



International Association
for the Physical Sciences of the Oceans

International Association for the Physical Sciences of the Oceans (IAPSO)

<http://iapso.iugg.org>

INTRODUCTION

IAPSO has the prime goal of ‘promoting the study of scientific problems relating to the oceans and the interactions taking place at the sea floor, coastal, and atmospheric boundaries insofar as such research is conducted by the use of mathematics, physics, and chemistry.’ IAPSO works mainly through 1) biennial scientific assemblies; 2) working groups; 3) commissions; 4) services and 5) website information. Of special importance to IAPSO is the involvement of scientists and students from developing countries in oceanographic activities.

IAPSO maintains formal liaison with other scientific commissions and committees. These include the ISC's Scientific Committee on Oceanic Research (SCOR), and UNESCO's Intergovernmental Oceanographic Commission (IOC).

For more information see <http://iapso.iugg.org/>.

ADMINISTRATION

The IAPSO Bureau was renewed in July 2019 during the IUGG General Assembly in Montreal. It comprises:

President: Trevor McDougall (Australia)
Past President: Denise Smythe-Wright, (UK)
Secretary General: Stefania Sparnocchia (Italy)
Treasurer: Ken Ridgway (Australia)

The Executive Committee comprises the Bureau members and

Vice-Presidents: Agatha de Boer (Sweden)
Hans van Haren (The Netherlands)

Members: Edmo Campos (Brazil)
Juliet Hermes (South Africa)
Yukio Masumoto (Japan)
Jae-Hun Park (Republic of Korea)
Christa von Hildebrandt-Andrade (USA and Puerto Rico)
Peter Zavialov (Russia)

The IAPSO office is located at the Institute of Marine Science of the National Research Council of Italy, Trieste and day-to-day business is managed by Secretary General (SG), Stefania Sparnocchia. The SG is

responsible for the IAPSO website. A page on the Facebook social network is also active with the aim of facilitating the spreading of information in the community (see <https://www.facebook.com/iapso.iugg.org>). Together with the President, the SG also prepares and distributes a bi-annual Newsletter to IAPSO delegates and interested parties.

IAPSO finances are managed by the Australian-based Treasurer, Ken Ridgway.

IAPSO business meetings were conducted in July 2019, during the IUGG General Assembly in Montreal, Canada. These included three meetings of the Executive Committee, on 8, 9 and 14 July, and one General Business meeting also involving National Correspondents or their Delegates on 11 July. No formal business meetings have been arranged for 2018 and any business has been conducted by email where appropriate.

ACTIVITIES

2019 Assembly

The principal activity during 2018 was preparing for the IUGG 2019 General Assembly held in Montreal, Canada, from 8-18 July, 2019. The Secretary General has been active in the planning process and participated in several video conference of the Scientific Programming Committee and attended in-person a meeting in Vienna, Austria, on 8 April, 2018.

The IAPSO scientific sessions were held from 9-14 July and included 11 IAPSO symposia (216 oral presentations and 94 posters) and 5 IAPSO-lead Association Joint symposia (111 oral presentations and 51 posters). IAPSO also co-sponsored 12 Joint symposia led by another Association (189 oral presentations and 104 posters). The program details can be found on the Assembly's website: <http://www.iugg2019montreal.com/p.html>.

At the date of this report the final numbers on participation in the G.A. have not been received, roughly there were about 4000 participants, of which 359 registered as IAPSO. There were many quality presentations and much networking in the corridors.

The IAPSO highlight during the assembly included

- the Union Lecture 'The Ocean's Role in Atmospheric Carbon Dioxide Changes During Ice Age Cycles' given by Prof. Karen Kohfeld (Simon Fraser University, Canada);
- the Prince Albert I, 2019 lecture 'Decadal variability in the ocean CO₂ sink' given by Prof. Corinne Le Quéré (University of East Anglia, United Kingdom), who was awarded the Prince Albert I Medal in connection with the lecture;
- the ECS Medal in Physical Oceanography, 2019 talk 'Overturning variability with observations' given by Gerard McCarthy (Maynooth University, Ireland);
- the ECS Medal in Chemical Oceanography, 2019 talk 'Nitrogen fixation across scales' given by Mar Benavides (Mediterranean Institute of Oceanography, France).

IAPSO also awarded a further medal, the Eugene Lafond Medal, to a developing world scientist who gave a notable paper at an IAPSO sponsored or co-sponsored symposium. Following the procedure, presentations (oral or poster) of self-nominating candidates were attended by a subset of the IAPSO Executive Committee and the Eugene LaFond Medal, 2019 was awarded to Mr. Rohith Balakrishnan, for his oral presentation 'Basin-wide sea level coherency in the tropical Indian Ocean driven by Madden-Julian oscillations' delivered on July 11, 2019 within the IAG-IAPSO joint symposium 'Monitoring Sea Level Changes by Satellite and In-Situ Measurements'.

IAPSO is now organizing the IAPSO-IAMAS-IACS Joint Assembly in Busan, South Korea, from 18-23, July 2021. A first planning meeting was held in Montreal, involving IAPSO, IAMAS and IACS officers. Information about the conference will be posted at www.baco-21.org.

IAPSO Early Career Scientist Working Group

An important initiative during 2018 was the establishment of the IAPSO Early Career Scientist Working Group. As one of the leading international associations in ocean physics and chemistry, IAPSO will provide a significant platform for early career scientists to network and integrate into the scientific community. In November 2017, the President invited expressions of interest in setting up such a network and at the end of January 2018 the Group was established, chaired by Alejandra Sanchez-Franks (United Kingdom) and co-chaired by Malin Ödalen (Sweden).

The first IAPSO ECS networking event was organized on 9 July, 2019, during the IUGG 2019 General Assembly. About 30 young scientists participated. The email address, iapso.ecs@gmail.com, is active to subscribe to the WG.

The Term of References of this group are available on the IAPSO website (<http://iapso.iugg.org/working-groups29.html>).

IAPSO Best Practice Study Groups

IAPSO has sent out a call (in early September 2019) to fund IAPSO Best Practice Study Groups. We expect to fund one of these per year. An IAPSO Best Practice Study Group will address an issue whose resolution will assist in the conduct of oceanographic research. In carrying out oceanographic research, a choice must frequently be made between a few options for measuring data, analysing data, processing software, or modelling a system. The reasons for choosing between competing methods are often not well documented and the relative strengths and weaknesses of these routes are usually not published or well known. Each Best Practice Study Group will receive up to US\$10,000 towards the costs of a meeting.

SCOR Administration

IAPSO has maintained its formal relations with SCOR during the year. The EC members were involved in the evaluation of the 2018 and 2019 Working Group proposals and the Past President, Denise Smythe-Wright participated in the SCOR Annual Meeting in Plymouth, UK, 4-7 September 2018. The new-elected President, Trevor McDougall will attend the 2019 SCOR Annual Meeting in Japan.

IUGG 100 years anniversary

Formed in Brussels (Belgium) on 28 July 1919, the International Union of Geodesy and Geophysics (IUGG) celebrates its 100th anniversary in 2019. At the meeting in Brussels a Section of Physical Oceanography was also formed, which gave birth to the current IAPSO.

To celebrate the centenary of the IUGG and its Associations, various initiatives have been implemented including:

- the implementation of a website that traces the history: <http://100.iugg.org/index.php>;
- the publication of the special issue of History of Geo- and Space Sciences (HGSS), ‘The International Union of Geodesy and Geophysics: from different spheres to a common globe’, https://www.hist-geo-space-sci.net/special_issue996.html, including the paper “IAPSO: tales from the ocean frontier”, <https://www.hist-geo-space-sci.net/10/137/2019/>;
- the event ‘Centennial International Cooperation in Earth and Space Sciences at the UNESCO Headquarters, Paris, FRANCE, 29 July 2019, program: http://100.iugg.org/events/IUGG_program_Paris_Jul_29_2019.pdf.

The Guest of Honour was HMSH Prince Albert II of Monaco and he made reference to the work of his great great grandfather who was the first President of IAPSO and applauded IAPSO's work. In turn Denise Smythe-Wright was able to thank him personally for his support of IAPSO and the IAPSO Prince Albert I medal.

The centennial year marks an important milestone for IUGG. Since its inception as a union of international scientific associations, IUGG has developed into a prominent scientific organizations promoting Earth and space sciences worldwide in the complicated political, economic and scientific landscapes of the 20th and the beginning of the 21st centuries.

IUGG/IAPSO support to scientific meetings

IAPSO endorsed three scientific meetings that were supported by IUGG in 2018:

- The 2nd IndOOS Review Workshop was held in Jakarta, Indonesia from 21-23 March, 2018. The review seeks critical assessment of what is working well and what is not with the present Indian Ocean observing system, and advise on fruitful future directions for IndOOS.
- The International Conference 'Understanding the Problems of Inland Waters: Case Study for the Caspian Basin', held in Baku, Azerbaijan, from 12-14 May 2018. The aim of the conference was to increase the exchange and cooperation between different international organizations and scientific teams ('communities') dealing with studies of the Caspian Sea, Aral Sea, and Urmia and Van lakes.
- The X Jornadas Nacionales de Ciencias del Mar (Conference on Science of Seas), was hosted by the University of Buenos Aires, Argentina, and held from 30 July - 3 August 2018. The main goal of this conference was to create an adequate framework for the exchange of opinions among the various national and foreign experts, and to increase cooperation among professionals with the aim of understanding, assessing and solving problems related to the care of the marine environment.

Submitted by
Trevor McDougall, IAPSO President
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