

SCOR (Scientific Committee on Oceanic Research)

Report of activities - Year 2022

Stefano Aliani - Vice President and National Delegate

Introduction

SCOR (Scientific Committee for Oceanic Research) was established by the ICSU (International Council for Science) to contribute to the advancement of scientific issues related to the ocean. SCOR activities are aimed at identifying the most relevant scientific topics and key challenges for ocean research, promoting international cooperation to address them. Particular attention is given to activities that help promote ocean sciences in developing countries.

Italy is normally represented within SCOR by a Representative and an alternate (Alternate Delegate) and since 2020 it has been represented in the Executive Committee (EC) of SCOR by the Vice President Stefano Aliani. In September 2022, the CNR renewed the nominations for the General Assembly and Stefano Aliani was appointed Italian Representative, while Jacopo Chiggiato was appointed Alternate Representative.

During the year 2022 Stefano Aliani contributed to SCOR activities within the Annual Assembly as alternate national delegate and as Vice President within the SCOR Executive Committee.

2. Significant activities for Italy and for the CNR carried out in 2022 by SCOR

In 2022 SCOR carried out various activities as required by the Articles of Association and by the program approved the previous year.

Also, in 2022 SCOR has banned the call for Working Groups (WGs) dedicated to emerging fundamental themes to address the major problems of marine sciences with a global approach and to support the foundations and networks of collaborations necessary to develop projects and shared activities also in the field national or local.

In the spring of 2022, a total of 7 WG SCOR proposals were received from the scientific community and each of them was subjected to the normal evaluation procedure foreseen. The evaluation process consists of a preparatory phase at national level managed by the SCOR member with the support of the National Commissions and national researchers of clear fame and high scientific profile. In the final phase, the results of the national evaluations are discussed collectively during the Annual Meeting of the National Representatives.

In 2022, SCOR has also supported Capacity Building projects, which include programs for Visiting Scholars in Institutions from developing countries and POGO-SCOR fellowships.

Furthermore, SCOR has continued various initiatives in support of ECSs (Early Career Scientists) to also allow young people to contribute to the promotion of international cooperation. SCOR has also supported numerous IOC-UNESCO activities, such as meetings, symposiums, and training courses aimed at best practices and new developments in ocean survey and monitoring methods.

3.1 Activities carried out in 2022 as National Representative within the SCOR

The National Representatives meeting was held in Busan (S. Korea) from 3 to 7 October 2022 and was coordinated by Sinjae Yoo (SCOR President) with the support of Patricia Miloslavich (Executive Director).

After the introduction and a brief ad memoriam of some colleagues who passed away in 2022, the chairman reports to the assembly what was discussed in the meeting of the executive committee. This is followed by the presentation of the results of the voting of the new SCOR officers and a brief note on the financial situation.

Subsequently, all the proposals received during 2022 were discussed and evaluated. A ranking of scientific relevance was created based on the discussion between the various national representatives.

The proposals discussed were: Towards best practices for Measuring and Archiving Stable Isotopes in Seawater (MASIS); Developing resources for the study of Methylated Sulfur compound cycling PROCesses in the ocean (DMS-PRO); Foraminifera in Extreme and Rapidly Changing Environments (FIERCE); Reducing Uncertainty in Soluble aerosol Trace Element Deposition (RUSTED); DEveloping Repositories for carbon FLUX quantification: Th-234 as a case study (DEPOFLUX); DYNamic Approaches for assessing Marine biota responses to fluctuating Oceans (DYNAMO); Impact of biotoxins on marine apex predators in Upwelling Systems (ToxMAP).

The RUSTED and DMS-PRO proposals were considered for funding.

Subsequently, the annual reports of the organizations receiving support from SCOR were evaluated, including IABO – Biological Oceanography, IAPSO Physical Oceanography, IAMAS – Meteorology and Atmosphere, IOC – Intergovernmental Oceanographic Commission, POGO – Partnership for Observation of the Global Ocean.

The reports of the affiliated projects IOCCG – Ocean colour, InterRidge studies PICES - North Pacific Marine Science Organization, GESAMP – Group on marine environmental protection, ISC – International Science Council, SCAR – Scientific Committee Antarctic Research, Future Earth-Ocean/ OceanKAN, WCRP / CLIVAR – World Climate Research Program.

Finally, the annual reports of the already approved and ongoing WGs were evaluated. We note the participation of the Italian researcher Laura Ghigliotti (CNR) in the ConCENSUS project as Associate Partner. All these activities have provided important opportunities to the Italian oceanographic community and to the CNR.

SCOR activities and information on calls for WGs and Visiting Scientists were disseminated by the National Delegate within the Italian marine scientists network, using email and different web platforms.

Upcoming SCOR meetings for 2023, 2024 and 2025 are confirmed in Ecuador, China and Colombia. SCOR invites proposers to host the 2026 meeting. The period from 16 to 20 October has been proposed for the 2023 meeting.

3.2 Activities carried out in 2022 as Vice President of SCOR

The Executive Committee met on October 3rd and October 7th in Busan (S.Korea). The chairman of the meeting was Sinjae Yoo (SCOR President).

On 7 October the meeting of the national representatives was prepared and on 7 October the works were concluded and the final decisions were approved.

As Vice President Stefano Aliani participated in all the meetings of the Executive Committee of SCOR held online during 2022 and in the two Executive Meetings of 3 and 7 October 2022.

During the EC meeting it was approved that the request for financial contribution of the States and bodies that finance SCOR remains unchanged and the financial and fiscal statement of SCOR was approved.

The economic support to the ongoing WGs has been confirmed, among which OASIS "Developing an Observing Air Sea Interaction Strategy" which has an Italian Full Member, Nadia Pardini (University of Bologna) and to the ConCENSUS project which sees the Italian researcher Laura Ghigliotti (CNR) as Associate Partner.

4 Evaluations on Italian participation with proposals to improve interest and involvement

The advantages of participating in SCOR are above all in terms of international links and information on emerging topics in oceanographic research, but SCOR is above all an opportunity to understand and contribute directly and actively to the major topics of marine research.

The appointment of the SCOR Vice-President is particularly important because it allows the Italian scientific community to be provided with direct contact with the major topics of current and future research. This relationship can be considered two-way as the major issues can be communicated and declined at national level with dedicated actions and at the same time, it allows to represent the topics of national interest in the wider context of international programming.

All these WGs touch on scientific topics of great interest and relevance, which concern monitoring techniques and scientific understanding of mechanisms related to marine biodiversity, the transport of plastics in the ocean or, in the case of the last approved WG, the estimation of fish stocks.

The associated themes and findings have important national implications and provide innovative insight into these very topical issues. Furthermore, the results of the SCOR WGs

represent a prestigious reference providing in many cases tools for the adoption of 'best practices'.

WG 153 coordinated by Stefano Aliani has generated a lot of interest at a scientific and policy makers level.

From the activity of the WG153 coordinated by Italy, an attempt is being made to build a global network for monitoring plastic in the sea that brings together different realities such as Copernicus, MSFD, JAMTEC and NOAA in a harmonious and synergistic framework. A follow up of FLOTSAM within UN OceanDECADE is foreseen to set up an integrated observatory for Marine Litter (IMDOS).

Stefano Aliani participated on behalf of SCOR and ISC in the work of the Intergovernmental Negotiating Committee (INC) on Plastic Pollution held in Punta dell'Este in November 2022.

During the last years, the participation and the role of Italy in the SCOR activities have considerably increased and the Italian representative in the EC has had an active role both in the internal decision-making assemblies of the SCOR and in the relations with the major international programs such as for example GEOTRACES, SOLAS and IMBeR. Currently, the Italian presence in SCOR is quantitatively in line with that of other G7 countries, while it stands out for its coordination roles and for the Vice Presidency.

Several Italian researchers have entered thanks to SCOR in various high-profile scientific networks. In some cases these networks have already evolved into funded projects, in other cases specific proposals are being prepared. For example, Italy through SCOR participates in various actions of the UN Ocean Decade and several European projects have been financed thanks to the SCOR network

One aspect that will need to be further addressed and explored concerns the Italian ECS (Early Career Scientists), to promote information and coordination meetings on SCOR activities and those of other international bodies. In general, the participation of Italian ECSs in the activities of all international networks, including SCOR, is rather modest. However it should be noted that after the networking work within the Italian community it is assumed that at least one other proposal will be submitted in 2023 with the coordination of an Italian ECS.

5 Italian experts with top positions appointed within the Body

The participation of the Italian community in key research topics and funds is mirrored in the active participation in WGs that has been observed in recent years.

In particular, in the last 5 years, WGs with Italian participation have been regularly approved: in 2017, FLOTSAM Italian coordinated project led by Stefano Aliani (CNR):

in 2018 MetaZooGene had Full Member Maria Grazia Mazzochi (Zoological Station)

in 2019 DeepSeaDecade had Full Member Roberto Danovaro (Zoological Station)

in 2020 OASIS had Full Member Nadia Pinaridi (University of Bologna).

In 2022 Laura Ghigliotti (CNR) was Associate Member.

Stefano Aliani is vice president of SCOR, Italian delegate and appointed by SCIR and ISC for participation in the work of the Intergovernmental Negotiating Committee (INC) on Plastic Pollution of UNEP currently being define

7. If Body with National Commission, brief summary of the 2022 activities of the CNR Commission

There is no national commission for SCOR. It is hoped that an Italian working group will be created on SCOR activities which aims to support Italian researchers in the presentation of competitive proposals, possibly in coordination or apical roles, to define strategic actions for the national community of reference and to support with high-level indications outline proposal review activities for future WGs. The delegate made use of the COI for some support activities and of a small group of experts who on a voluntary basis support in the evaluation of the WG proposals. It is hoped that by 2023, thanks also to the collaboration of the substitute member, we will be able to define an Italian working group to support the SCOR WGs.

8. Conclusions

In conclusion, the SCOR activities have given and are giving an important opportunity to the Italian scientific community and the national involvement has grown in recent years due to greater activity within the WGs and for the activities of the Vice-President within the EC. It is hoped that more and more Italian researchers will participate in the WGs in the coming years, perhaps with coordination roles, being able to count on the full support of an Italian Vice President.

Stefano Aliani CNR-ISMAR

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