

[View this email in your browser](#)



Welcome to the newsletter of the IOC-UNESCO Perth Programme Office (PPO).

This newsletter provides an update on recent PPO programs and activities.

To find out more about us, visit our [website](#).

IN THIS ISSUE

2019 WA Marine Studies Awards Night

Planning for the UN Decade of Ocean Science

International Indian Ocean Science Conference 2020

12th Session of the ICG/IOTWMS

Strengthening Tsunami Early Warning in North West Indian Ocean Region

2019 WA MARINE STUDIES AWARDS NIGHT



Judges and presenters at the 2019 WA Marine Studies Awards

Front row: Hugh McNeil (Chair IMarEST); Thanh Hoang (UWA); Charlotte Birkmanis (UWA); Lucy Arrowsmith (UWA); Rusianti A. Sugio; Sophie Teede (Murdoch); Belinda Martin (UWA); Anna-Lee Jessop (UWA); Chaojiao Sun (CSIRO); Peter Davidson (IMarEST); Yankun Gong (UWA). Back row: Emily Lester (UWA); Daniel Cohen (Murdoch); Todd Bond (UWA); Nick D'Adamo (Head IOC PPO)

The Annual WA Marine Studies Awards recognise students who have excelled in marine-related research and training. They are supported by the IOC PPO (<http://www.iocterth.org>) and the Western Australian Branch of IMarEST (www.imarest.org).

This year's awards night was held on Wednesday 21 August at the Flying Angel Club in Fremantle and was well attended with more than 30 people in the audience. The night featured 11 excellent presentations ranging from vision in deep-sea crustaceans, internal tidal waves, to the impact of oceanographic processes on whale shark movements, making the judges' decisions difficult. This year's winners were:

Undergraduate Category

- 1st Prize: Sophie Teede, Murdoch University, *Colonisation in a South West Australian artificial reef: A rehabilitation study.*
- 2nd Prize: Daniel Cohen, Murdoch University, *Trophic studies of mesopelagic lanternfishes (Myctophidae) in the Perth Canyon.*

Postgraduate Category

- 1st Prize: Anna-Lee Jessop, University of Western Australia, *Vision in deep-sea crustaceans: a novel method for measuring spatial resolution.*
- 2nd Prize: Lucy Arrowsmith, University of Western Australia, *Data from a recovered satellite tag shows how oceanographic features influence movements of a whale shark.*
- 3rd Prize: Emily Lester, University of Western Australia, *The hemisphere of fear: The presence of sharks influences the three-dimensional behaviour of mesopredatory fish over large spatial scales in a coral reef ecosystem.*

IOC PPO SUPPORTS PLANNING FOR THE UNITED NATIONS DECADE OF OCEAN SCIENCE FOR SUSTAINABLE DEVELOPMENT 2021-30



On 6 December 2017 the United Nations declared the UN Decade of Ocean Science for Sustainable Development 2021-2030 (the Decade) to provide a framework for countries to work together to generate ocean science needed to strengthen the management of oceans and coasts on a global scale. The six societal outcomes of the Decade are: a clean ocean; a safe ocean; a healthy and resilient ocean; a predictable ocean; a sustainably harvested and productive ocean; and a transparent ocean with open access to data and technology.

IOC-UNESCO has been tasked with coordinating the Decade's preparatory phase (2018-2020). This will involve extensive consultation to encourage the global ocean community to participate in the planning process. A series of regional workshops are being organised to communicate the purpose and expected results of the Decade and provide an opportunity to engage with a wide range of stakeholders. The IOC PPO has supported and participated in the two Decade regional workshops held to date:

- Pacific Community Workshop in Noumea, New Caledonia, 23-25 July 2019
- North Pacific and Western Pacific Marginal Seas Workshop in Tokyo, Japan, 31 July - 2 August 2019

Future regional workshops are planned for early 2020, resulting in full global coverage. 6-8 January 2020 (Chennai India) has just been set for a workshop to support planning for the Indian Ocean region. Find more out about the Decade [here](#).

INTERNATIONAL INDIAN OCEAN SCIENCE CONFERENCE 2020

The International Indian Ocean Science Conference (IIOSC 2020) sponsored by the Ministry of Earth Sciences, Government of India, will be held from 16-20 March 2020 in Dona Paula, Goa, India. The conference aims to not only act as a multi-disciplinary showcase of Indian Ocean oceanic and coupled climatic research in general, but will provide the opportunity to specifically present research resulting from the Second International Indian Ocean Expedition (IIOE-2) (2015-2020) and so act as a platform for the recently proclaimed extension of IIOE-2 out to at least 2025. Information on the conference can be found [here](#).

The IOC PPO and the National Centre for Polar and Ocean Research (NCPOR), India are pleased to announce they will co-host five days of meetings following the IIOSC from 22-26 March 2020 in Vasco-da-Gama, Goa. The scientific alliances attending this second week in Goa include the IIOE-2 Steering Committee, Indian Ocean Global Ocean Observing System (IOGOOS), the Indian Ocean Region Panel (IORP), the Sustained Indian Ocean Biogeochemistry and Ecosystem Research (SIBER) and the Indian Ocean Observing System (IndOOS) Resource Forum (IRF), and the IOC Regional Committee for the Central Indian Ocean (IOCINDIO). These annual meetings will derive important input and motivation from the research and knowledge gaps considered at IIOSC 2020.

For the latest updates on IIOE-2 and what's happening in Indian Ocean research please read the [IIOE-2 Newsletter](#) and the [IO Bubble](#).



Vasco-da-Gama, Goa, India



National Centre for Polar and Ocean Research

**12TH SESSION OF THE INTERGOVERNMENTAL COORDINATION
GROUP FOR THE INDIAN OCEAN TSUNAMI WARNING AND
MITIGATION SYSTEM (ICG/IOTWMS)**



Participants at the Twelfth Session of the ICG/IOTWMS, Kish, Iran, 9-12 March 2019

The Intergovernmental Coordination Group for the Indian Ocean Tsunami Warning and Mitigation System (ICG/IOTWMS) is supported by a secretariat operated by UNESCO-IOC and is co-located with the IOC PPO. The twelfth session of the ICG/IOTWMS (ICG/IOTWMS-XII) was hosted earlier this year by the Islamic Republic of Iran through the Iranian National Institute for Oceanography and Atmospheric Science from 9-12 March 2019.

The ICG recognised that the recent Palu and Sunda Strait tsunamis that were generated by near-field, atypical sources are very complex from an early warning perspective, thus emphasising the urgent need to update hazard assessments, strengthen warning capabilities and enhance community preparedness. Noting the successful conduct of IOWave 18 by Member States and piloting of Indian Ocean Tsunami Ready (IOTR) programme by India and Oman, the ICG encouraged all Member States to consider piloting IOTR in vulnerable communities with UNESCO-IOC recognition. The ICG further decided to conduct a Palu and Sunda Strait Lessons learnt workshop in 2019 and an IOWave exercise in 2020. Further details on the outcomes of the ICG/IOTWMS-XII can be found [here](#).

IOC-UNESCO AND UNESCAP LAUNCH THE PROJECT ON STRENGTHENING TSUNAMI EARLY WARNING IN THE NORTH WEST INDIAN OCEAN REGION THROUGH REGIONAL COOPERATION

The Makran Subduction Zone (MSZ) off the coast of Iran and Pakistan is still poorly understood. Several decades after the 1945 tsunami caused hundreds of confirmed fatalities in the North West Indian Ocean (NWIO) region, there are still open questions about whether the Makran Subduction Zone is able to generate such large tsunamis in the future. In the worst case, tsunami waves generated by a Makran source could reach shores of India, Iran, Pakistan, Oman and other adjoining countries within a few tens of minutes with height of several metres, posing enormous challenges to existing tsunami warning systems.

To address these gaps, the Intergovernmental Oceanographic Commission (IOC) of UNESCO is implementing a multi-national project aimed at “Strengthening tsunami early warning in the North West Indian Ocean region through regional cooperation”. Funded by the United Nations ESCAP Trust Fund for Tsunami, Disaster and Climate Preparedness, the project will enable better understanding of Makran tsunami hazard and enhance preparedness of countries in the region to respond to a near-field tsunami threat. The project was launched during two back to back meetings hosted in Muscat by the Oman Directorate General of Meteorology.

The first meeting (01-02 September 2019) was a high-level conference on tsunamis in the Makran region

that reflected on national strategies for tsunami early warning and community preparedness in the context of near-field tsunamis. The second meeting (03-06 September 2019) was an Expert Meeting that resulted in formulating a strategy for regional cooperation to develop a regional tsunami hazard map for Makran region.

Participants at these events included representatives of tsunami warning centres, disaster management agencies, seismologists and tsunami modellers from India, Iran, Pakistan, Oman and United Arab Emirates, and experts from Australia, Germany, Italy, Norway, Portugal, USA and UN agencies.

The participants agreed on the immediate need to strengthen national coordination mechanisms for tsunami early warning; revise early warning chains and standard operating procedures of National Tsunami Warning Centres, Disaster Management Offices and Media; and develop a regional seismicity model and probabilistic tsunami hazard assessment for the Makran region. A time-bound plan to implement these activities through a series of national and regional workshops and expert consultations to be held in India, Iran, Pakistan and Oman has also been finalised. Exercise Indian Ocean Wave 2020 (IOWave20) scheduled during September/October 2020 will be used as an opportunity to test these project interventions.



Participants in Muscat, Oman, September 2019



United Nations
Educational, Scientific and
Cultural Organization



Intergovernmental
Oceanographic
Commission



Australian Government
Bureau of Meteorology



**GOVERNMENT OF
WESTERN AUSTRALIA**

For any queries about the newsletter please contact [Sarah Gardner](#).

Perth Programme Office IOC-UNESCO · PO Box 1370 · West Perth, WA 6872 · Australia

Nick D'Adamo (Head of Office). Email: nick.dadamo@bom.gov.au · Tel: +61 (8) 9226 2899

Sarah Gardner (Program Officer). Email: sarah.gardner@bom.gov.au · Tel: +61 (8) 9263 2214

Copyright © 2019 IOC PPO. All rights reserved.

Want to change how you receive these emails?
You can [update your preferences](#) or [unsubscribe from this list](#).