



2019 SCOR Annual Meeting in Toyama International Conference Center (licensed under the Creative Commons Attribution-Share Alike 3.0 Unported license; 663highland)

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## 2019 SCOR Working Group Proposals

Six proposals were submitted for new SCOR working groups, to be considered at the 2019 SCOR Annual Meeting:

- 1. Roadmap for a Standardised Global Approach to

  Deep-Sea Biology for the Decade of Ocean Science for
  Sustainable Development (DeepSeaDecade)
- 2. Marine Species Distribution Modelling in the global ocean (MSDM-GO)
- 3. <u>DIagnoSis of Carbon in the Ocean: Variability, uncERtainty and the Coasts (DISCOVER-C)</u>
- 4. Changing Biotic-Sediment Interactions in the Ocean Seabed (CBIOS)
- 5. Coordinated Global Research Assessment of Seagrass System (C-GRASS)
- 6. <u>Integration of international ocean acidification research at CO2 seeps (InterSEEP)</u>

SCOR welcomes review of the proposals by national SCOR committees, partner organizations, and individuals by **15 August 2019.** Instructions for reviews are available on the SCOR meeting Website at <a href="https://scor-int.org/events/scor-annual-meeting-2019/">https://scor-int.org/events/scor-annual-meeting-2019/</a>.

It is likely that SCOR will be able to support two new groups to start in 2020.

### SCOR at Ocean Sciences 2020

Several SCOR working groups will meet at the Ocean Sciences 2020 Meeting in San Diego, California, USA; convene scientific sessions and town hall sessions; and/or present tutorials.

In addition, SCOR has reserved a booth (#341/343) to serve as place to demonstrate the MEDDLE software developed by SCOR Working Group 149 on Changing Ocean Biological Systems (COBS) and the chemical speciation software of SCOR Working Group 145 on Modelling Chemical Speciation in Seawater to Meet 21st Century Needs (MARCHEMSPEC). The GEOTRACES project will be demonstrating its new data entry portal for its 2021 Intermediate Data Product. The booth will provide an area to sit and discuss ideas for new SCOR working groups and other activities. More details will be provided in the next SCOR Newsletter.

# Survey on SCOR Visibility and Legacy

SCOR occasionally assesses the impacts of its activities to help determine whether any changes need to be made in its operating approaches. For example, a survey of former SCOR WG chairs conducted in the early 2000s concluded that the SCOR WG model was still working well, but also identifying some useful guidelines to increase the likelihood that groups would succeed in fulfilling their terms of reference (see <a href="https://scor-int.org/wp-content/uploads/2018/04/Review\_of\_WGs.pdf">https://scor-int.org/wp-content/uploads/2018/04/Review\_of\_WGs.pdf</a>).

For the past several months, SCOR collected input regarding

the visibility of SCOR and the legacy of its activities. Input was sought from the chairs of completed SCOR WGs and research projects, SCOR Visiting Scholars, and participants in some other SCOR activities carried out over the past 20 years. Corina Brussaard (Netherlands) and Missy Feeley (UK) will analyze the survey data and report the results to the 2019 SCOR Annual Meeting in Toyama, Japan. The survey closed on 21 June 2019 and received 94 responses.

The results have not been completely analyzed yet, but respondents were asked to list five words that they associate with SCOR. The resulting word cloud (see below) presents a very positive view of SCOR over the past two decades.

#### IIOE-2

The third meeting of the Steering Committee of the Second International Indian Ocean Expedition (IIOE-2) was held at the Nelson Mandela University in Port Elizabeth, South Africa on 12–13 March 2019. The IIOE-2 Steering Committee met in conjunction with a variety of other organizations that are interested in research in the Indian Ocean. The discussions at the meeting demonstrated that IIOE-2 continues to increase its level of implementation activities.

to contribute to planned UN Decade regional workshops in the Indian Ocean region. SCOR was represented at the first Global Planning Meeting on the UN Decade in Copenhagen in May by former SCOR Executive Committee Member Colin Devey (Germany).

## International Quiet Ocean Experiment

The International Quiet Ocean Experiment (IQOE), SCOR, the Partnership for Observation of the Global Ocean (POGO), and other organizations sponsored a special issue of *ECO Magazine* on ocean sound (see http://digital.ecomagazine.com/publication/frame.php?i=598395&p=1&pn=&ver=html5). IQOE provided the lead article for the special issue.

Four different IQOE working groups held events on 13 July in conjunction with The Effects of Noise on Aquatic Life conference in The Hague, Netherlands to advance their work.

## **Capacity Building**

Scientia article about SCOR capacity-development activities— The magazine Scientia published an article about SCOR's



The results of the project so far will be highlighted at the **International Indian Ocean Science Conference 2020**, which will be held in Goa, India on 16-20 March 2020.

The UN Decade of Ocean Science for Sustainable Development was a major focus of the 2019 General Assembly of the Intergovernmental Oceanographic Commission of UNESCO in June. SCOR made an intervention at the General Assembly suggesting that the IIOE-2 be considered as a component project of the UN Decade. SCOR will work through IIOE-2

capacity-building activities (see <a href="https://www.scientia.global/from-coast-to-coast-building-capacity-in-ocean-science/">https://www.scientia.global/from-coast-to-coast-building-capacity-in-ocean-science/</a>).

Training course on best practices for ocean acidification experiments in multi-stressor scenarios—Several members of WG 149 on Changing Ocean Biological Systems (COBS) taught a training course on use of the MEDDLE online software developed by the group (see below). This course was held on 24–28 May 2019 in Monaco.

**2019 SCOR Visiting Scholars**—Most of the six 2019 Visiting Scholars approved will serve later this year. However, Pere Masque completed his course on "Applications of Radioisotopes in Marine Sciences" at the Federal University of Bahia (UFBA), Brazil on 22 June to 4 July. The course was attended by 30 researchers from UFBA and other universities. Masque also interacted with various researchers at UFBA and their graduate students, and discussed in more depth studies to be conducted in Bahia Todos os Santos, including potential collaborations.

Funds for the scholarships are provided by the U.S. National Science Foundation, national SCOR Committees, and through crowdfunding. The call for the 2020 SCOR Visiting Scholars program will be made in October 2019.

The U.S. National Science Foundation has provided specific funding to continue the work of the COBS group, which will be transformed into a SCOR infrastructural project with renewed terms of reference and potentially new members.

The COBS group met on 14–15 June 2019 in Brest, France to plan the next phase of its work.

SCOR WG 153 on Floating Litter and its Oceanic TranSport Analysis and Modelling (FLOTSAM) met for the second time on 7–9 May 2019 in Utrecht, The Netherlands. The main focus of the meeting was preparation of a draft review paper on our knowledge of plastics floating in the ocean and the gaps in knowledge that require more research, observations, and



WG 153 and Friends at Utrecht Meeting

## **News from SCOR Working Groups**

SCOR WG 149 on Changing Ocean Biological Systems (COBS): how will biota respond to a changing ocean? has produced a Web-based Best Practice Guide with three strands:

- 1.A decision support tool that is designed to help users get started, and has different entry levels to give the right pointers to newcomers in experimental design for multistressor experiments, as well as to those at intermediate or advanced levels.
- 2.MEDDLE Multiple Environmental Driver Design Lab for Experiments enables users to design and run experiments on a website and hence promotes self-learning and skill development.
- 3.A library of videos enables users to refine their skills via a series of topical tutorials by field-leading experts.

These strands are linked by a 48-page Handbook available on the Website (see <a href="https://meddle-scor149.org/using-meddle/">https://meddle-scor149.org/using-meddle/</a>).

modeling. The article should be submitted for review by the end of September 2019. The work of the group has been reported widely over the past year by group members at a variety of meetings. The group has papers in review on sensing of floating plastic debris and another paper was recently published in *Frontiers in Marine Science* on an Integrated Marine Debris Observing System (IMDOS).

A special session on the Role of Ocean Processes in the Transport and Fate of Floating Plastic Litter in the Ocean and Shelf-Seas: Theory, Modelling and Observations was convened at the IUGG Assembly in Montreal in July 2019. A proposal for a special session on floating plastics has been submitted for the Ocean Sciences 2020 meeting in San Diego, California, USA.

#### **Publications**

Bange, H,W., D.L. Arévalo-Martínez, M. de la Paz, L. Farías, J. Kaiser, A. Kock, C.S. Law, A.P. Rees, G. Rehder, P.D. Tortell, R.C. Upstill-Goddard, and S.T. Wilson. 2019. A Harmonized Nitrous Oxide (N<sub>2</sub>O) Ocean Observation Network for the 21<sup>st</sup>

Century. Frontiers in Marine Science, 2 April 2019, <a href="https://doi.org/10.3389/fmars.2019.00157">https://doi.org/10.3389/fmars.2019.00157</a> - WG 143

Butterworth, B.J. and Else, B.G.T. 2018. Dried, closed-path eddy covariance method for measuring carbon dioxide flux over sea ice. *Atmos. Meas. Tech.* 11:6075-6090, <a href="https://doi.org/10.5194/amt-11-6075-2018">https://doi.org/10.5194/amt-11-6075-2018</a> - WG 152

Campbell, K., Mundy, C. J., Juhl, A. R., Dalman, L. A., Michel, C., Galley, R. J., Else, B. E., Geilfus, N. X., and Rysgaard, S. 2019. Melt Procedure Affects the Photosynthetic Response of Sea Ice Algae. *Front. Earth Sci.* 7:21. doi: 10.3389/feart.2019.00021, 2019 – WG 152

Feistel, R. 2019. Defining relative humidity in terms of water activity. Part 2: relations to osmotic pressures. Metrologia 56(1) - IAPWS/SCOR/IAPSO Joint Committee on the Properties of Seawater (JCS)

Lombard, F., E. Boss, A.M. Waite, M. Vogt, J. Uitz, L. Stemmann, H.M. Sosik, J. Schulz, J.-B. Romagnan, M. Picheral, J. Pearlman, M.D. Ohman, B. Niehoff, K.O. Möller, P. Miloslavich, A. Lara-Lopez, R. Kudela, R.M. Lopes, R. Kiko, L. Karp-Boss, J.S. Jaffe, M.H. Iversen, J.-O. Irisson, K. Fennel, H. Hauss, L. Guidi, G. Gorsky, S.L.C. Giering, P. Gaube, S. Gallager, G. Dubelaar, R.K. Cowen, F. Carlotti, C. Briseño-Aven, L. Berline, K. Benoit-Bird,, N. Bax, S. Batten, S.D. Ayata, L.F. Artigas, and W. Appeltans. 2019 Globally consistent quantitative observations of planktonic ecosystems. *Front. Mar. Sci.* 6:196. https://doi.org/10.3389/fmars.2019.00196 – WGs 154 and 150

Meiners, K.M., Vancoppenolle M., et al. Chlorophyll-a in Antarctic land-fast sea ice: A first synthesis of historical icecore data. Geophysical Research: Oceans, 123, 8444-8459, https://doi.org/10.1029/2018JC014245 - WG 152

Roukaerts, A., D. Nomura, F. Deman, H. Hattori, F. Dehairs, and F. Fripiat. 2019. The effect of melting treatments on the assessment of biomass and nutrients in sea ice (Saromako lagoon, Hokkaido, Japan), *Polar Biology* 42(2):347–356, <a href="https://doi.org/10.1007/s00300-018-2426-y">https://doi.org/10.1007/s00300-018-2426-y</a> - WG 152

# Crowdfunding for SCOR Capacity Building Activities

SCOR provides two opportunities for members of the SCOR community to support SCOR capacity-building activities, especially the SCOR Visiting Scholars program:

- 1.Donate through Mighty Cause as part of the open campaign in progress (see <a href="https://www.mightycause.com/story/Nn6lef">https://www.mightycause.com/story/Nn6lef</a>).
- 2.Sign up for Amazon Smile and designate SCOR as the charity you will support (see <a href="mailto:smile.amazon.com">smile.amazon.com</a>). Just under the search bar is a link for you to select a charity to

support. The AmazonSmile Foundation donates 0.5% of purchases to the organization identified.

#### SCOR and Social Media

If you received this newsletter directly from SCOR, you are on the email list. Anyone not yet on the list can join by clicking the link below.

## Join SCOR Email List

## **Future SCOR Annual Meetings**

2019—The 2019 SCOR Annual Meeting will be held in Toyama, Japan on 23–25 September 2019. The meeting will be preceded by a public lecture and followed by the annual meeting of the Japan Oceanography Society. The Website for the meeting can be found at <a href="https://scor-int.org/events/scor-annual-meeting-2019/">https://scor-int.org/events/scor-annual-meeting-2019/</a> and the program at <a href="https://scor-int.org/Annual%20">https://scor-int.org/Annual%20</a> Meetings/2019 SCOR Meeting/SCOR Program.pdf.

**2020**—The SCOR Executive Committee has accepted an offer from the Ecuadorian SCOR Committee to hold the 2020 SCOR Annual Meeting in Ecuador.

**2021**—The 2021 SCOR Annual Meeting will be held in Busan, Korea.

For additional information about SCOR activities, please see the SCOR Web site: <a href="http://www.scor-int.org">http://www.scor-int.org</a>. To reach Secretariat staff, please send an email to Ed Urban (Ed.Urban@scor-int.org).

#### **ACRONYMS**

iCACGP	International Commission on Atmospheric Chemistry and Global Pollution
ICES	International Council for the Exploration of the Sea
IMBeR	Integrated Marine Biosphere Research project (co-sponsored by SCOR and Future Earth)
SCOR	Scientific Committee on Oceanic Research
SOLAS	Surface Ocean – Lower Atmosphere Study (co-sponsored by SCOR, Future Earth, WCRP, and iCACGP)
WCRP	World Climate Research Programme
WG	working group