR

Le Comité national canadien du Comité scientifique de la recherche océanographique (SCOR) favorise et facilite la coopération internationale. Il reflète la nature multidisciplinaire de la science océanique et de la technologie marine.

The Canadian National Committee of the Scientific Committee for Oceanic Research (CNC-SCOR) fosters and facilitates international cooperation. It is a non-governmental body that reflects the multi-disciplinary nature of ocean science and marine technology.

WWW.CNCSCOR.CA