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

180+ Currently 19

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

Indian Ocean processes and its role in the Earth System

Ocean soundscapes and effects of sound on marine organisms

INFRASTRUCTURAL PROJECTS

Capacity Development

Visiting Scholars Fellowships Travel support

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

Biological oceanography

Financialoceanography

Chemical oceanography
- WG-143: N2O&CH4 (2013)
  Dissolved N2O and CH4 measurements: towards a global network of ocean time series
- WG-145: MARCHEMSPEC (2014)
  Modelling Chemical Speciation in Seawater to Meet 21st Century Needs
- WG-151: FeMIP (2016)
  Iron Model Intercomparison Project

Biological oceanography
- WG-154: P-OBS (2017)
  Integration of Plankton-Observing Sensor Systems to Existing Global Sampling Programs
  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
  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-159: DeepSeaDecade (2019)
  Roadmap for a Standardised Global Approach to Deep-Sea Biology for the Decade of Ocean Science for Sustainable Development
- WG-164: CoNCENSUS (2021)
  Advancing standardisation of COnsideration, DEnomination and Nomenclature of Coastal and Marine Metazoan taxa
- WG-165: MixONET (2021)
  Mixotrophy in the Oceans – Novel Experimental designs and Tools for a new trophic paradigm

2022 WGs:
To be decided at the 2022 SCOR Annual Meeting
The SCOR community - updates
SCOR active community: 2021-2022

Countries: 59
People: 628
Working Groups: 19
Projects: 10
WG scientists: 359
Project scientists: 200
Scientists since 1957: 2800
SCOR leadership community: 2021-2022

The diagram shows the number of participants from various countries, with a focus on regions such as Africa, Americas, Asia, Europe, and Oceania. The map indicates the distribution of these participants across the globe, with a color gradient representing the number of SCOR Chair Persons. Kenya, South Africa, Argentina, Canada, Chile, Peru, United States, China, India, Japan, France, Germany, Italy, Netherlands, Norway, Portugal, Spain, Sweden, United Kingdom, Australia, and New Zealand are listed with corresponding bar lengths indicating their participation levels.
Executive Committee 2020-2022

President: Sinjae Yoo (Korea)
Past-President: Marie-A. Sicre (France)
Secretary: Paul Myers (Canada)

The Vice-Presidents
- Stefano Aliani (Italy)
- Jing Zhang (Japan)
- Brad Moran (USA)

The scientific organizations – Ex-officio
- Enrique Montes (USA, IABO)
- Joyce Penner (USA, IAMAS)
- Trevor McDougall (Australia, IAPSO)

The co-opted members
- Charlotte Laufkoetter (Switzerland)
- Jacqueline Uku (Kenya)

Nominated Members:
33 Member countries
1-3 Nominated Members / country: 90 nominated members

Capacity Development Committee (2021-2023)
Chair: Claudia Benitez-Nelson (USA) (*)
- Sanae Chiba (Canada/PICES)
- Vanessa Hatje (Brazil) (*)
- Ntahondi Nyandwi (Tanzania)
- Rui Seabra (Portugal)
- Paula Sierra (Colombia)
- Jennifer Verduin (Australia)
- Sun Xiaoxia (China-Beijing)
- Rebecca Zitoun (The Netherlands)

Secretariat:
Patricia Miloslavich – Executive Director
Ed Urban – Financial Advisor
## Changes in National Committees and Nominated Members

<table>
<thead>
<tr>
<th>National Committee</th>
<th>Updates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>Mauricio Mata and José María Domínguez stepped down, replaced by Leticia Cotrim da Cunha and José Henrique Muelbert</td>
</tr>
<tr>
<td>Canada</td>
<td>Robie Macdonald passed away</td>
</tr>
<tr>
<td>Chile</td>
<td>Patricio Carrasco and Carlos Zuñiga stepped down, replaced by Arturo Oxley Lizana and Harald Urbina Córdova</td>
</tr>
<tr>
<td>Finland</td>
<td>Jorma Kuparinen and Riitta Autio retired, replaced by Petteri Uotila and Eeva Eronen-Rasimus</td>
</tr>
<tr>
<td>Israel</td>
<td>Amatzia Genin stepped down, replaced by Sigal Abramovich</td>
</tr>
<tr>
<td>Portugal (new member)</td>
<td>Fátima Abrantes, Ana Hilário, and Catarina Duarte appointed</td>
</tr>
</tbody>
</table>
| UK                 | Rosalind (Ros) Rickeby stepped down  
The Committee has new Terms of Reference – e.g. inclusion of include Early Career Scientists |
International recognition and awards

Marie A. Sicre (France)
Emile Girardeau 2022 of the Académie de Marine
Former SCOR President
Current SCOR Past-President
SCOR Nominated Member France

Frank Muller-Karger (USA)
2021 William T. Pecora Award
Former IMBeR SSC
Member WGs #154 and #158

Vanessa Hatje (Brazil)
2022 Paul Gast Lecturer
Member of the SCOR Capacity Development Committee
Former GEOTRACES SSC
Member WG #145

Lynne Shannon (South Africa)
2022 Gilchrist Memorial Award
IMBeR SSC member
Member WGs #119 and #155
Member IMBeR Review Panel
Updates from the SCOR Working Groups and Projects
In summary:

- 62 online WG meetings
- 7 in person WG meetings (*)
- 12 of the 19 WGs met virtually, 7 in person
- 7 meetings reported participation of Early Career Scientists
- N= 100+ ECS participated in WG meetings
In summary:

- All projects had their SSC meetings + technical group meetings
- SCOR Executive Director attended most project SSC meetings
- (*): in person meetings
SCOR scientific publications (2021-2022)

<table>
<thead>
<tr>
<th>Class</th>
<th>2021-2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working Groups</td>
<td>32 (15 in 2022)</td>
</tr>
<tr>
<td>GEOTRACES</td>
<td>534</td>
</tr>
<tr>
<td>IMBeR</td>
<td>96</td>
</tr>
<tr>
<td>SOLAS</td>
<td>316</td>
</tr>
<tr>
<td>COBS - multistressors</td>
<td>3</td>
</tr>
<tr>
<td>IIOE-2</td>
<td>8</td>
</tr>
<tr>
<td>IOCCP</td>
<td>2</td>
</tr>
<tr>
<td>SOOS</td>
<td>1</td>
</tr>
<tr>
<td>GlobalHAB</td>
<td>1</td>
</tr>
<tr>
<td>JCS - seawater</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>999</strong></td>
</tr>
</tbody>
</table>

At least 5 of the 15WG publications in 2022 were co-authored by Early Career Scientists

https://scor-int.org/work/publications/
### Projects

#### RESEARCH PROJECTS

<table>
<thead>
<tr>
<th>Project</th>
<th>SSC renovations / other</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GEOTRACES</strong></td>
<td>Taryn Noble replaced Zanna Chase for Australia, Walter Geibert replaced Eric Achterberg for Germany, and Jessica Fitzsimmons replaced Adrian Burd for the USA. Alessandro Tagliabue replaced Tina van de Flierdt for UK.</td>
</tr>
</tbody>
</table>
| **SOLAS** | No renovation of SSC in 2022 (it was renovated in 2021)
Mid term review by SCOR and other sponsors was completed |
| **IMBeR** | Diana Ruiz Pino (France / Colombia) was appointed chair to replace Carol Robinson (UK)
Mid term review by SCOR and Future Earth was completed |
| **IQOE** | Peter Tyack (USA) reappointed as co-chair and Steve Simpson (UK) appointed as co-chair. Other SC appointments include Karolin Thomisch (Germany) to replace Olaf Boebel (Germany), Carrie Wall Bell (USA) to replace Robert McCauley (Australia), Bruce Martin (Canada) to replace Jennifer Miksis-Olds (USA), Lisa Doksaeter Sivle (Norway) to replace Hanne Sagen (Norway), Miles Parsons (Australia) to replace Steve Simpson (USA), Tess Gridley (South Africa) to replace Jakob Tougaard (Denmark), and Filipa Samarra (Iceland) to replace Alexander Vedenev (Russia). Re-appointment of Christ de Jong (Netherlands) for another period. Terms of Reference for Working Groups were revised |
| **IIoE-2** | Srinivas Kumar (India, IOGOOS) replaced Satheesh Shenoi (India) as co-chair |

#### INFRASTRUCTURAL PROJECTS

<table>
<thead>
<tr>
<th>Project</th>
<th>SSC renovations / other</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COBS</strong></td>
<td>No renovation of SSC in 2022 (it was established in 2021)</td>
</tr>
<tr>
<td><strong>GlobalHAB</strong></td>
<td>Heather Raymond (USA) and Malin Olofsson (Sweden) appointed to the SSC, Tim Davis (USA) has stepped down</td>
</tr>
<tr>
<td><strong>IOCCP</strong></td>
<td>No renovation of SSG in 2022 (it was renovated in 2021)</td>
</tr>
<tr>
<td><strong>SOOS</strong></td>
<td>Vice-Chair Sian Henley (UK) appointed Co-Chair, Irene Schloss (Argentina) appointed Vice-Chair, Veronica Tamsitt (USA) and Craig Stevens (New Zealand) appointed to the SSC. Co-chair Mike Williams (New Zealand) stepped down. SCOR/SCAR review of Science and Implementation Plan 2021-2025 approved</td>
</tr>
<tr>
<td><strong>JCS</strong></td>
<td>Rainer Feistel has stepped down as Vice-chair, this position is temporarily vacant</td>
</tr>
</tbody>
</table>
SCOR and Future Earth review of IMBeR and SOLAS

**Goal:**
Evaluate the project’s major accomplishments and products, learn about the completion plans for the next phase and recommend areas for improvement.

**Review Timeline**

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recruitment/appointment RP</td>
<td>Jan-Feb 2021</td>
</tr>
<tr>
<td>RP agrees content of report and informs PROJECT</td>
<td>Mar 2021</td>
</tr>
<tr>
<td>PROJECT prepares report</td>
<td>Apr-May 2021</td>
</tr>
<tr>
<td>RP prepares review report</td>
<td>Jun-Jul 2021</td>
</tr>
<tr>
<td>RP submits review report to SCOR and Future Earth</td>
<td>Aug 2021</td>
</tr>
<tr>
<td>SCOR and Future Earth provide review and recommendations to PROJECT</td>
<td>Sep 2021</td>
</tr>
<tr>
<td>PROJECT discusses recommendations</td>
<td>Sep-Nov 2021</td>
</tr>
<tr>
<td>PROJECT submits response to SCOR and Future Earth</td>
<td>Dec 2021</td>
</tr>
</tbody>
</table>

**Outcomes:**
Both projects have performed satisfactorily and have well articulated their future plans. Minor comments and review recommendations were addressed by the projects in their response to SCOR and Future Earth.

**IMBeR Review Panel:** co-chaired by Stefano Aliani (SCOR) and Anna Zivian (FE)
Approval of IMBeR response to review in February 2022

**SOLAS Review Panel:** co-chaired by Joyce Penner (SCOR) and Tim Jickells (FE)
Approval of SOLAS response to review in April 2022
Newman et al. (+ 60 contributors).
• Articulates the scientific priorities that will be used to focus SOOS efforts over the next five years (2021-2025)
• Emphasis on observational capabilities required to support data collection and delivery, and the implementation objectives and actions that SOOS will support and undertake to achieve these objectives.
• Revised draft of SOOS SIP delivered in May 2022
• Final SOOS SIP approved in June 2022
SCOR internationally
SCOR Secretariat/ED at international meetings

2021

- **October:** SCOR presentation (booth) at the 2nd International Science Council (ISC) assembly
- **November:** SCOR opening the Blue Economy Conference
- **December:** OceanKAN sponsors meeting, meeting with WIOMSA
- **December:** SCOR Secretariat presentation at China SCOR Annual meeting

2022

- **January:** POGO Annual Meeting
- **February:** Ocean Science meeting – SCOR exhibit in virtual booth (videos)
- **February:** ED invited talk at Elgin High School Illinois (NBTI 2022 Seminar series)
- **March:** meeting with PICES Executive on SCOR-PICES collaboration
- **April:** Southern Ocean Decade webinar – SCOR a contributor
- **June:** SCOR presentation at NIO Oceans Day (Pakistan)
- **June:** SCOR at IOC EC55 (Statements for Agenda items 3.5.2 on the status of IOCINDIO, and 4.1. on the UN Decade of Ocean Science for Sustainable Development)
- **June:** SCOR at UN Ocean Conference (Lisbon, Portugal) – plenary and side events
- **June:** SCOR ED invited to dialogue with the President of the General Assembly, Abdulla Shahid
- **June:** signed MoU with ICES con scientific collaboration
- **July:** SCOR presentation at Incheon International Ocean Forum (IIOF2022), Korea
- **August:** meeting with World Ocean Summit representative
- **September:** SCOR invited speaker at MER Community Summit (Bilbao, Spain)
- **October:** SCOR presentations at PICES meeting events
- **October:** SCOR invited speaker at 9th Future Ocean Scientists Workshop, Busan, Korea
SCOR-UN Ocean Conference (Lisbon, 27 June – 1 July 2022)

Dialogue with the President of the 76th Session of the UN General Assembly (UNGA76), Abdulla Shahid

https://youtu.be/E0nJlXWvPTo

https://www.youtube.com/watch?v=UoqDN7izxHw

https://www.youtube.com/watch?v=hvKsrQpvPW0
Dialogue with the President of the 76th Session of the UN General Assembly (UNGA76), Abdulla Shahid

Jason Momoa, “Aquaman”, the UN Environment Programme’s (UNEP) Advocate for Life Below Water SDG

https://www.youtube.com/watch?v=UoqDN7izxHw

https://www.youtube.com/watch?v=hvKsrQpvPW0

https://www.youtube.com/watch?v=E0nJlXWvPTo
Other side events with SCOR participation:

• Addressing marine plastic pollution: How international cooperation and partnerships across science & technology can build capacities and lead to systems innovation – WG #153 FLOTSAM

• Marine life observations: Integrating biology and ecology observations to enable indicators for conservation, restoration, and sustainable development of marine and coastal ecosystems – Marine Life 2030 (WG #154 P-OBS and WG #158 C-GRASS)

• Our Changing Ocean: Navigating Observations and Building Research-Driven Solutions – WG #162 OASIS

• Integrating Marine Litter Monitoring to Inform Action – WG #153 FLOTSAM

• Future Earth’s marine networks: a trans- and interdisciplinary scientific community working toward the achievement of the SDGs – SOLAS SSC

• Ocean Negative Carbon Emission and Sustainable Development – IMBeR SSC
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.
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*

Full list of endorsed UN Ocean Decade programmes and contributions at:
https://www.oceandecade.org/resource/166/Announcement-of-the-results-of-the-first-endorsed-Decade-Actions-following-Call-for-Decade-Actions-No-012020

SCOR is co-leading the International Year of Basic Sciences for Sustainable Development 2022 -
SCOR Finances

- Dues income from memberships is on ~85% – membership fees cover the costs of the Secretariat, annual SCOR meetings and some WG activities.
- SCOR depends on grant funding for large-scale research projects, ocean carbon activities, and some working groups.
- SCOR is currently on a ‘no cost” extension for an NSF three-year grant and on the first year of another three-year grant to fund scientific activities.
- SCOR provided the final report for an NSF three-year grant and is currently on the second year of another three-year grant to support capacity development in ocean sciences.
- 2021 audit in course – expect it to find no issues and for the financial statement disclosures to be neutral, consistent, and clear” and “in accordance with accounting principles generally accepted in the USA”
- Due to the COVID 19 situation, the 2022 budget was underspent
SCOR visibility
SCOR outreach resources

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


Social presence

**Website:** +2000 visits and +4000 views / month

https://scor-int.org/

**Email:** 3 Newsletters/year + news

**Twitter:** ~1100 followers

Facebook group: ~2.0 K members
SCOR Proceedings in AquaDocs

SCOR Proceedings 2022:
https://aquadocs.org/handle/1834/42157
Other activities of the SCOR Executive Director

• **Coauthored publications**
- Chapter: Marine Invertebrates. In: The Living Planet: The state of the World’s Wildlife
- Chapter: Developing capacity for ocean science and technology. In: Blue Economy - An Ocean Science Perspective
- Southern Ocean Action Plan for the Decade
- Two journal publications in 2021 (Marine Policy; Ocean & Coastal Management)

• **Advisory boards / Committees / Reviewer**
  2020-2023: Connections to Sustain Science in Latin America (NASEM/ACAL) – supported by the Lounsbery Foundation
  2021: Advisory Board – reviewer of the 1st Interim Report of the Nautilus
  2022: Advisory Committee – Planning an Ocean Sound Decade – supported by the Lounsbery Foundation and coordinated by the Consortium for Ocean Leadership

• **Interviews**
- MARIPOLDATA project: oral history interviews (x3) – The Politics of Marine Biodiversity Data: Global and National Policies and Practices of Monitoring the Oceans. An ERC Project. Principal Investigator Dr. Alice Vadrot, University of Vienna.
- MONGABAY LATAM - with Yvette Sierra Praeli (Peru) on occasion of the World Environment Day
Thanks!

https://scor-int.org/