

# The Scientific Committee on Oceanic Research (SCOR) UN Ocean Decade Activities

US National Committee for the UN Ocean Decade Meeting 8 October 2025



**Emily Twigg, Executive Director** 

# Developing capacity and advancing ocean sciences through <u>international</u> <u>cooperation</u> since 1957



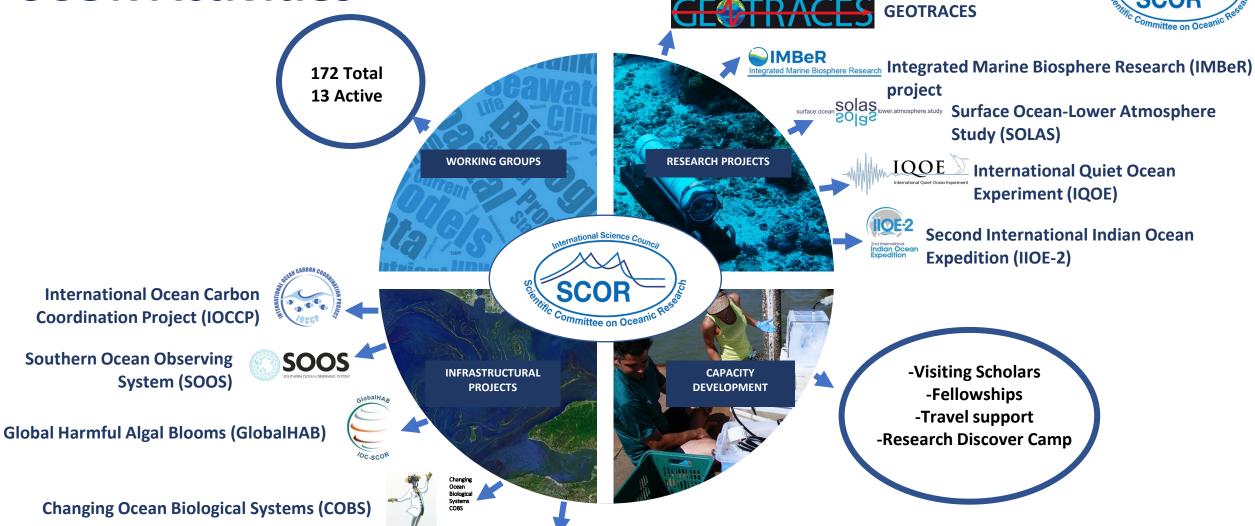
#### **Mission**

- Address global and interdisciplinary ocean issues
- Plan and facilitate research working groups and projects
- Solve methodological and conceptual problems
- **Develop capacity** visiting scholars, fellowships, travel support
- Encourage and support involvement of **students** and **early-career** scientists

- Non-governmental, non-profit organization
- Established in 1957 under the International Council for Scientific Unions, now the International Science Council
- Funded by membership contributions of national SCOR committees and from national and international agencies and organizations, including host institutions for the project IPOs.

# **SCOR Activities**





Joint Committee on Seawater (JCS)





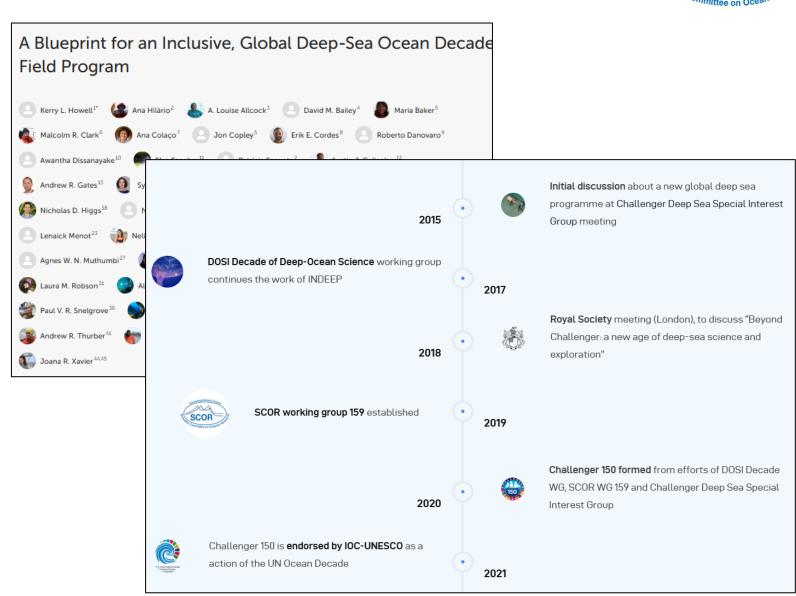
## **SCOR-UN Ocean Decade: Endorsed Programmes**



WG 159 DeepSeaDecade: Roadmap for a Standardised Global Approach to Deep-Sea Biology for the Decade of Ocean Science for Sustainable Development.

- Contributed to the planning stage& served as initial steering committee for UN Ocean Decade Endorsed Programme Challenger 150.
- Concluded as a SCOR WG in 2023.

A global plan, standards, and network for survey/sampling deepsea ecosystems to underpin deepsea research.



## **SCOR-UN Ocean Decade: Endorsed Programmes**



WG 162 OASIS Developing an Observing Air-Sea Interactions Strategy (Concluded as a SCOR WG March 2025)

Initiated and sought endorsement as a SCOR working group.

Developed a unified Observing Air-Sea Interaction Strategy and community harmonized from OceanObs'19

white papers.

# Developing an Observing Air–Sea Interactions Strategy (OASIS) for the global ocean 3

M F Cronin ➡, S Swart, C A Marandino, C Anderson, P Browne, S Chen, W R Joubert, U Schuster, R Venkatesan, C I Addey ... Show more

Author Notos



COHORT 1

#### A Global Network of Surface Platforms for the Observing Air-Sea Interactions Strategy (OASIS)

Authors: Jaime Palter and Megan Cronin

Air-Sea exchanges of energy, moisture, and gases drive the earth's climate. These interactions influence weather, carbon dioxide distribution, marine life, and human life. OASIS seeks to create a coordinated, multidisciplinary network to observe ocean-atmosphere exchange.

WATCH THE PRESENTATION  $\rightarrow$ 

**COHORT 1** 

#### Super Sites for Advancing Understanding of the Oceanic and Atmospheric Boundary Layers

Authors: Carol Anne Clayson, Santha Akella, Stace Beaulieu, Alex Bocconcelli, Bia Villas Boas, Mark Bourassa, Luca Centurioni, Meghan Cronin, James Edson, Chris Fairall, Tom Farrar, Sarah Gille, Juliet Hermes, Seiji Kato, Matthew Mazloff, Frank Muller-Karger, Tony Lee, Christa Marandino, Jaime Palter, Rhys Parfitt, Nadia Pinardi, Laura Riihimaki, Chris Sabine, Hyodae Seo, Shawn Smith, Paul Stackhouse, Adrienne Sutton, Sebastiaan Swart, Elizabeth Thompson, Hiroyuki Tomita, John Toole, Doug Vandemark, Weidong Yu, Christopher Zappa, Chidong Zhang, Dongxiao Zhang, Seth Zippel

We propose the concept of "Super Sites" to provide multi-year suites of measurements at specific locations to simultaneously characterize physical and biogeochemical processes within the coupled boundary layers at high spatial and temporal resolution. Measurements will be made from floating platforms, buoys, towers, and autonomous vehicles, utilizing both in situ and remote sensors.

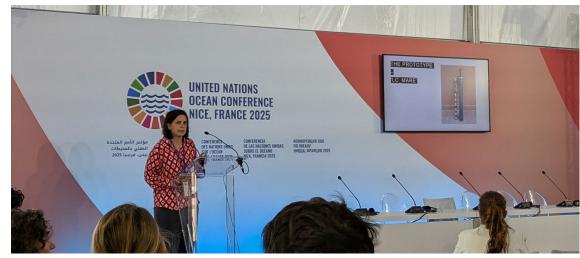
DOWNLOAD (PPTX, 24.9 MB) -

#### **SCOR-UN Ocean Decade: Endorsed Projects**

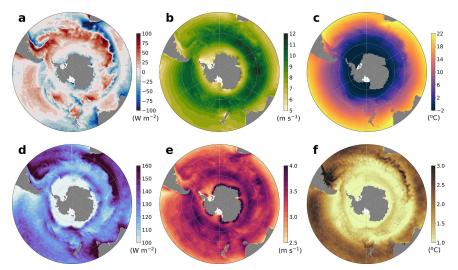


IQOE Low-Cost Hydrophone Task Group — UN Ocean
Decade Endorsed Project hosted under the Ocean
Decade Research Programme on the Maritime Acoustic
Environment

Advancing marine bioacoustics through affordable technology



Lucille Chapuis @ UN Ocean Conference



SOOS Southern Ocean Flux Capability Working Group (SOFLUX) — UN Ocean Decade Endorsed Project hosted under the UN Ocean Decade Endorsed Programme OASIS Facilitates the implementation of an observing system of EOVs to investigate change in Southern Ocean air-sea fluxes

Patterns of air—sea heat flux, wind speed, and sea surface temperature. From Prend et al. (2025) Observing system requirements for measuring high-frequency air—sea fluxes in the Southern Ocean

## **SCOR-UN Ocean Decade: Endorsed Projects**

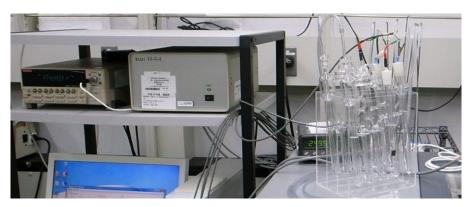


WG 145 Modelling Chemical Speciation in Seawater to Meet 21st Century Needs (MarChemSpec) (Disbanded as a WG in 2022) → JCS Chemical Speciation Taskgroup – UN Ocean Decade Endorsed Project hosted under the OARS Programme Provision of state-of-the-art, user-friendly software for chemical speciation calculations

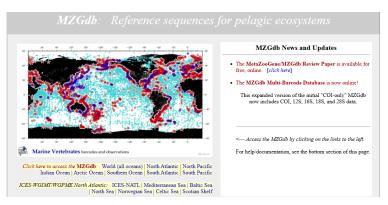
WG 157 Toward a new global view of marine zooplankton biodiversity based on DNA metabarcoding and reference DNA sequence databases (MetaZooGene) (Disbanded as SCOR WG in 2024) – UN Ocean Decade Endorsed Project hosted under the Marine Life 2030 Programme

Metabarcoding zooplankton diversity

WG 169 Global Library of Underwater Biological Sounds (GLUBS) (also an IQOE activity) — UN Decade Endorsed Project hosted under the Ocean Decade Research Programme on the Maritime Acoustic Environment Open-access platforms to assist in analysis of passive acoustic monitoring data



**MarChemSpec** 





MetaZooGene Atlas & Database

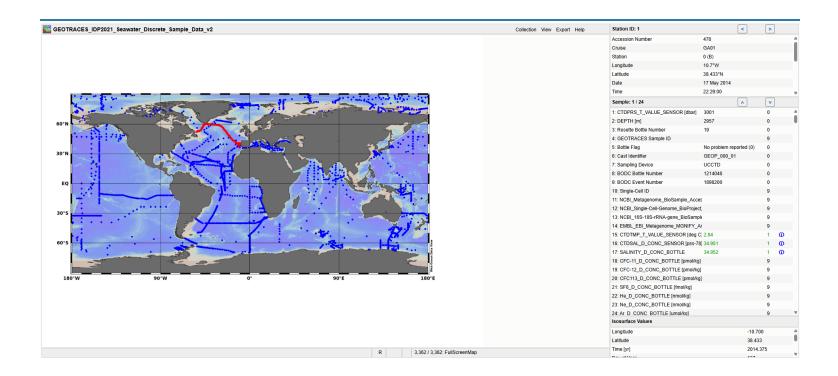
**GLUBS @ UN Ocean Decade Conference** 

#### **SCOR-UN Ocean Decade: Endorsed Contribution**



<u>GEOTRACES</u> – UN Ocean Decade Contribution to the Decade Coordination Office for Ocean Data Sharing

Developing a global dataset on marine biogeochemical cycles and distribution of trace elements and their isotopes



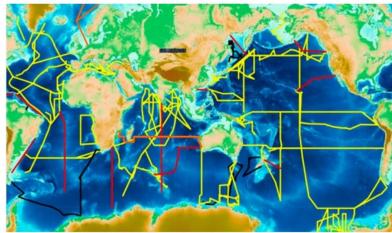


Figure 1. Status of GEOTRACES global survey of trace elements and their isotopes. In black: Sections completed as the GEOTRACES contribution to the International Polar Year. In yellow: Sections completed a part of the primary GEOTRACES global survey. In orange: Sections completed during the past year. In red: Planned Sections. An interactive cruise map is available at the following website: <a href="https://www.bodc.ac.uk/qeotraces/cruises/section\_maps/interactive\_map/">https://www.bodc.ac.uk/qeotraces/cruises/section\_maps/interactive\_map/</a>



## **SCOR-UN Ocean Decade: Endorsed Activities (Events)**



#### **Summer Schools**





#### **Conferences**







#### **SCOR-UN Ocean Decade: Partnering Organizations**



**Southern Ocean Observing System (SOOS),** as Member of the Southern Ocean Task Force:

Contributed to the Southern Ocean Action Plan 2021-2030

An initial roadmap to strengthen links between science, industry and policy, and encourage internationally collaborative activities to address existing knowledge and data gaps

Contributes to the <u>Decade Collaborative Centre for the Southern Ocean Region</u>
 Coordinates international efforts to protect and conserve the Southern Ocean.

#### Also,

Contributes to UN Ocean Decade Endorsed Programme <u>Antarctica InSync</u>
 Addresses the need for large, collaborative and synchronous observation across the Antarctic ocean, land and atmosphere

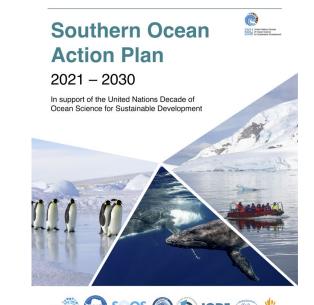
#### Lead institution:

Alfred Wegener Institute, Helmholtz Center for Polar and Marine Research – Germany

Antarctica International Science & Infrastructure for Synchronous Observation (Antarctica InSync) addresses the need for large, collaborative and synchronous observation, to generate data and knowledge to understand, protect and sustainably manage the Southern Ocean and Antarctica including ocean, land and atmosphere.

Institutions operating polar infrastructure assembled in COMNAP will be asked to coordinate actions to the programme. The preparatory phase will happen in 2024-2026, establishing alliances, working groups with stakeholders, logistic teams and a framework of collaboration including FAIR data management. The implementation phase with fieldwork and synthesis will be in 2027-2030.

Through community activities, SOOS, SCOR and SCAR have already described many key challenges, questions and needs for research to decipher the drivers, impacts and feedback mechanisms of this key region with the global ocean.









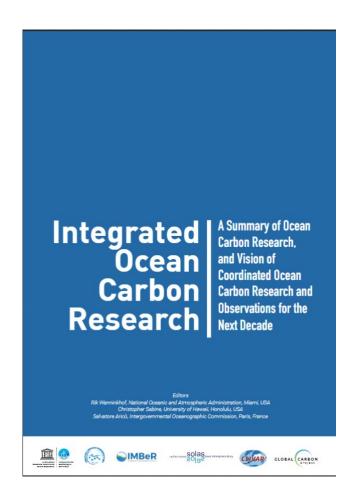






#### **SCOR-UN Ocean Decade: Other Contributions**







#### **SCOR-UN Ocean Decade: Engaging with ECOPs**













ECOP Programme webinar series

Episode 21:

Capacity Development Opportunities for ECOPs with POGO and SCOR

Join us to explore how Early Career Ocean Professionals can connect with **SCOR** and **POGO**—two leading organizations advancing international collaboration in ocean science and observation.

Discover how they support global research, foster capacity building, and create exciting opportunities for ECOPs to get involved and make an impact.

Wednesday, 23 April 15:00 CEST / 13:00 UTC Register here:

https://tinyurl.com/webinar-21

**Webinar link** 



# SCOR Survey for Early-Career Scientists

Provide your input:

Improve SCOR's reach to early-career ocean scientists.

Define SCOR's role in encouraging early-career scientist career development.





https://www.surveymonkey.com/r/SCOR-ECOP

# **Thank You!**





https://scor-int.org/ secretariat@scor-int.org