

33rd Session of the IOC Assembly: Ocean science Day

The Ocean Science Day was introduced into the programme of the IOC Assembly at IOC-XXVIII/3 (see IOC-28-3_e(final) and inf2_Ocean Science Day:

<https://oceanexpert.org/document/16578> and <https://oceanexpert.org/document/15489>).

The objective of the Ocean Science Day is to further increase the visibility and understanding of ocean science, current challenges and emerging issues and aims to provide an opportunity to show the relevance of ocean science for the sustainability of our planet and to engage the decision-makers in discussions. The Ocean Science Day intends to focus on emerging issues that require international collaboration in marine science and technology to produce novel approaches and solutions based on science for the benefit of society.

Summary of considerations for the IOC Officers

The Ocean Science Section (OSS), the section that has traditionally led the organization of the programme for the day, would like to propose that this year's scientific programme is organized around the theme of "ocean interventions".

Proposed candidates for the Anton Bruun memorial lecture are provided. Details of nominations for the M. Ruivo memorial lecture) and the N.K. Panikkar memorial lecture will be provided by other respective sections.

Note: those developing the agenda for the 33rd session of the IOC Assembly have proposed that Ocean Science Day be scheduled for Monday 30 June with the screening of "Ocean" and a roundtable discussion to occur on the same day in the evening. We have therefore incorporated these into the proposed programme. Planning identifies that Ocean Science Day "may include one or several Assembly lectures". For planning purposes, only the Anton Bruun memorial lecture has been included in the proposed programme.

Proposed programmatic theme: Ocean interventions

It is increasingly becoming accepted amongst the scientific community that to achieve global climate change targets and achieve net zero emissions at national and global levels and reverse or stabilize the effects of climate change on the ocean, interventions are needed. The most recent Intergovernmental Panel on Climate Change (IPCC) assessment

report identifies that various approaches and technologies are essential for mitigating climate change (https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_FullReport.pdf), because emissions of greenhouse gases are not declining at a rate that will allow national and global targets to be achieved (see <https://www.unep.org/resources/emissions-gap-report-2024>). These interventions include carbon dioxide removal (see https://www.ipcc.ch/report/ar6/wg3/downloads/outreach/IPCC_AR6_WGIII_Factsheet_CD_R.pdf), nature-based solutions (see <https://theconversation.com/nature-based-solutions-are-cheap-and-effective-and-governments-have-the-tools-to-make-them-a-reality-243320>), reduction of nutrifying pollution, and reoxygenation to name a few. Given the varying approaches, utilization of technologies, development, risks across biodiversity, economies and society and implementation at relevant scales (national, regional), this is a topic of relevance to all Member States.

The IOC Ocean Science Section has an active programme of work focused on climate change, ocean carbon, nutrient pollution and more, and the projects within are contributing to discussions on ocean interventions. Through these projects and through additional programmes/projects focused on ocean interventions, contributions are being made to the UN Ocean Decade of Ocean Science for Sustainable Development (e.g., <https://oceandecade.org/news/the-ambition-to-reoxygenate-the-baltic-sea-becomes-more-precise/>). With the view of recognizing the connectivity between those contributing to the projects and coordination of activities by the IOC, it's OSS and the Ocean Decade, efforts contributing to both will be presented in an interwoven manner rather than separately. This not only reflects the contributions of the IOC led activities to the Decade, but the maturation of the Decade itself, and its contributions to the objectives of the OSS and the IOC medium term strategy.

Proposed candidates for the Anton Bruun memorial lecture

The Anton Bruun Memorial Lecture Series is dedicated to the memory of the noted Danish oceanographer and first chairman of the Commission, Dr Anton Frederick Bruun. The Anton Bruun Memorial Lectures were established in accordance with Resolution 19 of the 6th session of the IOC Assembly (1970), in which the Commission proposed that important intersession developments be summarized by speakers **in the fields of solid earth studies, physical and chemical oceanography and meteorology, and marine biology.**

Candidate 1: Professor Dato’ Dr. Aileen Tan Sau Hwai. Director Centre for Marine and Coastal Studies, Universiti Sains Malaysia, Malaysia.

Posts relevant to IOC: Executive Director of the Asia-Pacific University-Community Engagement Network (APUCEN). Vice Chair of IOC Sub-Commission for Western Pacific (WESTPAC). Steering Group member of Ocean Best Practices System (sponsored by IODE and GOOS). Board member of Partnership for Observation of the Global Ocean (POGO). Executive member of CoastPredict (an Ocean Decade endorsed programme).

Experience: marine ecology, mariculture, coastal community development.

Candidate 2 : Dr. Paula Correa Sierra. Head of Ocean Management Research and Information, INVEMAR, Columbia.

Posts relevant to IOC: IODE committee co-chair, GOSR editorial board.

Experience: coastal zone management, information systems, coastal zone vulnerability, climate change adaptation, marine protected areas, blue carbon, Indigenous connections, training and capacity building.

Proposed programme

Note: suggestions for panel members are preliminary at this stage with further suggestions welcome noting a desire for diversity across each panel.

Segment/component	Speaker	Time (mins)	Proposed schedule
Arrival and seating		10	10:00-10:10
Introduction to Ocean Science Day	Executive Secretary IOC	5	10:10-10:15
Introduction to Ocean solutions for mitigating climate change	Chris Vivian (GESAMP WG41 co-chair) /Jerry Blackford (coordinating author of geoengineering chapter of the third WOA)	20	10:15-10:35
Transition		5	10:35-10:40
Panel 1: Deep dive into ocean solutions	OSS moderator (introduction to topic and speakers)	5	10:40-10:45
Nature-based solutions 1	International Partnership for Blue Carbon	7	10:45-10:52
Nature-based solutions 2	Coast 3D Reefs (Decade project)	7	10:52-10:59
mCDR - chemical	Chris Vivian /Jerry Blackford	7	10:59-11:06
mCDR - physical	Global ONCE (Decade programme)	7	11:06-11:13

Segment/component	Speaker	Time (mins)	Proposed schedule
Reoxygenation	Caroline Slomp (Radboud Uni)	7	11:13-11:20
Audience Q&A	OSS moderator	10	11:20-11:30
Morning tea BREAK		30	11:30-12:00
Introduction to Bruun Memorial Lecture	OSS moderator	5	12:00-12:05
A. Bruun Memorial Lecture	Awardee identified by OSS and approved by IOC Officers	30	12:05-12:30
Audience Q&A	OSS moderator	15	12:30-12:45
Medal award	Executive Secretary IOC	5	12:45-12:50
Photographs		10	12:50-13:00
Lunch BREAK		90	13:00-14:30
Arrival and seating		5	14:30-14:35
Panel 2: Implementation of ocean solutions (industry/science progress)	OSS moderator (introduction to topic and speakers)	5	14:35-14:40
Nature-based solutions 1	Ocean Forest/Plan Vivo	7	14:40-14:47
Nature-based solutions 2	Vanga Blue Forest/World Business Council for Sustainable Development	7	14:47-14:54
mCDR: alkalinity enhancement	Andreas Oschlies (GEOMAR)/Phil Williamson (Uni East Anglia)	7	14:54-15:01
mCDR: Co2 stripping	Captura/Equatic	7	15:01-15:08
Reoxygenation	Lhyfe (Decade project)/Douglas Wallace (Dalhousie)	7	15:08-15:15
Audience Q&A	OSS moderator	10	15:15-15:25
Afternoon tea BREAK		30	15:25-15:55
Panel 3: Risks, governance gaps and science priorities	OSS moderator (introduction to topic and speakers)	5	15:55-16:00
Nature-based solutions: risks	Rahanna Juman (Institute Marine Affairs Trinidad & Tobago)	7	16:00-16:07
mCDR: risks	Miranda Boettcher (Utrecht Uni)	7	16:07-16:14
Reoxygenation: risks	Aileen Tan?	7	16:14-16:21
Current state of governance	Eric van Doorn (Uni Woolongong)	7	16:21-16:28
Science priorities	GESAMP WG41 co-chair /coordinating author of geoengineering chapter of the third WOA	7	16:28-16:35
Audience Q&A	OSS moderator	10	16:35-16:45
Closing of Ocean Science Day	Chair IOC	5	16:55-17:00

Segment/component	Speaker	Time (mins)	Proposed schedule
Reception event: screening of "Ocean" and roundtable potentially to be held at the Australian Embassy	AU Ambassador to UNESCO/ Executive Secretary IOC/roundtable members	90	18:00-19:30

Commented [KE1]: The Australian Embassy has offered their reception space for IOC events free of charge and have offered to contribute to the catering for a reception, potentially in association with the Assembly - would this be something that we might consider for Ocean Science Day to help encourage MS's to attend?