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

Newsletter Number 144, September 2025
Bulletin numéro 144, septembre 2025

Table of Contents

CARE 2025 Science Team: Thomas S. James[1,2], Brent Else[3], Alexandre Normandeau[4], Alexandra Steffen[5], Tia Anderlini[2], Jeshua Becker[6], Jeremy Bentley[4], Karen Douglas[1], Céline Guéguen[7], Sophia C. Johannessen[8], Angus Robertson[4], Geoff Stupple[5], Jennifer Tolman[6], Kevin Wilcox[9], Cynthia Wright[8] , Kohen Bauer[10], Jeff Brooker[11], Ian Church[9], Jay Cullen[2], David Hik[12], Julie Laroche[6], Doug Wallace[6], Bill Williams[8]

[1] Geological Survey of Canada, Sidney, Canada, [2] University of Victoria, Victoria, Canada, [3] University of Calgary, Calgary, Canada, [4] Geological Survey of Canada, Dartmouth, Canada, [5] Environment and Climate Change Canada, Toronto, Canada, [6] Dalhousie University, Halifax, Canada, [7] Université de Sherbrooke, Sherbrooke, Canada, [8] Fisheries and Oceans Canada, Sidney, Canada, [9] University of New Brunswick, Fredericton, Canada, [10]Ocean Networks Canada, Victoria, Canada, [11] Royal Canadian Navy, Halifax, Canada, [12] Polar Knowledge Canada, Cambridge Bay, Canada

Summary

The Canadian Antarctic Research Expedition (CARE) 2025 carried out a range of surveying and sampling activities in the South Shetland Islands and Antarctic Peninsula to address scientific issues in the broad disciplines of geology, oceanography, and contaminants in February and March 2025. The Canadian Armed Forces (CAF), via the Royal Canadian Navy (RCN), supported the expedition by operating His Majesty's Canadian Ship (HMCS) Margaret Brooke, an Arctic and Offshore Patrol Vessel equipped with containerized laboratories and a winch for scientific operations and sample preparation. The experience Canada has gained from CARE 2025 will inform future Canadian Antarctic research activities, expeditions, and collaborations.

Introduction

The CARE 2025 was carried out on the RCN HMCS *Margaret Brooke*, an Arctic and Offshore Patrol Vessel (AOPV). CARE 2025 departed from Punta Arenas, Chile, on Feb. 24, 2025, to the South Shetland Islands and the west coast of the Antarctic Peninsula and returned to Punta Arenas March 21, 2025 (Figure 1).

CARE 2025 is the second ship-based Canadian Antarctic Expedition. In 1969 and 1970 the Canadian Science Ship (CSS) *Hudson* completed a circumnavigation of the Americas. It spent about 3 weeks in the vicinity of the South Shetland Islands in February 1970. The Hudson carried out oceanographic sampling and made landfall at several locations.

CARE 2025 comprised fifteen Canadian scientists, nine from Canadian federal government departments and six from

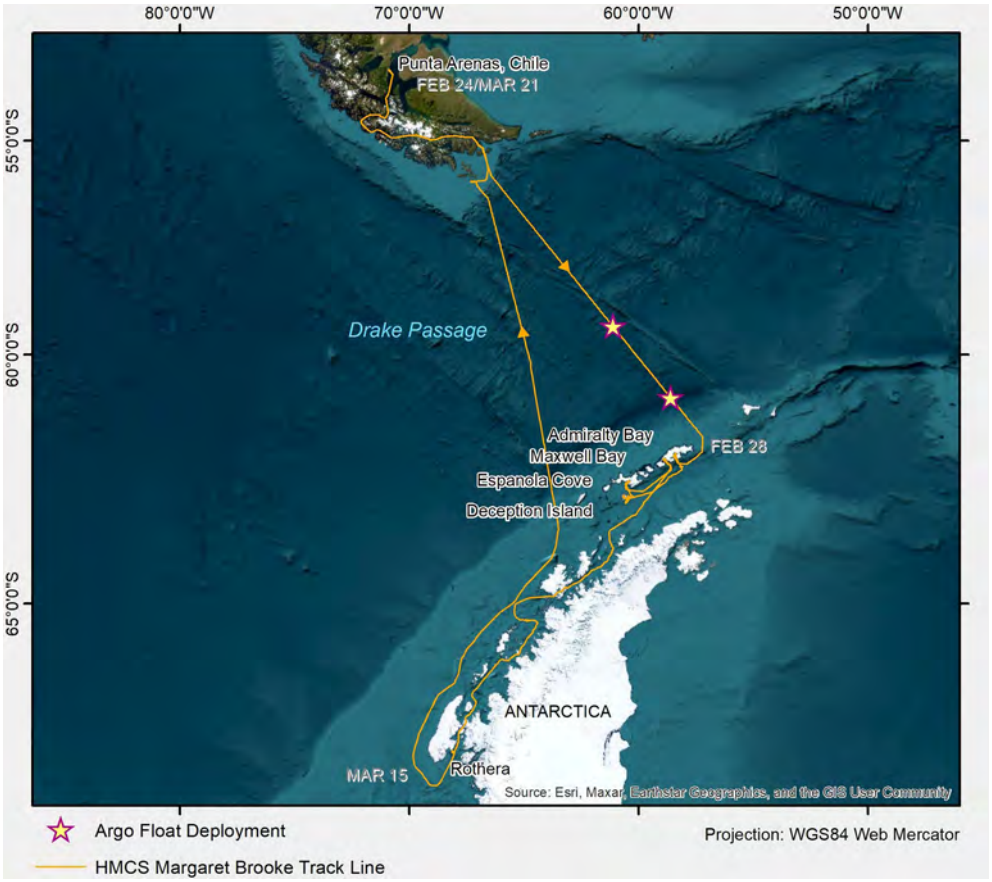


Figure 1: Trackline of the HMCS Margaret Brooke from Punta Arenas from February 24 to March 21, 2025. Argo float deployments in the Drake Passage are plotted as red stars. Regions of focused sampling included Admiralty Bay, Maxwell Bay, Española Cove, and Deception Island. Rothera Base (United Kingdom) was the southernmost station visited. Projection: Web Mercator.

Canadian universities (seven women and eight men), a news team of three from the Canadian Broadcasting Corporation, and a ship's complement of 73 officers and crew.

Support for CARE 2025

The CAF/RCN provided full logistical and ship-time support for CARE 2025. Three federal government departments contributed personnel to CARE 2025: Natural Resources Canada (five persons), Fisheries and Oceans Canada (two persons), and Environment and Climate Change Canada (two persons). The Marine Environmental Observation, Prediction, And Response (MEOPAR) science network funded six Canadian university researchers to complement the federal contingent and provided two containerized laboratories, including a Launch and Recovery System for a Conductivity-Temperature-Depth rosette system (CTD-LARS), that were embarked on the HMCS Margaret Brooke for the duration of the voyage (Figure 2).

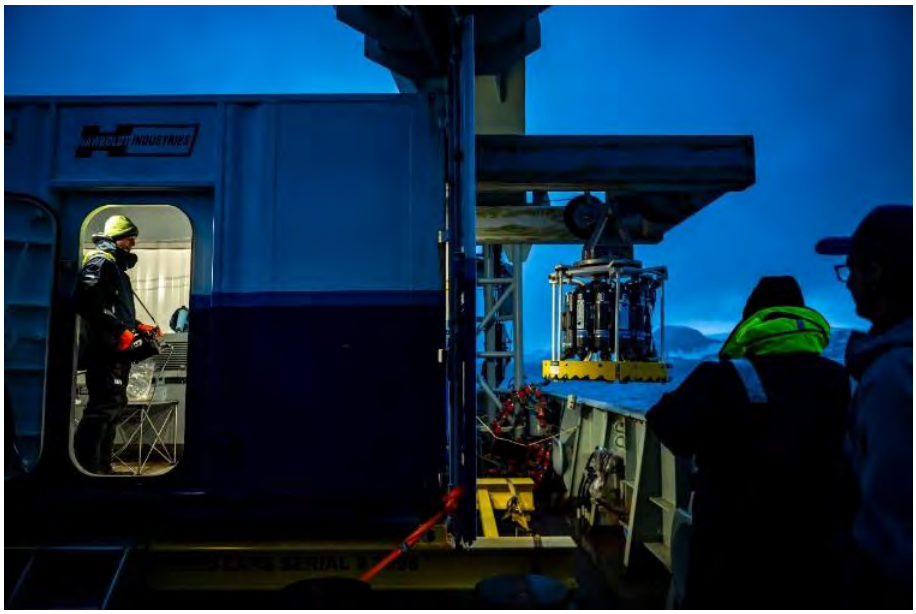


Figure 2: Launch of the CTD rosette system from the CTD-LARS provided by the MEOPAR Science Network. Photo CARE 2025.

Environment and Climate Change Canada, as the National Competent Authority, conducted an environmental evaluation and permitted the science activities under the Antarctic Environmental Protection Act. Polar Knowledge Canada facilitated briefings with officials of the Council of Managers of National Antarctic Programs (COMNAP) to ensure adherence to Antarctic norms of operation, including briefings for Highly Pathogenic Avian Influenza (HPAI), and provided funding to support participation of federal government and university scientists. Global Affairs Canada provided diplomatic support for transfer of personnel and equipment though Chile.

Science Program and Sampling

The CARE 2025 Science Program was comprised of three broad disciplines - geoscience, oceanography, and contaminants research. An overarching theme of the scientific investigations was to understand the direct and indirect influences of human activity on the Antarctic environment, whether it arises from human-induced climate change or from long-range dispersal of human-generated chemicals and particles. Like the Canadian Arctic, the southern polar environment, including the South Shetland Islands and Antarctic Peninsula, is experiencing the polar amplification effect, which enhances warming compared to the global average. Comparisons between the parallel, but differing, north and south polar regions will contribute to a broader and deeper polar perspective relevant to the Canadian Arctic.

Marine geological and sediment sampling focused on glacial retreat history and on the composition of organic matter in sediments to assess changes in marine productivity and terrestrial carbon flux. Coastal geological and sediment sampling was carried out to refine relative sea-level history and to test for the presence, abundance, and nature of microplastics. Uncrewed Aerial Vehicle (UAV) and Uncrewed Surface Vehicle (USV) surveys of coastal regions provide information on coastal and near-shore processes related to glacial and sea-level history.

Water-sampling transects running from glacial fronts to offshore in the Bransfield Strait were devised to discern the influence of glaciers and glacial meltwater on physical properties of ocean structure (temperature, salinity), chemical properties (carbonate chemistry, nutrients, and dissolved organic material) and biological properties (microbial communities, environmental DNA). This will allow us to contribute to answering research questions such as:

- What physical and biological processes drive CO_2 uptake in this region, and how effectively is CO_2 moved to deeper waters?
- How do glacier discharge and water mixing affect the marine organic carbon cycle and microbial and algal community assemblage?

Figure 3: Water sampling near a glacier front utilizing a rescue boat in Admiralty Bay, South Shetland Islands. Photos courtesy of the CARE 2025 expedition team.

Water sampling for trace metals was carried out to explore how regional warming is affecting the mobility of trace metals in coastal zones for both biologically important micronutrients (e.g. iron, manganese, copper, nickel, zinc, cobalt) and toxins (e.g. lead, cadmium). Sampling near glacier fronts and close to coastlines was done from Multi-Role Rescue Boats (MRRBs) (Figure 3), while the CTD-LARS system was deployed in deeper waters.

Air, water, and snow sampling was carried out to determine the presence and abundance of various contaminants. Air sampling on board the Margaret Brooke was carried out for mercury, some persistent organic pollutants (POPs), and microplastics. Seawater and snow samples were collected for mercury, microplastics, POPs, current use pesticides, and "forever chemicals". Many of these substances accumulate and concentrate through food webs and pose a health risk to marine mammals and humans. Zooplankton were collected from seawater to study the uptake of mercury and microplastics in Antarctica.

Sampling and surveying activities achieved expedition goals. A total of 1873 water samples for oceanographic research, 263 samples (68 snow, 30 air, and 165 water) for contaminants research, and 49 geological samples (including 26 cores), were

Figure 4: CARE 2025 Science Team and Instituto Antártico Chileno (INACH) personnel at Prof. Julio Escudero base, Mar. 11, 2025. Photo Samuel Martin, CBC.

taken, for a total of 2185 samples. In addition, 542,388 m^2 of seafloor was surveyed using an uncrewed surface vehicle (USV) and 76,641 m^2 of coastline was surveyed using an uncrewed aerial vehicle (UAV) LiDAR and photography system.

Antarctic Station Visits

Scientists, ship's officers and crew visited five Antarctic research stations: Comandante Ferraz base (Brazil), Henryk Arctowski base (Poland), King Juan Carlos base (Spain), Eduardo Frei, Profesor Julio Escudero, and Capitan Arturo Prat bases (combined, Chile, over two days) (Figure 4), and Rothera base (United Kingdom). Invitations to visit two other bases (Gabriel de Castilla base (Spain) and King Sejong station (S. Korea)) were declined, with thanks, due to insufficient time. Passive air samplers were installed during three station visits (Comandante Ferraz, King Juan Carlos I, and Rothera) for contaminants research and were complemented by snow sampling. Water sampling, multibeam surveying, and CTD casts were carried out in Johnson's Lagoon, near King Juan Carlos I station (Spain), in support of a cabled observatory established by the Spanish National Antarctic Program with support from Ocean Networks Canada (Figure 5).

Figure 5: Multibeam surveying from an ASV in the vicinity of the network node of the cabled undersea observatory in Johnson's Lagoon near King Juan Carlos I station, Livingston Island. Photo Kevin Wilcox.

Summary and Next Steps

CARE 2025 demonstrates the viability of conducting prolonged scientific missions on AOPVs in polar regions. The CARE 2025 science team will continue to analyze the data collected and produce publications to share with the polar research community.

The Canadian Committee on Antarctic Research (CCAR) advises Polar Knowledge Canada (POLAR) on Antarctic science and Canadian Antarctic scientists. It is refining the framework for a Canadian Antarctic Research Program (CARP) and working towards the development of a Implementation Plan for CARP. The experience that Canada has gained from CARE 2025 will inform the development of CARP, including plans for future expeditions while seeking opportunities for collaboration with other National Antarctic Programs.

For more Information, contact:
Thomas James, Chief Scientist, CARE 2025 and Chair, Canadian Committee on Antarctic Research, Thomas.James@nrcan-rncan.gc.ca
Brent Else, Oceanography Lead, CARE 2025, belse@ucalgary.ca
Alex Normandeau, Geoscience Lead, CARE 2025, Alexandre.Normandeau@nrcan-rncan.gc.ca
Sandy Steffen, Contaminants Lead, CARE 2025, Alexandra.Steffen@ec.gc.ca

Microplastic Review/Revue des microplastiques

What are Microplastics?

Microplastics are small plastic pieces less than five millimeters long which can be harmful to our ocean and aquatic life.

Plastic is the most prevalent type of marine debris found in our oceans and Great Lakes. Plastic debris can come in all shapes and sizes, but those that are less than five millimeters (0.2 inches) in length (or about the size of a sesame seed) are called “microplastics.”

...

As an emerging field of research, not a lot is known about microplastics and their impacts yet. The National Oceanic and Atmospheric Administration (NOAA) Marine Debris Program is leading efforts to study this topic. Standardized field methods for collecting sediment, sand, and surface-water microplastic samples have been developed and continue to undergo testing. Eventually, field and laboratory protocols will allow for global comparisons of the amount of microplastics released into the environment, which is the first step toward determining the final distribution, impacts, and fate of this debris.

Full article in SciTechDaily

2018 G7 Charlevoix Blueprint for Healthy Oceans, Seas and Resilient Coastal Communities

The health of our oceans and seas is critical to the economic, social and environmental well-being of the planet. Oceans and seas play a fundamental role in the global climate system and in supporting communities, jobs and livelihoods, food security, human health, biodiversity, economic prosperity and way of life.

...

Recognizing the need for action in line with previous G7 commitments and the 2030 agenda, which sets a global framework for sustainable development, we, the leaders of the G7, commit to:

Resilient coasts and coastal communities ...

Ocean knowledge: Science and data ...

Sustainable oceans and fisheries ...

Ocean plastic waste and marine litter ...

ANNEX: Ocean plastics charter

Plastics are one of the most revolutionary inventions of the past century and play an important role in our economy and daily lives. However, the current approach to producing, using, managing and disposing of plastics poses a significant threat to the environment, to livelihoods and potentially to human health. It also represents a significant loss of value, resources and energy. ...

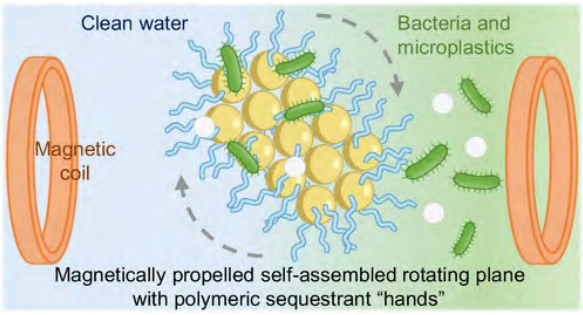
We commit to take action toward a resource-efficient lifecycle management

approach to plastics in the economy by:

1. Sustainable design, production and after-use markets ...
2. Collection, management and other systems and infrastructure ...
3. Sustainable lifestyles and education ...
4. Research, innovation and new technologies ...
5. Coastal and shoreline action ...

Full Blueprint

A Capture method



Magnetic Microrobot Swarms with Polymeric Hands Catching Bacteria and Microplastics in Water

ABSTRACT: The forefront of micro- and nanorobot research involves the development of smart swimming micromachines emulating the complexity of natural systems, such as the swarming and collective behaviors typically observed in animals and microorganisms, for efficient task execution. This study introduces magnetically controlled microrobots that possess polymeric sequestrant "hands" decorating a magnetic core. Under the influence of external magnetic fields, the functionalized magnetic beads dynamically self-assemble from individual microparticles into well-defined rotating planes of diverse dimensions, allowing modulation of their propulsion speed, and exhibiting a collective motion. These mobile microrobotic swarms can actively capture free-swimming bacteria and dispersed microplastics "on-the-fly", thereby cleaning aquatic environments. Unlike conventional methods, these microrobots can be collected from the complex media and can release the captured contaminants in a second vessel in a controllable manner, that is, using ultrasound, offering a sustainable solution for repeated use in decontamination processes. Additionally, the residual water is subjected to UV irradiation to eliminate any remaining bacteria, providing a comprehensive cleaning solution. In summary, this study shows a swarming microrobot design for water decontamination processes.

…

The article in ACS NANO

Dépolluer les océans… avec des insectes!

Par Jean-François Bouchard à l'*UQAR*

La dégradation du plastique représente l'un des grands défis environnementaux actuels. Une équipe de l'Université du Québec à Rimouski, de l'Institut des sciences de la mer et de la Faculté de médecine vétérinaire de l'Université de Montréal vient de lancer un projet qui s'attaque à la fois à la pollution générée par les microplastiques (MPs) et à la durabilité de l'aquaculture. Comment? En utilisant les ténébrions meuniers, ces petits insectes souvent associés au compostage.

Les MPs sont de minuscules particules issues de la dégradation des plastiques qui contaminent les océans, les espèces aquatiques et même les produits de la mer destinés à la consommation humaine. « Ils agissent comme vecteurs de contaminants toxiques. Les MPs constituent ainsi un risque physique pour les organismes en libérant des additifs qui sont utilisés par l'industrie pour leurs propriétés antioxydantes, anti-ultraviolets ou antiadhésives, par exemple. Ces substances peuvent représenter un risque pour la croissance, la reproduction et la survie des organismes marins », explique le professeur Youssouf Djibril Soubaneh.

L'équipe de recherche souhaite évaluer si les ténébrions peuvent jouer un rôle dans la bioremédiation des MPs et s'ils peuvent être utilisés comme source de nourriture alternative pour les crevettes d'élevage, tout en garantissant leur innocuité. « Nous allons aussi analyser quels sont les risques pour la santé des crevettes aquacoles qui sont nourries avec des ténébrions ayant ingérés des MPs et comment on peut optimiser ce processus de bioremédiation des microplastiques par l'utilisation de ténébrions comme source de nourriture », indique la professeure en pathologie vétérinaire Marie-Odile Benoit-Biancamano de la Faculté de médecine vétérinaire de l'UdeM.

…

L'histoire complète

Quelques activités canadiennes

Microplastiques

Vidéo : Que sont les microplastiques?

Des microplastiques ont été trouvés sur presque toutes les plages, à la surface de tous les océans, au plus profond des mers et dans certaines des régions les plus reculées de la planète. Dans le cadre des efforts du gouvernement du Canada pour réduire la pollution par le plastique, nous nous sommes engagés à en apprendre davantage sur les microplastiques et à contribuer au Programme scientifique canadien sur les plastiques. Pêches et Océans Canada travaille avec des partenaires pour comprendre les effets des microplastiques sur les écosystèmes aquatiques.

- À propos des microplastiques
- Les microplastiques dans l'environnement aquatique
- Recherche sur les microplastiques

…

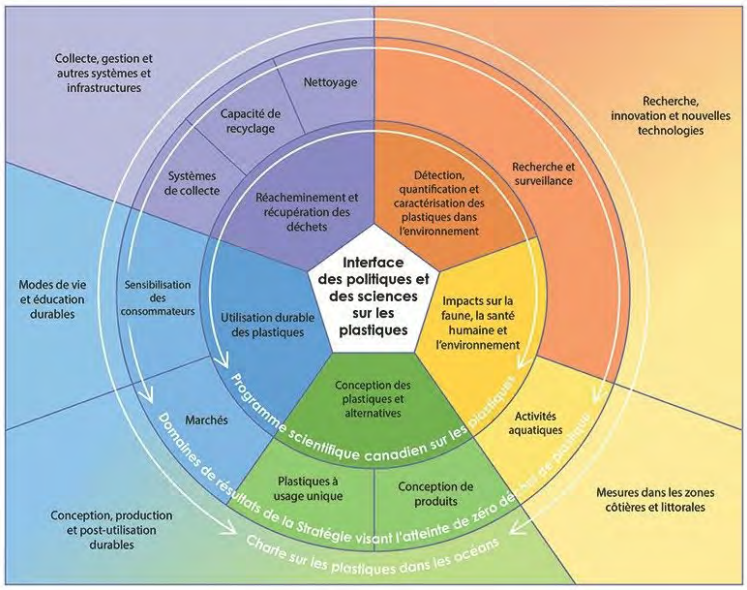
Page web English

Fisheries and Oceans Canada | Pêches et Océans Canada

Le Programme scientifique canadien sur les plastiques

Priorités et besoins

Le PSCP s'appuie sur la science en matière de plastiques déjà en cours au Canada et à l'international. Son cadre fait état des besoins scientifiques prioritaires nécessaire pour identifier et traiter les effets actuels de la pollution par les macroplastiques, les microplastiques et les nanoplastiques, et pour réaliser une économie circulaire pour les plastiques. Les objectifs et besoins scientifiques du PSCP sont classés en cinq thèmes complémentaires, mettant en évidence les domaines qui nécessitent une plus grande attention collective à l'avenir. Ces cinq thèmes couvrent l'ensemble du cycle de vie des plastiques et sont les suivants :



1. **Détection, quantification et caractérisation des plastiques dans l'environnement** – Harmoniser et normaliser la façon dont nous détectons, surveillons et caractérisons les sources, les voies et le devenir des plastiques dans l'environnement.
2. **Impacts sur la faune, la santé humaine et l'environnement** – Améliorer la compréhension des répercussions des plastiques sur la faune, la santé humaine et l'environnement.

3. **Conception des plastiques et solutions de rechange** – Réduire l'empreinte environnementale des plastiques en améliorant leur conception et en permettant la récupération de la valeur.
4. **Utilisation durable des plastiques** – Soutenir la gestion durable et l'utilisation éclairée et responsable des plastiques.

5. **Réacheminement et récupération des déchets** – Innover afin d'améliorer le retrait des plastiques existants et futurs de l'environnement, ainsi que la récupération de leur valeur.

[Page web]
[English]

Plastique en bouteille: Carte en direct.

Dans le cadre de l'initiative Carte en Direct du PAME, depuis le pont du Navire de la Garde Côtière Canadienne (NGCC) Amundsen, le MPO (Pêches et Océans Canada) a lancé une capsule équipée d'un GPS dans la mer de Baffin afin de simuler la façon dont les déchets marin et les plastiques se déplacent dans les eaux arctiques.

...

ISC Call to Action August 25, 2025

The International Science Council (ISC) and its Expert Group on Plastic Pollution note with concern the lack of agreement at Intergovernmental Negotiating Committee (INC-5.2), reaffirming that scientific evidence continues to call for urgent global action on plastic pollution.

...

With this message we, the President and CEO of the ISC and the members of the 15-member global ISC Expert Group on Plastic Pollution, express deep regret at the outcome of the fifth session of the INC-5.2, which failed to deliver on a global treaty to end plastic pollution that meets the mandate of Resolution 5/14 of the United Nations Environment Assembly (UNEA). At the same time, we are encouraged by UN Member States' growing recognition of the extensive and unequivocal body of scientific evidence, showing that urgent, coordinated, and ambitious action is required to address the escalating plastics pollution crisis. We stand ready to support a future agreement that establishes the critical measures needed to safeguard human and environmental health and support the health, economic and social wellbeing of future generations.

[Full ISC statement]

The Newsletter now has over 400 subscribers, mostly working in Canadian Ocean Sciences. This section provides an opportunity to highlight your research programs to our community. *Your are invited to send contributions to David Greenberg, davidgreenberg@alumni.uwaterloo.ca*	*Le bulletin compte désormais plus de 400 abonné.e.s, travaillant principalement dans le domaine des sciences océaniques canadiennes. Mettez en valeur vos programmes de recherche en publiant un article dans cette section de votre bulletin.* *Faites parvenir vos contributions à David Greenberg, davidgreenberg@alumni.uwaterloo.ca*

MEETINGS

Aquatic Confluence: ASLO-SIL 2026 Joint Meeting

12-16 May 2026, Montréal Convention Centre

This congress will stimulate exchange of methodological approaches and learning across scales by bringing together scientists from freshwater and marine realms. The many ways these environments intersect will be a focal point, be it through organismal interactions or processes of stratification that underpin biogeochemical states. Furthermore, we wish to evoke connections among scientists as well as with stakeholders and indigenous knowledge keepers in the spirit of codesign to address society's greatest issues around aquatic habitats and water resources.

The organizers of the meeting encourage the submission of requests for town halls, workshops, social events, student/early career events, and other auxiliary meetings. These events should be planned during lunch or possibly in the evening. Meeting room space will be complimentary if there are rooms available. Even if space is not available at the Montréal Convention Centre, you may still organize your own meeting or activity at an alternative location.

Details

Abstract submission opens 8 October 2025

Abstract submission closes 19 November 2025

Navigating Changes in Small Pelagic Fish and Forage Communities

May 4-8, 2026, La Paz Mexico

The international symposium, titled Navigating Changes in Small Pelagic Fish and Forage Communities: Climate, Ecosystems, and Sustainable Fisheries (SPF-2026), will be the third meeting in the Small Pelagic Fish Symposium series initiated in order to reunite a community of scientists and managers who work to improve the ecological understanding, management, and future status of SPF and other forage species populations in marine and inland systems.

SPF-2026 aims to showcase recent advancements in SPF and forage communities research. By delving into topics encompassing ecology, population dynamics, climate and oceanic impacts, social-ecological systems, and sustainable management practices, the symposium promises to foster interdisciplinary dialogue and pave the way for informed decision-making in forage species conservation and utilization.

Details

Abstract deadline October 10, 2025

Coming Sooner and Later

To ensure the timeliness of conference announcements in COSN, we prioritize events where abstract submissions are still open. Given COSN's bimonthly publication schedule, the window between the opening and closing of abstract submissions often falls outside our publishing cycle.

In this issue, we highlight upcoming meetings that may still be of interest—even if abstract submission has closed—as well as more distant "Save the Date" events. For these, we encourage readers to monitor the respective websites to stay informed and avoid missing important deadlines.

Save the Date

CMOS Congress 2026

The CMOS publication The Wave tells us that the congress will be held virtually during the first week of June 2026. The event will be coordinated by a national group composed of members from various regions, rather than by a specific center or region. It is expected that the group is selecting the theme and exact dates for the congress. It will also begin the process of issuing a call for sessions for the October-November period and the call for abstracts for the January-February period. Keep an eye on the CMOS's Congress page for updates.

Congrès SCMO 2026

CMOS Canadian Meteorological and Oceanographic Society

SCMO Société canadienne de météorologie et d'océanographie

La publication de la SCMO, « L'Onde », nous informe que le congrès se tiendra virtuellement durant la première semaine de juin 2026. L'événement sera coordonné par un groupe national composé de membres de différentes régions, plutôt que par un centre ou une région spécifique. Ce groupe devrait choisir le thème et les dates exactes du congrès. Il lancera également le processus de publication de l'appel à sessions pour la période d'octobre-novembre et de l'appel à résumés pour la période de janvier-février. Consultez régulièrement la page du congrès de la SCMO pour les mises à jour.

Connected Waters: Bridging Communities and Ideas

You're invited to the joint conference of the International Association for Great Lakes Research and the Society of Canadian Aquatic Sciences—where global research on the world's large lakes meets Canada's rich tapestry of aquatic systems, from rivers and lakes to oceans and groundwater. The conference will be hybrid, in Winnipeg, May 25–29, 2026. Abstract call November – December 2025. Website

Coming Soon

Marine Renewables Canada 2025

Halifax, November 12-14, 2025. With growth in the sector driving new opportunities, MRC 2025 will dive into the latest policy and market trends, alongside technical R&D sessions. Gain comprehensive insights on Canada's marine renewable energy landscape. Website

AGU25

New Orleans, December 15-19, 2025 in person, virtual and local hubs. "The world's largest gathering of Earth and space scientists." Registration and housing for AGU25 is now open. Early bird registration available through 6 November. Website

IEA Symposium (ICES)

Copenhagen, November 17-18, 2025. The All-Atlantic Integrated Ecosystem Assessment Symposium (IEA) is hosted by DTU AQUA at Scandic Kødbyen in Copenhagen, Denmark.

International Indian Ocean Science Conference 2025

INCOIS, Hyderabad, India, December 01-05, 2025. The International Indian Ocean Science Conference 2025 (IIOSC-2025) aims to showcase the progress and scientific knowledge gained during the past decade of IIOE-2 (2015-2025). Website

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

TCA International Postdocs

At TCA institutional partners (Eastern Canada)

The International Postdoctoral Fellowship (IPDF) program offers opportunities for early career PhD-holders to conduct innovative, full time, and collaborative research in cooperation with international institutions. Supporting postdoctoral fellows in achieving international exposure through travel and collaboration, while nurturing institutional relationships, are key goals of the IPDF program. IPDF projects must complement the Transforming Climate Action (TCA) scientific strategy and the research objectives of the TCA large research projects (LRPs).

Postdoctoral Fellows - Depending on the host TCA partner institution and co-funding programs (if applicable), prospective IPDF applicants may have varying eligibility requirements.

Academic Supervisors - Researchers in academic positions who are eligible to hold funds at one of the TCA institutional partners (Dalhousie University, Université du Québec à Rimouski, Université Laval, and Memorial University of Newfoundland) may act as an IPDF academic supervisor.

Partners - International partner institutes formally connected with TCA have priority to collaborate on research projects and co-supervise IPDFs. New TCA collaborators will be considered on a case-by-case basis …

Details

Deadline November 3, 2025

PhD Study - Trace Metal Fluxes in the Central and Eastern Arctic Ocean

Technische Universität Braunschweig, Braunschweig, Germany

The Doctoral researcher will work in strong collaboration with researchers at GEOMAR Helmholtz-Centre for Ocean Research Kiel (Germany) and in the interdisciplinary environment of the international GEOTRACES programme. The candidate will be placed at TU Braunschweig with a research stay of approximately 1 year at GEOMAR. The supervisory team will include Dr. Stephan Krisch (TU Braunschweig), Prof. Harald Biester (TU Braunschweig), and Prof. Eric Achterberg (GEOMAR). The candidate will be working closely with chemical, biological and physical oceanographers, and biogeochemical modellers within the ArcTrace project. The candidate will undertake analysis for labile and particulate trace metals and establish their distribution in relation to sources and water masses, determine trace metal fluxes and their attenuation, and interpret the data with respect to changing in surface ocean chemistry and primary production. The Doctoral researcher will need to communicate routinely with other members of the GEOTRACES programme. Opportunity for teaching at TU Braunschweig is given. This may include preparation and implementation of courses as well as supervision of students' work. The candidate will have the opportunity to participate in seagoing expeditions. There is also the possibility for a research stay at partner institutes in Great Britain or the United States.

Details

Deadline October 31st , 2025

Postdoc: Lidar Applications to Ocean Colour

LOG, Wimereux, France

The Remote Sensing and Hydrodynamics team of the Laboratory of Oceanology and Geosciences (LOG) in Wimereux, France invites applicants for a postdoctoral position in active remote sensing of ocean colour. The successful candidate will participate in a project funded by the European Space Agency (ESA) and led by LOG on the space-borne oceanic profiling lidar mission.

The candidate will:

- conduct a review, based on scientific literature, technical reports and other evidence, to establish state of the art for satellite LIDAR applications in the scientific and operational ocean domains
- define quantitate user needs for a potential Ocean Lidar Mission
- define preliminary requirements and assumptions for Level-1b parameters
- define preliminary requirements and assumptions for Level-2 geophysical parameters to be derived from Level-1b observations
- define preliminary analysis of Level-1b and Level-2 uncertainty requirements in order that useful Level-2 parameters can be derived to satisfy user needs

  ...

Laboratoire d'Océanologie et de Géosciences

Details

Deadline November 1, 2025

Postdoc: Mapping Submerged Vegetation

DEEP, Arrhenius Laboratories, Stockholm University, Frescati Campus

The position is based at the Department of Ecology, Environment and Plant Sciences (DEEP), Stockholm University. It is linked to the project “Submerged Vegetation from Space: A Sentinel-Based Tool for Environmental Monitoring in Swedish Coastal Waters”, which is currently under review by the Swedish National Space Board (decision expected on 17 October 2025). If funded, the position will start on 3 November 2025. The work will be led by Associate Professor Susanne Kratzer (DEEP) in collaboration with Samantha Lavender (Pixalytics Ltd., UK) and the County Administrative Board of Västra Götaland in Gothenburg.

Stockholm University

The postdoc will conduct research in aquatic remote sensing within the Copernicus programme. The work includes developing and validating a Sentinel-2/3-based processing chain tailored for Swedish coastal waters. This involves atmospheric correction with ACOLITE, radiative transfer modelling using WASI, and classification with spectral libraries to generate vegetation time series from Sentinel-2 MSI data. A key task will be to derive spectral signatures for six to eight indicator species from the Swedish west coast, such as Zostera marina and Fucus vesiculosus, using a PerkinElmer scanning spectrophotometer. ...

Details

Deadline October 14 2025

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

GENERAL

SCOR 2025 Annual Meeting

INVEMAR, Santa Marta, Colombia, 29-31 October 2025.

ECS Symposium October 28.

The meeting is open to all with in person and hybrid components. The SCOR Annual Meeting will be held 29-31 October 2025 at INVEMAR in Santa Marta, Colombia. The meeting will be preceded on 28 October by a symposium inviting interactions between the SCOR Community and Colombian scientists, with special attention to early-career scientists (ECS students and those less than 10 years since degree) involved in ocean science. Participation by all annual meeting attendees is encouraged and appreciated.

Programme

- **Invited Talks:** Including INVEMAR Director Francisco Arias-Isaza, SCOR President Paul Myers (University of Alberta, Canada), Prof. Yuley Cardona (Universidad Nacional de Colombia, WG 172 Member), Prof. Bill Miller (University of Georgia, USA, SOLAS Co-Chair) *More to be announced*
- ECS Poster Session
- **Career Panel**
- **Networking Reception**

Colombian ECS Opportunity: A get together of Colombian early-career scientists and attendees of the WOCE Annual Meeting.

Those interested in attending the symposium as observers rather than submit a poster can register at the link found on the annual meeting webpage.

THE A.G. HUNTSMAN AWARD 2025

The A.G. Huntsman Foundation is pleased to announce that the 2025 A.G. Huntsman Medal will be awarded to Dr. Karen Helen Wiltshire in recognition of her innovative and interdisciplinary research in climate science, as well as her active engagement with international organizations that has helped build capacity and amplify new voices in marine sciences.

Karen Helen Wiltshire is an international marine ecologist and climate scientist, serving as the inaugural CRH Chair of Climate Science at Trinity College Dublin where she leads The Climate Gateway, fostering excellence in climate research, education, and innovation by advancing collaborative, science-based solutions to global climate challenges.

2025 Distinguished Lecture

October 15, 2025, 10:00 am AST Bedford Institute of Oceanography, Dartmouth, NS

The lecture will be shared through Microsoft Teams providing a virtual option for those outside of the Halifax area.

Link to lecture on teams

Medal Presentation

Government House, October 15th, 2025 at 2:00 pm ADT. The A. G. Huntsman Medal will be presented to Dr. Wiltshire at a ceremony at Government House, with a reception to follow.

RSVP and reserve your free tickets for the award ceremony at: 2025 AG Huntsman Award [Click on “Get tickets”].

Full Announcement

NSERC Prizes

NSERC celebrates exceptional examples of research excellence with a wide range of prizes. Individual awards focus on accomplishments that range from innovative discoveries by young researchers to lifetime achievement and influence. All are open to those working in the ocean sciences. Some of the deadlines for nominations are in early November 2025.

Français

Gerhard Herzberg Canada Gold Medal for Science and Engineering

The Gerhard Herzberg Canada Gold Medal for Science and Engineering is awarded annually to an individual whose body of work, conducted in Canada in the natural sciences or engineering, has demonstrated persistent excellence and influence. Details

NSERC John C. Polanyi Award

Created in 2006, the NSERC John C. Polanyi Award is given to an individual or team whose research, conducted in Canada, has led to a recent outstanding advance in any NSERC-supported field of the natural sciences or engineering. Details

Brockhouse Canada Prize for Interdisciplinary Research in Science and Engineering

The Brockhouse Canada Prize for Interdisciplinary Research in Science and Engineering recognizes highly collaborative Canadian teams of researchers from different disciplines who came together to engage in research drawing on their combined knowledge and skills, and produced a record of excellent achievements in the natural sciences or engineering. Details

NSERC Donna Strickland Prize for Societal Impact of Natural Science and Engineering Research

The NSERC Donna Strickland Prize for Societal Impact of Natural Sciences and Engineering Research is awarded annually to an individual or team whose outstanding research, conducted in Canada in the natural sciences and engineering, has led to exceptional benefits for Canadian society, environment and/or economy. Details

Synergy Awards for Innovation

The annual Synergy Awards for Innovation recognize examples of collaboration that stand as models of effective partnership between partner organizations and colleges or universities.

Details

Arthur B. McDonald Fellowships

Arthur B. McDonald Fellowships are awarded annually to recognize early stage academic researchers in the natural sciences and engineering and to enhance their research capacity so that they can become leaders in their field and inspire others. Details

NSERC Awards for Science Promotion

The NSERC Awards for Science Promotion honour individuals and groups who make an outstanding contribution to the promotion of science in Canada through activities encouraging popular interest in science or developing science abilities. Two recipients (one individual and one group) may be selected for the awards each year. Details

SOLAS Seminar

Air-Sea gas exchange in warming polar regions: impacts of the changing sea-ice scape

Free online, 15:00-16:00 UTC+2, Tuesday, 14 October 2025

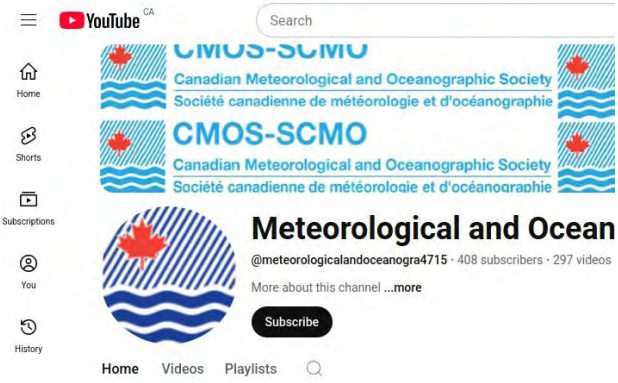
The global and multidisciplinary research project Surface Ocean - Lower Atmosphere Study (SOLAS) was established to provide international science coordination and capacity building. The SOLAS Seminar Series is a quarterly event, which is structured around SOLAS relevant topics covered by the SOLAS 2015-2025 Science Plan and beyond, with the aims of fostering discussions on cutting edge scientific questions, providing researchers at all career stages with the opportunity to interact and building SOLAS community across the globe. The 11th seminar of the series will focus on polar air-ea gas exchange.

Free Registration

CMOS Congress Archives

Hello all: Bob Jones, *CMOS Archivist* here.

With the spring CMOS / CGU congress fast fading into the rear view, you might want to revisit it now before we start thinking of the next Congress.



Everyone is probably aware that slides and audio recordings of most science presentations are available on the CMOS YouTube channel. EventMobi is long gone and the YouTube materials should stay for a while but may become harder to find with time.

In the CMOS Archives, a permanent record of each Congress Program and Abstracts and Photos may be found at these links.

https://cmosarchives.ca/Congress_P_A/chrono.html

click on top Congress with "New" tag. The P&A document is indexed and searchable and, in addition to all abstracts, many actual Posters are linked in high resolution.

and

https://cmosarchives.ca/CongressPhotos/congressphotos.html

click on 2025 - Saskatoon ("New").

Most winners of prizes and awards announced at the Congress can be found here:

https://cmosarchives.ca/Awards/annualawards.html

Click on year 2024 - because CMOS Awards are mostly given for achievements in the previous year(s).

Many acceptance photos are linked.

Finally, the main document from the AGM, held after the Congress is archived at:

https://cmosarchives.ca/AnnualReview/chrono.html

Use the year 2024.

Please send me any corrections and new IDs (marked with a "?" under photos).

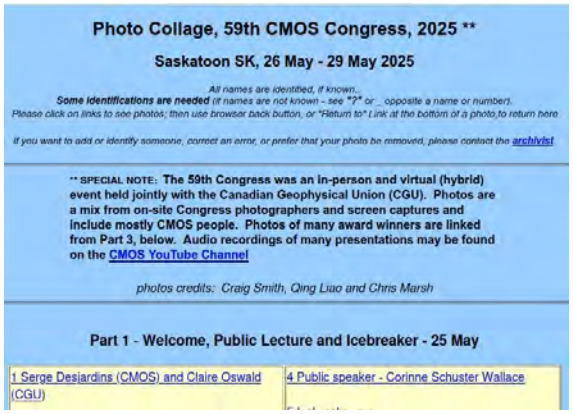
Best regards,

Archives du congrès SCMO

Bonjour à tous,

Ici Bob Jones, l'archiviste SCMO.

Le congrès printanier de la SCMO / CGU étant maintenant derrière nous, vous souhaiterez peut-être en faire le bilan avant que nous tournions notre attention vers le prochain.



La plupart des présentations scientifiques, incluant les diapositives et les enregistrements audio, sont accessibles sur la chaîne YouTube de la SCMO. EventMobi a disparu depuis longtemps et les documents YouTube devraient rester en ligne pendant un certain temps, mais ils pourraient devenir plus difficiles à trouver avec le temps.

Dans les archives de la SCMO, vous trouverez un enregistrement permanent de chaque programme, résumé et photo du congrès en cliquant sur les liens suivants.

https://cmosarchives.ca/Congress_P_A/chrono.html
Cliquez sur le congrès en haut avec la mention « Nouveau ».
Le document P&A est indexé et consultable et, en plus de tous les résumés, de nombreuses affiches réelles sont liées en haute résolution.
et
https://cmosarchives.ca/CongressPhotos/congressphotos.html
cliquez sur 2025 - Saskatoon (« Nouveau »).

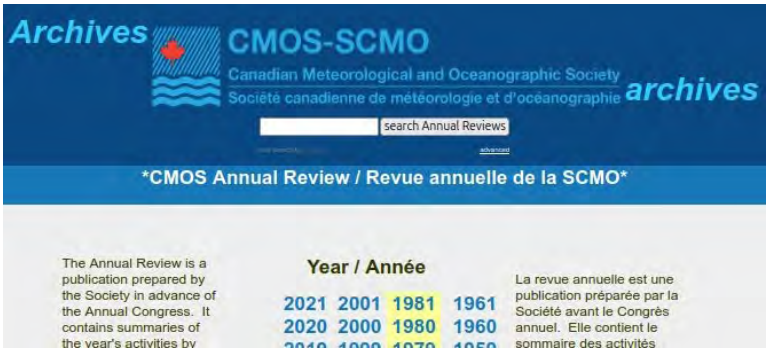
La plupart des lauréats des prix et récompenses annoncés lors du congrès sont répertoriés ici :
https://cmosarchives.ca/Awards/annualawards.html
Cliquez sur l'année 2024, car les prix SCMO sont principalement décernés pour des réalisations de l'année ou des années précédentes. De nombreuses photos de remise des prix sont disponibles en lien. Enfin, le document principal de l'AGA, qui s'est tenue après le congrès, est archivé à l'adresse suivante :

https://cmosarchives.ca/AnnualReview/chrono.html

Utilisez l'année 2024.

Veuillez m'envoyer toute correction et tout nouvel identifiant (marqué d'un « ? » sous les photos).

Cordialement,



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 **#145** will be distributed in **November 2025**.

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:

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

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

Le Bulletin **#145** sera distribué en **novembre 2025** .

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

Abonnement et désabonnement

Si vous souhaitez vous abonner à ce bulletin 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 (CNC-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