The Scientific Committee on Oceanic Research (SCOR)

2023 Executive Director’s Report

Emily Twigg
Executive Director
Emily Twigg, new SCOR Executive Director

Welcome from the Scientific Committee on Oceanic Research

Emily Twigg
SCOR Executive Director

SOOS Symposium
August 14, 2023

First representation of SCOR - SOOS Symposium recorded remarks

First in person meeting – GEOTRACES SSC
Advancing ocean sciences across disciplines and through international cooperation since 1957

The Scientific Committee on Oceanic Research - mission

- Address **global and multidisciplinary ocean issues**
- Plan and conduct **research** – working groups and projects
- Solve **methodological and conceptual problems**
- **Develop capacity** - visiting scholars, fellowships, travel support
- Promote **equity, diversity, inclusion** in oceans sciences
- Encourage and support involvement of **students** and **early career** scientists

From the field to the lab, from data analysis to global synthesis – building capacity at every step of the way
SCOR Activities

160+ Currently 18

WORKING GROUPS

Role of the ocean in global carbon cycle and the effects of ocean acidification
Facilitate observations on dynamics and change of Southern Ocean systems
Understanding and prediction of Harmful Algal Blooms (HABs) and management and mitigation of their impacts
Assessing the effects of multiple environmental factors acting on organisms at the same time
Continue development of relationships between temperature and salinity of seawater outside the range of previously available equations

RESEARCH PROJECTS

Marine biogeochemical cycles of trace elements and their isotopes in the ocean
Ocean sustainability in the context of global change
Key biogeochemical-physical interactions and feedbacks between the ocean and atmosphere
Ocean soundscapes and effects of sound on marine organisms
Indian Ocean processes and its role in the Earth System

INFRASTRUCTURAL PROJECTS

Visiting Scholars Fellowships Travel support

CAPACITY DEVELOPMENT

Joint Committee on Seawater

AFFILIATED PROJECTS

Formation and evolution of the Oceanic Crust and its interaction with the ocean, biosphere, climate and human society
Understanding of natural variability and human-induced changes of plankton communities in the global ocean
Application of remotely-sensed ocean color/inland water radiometry data across all aquatic environments
### SCOR Working Groups

**Physical oceanography**
- **WG-148: IQuOD (2015)**: International Quality Controlled Ocean Database: Subsurface temperature profiles
- **WG-150: TOMCAT (2015)**: Translation of Optical Measurements into particle Content, Aggregation & Transfer
- **WG-153: FLOTSAM (2017)**: Floating Litter and its Oceanic TranSport Analysis and Modelling
- **WG-160: ATOMIX (2020)**: Analysing ocean turbulence observations to quantify mixing

**Chemical oceanography**
- **WG-151: FeMIP (2016)**: Iron Model Intercomparison Project
- **WG-167: RUSTED (2022)**: Reducing Uncertainty in Soluble aerosol Trace Element Deposition

**Biological oceanography**
- **WG-155: EBUS (2017)**: Eastern boundary upwelling systems: diversity, coupled dynamics and sensitivity to climate change
- **WG-156: Chlorophyll (2018)**: Active Chlorophyll fluorescence for autonomous measurements of global marine primary productivity
- **WG-157: MetaZooGene (2018)**: Toward a new global view of marine zooplankton biodiversity based on DNA metabarcoding and reference DNA sequence databases
- **WG-158: C-GRASS (2019)**: Coordinated Global Research Assessment of Seagrass System
- **WG-164: CoNCENSUS (2021)**: Advancing standardisation of Coastal and Nearshore demersal fish visual CENSUS techniques
- **WG-165: MixONET (2021)**: Mixotrophy in the Oceans – Novel Experimental designs and Tools for a new trophic paradigm

**Biogeochemical oceanography**
- **WG-152: ECV-Ice (2016)**: Measuring Essential Climate Variables in Sea Ice
- **WG-161: ReMO (2020)**: Respiration in the Mesopelagic Ocean: Reconciling ecological, biogeochemical and model estimates
- **WG-162: OASIS (2020)**: Developing an Observing Air-Sea Interactions State
- **WG-163: Ice2Clouds (2021)**: Coupling of ocean-ice-atmosphere processes: from sea-Ice biogeochemistry to aerosols and Clouds
- **WG-166: DMS-PRO (2022)**: Developing resources for the study of Methylated Sulfur compound cycling PROcesses in the ocean

### 2023 WGs:

To be decided at the 2023 SCOR Annual Meeting
Process for applying for SCOR affiliation – updated May 2023

• “Affiliation”:
  • Not sponsored
  • Benefit from advice, visibility, SCOR network

• Process:
  • A 2-5 page proposal describing the program's science plan, the terms of reference, current steering committee membership, and rotation procedures and schedule
  • Annual reporting and renewal

• Qualities:
  • aligns with SCOR’s mission
  • scientifically well-integrated theme
  • truly international, with a scientific steering committee membership that rotates regularly

Full procedures: https://scor-int.org/scor/affiliated-projects/
The SCOR community - updates
SCOR active community: 2023

668 People from 61 Countries

Bargraph?
SCOR leadership community: 2023

38 women
40 men
Executive Committee 2022-2024

President: Sinjae Yoo (Korea)
Past-President: Marie-A. Sicre (France)
Secretary: Peter Croot (Ireland)

The Vice-Presidents
Stefano Aliani (Italy)
Ilka Peeken (Germany)
Brad Moran (USA)

Secretariat:
- Executive Director (2023-): Emily Twigg
- Executive Director (2020-2023): Patricia Miloslavich
- Financial Consultant: Ed Urban

Capacity Development Committee
Chair: Rebecca Zitoun (Germany)
- Sanae Chiba (Canada)
- Mauro Cirano (Brazil)
- Ntahondi Nyandwi (Tanzania)
- Moagabo Ragoasha (South Africa)
- Viena Puigcorbé (Spain)
- Rui Seabra (Portugal)
- Paula Sierra (Colombia)
- Jennifer Verduin (Australia)
- Sun Xiaoxia (China-Beijing)
New National Committee Nominated Members

Currently 32 member countries.

Role of nominated members:
- Liaisons between International SCOR and national committees
- Liaisons between International SCOR and dues-paying agencies/organizations
- Lead working group proposal review
- Seek national funding to attend annual SCOR meeting

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<th>National Committee</th>
<th>Updates</th>
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<tr>
<td>Chile</td>
<td>Teniente Matías Sifón Andalaft replaced Harald Urbina Córdova</td>
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<td>Italy</td>
<td>Jacopo Chiggiato was appointed to fill the position left by Annalisa Griffa</td>
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<td>Switzerland</td>
<td>Charlotte Laufkötter replaces Kurt Hanselman</td>
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International recognition and awards

Trevor McDougall (Australia)
Prime Minister’s Prize for Science
Former Executive Committee

Marie-Alexandrine Sicre (France)
2022 Fellow of the International Science Council
Former SCOR President
Current SCOR Past President
SCOR Nominated Member France

Shubha Sathyendranath (UK)
Appointed Member of the Order of the British Empire
Chair of Affiliated Project IOCCG
Updates from the SCOR Working Groups and Projects

Photo: P. Miloslavich
In summary: 18 WGs

- At least 41 online WG meetings (reported)
- 9 in person WG meetings (*)
- All In-Person Meetings included Associate Members
- 6 In-Person Meetings included Early Career Scientists
Meeting organizers should provide SCOR with a budget and meeting documentation (agenda, summary, photo)

✓ Travel funds can be used for Associate members
In summary:

- All projects had their SSC meetings + technical group meetings
- SCOR Executive Director joins SSC meetings when possible online or in person
- (*) in person meetings/conferences/summer schools
SCOR scientific publications (2021-2022)

- Working Groups: 18 (9 included ECS)
- GEOTRACES: 7
- IMBeR: 5
- SOLAS: 1
- COBS: 2
- IQOE: 1
- IIOE-2: 8
- IOCCP: 2
- SOOS: 1
- GlobalHAB: 2
- JCS: 3

**WG 157 MetaZooGene**

Meta-encoding of zooplankton to derive indicators of pelagic ecosystem status

**WG 162 OASIS**

Developing an Observing Air-Sea Interactions Strategy (OASIS) for the global ocean

**JCS**

Article

Thermodynamics of Evaporation from the Ocean Surface

Rainer Feistel and Olaf Hellmuth
Educational materials

WG 161 ReMO Training Course Materials

SCOR WG 161
Respiration in the Mesopelagic Ocean

International training course on Mesopelagic Respiration
Canary Islands, Spain – 21-27 May 2023

Recordings

Lecture 1 – International training course on Respiration in the Mesopelagic Ocean - Introduction (Carol Robinson)
Lecture 2 – Oxygen consumption (Dominique Lefèvre, Matthieu Bressac)
Lecture 3 – Enzymatic approaches to estimate respiration: ETS activity, Enzyme Kinetic Model (EKM), in vivo INT (Javier Aristegui, María F. Monteiro, Natalia Osma, Isabel Securo)
Lecture 4a – Aggregate respiration (Morten Iversen)

GEOTRACES Education Channel
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<th>Projects</th>
<th>SSC renovations / other</th>
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**RESEARCH PROJECTS**

**GEOTRACES**
- Reappointment of Vineet Goswami (India) and Rodrigo Torres (Chile) for a second three-year term (2023-2026).
- Reappointment of Karen Cacciotti as SSC co-chair for a second three-year term (2023-2026).
- Extension of the second term for one additional year (2023) of SSC members Antonio Tovar (Spain), Rob Middag (The Netherlands), Yeala Shaked (Israel), Jay Cullen (Canada) and Marina Kravichishina (Russia).

**SOLAS**
- **New appointees to the SSC for 2023:** Lennart Bach (Australia), Joan Llort (Spain), Andreas Raspotnik (Norway), Nadja Steiner (Canada), Lisan Yu (USA)
- **End of term on SSC in 2022:** Andrew Lenton (Australia), Jun Nishika (Japan), Anna Rutgersson (Sweden), Erik Van Doorn (Germany), Guiling Zhang (China)
- **Formation of Early Career Scientist Committee January 2023:** 16 members

**IMBeR**
- **Grand Challenge I Wen-Chou Chou**
- **Grand Challenge II Jess Melbourne-Thomas**
- **Grand Challenge III Marta Ballesteros**
- **Innovation Challenge 4 Ron Vave**
- **Innovation Challenge 5 Rowan Trebilco**
- **Call for new IPO host**

**IQOE**
- **IQOE Task Team on Low-Cost Hydrophones for Research, Education, and Citizen Science:** Xavier Mouy, Artash Nath, Sophie Nedelec, Tess Gridley, Walter Zimmer, Mihai Burca

**IIoE-2**

**INFRASTRUCTURAL PROJECTS**

**COBS**
- Sam Dupont (Sweden) replaced Phil Boyd (Australia) as co-chair.

**GlobalHAB**
- Yes

**IOCCP**

**SOOS**
- Yes
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<td>Mardones (Chile), Silvia M. Nascimento (Brazil)</td>
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<td>IOCCP</td>
<td>No revisions</td>
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<td>SOOS</td>
<td>ExComm revision In progress</td>
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<td>Appointment of Nicole Hill (Australia) and Mohamed Adjou (France) to SSC</td>
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<td>JCS</td>
<td>Vice chair position remains vacant</td>
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SCOR-UN Ocean Decade: endorsed projects and contributions

- **SCOR WG 162 OASIS – UN Ocean Decade Endorsed Project**
  Aimed at developing an Observing Air-Sea Interactions Strategy

- **SCOR Research Project GEOTRACES – UN Ocean Decade Contribution**
  Focused on marine biogeochemical cycles and distribution of trace elements and their isotopes

- **SCOR WG 159 DeepSeaDecade**
  Aimed at developing a global plan for survey/sampling deep-sea ecosystems to underpin deep-sea research is a key contributor to the UN Ocean Decade endorsed programme Challenger 150 – A Decade to Study Deep-Sea Life

- **SCOR Infrastructural Project IOCCP – International Ocean Carbon Coordination Project**
  Key contributor to five UN Ocean Decade endorsed programmes related to ocean observations, oxygen and acidification (e.g. Global Ocean Oxygen Decade, Ocean Acidification Research for Sustainability)

- **Southern Ocean Action Plan for the Decade**
  An initial roadmap to strengthen links between science, industry and policy, and encourage internationally collaborative activities to address existing knowledge and data gaps.

- **IMBeR ClimEco 7 (2021) – UN Ocean Decade endorsed activity**
  IMBeR Climate and Ecosystems Summer School

- **SCOR WG #157 MetaZooGene – an endorsed action attached to the Marine Life 2030 UN Ocean Decade project**
  Metabarcoding zooplankton diversity

- **SCOR projects IMBeR and SOLAS – contributing to Ocean Negative Carbon Emissions (ONCE) UN Ocean Decade Project**
  Co-chaired by Carol Robinson. Other lead partners with IMBeR and SOLAS are ICES, PICES and WCRP.
SCOR-UN Ocean Decade: endorsed projects and contributions

To be proposed or seeking endorsement:

• **SCOR WG 153 FLOTSAM on floating litter** - working together with GOOS, Copernicus and other organisations toward a global observing system for debris (IMDOS) – to be proposed as a UN Ocean Decade programme

• International Indian Ocean Expedition II – *seeking endorsement*

• GlobalHAB is a contributing partner to the proposed UN Decade Action, the Harmful Algal Bloom Solutions (HAB-S) Programme
SCOR funding
SCOR Finances - Highlights

- **Dues income** from memberships has surpassed expected budget based on back dues payments – membership fees cover the costs of the Secretariat, annual SCOR meetings, some WG activities, and some projects and capacity development.

- **NSF Science Grant**: SCOR depends on grant funding for large-scale research projects, ocean carbon activities, and some working groups.

- SCOR currently has 2 overlapping Science grants from NSF—one on a second year “no cost extension” in order to spend unspent travel funds from COVID restrictions, and the other in its final year.

- **NSF Capacity Development Grant**: SCOR is in a “no cost extension” year for the Capacity Development grant from NSF. A new proposal has been submitted with an expected start of 1 January 2024.

- **2022 audit** – found no issues
SCOR National Committees
SCOR visibility

Photo: Eduardo Klein
SCOR outreach resources

SCOR Videos
Full: https://www.youtube.com/watch?v=pRVM0x_d0tA
Short: https://www.youtube.com/watch?v=HxCzYjP6AuQ


Social presence: Share SCOR Opportunities and Amplify News from WGs, Projects, Partners, Members

Email: 3 Newsletters/year + news

Website: +2000 visits and +4000 views / month
https://scor-int.org/

X (Twitter): @SCOR_Int  ~1,150 followers
NEW:
SCOR Community in Zenodo

SCOR Proceeding in AquaDocs

SCOR Community in Ocean
Best Practices Repository

SCOR: Scientific Committee on Ocean Research
Use of SCOR Booth by WGs and Projects

Advertise your presence at OSM in SCOR newsletter
Thanks!

https://scor-int.org/