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IMBeR Synthesis and Future Planning

FUTURE OCEANS₃

Shanghai, China & Online 13-16 May 2025

HANDBOOK

Navigating a future ocean:
Inward, outward, and forward



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Introduction

As IMBeR (Integrated Marine Biosphere Research) approaches the conclusion of its decade-long journey from 2016 to 2025, we invite you to join us at the IMBeR Synthesis and Future Planning Conference (Future Oceans 3, FO3). This pivotal event will explore three core themes: Looking Inward, Looking Outward, and Looking Forward.

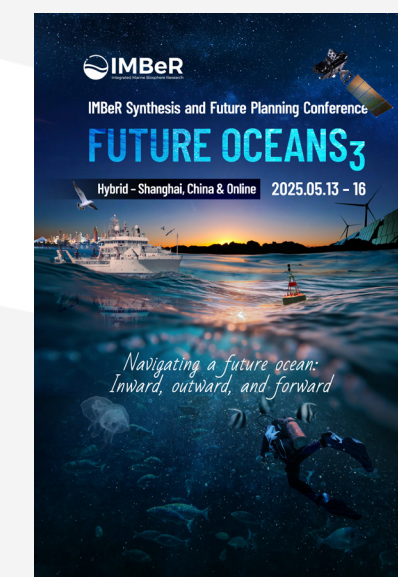
Core Themes:

- Theme 1: Looking Inward: Reflecting on IMBeR's scientific achievements over the past decade (2016-2025).
- Theme 2: Looking Outward: Reviewing IMBeR's interactions with relevant scientific projects, programs, organizations, and initiatives.
- Theme 3: Looking Forward: Envisioning the future of marine biosphere research post-IMBeR

Future Oceans 3 will bring together IMBeR's diverse science teams—including Regional Programs, Working Groups, Endorsed Projects, Study Groups, national committees, and the Interdisciplinary Marine Early Career Network (IMECaN)—as well as representatives from international organizations, policymakers, and early career researchers. Participants are encouraged to present their achievements, propose new projects, and organize specialized sessions tailored to their needs.

The outcome of this meeting will help shape the future of marine biosphere research, focusing on addressing the cumulative impacts of multiple stressors on our oceans and developing scientific solutions for mitigation.

Website



Organizers and Supporters

Scientific Committee on Oceanic Research (SCOR)

National Natural Science Foundation of China (NSFC)

Future Earth

East China Normal University (ECNU)

State Key Laboratory of Estuarine and Coastal Research (SKLEC), ECNU

Institute of Eco-Chongming, ECNU

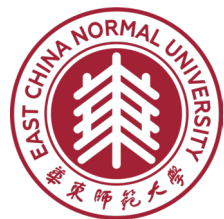
School of Ecological and Environmental Sciences, ECNU

Ocean Negative Carbon Emissions (ONCE)

Ocean Decade Programme Mega-Delta

Future Earth Coasts

Anthropocene Coasts



Anthropocene Coasts

Organizers and Supporters

International Organising Committee

Dongyan Liu (Chair) – East China Normal University, China

Nina Bednaršek – Jožef Stefan Institute, Slovenia

Rowan Trebilco – CSIRO, Australia

Derek Armitage – University of Waterloo, Canada

GiHoon Hong – IMBeR International Project Office, China

Local Committee

Local Host

Shuguang KUAI, Qing HE, Xiuzhen LI, Xiaoyong CHEN

IMBeR Representatives

Jing ZHANG, Jingling REN, Shan JIANG, Fang SHEN, Ying WU

Youth Event Coordination

Shenghui LI, Ning ZHAO, Kai DENG

Logistic Committee

Xue LIU, Qing YUAN, Binbin MA, Ye JIA, Maoxin LU, Wenhui LiangWei, Tingyu WEN

International Project Office (Coordinator)

Fang Zuo, Kai Qin, Suhui Qian

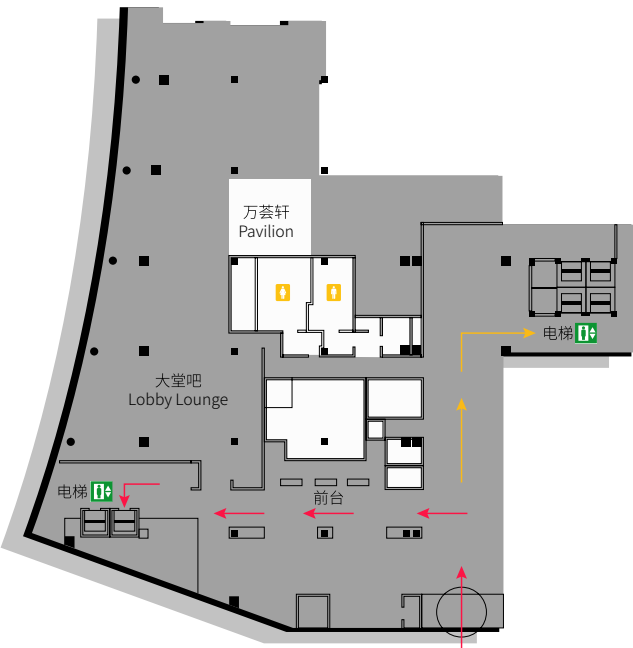
Logistics

Venue: Courtyard by Marriott® Shanghai Minhang

Address: Building 3, 588 Zixing Road, Minhang District, Shanghai, China, 200241

Courtyard by Marriott® Shanghai Minhang is 1.5 km from the nearest metro station (Line 15 Zizhu Hi-tech Park Station).

First Floor



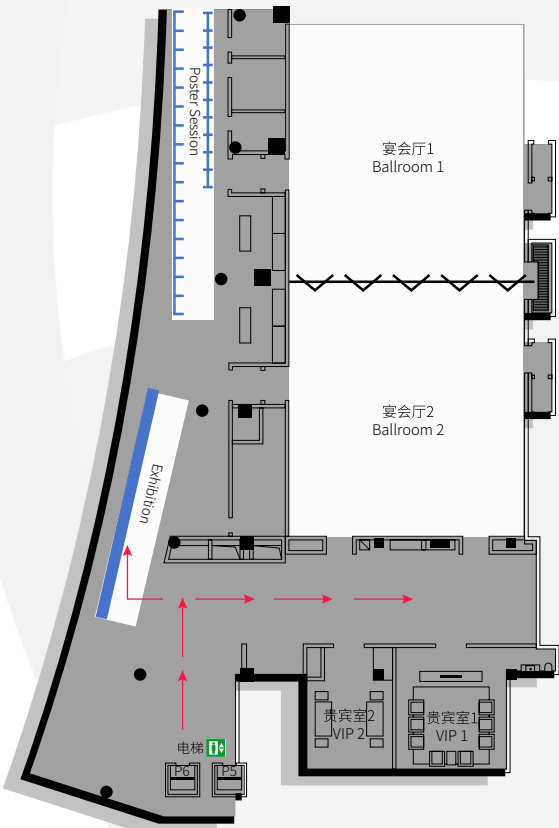
Second Floor



On-site Registration

Time	
12 May, 14:00 - 18:00	14 May, 07:30 - 12:00
13 May, 07:30 - 12:00	15 May, 07:30 - 12:00
Venue	
1 st floor Lobby Courtyard by Marriott® Shanghai Minhang	

Third Floor



Transportation Information

When planning your trip to attend the F03 conference, you have two main airport options: **Shanghai Pudong International Airport (PVG)** and **Shanghai Hongqiao International Airport (SHA)**.

① SHA to Venue

Shanghai Hongqiao International Airport (SHA) is the closest option, 32km from the Venue. This proximity offers the convenience of a 40-minute drive.

Taxi:

Taxis are readily available outside the airport terminal. A ride to the Courtyard by Marriott will take around 40 minutes, with a daytime fare of around 75-90 CNY (10-12 USD).

Metro:

The Metro System in Shanghai offers an alternative for transportation. You can board Line 2 of the Metro and ride until you reach the Loushanguan Road Station. From there, transfer to Line 15 and travel to Zizhu High-tech Park Station. After that, take a short taxi ride to reach the Courtyard by Marriott. The cost of a single Metro ride is around 6 CNY (0.8 USD).

② PVG to Venue

Shanghai Pudong International Airport (PVG) provides a larger selection of international flights and may offer more flexible scheduling options. While travel from PVG to Courtyard by Marriott involves a longer journey of approximately 45 km.

Taxi:

A ride to the Courtyard by Marriott will take around 1 hour and cost approximately 115-140 CNY (16-20 USD).

Suburban Railway Airport Link Line and Metro:

The Shanghai Suburban Railway Airport Link Line began operations in December 2024, making airport commuting more convenient.

You can take the Shanghai Suburban Railway Airport Link Line and travel to Jinghong Road Station. The fare for the Suburban Airport Link Line is structured as follows:

Shanghai Hongqiao Airport (SHA) → Jinghong Road: 9 CNY (1.3 USD)

Shanghai Pudong Airport (PVG) → Jinghong Road: 17 CNY (2.5 USD)

You can then transfer to the Metro Line 15 at Jinghong Road Station, with a 4 CNY (0.6 USD) fare to Zizhu Hi-Tech Park Station. Once you exit the station, take a short taxi ride to the Courtyard by Marriott.

Additional Logistics

Sustainability tip: Please bring your own reusable water bottle. Drinking water will be available at the venue.

Shuttle Bus Arrangement: If you are staying in the hotels nearby, please complete this form by 10 May, so we can arrange transportation to and from the venue:

<https://imber.ceotr.ca/machform/view.php?id=205388>

Contact for shuttle questions: Dr. Liang (Email: Liangweiwenhui@126.com)

Virtual Attendance



Download the official app now:



We encourage you to use the conference website and mobile app for all current information and to navigate the conference.

The link to download the app is

<https://whova.com/portal/x4P25yJ1dMko0X@siB9hl@g1zRIYKdbLhkdLh-2BKRM=>



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Oral Presentation Guidelines

In-person speakers: Please copy your presentation slides to the venue computer before your session begins.

Online speakers: If you'd like the on-site team to have a backup of your presentation, please send your slides to your session moderator in advance. After joining online, please confirm your presence with the moderator.

Poster Presentation Guidelines

The poster session will be held both on-site and on Whova.

Please refer to the guidelines here:

<https://imber.info/wp-content/uploads/2025/04/Poster-Presentation-Guidelines-27-April.pdf>

All poster presenters must upload their posters to Whova by 12 May (see separate email for the upload invitation).

In-person participants must also bring a printed copy of their poster to display onsite.

Program Glance

Date		Time	Program	Locations
12 May	Afternoon	14:00 - 18:00	Registration	1 st floor Lobby
	Evening	18:00 - 20:00	Ice Breaker	1 st floor Pavilion
13 May	Morning	08:20 - 08:40	Opening	3 rd floor Ballroom
		08:40 – 12:00	Grand Challenges: Keynote Sessions	3 rd floor Ballroom
		12:00 – 13:30	Group photo & Lunch	3 rd floor Ballroom
	Afternoon	13:30 – 17:20	Science Teams: Synthesis Sessions	3 rd floor Ballroom
		18:00 – 20:00	Poster Session	3 rd floor Ballroom
14 May	Morning	08:30 – 10:30	IMBeR-Partner Session	3 rd floor Ballroom
		10:30 – 12:00	Parallel Theme Sessions	2 nd floor Multi Function Room 1, 2, 3, 4
		12:00 – 13:30	Lunch	3 rd floor Ballroom
	Afternoon	13:30 – 17:45	Parallel Theme Sessions & IMECaN Event	2 nd floor Multi Function Room 1, 2, 3, 4 & Business Center
		18:00	Conference Dinner (Optional)	3 rd floor Ballroom2
15 May	Morning	08:30 – 10:20	IMBeR Doctoral Forum	3 rd floor Ballroom
		10:20 – 12:20	Open Discussion	3 rd floor Ballroom
		12:20 - 12:30	Closing	3 rd floor Ballroom
		12:30 – 13:30	Lunch	3 rd floor Ballroom
	Afternoon	13:30 -15:30	Scientific Steering Committee Meeting 2025 (Closed-door Meeting)	2 nd floor Multi Function Room 1
16 May		07:30 – 16:30	Excursion - Chongming Island (Optional)	1 st floor Lobby

Program

Grand Challenges: Keynote Sessions

Session 1 Understanding multi-stressors of marine environments and achievements and challenges from ecosystem resilience and environmental management

13 May, 08:40 - 09:40, 3rd floor Ballroom

Convenors Dongyan Liu
Jacob Carstensen

This session addresses the effects of environmental stressors on ecosystem implications and biogeochemical cycles in marine ecosystems, both in isolation and in concert. Potential stressors include, but are not limited to, nutrient enrichment, climate stressors (such as acidification, warming, hypoxia, extreme events, and pollutants). Presentations to understanding ecosystem implications and resilience to changing environmental conditions are also welcome. Presentations could also consider management responses or novel ocean solutions to changes in environmental conditions and climate that take into account the complex interactions of biogeochemical processes in marine ecosystems and their resistance to such changes.

Session 2 Achievements from IMBeR Grand Challenge 2 and opportunities for IMBeR 3.0: from scenarios, predictions and projections to actions, solutions and interventions

13 May, 10:00 - 11:00, 3rd floor Ballroom

Convenor Rowan Trebilco

This session aims to synthesize and celebrate IMBeR's key achievements under Grand Challenge 2 and discuss the strategic opportunities for building on these achievements and taking advantage of IMBeR's unique strengths in IMBeR 3.0.

Over the past decade, IMBeR's Grand Challenge 2, "Improving scenarios, predictions, and projections of future ocean-human systems at multiple scales," has focused on integrating our understanding of the drivers and consequences of global change on marine ecosystems and human societies into models to project and predict future states. Activity under this challenge has led to significant advancements in developing integrated data systems and approaches for predictions and projections, utilizing predictive models (including best-practice methods for downscaling and integrating social processes), and creating scenarios that bridge physical, biological, and social sciences. Now, there is a rapidly increasing global demand for information, tools, and approaches to support equitable actions, solutions, and interventions for climate adaptation, mitigation, and nature repair. This presents a unique strategic opportunity for the IMBeR community to leverage its established leadership and expertise in model and scenario development while strengthening the integration between climate and biodiversity science and incorporating diverse knowledge systems, including Indigenous science. In the next phase of IMBeR's work, it could lead the development of best-practice approaches for evaluating such actions, solutions, and interventions to support the sustainability of marine social-ecological systems and ensure equitable outcomes. This work will be crucial in guiding evidence-based decision-making for ocean sustainability in the coming decades, and would build upon IMBeR's established leadership position in this space.

Program

Session 3 **Blue Transformations: Governance for the ocean-climate-biodiversity nexus**
13 May, 11:00 - 12:00, 3rd floor Ballroom
Convenor Derek Armitage

This session explores governance transformations required to address the ocean-climate-biodiversity nexus and the implications for the blue economy and society. Profound changes are needed in the structures, processes, rules, and norms that catalyze radical and sustainable reconfigurations of social, political, economic and ecological aspects of oceans. Potential entry points to explore blue governance transformations at the ocean-climate-biodiversity nexus include fisheries and food systems (e.g., climate resilient fisheries), managing and mitigating nutrient flows at the land-ocean interface, the expansion of MCDR initiatives and their implications for vulnerable coastal communities (e.g., tenure, resource access), and net positive biodiversity and conservation initiatives, including the emergence of biodiversity credit schemes. A cross-cutting challenge is how to better align advances in empirical understandings of the ocean-climate-biodiversity nexus with governance and policy innovations that consider issues of equity and justice. Novel methods that foster knowledge co-production and transdisciplinary perspectives (e.g., future scenarios, participatory modelling) are recognized as particularly important in supporting governance transformations. The session provides a foundation to explore the governance transformations needed to address a range of Ocean Decade challenges, such as Challenge 2 (protect and restore ecosystems and biodiversity), Challenge 3 (sustainably feed the global population), and Challenge 5 (unlocking ocean-based solutions to climate change).

Parallel Theme Sessions

Session 4 **Stakeholder engagement in complex ocean multilevel governance settings**
14 May, 13:30 - 15:00, 2nd floor Multi Function Room 1
Convenor Marta Ballesteros

Engagement with stakeholders transforms scientific and policy processes. The journey of participation in the marine domain has been long and challenging, evolving from a contested issue to a mainstream approach. Today, participation is regarded as critical for enhancing the scientific foundation of decision-making and ensuring the legitimacy of policy-relevant science. However, organizations worldwide face similar challenges in leveraging participation while managing associated risks. Ocean multilevel governance encompasses the institutions and processes through which multiple policy actors operate. Major international organizations like the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), the Intergovernmental Panel on Climate Change (IPCC), and the International Council for the Exploration of the Sea (ICES), have developed various approaches to stakeholder interaction. Additionally, research and policy frameworks as the United Nations Sustainable Development Goals (SDGs) demand partnership and cooperation. This session aims to stimulate debate within the international community on three areas:

- Conceptual Challenges: Do we need to rethink the stakeholder language? “stakeholder,” “rightsholder,” “the one to be holders”.
- Analytical Challenges: Do we have frameworks to understand and assess the performance of stakeholder engagement?
- Evidence from the field : What features of the international context influence engagement performance and outcomes? How researchers experience engagement?, etc.

Program

Session 5 **Island biodiversity and ecosystem multifunctionality in the Anthropocene**
14 May, 10:30 - 12:00, 2nd floor Multi Function Room 2
Convenor Enrong Yan

With less than 5% of the global terrestrial area, marine islands hold 20% of the world’s biodiversity. Biodiversity on marine islands is characterized by unique biogeographic, phylogenetic and functional characteristics, and plays a crucial role for sustaining ecosystem multifunctionality globally. However, marine islands are also experiencing a disproportionate loss of endemic species and a disproportionate gain of invasive species, due to increasing negative human impacts that make islands transitioned from primary through secondary to tertiary economies. In addition to habitat transformation and non-native species introduction, human-induced climate change and sea-level rise are emerging as new threats to biodiversity. Currently, islands are undergoing an unprecedented biodiversity remodeling, with some species going extinct, others changing in abundance, and non-native species becoming a part of many ecosystems. Undoubtedly, such species reassembly processes inevitably lead to unpredictable consequences on ecosystem multifunctionality. In this context, this session aims to stimulate a collaborative discussion to: 1) better understand how island biodiversity may respond to anthropogenic threats such as habitat loss, biological invasion, sea-level rise and climate change, and how the compositional and functional changes of biodiversity influence island ecosystem multifunctionality; and 2) develop new strategies for the protection and restoration of island biodiversity, including maintaining biological and cultural heritage through regenerative practices, mainstreaming biodiversity in cultural and production landscapes, and engaging with the reality of novel ecosystems.

Session 6 **Coastal blue carbon ecosystem: carbon resources evaluation, sources-sinks , processes and management collaboration**
14 May, 13:30 - 17:45, 2nd floor Multi Function Room 2
Convenors Jinzhou Du
 Wen-Chen Chou

In the maintenance of Earth’s ecological balance and mitigation of climate change, blue carbon ecosystems (BCECO) play a crucial role. As one of the major carbon sinks on the Earth’s surface, BCECOs absorb a significant amount of carbon dioxide and store it in marine organisms and seabed sediments, effectively slowing the trend of global warming. Although about 83% of the global carbon cycle occurs in the oceans, BCECOs such as mangroves, salt marshes, and seagrass beds, which cover less than 0.5% of the seabed area, account for over 50% of the carbon storage in marine sediments, making them one of the highest density carbon sinks on Earth. At the same time, the carbon sequestration capacity of BCECOs is much greater than that of terrestrial carbon pools per unit area. In addition, BCECOs, as hotspots of interaction between land and ocean, have significant scientific, social, economic, and ecological benefits. However, once BCECOs are damaged, the long-term stored carbon will be released into the atmosphere and oceans, becoming a source of greenhouse gases. Due to the complexity and fragility of BCECOs, there are still many unresolved issues regarding their carbon sink contributions. The main problems lie in the uncertainty of blue carbon storage, the lack of clarity in the lateral carbon exchange processes between ecosystems and adjacent waters, and the inconsistency in estimating methods for underground biomass and sedimentary blue carbon. The observation technologies and objects are not only different from those of terrestrial and marine ecosystems but also face multiple pressures from both land and sea. Therefore, there is an urgent need to continuously carry out research on carbon sink functions and

Program

mechanisms, carbon sink assessment, ways and technologies to enhance carbon sequestration, and intelligent monitoring of carbon sinks. This conference will focus on interdisciplinary achievements and technical exchanges related to carbon resources, carbon processes, and carbon management in BCECOs, providing scientific and technological support to improve the accuracy of BCECO carbon sink value assessments and reduce uncertainties.

Session 8 **Synthesizing ecosystem-social interactions in coastal seas**
14 May, 10:30 - 12:00, 2nd floor Multi Function Room 3
Convenor Su Mei Liu

Continental marginal systems are supporting human well-being from important and valuable goods to services, but anthropogenic activity and climate change have substantially altered the oceans and are impacting their ability to sustain ecological and human communities. Integrating environmental, ecological and economic knowledge of continental margin systems, and how these systems may change under different perturbation scenarios, is imperative to understand the interplays between human uses of the oceans, present management strategies of marginal systems, and optimize the services they provide. Lessons learned from multidisciplinary syntheses and inter-regional comparative studies of coastal socio-ecological systems will help rationalize and optimize marginal seas management approaches. This session is aimed at improving our understanding of long-term marginal social-ecological systems, guiding sustainable development of resources and advising governance regimes to facilitate sustainable governance, facilitating equitable sharing of margin resources, and evaluating alternative research approaches and partnerships that address major margin challenges.

Session 9 **Optical remote sensing in the Northwest Pacific and the Central Indo-Pacific Oceans**
14 May, 13:30 - 15:00, 2nd floor Multi Function Room 3
Convenor Young-Je Park

Optical remote sensing has become an indispensable tool for studying oceanographic and coastal processes, offering valuable insights into coastal water quality, primary productivity, marine biodiversity, and climate-driven changes. By leveraging satellite-derived data, researchers can monitor algal blooms, sediment dynamics, coral reef health, fisheries, and coastal pollution, supporting sustainable marine resource management and ecosystem conservation.

The Indo-Pacific and Northwest Pacific Oceans encompass some of the most biologically productive, diverse, and climatically significant regions in the world. Additionally, the adverse pressures on the marine environment are increasing due to rapid industrialization, making the role of optical remote sensing crucial in addressing these challenges.

In addition to traditional ocean color satellite data, a new generation of satellite data—including geostationary satellite data, high-resolution satellite data, and hyperspectral satellite data—has become increasingly available. Furthermore, with advancements in artificial intelligence (AI) technologies, optical remote sensing is becoming an even more powerful and effective tool for monitoring the marine environment.

This session invites contributions on recent research findings in the field of optical remote sensing, including the following topics.

Program

- Satellite-based monitoring of coastal water quality
- Detection of harmful algal blooms and phytoplankton species identification
- Fisheries resource management using ocean remote sensing
- Climate change monitoring in the marine biosphere
- Coral reef and marine habitat monitoring
- Optical remote sensing applications for marine environmental issues

Session 11 **International research and educational collaboration for sustainable tropical and subtropical marine ecosystems**
14 May, 10:30 - 12:00, 2nd floor Multi Function Room 1
Convenor Hiroaki Saito

Tropical and subtropical marine ecosystems (TASMEC) are hotspots of biodiversity and provide a variety of ecosystem services, including food supply, water purification, tourism and cultural services. Coastal regions of TASMEC are the most populated area in the world and are experiencing rapid growth in population and economic activity. The marine ecosystem services in TASMEC are deteriorating because to anthropogenic perturbations including global warming and increased human activity. These include coral bleaching, eutrophication, chemical pollution, the collapse of fishery resources, etc. For developing countermeasures against the degradation and sustainable use of marine ecosystem services, it is necessary to take science-based decision-making process by all the stakeholders of the marine ecosystems. Despite the importance, the structure and dynamics of TASMEC and the biogeochemical cycles are not fully understood due to the limitation of ocean professionals and scientific facilities. Expert training, education and transfer of marine technology are essential activities to increase scientific knowledge at TASMEC and to realize the sustainable use of marine ecosystem services for human wellbeing. This session will discuss regional and international collaboration activities for solving scientific challenges, education and technology transfer in TASMEC.

Session 12 **SIBER and the Second International Indian Ocean Expedition**
14 May, 15:20 - 17:45, 2nd floor Multi Function Room 3
Convenors Raleigh Hood
 Greg Cowie

The session will include presentations by SIBER scientific steering committee members who, between them, will summarise major highlights of the first 10 years of IIOE-2 and some of the SIBER-led research projects, cruises and publications. Plans for the next five years, now part of an updated IIOE-2 science plan and implementation strategy (also SIBER-led), will also be presented.

Program

IMBeR-Partner Session

Session 7	IMBeR Strategic Partnership: Recognizing Interfaces and Building Synergies with Relevant Projects and UN Ocean Decade Programmes 14 May, 08:30 - 10:10, 3rd floor Ballroom
Convenors	GiHoon Hong Fang Zuo

Marine scientific research strives to address complex and interconnected challenges, international collaborations across projects, programmes, organizations, and initiatives are essential to developing Earth System views. This session will explore the boundaries, connections, and synergies between IMBeR and other relevant scientific efforts within Global Research Projects of SCOR and Global Research Networks of Future Earth, international initiatives of the UN Ocean Decade family, and other potential partners.

Actionable recommendations are encouraged to reflect on how IMBeR's interdisciplinary and trans-disciplinary marine research has been effectively integrated with the specialized expertise of partner initiatives to advance our understanding of ocean-human sustainability, ecosystem resilience, and science-policy engagement.

A set of indicators will be identified to examine the relationship between IMBeR and its partners for 2016-2025, to identify remaining frontiers, and to pave the way for developing a new science plan and implementation strategy on joint scientific research, capacity building, and science-policy approaches in the coming five or ten years.

This session is intended for researchers, program managers, policymakers, and entrepreneurs engaged in marine science and sustainability initiatives.

IMBeR Doctoral Forum

15 May, 08:30-10:00, 3rd floor Ballroom

Convenors	Ning Zhao Kai Deng
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The IMBeR Future Oceans 3 (FO3) meeting proudly presents the IMBeR Doctoral Forum, a platform for recent and soon-to-be PhD graduates in marine sciences to showcase their research and engage with leading scientists, policymakers, and peers. Aligned with FO3's mission of reflecting on past achievements, strengthening interdisciplinary partnerships, and shaping ocean sustainability, this forum fosters global collaboration, with a strong focus on early-career researchers (ECRs) from low-to medium-income countries. Participants will present their thesis work through oral presentations, speed talks and posters, while also contributing as session rapporteurs, gaining hands-on mentorship from senior researchers. To support inclusivity, SCOR Travel Support grants will subsidize travel and registration costs for 6–8 eligible applicants. Inspired by successful initiatives like DISCO (Dissertations Symposium in Chemical Oceanography), this forum builds capacity, amplifies early-career voices, and integrates diverse perspectives into global ocean science. Join us in Shanghai or online to share your research, connect with international partners, and contribute to shaping the future of marine biosphere research and marine sustainability. Apply now to be part of this transformative scientific network!

Program

IMECaN Event



Reflecting on IMECaN's Journey: Achievements, Insights, and Future
14 May, 15:20 - 17:45, 2nd floor Business Center

Convenor	Shenghui Li
Moderator	Gabriella Akpah Yeboah

This hybrid session will explore the Interdisciplinary Marine Early Career Network's (IMECaN) evolution and impact over its first eight years, bringing together current and past members from diverse career stages and geographical locations. Participants will reflect on IMECaN's achievements since its 2016 establishment, examining its role in fostering collaborations, providing training opportunities, and promoting leadership development for early career researchers, particularly from developing countries. IMECaN now has 1,243 members from 103 countries, excluding Antarctica, with diverse participation across all continents. At least 25% of members are students at various levels, while the remaining members range from postdoctoral researchers to professors. Although the primary research themes include biodiversity, systematics, marine ecology, fisheries, and climate change, only 12% of the members focus on these topics, highlighting the diversity of the broad range of research interests within the network. The session will analyze the network's growth, evaluate its success in supporting interdisciplinary marine research, and discuss future directions as IMBeR enters a new phase. By reflecting on our past and envisioning our future, this session aims to strengthen IMECaN's role in shaping the next generation of marine researchers and contributing to sustainable ocean governance. Following the session, an in-person meeting will synthesize the gathered information for a peer-reviewed article, with authorship opportunities for all contributors.

Schedule

Day 1 - Tuesday, 13 May 2025
Grand Challenges: Keynote Sessions

3rd floor Ballroom

08:20 - 08:40	Opening Session	
Session 1: Understanding multi-stressors of marine environments and achievements and challenges from ecosystem resilience and environmental management		Convenors: Dongyan Liu Jacob Carstensen
08:40 - 08:43	Grand Challenge I Introduction Jacob Carstensen, Aarhus University	
08:43 - 09:02	Pathways of oligotrophication – hysteresis, shifting baselines, and legacy effects Jacob Carstensen, Aarhus University	
09:02 - 09:21	Eastern boundary upwelling ecosystems under a changing climate Marisol García-Reyes, Farallon Institute	
09:21 - 09:40	The effect of nutrient limitation on temperature sensitivities of phytoplankton growth Hongbin Liu, The Hong Kong University of Science and Technology	
09:40 - 10:00	Break	
Session 2: Achievements from IMBeR Grand Challenge 2 and opportunities for IMBeR 3.0: from scenarios, predictions and projections to actions, solutions and interventions		Convenor: Rowan Trebilco
10:00 - 10:03	Grand Challenge II Introduction Rowan Trebilco, CSIRO Environment, and Centre for Marine Socioecology	
10:03 - 10:22	Detecting, attributing, and projecting global marine ecosystem and fisheries change: FishMIP 2.0 Julia L. Blanchard, University of Tasmania	
10:22 - 10:41	Towards research for a healthy and sustainable Ocean Elvira Poloczanska, Plymouth Marine Laboratory	
10:41 - 11:00	Indirect, unexpected, and unintended: expanding research programs for supporting actions towards ocean sustainability Gerald Singh, University of Victoria	
Session 3: Blue Transformations: Governance for the ocean-climate-biodiversity nexus		Convenor: Derek Armitage
11:00 - 11:03	Grand Challenge III Introduction Derek Armitage, University of Waterloo	
11:03 - 11:22	Solving sustainability challenges at the food-climate-biodiversity nexus William Cheung, University of British Columbia	
11:22 - 11:41	Ocean biogeochemical cycles, agricultural revolutions and food system transformations Edward H Allison, WorldFish	
11:41 - 12:00	Ocean, Coasts and Society: Reimagining blue transformations and governance at the intersections Prateep Kumar Nayak, University of Waterloo	
12:00 - 13:30	Group photo & Lunch	

Day 1 - Tuesday, 13 May 2025
Science Teams: Synthesis Sessions

3rd floor Ballroom

Regional Programmes		Moderator: Nina Bednaršek
13:30 - 13:45	SIBER and the Second International Indian Ocean Expedition (Online) Raleigh R. Hood, University of Maryland Center for Environmental Science	
13:45 - 14:00	CLIOTOP - Two decades of research under CLIOTOP: IMBeR's Regional Program on Climate Impacts on Oceanic Top Predators Heidi Pethybridge, CSIRO	
14:00 - 14:15	ICED - Integrating Climate and Ecosystem Dynamics (ICED) in the Southern Ocean programme and its role within IMBeR (Online) Emma Cavan, Imperial College London	
14:15 - 14:30	ESSAS through the decades: High-latitude marine ecosystems in a time of transition (Online) Naomi Harada, The University of Tokyo	
14:30 - 14:45	Discussion - Regional Programmes	
Working Groups		Moderator: Jingling Ren
14:45 - 15:00	CMWG - Ecosystem health of continental marginal seas under the interaction between ecosystem and society Su Mei Liu, Ocean University of China	
15:00 - 15:15	HDWG - Collaborative Pathways to Bridge Oceans and Societies: The IMBeR Human Dimensions Working Group (2016-2025) (Online) Annette Breckwoldt, Leibniz Centre for Tropical Marine Research (ZMT)	
15:15 - 15:30	SIOA - The SOLAS-IMBER Ocean Acidification Working Group - 15 years of ocean acidification science (Online) Sam Dupont, University of Gothenburg	
15:30 - 15:45	Development of the IMBeR OCEAN100 Team and the Action Plan for the Ocean (Online) Eugene Murphy, British Antarctic Survey	
15:45 - 16:00	Discussion - Working Groups and Action Plan for the Ocean	
16:00 - 16:20	Break	
Endorsed Projects and Study Groups (non-funded)		Moderator: Masahiko Fujii
16:20 - 16:35	CREPSUM - Science and educational networking for sustainable use of marine ecosystem services in the Southeast Asia Hiroaki Saito, The University of Tokyo	
16:35 - 16:50	IPR - Towards the New Era of ocean science for the sustainable Indo-Pacific Region Shan Jiang, East China Normal University	
16:50 - 17:05	OCPC - Key activities, successes and future outlook of the OC-PC Study Group Young-Je Park, TelePix Co., Ltd.	
17:05 - 17:20	Discussion - Endorsed Projects and Study Groups	
Poster Session		
18:00 - 20:00	Poster Session (3rd floor, Foyer outside Ballroom)	

Each presentation is limited to 15 minutes. All Q&A will take place during the discussion session.

Schedule

Day 2 - Wednesday, 14 May 2025 IMBeR-Partner Session

3rd floor Ballroom

SESSION 7: IMBeR STRATEGIC PARTNERSHIP: RECOGNIZING INTERFACES AND BUILDING SYNERGIES WITH RELEVANT PROJECTS AND UN OCEAN DECADE PROGRAMMES

Wed. 14 May (UTC+8) 8:30-10:10
Convenors **GiHoon Hong** *Strategy Director, IMBeR IPO*
Fang Zuo *Executive Officer, IMBeR IPO*
08:30 - 08:35 [Opening and Welcome](#)

Keynote Presentation	
08:35 - 09:00	Action for a sustainable ocean Marie-Alexandrine Sicre Vice-Chair, Intergovernmental Oceanographic Commission, International Science Council Fellow
09:00 - 10:00	Panel discussion: Partnerships in practice
Panelists:	Marie-Alexandrine Sicre Vice-Chair, Intergovernmental Oceanographic Commission, International Science Council Fellow
	Kenneth M.Y. Leung Principal Investigator, Global Estuaries Monitoring (GEM) Programme
	Weiguo Zhang Senior Researcher, Mega-Delta Programme
	Liping Zhou (online) Co-Chair, Past Global Changes (PAGES)
	Xiaoyu Fang Co-Executive Director, Future Earth Coasts (FEC)
	Giovanni Avila-Flores (online) Deputy Director, FEC IPO for Latin America and the Caribbean
	William Miller (online) Co-Chair, Surface Ocean – Lower Atmosphere Study (SOLAS)
	Yassir Eddebbar (online) Member, CLIVAR (Climate and Ocean: Variability, Predictability and Change) Pacific Regional Panel
10:00 - 10:10	Discussion
10:10 - 10:30	Break (2nd floor)

Day 2 - Wednesday, 14 May 2025 Parallel Theme Sessions

2nd floor Multi Function Rooms & Business Center

	Multi Function Room 1	Multi Function Room 2	Multi Function Room 3	Multi Function Room 4	Business Center
10:30 - 12:00	Session 11: International research and educational collaboration for sustainable tropical and subtropical marine ecosystems	Session 5: Island biodiversity and ecosystem multifunctionality in the Anthropocene	Session 8: Synthesizing ecosystem-social interactions in coastal seas	Session 13: The uncertainty of coastal ecosystem shift to nutrient/pollutant inputs under climate change	
12:00 - 13:30	Lunch (3rd floor Ballroom)				
13:30 - 15:00	Session 4: Stakeholder engagement in complex ocean multilevel governance settings	Session 6: Coastal blue carbon ecosystem: Carbon resources evaluation, sources-sinks processes and management collaboration	Session 9: Optical remote sensing in the Northwest Pacific and the Central Indo-Pacific Oceans	Session 13: The uncertainty of coastal ecosystem shift to nutrient/pollutant inputs under climate change	
15:00 - 15:20	Break (2nd floor)				IMECaN Event: Reflecting on IMECaN's Journey: Achievements, Insights, and Future Directions
15:20 - 17:45	Session 2: Achievements from IMBeR Grand Challenge 2 and opportunities for IMBeR 3.0: from scenarios, predictions and projections to actions, solutions and interventions Session 3: Blue Transformations: Governance for the ocean-climate-biodiversity nexus	Session 6: Coastal blue carbon ecosystem: Carbon resources evaluation, sources-sinks processes and management collaboration	Session 12: SIBER and the Second International Indian Ocean Expedition	Session 13: The uncertainty of coastal ecosystem shift to nutrient/pollutant inputs under climate change	
18:00	Conference Dinner (3rd floor Ballroom2)				

Schedule

Day 3 - Thursday, 15 May 2025

Plenary Events

3rd floor Ballroom

08:30 - 10:00	IMBeR Doctoral Forum	Convenors: Ning Zhao and Kai Deng
10:00 - 10:20	Break	
10:20 – 12:20	Open Discussion IMBeR synthesis with a focus on messages about impact, enabling factors and future directions Ocean sustainability in the context of global change: Preliminary insights from IMBeR experience Derek Armitage, University of Waterloo	
12:20 - 12:30	Closing	
12:30 - 13:30	Lunch	

Day 3 - Thursday, 15 May 2025

Closed-door Meeting

2nd floor Multi Function Room 1

13:30 - 15:30	Scientific Steering Committee Meeting 2025
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Friday, 16 May 2025

Depart from the 1st floor lobby of Courtyard by Marriott® Shanghai Minhang

07:30 - 16:30	Excursion - Chongming Island
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Session Program

Session 2&3

SESSION 2: ACHIEVEMENTS FROM IMBeR GRAND CHALLENGE 2 AND OPPORTUNITIES FOR IMBeR 3.0: FROM SCENARIOS, PREDICTIONS AND PROJECTIONS TO ACTIONS, SOLUTIONS AND INTERVENTIONS
SESSION 3: BLUE Transformations: GOVERNANCE FOR THE OCEAN-CLIMATE-BIODIVERSITY NEXUS

Wed. 14 May (UTC+8) 15:20 - 17:00 2nd floor Multi Function Room 1
Convenors Rowan Trebilco and Derek Armitage
Moderator Baker Matovu
15:20 - 15:25 Welcome and Introduction

Oral presentations		
15:25 - 15:37	Ana Cinti Small-scale fisheries in ecologically sensitive areas in Latin America and the Caribbean: Do Marine Protected Areas benefit fisheries governance?	[3-8]
15:37 - 15:49	Cecilia Engler (online) Oceans and climate change adaptation: Tracking international law and policy developments and challenges	[3-5]
15:49 - 16:01	Sophia Jane Buchanan Barlow (online) A sea of relationships:Relational wellbeing in the blue economy	[3-10]
16:01 - 16:13	Ricardo M. Roura Southern Ocean marine protected areas and the ocean-climate-biodiversity nexus	[3-1]
16:13 - 16:25	Guanqiong Ye Resilience of China's Blue Economy	[1-4]
16:25 - 16:37	Anil Ramchandra Kurhe (online) Conservation of coastal and estuarine biodiversity: Challenges and opportunities	[1-13]
Speed talks		
16:37 - 16:58	Zarhoune Said Issues and challenges of governance in the maritime fisheries sector in Morocco: Towards sustainable management of fishery resources (Case of octopus)	[4-4]
	Taihuan Hu Morphodynamic characteristics and classification of beaches in Hainan Island and its response to El Nino	[3-7]
	Esther Chacha Wambura Impacts of ocean acidification on carbonate structures in coral reefs: A sedimentological and bioerosion analysis in Zanzibar	[1-3]
	Aidah Abdul Wahid A comparative study of stock status and sustainable fisheries management of Pomadasys olivaceus across Pakistan's coastlines	[1-10]
	Katelen da Cruz Delgado (online) Ex-post evaluation of fishery management policies on wild fisheries production in northern Cabo Verde: An example of mackerel scad (Decapterus macarellus, Carangidae)	[3-9]
	Yi Sui (online) Can collective bargaining overcome institutional arbitrage in international employment? Evidence from China's ocean shipping industry	[4-6]
	Palash Naiya (online) Assessing Socio-environmental impact and rehabilitation measures in response to recent cyclones: perspectives of coastal South Odisha and Indian Sundarbans	[1-28]
16:58 - 17:00	Discussion and Conclusions	

Session Program

Session 4

SESSION 4: STAKEHOLDER ENGAGEMENT IN COMPLEX OCEAN MULTILEVEL GOVERNANCE SETTINGS

Wed. 14 May (UTC+8) 13:30-15:00 2nd floor Multi Function Room 1
Convenor **Marta Ballesteros**
Moderator **Baker Matovu**
Rapporteur **Andrea Rivas-Navarro**
13:30 - 13:35 [Welcome and Introduction](#)

Oral presentations		
13:35 - 13:47	Juliet Clair Hermes (online) Advancing Ocean20: Strengthening science-policy partnerships for inclusive ocean governance	[4-1]
13:47 - 13:59	Xiang Gao The role of epistemic community on ocean governance	[4-12]
13:59 - 14:11	Mingbao Chen Using artificial intelligence hypergraphs to assess higher-order socio-ocean interactions in ocean sustainability	[4-5]
14:11 - 14:23	Daisy Amelia Taylor (online) Understanding stakeholder engagement in marine and coastal nature-based solution: lessons from a UK case study	[4-2]
14:23 - 14:35	Ricardo Roura Reflections on environmental non-governmental organizations engagement in Antarctic governance	[4-7]
14:35 - 14:47	Marta Ballesteros Stakeholder engagement in the International Council for the Exploration of the Sea (ICES)	[4-13]
Speed talks		
14:47 - 14:53	Andrea Rivas-Navarro (online) Strategies for preventing maladaptation to climate change: Lessons learned from Spanish Atlantic and Mediterranean fisheries	[4-3]
	Shailendra K. Mandal (online) Stakeholder engagement in complex ocean multilevel governance: An Indian researcher experience	[4-9]
14:53 - 15:00	Discussion and Conclusions	

Session Program

Session 5

SESSION 5: ISLAND BIODIVERSITY AND ECOSYSTEM MULTIFUNCTIONALITY IN THE ANTHROPOCENE

Wed. 14 May (UTC+8) 10:30 - 12:00 2nd floor Multi Function Room 2
Convenor **Enrong Yan**
Moderator **Yusi Wang**
Rapporteur **Yuhao Zhao**
10:30 - 10:35 [Welcome and Introduction](#)

Oral presentations		
10:35 - 10:55	Yu - Jia Lin Diversity of the benthic fish communities and spatial patterns of essential fish habitats in the western Taiwan coast	[5-1]
10:55 - 11:15	Jing Wang Decoupling of phosphorus from carbon and nitrogen in long-isolated archipelago soils	[5-6]
11:15 - 11:35	Chen Zhu (online) Interconnecting fragmented forests: Small and mobile birds are cornerstones in the plant-frugivore meta-network	[5-2]
11:35 - 11:55	Yuhao Zhao Land-use change interacts with island biogeography to alter bird community assembly	[5-3]
11:55 - 12:00	Discussion and Conclusions	

Session Program

Session 6

SESSION 6: COASTAL BLUE CARBON ECOSYSTEM: CARBON RESOURCES EVALUATION, SOURCES-SINKS PROCESSES AND MANAGEMENT COLLABORATION

Wed. 14 May (UTC+8) 13:30 - 17:30 2nd floor Multi Function Room 2
Convenors Jinzhou Du and Wen-Chen Chou
Moderator Yusi Wang
Rapporteurs Xiaogang Chen and Mariche Bandibas Natividad
13:30 - 13:35 Welcome and Introduction

Oral presentations		
13:35 - 13:55	Xiaogang Chen Seawater recirculation in seagrass beds releases alkalinity and enhances carbon sequestration	[6-18]
13:55 - 14:15	Neven Cukrov Krka River Estuary as a testing ground for the carbon cycle	[6-13]
14:15 - 14:30	Bing Xu Global mapping of tidal wetland and adjacent environments using tidal analysis and multi-source earth observations	[6-26]
14:30 - 14:45	Mohammad Rozaimi (online) Blue Carbon: Strengthening the fundamentals with shifting sub-disciplines	[6-12]
14:45 - 15:00	Jinqiu Du Strategies for the management collaboration of coastal blue carbon ecosystems in countries along the Maritime Silk Road	[6-27]
15:00 - 15:15	Yusi Wang Carbon fluxes by SGD in a typical Seagrass meadows ecosystem of northern China - A case study of Swan Lake, Shandong Province	[6-30]
15:15 - 15:35	Break	
15:35 - 15:55	Jian-Jhih Chen Seagrass habitats regulate benthic metabolism and chromophoric dissolved organic matter dynamics in coastal system	[6-14]
15:55 - 16:15	Wen-Chen Chou Expanding blue carbon assessments: the overlooked role of alkalinity in seagrass meadows	[6-33]
16:15 - 16:30	Hongbin Liu Nitrogen-fixing and sulfide-oxidizing symbiotic bacteria reside in the root system of seagrass Halophila ovalis	[6-4]
16:30 - 16:45	Mariche Bandibas Natividad Seagrass drives whole-ecosystem metabolism: seasonal variability in organic metabolism and carbonate dynamics and its implications for carbon sequestration	[6-10]
16:45 - 17:00	Hon-Kit Lui Alkalinity and nutrients turn SGD from CO ₂ supersaturation to undersaturation around two tropical coral islands	[6-23]
17:00 - 17:15	Chen Yu Da Revealing the superiority of dissolved organic carbon fluxes from submarine groundwater discharge compared to sediment carbon burial process in karst seagrass beds, Morinje Lagoon, Croatia	[6-2]
17:15 - 17:30	Najamuddin (online) Carbon stock and absorption capacity of seagrass in the coastal waters of small islands in North Maluku, Indonesia	[6-19]

Poster Session on 13 May and Virtual Poster Exhibit on Whova App		
	Ken-ichi Hayashiaki Consumers' perception of the blue carbon initiatives in Japan	[4-10]
	Xilong Wang Carbon sink driven by porewater exchange in a mangrove wetland of Hainan	[6-1]
	Shiqing Sun Source and sequestration of sediment organic carbon in costal area Novigrad Bay in Split, Croatia	[6-3]
	Tinghsuan Lin Diel variations of oxygen and carbon dioxide in a shallow tropical mangrove lagoon	[6-5]
	Ting-Jui Wang Quantifying carbon sequestration of macroalgae through net primary production in subtropical regions	[6-8]
	Lea Teresa Ines Angelo Quantifying carbon sequestration of macroalgae through net primary production (NPP) with the emphasis on photosynthetic quotient (PQ)	[6-9]
	Huayu Chen Effects of biochar and nitrogen addition on ecosystem carbon sink in a salt marsh in Yangtze River Delta	[6-11]
	Muhammad Yousuf Adnan From carbon sinks to coastal guardians: The ecological and economic value of Pakistan's mangroves	[6-15]
	Peter Teye Busumprah West Africa ocean climate innovations hub	[6-22]
	Xiaoyong Duan Coastal methane cycling: Release mechanisms and flux dynamics	[6-25]
	Fenfen Zhang Fluxes of DOC and refractory FDOM exported from mangroves through submarine groundwater discharge	[6-28]
	Ying Huang Understanding and quantifying blue carbon through multi-scale observations: Experiences in China's coastal saltmarsh	[6-29]
	Jianan Liu Groundwater carbon exports dominate dissolved carbon budgets in a seagrass meadow karstic bay (Adriatic Sea, Croatia)	[6-31]
	Wen Cai Yang Organic carbon burial flux and sources in Maowei Sea mangrove reserve zones, Beibu Gulf	[6-32]
	Yeajin Jung (online) Carbon allocation dynamics of Spartina alterniflora in Georgia saltmarsh, USA	[6-6]
	Mohammad Motahar Hossain (online) The hidden treasures: Soil organic carbon stock in the mangrove and salt marsh ecosystems along the Cox's Bazar coast, Bangladesh	[6-16]

Session Program

Session 8

SESSION 8: SYNTHESIZING ECOSYSTEM-SOCIAL INTERACTIONS IN COASTAL SEAS

Wed. 14 May (UTC+8) 10:30 - 12:00 2nd floor Multi Function Room 3
Convenor **Su Mei Liu**
Moderator **Gisèle Flodore Ghepdeu Youbouniepe Kadjop**
Rapporteur **Rong Bi**
10:30 - 10:35 [Welcome and Introduction](#)

Oral presentations		
10:35 - 10:50	Rong Bi Long-term change patterns of phytoplankton and bacterial community and their interactions in Sanggou Bay	[8-10]
10:50 - 11:05	Siraporn Tong-U-Dom Response of the lower trophic ecosystem in the eastern Seto Inland Sea to changes in nutrient supply from rivers	[8-11]
11:05 - 11:15	Madhuleena Das (online) Mental health and wellbeing in the face of climate uncertainty: A study of Mousuni Island communities	[8-1]
11:15 - 11:25	Huikun Yao Joint effect of aquaculture and land reclamation on sediment dynamics	[8-4]
11:25 - 11:35	Suzhen Yang Study on health evaluation of human-ocean coupling system under climate change and human activities	[8-7]
11:35 - 11:45	Yanhong Xu Phytoplankton community succession in the East China Sea over the past 300 years driven by climate change: Evidence from sterols	[8-12]
11:45 - 11:55	Monalisa R. O. da Silva (online) Do Marine Protected Areas fulfill the expected effects on coastal social-ecological vulnerability? A perspective from Europe and Latin America	[1-15]
11:55 - 12:00	Yanqun Yang Cost-effectiveness optimization method for eutrophication mitigation measures in the Bohai Sea	[8-14]
Poster Session on 13 May and Virtual Poster Exhibit on Whova App		
	Xin Zhao Optimizing rights-based management for global fisheries sustainability: A comparative analysis of use rights	[8-5]
	Longyun Lai Dissolved nitrogen in a tropical river-sea continuum: A seasonal view on the distribution and transformation	[8-8]
	Zihao Feng Impact of sediment release strategies on estuarine dynamics: Analyzing the effect of mud mantling and its implications for sediment management	[8-9]
	Chen Zhong Destabilization of iron-bound organic carbon in coastal sediments under dynamic sedimentary conditions	[8-13]
	Narriman Saleh Jiddawi (online) Women empowerment at the grassroot level along the coast of Zanzibar, Tanzania	[8-3]

Session Program

Session 9

SESSION 9: OPTICAL REMOTE SENSING IN THE NORTHWEST PACIFIC AND THE CENTRAL INDO-PACIFIC OCEANS

Wed. 14 May (UTC+8) 13:30-15:00 2nd floor Multi Function Room 3
Convenor **Young-Je Park**
Moderator **Gisèle Flodore Ghepdeu Youbouniepe Kadjop**
13:30 - 13:35 [Welcome and Introduction](#)

Oral presentations		
13:35 - 13:50	Aida Sartimbul (online) Variations in sea surface temperature of the Madura Strait: Impacts of meteorological factors in the era of climate change (online)	[9-2]
13:50 - 14:05	Fang Shen The latest satellite data products: 10-year red tide dataset in East China Sea and 26-year phytoplankton functional type data product in global scale	[9-4]
14:05 - 14:20	Hee-Jeong Han Optimization algorithm of inherent optical properties and atmospheric correction from GOCI-II	[9-5]
14:20 - 14:35	Young - Je Park Toward operational monitoring of floating Sargassum macroalgae	[9-6]
14:35 - 15:00	Discussion and Conclusions	

Session Program

Session 11

SESSION 11: INTERNATIONAL RESEARCH AND EDUCATIONAL COLLABORATION FOR SUSTAINABLE TROPICAL AND SUBTROPICAL MARINE ECOSYSTEMS

Wed. 14 May (UTC+8) 10:30 - 12:00 2nd floor Multi Function Room 1
Convenor **Hiroaki Saito**
Moderator **Baker Matovu**
Rapporteur **Suhendar I Sachoemar**
10:30 - 10:35 [Welcome and Introduction](#)

Oral presentations		
10:35 - 10:47	Ken-ichi Hayashiaki From JSPS CREPSUM to e-ASIA JRP: What we learned from long time collaboration	[11-7]
10:47 - 10:59	Abdul Ghaffar Global ecological adaptation for coastal regions	[11-2]
10:59 - 11:11	Suhendar I Sachoemar Implementation and strategic planning for connecting science and communities for sustainable seas: Case studies in dissemination of Ciguatera Fish Poisoning (CFP) in Gili Matra Lombok, Indonesia	[11-9]
11:11 - 11:23	Tahrim Jannat Mowsumi Advancing ocean modeling in the Bay of Bengal: Validating FIO-COM and assessing wave-induced mixing effects	[11-8]
11:23 - 11:35	Nadiyah Wan Rasdi (online) Enhancing sustainable shrimp aquaculture: Effects of herb-enriched copepods on whiteleg shrimp (<i>Litopenaeus vannamei</i>) post-larvae in tropical marine ecosystems	[11-4]
11:35 - 11:47	Muta Harah Zakaria (online) Seagrass diversity in Malaysia and ecosystem services	[11-3]
Speed talks		
11:47 - 11:50	Ferdaus Mohamat Yusuff (online) Behavioral response of <i>Cerithidea</i> sp. to cold-water discharge in tropical marine benthic environments	[11-5]
11:50 - 12:00	Discussion and Conclusions	

Session Program

Session 12

SESSION 12: SIBER AND THE SECOND INTERNATIONAL INDIAN OCEAN EXPEDITION

Wed. 14 May (UTC+8) 15:20-17:10 2nd floor Multi Function Room 3
Convenors **Raleigh Hood** and **Greg Cowie**
Moderator **Gisèle Flodore Ghepdeu Youbouniepsse Kadjop**
Rapporteur **Shuwei Pu**
15:20 - 15:25 [Welcome and Introduction](#)

Oral presentations		
15:25 - 15:40	Lynnath Elizabeth Beckley (online) Back to the future! Revisiting 110°E during the second International Indian Ocean Expedition (IIOE-2)	[12-2]
15:40 - 15:55	Michael R. Landry BLOOFINZ-INDITUN: Food webs supporting larvae of Southern Bluefin Tuna in their eastern Indian Ocean	[12-5]
15:55 - 16:10	Yi Xu Salinity influenced stratification and phytoplankton bloom in the northern Indian Ocean	[12-4]
16:10 - 16:25	Jenny Ann Huggett (online) Recent advances in zooplankton research in the southwest Indian Ocean	[12-1]
16:25 - 16:40	Birgit Gaye (online) Environmental studies in the Indian Ocean subtropical gyre	[12-7]
16:40 - 16:55	Gregory Cowie (online) Coastal marine science capacity building and the 2nd International Indian Ocean Expedition	[12-6]
Speed talks		
16:55 - 16:58	Shuwei Pu Study on the geographical distribution patterns of surface marine microorganisms in the Indo-Pacific convergence zone	[12-3]
16:58 - 17:10	Discussion and Conclusions	

Session Program

Session 13

SESSION 13: THE UNCERTAINTY OF COASTAL ECOSYSTEM SHIFT TO NUTRIENT/POLLUTANT INPUTS UNDER CLIMATE CHANGE

Wed. 14 May (UTC+8) 10:30-16:10 2nd floor Multi Function Room 4
Convenors **Bochao Xu** and **Masahiko Fujii**
Moderator **Justina Adaugo Obienu**
Rapporteur **Shibin Zhao**
10:30 - 10:35 Welcome and Introduction given by Dongyan Liu

Oral presentations		
Chemistry and environment – chaired by Dongyan Liu and A'an Johan Wahyudi		
10:35 - 10:50	Masahiko Fujii [Invited] Biogeochemical modeling to investigate the impacts of ocean acidification and hypoxia in Tokyo Bay, Japan	[13-1]
10:50 - 11:05	Bochao Xu [Invited] Submarine groundwater discharge is an important pathway for nutrient entering the China's coastal seas	[13-2]
11:05 - 11:20	Dong Xu Nutrient limitation intensifies negative effects of ocean acidification on silica production of the globally important diatoms	[1-21]
11:20 - 11:35	Shibin Zhao Isotopes reveal submarine groundwater discharge as an overlooked nutrient source in coastal seas	[13-3]
11:35 - 11:50	Pavel Semkin Isotopic signatures δD , $\delta^{18}\text{O} - \text{H}_2\text{O}$, $\delta^{15}\text{N}$, $\delta^{18}\text{O} - \text{NO}_3$ and nutrient in volcanic catchments of Kamchatka Peninsula and impact of the continental runoff on the adjacent Pacific Ocean	[1-24]
11:50 - 12:05	Vina Listiawati (online) Marine litter pollution on Trisik Beach, Yogyakarta, Indonesia	[1-36]
12:05 - 13:30	Lunch	
Biology and ecology – chaired by Bochao Xu and Masahiko Fujii		
13:30 - 13:45	Zeng Zhou [Invited] Biomorphodynamics-based strategies for coastal erosion defense and ecosystem resilience enhancement	[1-39]
13:45 - 14:00	Joshua Militar Regalado (online) Challenges and opportunities in the management of coral reefs Miagao, Iloilo, Philippines	[1-22]
14:00 - 14:15	A'an Johan Wahyudi [Invited] Introducing Indonesia Marine Biogeochemistry Forum (IMBF): Mainstreaming marine biogeochemistry research and synergizing IMBeR's global objectives	[13-4]
14:15 - 14:30	Yujue Wang [Invited] Coastal eutrophication in China: trend, sources, and ecological effects	[13-5]
14:30-14:45	Beatriz Dias (online) Through long-lasting and pulse disturbances: How Prince William Sound, Alaska, ecosystem functionality behaved throughout three decades	[1-26]
14:45-15:00	Justina Adaugo Obienu Seasonal variation in bycatch of silky sharks (<i>Carcharhinus falciformis</i>) and cetaceans in artisanal drift gillnet fisheries of the Niger Delta, Nigeria	[1-29]

15:00 - 15:20	Break	
Speed talks – chaired by Hongbin Liu and Zeng Zhou		
15:20 - 15:59	Mark June S. Consigna [1-12] Microplastics accumulation in shallow hydrothermal vents ecosystem: Evidence from hydrothermal vent crab <i>Xenograpsus testudinatus</i>	
	Song Ge [1-19] Mapping the global carbon emissions of marine sectors	
	Shengnan Zhang [1-25] Effects of herbaceous marsh mowing on aerial invertebrate communities: A case study in Yangtze Estuary, China	
	Mohammed Ali Humran [1-31] Yemen and Integrate innovation maritime policy and strategy management to enhance blue economy in the Red Sea and Indian Ocean	
	Zain Ul Arifeen Muhammd [4-8] Hourly-resolved marine viral replication in the subtropical Daya Bay, northern South China Sea	
	Yunying Duan [13-6] Centurial shift of diatom fossils and biogenic silicate effect in northern Yellow Sea	
	Aicha Berrada (online) [1-2] CUIsst and NAO indexes along the Moroccan Atlantic coast (20-36°N and 6-30°W)	
	Anxo Paz (online) [1-5] Understanding multi-stressors in marine ecosystems through a multispecies size-spectrum model in the Northeast Atlantic	
	Aida Sartimbul (online) [1-8] Long-term trend of pelagic fisheries in Bali Strait and its connectivity to the Triple deep La Niña	
	Marta Coll (online) [1-11] Advancing marine ecosystem modeling for a changing ocean: Enhancing EcoOcean (v3) for integrated social-ecological assessments	
	Juan José Ortiz García (online) [1-14] Effects of ocean warming on the allometry of pelagic food webs. The FORAGE project	
	Elena Lloret-Lloret (online) [1-16] Comparing methodological choices for environmental cumulative impacts analysis: The Black Sea as a case study	
	Olayinka Thompson Alasoadura (online) [1-27] Assessment of heavy metal contamination in Niger Delta region	
15:59 - 16:10	Discussion and Conclusions	

Session Program

IMECaN Event

IMECaN EVENT IN FUTURE OCEANS₃

Wed. 14 May (UTC+8) 15:00-16:30 2nd floor Business Center
Convenor **Shenghui Li**
Moderator **Gabriella Akpah Yeboah**
15:00 - 15:05 Welcome and Introduction

Speaker Presentations	
15:05 - 15:15	Speaker 1 - Juliano Palacios Abrantes, Co-chair
15:15 - 15:25	Speaker 2 - Shan Jiang, East China Normal University, Past member
15:25 - 15:35	Speaker 3 - Samiya Selim, Past Chair
15:35 - 15:45	Speaker 4 - Laura Kaikkonen, Senior Researcher & Past co-chair
15:35 - 15:50	Q & A for presentation session
Roundtable Discussion	
15:50 - 16:20	Roundtable Discussion
	Moderator will prepare open questions to the speakers as well as the participants
	Special Guest: Laura Kaikkonen, Senior Researcher & Past co-chair
	-Key lessons learned from IMECaN's first eight years
	-Assess the effectiveness of current platforms for networking and information exchange
	-Current challenges in marine research collaborations through the network
	-Brainstorm innovative ways to strengthen knowledge sharing among members
	-Strategies for enhancing IMECaN's impact and reach
	-Envisioning IMECaN's role in IMBeR's new phase
Wrap-up and Next Steps	
16:20 - 16:30	Wrap-up and Next Steps
	-Summary of key points from presentations and discussion
	-Outline of plans for the follow-up in-person meeting and peer-reviewed article
	Closing remarks

Session Program

IMBeR Doctoral Forum

IMBeR DOCTORAL FORUM

Thur. 15 May (UTC+8) 08:30-10:00 3rd floor Ballroom
Convenors **Ning Zhao and Kai Deng**
Rapporteur **Xiaoyue Wei**
08:30 - 08:33 Welcome and Introduction

Oral presentations		
08:33 - 08:45	Gisèle Flodore Ghepdeu Youbouni Population dynamics and potential impact of global warming on the sole cubozoan of the coastal region of Kribi-Cameroon, Chimaerus palmarus (Haeckel, 1880)	[1-7]
08:45 - 08:57	Sheng Zeng Tracing terrigenous material transport in the Yangtze River system: Insights from radionuclide dynamics	[DF-1]
08:57 - 09:09	Risper Atieno Oteke Peri urban mangrove forests and adjacent communities perception of the impact of degradation on livelihoods in Tudor Creek, Mombasa, Kenya	[8-2]
09:09 - 09:21	Tingli Yan How much coral reef dissolution will be caused by ocean acidification?	[DF-3]
09:21 - 09:33	Miaomiao Zhang Seasonal pattern of benthic foraminiferal phosphate storage in coastal tidal flat	[DF-6]
09:33 - 09:45	Baker Matovu Empowering women in the Blue Economy for ocean sustainability in the global south: Key insights from a bibliometric analysis and coastal women in Kerala, India	[3-6]
Speed talks		
09:45 - 10:00	Xintong Jiang Seasonal and decadal variations in nutrients and dissolved organic carbon in the lower Huanghe River under drastically changing water-sediment regimes	[DF-4]
	Yang Hu Saltmarsh plants respond to various hydrodynamic and sedimentary disturbances by modifying their morphological strategies in both aboveground and belowground parts	[DF-2]
	Liuting Yuan Is submarine groundwater discharge a major pathway of carbon and nutrients into the coastal ocean?	[DF-5]
	Yihui Chen Accelerated northward shift of the North Pacific transition zone chlorophyll front under greenhouse warming	[DF-7]
	Xueyang Chen Response of oceanic front to the variability of climate factors and warming in the eastern China Seas	[DF-8]
	Poster Session on 13 May and Virtual poster exhibit on Whova app	
	Dade Song Advancing Sustainable Fisheries Management: A Modeling Framework for High-Resolution Catch Estimation and Its Coupling with Environmental Drivers—A Case Study of Northern Mautia Shrimp (<i>Acetes chinensis</i>)	[DF-9]
	Qi Wang Structure of phytoplankton communities in winter Indonesian Throughflow affected areas in the Eastern Indian Ocean	[DF-10]
	Peiwu Han Dynamic responses of key economic species in the Northwestern Pacific to fisheries-induced evolution: A study of different life history strategies	[DF-11]
	Huachen Gao and Yi Gong Little evidence suggests microplastics negatively impact embryo growth of a viviparous shark <i>Prionace glauca</i>	[DF-12]
	Zhenfang Zhao A preliminary study on the intestinal carbon sequestration capacity of three economic fish species in the Northwest Pacific	[DF-13]

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Exhibitors



Acknowledgement of Volunteers

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