

CANADIAN OCEAN SCIENCE NEWSLETTER

LE BULLETIN CANADIEN DES SCIENCES DE L'OCÉAN

Newsletter Number 74, 17 January 2014
Bulletin numéro 74, le 17 janvier 2014

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OCEAN SCIENCE PROGRAMS

41ST SCOR Executive Committee Meeting

Wellington, New Zealand, 25-28 November, 2013

Meeting report submitted by Bjorn Sundby, Department of Earth and Planetary Sciences, McGill University (bjorn.sundby@mcgill.ca)

The SCOR Executive Committee Meeting was attended by 30 representatives of member nations and partner organizations. Bjorn Sundby (McGill University), nominated member of SCOR, represented Canada.

As is the custom, the meeting was opened with a few moments of remembrance and respect to those ocean scientists who had contributed to SCOR and who had died during the previous year. This year we remembered, Eberhard Fahrbach (Germany), Carlo Heip (Belgium), John Steele (USA), Tore Vorren (Norway), C.S. Wong (Canada), and Mingyuan Zhu (China).

THE SCOR EXECUTIVE CONSISTS OF:

President	(2012 – 2016)	Peter Burkill	UK
Past-President	(2012 – 2016)	Wolfgang Fennel	Germany
Secretary	(2010 – 2014)	Mary (Missy) Feeley	USA
Vice-President	(2012 – 2014)	Satory Taguchi	Japan
	(2012 – 2014)	John Volkman	Australia
	(2012 – 2014)	Corina Brussaard	Netherlands

ELECTIONS

The Secretary position and all three Vice-President positions are up for election in 2014. A *nomination committee*, chaired by Wolfgang Fennel, was formed. Bjorn Sundby accepted to be a member of this committee. A call for nominations will be issued by 15 March 2014. Nominations will not be accepted later than 15 May 2014.

HIGHLIGHTS OF THE MEETING

In his introductory remarks, the President pointed out that we are approaching the 50th anniversary of the *International Indian Ocean Expedition (IIOE)*, one of the greatest international, interdisciplinary oceanographic research efforts, which lead to the creation of the Scientific Committee on Oceanic Research (SCOR) and the Intergovernmental Oceanographic Commission of UNESCO (IOC). SCOR will take an active role in the various activities that will mark this

CNC-SCOR

Members/ Membres

Céline Guégen (Trent)

Markus Kienast (Dalhousie)

Rob Macdonald – Past Chair (DFO-IOS)

Michel Mitchell – Secretary

Alfonso Mucci (McGill)

Paul Myers (Chair, U Alberta)

Ian Perry (DFO-PBS)

Paul Snelgrove (Memorial)

Bjorn Sundby (McGill)

Martin Taillefer (Maritime Way)

Len Zedel (Memorial)

Members Ex-Officio/

Membres d'office

Blair Greenan (IAPSO)

Sylvain de Margerie (DFO-HQ)

Peter Bartello (CMOS)

Andrew Bell (CMOS)

Michael Scarratt (SOLAS)

Jean-Éric Tremblay (Québec-Océan)

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.

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.

anniversary, including a new *International Indian Ocean Expedition (IIOE-2)*, that are being planned by IOC and partner organizations. [Click here](#) for more information.

SCOR FINANCES

SCOR finances are in good shape. The meeting agreed to an inflationary raise in membership fees of 3% for 2014.

SCOR WORKING GROUP ACTIVITIES

DISBANDED WORKING GROUPS

SCOR WG 131 on The Legacy of in situ Iron Enrichment: Data Compilation and Modeling has publicized its database through an article in *Oceanography* magazine. (See <http://www.tos.org/oceanography/archive/25-4-boyd.html>). There were no Canadians on this WG.

SCOR/LOICZ WG 132 on Land-based Nutrient Pollution and the Relationship to Harmful Algal Blooms in Coastal Marine Systems has two final papers in review; these are Bouwman et al. on Mariculture as a cause of coastal nutrient enrichment, *Environmental Research Letters*, and Glibert et al. on Effects of climate change on expansion of harmful algal blooms, *Global Change Biology*. There were no Canadians on this WG.

SCOR/WCRP/IAPSO Working Group 136 On the Climatic Importance of the Greater Agulhas System. The group held its final meeting in conjunction with a Chapman Conference on The Agulhas System and its Role in Changing Ocean Circulation, Climate, and Marine Ecosystems in Stellenbosch, Western Cape, South Africa see <http://www.agu.org/meetings/chapman/2012/ecall/>. Group members continue to promote research and observations in the Agulhas Current region. Lisa Beal, one of the group's co-chairs, served as a SCOR Visiting Scholar in South Africa in early 2013. There were no Canadian members of this WG.

CURRENT WORKING GROUPS

SCOR WG134-The Microbial Carbon Pump (MCP) in the Ocean.

This very active group has presented its final report to SCOR and has left a legacy of publications in high profile journals. Among these are a featured article in *Nature Review Microbiology (NRM)* 2010, volume 8, that discusses the background, rationale and application of the MCP concept. A *Science News Focus* article (*SCIENCE* 328:1476-1477, 2010) in which the MCP is considered as "An invisible hand behind the vast carbon reservoir"; and a *Science* booklet on MCP that includes 10 papers previously published in *Science* and 10 new articles written by the WG134 members have also appeared. The booklet appeared as a supplement to *Science*, and the electronic version is available on the *Science* website <http://science.imirus.com/Mpowered/book/vscim11/i2/p1> Susan Ziegler (*MUN*) is a member of this WG.

SCOR/InterRidge WG 135: Hydrothermal Energy Transfer and its Impact on the Ocean Carbon Cycles

Submarine hydrothermal venting was first discovered in the late 1970s. For decades the potential impact that vent fluxes could have on global ocean budgets was restricted to consideration of processes in hydrothermal plumes in which the majority of chemical species are incorporated into polymetallic sulfide and/or oxyhydroxide

particles close to the ridge-crest and sink to the underlying seafloor. This restricted view of the role that hydrothermal systems might play in global-ocean budgets has been challenged, more recently, by the recognition that there might also be a significant flux of dissolved Fe from hydrothermal systems to the oceans that is facilitated through organic complexation. A review of field-based and modeling results, including investigations that were carried out under the auspices of SCOR-InterRidge Working Group 135, reveals potential relationships between Corg and Fe in hydrothermal plumes and indicates that hydrothermal systems may play significant roles in both the global biogeochemical Fe cycle and the global ocean carbon cycle. The WG continues to review and synthesize existing data and integrate these into conceptual models of energy transfer and carbon cycling through hydrothermal systems. There is no Canadian on this WG.

WG 137: Patterns of Phytoplankton Dynamics in Coastal Ecosystems: Comparative Analysis of Time Series Observation

Phytoplankton biomass and community structure have changed in estuarine and coastal ecosystems over the past several decades in response to climate variability and human disturbance. These changes impact global carbon and nutrient cycling, food web structure and productivity, and coastal ecosystem services. To identify the underlying processes and measure the rates at which they alter coastal ecosystems on a global scale, this working group has been gathering long time-series data sets from estuarine and coastal systems worldwide in order to examine patterns of anthropogenic and climate-driven change. The group proceeds via special sessions and workshops at scientific meetings, one of which has been completed and two others are in progress. There is no Canadian on this WG, but *William Li (BIO)* was invited to make a presentation on “An ecological status report for phytoplankton and microbial plankton in the North Atlantic and adjacent seas” at one of the workshops. His presentation stimulated cross-disciplinary discussion of climatically and anthropogenically altered trends in oceanic and coastal phytoplankton communities, and stressed the overall importance of the picophytoplankton in the world’s oceanic and coastal waters.

SCOR/IGBP WG 138 on Modern Planktic Foraminifera and Ocean Changes

This group has developed a concept for a virtual book/special issue to deliver the results of their synthesis and provide guidelines in terms of species identification, experimental setup for culture studies, and laboratory treatment prior to geochemical analysis. The group has completed the review of all aspects of methods and procedures and standardization that required review. They will also use the eBook concept to establish an active network in cooperation with ongoing international research programs and projects and guarantee an open-access worldwide dissemination of results, data, and research plans. The work proceeds via meetings and specialized workshops, and there are plans for a broad based symposium. There are no Canadians on this WG.

SCOR WG 139 on Organic Ligands – A Key Control on Trace Metal Biogeochemistry in the Ocean

The bioactive trace metals iron (Fe), copper (Cu), cobalt (Co), nickel (Ni), zinc (Zn) and cadmium (Cd) are essential micronutrients for marine phytoplankton. Complexation of these metals by organic ligands may affect their bioavailability depending upon the properties of the metal-ligand complex formed. Lack of knowledge of the composition, source, and provenance of metal-binding ligands hinders new advances in the field of trace metal biogeochemistry. This group promotes new collaborations between trace metal biogeochemists, organic geochemists, and biogeochemical modelers. The group has hosted two well attended sessions during the 2012

and 2013 ASLO meetings and is convening a special session on metal-binding ligands at the 2014 Ocean Sciences Meeting. A special issue of Marine Chemistry is in planning. *Jay Cullen (UVic)* is an associate member of this working group.

WG 140 on Biogeochemical Exchange Processes at the Sea-Ice Interfaces (BEPSII)

The work of the WG is in its initial phase; it was approved in 2011. *Nadja Steiner (DFO and UVic)* co-chairs this WG, and *Michel Gosselin (UQAR)*, *Maurice Levasseur (ULaval)*, *Christine Michel (DFO)*, and *Lisa Miller (DFO)* are associate members.

WG 141 on Sea-Surface Microlayers

This WG was approved by SCOR in 2012 and held its first meeting in April 2013. The agenda included discussion on the deliverables of the working group. During the meeting and after a survey among all members, it was decided to publish a guideline for sampling the microlayer or an extended version for investigating the ocean's surface. During an upcoming workshop in Qingdao, the group will work on a paper that will highlight the role of microlayers in the changing ocean, aerosol chemistry, gas exchange, eutrophication, ecosystem health, and hydrophysical modeling. *Svein Vagle (DFO)* is an associate member of this WG.

WG 142 on Quality Control Procedures for Oxygen and Other Biogeochemical Sensors on Floats and Gliders

No progress report was available from this working group, which was approved by SCOR in 2012. *Denis Gilbert (DFO)* is a full member and *Katja Fennel (Dalhousie)* is an associate member of this working group.

NEW WORKING GROUP PROPOSALS

Eleven proposals for new working groups were received by SCOR:

1. Working Group on zooplankton production measurement methodologies and their application
2. Working Group on response of marine biota to complex global environmental change: co-ordination and harmonization of experimental approaches
3. Working Group on dissolved N₂O and CH₄ measurements: working towards a global network of ocean time series measurements of N₂O and CH₄
4. Working Group on climate and tsunami science with green repeaters on submarine cable systems
5. Working Group towards harmonization of global oceanic nutrient data
6. Working Group on development of new methodologies for chemical and other branches of oceanography
7. Working Group on microbial community responses to ocean deoxygenation
8. Working Group on surface waves in ocean circulation and climate system
9. Working Group on standard protocols for the development of an atlas of marine plankton biogeography
10. Working Group on studying ocean acidification effects on continental margin ecosystems
11. Working Group on science and technology imperatives created by deep-ocean industrialization

After intense discussion to make sure that each proposal was examined with thoroughness and fairness, only two of the eleven proposals were placed in the category of proposals that "may be funded". After examination of SCOR's financial situation, it was decided to go ahead and fund these two proposals. They are:

- ***SCOR Working Group on Dissolved N₂O and CH₄ measurements: Working towards a global network of ocean time series measurements of N₂O and CH₄***
- ***SCOR Working Group on Microbial Community Responses to Ocean Deoxygenation***

The first of these two was placed in the “must fund” category by the Canadian National Committee for SCOR, and the second was placed in the “may fund” category. *Philippe Tortell (UBC)* is proposed as a full member of the first WG, and *Sean Crowe and Steven Hallam (both UBC)* are proposed as full members of the second WG.

Looking ahead: It is likely that SCOR will have the funds to establish two new working groups next year, which should be seen as an opportunity for Canadian ocean scientists. I propose that CNC/SCOR challenges our research communities to participate. Over the years I have seen many poorly written and few well written proposals to SCOR. This year was no exception. This means that a well written proposal that is based on a good idea has a very good chance to be accepted. If the proposal also is exciting, it is more than likely to find favor among the scientists of SCOR.

LARGE SCALE OCEAN RESEARCH PROJECTS

SCOR-IOC Global Ecology and Oceanography of Harmful Algal Blooms (GEOHAB)

GEOHAB has had mixed success over the years. For example, an attempt to establish a Canadian GEOHAB program failed, yet individual Canadian scientists have played and continue to play an important role in HAB research: *Suzanne Roy (UQAR)* chairs the Core Research Project on HABs in Fjords and Coastal Embayments. GEOHAB is coming to an end of its first 10 years of existence, but there is much work to be done.

It was clear from the presentation of the GEOHAB report to SCOR that the GEOHAB community is active and enthusiastic and wants to be able to continue its work. SCOR has requested that GEOHAB conduct synthesis activities and complete its current phase of activity. There is sympathy among the sponsors for a continuation of GEOHAB, perhaps in a modified form. Thus, the IOC Intergovernmental Panel on Harmful Algal Blooms has recommended that a new international research program be formed on the foundations of the GEOHAB Science Plan, focusing on understanding HABs in the context of global sustainability, with a working name of GlobalHAB. The panel invites SCOR to co-sponsor the Scientific Steering committee for Global HAB and encourages active joint participation in the development and implementation of the science agenda.

INTEGRATED MARINE BIOGEOCHEMISTRY AND ECOSYSTEM RESEARCH (IMBER) (joint with IGBP)

As in the case of GEOHAB, Canada does not have a national IMBER project. Nevertheless, individual Canadians play important roles in IMBER. Presently, *Alida Bundy (BIO)* is Vice Chair, and *Ratana Chuenpagdee (MUN)* is member of the scientific steering committee and responsible for the Human Dimensions part of IMBER. The substantial report presented by IMBER to SCOR is too long to be summarized here. Suffice it to say that IMBER is doing very well as a scientific organization.

Nevertheless, IMBER is concerned about the potential impact on the future of the project of the emergence of the Future Earth initiative (FE) of ICSU and the discontinuation of IGBP in late 2015 that this implies. As one of the two sponsors of IMBER, SCOR will have to work closely and quickly with FE/ICSU to make sure that IMBER’s goals can be integrated seamlessly into those of Future Earth, and that the perceived uncertainty about the

future does not impact the ability of IMBER and the scientific community it represents to function. In this respect, it behooves the Canadian Marine Science community to stay abreast with the evolution of the Future Earth Initiative of ICSU. Perhaps the best way to do this is via SCOR.

SOLAS (*joint with IGBP*)

Unlike IMBER, SOLAS had and still has a Canadian component. *Maurice Levasseur (ULaval)* represents Canada in SOLAS National Networks, and *Lisa Miller (DFO)* is member of the SOLAS Scientific Steering Committee. Some of the concerns for the future that were voiced by IMBER may also be valid for SOLAS, which is also cosponsored by SCOR and IGBP. Also like IMBER, the substantial report presented by SOLAS to SCOR is too long to be summarized here. Suffice it to say that SOLAS is also doing very well as a scientific organization.

GEOTRACES

GEOTRACES is an international program that aims to improve the understanding of biogeochemical cycles and large-scale distribution of trace elements and their isotopes in the marine environment. Scientists from approximately 35 nations are involved in the program, which is designed to study all major ocean basins over the next decade. Unlike the situation for IMBER and SOLAS, which are co-sponsored by SCOR and IGBP, SCOR is the sole sponsor of GEOTRACES. Canadian scientists contribute actively to GEOTRACES. *Maria Maldonado (UBC)* is currently member of the scientific steering committee, and active field programs are underway in the Canadian Arctic Ocean and on Line P in the northeast Pacific. Canada has a Geotraces project, led by Roger François. It is funded through NSERC's CCAR. As was the case for the IMBER report, the report from GEOTRACES is too large to be summarized here. Suffice it to say that all seems well with GEOTRACES.

CAPACITY BUILDING

SCOR takes capacity building very seriously. It has set up a *Committee on Capacity Building*, chaired by Venu Ittekkott (Germany). The committee tabled a report with a set of interesting recommendations.

The issue of capacity building is raised frequently, particularly in the discussion of working group activities and proposals. People like to see elements of capacity building integrated into working group proposals, but they recognize that it should not be detrimental to scientific quality. To increase the exposure of scientists from developing nations to the activities of a working group, several proponents have chosen to bring these scientists into the working group as associate members. This begs the question of how to support these scientists financially, for example paying for their travels. In several cases, financial support comes from a developing nation that wishes to expose one of their own scientists – often an early career scientist – to international science. I have seen this done by Korea and South Africa, to mention two. There are other ways of finding support, such as via the SCOR/NSF visiting scholars program. If funds are available in Canada, an offer to support one or two associate WG members from developing nations would be welcome.

RELATIONS WITH INTERGOVERNMENTAL ORGANIZATIONS

INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION (IOC)

SCOR and IOC co-sponsor the Global Ecology and Oceanography of Harmful Algal Blooms (GEOHAB) project and the International Ocean Carbon Coordination Project

(IOCCP). The Intergovernmental Panel on Harmful Algal Blooms (IPHAB) proposed recommendations, which have been adopted by the IOC General Assembly, inviting "SCOR to co-sponsor the Scientific Steering Committee for Global HAB and encourages active joint participation in the development and implementation of the science agenda". GlobalHAB is a project being proposed to follow GEOHAB.

As mentioned above, SCOR and IOC co-sponsored the Third Symposium on the Ocean in a High-CO₂ World and are co-sponsoring the 50th Anniversary Symposium on the International Indian Ocean Expedition (IIOE).

ICES AND PICES

Whereas the interests of ICES and SCOR seem to be diverging, the interests of PICES and SCOR are converging. In particular, there seems to be interest on the part of PICES to have joint working groups with SCOR. Exactly how this may be done remains to be worked out: SCOR favors a bottom up approach and asks the scientists to propose the composition of the working group. In contrast, PICES prefers that the working group members be chosen by the PICES nations.

RELATIONS WITH NON-GOVERNMENTAL ORGANIZATIONS

INTERNATIONAL COUNCIL FOR SCIENCE (ICSU)

SCOR is a standing interdisciplinary committee of ICSU unlike IGBP, which is one of the global change programs of ICSU with a fixed lifetime. IGBP will be brought under the umbrella of Future Earth as this initiative unfolds, and it is not certain what will be the effects of this on the projects that IGBP and SCOR are co-sponsoring. Below is some information from ICSU about their new initiative.

Planet Under Pressure. The London conference (26-29 March, 2012), sponsored by the global-change programs and the International Council for Science (ICSU), attracted 3000 scientists, decision makers, business representatives, journalists and others; well above the expected 2500. Over 400 articles in the mainstream media have been published worldwide in over 20 languages and the conference still reverberates in the media, online discussions and policy circles. A key outcome was the publication of the first State of the Planet Declaration. 150 science and technology centers for the public and schoolchildren worldwide held Planet Under Pressure related events reaching a further 12,000 people. The UN Secretary General Ban Ki-moon addressed the conference via video: "I welcome the State of the Planet declaration issued today by the Co-chairs of this conference. The timing, two months before the UN Conference on Sustainable Development, could not be better. Rio+20 is a major opportunity to advance the policy science interface." Planet Under Pressure marks a turning point in international Earth-system research towards a focus on global sustainability. The new Future Earth initiative, mentioned elsewhere in this bulletin, was discussed intensely during the conference. The conference also hosted the first major science-policy dialogue on the concept of new universal sustainable development goals. This World Cafe was one of many participatory sessions under the banner "Bridges to the Future".

Future Earth. Following successful dialogues at the Planet Under Pressure conference, the Future Earth initiative was officially launched at the UN's Rio+20 summit, 20-22 June, 2012. The initiative aims to bring together IGBP, DIVERSITAS and the International Human Dimensions Program under one umbrella, Future Earth: research for global sustainability. Currently, it is planned that the World Climate Research Programme will have observer status in the new initiative. Plans are underway to have an interim Future Earth governing body in place by the beginning of 2013 and a secretariat by mid-2014. More information: <http://www.icsu.org/future-earth/>

MEETINGS

48th Annual CMOS Congress - Call for Abstracts

As previously announced, the Canadian Meteorological and Oceanographic Society (CMOS) Congress 2014 will be held in Rimouski, Quebec, Canada at the Hôtel Rimouski, from June 1 to June 5, 2014. The Congress theme is "Northern Exposure: The implication of changes in cold environments".

The abstract submissions period is now open! Please submit abstracts electronically via the link: <https://www1.cmos.ca/abstracts> before February 15, 2014. You will be asked to submit your abstract to one of nearly forty planned sessions that are listed on the website and to specify your preference for either an oral or a poster presentation. A complete list of all the sessions and workshops can be found [here \(click\)](#).

Student CMOS members are encouraged to participate and to apply for a Student Travel Bursary when submitting an abstract (up to \$500 per student).

For general information about the 2014 congress, please consult the congress website at: <http://www.cmos.ca/congress2014/index.php/en/>

48^e Congrès annuel de la SCMO - Appel de résumés

Tel que déjà annoncé, le congrès 2014 de la Société canadienne de météorologie et d'océanographie (SCMO) aura lieu du 1 au 5 juin, à Rimouski, Québec, Canada, à l'Hôtel Rimouski. Le thème du congrès est « Le nord vulnérable : implication des changements dans les environnements froids ».

La période de soumission des résumés est maintenant ouverte! Veuillez soumettre vos résumés électroniquement via le lien <https://www1.cmos.ca/abstracts> avant le 15 février 2014. Vous devrez soumettre votre résumé sous une des presque quarante sessions affichées sur le site et spécifier votre préférence quant à une présentation orale ou une affiche. Une liste complète de toutes les sessions et ateliers se trouve [ici \(cliquez\)](#).

Les membres étudiants de la SCMO sont les bienvenus et sont encouragés à appliquer pour une bourse étudiante d'aide au voyage (jusqu'à 500\$ par étudiant) lors de leur soumission.

Pour des plus amples informations, veuillez consulter le site web du congrès au: <http://www.cmos.ca/congress2014/index.php/fr/>

2014 International Conference on Ocean Energy (ICOE), 4-6 Nov., 2014, Halifax, Nova Scotia

The 2014 International Conference on Ocean Energy (ICOE) will take place 4-6 November 2014 in Halifax, Nova Scotia. This is the first time ICOE will be held in North America since its inception.

The organization of ICOE 2014 is well underway with the website up and running, delegate registrations open and being accepted and the Call for Abstracts underway. For more information, please visit the website at: <http://www.icoe2014canada.org/>.

To receive important information and relevant news on ICOE 2014, [please sign-up for the ICOE 2014 email list \(click here\)](#). Regular communication on the event will be sent to this email list, including information on sponsorship, registration, exhibiting, accommodations etc.

Ocean Optics Conference, 26-31 October 2014, Portland Maine

The Ocean Optics Conference will take place during 26-31 October 2014 in Portland, Maine. This bi-annual meeting attracts a diverse audience of oceanographers, marine ecologists, optical engineers, marine resource managers, and policy professionals, unified around the topic of light in the ocean. More information on meeting topics covered, venue and travel support can be found on the conference website ([click here](#)) and via various social media outlets - search for "Ocean Optics Conference" on Facebook, Twitter, LinkedIn (links provided on website).

IMBER Open Science Conference, 23-27 June 2014, Bergen, Norway - Call for Abstract

The deadline for [abstracts submissions](#) for this previously announced meeting has been extended to 31 January 2014. Contributions are welcome from all marine research communities. More information is available [here \(click\)](#).

World Conference on Marine Biodiversity, 12-16 October 2014, Qingdao, China

The 3rd World Conference on Marine Biodiversity (WCMB-2014) will be held from 12-16 October 2014 in Qingdao, China with the theme of 'Life in the Changing Ocean'. Visit the [conference website \(click here\)](#) for details.

The deadline for [session proposals \(click here\)](#) is 31 January 2014.

Abstracts can be submitted for consideration and early registration fees paid until 30 May 2014 ([click here](#)).

There is also a call for proposals to host the 4th WCMB at ([click here](#)).

CANADIAN JOBS and TRAINING

Research Scientist in Physical Oceanography - Sidney, BC

Location: The Institute of Ocean Sciences, Fisheries and Oceans Canada, Sidney, BC.

The Ocean Sciences Division of the Institute of Ocean Sciences (IOS), Sidney, BC, has an opening for a research scientist in physical oceanography to examine physical oceanographic processes of the Northeast Pacific Ocean and to develop an understanding of their impact on Canada's marine resources, coastal communities, and climate. The scientist will participate in long-term DFO programs in these waters (such as the Line-P and La Perouse programs and Argo) and will collaborate with scientists in other regions to deliver a credible Canadian contribution to the Global Ocean Observing System.

The competition is open to residents of Canada and Canadians residing abroad.

Duration: This is a full time staff position

Salary: Expect to hire at a SE-RES 1 or 2 level (\$53K-\$98K)

Visit www.jobs.gc.ca (reference # DFO13J-011234-000011 or key word 'oceanography') for details and to complete the on-line application form.

Closing Date is **February 25, 2014**.

For more information, please contact Dr. Charles Hannah (Charles.Hannah@dfo-mpo.gc.ca, 1-250-363-6369)

The direct link for this opportunity is:

<https://emploisfp-psjobs.cfp-psc.gc.ca/psrs-srfp/applicant/page1800?toggleLanguage=en&noBackBtn=true&poster=223890&psrsMode=1>

Looking for work? Try the CMOS site ([click](#))

Vous recherchez un emploi? Visitez le site SCMO ([click](#))

GENERAL

Funding Opportunity: Call for Letters of Interest – Environmental Studies Research Fund

On 7 January 2014, the Environmental Studies Research Fund (ESRF) launched a Call for Letters of Interest from organizations interested in carrying out environmental and socio-economic studies related to oil and gas exploration and development in Canada's North and Atlantic Offshore. The period of submission for the Letters of Interest to the ESRF will be from 7 January to 21 February 2014.

Four **Research Priority Areas** have been identified for this Call for Letters of Interest:

Northern ESRF Regions

Research Priority Area #1: Spill Preparedness and Response, Fate and Effects

Summary: Studies in this area will focus on the fate and effects of accidental releases of petroleum hydrocarbons and other hazardous substances in the Arctic marine environment, including the improvement of responses to such accidental releases.

Research Priority Area #2: Regional knowledge generation

Summary: Studies in this area will focus on research to support interested stakeholders in the development of oil and gas activities. Themes include biophysical, socio-economic, traditional knowledge and cumulative effects on hydrocarbon-related activities on Canada's frontier lands.

Southern ESRF Regions (Atlantic ESRF Regions)**Research Priority Area #3: Marine Seismic Sound Energy**

Summary: Studies in this area will focus on improving the understanding of the nature of seismic sound energy and its effects on commercial fish and invertebrate species, as well as marine mammals and/or species at risk.

Research Priority Area #4: Oil and Gas Liquids Spill Fate and Effects

Summary: Studies in this area will focus on the fate and effects of accidental releases of petroleum hydrocarbons in the Newfoundland & Labrador and Nova Scotia Offshore Areas.

Depending on the scope, successful studies could be eligible for funds from the ESRF in the range of \$200,000 to \$2 million per year for four years. Additional details on the research priorities areas can be found in the Applicants Guide which can be found on-line at www.esrfunds.org/newnou_e.php.

Weston Family Prize for Lifetime Achievement in Northern Research

The Association of Canadian Universities for Northern Studies is seeking nominees for the Weston Family Prize for Lifetime Achievement in Northern Research, an award which recognizes a significant contribution and broad impact of a career devoted to Northern research by an individual who has demonstrated leadership, inspiration, and mentorship in research in the Canadian north. The recipient will receive a \$50,000 cash prize.

The deadline for nominations is 31 January 2014 and nominations are to be submitted using the [CNST Online Application system](#).

Prix de la famille Weston pour les réalisations de toute une vie dans le domaine des études nordiques

L'Association universitaire canadienne d'études nordiques est à la recherche de candidats pour le Prix de la famille Weston pour les réalisations de toute une vie dans le domaine des études nordiques, un prix qui reconnaît la contribution importante et l'impact étendu d'une carrière consacrée à la recherche nordique d'un individu qui a fait preuve de leadership, a été une source d'inspiration et un mentor dans le domaine de la recherche sur le Nord canadien. Le lauréat recevra un prix de 50 000 dollars en argent comptant.

La date limite pour les mises en candidatures est le 31 janvier 2014. Les propositions doivent être soumises en utilisant [le site de demandes FCÉN en ligne](#).

New Phase of Planning for Scientific Activities in the Indian Ocean Region

In two years it will be the 50th anniversary of both the International Indian Ocean Expedition

(IIOE) and the genesis of the National Institute of Oceanography in Goa, India. SCOR and IOC have agreed to co-sponsor an international symposium on the Indian Ocean in Goa from 30 November to 4 December 2015. SCOR and IOC have furthermore agreed to kindle new research initiatives in the Indian Ocean from 2015 onwards. A series of international workshops have already taken place in India and China towards this purpose. An extensive archive of information about the IIOE is available on the SCOR Web site (http://www.scor-int.org/IIOE_History.htm) and a page on new Indian Ocean plans and activities will soon be added.

Further details on this initiative, potentially leading to an International Indian Ocean Expedition-2, akin to the original IIOE that SCOR developed and managed with IOC in the early 1960s, will appear on the [SCOR Web site](#) in early in 2014. If you have interests in new scientific activities in the Indian Ocean region and would be interested in the formation of an appropriate group to promote research cruises or other activities in the Indian Ocean in the 2016-2020 period, please contact Paul Myers (pmyers@ualberta.ca).

CANADIAN OCEAN SCIENCE NEWSLETTER

LE BULLETIN CANADIEN DES SCIENCES DE L'OcéAN

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Newsletter #75 will be distributed on 18 March, 2014. Please send contributions to Michel Mitchell, michel.mitchell@dfo-mpo.gc.ca
Le Bulletin #75 sera distribué le 18 mars 2014. Veuillez faire parvenir vos contributions à michel.mitchell@dfo-mpo.gc.ca

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