



2021  
2030 United Nations Decade  
of Ocean Science  
for Sustainable Development

# Programme Book

2<sup>nd</sup> UN Ocean Decade Regional Conference &  
11<sup>th</sup> WESTPAC International Marine Science Conference

22–25 April 2024

The Berkeley Hotel Pratunam, Bangkok, Thailand



## Acknowledgements

We gratefully acknowledge all the contributors, participants, and supporters of the 2<sup>nd</sup> UN Ocean Decade Regional Conference and 11<sup>th</sup> WESTPAC International Marine Science Conference 2024. Your dedication, insights, and commitment to advancing marine science and sustainable ocean management have been invaluable. This abstract book stands as a testament to the collective effort and collaboration that drives progress in understanding our oceans and their vital role in the global ecosystem. Thank you for being an integral part of this significant event and for your contributions to shaping a healthier and more resilient ocean for future generations.

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# Table of Contents

International Steering Committee (ISC) .....	4
National Organizing Committee (NOC) .....	5
The Conference.....	6
The Conference Logo.....	7
Partners and Sponsors .....	8
<b>CONFERENCE INFORMATION AND PROGRAMMES.....</b>	<b>9</b>
Conference Programme .....	10
Overall Programme .....	11
Programme and meeting rooms .....	12
Opening Ceremony .....	13
Keynotes.....	14
Keynotes schedule and information .....	15
<b>Scientific Sessions and Special Forum .....</b>	<b>24</b>
Scientific Sessions .....	25
Special Forum.....	26
Oral Presentations .....	27
Sub-theme A: Ocean Processes and Climate Change .....	28
Session A1.....	29
Session A2.....	31
Session A3.....	34
Session A4.....	36
Session A5.....	37
Session A6.....	39
Sub-theme B: Marine Biodiversity, Seafood Safety and Security .....	41
Session B1 .....	42
Session B2.....	44
Session B3.....	46
Session B4.....	48
Session B5.....	50
Session B6.....	52

Sub-theme C: Ocean and Human Health.....	53
Session C1.....	54
Session C2.....	56
Session C3.....	59
Session C4.....	61
Session C5.....	62
Session C6.....	64
Session C7.....	65
Sub-theme D: Emerging Ocean Science and Cross-cutting Issues.....	66
Session D1.....	67
Session D2.....	68
Session D3.....	70
Session D4.....	72
Session D5.....	73
Session D6.....	75
Special Forum.....	76
Special Forum.....	77
Poster Presentations.....	82
Sub-theme A.....	83
Sub-theme B.....	85
Sub-theme C.....	88
Sub-theme D.....	93
Special Forum.....	95
<b>Decade Action Workshops.....</b>	<b>96</b>
<b>Decade Action Incubators.....</b>	<b>116</b>
<b>Townhall and Side Events.....</b>	<b>135</b>
Townhall Session.....	136
Side Events.....	138
<b>LOGISTIC INFORMATION.....</b>	<b>149</b>
<b>Conference Venue.....</b>	<b>150</b>
Check-in Desks.....	150
Conference Rooms.....	150
Poster Area.....	150

Exhibition Booths .....	150
Banquet Hall .....	150
<b>Guideline for Presenters of Scientific Sessions and Special Forum ....</b>	<b>153</b>
<b>Transportation .....</b>	<b>154</b>
<b>Useful Information .....</b>	<b>156</b>

# International Steering Committee (ISC)

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<b>Aileen Tan Shau Hwai</b>	Universiti Sains Malaysia, Malaysia

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<b>Wenxi Zhu</b>	IOC Sub-Commission for the Western Pacific, Intergovernmental Oceanographic Commission of UNESCO
<b>Zainal Arifin</b>	National Research and Innovation Agency, Indonesia

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# National Organizing Committee (NOC)

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**Pinsak Suraswadi**                      Department of Marine and Coastal Resources

## Members

**Thamasak Yeemin**                      Marine Science Association of Thailand  
**Makamas Sutthacheep**                  Ramkhamhaeng University  
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**Suchai Worachananant**                  Kasetsart University  
**Sumana Kajonwattanakul**              Department of Marine and Coastal Resources  
**Suree Satapoomin**                      Department of Marine and Coastal Resources

## The Conference

The Western Pacific and its adjacent areas are the most densely populated region and home to the highest level of marine biodiversity and endemism in the world. As its position as the growth engine of the world economy has intensified in recent years, escalating human activities have been putting the ocean under the risk of irreversible damage. It is crucial to achieve ocean sustainability in this area for the survival and prosperity of not only the region but the entire world.

To ensure ocean science can fully support countries in achieving sustainable development of the ocean, seas, and marine resources, the United Nations proclaimed a Decade of Ocean Science for Sustainable Development (2021–2030) (the ‘Ocean Decade’) in 2017, which offers all ocean stakeholders a unique and once-in-a-lifetime opportunity to shape a better ocean science agenda and connect ocean science more closely to our society. Responding to the global call for actions, the UN Ocean Decade Regional Kick-off Conference for the Western Pacific and its adjacent areas was held on 25–26 November 2021, marking the beginning of the region-wide efforts in the development and implementation of substantive Decade Actions.

To continuously catalyze and accelerate ocean science solutions for sustainable development, the Government of Thailand and UNESCO/IOC Sub-Commission for the Western Pacific (WESTPAC) cordially invite you to join the 2<sup>nd</sup> UN Ocean Decade Regional Conference in conjunction with the 11<sup>th</sup> WESTPAC International Marine Science Conference, 22–25 April 2024, Bangkok, Thailand. The Conference will comprise:

- Keynote speakers
- Scientific Sessions and Special Forum
- Decade Action Incubators
- Decade Action Workshops

The Conference will bring various ocean stakeholders, including governments, research communities/academia, private and business sectors, philanthropic foundations, UN agencies, NGOs and civil society, to present the current status of ocean knowledge, take stock of the first three years’ achievements of the Ocean Decade Actions, identify future priorities, and continuously catalyze partnerships and concrete actions for transformative ocean-based solutions to sustainability challenges in this particular region, such as resource depletion, marine pollution, biodiversity loss, habitat degradation, climate change and ocean acidification, and natural hazards.

## The Conference Logo



The central depiction of Fish & Waves symbolizes SDG14, with the fish's colour matching the blue shade of the SDG-14 icon, underscoring the role of the UN Ocean Decade and this conference in pursuing the targets of this sustainable development goal.

Encircling the Fish & Waves are 16 figures, each representing the colours of the other 16 Goals. This unique colour choice signifies not only their active involvement but also reflects the diversity of individuals engaged in advancing SDG14 and their integral contributions towards its achievement.

# Partners and Sponsors

The Conference are co-organized by



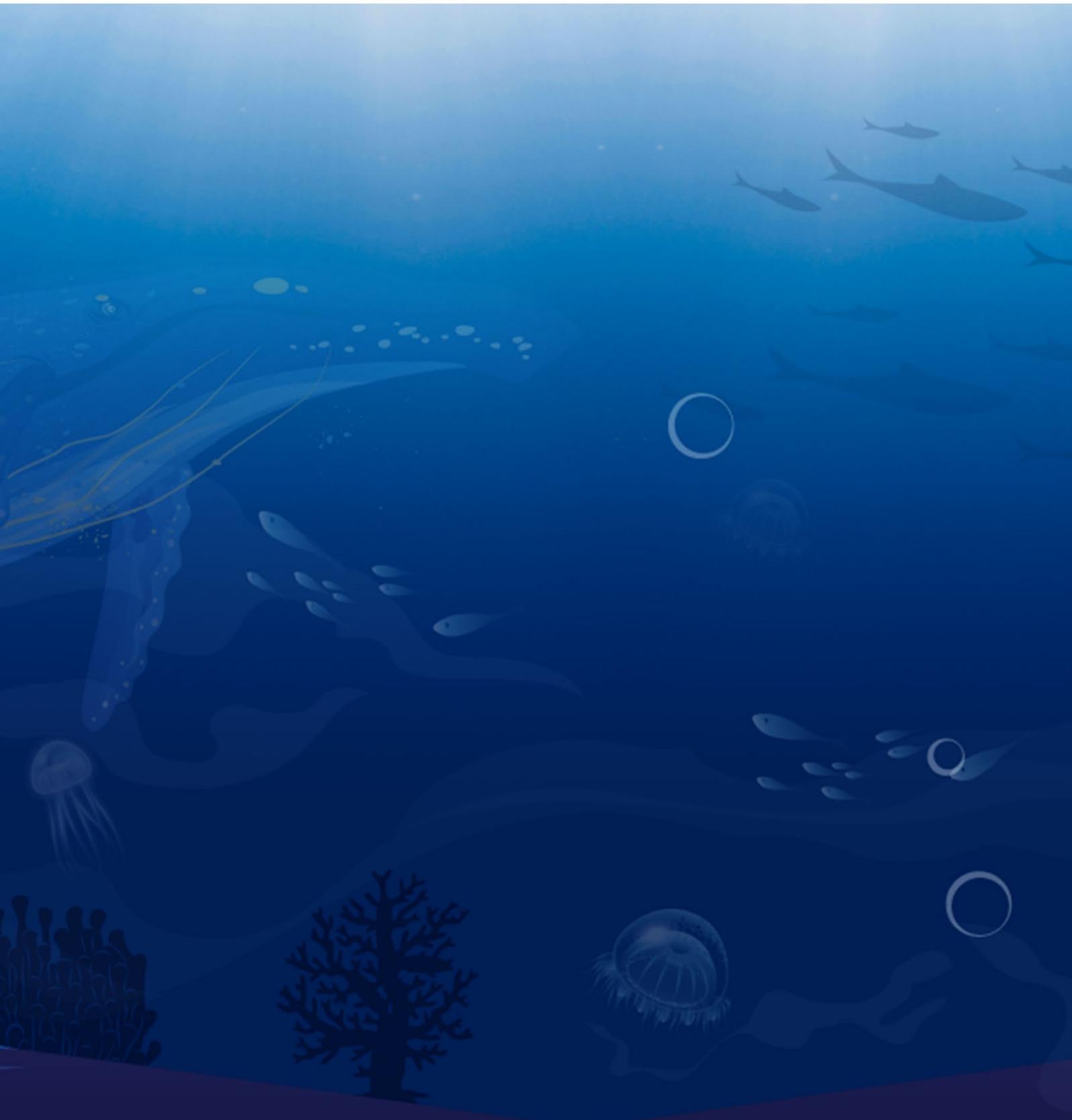
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# CONFERENCE INFORMATION AND PROGRAMMES



An underwater scene with a blue gradient background. In the upper right, several fish are swimming. In the lower left, there is a large jellyfish and some coral. In the lower center, there is a tree-like coral structure. In the lower right, there is another jellyfish. The overall scene is dimly lit, suggesting an underwater environment.

# Conference Programmes

# Overall Programme

	21 April 2024	22 April 2024	23 April 2024	24 April 2024	25 April 2024
07:00 – 08:20		On-site Check-in	On-site Check-in	On-site Check-in	On-site Check-in
08:30 – 09:00		<b>Opening Ceremony &amp; Group Photo</b>	<b>Keynote</b>	<b>Keynote</b>	<b>Keynote</b>
09:00 – 09:30		<b>Keynote</b>	Coffee Break	Coffee Break	Coffee Break
09:30 – 10:00		Coffee Break			
10:00 – 10:30	<b>On-site Check-in</b> for conference package		<b>Parallel Sessions</b> Scientific Sessions & Special Forum	<b>Parallel Sessions</b> Special Forum, Workshops & Side Events	<b>Parallel Sessions</b> Incubators
10:30 – 11:00					
11:00 – 11:30	<b>Time and Venue</b> 17:00–22:00, 21 April	<b>Parallel Sessions</b> Scientific Sessions & Special Forum			
11:30 – 12:00					
12:00 – 12:30	07:00–08:20, 22–25 April		Lunch / Side Event	Lunch / Side Event	Lunch/Side Event
12:30 – 13:00	Foyer, 11 <sup>th</sup> floor				
13:00 – 13:30		Lunch			
13:30 – 14:00		<b>Parallel Sessions</b> Scientific Sessions & Special Forum	<b>Parallel Sessions</b> Scientific Sessions & Special Forum	<b>Parallel Sessions</b> Special Forum, Workshops & Side Events	<b>Parallel Sessions</b> Incubators
14:00 – 14:30					
14:30 – 15:00					
15:00 – 15:30		Coffee Break	Coffee Break	Coffee Break	Coffee Break
15:30 – 16:00		<b>Parallel Sessions</b> Scientific Sessions & Special Forum	<b>Parallel Sessions</b> Scientific Sessions & Special Forum	<b>Parallel Sessions</b> Special Forum, Workshops & Side Events	<b>Awarding Presentation &amp; Closing Ceremony</b>
16:00 – 16:30	<b>Ice Breaker</b> for ISC, NOC, Conveners, & Conference Secretariat				
16:30 – 17:00					
17:00 – 17:30		<b>Poster Opening</b>		<b>Townhall Session</b> on Ocean Decade Vision 2030	
17:30 – 18:00			<b>Official Poster Session &amp; Outstanding Scientist Award Ceremony</b>		
18:00 – 18:30		<b>Reception Dinner &amp; Guest Speaker Event</b>			
18:30 – 19:00					
19:00 – 19:30					
19:30 – 20:00					
20:00 – 21:00					
19:30 – 20:00					

# Programme and meeting rooms

Sunday 21 April 2024													
16:00	17:30	<b>Ice Breaker</b> Kensington Room, 5F											
17:00	22:00	<b>On-site Check-in &amp; Package Pick-up</b> Foyer, 11F											
Monday 22 April 2024													
07:00	08:20	<b>On-site Check-in &amp; Package Pick-up</b> Foyer, 11F											
08:30	09:30	<b>Opening ceremony &amp; Group photo</b> Mayfair Ballroom, 11F											
09:30	10:00	<b>Keynote I</b> Mayfair Ballroom, 11F											
10:00	10:30	<b>Coffee break</b>											
10:30	12:30	<b>SF</b> (Special Forum)	<b>C2</b> Marine Plastic Pollution	<b>A2</b> Asian Marginal Seas	<b>C7</b> Harmful Jellyfish	<b>D3</b> Ocean Remote Sensing	<b>A1</b> Kuroshio	<b>C5</b> Harmful Algal Blooms	<b>B2</b> Systematics, Taxonomy and Phylogenetics	<b>A5</b> Sediment Source-to-sink	<b>B6</b> Endangered Species	<b>D6</b> Blue Carbon Financing	
12:30	13:30	<b>Lunch</b> Palladium Hall A, 11F											
13:30	15:00	<b>SF</b> (Special Forum)	<b>C2</b> Marine Plastic Pollution	<b>A2</b> Asian Marginal Seas	<b>B3</b> Coral Reef Vulnerability	<b>D3</b> Ocean Remote Sensing	<b>A1</b> Kuroshio	<b>C5</b> Harmful Algal Blooms	<b>B2</b> Systematics, Taxonomy and Phylogenetics	<b>A5</b> Sediment Source-to-sink	<b>D1</b> Observing Technology/Sys	<b>A3</b> Marine Heatwaves	
15:00	15:30	<b>Coffee break</b>											
15:30	17:00	<b>SF</b> (Special Forum)	<b>C2</b> Marine Plastic Pollution	<b>A2</b> Asian Marginal Seas	<b>B3</b> Coral Reef Vulnerability	<b>D3</b> Ocean Remote Sensing	<b>A1</b> Kuroshio	<b>C5</b> Harmful Algal Blooms	<b>B2</b> Systematics, Taxonomy and Phylogenetics	<b>A5</b> Sediment Source-to-sink	<b>D1</b> Observing Technology/Sys	<b>A3</b> Marine Heatwaves	
17:30	18:00	<b>Opening of Poster Session</b> Palladium Hall B, 11F											
18:00	20:00	<b>Reception Dinner</b> Palladium Hall A, 11F											
Tuesday 23 April 2024													
07:00	08:20	<b>On-site Check-in &amp; Package Pick-up</b> Foyer, 11F											
08:30	09:30	<b>Keynote II &amp; III</b> Mayfair Ballroom, 11F											
09:30	10:00	<b>Coffee break</b>											
10:00	12:00	<b>SF</b> (Special Forum)	<b>A2</b> Asian Marginal Seas	<b>C1</b> Chemical Contaminants	<b>B4</b> Coral Reef Resilience	<b>A6</b> Indo-Pacific Maritime Continent	<b>C4</b> Ocean Acidification	<b>C6</b> Marine Toxins	<b>D2</b> Molecular Technology	<b>D5</b> Gas Hydrates	<b>D4</b> Deep-sea Research	<b>A4</b> Paleo-ocean and Climate	
12:00	13:00	<b>Lunch / Palladium Hall A, 11F</b> SIDE EVENT: Marine Ecological Ranching / Mayfair A, 11F, 12:15-12:55											
13:00	15:00	<b>SF</b> (Special Forum)	<b>C2</b> Marine Plastic Pollution	<b>C1</b> Chemical Contaminants	<b>B4</b> Coral Reef Resilience	<b>A6</b> Indo-Pacific Maritime Continent	<b>C3</b> Ocean Deoxygenation	<b>B1</b> Marine Biogeography	<b>D2</b> Molecular Technology	<b>D5</b> Gas Hydrates	<b>B5</b> Mangroves' Aquatic Ecosystem	UNESCO/UNIQLO National planning meeting (closed)	
15:00	15:30	<b>Coffee break</b>											
15:30	17:00	<b>SF</b> (Special Forum)	<b>C2</b> Marine Plastic Pollution	<b>C1</b> Chemical Contaminants	<b>B4</b> Coral Reef Resilience	<b>A6</b> Indo-Pacific Maritime Continent	<b>C3</b> Ocean Deoxygenation	<b>B1</b> Marine Biogeography	<b>D2</b> Molecular Technology	<b>D5</b> WESTPAC WG Gas Hydrates	<b>B5</b> Mangroves' Aquatic Ecosystem	UNESCO/UNIQLO National planning meeting (closed)	
17:30	19:00	<b>Official Poster Session &amp; Outstanding Scientist Award Ceremony</b> Palladium Hall B, 11F											
Wednesday 24 April 2024													
07:00	08:20	<b>On-site Check-in &amp; Package Pick-up</b> Foyer, 11F											
08:30	09:30	<b>Keynote IV &amp; V</b> Mayfair Ballroom, 11F											
09:30	10:00	<b>Coffee break</b>											
10:00	12:00	<b>SF</b> (Special Forum)	<b>SIDE EVENT</b> Corporate forum: Ways forward to achieve SDGs	<b>W 4</b> UN22: Asia Riverine Plastic Emission	<b>W 9</b> ECOPs: Ocean literacy	<b>W 11</b> UN23: Regional network of training and research centers	<b>W 5</b> UN24: CSK-2	<b>W 8</b> Mitigation of Natural Incidence	<b>W 2</b> Marine Biodiversity Monitoring and Research	<b>WESTPAC ORSP</b>	<b>SIDE EVENT</b> Building partnerships for mangrove management	<b>WESTPAC NEAR-GOOS</b>	
12:00	13:00	<b>Lunch / Palladium Hall A, 11F</b> SIDE EVENT: Meet the Journals / Mayfair A, 11F, 12:15-12:55											
13:00	15:00	<b>SF</b> (Special Forum)	<b>W 12</b> OBON	<b>W 3</b> UN21: Marine Spatial Planning	<b>W 10</b> ECOPs in Decade Actions	<b>W 1</b> Global Estuaries Monitoring program (GEM)	<b>W 5</b> UN24: CSK-2	<b>W 6</b> Ocean Prediction	<b>W 2</b> Marine Biodiversity Monitoring and Research	<b>W 13</b> Coastal Prediction	<b>W 7</b> Global Environment Monitoring Systems (GEMS Ocean)	<b>WESTPAC NEAR-GOOS</b>	<b>SIDE EVENT</b> Seagrass crisis: Call for solutions and collaborations
15:00	15:30	<b>Coffee break</b>											
15:30	17:00	<b>SF</b> (Special Forum)	<b>W 12</b> OBON	<b>W 3</b> UN21: Marine Spatial Planning	<b>W 10</b> ECOPs in Decade Actions	<b>W 1</b> Global Estuaries Monitoring program (GEM)	<b>SIDE EVENT</b> Launch of UNESCO/UNIQLO project	<b>W 6</b> Ocean Prediction	<b>SIDE EVENT</b> Tools for improving MPA management effectiveness	<b>W 13</b> Coastal Prediction	<b>W 7</b> Global Environment Monitoring Systems (GEMS Ocean)	<b>WESTPAC NEAR-GOOS</b>	
17:15	18:30	<b>Townhall Session on Decade Vision 2030</b> Mayfair A, 11F											
Thursday 25 April 2024													
07:00	08:20	<b>On-site Check-in &amp; Package Pick-up</b> Foyer, 11F											
08:30	09:30	<b>Keynote VI &amp; VII</b> Mayfair Ballroom, 11F											
09:30	10:00	<b>Coffee break</b>											
10:00	12:00	<b>Inc 9</b> Coral Triangle Region	<b>Inc 1</b> ECOPs in Citizen Science	<b>Inc 8</b> Enhancing Coral Reef Resilience	<b>Inc 6</b> Decision Support Tools for HABS	<b>Inc 2+10</b> Blue Carbon	<b>Inc 4</b> Ocean Solutions	<b>Inc 5</b> Ocean Remote Sensing	<b>Inc 12</b> Environment DNA	<b>Inc 7</b> Coral Reef Monitoring for MPA	<b>Inc 3</b> Deoxygenation Effects	<b>Inc 11</b> Jellyfish Identification	
12:00	13:00	<b>Lunch / Palladium Hall A, 11F</b> SIDE EVENT: Ocean Satellite GOOHI / Mayfair A, 11F, 12:15-12:55											
13:00	15:00	<b>Inc 9</b> Coral Triangle Region	<b>Inc 1</b> ECOPs in Citizen Science	<b>Inc 8</b> Enhancing Coral Reef Resilience	<b>Inc 6</b> Decision Support Tools for HABS	<b>Inc 2+10</b> Blue Carbon	<b>Inc 4</b> Ocean Solutions	<b>Inc 5</b> Ocean Remote Sensing	<b>Inc 12</b> Environment DNA	<b>Inc 7</b> Coral Reef Monitoring for MPA	<b>Inc 3</b> Deoxygenation Effects	<b>Inc 11</b> Jellyfish Identification	
15:00	15:30	<b>Coffee break</b>											
15:30	17:00	<b>Award Presentation &amp; Closing Ceremony</b> Mayfair Ballroom, 11F											

# Opening Ceremony

Venue: Mayfair Ballroom, 11<sup>th</sup> Floor

Date: 22<sup>nd</sup> April 2024

Time	Programme
08:30–08:35	Conference starts with a <b>welcome video</b>
08:35–08:45	<b>Welcome remarks</b> Pinsak Suraswadi <i>Director-General of the Department of Marine and Coastal Resources, Thailand</i> <i>Chair of the National Organizing Committee,</i> <i>Co-Chair of the International Steering Committee</i>
08:45–08:50	<b>Welcome remarks</b> Kentaro Ando <i>Chair of the UNESCO/IOC Sub-commission for the Western Pacific (WESTPAC)</i> <i>Co-Chair of the International Steering Committee</i>
08:50–08:55	<b>Congratulatory remarks</b> Pichet Poepakdee <i>Deputy Permanent Secretary of the Ministry of Education of Thailand,</i> <i>Secretary-General of the Thai National Commission for UNESCO</i>
08:55–09:00	<b>Congratulatory remarks</b> Soohyun Kim <i>Regional Director of the UNESCO Regional Office in Bangkok</i>
09:00–09:05	<b>Opening remarks</b> Michida Yutaka <i>Chairperson of the Intergovernmental Oceanographic Commission of UNESCO</i>
09:05–09:15	<b>Opening remarks</b> Pol. Gen. Patcharawat Wongsuwan <i>Deputy Prime Minister and the Minister of Natural Resources and Environment of Thailand</i>
09:00–09:30	<b>Photo session</b>
09:30–10:00	<b>Keynote I</b> <b>On the Ocean Decade, its movement and perspectives for its future (TBC)</b> Julian Barbieri <i>Ocean Decade Global Coordinator, IOC/UNESCO</i>
10:00–10:30	Coffee break (Participants break out for parallel session)

An underwater scene with various marine life including fish, jellyfish, and coral. The background is a gradient of blue, with light rays filtering down from the top. A white rounded rectangle is centered in the middle of the image, containing the text 'Keynotes'.

# Keynotes

## Keynotes schedule and information

Date/Time	Name and Affiliation	Title
<b>Keynote Speaker at the Plenary Session</b> Venue: <b>Mayfair Ballroom, 11<sup>th</sup> Floor</b>		
22 April 2024; 09:30–10:00	<b>Julian Barbieri</b> Intergovernmental Oceanographic Commission (IOC), France	Keynote on the Ocean Decade, its movement and perspectives for its future (TBC)
23 April 2024; 08:30–09:00	<b>Denise Breitburg</b> Smithsonian Environmental Research Center, USA	The Ocean is Losing its Breath: Declining Oxygen in Coastal Waters and the Open Sea
23 April 2024; 09:00–09:30	<b>Rokhmin Dahuri</b> Bogor Agricultural University, Indonesia	Ocean Sciences as a Basis for Policy Development to Develop an Inclusive and Sustainable Blue Economy
24 April 2024; 08:30–09:00	<b>Peter J. Mumby</b> School of Biological Sciences, University of Queensland, Australia	Interventions to build coral reef resilience under global and local impacts
24 April 2024; 09:00–09:30	<b>Padermsak Jarayabhand</b> Graduate School, Chulalongkorn University, Thailand	Offshore Marine Biodiversity and the Potential for Regional Collaboration
25 April 2024; 08:30–09:00	<b>Mariglo Laririt</b> Sustainability of the Ten Knots Group in Palawan, The Philippines	The “Us” in Sustainability: Making Allies in Business to Power Science-based Action in Communities
25 April 2024; 09:00–09:30	<b>Abe Woo Sau Pinn</b> Centre For Marine & Coastal Studies, Universiti Sains Malaysia, Malaysia	Inheriting Legacies: Challenges of ECOP in Navigating through UN Ocean Decade and Beyond
<b>Guest Speaker</b> Venue: <b>Palladium Hall A, 10<sup>th</sup> Floor</b>		
22 April 2024; 18:00–18:30	<b>Chayong Borisuitsawat</b> PTT Exploration and Production Public Company Limited (PTTEP), Thailand	Ocean for Life: Harnessing PTTEP’s Strength for Sustainable Oceans



## Keynote on the Ocean Decade, its movement and perspectives for its future (TBC)

**Julian Barbière**

Intergovernmental Oceanographic Commission (IOC), France

**Date:** 22 April 2024

**Time:** 09:30–10:00

**Venue:** Mayfair Ballroom, 11<sup>th</sup> Floor

Julianne is the **Global coordinator of UN decade of ocean science for sustainable development** and **Head of marine policy and regional coordination section**.

He has approximately 20 years of experience at the international level in the field of ocean sustainability, ocean governance and the implementation of ecosystem-based management approaches at various geographical locations. He is the lead person responsible for Sustainable Development and Ocean at the IOC Secretariat and is known in the UN and outside of UN for his contribution to ocean ecosystem management. Working at the interface of science and policy, he has led a number of UN initiatives, such as the Assessment of Assessments (Pre-conception phase of the UN Regular Process, 2006–2009, together with UNEP), the overall coordination of the inter-agency publication: Blueprint for Ocean Sustainability, in preparation to Rio+20 (2012, with FAO, IMO, and UNDP), the development of international guidelines on Marine Spatial Planning, the development of the Agenda 2030 and its related Sustainable Development Goal 14. He was instrumental in the proclamation of the UN Decade of Ocean Science for Sustainable Development and currently serves as the global coordinator for this campaign.



**The Ocean is Losing its Breath:  
Declining Oxygen in Coastal Waters  
and the Open Sea**

**Denise Breitburg**  
Smithsonian Environmental Research Center, USA

**Date:** 23 April 2024

**Time:** 08:30–09:00

**Venue:** Mayfair Ballroom, 11<sup>th</sup> Floor

Dr. Denise Breitburg is a **Senior Scientist Emerita** at the **Smithsonian Environmental Research Center**. Her research focuses on effects of low oxygen on organisms ranging from fish to jellyfish and oysters, including effects on food webs, fisheries, and disease. She has worked extensively on the issue of multiple stressors in marine systems including several large, collaborative programs linking land use, nutrients and upper trophic level organisms in coastal systems.

Denise has served as co-chair of the IOC-UNESCO Global Ocean Oxygen Network and is a member of the IOC-UNESCO Multiple Ocean Stressors Working Group. She contributed to the recent World Ocean Assessment II and the AR6 IPCC Climate Change report, and served on governing boards of the Association for the Sciences of Limnology and Oceanography and the Coastal and Estuarine Research Federation. Dr. Breitburg holds a PhD in Marine Ecology and Ichthyology from the University of California, Santa Barbara. Denise was the lead author of the 2018 Science paper on deoxygenation, which now has almost 1,800 citations.



## Ocean sciences as a basis for policy development to develop an inclusive and sustainable blue economy

**Rokhmin Dahuri**

Faculty of Fisheries and Marine Sciences,  
Bogor Agricultural University, Indonesia

**Date:** 23 April 2024

**Time:** 09:00–09:30

**Venue:** Mayfair Ballroom, 11<sup>th</sup> Floor

Born in a fishing village in Cirebon Regency, West Java Province, Indonesia, Professor Rokhmin Dahuri's life and work have been inextricably linked to the ocean.

While being a lecturer and Professor at Faculty of Fisheries and Marine Sciences, Bogor Agricultural University (IPB) since 1986, Rokhmin has been providing public services to the country. He was appointed as Director General for Coastal and Small Island Management (1999-2001), and then Minister of Marine Affairs and Fisheries (2001 to 2004), Indonesia. He currently serves as the **Advisor** to the **Minister of Marine Affairs and Fisheries, Indonesia**, and **advisor** to ten Governors of **Indonesian Provincial Governors for marine and fishery economic development**.

He has been the President of Indonesia Aquaculture Society (2010–the present); Chairman of Expert Board of Indonesian Fisheries Society (2010–the present); Member of International Scientific Advisory Board of Center for Coastal and Ocean Development, University of Bremen, Germany (2005–the present).

He graduated as a Ph.D. in Coastal and Marine Resource Management from the Dalhousie University, Canada, and wrote many books and papers in the field of coastal and ocean management, aquaculture, science and technology, education, and economic development published by both Indonesian and International Journals.



## Interventions to build coral reef resilience under global and local impacts

**Peter J Mumby**

Marine Spatial Ecology Lab, School of Biological Sciences,  
University of Queensland, Australia

**Date:** 24 April 2024

**Time:** 08:30–09:00

**Venue:** Mayfair Ballroom, 11<sup>th</sup> Floor

Professor Peter Mumby is currently the **Director of Marine Spatial Ecology Lab, School of Biological Sciences, University of Queensland, Australia.**

He began his career helping to design marine reserves in Belize and experienced first hand the limited scientific basis for decision-making. He then began a research pathway with a goal of providing science that can inform practical conservation and management action. His research combines field observations, experiments, remote sensing, and ecological modelling to answer questions about ecosystem resilience, impacts of climate change, marine reserve functioning and design, connectivity of ecosystems, coral reef fisheries, and restoration. Peter undertook a PhD at the University of Sheffield (UK), followed by NERC, Royal Society and Laureate fellowships at the Universities of Newcastle, Exeter, and Queensland where is currently a Professor.

Peter is a Pew Fellow in Marine Conservation, winner of the inaugural ISRS Mid-Career Award. He has published more than 300 papers with an h-index of 110. He is happiest on a coral reef with a camera in his hands.



**Offshore marine biodiversity and the potential for regional collaboration**

**Padermsak Jarayabhand**  
Graduate School, Chulalongkorn University, Thailand

**Date:** 24 April 2024

**Time:** 09:00–09:30

**Venue:** Mayfair Ballroom, 11<sup>th</sup> Floor

Professor Padermsak Jarayabhand is currently a **Senior Lecturer** and **Adviser** at the **Interdisciplinary Graduate Program in Maritime Administration, Graduate School, Chulalongkorn University**.

With more than thirty years of dedication, Professor Padermsak Jarayabhand conducted various types of research, initially on marine biology and fisheries (population genetic and genetic improvement of marine organisms) and eventually in marine resource and environment management. Aside from academic research, he held the director positions in several research Institutes at Chulalongkorn University, supervising research projects for government departments including State of Coastal Water Quality for the Pollution Control Department in 2012 and the Situation of Marine and Coastal Resources and Coastal Erosion of Thailand for the Department of Marine and Coastal Resources in 2016.

Owing to a wide range of knowledge and experience, he was appointed in 2007 as a member of the Sub-committee on Knowledge Management of National Marine Interests of the National Security Council, providing advisory services to the Thai Government related to marine resource and environment management.



## Forging Partnerships with Sustainable Businesses to Power Science-based Action with Communities

**Mariglo Laririt**

Sustainability of the Ten Knots Group in Palawan, the Philippines

**Date:** 25 April 2024

**Time:** 08:30–09:00

**Venue:** Mayfair Ballroom, 11<sup>th</sup> Floor

Mariglo Laririt is the **Director for Sustainability of the Ten Knots Group in Palawan, Philippines**. Starting as a biologist overseeing natural resource assessments in 1995, Ms Laririt is today a multi-faceted sustainable tourism professional dedicated to realizing her vision of getting everyone to appreciate the benefits and responsibilities of operating resorts within a Protected Area.

Ms Laririt's work for Ten Knots has become the benchmark of sustainable tourism in tropical islands in Southeast Asia. Her programs engage guests, company owners, officers, employees, and suppliers to contribute to greater goals: conservation, community engagement, and the role of local women in the tourism value chain. She pioneered environmental education within a company, known to the international community as Be G.R.E.E.N, Be G.R.E.A.T, the program has won the Pacific Asia Tourism Association (PATA) Gold Award in 1999, 2011, 2015, and 2021 due to its ever-evolving format. She introduced the practice of conducting guided tours for guests in the Philippines wherein they aren't just shown sites, but also given an immersive, educational experience through Nature Interpretation.

In 2020, Ms Laririt was individually recognized for her outstanding contribution to environmental conservation, being awarded one of the Worldwide Fund for Nature (WWF) Philippines Conservation Heroes of the Year – a huge feat for someone working in the business sector. She is also a recent recipient of the first Asian Institute Management's Philippine Tourism Excellence Awards 2022. In June 2023, Ms Laririt received the award for Community Champion for Travel Daily's Inspiring Women in Travel (Asia). In addition to awards that chronicle her success, a book, several write-ups, interviews, and case studies have detailed her impact on the intersection of tourism, community, and conservation. These have become a reference for practitioners in tourism projects in high biodiversity areas.

Ms Laririt is a sought-after speaker here and abroad. She has spoken on community benefits, the circular economy, reduction of plastics, challenges in local governance, green investments, regenerative travel, and inspiring young adults. But she is as comfortable working outdoors.



**Inheriting Legacies: Challenges of ECOP in Navigating through UN Ocean Decade and Beyond**

**Abe Woo Sau Pinn**  
Centre For Marine & Coastal Studies, Universiti Sains Malaysia, Malaysia

**Date:** 25 April 2024

**Time:** 09:00–09:30

**Venue:** Mayfair Ballroom, 11<sup>th</sup> Floor

Abe Woo is currently serving as a **senior lecturer** in the **Centre for Marine and Coastal Studies (CEMACS), Universiti Sains Malaysia**, where he is also actively leading several marine biodiversity research in the Southeast Asian region that includes several taxa of marine invertebrate. His research interest includes systematics, taxonomy, and diversity study of marine invertebrates, focusing on the group Echinoderms.

As an ECOP/MCOP, he has been actively uncovering the marine biodiversity and systematics of sea cucumbers across the region. At the global front, he is serving in several UN Decade of Ocean Science Program ECOP co-chairs and also an active contributor to the IOC Sub-Commission for the Western Pacific (WESTPAC) programmes. At the same time, he is passionate in creating awareness and education of marine sciences to the society through various educational programmes done in CEMACS with the concept of experiential learning for marine sciences. Abe received his PhD in Natural History Sciences from Hokkaido University.

GUEST SPEAKER



**Ocean for Life: Harnessing PTTEP's Strength for Sustainable Oceans**

**Chayong Borisuitsawat**  
 PTT Exploration and Production Public Company Limited (PTTEP), Thailand

**Date:** 22 April 2024

**Time:** 18:00 – 18:30

**Venue:** Palladium Hall A, 10<sup>th</sup> Floor

Mr. Chayong Borisuitsawat is the **Executive Vice President of Strategy and Sustainable Growth Group of PTT Exploration and Production Public Company Limited (PTTEP)**. With background in Petroleum Engineering, he has more than 30 years of experience in petroleum business covering upstream oil and gas projects in several countries.

Beginning his oil field career in Drilling Operations, Mr. Chayong spent 20 solid years in all drilling functions with exposure to many drilling operations projects in many countries. Later, he moved to management positions, leading various functions at PTTEP including SSHE, Brownfield Asset Management.

During the oil price crisis, he was assigned to direct company-wide cost optimization projects and afterwards, he led the Organization and Business Transformation team which included technology and innovation development.

As part of his ongoing efforts to strengthen business performance and enhance company and employee capabilities, currently, Mr. Chayong has committed to focusing on business strategy, business development including future workforce strategy.

An underwater scene with various marine life including fish, jellyfish, and coral. The background is a gradient of blue, transitioning from light at the top to dark at the bottom. The text is centered in a white rounded rectangle.

# **Scientific Sessions and Special Forum**

## Scientific Sessions

<b>Sub-theme A: Ocean Processes and Climate Change</b>	
A1	Unveil the Kuroshio and its role in climate and ocean: Observational and modelling perspectives on multi-scale variability and multi-disciplinary aspects of the Kuroshio
A2	Western Pacific Marginal Seas: Physics, biogeochemistry and ecosystem
A3	Advance the understanding of marine heatwaves and their impacts
A4	Ocean environmental and climate changes in the past: High and low latitude connections in the Asian Continental Margins
A5	Sediment source-to-sink processes responding to rapid climate change
A6	Climate variability in the Indo-Pacific Maritime Continent (IPMC): Understanding impacts on atmosphere-ocean dynamics
<b>Sub-theme B: Marine Biodiversity, Seafood Safety and Security</b>	
B1	Biogeography and dispersal of marine life in the Western Pacific
B2	Systematics, taxonomy, and phylogenetics of marine life in the Western Pacific
B3	Vulnerability of the coral reef ecosystem towards extreme environmental fluctuations
B4	Coral reef resilience to climate change and human impacts
B5	Fisheries, biodiversity and dynamics of mangroves' aquatic ecosystem
B6	Conservation of marine endangered species
<b>Sub-theme C: Ocean and Human Health</b>	
C1	Marine chemical Contaminants of Emerging Concern (CEC)
C2	Source, transport, fate, impacts and mitigation strategies of marine plastics and microplastics
C3	Deoxygenation in the Western Pacific: Implications for coastal and open ocean ecosystems
C4	Ocean acidification and its impacts on marine ecosystems
C5	Mitigation and management of Harmful Algal Blooms
C6	Marine toxins and seafood safety
C7	Harmful jellyfish In the Southeast Asian region: Networking across the oceans
<b>Sub-theme D: Emerging Ocean Science and Cross-cutting Issues</b>	
D1	Ocean observing technology and systems in the Indo-Pacific: major advances and challenges
D2	Advanced molecular technologies in marine ecosystem research
D3	Satellite and airborne remote sensing techniques for marine ecosystem monitoring and management
D4	Deep-sea exploration and research in the Western Pacific
D5	Gas hydrates and methane fluxes in the Indo-Pacific region
D6	Sustainable financing of blue carbon

## Special Forum

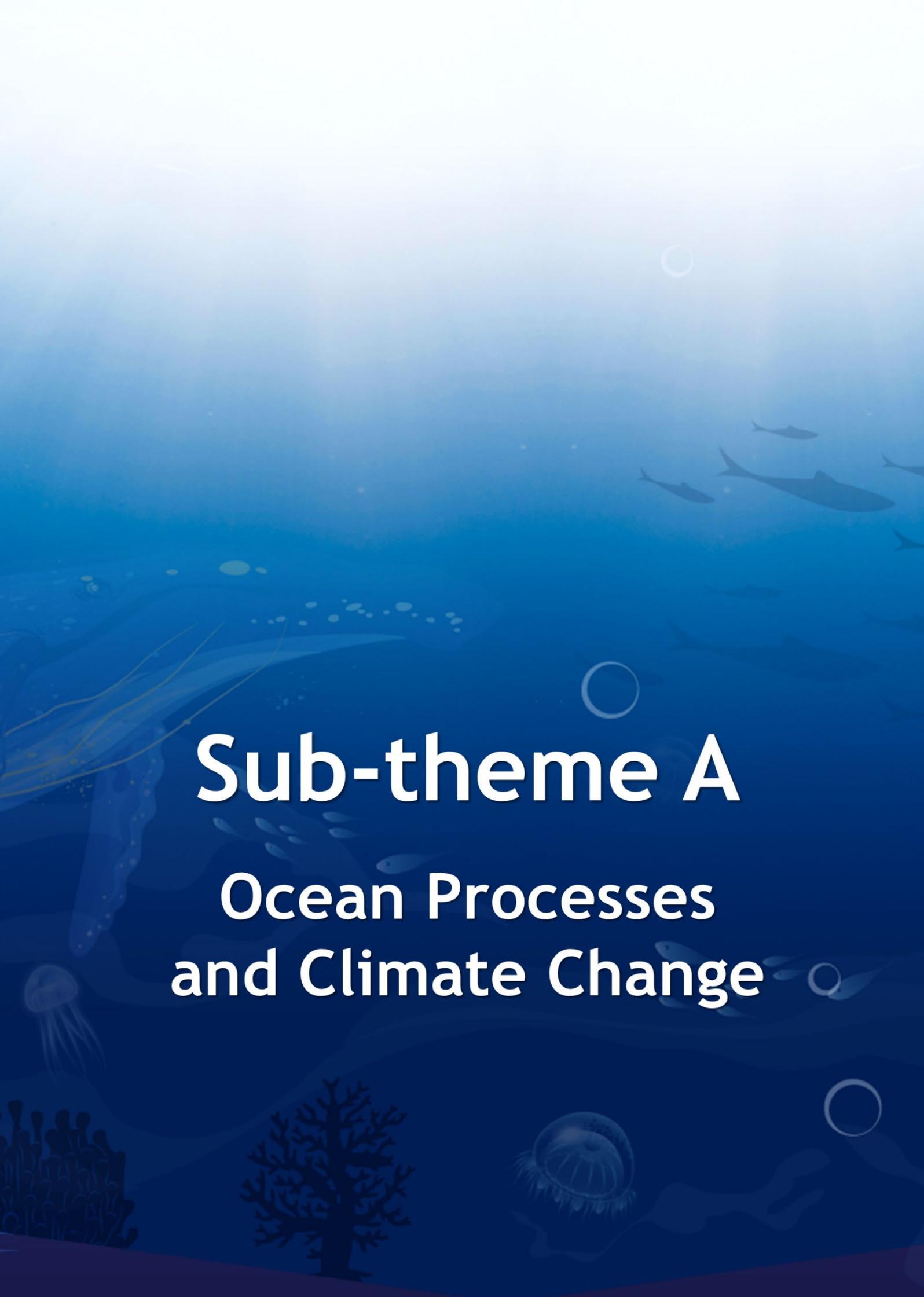
### “Science for local-level environmental management, ecosystem conservation, and sustainable use in the South China Sea and Gulf of Thailand”

Recognising that actions were urgently needed to halt degradation of the environment in the South China Sea and Gulf of Thailand, the countries bordering the basin proposed and the GEF supported the UNEP/GEF SCS Project (2002-2008) and then the UNEP/GEF SCS SAP Project since 2018. In parallel with actions on national and regional coordination and cooperation; the SCS and SCS SAP Projects have supported strongly actions at the local level. During the last years following adoption of the Strategic Action Programme (SAP) in 2008, there has existed great efforts from countries to implement the SAP, indicating significant achievements on habitat sustainable use and environment management at the local level.

The special forum, convened by the SCS SAP Project, aims to promote the UN Decade on Ocean Science for Sustainable Development. The forum will give opportunities for the network to review scientific results and their applications for management, to analyse gaps/challenges and find solutions for improvement of management effectiveness at the local level and to exchange good practices in habitat management and land-based pollution control and treatment as well as to discuss how local action and regional/transboundary cooperation could complement each other. The forum will be arranged in different topics, including inter alia: Science and management of MPAs and MPA network, Rehabilitation and resource restoration, Integration of indigenous knowledge in community-based management, Land-based pollution mitigation and treatment, Economic valuation, Engagement of private sector in monitoring and management, Studies on resilience and its implication for management, Blue carbon: local actions for global perspectives

An underwater scene with a blue gradient background. In the upper right, several fish are swimming. In the lower left, there is a cluster of coral. In the lower center, there is a large jellyfish. In the lower right, there is another jellyfish. There are also some bubbles and light rays scattered throughout the scene.

# **ORAL PRESENTATIONS**

An underwater scene with a blue gradient background. In the upper right, several fish are swimming. In the lower left, there is a large, faint silhouette of a whale. At the bottom, there are silhouettes of coral reefs and jellyfish. The text is centered in white.

# **Sub-theme A**

## **Ocean Processes and Climate Change**

## Session A1

Unveil the Kuroshio and its role in climate and ocean: Observational and modelling perspectives on multi-scale variability and multi-disciplinary aspects of the Kuroshio

**Venue:** Kensington A, 5<sup>th</sup> Floor

**Date:** 22 April 2024

**Conveners:**

Akira Nagano	JAMSTEC, Japan
Zhaohui Chen	Ocean University of China, China
Hanna Na	Seoul National University, Republic of Korea
Xiaopei Lin	Ocean University of China, China
Xin Liu	Xiamen University, China
Hiroaki Saito	Atmosphere and Ocean Research Institute, The University of Tokyo, Japan

Time	Presentation Titles	Speakers
<b>Section 1</b>		
10:30–10:45	On regime shift of the Kuroshio Extension system after 2018	Bo Qiu, <i>University of Hawaii at Manoa, USA</i>
10:45–11:00	Predictability of oceanic variability off the eastern coast of Japan by eddy-resolving forecasting System	Masami Nonaka, <i>JAMSTEC, Japan</i>
11:00–11:15	Diurnal variation of mixed layer depth at ocean climate station KEO in the northwestern Pacific	Na Feng, <i>Ocean University of China, China</i>
11:15–11:30	Daily monitoring of the Kuroshio over the Izu Ridge using GNSS on a ferryboat	Kaoru Ichikawa, <i>Kyushu University, Japan</i>
11:30–11:45	Seamount wake and turbulent mixing induced by the Kuroshio and tides in Tokara Strait	Eisuke Tsutsumi, <i>Kagoshima University, Japan</i>
11:45–12:00	Dynamical and ecological interaction between the Kuroshio and coastal circulation	Kiyoshi Tanaka, <i>The University of Tokyo, Japan</i>
12:00–12:15	Amami-Kuroshio project: baseline assessment of subtropical environment of the Amami Islands and the influence of the Kuroshio on the biosphere and humanosphere	Hiroaki Saito, <i>The University of Tokyo, Japan</i>
12:15–12:30	The stronger Kuroshio intrusion leads to higher chlorophyll a concentration in the northern South China Sea	Xin Liu, <i>Xiamen University, China</i>
<b>Section 2</b>		
13:30–13:45	ENSO-related water mass modification in the Kuroshio origin region, east of the Philippines	Akira Nagano, <i>JAMSTEC, Japan</i>

Time	Presentation Titles	Speakers
13:45–14:00	Observations of upstream-downstream connectivity of the Kuroshio current variability in the East China Sea	SeungYong Lee, <i>Seoul National University, Republic of Korea</i>
14:00–14:15	Weakening of the Kuroshio by cyclonic cold eddies enhanced by the tropical cyclones	Chanhyung Jeon, <i>Pusan National University, Republic of Korea</i>
14:15–14:30	Long-term variation of the eddy kinetic energy in the northeastern South China Sea modulated by the enhanced Kuroshio looping pathway	Baolan Wu, <i>The Hong Kong University of Science and Technology, China</i>
14:30–14:45	Dynamics of the vertical phytoplankton distribution in the Philippine Sea	Kristina S.A. Cordero-Bailey, <i>University of the Philippines Los Banos, The Philippines</i>
14:45–15:00	Onshore intensification of subtropical western boundary currents in a warming climate	Zhaohui Chen, <i>Ocean University of China, China</i>
<b>Section 3</b>		
15:30–15:45	Surface wave height regulated by ocean currents	Tianyi Cheng, <i>Ocean University of China, China</i>
15:45–16:00	Hydrographic measurement during BUDEE cruise 2022 in Maluku Sea	Agus Saleh Atmadipoera, <i>IPB University, Indonesia</i>
16:00–16:15	Vertical structure and interannual variability of upwelling in Banggai waters, Maluku Sea: a model study	Amanda Christin Dompeipen, <i>IPB University, Indonesia</i>
16:15–16:30	Anomaly of Maluku Indonesian throughflow circulation during different ENSO year in the last 15 years (2008–2023)	Hasti Amrih Rejeki, <i>STMKG, Indonesia</i>
16:30–16:45	Stratification of Indonesia Throughflow water and its circulation along 125E in the Banggai-Maluku Sea	N H Latuapo, <i>IPB University, Indonesia</i>
16:45–17:00	<b>Discussion</b>	

## Session A2

### Western Pacific Marginal Seas: Physics, biogeochemistry and ecosystem

**Venue:** Mayfair C/Mayfair B, 11<sup>th</sup> Floor

**Dates:** 22–23 April 2024

**Conveners:**

Jing Zhang	University of Toyama, Japan
SungHyun Nam	Seoul National University, Republic of Korea
Vyacheslav Lobanov	V.I.II'ichev Pacific Oceanological Institute, Russia
Eko Siswanto	JAMSTEC, Japan
Liu Qian	Ocean University of China, China

Time	Presentation Titles	Speakers
22 April 2024 Mayfair C		
<b>Section 1</b>		
10:30–10:55	Water and nutrient transport between land and ocean: toward the healthy, productive, and sustainable Asian marginal seas	Jing Zhang, <i>University of Toyama, Japan</i>
10:55–11:10	FATIMA Yellow Sea 2023 experiment: a sea fog study	Jae Hak Lee, <i>GeoSystem Research Corporation, Republic of Korea</i>
11:10–11:25	Ocean currents in the Philippine internal seas as simulated by 1/36° SURF-NEMO model	Aiko Love Del Rosario, <i>University of the Philippines Diliman, The Philippines</i>
11:25–11:40	Seasonal variability of Primorye current system	Lobanov Vyacheslav, <i>V.I.II'ichev Pacific Oceanological Institute, Russia</i>
11:40–11:55	Mesoscale eddies in the Kuril basin of the Okhotsk Sea	Sergey Prants, <i>V.I. Il'ichev Pacific Oceanological Institute, Russia</i>
11:55–12:10	Research on the East sea current field and the intersection of vortex belts affecting upwelling water in the south central region of Vietnam	Nguyen Do Vinh, <i>Institute of Oceanography, VAST, Vietnam</i>
12:10–12:25	Formation and fate of internal waves on the northern shelf of the South China Sea	Xiaolin Bai, <i>Xiamen University, China</i>
<b>Section 2</b>		
13:30–13:50	Variable ecosystem responses in western North Pacific LMEs to the warming after 2014	Sinjaee Yoo, <i>Jeju National University, Republic of Korea</i>
13:50–14:05	Seasonal hydrographic patterns of the Gulf of Thailand and interactions with the South China Sea: insights from a numerical Model utilizing the novel dataset	Tanuspong Pokavanich, <i>Kasetsart University, Thailand</i>
14:05–14:20	18 Years of the upper Gulf of Thailand observations: physical and chemical properties	Arachaporn Anutaliya, <i>Burapha University, Thailand</i>

Time	Presentation Titles	Speakers
14:20–14:35	Scenarios for water transport from the Tyumen river to marine economic and protected areas based on field measurements, satellite data, ROMS modeling and Lagrangian analysis.	Lipinskaya Nadezhda, <i>V.I.Ill'ichev Pacific Oceanological Institute, Russia</i>
14:35–14:50	Observation of upwelling and chlorophyll-a spatio-temporal distribution in relation to physicochemical parameters in the Flores Sea and Pantar Strait, Indonesia	Iis Triyulianti, <i>BRIN, Indonesia</i>
14:50–15:05	The decline of the nutrient concentrations in the marginal seas around the Korean peninsula over the past 30 years	Sojin Park, <i>Seoul National University, Republic of Korea</i>
<b>Section 3</b>		
15:30–15:45	Isotopic composition of nitrate in the western Pacific Ocean: biogeochemical signals and their transport	Wentao Wang, <i>Chinese Academy of Sciences, China</i>
15:45–16:00	Lateral transport of dissolved inorganic carbon in a mangrove-creek-estuary system: implications for ocean acidification	Qian Liu, <i>Ocean University of China, China</i>
16:00–16:15	Detecting terrestrial organic carbon contribution to the shelf sea dissolved organic matter using deuterium stable isotope signatures	A'an Johan Wahyudi, <i>Nanyang Technological University, Singapore</i>
16:15–16:30	Determination of copper (II)-binding ligands in tropical coastal area	Ng Li Qing, <i>Universiti Putra Malaysia, Malaysia</i>
16:30–16:45	Harnessing earth observations for assessing optical water quality in Asian coastal oceans	Eko Siswanto, <i>JAMSTEC, Japan</i>
16:45–17:00	Projecting physical-biogeochemistry changes (1990–2060) in the South China Sea under RCP8.5 climate change scenario	Nur Hidayah Roseli, <i>Universiti Malaysia Terengganu, Malaysia</i>
<b>23 April 2024 Mayfair B</b>		
<b>Section 4</b>		
10:00–10:15	Control factors of nutrient concentration and material cycle in the eastern part of Seto Inland Sea Japan	Akihiko Morimoto, <i>Ehime University, Japan</i>
10:15–10:30	Impacts of tropical cyclone Seroja on the phytoplankton chlorophyll-a and sea surface temperature in the Savu Sea, Indonesia	Riza Yuliratno Setiawan, <i>Universitas Gadjah Mada, Indonesia</i>
10:30–10:45	<i>Noctiluca</i> red tide and hypoxia in the upper Gulf of Thailand in 2023	Anukul Buranapratheprat, <i>Burapha University, Thailand</i>

Time	Presentation Titles	Speakers
10:45–11:00	Temporal variability of phytoplankton community structure in relation to marine environmental dynamics in temperate coastal waters	Koichi Yano, <i>Soka University, Japan</i>
11:00–11:15	Spatial heterogeneity of seasonal phytoplankton blooms in the Yellow Sea: physical drivers and biological responses	Hongjun Song, <i>First Institute of Oceanography, China</i>
11:15–11:30	Increasing dolphins appearances during extreme upwelling events: a potential marine wildlife tourism in Alor Kecil, Alor Island, Indonesia	Anindya Wirasatriya, <i>Diponegoro University, Indonesia</i>
11:30–11:45	A review of impacts of reclamation activities on water quality - towards environmental impact assessment strategy for Manila Bay	John Darryl Lagdameo, <i>University of the Philippines Diliman, The Philippines</i>
11:45–12:00	Reproductive strategies among the Paracalanidae copepods in Sagami Bay, Japan and Sepanggar Bay, Malaysia	Aruku Kawano, <i>Yokohama National University, Japan</i>

### Session A3

## Advance the understanding of Marine Heatwaves and their impacts

**Venue:** Chelsea B, 5<sup>th</sup> Floor

**Date:** 22 April 2024

**Conveners:**

Liyang Wan

Toru Miyama

Fei Zheng

National Marine Environmental Forecasting Center, China

Application Laboratory, JAMSTEC, Japan

Institute of Atmospheric Physics,

Chinese Academy of Sciences, China

Time	Presentation Titles	Speakers
<b>Section 1</b>		
13:30–13:45	Significant impact of ocean current variability on marine heatwaves around Japan	Toru Miyama, <i>JAMSTEC, Japan</i>
13:45–14:00	Progress on the evolutionary characteristics and climatic causes of warming and marine heatwaves in the coastal China Seas	Rongshuo Cai, <i>Third Institute of Oceanography, China</i>
14:00–14:15	On the calculation of solar radiation at the bottom of mixed layer in the global ocean based on ocean color satellites	Zhongping Lee, <i>Xiamen University, China</i>
14:15–14:30	Evaluation of marine heatwaves in the North Pacific Ocean simulated by CMIP6 models: a clustering-based approach	Wonkeun Choi, <i>Korea Institute of Ocean Science and Technology, Republic of Korea</i>
14:30–14:45	Marine heatwave during the El Niño Southern Oscillation based on satellite derived in the Banda Sea	Choerunnisa Febriani, <i>Universitas Padjadjaran, Indonesia</i>
14:45–15:00	<b>Discussion</b>	
<b>Section 2</b>		
15:15–15:30	Upper ocean stratification preconditions Marine Heat Wave (MHW) events in marginal seas	Dong Eun Lee, <i>Chungnam National University, Republic of Korea</i>
15:30–15:45	Prolonged marine heatwaves in the East Korea Bay in the East Sea: characteristics and mechanisms	Chan Joo Jang, <i>Korea Institute of Ocean Science and Technology, Republic of Korea</i>
15:45–16:00	Understanding marine heatwaves in the Bay of Bengal: progresses and future endeavors	Yun Qiu, <i>Third Institute of Oceanography, China</i>
16:00–16:15	Comparative analysis of Marine Heatwave (MHW) and Degree Heating Week (DHW) and its applicability to Philippine Seas	Rachel Francisco, <i>University of the Philippines, The Philippines</i>

Time	Presentation Titles	Speakers
16:15–16:30	Seasonal trends in marine heatwaves and its impacts on coral reef connectivity	Yi Guan, <i>Guangdong Ocean University, China</i>
16:30–16:45	Analysis of marine heatwaves in China’s coastal seas and adjacent offshore waters	Liyang Wan, <i>National Marine Environmental Forecasting Center, China</i>
16:45–17:00	<b>Discussion</b>	

## Session A4

### Ocean environmental and climate changes in the past: High and low latitude connections in the Asian Continental Margins

**Venue:** Chelsea B, 5<sup>th</sup> Floor

**Date:** 23 April 2024

**Conveners:**

Xuefa Shi                      First Institute of Oceanography, China

Gerrit Lohmann              Alfred Wegener Institute, Germany

Takuya Itaki                      Institute of Geology and Geoinformation, Japan

J. Paul Liu                      North Carolina State University, USA

Shuqing Qiao                      First Institute of Oceanography, China

Time	Presentation Titles	Speakers
<b>Section 1</b>		
10:00–10:15	Quaternary organic biomarkers western Indo-Pacific warm pool paleoceanography: new progress	Min-Te Chen, <i>Institute of Earth Sciences, NTOU</i>
10:15–10:30	Depth of thermocline changes at the Makassar Strait based on planktonic foraminiferal abundance during the last glacial maximum	Oktavira Dwi Demia Larasati, <i>Institut Teknologi Bandung, Indonesia</i>
10:30–10:45	Dynamics of dissolved methane and organic matter in water in the Chukchi Sea summertime in 2015 and 2016	Oanh Thi Ngoc Bui, <i>Vietnam National University Ho Chi Minh City, Vietnam</i>
10:45–11:00	A Storm surge hazard indicator and hazard evaluation in China	Xiang Fu, <i>National Marine Environmental Forecasting Center, China</i>
11:00–11:15	Comparison of sediment source to sink process in high and low latitude areas of Asian continental margin	Xuefa Shi, <i>First Institute of Oceanography, China</i>
11:15–11:30	A review of in situ marine environment research and efforts in Southeast Asia	Wai Leong, <i>National University of Singapore, Singapore</i>
11:30–12:00	<b>Discussion</b>	

## Session A5

### Sediment source-to-sink processes responding to rapid climate change

**Venue:** Somerset B, 5<sup>th</sup> Floor

**Date:** 22 April 2024

**Conveners:**

Zhifei Liu

Penjai Sompongchaiyakul

Fernando P. Siringan

Edlic Sathiamurthy

Tongji University, China

Chulalongkorn University, Thailand

University of the Philippines, The Philippines

Universiti Malaysia Terengganu, Malaysia

Time	Presentation Titles	Speakers
<b>Section 1</b>		
10:30–10:45	Source-to-sink transport processes of fluvial sediments on the Gulf of Thailand	Zhifei Liu, <i>Tongji University, China</i>
10:45–11:00	Geochemical characterization of marine sediment cores from the Gulf of Thailand: constraints on provenance and weathering	H. M. Zakir Hossain, <i>Jashore University of Science and Technology, Bangladesh</i>
11:00–11:15	Suspended sediment transport along tropical river catchment-estuary-coastal shelf continuum system: a case study from the Selangor River, Malaysia	Aijun Wang, <i>Third Institute of Oceanography, China</i>
11:15–11:30	Sediment accumulation rates in the eastern upper Gulf of Thailand using <sup>210</sup> Pb dating method	Ratsirin Supcharoen, <i>Chulalongkorn University, Thailand</i>
11:30–11:45	Anthropogenic lead (Pb) sources in the atmosphere and deposition trends in the Indian Ocean	Reshmi Das, <i>Jadavpur University, India</i>
11:45–12:00	Distribution and elemental composition of atmospheric aerosols over the Gulf of Thailand during the southwest monsoon	Jariya Kayee, <i>Nanyang Technological University, Singapore</i>
12:00–12:15	Compositions and sources of sedimentary organic carbon on the Gulf of Thailand	Baozhi Lin, <i>Tongji University, China</i>
<b>Section 2</b>		
13:30–13:45	Coastal erosion along the northwest coast of Luzon: trends and causes	Fernando P. Siringan, <i>University of the Philippines Diliman, The Philippines</i>
13:45–14:00	Disturbance of marine sediments by tsunami and its effect on water quality	Mitsuru Hayashi, <i>Kobe University, Japan</i>
14:00–14:15	Typhoon Chan-Hom (2015) induced sediment cross-shore transport in the mud depo-center of the East China Sea inner shelf	Yunhai Li, <i>Third Institute of Oceanography, China</i>

Time	Presentation Titles	Speakers
14:15–14:30	Integrated assessment of total mercury distribution in water, sediment, and biota of Thai river estuaries	Prabakaran Krishnamurthy, <i>Chulalongkorn University, Thailand</i>
14:30–14:45	Environmental disturbances could affect sediment trapping in tropical coastal seagrass beds	Ow Yan Xiang, <i>National University of Singapore, Singapore</i>
14:45–15:00	Chemical weathering in the Mekong river basin: clay mineralogy and element geochemistry of lower-reach river sediments	Pham Nhu Sang, <i>Tongji University, China</i>
<b>Section 3</b>		
15:30–15:45	Plio-pleistocene structures and deposition in the southern Java Sea	Susilohadi Susilohadi, <i>BRIN, Indonesia</i>
15:45–16:00	Sea level and East Asian monsoon influenced chemical weathering records in the southern South China Sea over the past 21 ka	Hongchao Zhao, <i>Tongji University, China</i>
16:00–16:15	Optical properties of dissolved organic matter from Bangpakong River to Sichang Island, Thailand	Warasyn Boontanapibul, <i>Chulalongkorn University, Thailand</i>
16:15–16:30	Multi-annual change of Jakarta Bay's carbonate system	Camellia Kusuma Tito, <i>IPB University, Indonesia</i>
16:30–16:45	Chromophoric dissolved organic matter in Bangpakong estuary, Thailand	Chirawat Duangthong, <i>Chulalongkorn University, Thailand</i>
16:45–17:00	Investigating the geochemical characteristics and associated toxicity of bioavailable metals around Singapore intertidal zones by diffusive gradients in thin films (DGT)	Iravati Ray, <i>Jadavpur University, India</i>

## Session A6

### Climate variability in the Indo-Pacific Maritime Continent (IPMC): Understanding impacts on atmosphere-ocean dynamics

**Venue:** Jubilee B, 11<sup>th</sup> Floor

**Date:** 23 April 2024

**Conveners:**

Dava Amrina                      BMKG, Indonesia

Nelly Florida Riama            BMKG, Indonesia

Chidong Zhang                    NOAA, USA

Time	Presentation Titles	Speakers
<b>Section 1</b>		
10:00–10:15	Comparison of FNL and ERA5 as WRF model input with incorporation of Reynolds OI SST in the simulation of atmospheric conditions during rain-induced flood events in Tangerang	Dendi Rona Purnama, <i>BMKG, Indonesia</i>
10:15–10:30	Reef temperature dynamics in the West Pacific from coral carbonate elemental ratio geochemistry	Timothy Glenn Iringan, <i>University of the Philippines, The Philippines</i>
10:30–10:45	Andaman local responses to 2016 super El Niño	Nuttida Chanthasiri, <i>Ocean University of China, China</i>
10:45–11:00	Exploring the spatiotemporal variations in soil moisture-precipitation relationship in the Maritime Continent	Pallav Ray, <i>Florida Institute of Technology, USA</i>
11:00–11:15	Identification of ENSO and IOD Impact on average monthly rainfall in Indonesia Maritime Continent by machine learning	Richard Mahendra Putra, <i>BMKG, Indonesia</i>
11:15–11:30	Characteristics of Jakarta rain rate associated with the Madden-Julian Oscillation and topography	Sopia Lestari, <i>BRIN, Indonesia</i>
11:30–11:45	Relationship between the Hadley circulation and tropical SST meridional structures under different thermal conditions in the Indo-Pacific warm pool	Xuanliang Ji, <i>Beijing Normal University, China</i>
11:45–12:00	Investigating inter-annual precipitation variability using moisture budget analysis in northern Sumatra Island during boreal summer and winter	Yahya Darmawan, <i>STMKG, Indonesia</i>
<b>Section 2</b>		
13:00–13:15	The effect of climate variability to the air-sea carbon flux in Indonesia Waters	Avrionesti, <i>Indonesia State College of Meteorology Climatology and Geophysics (STMKG), Indonesia</i>

Time	Presentation Titles	Speakers
13:15–13:30	The study of ocean wave climate variabilities around Indonesia Seas	Muhammad Arief Rahman, <i>BMKG, Indonesia</i>
13:30–13:45	Predictability of the ocean-atmosphere coupled system of the Indo-Pacific Maritime Continent	Chidong Zhang, <i>NOAA, USA</i>
13:45–14:00	Response of sea surface temperature on west coast of Sumatra Island during El Niño event in 2023	Nelly Florida Riama, <i>BMKG, Indonesia</i>
14:00–14:15	Detection of MJO characteristics in the Indonesian Maritime Continent	Ivonne M. Radjawane, <i>Bandung Institute of Technology, Indonesia</i>
14:15–14:30	The Influence of MJO and tropical waves during mesoscale convective complex (MCC) as an indicator of tropical cyclone development (case study: Tropical Cyclone Seroja)	Rion Suaib Salman, <i>BMKG, Indonesia</i>
14:30–14:45	Discovering ENSO modulation in the Indo-Pacific Maritime Continent (IPMC) through sparse identification of nonlinear dynamics (SINDy) Model using MJO Data	Widya Ayuningtiyas, <i>BMKG, Indonesia</i>
14:45–15:00	Effects of Indian Ocean Dipole initialization on the forecasting of La Niña one year in advance	Shouwen Zhang, <i>Southern Marine Science and Engineering Guangdong Laboratory (Zhuhai), China</i>
<b>Section 3</b>		
15:30–15:45	The freshwater distribution on the southern part of the Indonesian Throughflow during the Indo-Pacific climate anomaly using OFES data	Amirotul Bahiyah, <i>Sriwijaya University, Indonesia</i>
15:45–16:00	The new operational of Indonesian Ocean Forecast System based on high resolution couple atmosphere-wave-ocean model (InaCAWO)	Furqon Alfahmi, <i>BMKG, Indonesia</i>
16:00–16:15	Study on ocean heat content during the n-IOD 2010 and p-IOD 2012 events along the western Sumatra until southern Java Islands waters	Ivonne M. Radjawane, <i>Bandung Institute of Technology, Indonesia</i>
16:15–16:30	Impact of Indonesia Throughflow on tropical cyclone genesis in the Banda Sea	Khafid Rizki Pratama, <i>BMKG, Indonesia</i>
16:30–16:45	Seasonal and interannual variability of fronts and their impact on chlorophyll-a in the Indonesian seas	Yuntao Wang, <i>Second Institute of Oceanography, China</i>
16:45–17:00	<b>Discussion</b>	

An underwater scene with a blue gradient background. In the upper right, several fish are swimming. In the lower left, there is a silhouette of coral. In the lower center, there is a silhouette of a jellyfish. Several white circles representing bubbles are scattered throughout the scene.

# Sub-theme B

**Marine Biodiversity,  
Seafood Safety and Security**

## Session B1

### Biogeography and dispersal of marine life in the Western Pacific

**Venue:** Kensington B, 5<sup>th</sup> Floor

**Date:** 23 April 2024

**Conveners:**

Youn-Ho Lee                      Korea Institute of Ocean Science and Technology,  
Republic of Korea

Ephrime B. Metillo            Mindanao State University-Iligan Institute of Technology,  
The Philippines

Zainal Arifin                    BRIN, Indonesia

Time	Presentation Titles	Speakers
<b>Section 1</b>		
13:00–13:15	Diversity of reef-associated fishes of Saint Martin’s Island in the Northern Bay of Bengal, Bangladesh through DNA barcoding	Kazi Ahsan Habib, <i>Sher-e-Bangla Agricultural University, Bangladesh</i>
13:15–13:30	Diversification and biogeography of <i>Kappaphycus</i> (Gigartinales, Rhodophyta)	John Michael L. Lastimoso, <i>University of the Philippines Diliman, The Philippines</i>
13:30–13:45	Evidence of fish following towed oil and gas platforms to a reefing site and rapid colonization	Se Songploy, <i>Chulalongkorn University, Thailand</i>
13:45–14:00	Variability of hard coral diversity and their endosymbiont algae (Symbiodiniaceae) in mesophotic reefs around Peninsular Malaysia	Nurzahirah Kamarudin, <i>Universiti Malaysia Terengganu, Malaysia</i>
14:00–14:15	Monsoonal dynamics and dietary influence on Omega-3 variability in Bali Sardines ( <i>Sardinella lemuru</i> ): implications for fisheries management and sustainable development goals	Aida Sartimbul, <i>Universitas Brawijaya, Indonesia</i>
14:15–14:30	A case study on the sea slugs (Order: Nudibranchia) with citizen science approached in marine biological data collections in Terengganu waters, Malaysia	Siti Nabila Ayu Jasni, <i>Universiti Malaysia Terengganu, Malaysia</i>
14:30–15:00	Discussion	
<b>Section 2</b>		
15:30–15:45	Species distribution modeling of octocorals within the Asia–Pacific region.	Christine Segumalian, <i>Independent researcher, The Philippines</i>
15:45–16:00	Comparison of diversity of marine fish in Bali Strait and Sempu Strait-East Java based on Environmental DNA: implication to sustainable fishery	Victor Adi Winata, <i>Universitas Brawijaya, Indonesia</i>
16:00–16:15	Geographic distribution pattern and genetic connectivity of Chinese Silver Pomfret ( <i>Pampus</i>	Md. Nazmus Sakib, <i>Sher-e-Bangla Agricultural University, Bangladesh</i>

Time	Presentation Titles	Speakers
	<i>chinensis</i> ) populations across the northern Bay of Bengal and Indo-west Pacific region	
16:15–16:30	Catch efficiency of Squid jigging fisheries in the Oyashio Extension Regions	Zixuan Niu, <i>Ocean University of China, China</i>
16:30–16:45	The long-term monitoring of Ciguatera-causing dinoflagellates <i>Gambierdiscus</i> and <i>Ostreopsis</i> in Korean coastal waters	Eunyoung Yoon, <i>Advanced Institutes of Convergence Technologies, Republic of Korea</i>
16:45–17:00	<b>Discussion</b>	

**Session B2**  
**Systematics, taxonomy, and phylogenetics of marine life in  
the Western Pacific**

**Venue:** Somerset A, 5<sup>th</sup> Floor

**Date:** 22 April 2024

**Conveners:**

Abe Woo Sau Pinn

CEMACS, Universiti Sains Malaysia, Malaysia

Naoto Jimi

Nagoya University, Japan

Time	Presentation Titles	Speakers
<b>Section 1</b>		
10:30–10:45	Garden of polychaetes: new ecosystem engineer in rocky ocean	Naoto Jimi, <i>Nagoya University, Japan</i>
10:45–11:00	Taxonomic problems of the acanthocephalan genus <i>Echinorhynchus</i> revealed by a molecular phylogenetic analysis of species from Japanese coastal waters	Yuki Kita, <i>Hokkaido University, Japan</i>
11:00–11:15	Molecular phylogeny of the Monostilifera with insights into the evolution of commensalism in Nemertea	Natsumi Hookabe, <i>JAMSTEC, Japan</i>
11:15–11:30	The necessity of DNA sequence data in the taxonomy and systematics of polymorphic marine worms: the case of nemerteans in the genus <i>Oerstedia</i> Quatrefages, 1864 (Nemertea, Hoplonemertea)	Jamael Abato, <i>Hokkaido University, Japan</i>
11:30–11:45	Recent progress in the taxonomy and phylogeny of Anthuroidea (Crustacea: Isopoda) in Japan	Shoki Shiraki, <i>Hokkaido University, Japan</i>
11:45–12:00	Unraveling the taxonomic identity and phylogenetic relationships of sea cucumber from the genus <i>Stichopus</i> (Holothuroidea: Stichopodidae)	Hong Leong Cheah, <i>Monash University Malaysia, Malaysia</i>
12:00–12:15	The cryptic diversity of the genus <i>Andrometra</i> (Echinodermata, Crinoidea, Antedonidae): taxonomic importance of cirri and arm ossicles	Gregorius Altius Pratama, <i>The University of Tokyo, Japan</i>
12:15–12:30	Diversity of octocoral species in submarine groundwater discharge (SGD) influenced sites in Mabini and Tingloy, Batangas, Philippines	Aubrey Jacklynn Abadiano, <i>University of the Philippines- Diliman, The Philippines</i>
<b>Section 2</b>		
13:30–13:45	Narrowing the gaps in the fish reference database for effective eDNA monitoring: preliminary surveys at the Malaysian mangrove ecosystems	Cecilia Chu, <i>University of the Ryukyus, Japan</i>

Time	Presentation Titles	Speakers
13:45–14:00	Species diversity of marine fishes in the Sulu Archipelago, Philippines: Building a DNA barcode reference library at the heart of Coral Triangle	Maybelle Fortaleza, <i>University of the Philippines Mindanao, The Philippines</i>
14:00–14:15	DNA barcoding elasmobranchs of Bangladesh: discovery of a new guitarfish species and potential uses in conservation	Md. Jayedul Islam, <i>Sher-e-Bangla Agricultural University, Bangladesh</i>
14:15–14:30	Phylogeny and biology of common coastal pricklebacks fish species (Perciformes: Zoarcoidei, Opisthocentridae) of the Northern Pacifica	Olesia Rutenko, <i>Far Eastern Federal University, Russia</i>
14:30–14:45	Discovering marine myxosporean (Cnidaria: Myxozoa) diversity in Malaysian waters: characterization, phylogeny, and host interactions in the northeast region of peninsular Malaysia	Muhammad Hafiz Borkhanuddin, <i>Universiti Malaysia Terengganu, Malaysia</i>
14:45–15:00	Coral community structure in Kota Kinabalu coastal waters, Sabah, Malaysia	Khodzori Fikri Akmal, <i>Universiti Malaysia Sabah, Malaysia</i>
<b>Section 3</b>		
15:30–15:45	Diversity of the picophytoplankton Mamiellophyceae in the West Philippines Sea with emphasis on <i>Ostreococcus</i>	Brian William Hingpit, <i>University of the Philippines- Diliman, The Philippines</i>
15:45–16:00	Genetic diversity, temporal variability, and host association of parasitic <i>Amoebophrya</i> spp. (Syndiniales Group II) in tropical marine waters	Maria Anna Michaela De La Cruz, <i>University of the Philippines Diliman, The Philippines</i>
16:00–16:15	New records of raphidophytes in the Philippines: morphology, phylogeny and their worldwide distribution	Samantha Patricia C. Esteban, <i>Central Luzon State University, The Philippines</i>
16:15–16:30	Genetic diversity of harmful Family Kareniaceae in the Philippines, including the detection of a potentially two undescribed species	Garry Benico, <i>Central Luzon State University, The Philippines</i>
16:30–17:00	<b>Discussion</b>	

### Session B3

## Vulnerability of the coral reef ecosystem towards extreme environmental fluctuations

**Venue:** Jubilee A, 11<sup>th</sup> Floor

**Date:** 22 April 2024

**Conveners:**

Tan Chun Hong Faculty of Science and Marine Environment, Universiti Malaysia Terengganu, Malaysia

Mathinee Yucharoen Coastal Oceanography and Climate Change Research Center, Prince of Songkla University, Thailand

Time	Presentation Titles	Speakers
<b>Section 1</b>		
13:30–13:45	Record-setting marine heatwaves lead to large-scale coral bleaching and mortality across the eastern tropical Pacific and wider Caribbean: is the 4 <sup>th</sup> global mass coral bleaching event imminent?	Derek P. Manzello, NOAA, USA
13:45–14:00	High temperature and hyposalinity triggered the 2022 coral mass bleaching event in Hong Kong	Apple Pui Yi Chui, The Chinese University of Hong Kong, China
14:00–14:15	New warming master model: explaining ocean heat redistribution that exacerbates coral bleaching	Jungang Lu, East China Normal University, China
14:15–14:30	A comprehensive experiment on the physiological responses of coral to low oxygen conditions	Long Ying, Prince of Songkla University, Thailand
14:30–14:45	Interactive effects of seawater acidification and nutrients enrichment on early planulae stages of coral <i>Acropora digitifera</i> from Pulau Bidong, Terengganu, Malaysia	Muhammad Haidhar Almatin Ramli, Universiti Malaysia Terengganu, Malaysia
14:45–15:00	Tidal-driven submarine groundwater discharge and its impact on coral reefs: insights from Bidong Island, Malaysia	Wei San Phang, Universiti Malaysia Terengganu, Malaysia
<b>Section 2</b>		
15:30–15:45	The effects of pH and temperature variation on early stages of hard coral, <i>Acropora digitifera</i> in Pulau Bidong, Terengganu	Asma Aisha Kamarudin, Universiti Malaysia Terengganu, Malaysia
15:45–16:00	Study on the effect of sea current to the coral reef life form ( <i>Scleractinia</i> ) to accelerate the restoration effort	Addiena Kesuma, Institut Teknologi Bandung, Indonesia
16:00–16:15	Diseases and compromised health signs in coral reefs along the eastern Gulf of Thailand	Vimonrat Boonrattanakom, Burapha University, Chanthaburi Campus, Thailand

Time	Presentation Titles	Speakers
16:15–16:30	Coral disease in the Gulf of Thailand: comprehensive review and preliminary findings	Lalita Putchim, <i>Department of Marine and Coastal Resources, Thailand</i>
16:30–16:45	Hard coral community in Pulau Bidong under the influence of environmental factors	Mohmad Fuad Nur Qamarina, <i>Universiti Malaysia Terengganu, Malaysia</i>
16:45–17:00	Growth of crustose coralline algae (CCA) on ceramic substrates with different additive material types and composition	Widiastuti, <i>Universitas Udayana Kampus Bukit Jimbaran, Indonesia</i>

## Session B4

### Coral reef resilience to climate change and human impacts

**Venue:** Jubilee A, 11<sup>th</sup> Floor

**Date:** 23 April 2024

**Conveners:**

Thamasak Yeemin      Department of Biology, Faculty of Science,  
Ramkhamhaeng University, Thailand

Jing Zhang              East China Normal University, China

Vo Si Tuan                Institute of Oceanography, Vietnam

Takashi Nakamura      University of the Ryukyus, Japan

Time	Presentation Titles	Speakers
<b>Section 1</b>		
10:00–10:15	Effects of anoxia and hypoxia on scleractinian corals oxidative stress responses	Siti Nurtahirah Jaafar, <i>Universiti Malaysia Terengganu, Malaysia</i>
10:15–10:30	Symbiodiniaceae diversity hosted by <i>Palythoa tuberculosa</i> of adjacent ecoregions – the Straits of Malacca and South China Sea: environmental and climate change perspectives	Hai Ping Yu, <i>Universiti Kebangsaan Malaysia, Malaysia</i>
10:30–10:45	Coastal coral reefs and coral reef fish in extreme environmental conditions	Apichit Sonmongkon, <i>Department of Marine and Coastal Resources, Thailand</i>
10:45–11:00	Changes in the multi-species fishery production of commercially important nearshore marine invertebrates in Bolinao, Pangasinan, after 30 years (1992–2023)	Jerwin Baure, <i>University of the Philippines Diliman, The Philippines</i>
11:00–11:15	Comparative analysis of marine invertebrates settlement & biodiversity in Terengganu's Islands: preliminary insights on their ecological implications	Arham bin Taupek, <i>Universiti Malaysia Terengganu, Malaysia</i>
11:15–11:30	Relationship between parrotfish abundance and benthic lifeforms at tropical coral reef ecosystem in Terengganu, east coast of Peninsular Malaysia	Rahman Syahputra, <i>Universiti Malaysia Terengganu, Malaysia</i>
11:30–11:45	Mass coral bleaching event of 2022 in Sekisei Lagoon, Japan: insights during and one year post bleaching	Mariyam Shidha Afzal, <i>University of the Ryukyus, Japan</i>
11:45–12:00	Effects of repeated bleaching events on the resilience of corals in Sekisei Lagoon	Takashi Nakamura, <i>University of the Ryukyus, Japan</i>
<b>Section 2</b>		
13:00–13:15	Epidemiology and etiology of tissue necrosis disease in corals around Okinawa, Japan	Dio Dirgantara, <i>University of the Ryukyus, Japan</i>

Time	Presentation Titles	Speakers
13:15–13:30	Interplay of leaching effects of calcium carbonate-enhanced tiles and surface topography: implications for coral larvae settlement and skeleton development in restoration initiatives	Muhammad Alif Kamarul Azman, <i>Universiti Malaysia Terengganu, Malaysia</i>
13:30–13:45	Investigation on the effects of substrate materials on the larvae settlement success of hard coral, <i>Acropora digitifera</i>	Nur Syafiqah Hashim, <i>Universiti Malaysia Terengganu, Malaysia</i>
13:45–14:00	Comparative analysis of resilience in coral restoration methodology: direct transplantation versus larvae enhancement	Chun Hong Tan, <i>Universiti Malaysia Terengganu, Malaysia</i>
14:00–14:15	Integrated approach for coral reef conservation and rehabilitation in the Philippines	Hiroyuki Takasuna, <i>Kajima Corporation, Japan</i>
14:15–14:30	A review of coral reef restoration initiatives in the Philippines from 1977 to 2023	Maria Vanessa Baria-Rodriguez, <i>University of the Philippines, Diliman, The Philippines</i>
14:30–14:45	Coral reef resilience to environment and climate change in the Eastern Gulf of Thailand	Choochai Ruangjaroon, <i>Burapha University, Chanthaburi Campus, Thailand</i>
14:45–15:00	Reef corals can be resilient again disasters: resilience in Con Dao Islands, Vietnam for last nearly 25 years	Si Tuan Vo, <i>Institute of Oceanography, Vietnam</i>
<b>Section 3</b>		
15:30–15:45	Assessing anthropogenic impacts and resilience of coral reefs in Pulau Redang Marine Park towards improving MPA management strategies	Puteri Nur Adila Megat Yusop, <i>Universiti Malaysia Terengganu, Malaysia</i>
15:45–16:00	Mitigation of environmental stresses on reef-building corals and conservation perspective	Tomihiko Higuchi, <i>The University of Tokyo, Japan</i>
16:00–16:15	Social-ecological systems approach to mitigate reef degradation and enhance agricultural production for community-based Crown-of-Thorns Starfish and seaweed management	Sefano Moon Katz, <i>Pacific Blue Foundation, Fiji</i>
16:15–16:30	Resilience based management of coral reefs for biodiversity conservation and sustainable livelihood in Gulf of Mannar, southeast India	Jasperkalam Patterson Edward, <i>Suganthi Devadason Marine Research Institute, India</i>
16:30–16:45	Linking area-based conservation and resilience-based management to enhance coral reef resilience in Thailand	Wichin Suebpala, <i>Ramkhamhaeng University, Thailand</i>
16:45–17:00	<b>Discussion</b>	

## Session B5

### Fisheries, biodiversity and dynamics of mangroves' aquatic ecosystem

**Venue:** Chelsea A, 5<sup>th</sup> Floor

**Date:** 23 April 2024

**Conveners:**

Kazi Ahsan Habib

Tadashi Kajita

Sher-e-Bangla Agricultural University, Bangladesh

Tropical Biosphere Research Center,

University of the Ryukyus, Japan

Yaya Ihya Ulumuddin

Alison Kim Shan Wee

Research Center for Oceanography, BRIN, Indonesia

University of Nottingham Malaysia, Malaysia

Time	Presentation Titles	Speakers
<b>Section 1</b>		
13:00–13:15	International initiative for eDNA-based biodiversity monitoring: uniting for a sustainable future	Michio Kondoh, <i>Tohoku University, Japan</i>
13:15–13:30	Challenges to global mangrove biodiversity studies by eDNA metabarcoding	Tadashi Kajita, <i>University of the Ryukyus, Japan</i>
13:30–13:45	Base line data for fish diversity using eDNA metabarcoding on east coast of North Sumatra and Aceh, Indonesia	Mohammad Basyuni, <i>Universitas Sumatera Utara, Indonesia</i>
13:45–14:00	Assessing lagoon fish species composition using eDNA: implications for biodiversity monitoring and conservation strategies	Shalika Kumburegama, <i>University of Peradeniya, Sri Lanka</i>
14:00–14:15	Evaluating fish biodiversity near mangrove ecosystem using eDNA metabarcoding on World Heritage Island, Okinawa, Japan	Bernadeth Grace S. Pananganan, <i>University of the Ryukyus, Japan</i>
14:15–14:30	Surveying ichthyofaunal diversity using eDNA metabarcoding in the mangroves of Peninsular Malaysia	Leanne Frances Yee, <i>University of Nottingham Malaysia, Malaysia</i>
14:30–14:45	Building a DNA barcode library of brackish and marine water fishes of Sundarbans, the world's largest mangrove ecosystem	Md. Jayedul Islam, <i>Sher-e-Bangla Agricultural University, Bangladesh</i>
14:45–15:00	Genetic variability and population structure of orange mud crab <i>Scylla olivacea</i> in the mangrove regions of Northern Indian Ocean inferred from mtDNA sequence analysis	Md. Nazmus Sakib, <i>Sher-e-Bangla Agricultural University, Bangladesh</i>
<b>Section 2</b>		
15:30–15:45	Environmental DNA metabarcoding of ichthyofauna in Asian mangrove ecosystems revealed spatial challenges in community-level analysis	Alison Kim Shan Wee, <i>University of Nottingham Malaysia Campus, Malaysia</i>

Time	Presentation Titles	Speakers
15:45–16:00	Fish utilization pattern on different proximity of planted mangroves to reefs in Northern Mindanao, The Philippines	Allyn Duvin P. Hinoguin, <i>Mindanao State University at Naawan, The Philippines</i>
16:00–16:15	Water quality and carbonate chemistry variability during the wet season along Aklan River and Bakhawan (Mangrove) Eco Park, Aklan, The Philippines	Kristel Joyce T. Occeña, <i>University of the Philippines Diliman, The Philippines</i>
16:15–16:30	Influence of fishponds on the water quality and carbonate chemistry dynamics in Batan Bay, Aklan, Philippines during the wet season	Charissa M. Ferrera, <i>University of the Philippines, Diliman, The Philippines</i>
16:30–16:45	Mangroves blue carbon assessment of replanted mangrove forest in East Coast of Peninsular Malaysia, Malaysia	Siti Mariam Muhammad Nor, <i>Universiti Malaysia Terengganu, Malaysia</i>
16:45–17:00	Typhoon damage assessment of natural and planted mangroves in Bais Bay, Negros Oriental, The Philippines	Myron Gavriel F. Baring, <i>Mangrove Matters, The Philippines</i>

**Session B6**  
**Conservation of marine endangered species**

**Venue:** Chelsea A, 5<sup>th</sup> Floor

**Date:** 22 April 2024

**Conveners:**

Xiaowan Ma

Fourth Institute of Oceanography,  
 Ministry of Natural Resources, China

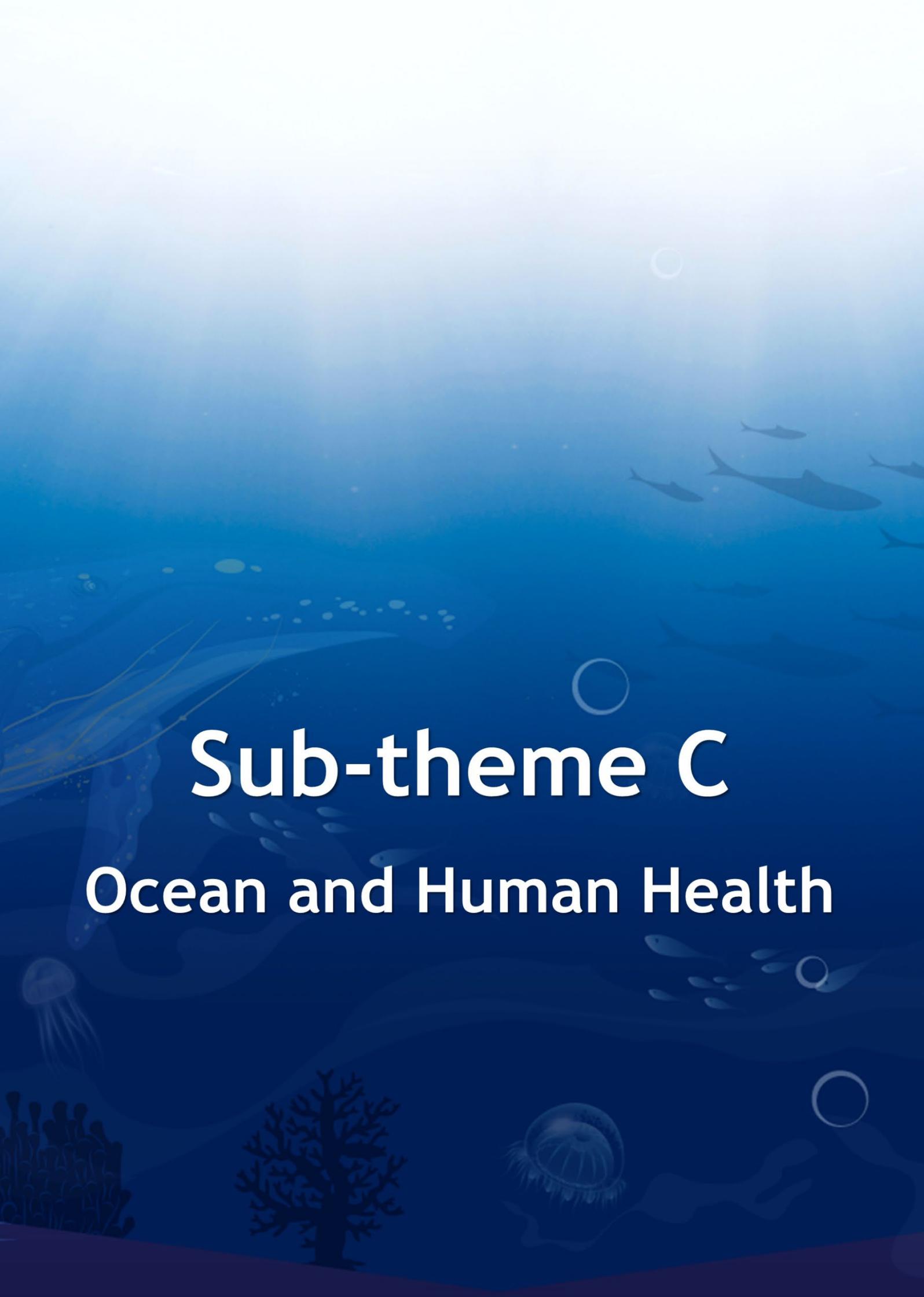
Watchara Sakornwimon

Department of Marine and Coastal Resources, Thailand

Kit Yue Kwan

College of Marine Science, Beibu Gulf University, China

Time	Presentation Titles	Speakers
<b>Section 1</b>		
10:15–10:30	Footprints in the sand: tracking sea turtle nesting on Khram Island	Bawornnan Jitphong, <i>Department of Marine and Coastal Resources, Thailand</i>
10:30–10:45	Conservation of threatened Asian horseshoe crabs in northern Beibu Gulf, China	Kit Yue Kwan, <i>Beibu Gulf University, China</i>
10:45–11:00	On the correlation between lipids and cryopreservation in coral embryonic development	Federica Buttari, <i>National Museum of Marine Biology &amp; Aquarium</i>
11:00–11:15	Irrawaddy dolphin vocalization across context-dependent patterns and group size dynamics	Hairul Masrini Muhamad, <i>Universiti Malaysia Sabah, Malaysia</i>
11:15–11:30	The fate of the dugongs in Guangxi, China	Zhou Haolong, <i>Guangxi Academy of Marine Sciences, China</i>
11:30–11:45	Study of Bryde's whale migration by using photo identification in the Gulf of Thailand	Patcharaporn Yaowasooth, <i>Department of Marine and Coastal Resources, Thailand</i>
11:45–12:00	Application of stable isotopes analysis <sup>13</sup> C and <sup>15</sup> N to unravel the trophic dynamics of the charismatic marine fauna in Malaysia: opportunities and challenges	Maizah M. Abdullah, <i>Universiti Malaysia Terengganu, Malaysia</i>
12:00–12:15	Sizing up Nusa Penida's Manta Rays: estimating size and maturity using non-invasive low-cost methods	Janis Argeswara, <i>Marine Megafauna Foundation, USA</i>
12:15–12:30	Silencing of novel <i>TtVtg6-like</i> induced ovarian cell apoptosis in ancient chelicerate <i>Tachypleus tridentatus</i>	Kian Ann Tan, <i>Beibu Gulf University, China</i>

An underwater scene with a blue gradient background. In the upper right, several fish are swimming. In the lower left, there is a large jellyfish and some coral. In the lower center, there is a tree-like coral structure. In the lower right, there is another jellyfish and some coral. The text is centered in the middle of the image.

# Sub-theme C

## Ocean and Human Health

## Session C1

### Marine chemical Contaminants of Emerging Concern (CEC)

**Venue:** Mayfair C, 11<sup>th</sup> Floor

**Date:** 23 April 2024

**Conveners:**

Kenneth Mei Yee Leung	City University of Hong Kong, China
Zainal Arifin	BRIN, Indonesia
Koji Inoue	The University of Tokyo, Japan
Ahmad Ismail	Academy of Sciences Malaysia, Malaysia
Chong Chen	City University of Hong Kong, China

Time	Presentation Titles	Speakers
<b>Section 1</b>		
10:00–10:15	Advancements in research on emerging contaminants: from monitoring to global collaboration for effective pollution management	Kenneth Mei Yee Leung, <i>City University of Hong Kong, China</i>
10:15–10:30	Paracetamol contaminant in the estuaries and pelagic system of Jakarta Bay, Indonesia	Zainal Arifin, <i>BRIN, Indonesia</i>
10:30–10:45	Contaminants of emerging concern in the marine environment of the Greater Bay Area of China	Yuefei Ruan, <i>City University of Hong Kong, China</i>
10:45–11:00	Australian dolphins have some of the highest contaminant body burdens of marine pollutants anywhere in the world and we need to act now	Chantel S Foord, <i>Royal Melbourne Institute of Technology, Australia</i>
11:00–11:15	Bisphenol A effect on sea urchin ( <i>Diadema setosum</i> ) gonad based on their seasonal variation of oxidative stress enzyme activities.	Akbar Awaluddin Hanif, <i>Universiti Malaysia Terengganu, Malaysia</i>
11:15–11:30	The affectivity of bioremediation strategies in removing oil from coastal waters: mesocosm experiment	Yeti Darmayati, <i>BRIN, Indonesia</i>
11:30–11:45	Chiral pharmaceutical residues in edible oysters in the East and South China Sea and associated health risks to humans and wildlife at enantiomeric level	Rongben Wu, <i>City University of Hong Kong, China</i>
11:45–12:00	Modeling pharmaceutical contaminant transport in an urban coastal estuarine system using DELFT3D-FLOW: the case of Manila Bay, Philippines	Ann Elizabeth R. Enova, <i>University of the Philippines Diliman, The Philippines</i>
<b>Section 2</b>		
13:00–13:15	Is Migratory Shore under threat of chemical pollution in the coastal areas of the Straits of Malacca?	Ahmad Ismail, <i>Academy of Sciences Malaysia, Malaysia</i>

Time	Presentation Titles	Speakers
13:15–13:30	Marine pollution studies using Javanese medaka and mussels	Koji Inoue, <i>The University of Tokyo, Japan</i>
13:30–13:45	Evaluation of oil-contaminated sediment during bioremediation using green mussel ( <i>Perna viridis</i> )	Dwi Hindarti, <i>BRIN, Indonesia</i>
13:45–14:00	Fish ingest and eliminate microplastics differently in seawater and freshwater: A lesson from euryhaline fish, Javanese Medaka ( <i>Oryzias javanicus</i> )	Hilda Mardiana Pratiwi, <i>The University of Tokyo, Japan</i>
14:00–14:15	An initiation study on the anthropogenic pollution and evolutionary toxicology in Javanese Medaka ( <i>Oryzias javanicus</i> )	Nurul Izza Ab Ghani, <i>Universiti Putra Malaysia, Malaysia</i>
14:15–14:30	How much do commonly monitored organic contaminants explain species-specific <i>in vitro</i> Toxicity of Seawater?	Xintong Liu, <i>The Hong Kong Polytechnic University, China</i>
14:30–14:45	Seasonal variations of heavy metals concentration in surficial sediment of Sungai Terengganu, Malaysia	Ong Meng Chuan, <i>Universiti Malaysia Terengganu, Malaysia</i>
14:45–15:00	Another emerging contaminant in the sinking city: the first evidence of metformin detected in Jakarta waters	Wulan Koagouw, <i>BRIN, Indonesia</i>
<b>Section 3</b>		
15:30–15:45	The latest progress and future prospects of the global estuaries monitoring programme	Chong Chen, <i>City University of Hong Kong, China</i>
15:45–16:00	Knowledge, awareness, and perceptions towards Fukushima nuclear wastewater discharge among the students of MSU-Iligan Institute of Technology, Philippines	Hernando P. Bacosa, <i>Mindanao State University-Iligan Institute of Technology, The Philippines</i>
16:00–16:15	A systematic study of occurrence and transformation of tire additives in urban water networks of a metropolis	Shaopeng Xu, <i>City University of Hong Kong, China</i>
16:15–16:30	Pharmaceutical and personal care products in representative aquatic environments of the Philippines	Caroline Marie B. Jaraula, <i>University of the Philippines – Diliman, The Philippines</i>
16:30–16:45	Spatial and temporal trends of organotins contamination in the marine environment of Hong Kong	Yan Jiang, <i>City University of Hong Kong, China</i>
16:45–17:00	POPs in Pacific Salmon from the Russian part of the Northwest Pacific (Russian Far East)	Aleksandra D. Borovkova, <i>Far Eastern Federal University, Russia</i>

## Session C2

### Source, transport, fate, impacts and mitigation strategies of marine plastics and microplastics

**Venue:** Mayfair B, 11<sup>th</sup> Floor

**Dates:** 22–23 April 2024

**Conveners:**

Daoji Li	East China Normal University, China
Phaothep Cherdsukjai	Department of Marine and Coastal Resources, Thailand
Ho Van The	VAST, Institute of Oceanography, Vietnam
Agung Dhamar Syakti	Raja Ali Haji Maritime University, Indonesia
Lixin Zhu	East China Normal University, China

Time	Presentation Titles	Speakers
<b>22 April 2024</b>		
<b>Section 1</b>		
10:30–10:45	Marine litter in Asia and Pacific: plastics as masters of the aquatic benthic environment	Pierpaolo Consoli, <i>Stazione Zoologica Anton Dohrn, Italy</i>
10:45–11:00	Microplastics in estuarine mysid shrimp	Jitrapat Hattaya, <i>East China Normal University, China</i>
11:00–11:15	Macroplastics flux and accumulation in a mangrove environment	Maria Kristina O. Paler, <i>University of San Carlos, The Philippines</i>
11:15–11:30	Exploring microplastic pollution in the Northwestern Pacific fishing grounds: environmental impacts and mitigation strategies	Yinan He, <i>East China Normal University, China</i>
11:30–11:45	Microplastics in sandy beaches in Khanh Hoa province, Vietnam	Le Hung Phu, <i>VAST, Vietnam</i>
11:45–12:00	Vertical distribution of microplastic along the main gate of Indonesian Throughflow pathways	Corry Yanti Manullang, <i>BRIN, Indonesia</i>
12:00–12:15	Microplastic pollution in the biota of the North Pacific region	Chengjun Sun, <i>First Institute of Oceanography, China</i>
12:15–12:30	Small microplastics detected in the intermediate layer in the North Pacific Ocean -field surveys and possible pathways-	Mao Kuroda, <i>Kyushu University, Japan</i>
<b>Section 2</b>		
13:30–13:45	Understanding microplastic pollution in the 'cleanest' river in Luzon, Philippines using optimized image-based and machine-learning methods	Kim John Balboa, <i>University of the Philippines Diliman, The Philippines</i>

Time	Presentation Titles	Speakers
13:45–14:00	Autonomous microplastic detection system modified from a coffee extraction machine in conjunction with hyperspectral imaging and AI	Ryota Nakajima, <i>JAMSTEC, Japan</i>
14:00–14:15	Applications of hyperspectral imaging with unsupervised machine learning for plastic detection in aquatic environments	Alwi Nurmadi Widyananda, <i>Swinburne University of Technology, Malaysia</i>
14:15–14:30	The first volunteer monitoring project to reveal distributions of microplastics larger than 1µm in global oceans by a Japanese giant ship company	Yutaka Kameda, <i>Chiba Institute of Technology, Japan</i>
14:30–14:45	Accumulation of plastic debris and plastic-biodegradation potential of sediment microbes in select coastal environments in western Philippines	Norchel Corcia F. Gomez, <i>University of the Philippines Diliman, The Philippines</i>
14:45–15:00	Seasonal variation and transport of microplastics from the Soan River into the Indus River	Khalida Jabeen, <i>East China Normal University, China</i>
<b>Section 3</b>		
15:30–15:45	Ocean Hitchhiker Project: plastic debris as emerging vector for transport of harmful microorganisms in Southeast Asia	Victor S. Kuwahara, <i>Soka University, Japan</i>
15:45–16:00	Source and movement of marine debris particles tracking in the Nusa Penida marine protected area, using a 3D numeric model	Ivonne Radjawane, <i>Bandung Institute of Technology, Indonesia</i>
16:00–16:15	The simulated fate and seasonal distribution of floating debris from Thailand's major river mouths	Kittipong Phattananuruch, <i>Kasetsart University, Thailand</i>
16:15–16:30	Spatial modelling to predict accumulation of floating marine debris in coastal zone – a case study in northeast coast of the USA	Phuc TD. Le, <i>University of Tasmania, Australia</i>
16:30–16:45	2D hydrodynamical model of marine microplastic transport and accumulation in mangrove environments in Sarawak, Malaysia	Christabel Sim, <i>Swinburne University of Technology, Sarawak Campus, Malaysia</i>
16:45–17:00	Influence of monsoon seasonality and tidal cycle on microplastics presence and distribution in the upper Gulf of Thailand	Haruka Nakano, <i>Kyushu University, Japan</i>
<b>23 April 2024</b>		
<b>Section 4</b>		
13:00–13:15	Microplastics in seawater and zooplankton from estuarine fronts of Kuala Terengganu, Malaysia during Southwest monsoon	Roswati Md Amin, <i>Universiti Malaysia Terengganu, Malaysia</i>

Time	Presentation Titles	Speakers
13:15–13:30	Neurotoxicity of microplastics exposure with changed neuronal activity, activated microglia, disturbed brain metabolism and abnormal behavioral outputs	Lei Li, <i>Chinese Academy of Sciences, China</i>
13:30–13:45	Genomic analysis of bacteria isolated from marine sediments in Manila Bay reveals genes potentially involved in plastics (LDPE) degradation	Juri Nazareth M. Ochotorena, <i>University of the Philippines Diliman, The Philippines</i>
13:45–14:00	Effect of environmental conditions on the carbonyl index using specific area under the band (SAUB) method during degradation of commercially-available plastics	Francis Dave C. Siacor, <i>University of San Carlos, The Philippines</i>
14:00–14:15	Removal of polyethylene and polypropylene from water by using rice husk ash	Waritta Bongchompho, <i>King Mongkut's University of Technology Thonburi, Thailand</i>
14:15–14:30	How much should we reduce plastic waste emission to achieve the Osaka Blue Ocean Vision? – global predictions of marine plastic litter abundance	Chisa Higuchi, <i>Kyushu University, Japan</i>
14:30–14:45	Current marine microplastic research and monitoring program in Thailand	Phaothep Cherdsukjai, <i>Department of Marine and Coastal Resources, Thailand</i>
14:45–15:00	Trends, gaps, and future directions to support evidence-based action on marine plastic pollution in the Philippines	Ronan Q. Baculi, <i>University of the Philippines Diliman, The Philippines</i>
<b>Section 5</b>		
15:30–15:45	PlastiCount Pilipinas: bridging gaps in understanding and addressing marine plastics pollution in the Philippines through open data	Ricardo C. Alindayu II, <i>University of the Philippines Diliman, The Philippines</i>
15:45–16:00	Whole chain control of plastic pollution in the Pearl River Estuary, China	Zhao Xiao, <i>South China Institute of Environmental Sciences, China</i>
16:00–16:15	Empowering a city: a model case for plastic circularity in the Philippines	Jeanie T. Orate, <i>University of San Carlos, The Philippines</i>
16:15–16:30	Catalyzing global solutions: the AOMI initiative in unifying data against marine plastic pollution	María Belén Alfonso, <i>Kyushu University, Japan</i>
16:30–17:00	<b>Discussion</b>	

### Session C3

## Deoxygenation in the Western Pacific: Implications for coastal and open ocean ecosystems

**Venue:** Kensington A, 5<sup>th</sup> Floor

**Date:** 23 April 2024

**Conveners:**

Gil Jacinto

University of the Philippines, The Philippines

Aileen Tan Shau Hwai

Universiti Sains Malaysia, Malaysia

Denise Breitburg

Smithsonian Environmental Research Center, USA

Time	Presentation Titles	Speakers
<b>Section 1</b>		
13:00–13:15	Hypoxia: nothing could be worse!	Rudolf Shiu Sun Wu, The Education University of Hong Kong, China
13:15–13:30	Persistent eutrophication and hypoxia in the coastal ocean	Minhan Dai, Xiamen University, China
13:30–13:45	A new generation of Dissolved Oxygen Sensor using replaceable photo-sensing film	Ron Chi On NG, NerOcean Limited, Hong Kong Science Park, China
13:45–14:00	Oxygen measurements in low-oxygen environments	Desmond Lee, Xylem, Singapore
14:00–14:15	The cross-tolerance and metabolic coordination in abalone under long-term thermal acclimation and hypoxia stress	Weiwei You, Xiamen University, China
14:15–14:30	Divergent carry-over effects of hypoxia during the early development of abalone	Yawei Shen, Xiamen University, China
14:30–14:45	Main factors dominating the development, formation and dissipation of hypoxia off the Changjiang Estuary (CE) and its adjacent waters, China	Lianbao Chi, Chinese Academy of Sciences, China
14:45–15:00	Deoxygenation in Manila Bay, Philippines: hydrodynamic and water quality modeling	Lara Sotto, University of the Philippines Diliman, The Philippines
<b>Section 2</b>		
15:30–15:45	Dissolved oxygen variation and oxygen minimum zone in the southern regions of the East Vietnam Sea	Ho Van The, VAST, Vietnam
15:45–16:00	Signatures and variations of oxygen-depleted waters along the Sumatra-Java coasts in the Southeastern Tropical Indian Ocean	Faisal Hamzah, BRIN, Indonesia

Time	Presentation Titles	Speakers
16:00–16:15	Mechanisms controlling seasonal hypoxia along the shallow coast of the Eastern Upper Gulf of Thailand	Phatcharaporn Kaewkhong, Kasetsart University, Thailand
16:15–16:30	Socioeconomic drivers of eutrophication and deoxygenation in the linked system of the central plain of Thailand and the Upper Gulf of Thailand	Khanittha Uthaipan, Xiamen University, China
16:30–16:45	Historical eutrophication and deoxygenation in marginal marine environments in the northwestern Pacific: Paleobiological of the Anthropocene	Moriaki Yasuhara, The University of Hong Kong, China
16:45–17:00	Simulation of the eutrophication of the Berau River Estuary, East Kalimantan: temporal development of nutrients, chlorophyll and primary production in comparison to observation	Idris Mandang, <i>Mulawarman University, Indonesia</i>

## Session C4

### Ocean acidification and its impacts on marine ecosystems

**Venue:** Kensington A, 5<sup>th</sup> Floor

**Date:** 23 April 2024

**Conveners:**

Maria Lourdes San Diego-McGlone	University of the Philippines, The Philippines
Aileen Tan Shau Hwai	Universiti Sains Malaysia, Malaysia
Liyan Zhang	Third Institute of Oceanography, China
Chalermrat Sangmanee	Department of Marine and Coastal Resources, Thailand

Time	Presentation Titles	Speakers
<b>Section 1</b>		
10:00–10:15	Distribution of seawater carbonate chemistry in the Straits of Malacca	Seng Chee Poh, <i>Universiti Malaysia Terengganu, Malaysia</i>
10:15–10:30	Dynamics of ocean acidity, CO <sub>2</sub> fluxes and metabolic rates on a shallow reef of Weizhou Island: a buoy-based observational study	Xu Dong, <i>Third Institute of Oceanography, China</i>
10:30–10:45	Variability of carbonate chemistry in Pattani Bay, Thailand: a potential role of macrophytes in ocean acidification mitigation and the use of citizen science	I-Hsin Yao, <i>Prince of Songkla University, Thailand</i>
10:45–11:00	Community shift of sargassaceae-dominated ecosystem around novel CO <sub>2</sub> seep off Himeshima Island, Japan	Shigeki Wada, <i>University of Tsukuba, Japan</i>
11:00–11:15	Physiological response of <i>Alexandrium</i> spp. to CO <sub>2</sub> variations	Yee Qi Teo, <i>Universiti Malaysia Terengganu, Malaysia</i>
11:15–11:30	Benthic diatom primary production under short-term exposure to acidification and warming may vary due to the influence of grazers and nutrients	Jerwin G. Baure, <i>University of the Philippines Diliman, The Philippines</i>
11:30–11:45	Independent and combined effect of low pH and elevated temperature of a non-native and native mussel species in the Philippines	Cabiguin Maryjune, <i>University of the Philippines Diliman, The Philippines</i>
11:45–12:00	Investigation of present and projection of possible future ocean acidification states in the Bungo Channel area of the Seto Inland Sea, Japan using numerical simulation	Lawrence Patrick C. Bernardo, <i>The University of Tokyo, Japan</i>

## Session C5

### Mitigation and management of harmful algal blooms

**Venue:** Kensington B, 5<sup>th</sup> Floor

**Date:** 22 April 2024

**Conveners:**

Kazumi Wakita

Pengbin Wang

Tokai University, Japan

Second Institute of Oceanography,

Ministry of Natural Resources, China

Aletta T. Yñiguez

Po Teen Lim

University of the Philippines, the Philippines

University of Malaya, Malaysia

Time	Presentation Titles	Speakers
<b>Section 1</b>		
10:30–10:45	Harmful algal bloom dynamics in Singapore waters	Sandric Chee Yew Leong, <i>National University of Singapore, Singapore</i>
10:45–11:00	Harmful algal blooms in Sabah, Malaysia: an overview	Teruaki Yoshida, <i>Universiti Malaysia Sabah, Malaysia</i>
11:00–11:15	Seasonal occurrence of harmful karenian dinoflagellates in Mombetsu, the northern coast of Hokkaido, Japan	Wai Mun Lum, <i>Japan Fisheries Research and Education Agency, Japan</i>
11:15–11:30	Unprecedented bloom of a harmful marine dinoflagellates <i>Tripos furca</i> (Dinophyceae) at the aquaculture area of Penang, Malaysia	Nur Fatimah Mohd Azmi, <i>University of Malaya, Malaysia</i>
11:30–11:45	High-throughput sequencing and imaging reveal a multispecies bloom of <i>Pseudo-nitzschia</i> in Bolinao, Pangasinan, Philippines	Gian Carlo S. Gaetos, <i>University of the Philippines Diliman, The Philippines</i>
11:45–12:30	<b>Discussion</b>	
<b>Section 2</b>		
13:30–13:45	The economic analysis of harmful algal bloom (HAB) management: A case study	Yingze Xu, <i>Chinese Academy of Sciences, China</i>
13:45–14:00	Environmental health study of Gili Matra Marine Tourism Park, Lombok, West Nusa Tenggara, Indonesia	Suhendar I Sachoemar, <i>BRIN, Indonesia</i>
14:00–14:15	The resilience of coastal and marine ecosystems to harmful algal blooms in Kamchatka (Russia)	Kirill A. Vinnikov, <i>Far Eastern Federal University, Russia</i>
14:15–14:30	Coastal eutrophication and regional nutrient criteria: A case study in the Bohai Sea, China	Baodong Wang, <i>First Institute of Oceanography, China</i>
14:30–14:45	Phytoplankton-virus dynamics during a toxic bloom in Bolinao, northwestern Philippines	Andrian Gajigan, <i>University of Hawai'i at Mānoa, USA</i>

Time	Presentation Titles	Speakers
14:45–15:00	<b>Discussion</b>	
<b>Section 3</b>		
15:30–15:45	Rapid detection technology for harmful algal blooms in the West Pacific Region	Pengbin Wang, <i>Second Institute of Oceanography, China</i>
15:45–16:00	Application of modified clay in enclosed aquaculture ponds, beyond HAB control	Isaac Yongquan Yuan, <i>Chinese Academy of Sciences, China</i>
16:00–16:15	HABs Watch: learnings from a concerted and coordinated archipelagic understanding of harmful algal blooms in the Philippines for mitigation and management	Deo Florence L. Onda, <i>University of the Philippines Diliman, The Philippines</i>
16:15–16:30	Efforts on HAB mitigation in a HAB hotspot, the Eastern Visayas, Philippines	Leni G. Yap-Dejeto, <i>University of the Philippines Tacloban College, The Philippines</i>
16:30–16:45	Diatoms as a potential regulator of a <i>Margalefidinium</i> sp. bloom in Sabah during 2018	Jerome Kok, <i>National University of Singapore, Singapore</i>
16:45–17:00	<b>Discussion</b>	

## Session C6

### Marine toxins and seafood safety

**Venue:** Kensington B, 5<sup>th</sup> Floor

**Date:** 23 April 2024

**Conveners:**

Dao Viet Ha                      Institute of Oceanography, Vietnam

Wu Jiajun                         City University of Hong Kong, China

Time	Presentation Titles	Speakers
<b>Section 1</b>		
10:00–10:15	Phthalic acid esters (PAEs) and food safety in Viet Nam: A case study in Khanh Hoa province	Xuan-Vy Nguyen, <i>Institute of Oceanography, VAST, Vietnam</i>
10:15–10:30	A latest noticeable phenomena in widespread dispersal of lipophilic marine phycotoxins in the representative tropical coral reef areas, China	Liu Yang, <i>Chinese Academy of Sciences, China</i>
10:30–10:45	Embryonic development toxicity in marine medaka ( <i>Oryzias melastigma</i> ) caused by brevetoxins	Xian Qin, <i>City University of Hong Kong, China</i>
10:45–11:00	Rapid toxin screening and characterization of new toxins from <i>Gambierdiscus balechii</i> via mass fragmentation analysis	Xiaowan Liu, <i>City University of Hong Kong, China</i>
11:00–11:15	The occurrence, trophodynamics, and potential health risks of marine lipophilic phycotoxins in coral reef fish of representative small island developing states	Jingyi Zhu, <i>City University of Hong Kong, China</i>
11:15–11:30	Microbial in seafood spoilage	Pham Thi Mien, <i>Institute of Oceanography, VAST, Vietnam</i>
11:30–11:45	Diversity of benthic harmful dinophytes revealed by eDNA metabarcoding coupled with artificial substrate sampling method	Nur Syazwani Kassim, <i>University of Malaya, Malaysia</i>
11:45–12:00	Frequent occurrence of Tetrodotoxin in the marine gastropod <i>Nassarius glans</i> causing a food poisoning in Khanh Hoa province, Vietnam	Khanh Hy Le Ho, <i>Institute of Oceanography, Vietnam</i>

**Session C7**  
**Harmful jellyfish in the Southeast Asian region:**  
**Networking across the oceans**

**Venue:** Jubilee A, 11<sup>th</sup> Floor

**Date:** 22 April 2024

**Conveners:**

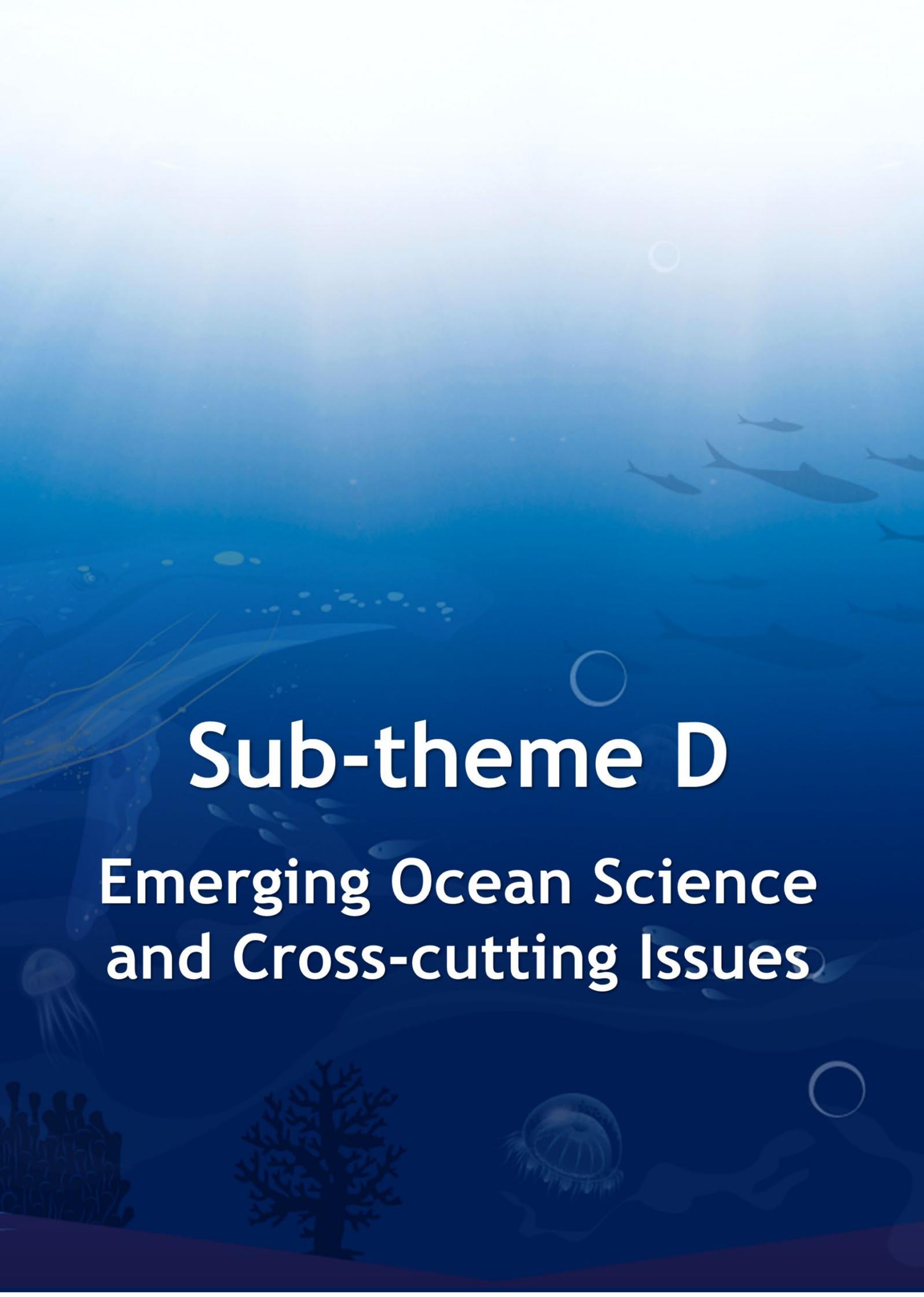
Aileen Tan Shau Hwai

Universiti Sains Malaysia, Malaysia

Ahmad Khaldun Ismail

Hospital Canselor Tuanku Muhriz UKM, Malaysia

Time	Presentation Titles	Speakers
<b>Section 1</b>		
10:30–10:45	Jellyfishes (Cnidaria: Medusozoa) reported from the first-ever systematic jellyfish survey carried out in the coastal waters of Sri Lanka	Krishan D. Karunaratne, <i>Wayamba University of Sri Lanka, Sri Lanka</i>
10:45–11:00	First recording of the ctenophore <i>Bolinopsis</i> sp. (Ctenophora, Bolinidae) in Bali coastal waters, Indonesia	Widiastuti Widiastuti, <i>Universitas Udayana Kampus Bukit Jimbaran, Indonesia</i>
11:00–11:15	Jellyfish biodiversity in the southeast coast of Bangladesh	Sadia Sultana, <i>University of Chittagong, Bangladesh</i>
11:15–11:30	Fatal jellyfish envenomation in Sabah from 2006 to 2022	Muhamad Naim Bin Ab Razak, <i>Hospital Lahad Datu, Malaysia</i>
11:30–11:45	Managing an unidentified jellyfish sting with significant clinical effects at a non-coastal hospital	Naresh Kumar Sivanasworn, <i>Universiti Kebangsaan Malaysia, Malaysia</i>
11:45–12:00	Indonesia first aid and traditional first aid	Tri Maharani, <i>Ministry of Health, Indonesia</i>
12:00–12:15	The jellyfish (Medusae) monitoring & blue citizenship outreach program in the tourist attractions of Penang, Malaysia	Sim Yee Kwang, <i>CEMACS, Universiti Sains Malaysia, Malaysia</i>
12:15–12:30	JellyGo: bridging science and application through an in-situ-based jellyfish abundance prediction model	E Chern Wong, <i>Universiti Malaya, Malaysia</i>

An underwater scene with a blue gradient background. In the upper right, several fish are swimming. In the lower left, there is a cluster of coral. In the lower center, there is a large jellyfish. In the lower right, there is another jellyfish. The text is centered in the middle of the image.

# Sub-theme D

Emerging Ocean Science  
and Cross-cutting Issues

## Session D1

### Ocean observing technology and systems in the Indo-Pacific: major advances and challenges

**Venue:** Chelsea A, 5<sup>th</sup> Floor

**Date:** 22 April 2024

**Conveners:**

Zexun Wei

First Institute of Oceanography, China

Lei Zhou

School of Oceanography, Shanghai Jiao Tong University, China

R. D. Susanto

Department of Atmospheric and Oceanic Science, University of Maryland, USA

Time	Presentation Titles	Speakers
<b>Section 1</b>		
13:30–13:45	Objective array design for three-dimensional temperature and salinity observation: application to the South China Sea	Tengfei Xu, <i>First Institute of Oceanography, China</i>
13:45–14:00	Using combined uncrewed systems to observe the air-sea transition zone	Chidong Zhang, <i>NOAA Pacific Marine Environmental Laboratory, USA</i>
14:00–14:15	Submesoscale processes observed by high-frequency float in the Western South China Sea	Dongxiao Wang, <i>Sun Yat-Sen University, China</i>
14:15–14:30	Ocean subsurface impacts on tropical cyclones in the Pacific	Lei Zhou, <i>Shanghai Jiao Tong University, China</i>
14:30–14:45	The marine environment sensing network research and monitoring buoy – a modular design for R&D and test-bedding of marine technologies	Shaun Wee, <i>National University of Singapore, Singapore</i>
14:45–15:00	China-Indonesia joint observation in the Indonesian seas during the past decade	Tengfei Xu, <i>First Institute of Oceanography, China</i>
<b>Section 2</b>		
15:30–15:45	Observations reveal equatorial waves modulating currents in the tropical Indian Ocean	Gengxin Chen, <i>Chinese Academy of Sciences, China</i>
15:45–16:00	Internal tide integrated observations in the western Pacific Ocean	Zhenhua Xu, <i>Institute of Oceanology Chinese Academy of Sciences, China</i>
16:00–16:15	Quantifying the contribution of salinity effect to the variability of the Indonesian throughflow with observations and simulations	Shijian Hu, <i>Institute of Oceanology Chinese Academy of Sciences, China</i>
16:15–16:30	Assessment of the Relationships Between Fish Distribution using Hydroacoustic and Oceanographic Parameters in Small Island Waters	Henry M. Manik, <i>IPB University, Indonesia</i>
16:30–17:00	<b>Discussion</b>	

## Session D2

### Advanced molecular technologies in marine ecosystem research

**Venue:** Somerset A, 5<sup>th</sup> Floor

**Date:** 23 April 2024

**Conveners:**

Po Teen Lim

Haifeng Gu

Satoshi Naga

University of Malaya, Malaysia

Third Institute of Oceanography,

Ministry of Natural Resources, China

Fisheries Technology Institute, Fisheries Research

and Education Agency, Japan

Time	Presentation Titles	Speakers
<b>Section 1</b>		
10:00–10:20	Assessing marine phytoplankton diversity and coral-symbionts composition using next generation sequencing (NGS) and metabarcoding approaches	Po Teen Lim, <i>University of Malaya, Malaysia</i>
10:20–10:40	Taxonomic composition of microalgae and distribution of HAB species in Malaysian coastal waters (South China Sea) using eDNA metabarcoding analysis	Aini Hannani Abdul Manaff, <i>University of Malaya, Malaysia</i>
10:40–11:00	Unveil the diversity and seasonal occurrence of Haptophyta in the South China Sea based on metabarcoding	Haifeng Gu, <i>Third Institute of Oceanography, China</i>
11:00–11:20	Micro-eukaryotic and bacterial plankton community dynamics in aquaculture ponds of whiteleg shrimp <i>Litopenaeus vannamei</i>	Siti Nursyuhada Baharudin, <i>University of Malaya, Malaysia</i>
11:20–11:40	AFISsys – an autonomous instrument for the preservation of water samples for microbial metatranscriptome analysis	Julian von Borries, <i>Hydro-Bios Apparatebau GmbH, Germany</i>
11:40–12:00	Comparative whole transcriptomic analyses of toxic and non-toxic species of marine dinoflagellates, <i>Azadinium</i> (Dinophyceae)	Kieng Soon Hii, <i>University of Malaya, Malaysia</i>
<b>Section 2</b>		
13:00–13:20	Diversity and biogeography of dinoflagellate cysts with metabarcoding targeting two fragments of ribosomal DNA	Junyue Wang, <i>Nanjing University of Information Science and Technology, China</i>
13:20–13:40	Detecting benthic toxigenic <i>Ostreopsis</i> species (Dinophyceae) by DNA metabarcoding	Chui Pin Leaw, <i>University of Malaya, Malaysia</i>
13:40–14:00	Unveiling the diversity of coastal microbial mats	Emily Curren, <i>National University of Singapore, Singapore</i>

Time	Presentation Titles	Speakers
14:00–14:20	A study to identify and characterize microplastic degrading microorganisms	Arooj Fatima Tul Zahra, <i>Swinburne University of Technology Sarawak, Malaysia</i>
14:20–14:40	Metagenomic investigation of plastic-associated biofilms in mangrove ecosystems	Clement Sim Jun Wen, <i>Swinburne University of Technology Sarawak, Malaysia</i>
14:40–15:00	Profiling beach plastics: detection of plastic-associated taxa	Denise Ching Yi Yu, <i>National University of Singapore, Singapore</i>
<b>Section 3</b>		
15:30–15:50	Colonization of plastics by microorganisms	Audrey Ern Lee, <i>National University of Singapore, Singapore</i>
15:50–16:10	Towards improving the application of environmental DNA metabarcoding in the Philippine ecosystems	Venus E. Leopardas, <i>Mindanao State University at Naawan, The Philippines</i>
16:10–16:30	Genome-wide SNP analyses for stock delineation of commercially-harvested scallops, <i>Bractechlamys vexillum</i> in the Visayan Sea, Philippines	Inggat Laya N. Casilagan, <i>University of the Philippines – Diliman, The Philippines</i>
16:30–17:00	<b>Discussion</b>	

### Session D3

## Satellite and airborne remote sensing techniques for marine ecosystem monitoring and management

**Venue:** Jubilee B, 11<sup>th</sup> Floor

**Date:** 22 April 2024

**Conveners:**

Tatsuyuki Sagawa      Tottori University of Environmental Studies, Japan  
 Wirote Laongmanee      Faculty of Marine Technology, Burapha University, Thailand  
 Wenting Cao              Second Institute of Oceanography,  
    Ministry of Natural Resources, China

Time	Presentation Titles	Speakers
<b>Section 1</b>		
10:30–10:45	Evaluating the potential of seaweed farming for eutrophication mitigation in South Sulawesi, Indonesia from remote sensing data	Hasriani Ayu Lestari, <i>Universitas Hasanuddin, Indonesia</i>
10:45–11:00	Geodatabase system from satellite to drone for monitoring and determining of coral reef, seagrass and mangrove conservation zones	Nurjannah Nurdin, <i>Hasanuddin University, Indonesia</i>
11:00–11:15	Using remote sensing for seagrass changes in coastal waters of Khanh Hoa, Vietnam	Phan Minh Thu, <i>VAST, Vietnam</i>
11:15–11:30	Detection of seaweed beds off Kottoi, Yamaguchi Prefecture, Japan using SPOT 6 and SPOT 7	Teruhisa Komatsu, <i>Japan Fisheries Resource Conservation Association, Japan</i>
11:30–11:45	Applications of unmanned aerial vehicles in intertidal reef monitoring: benefits and limitations	Thitiporn Khananuruxs, <i>Department of Marine and Coastal Resources, Thailand</i>
11:45–12:00	Deep learning for multi-label classification of coral conditions in the Indo-Pacific via underwater photogrammetry	Xinlei Shao, <i>The University of Tokyo, Japan</i>
12:00–12:15	Satellite derived bathymetry using Landsat-8 and Sentinel-2	Tatsuyuki Sagawa, <i>Tottori University of Environmental Studies, Japan</i>
<b>Section 2</b>		
13:30–13:45	Remote sensing estimation of dissolved organic carbon in a blue carbon mangrove estuary in Malaysian Borneo	Chance Sullivan, <i>Swinburne University of Technology, Malaysia</i>
13:45–14:00	Case studies of estimating seagrass blue carbon in selected sea areas in the NOWPAP region	Genki Terauchi, <i>Northwest Pacific Region Environmental Cooperation Center, Japan</i>
14:00–14:15	Truthing method for satellite remote sensing using sonar for blue carbon study	Ken-ichi Hayashizaki, <i>Kitasato University, Japan</i>

Time	Presentation Titles	Speakers
14:15–14:30	Comparison of seagrass mapping methods using different sonar images	Hajime Okawa, <i>Kitasato University, Japan</i>
14:30–14:45	Coastal blue carbon monitoring and the application of remote sensing techniques	Yining Chen, <i>Second Institute of Oceanography, China</i>
14:45–15:00	Carbon storage estimation of coastal muddy flat using remote sensing and field surveys	Wenting Cao, <i>Second Institute of Oceanography, China</i>
<b>Section 3</b>		
15:30–15:45	On the modeling coefficients of a photoacclimation model for phytoplankton in the global ocean	Dongmei Lian, <i>Xiamen University, China</i>
15:45–16:00	Spatio-temporal variability of sea surface temperature and Chl-a in the coastal waters of Sagami Bay	Robel Milashu, <i>Soka University, Japan</i>
16:00–16:15	Identifying red tides in the upper Gulf of Thailand using ocean color techniques and satellite imagery	Jutarak Luang-on, <i>JAMSTEC, Japan</i>
16:15–16:30	Seasonal phytoplankton abundance and massive fish kills monitoring in Jakarta Bay, Indonesia using Aqua-MODIS Satellite	Sam Wouthuyzen, <i>BRIN, Indonesia</i>
16:30–16:45	Remote sensing observation and analysis of water clarity in tropical coastal waters in Sarawak, Malaysian Borneo	Jenny Cheng Yi Choo, <i>Swinburne University of Technology, Malaysia</i>
16:45–17:00	Integrated remote sensing and <i>in situ</i> Observations for Coastal Water Quality Monitoring	Moritz Mueller, <i>Swinburne University of Technology, Malaysia</i>

## Session D4

### Deep-sea exploration and research in the Western Pacific

**Venue:** Chelsea A, 5<sup>th</sup> Floor

**Date:** 23 April 2024

**Conveners:**

Intan Suci Nurhati      Research Center for Deep Sea, BRIN, Indonesia

Li Li                      First Institute of Oceanography,  
Ministry of Natural Resources, China

Lisa Levin              Scripps Institution of Oceanography, UC San Diego, USA

Khaira Ismail           Faculty of Science and Marine Environment,  
Universiti Malaysia Terengganu, Malaysia

Augy Syahailatua      Research Center for Oceanography, BRIN, Indonesia

Time	Presentation Titles	Speakers
<b>Section 1</b>		
10:00–10:15	Discovery of a conic feature in Halmahera waters, Indonesia: traces of a late-stage hydrothermal activity	Gabriella Alodia, <i>Institut Teknologi Bandung, Indonesia</i>
10:15–10:30	Subsurface modifications of NH <sub>4</sub> <sup>+</sup> at low-temperature, diffuse vents via combined observation and kinetic isotope effect integrated Michaelis-Menten model approach	Chawalit Charoenpong, <i>Chulalongkorn University, Bangkok, Thailand</i>
10:30–10:45	A potential source of Fe and other metals from the hydrothermal sediments in the southern Okinawa Trough	Li Li, <i>First Institute of Oceanography, China</i>
10:45–11:00	Perspectives from a developing nation: enhancing participation of Malaysia in regulating deep seabed mining	Khaira Ismail, <i>Universiti Malaysia Terengganu</i>
11:00–11:15	Improved deep-sea biodiversity assessments can inform conservation and sustainable management of deep-sea ecosystems: lessons learned from the Atlantic and applications to the Western Pacific	Morato Telmo, <i>University of the Azores, Portugal</i>
11:15–11:30	Fault identification at the Flores Sea using multibeam bathymetry and potential data	Gabriella Alodia, <i>Institut Teknologi Bandung, Indonesia</i>
11:30–11:45	Water mass transformation and seafloor sediment from Jala Citra-III Expedition in Flores Sea	Noor Cahyo D. Aryanto, <i>BRIN, Indonesia</i>
11:45–12:00	The distribution and behavior of Ga in Western Pacific Ocean	Zheng Bo Liu, <i>East China Normal University, China</i>

## Session D5

### Gas hydrates and methane fluxes in the Indo-Pacific region

**Venue:** Somerset B, 5<sup>th</sup> Floor

**Date:** 23 April 2024

**Conveners:**

Vyacheslav Lobanov

V.I.Ilichev Pacific Oceanological Institute, Russia

Renat Shakirov

V.I.Ilichev Pacific Oceanological Institute, Russia

Nengyou Wu

Qingdao Institute of Marine Geology, China

Time	Presentation Titles	Speakers
<b>Section 1</b>		
10:00–10:15	Methane distribution, production, and emission in the Western North Pacific	Gui-Ling Zhang, <i>Ocean University of China, China</i>
10:15–10:30	Preliminary results on gas hydrates distribution in South Makassar Strait, Indonesia	Feisal Dirgantara, <i>BRIN, Indonesia</i>
10:30–10:45	BSRs-derived thermal properties in the deepwater South Makassar Basin, Indonesia	Feisal Dirgantara, <i>BRIN, Indonesia</i>
10:45–11:00	Complex migration pattern of methane at the cold seep in the Middle Okinawa Trough	Ang Li, <i>Qingdao Institute of Marine Geology, China</i>
11:00–11:15	Fluid flux variations control the occurrence of active gas hydrate system in the northern slope of South China sea	Jin Jiapeng, <i>Pilot National Laboratory for Marine Science and Technology, China</i>
11:15–11:30	Methane distribution and sea-to-air methane flux in the Dongsha area of the South China Sea	Cuiling Xu, <i>Qingdao Institute of Marine Geology, China</i>
11:30–11:45	Spatiotemporal variability of the methane hydrates upper boundary stability zone in the Sea of Okhotsk	Evgeniya Petrova, <i>V.I.Ilichev Pacific Oceanological Institute, Russia</i>
11:45–12:00	Evidence of relations of gas hydrates and oil-and-gas deposits in the seas off Sakhalin Island (Russia)	Yuri Telegin, <i>V.I.Ilichev Pacific Oceanological Institute, Russia</i>
<b>Section 2</b>		
13:30–13:45	Cold seeps and heat flow: gas hydrate provinces offshore Sakhalin Island	Nadezhda Syrbu, <i>V.I.Ilichev Pacific Oceanological Institute, Russia</i>
13:45–14:00	Dissolved methane transport	Nadezhda Syrbu, <i>V.I.Ilichev Pacific Oceanological Institute, Russia</i>
14:00–14:15	Experimental and numerical investigation for the biogeochemical process of methane released from gas hydrate	Yizhao Wan, <i>Qingdao Institute of Marine Geology, China</i>

Time	Presentation Titles	Speakers
14:15–14:30	Molecular simulation of gas hydrate formation in marine sediments	Zhengcai Zhang, <i>Pilot National Laboratory for Marine Science and Technology, China</i>
14:30–14:45	Can we identify creep failure of marine hydrate-bearing sediment via geophysical techniques?	Yanlong Li, <i>Qingdao Institute of Marine Geology, China</i>
14:45–15:00	Fracture-filling gas hydrate and its geophysical responses on the host sediments	Gaowei Hu, <i>Qingdao Institute of Marine Geology, China</i>
15:00–15:15	Utilizing SWIR spectral channels in passive satellite remote sensing scanners for detecting methane plumes on the sea surface	Igor Stepanov, <i>V.I. Il'ichev Pacific Oceanological Institute, Russian</i>
<b>Section 3</b>		
15:30–17:00	Meeting of the WESTPAC Working Group on Complex study of the gas-hydrates and methane fluxes in the Indo-Pacific region (CoSGas)	

**Session D6**  
**Sustainable financing of blue carbon**

**Venue:** Chelsea B, 5<sup>th</sup> Floor

**Date:** 22 April 2024

**Conveners:**

Tomoko Takeda

Pachoensuk Theeranukul

Saiko Katsunishi

The University of Tokyo, Japan

Innoqua, Inc., Japan

Innoqua, Inc., Japan

Time	Presentation Titles	Speakers
<b>Section 1</b>		
10:30–10:50	Scientific support to conservation efforts of <i>Enhalus acoroides</i>	Tomoko Takeda, <i>The University of Tokyo, Japan</i>
10:50–11:10	Conservation of tape seagrass by elementary school children	Shinji Delage, <i>Nosoko Elementary School, Japan</i>
11:10–11:30	Seagrass gleaning fishery and its socioeconomic importance in two coastal communities in mindanao, Philippines	Aida D. Perpetua, <i>Mindanao State University at Naawan, The Philippines</i>
11:30–11:50	Assessing the economic impact of seagrass ecosystems to foster sustainable resource utilization in Northern Mindanao, Philippines	Mayenne Perpetua Balaba, <i>Mindanao State University at Naawan, The Philippines</i>
11:50–12:10	China's active exploration in international blue carbon standard research and collaboration	Liu Dahai, <i>First Institute of Oceanography, China</i>
12:10–12:30	Involve blue carbon of mangrove forest in ecosystem services in the Can Gio Man Biosphere, Vietnam	Phan Minh Thu, <i>VAST, Vietnam</i>

An underwater scene with a blue gradient background. In the upper right, several fish are swimming. In the lower left, there is a large jellyfish and some coral. In the lower center, there is a tree-like coral structure and another jellyfish. The text "Special Forum" is centered in the middle of the image.

# Special Forum

## Special Forum

Science for local-level environmental management, ecosystem conservation and sustainable use in the South China Sea and Gulf of Thailand

**Venue:** Mayfair A, 11<sup>th</sup> Floor

**Dates:** 22–24 April 2024

**Conveners:**

Anders Poulsen

Senior Project Manager, UNOPS

Vo Si Tuan

Regional Science Coordinator, UNOPS

Xiangbin Pei

China National Coordinator, UNOPS

Nguyen The Chinh

Vietnam National Coordinator, UNOPS

Time	Presentation Titles	Speakers
<b>22 April 2024</b>		
<b>Session 1 – <i>Special Forum Opening</i></b>		<b>Chair / Facilitator: Vo Si Tuan</b>
10:30–11:00	<i>Special Forum Opening</i>	
11:00–11:30	Developing the first version of national seagrass blue carbon inventory and mitigation scenarios for Indonesia	Keynote: Novi Susetyo Adi, <i>Ministry of Marine Affairs and Fisheries, Indonesia</i>
11:30–12:00	Restoring fish stock and boosting sustainable blue economy towards fisheries refugia approach in the South China Sea region	Keynote: Somboon Siriraksophon, <i>UNEP/GEF Fisheries Refugia Project</i>
12:00–12:30	Science and collaboration of stakeholders for conservation of blue carbon ecosystems through carbon-neutral tourism	Keynote: Thamasak Yeemin, <i>Ramkhamhaeng University, Thailand</i>
<b>Session 2 – <i>Mini session (MSP, ICM, MPA)</i></b>		<b>Chair / Facilitator: Nguyen Van Long</b>
11:00–11:15	The development of marine spatial planning in China and prospects for cooperation with WESTPAC countries	Hou Yuting, <i>First Institute of Oceanography (FIO), China</i>
11:15–11:30	Effective management of ecological conservation and sustainable development using innovative and integrated approach at Dapeng Bay, China	Huaming Luo, <i>Shenzhen Academy of Environmental Science, China</i>
11:30–11:45	Science for local-level management, ecosystem conservation, and sustainable use: the Tubbataha story	Angelique Garcellano, <i>Tubbataha Reefs Natural Park and World Heritage Site, The Philippines</i>
11:45–12:00	Establishment of the Thai Thuy coastal wetlands nature reserve in Thai Binh Province and the Tam Giang Cau Hai coastal wetlands nature reserve in Thua Thien Hue Province, Vietnam	Nguyen The Chinh, <i>Institute of Strategy and Policy on Natural Resources and Environment, Vietnam</i>

Time	Presentation Titles	Speakers
12:00–12:15	The study on social and economic impacts from marine protected area announcement and the utilization of the Kra Islands Area, Nakhon Si Thammarat, Thailand	Sayan Thongsri, <i>Marine and Coastal Resources Research Institute, Thai Sea Watch Association, Thailand</i>
12:15–12:30	Nha Trang Bay, Vietnam: highly diverse coral reefs under severe threat	Vo Si Tuan, <i>Vietnam Academy of Science &amp; Technology, Vietnam</i>
<b>Session 3 (1) – Mini-session (MSP, ICM, MPA)</b>		<b>Chair / Facilitator: Sy Vann Leng</b>
15:30–15:45	Building baseline data of coral reef ecosystem in Koh Mak, Thailand for monitoring on impacts from tourism	Nattawadee Phoocharoenpaiboon, <i>Department of Marine and Coastal Resources, Thailand</i>
15:45–16:00	Marine landscape mapping: a step towards effective ecosystem-based management for Malaysia Marine Parks	Khaira Ismail, <i>Universiti Malaysia Terengganu (UMT), Malaysia</i>
<b>Session 3 (2) – Mini-session (MSP, ICM, MPA)</b>		<b>Chair / Facilitator: Pei Xiangbin</b>
16:00–16:15	Implementation of action plan for the Pearl River Estuary pollution control and prevention	Yuming Zhang, <i>South China Institute of Environmental Sciences, China</i>
16:15–16:30	Whole chain control of plastic pollution in the Pearl River Estuary, China	Zhao Xiao, <i>South China Institute of Environmental Sciences, China</i>
16:30–16:45	The opportunity for microplastic consumption and excretion of black seahorse ( <i>Hippocampus kuda</i> )	Pinantha Prowdang, <i>PSU Wittayanusorn Suratthani school, Thailand</i>
<b>23 April 2024</b>		
<b>Session 4 – Mini-session (Blue economy)</b>		<b>Chair / Facilitator: Nguyen The Chinh</b>
10:00–10:15	Economic valuation of mangroves in Ca Mau, Vietnam	Tran Thi Thu Ha, <i>Vietnamese Academy for Forest Sciences, Vietnam</i>
10:15–10:30	Coastal blue carbon management of Zhanjiang, Guangdong Province	Zhang Yuan, <i>Guangdong University of Technology, China</i>
10:30–10:45	Integrating blue carbon policies into marine spatial planning in the South China Sea	Shenghui Li, <i>Guangdong Ocean University, China</i>
10:45–11:00	Assessing the carbon sequestration potential from nipah palm ( <i>Nypa fruticosa</i> ) in the Surat Thani Mangrove (Ban Don Bay).	Thatarot Kongmaluan, <i>Prince of Songkla University, Surat Thani Campus, Thailand</i>
11:00–11:15	Achievements and challenges in sustainable development of marine farming in Quang Ninh Province, Vietnam	Nguyen Huu Dung, <i>Vietnam Seaculture Association, Vietnam</i>
11:15–11:30	From sustainable materials to green models in aquaculture and experiential tourism in Quang Ninh Province	Nguyen Thi Hai Binh, <i>Super Truong Phat Institute of Aquaculture Technology, Vietnam</i>

Time	Presentation Titles	Speakers
11:30–11:45	Framework of sustainable diving tourism system: an exploratory study in Nha Trang Bay Marine Protected Area	Tran Hai Linh Vo, <i>Thai Binh Duong University, Vietnam</i>
11:45–12:00	Managing sea walking tourism in Koh Lan and Koh Sak, Chonburi Province	Hathaichanok Nahuanil, <i>Department of Marine and Coastal Resources, Thailand</i>
<b>Session 5 (1) – Mini session (Blue economy)</b>		<b>Chair / Facilitator: Thamasak Yeemin</b>
13:00–13:15	Impact assessment of dolphin watching tourism on Indo-Pacific Humpback Dolphins ( <i>Sousa Chinensis</i> ) in Khanom Waters, Thailand	Nattarinee Kongnoon, <i>Prince of Songkla University, Surat Thani Campus, Thailand</i>
13:15–13:30	Over three decades of marriage of conservation and tourism in the municipality of Mabini, Batangas, Verde Island Passage: an author’s reflection on best practices, weaknesses, lessons learned, and prospects	Romeo Trono, <i>UNEP/GEF SCS-SAP Project</i>
<b>Session 5 (2) – Panel on Blue economy</b>		<b>Chair / Facilitator: Anders Poulsen</b>
13:30–15:00	<i>Panel on Blue economy</i>	
<b>Session 6 (1) – Mini-session (Fisheries)</b>		<b>Chair / Facilitator: Somboon Siriraksophon</b>
15:30–15:45	From ocean to trade: impacts of fish exportation on the food security of coastal communities	Celis Anna, <i>University of the Philippines Los Baños, The Philippines</i>
15:45–16:00	Mapping the overlapped area of fishing and coast dolphin in the middle Gulf of Southern Thailand from Fishermen's Experiences	Supharoek Sasi, <i>Prince of Songkla University, Surat Thani Campus, Thailand</i>
16:00–16:15	Science-based establishment of fisheries refugia: a case study in Vietnam	Van Long Nguyen, <i>Vietnam Academy of Science and Technology (VAST), Vietnam</i>
16:15–16:30	Best practice of the establishment of marine Fisheries Refugia: Cambodia’s Case	Syvann Leng, <i>Department of Fisheries Conservation, Fisheries Administration of the, Cambodia</i>
<b>Session 6 (2) – Mini session (Co-management)</b>		<b>Chair / Facilitator: Suharsono</b>
16:30–16:45	Sustainable management of mangrove forests in Cambodia: national best practices	Sopheak Thav, <i>Royal University of Agriculture, Cambodia</i>
16:45–17:00	Mangrove co-management at Shankou, Guangxi	Zhang Hongke, <i>Guangxi Shankou Mangrove National Nature Reserve, China</i>
<b>24 April 2024</b>		
<b>Session 7 – Min-session (Co-management)</b>		<b>Chair / Facilitator: Marie Antonette Menez</b>
10:00–10:15	Outcome from Belitung coral reef demonstration site, Indonesia	Suharsono, <i>Asosiasi Koral, Kerang dan Karang Indonesia, Indonesia</i>

Time	Presentation Titles	Speakers
10:15–10:30	Demonstration of community-based management of seagrass habitats in Trikora Beach, East Bintan, Riau Archipelago Province, Indonesia	Tri Edi Kuriandewa, <i>Yayasan Lamun Indonesia (Indonesian Seagrass Foundation), Indonesia</i>
10:30–10:45	Joint hands with local communities in fisheries co-management: success and lessons learned from Binh Dinh province, Vietnam	Tran Van Vinh, <i>Sub- Department of Fisheries, Binh Dinh Province, Vietnam</i>
10:45–11:00	Capacity building coastal community toward sustainability marine protected area in East Belitung	Ibnu Izhar Isdatahari, <i>IPB University (CCMRS IPB), Indonesia</i>
11:00–11:15	Scaling up sea cucumber stock restoration through community-based culture production and reserve management	Marie Antonette Menez, <i>University of the Philippines Diliman, Quezon City, The Philippines</i>
11:15–11:30	Sustenance and more: the diverse role of intertidal gleaning in the livelihood of women in coastal communities	Nur Afiqah Dharwisyah Mohd Amin David, <i>Universiti Malaya, Malaysia</i>
11:30–11:45	Determining indicators of mangrove forest abundance through cooperation between government agencies and the communities in the middle Gulf of Southern Thailand.	Suwat Jutapruet, <i>Prince of Songkla University, Surat Thani Campus, Thailand</i>
<b>Session 8 – Mini session (Restoration)</b>		<b>Chair / Facilitator: Fan Hangqing</b>
13:00–13:15	Rehabilitation of Yintan beach by Nature-based solutions and supporting artificial measures and regulation reform in Beihai, China	Zhao Baozhen, <i>Guangxi Department of Ecology and Environment, China</i>
13:15–13:30	Nature-based solutions and watershed approaches to ecological restore the Haikou Bay and city	Yuan Zhao, <i>Hainan Department of Ecology and Environment Haikou Bureau of Ecology and Environment, China</i>
13:30–13:45	Watershed treatment and coastal wetland restoration at Maowehai, Guangxi	Naiwen Zhang, <i>South China Institute of Environmental Sciences, China</i>
13:45–14:00	Mangrove wetland restoration can promote the protection of waterbirds	Chen Qing, <i>Shenzhen Mangrove Wetlands Conservation Foundation, China</i>
14:00–14:15	Conversion of aged shrimp ponds to mangrove ecological farm - mangrove restoration practice in Guangxi, China	Fan Hangqing, <i>Guangxi Academy of Marine Sciences (Guangxi Mangrove Research Center), China</i>
14:15–14:30	The role of herbivory in coral restoration success: a field study in the Bidong Archipelago, Malaysia	Aisyah Wan, <i>Heriot-Watt University, Malaysia</i>
14:30–15:00	Break for preparation of roundtable of local representatives	

Time	Presentation Titles	Speakers
<b>Session 9</b>		
15:00–17:00	<i>Roundtable of local representatives</i>	Chair / Facilitator: Vo Si Tuan
18:00–20:00	<i>Networking (venue to be announced)</i>	Chair / Facilitator: Rey Molina

The background is a deep blue underwater scene. In the upper right, several fish are swimming. In the lower left, there is a cluster of coral. In the lower center, there is a large, dark silhouette of a tree-like coral structure. In the lower right, there is a jellyfish. The overall scene is dimly lit, with light rays filtering down from the top.

# **POSTER PRESENTATIONS**

## Sub-theme A

### Ocean Processes and Climate Change

ID	Presentation Titles	Presenters
<b>Session A2: Western Pacific Marginal Seas: Physics, biogeochemistry and ecosystem</b>		
A2-01	Initial steps to build a predicting upwelling model in the South Vietnam under climate change conditions	To Duy Thai, <i>Vietnam Academy of Science and Technology, Vietnam</i>
A2-02	Spatiotemporal characteristics and volume transport of Lagrangian eddies in the Northwest Pacific	Jianyu Hu, <i>Xiamen University, China</i>
A2-03	Spatio-temporal dynamics of seawater physicochemical characteristics in the Bohol Sea, Philippines	Jherome L. Co, <i>University of the Philippines Diliman, The Philippines</i>
A2-04	Long and continuous time series observations in the key location of the East Sea (Japan Sea)	Seungsoo Kim, <i>Seoul National University, Republic of Korea</i>
A2-05	Drivers of N <sub>2</sub> O distribution and atmospheric emissions from a southern hemisphere Fjord-like deep coastal inlet: Macquarie Harbour Tasmania	Maxey Johnathan Daniel, <i>Swinburne University of Technology, Malaysia</i>
A2-06	Fluxes and distributions of trace elements in the East Sea (Japan Sea)	Guebuem Kim, <i>Seoul National University, Republic of Korea</i>
A2-07	Significant benthic inputs of dissolved amino acids in the marginal seas of the northwestern Pacific Ocean	Hyekyung Park, <i>Seoul National University, Republic of Korea</i>
A2-08	Numerical study on the circulation in the Gulf of Thailand and its seasonal water exchange with the South China Sea	Changshui Xia, <i>First Institute of Oceanography, China</i>
A2-09	Summer high primary productivity zone in the central North Pacific Subtropical Gyre	Luping Song, <i>Xiamen University, China</i>
A2-10	Hydrophysical processes and chlorophyll concentration in the Peter the Great Gulf (Sea of Japan)	Vadim Navrotsky, <i>Far Eastern Branch, Russian Academy of Sciences, Russia</i>
<b>Session A3: Advance the understanding of marine heatwaves and their impacts</b>		
A3-01	Marine heatwave in the Oyashio region in 2022 and dissolved oxygen changes	Yoshimi Kawai, <i>Japan Agency for Marine–Earth Science and Technology, Japan</i>
A3-02	Changes in the dominant modes of MHW in the Gulf of Thailand	Parichat Wetchayont, <i>Srinakharinwirot University, Thailand</i>
<b>Session A4: Ocean environmental and climate changes in the past: High and low latitude connections in the Asian Continental Margins</b>		
A4-01	Impact of evolving anthropogenic Pb emissions on sedimentary systems in Asia: A comparative study in the Yellow Sea and Gulf of Thailand	Bin Wu, <i>First Institute of Oceanography, China</i>

ID	Presentation Titles	Presenters
A4-02	Spatial variability of surface sediments in the Malacca Strait and its implications for sedimentary environments	Lina Ai, <i>First Institute of Oceanography, China</i>
A4-03	Time lag and cumulative effects of extreme climate on coastal vegetation in China	Tong Dong, <i>First Institute of Oceanography, China</i>
<b>Session A5: Sediment source-to-sink processes responding to rapid climate change</b>		
A5-01	Chemical composition of aerosols collected in Bangkok and Chonburi, Thailand: a comparative study between a megacity and a coastal city	Suwapat khotchabang, <i>Chulalongkorn University, Thailand</i>
A5-02	Dissolved organic matter distribution in the Gulf of Thailand	Kulsarun Prajongmul, <i>Chulalongkorn University, Thailand</i>
A5-03	Reconstructing chemical weathering intensity of Taiwan since the last glaciation: Geochemical records in the Penghu Submarine Canyon of the northeastern South China Sea	Wei Xie, <i>Tongji University, China</i>
A5-04	Organic carbon burial rates in the lower Gulf of Thailand	Supamas Jansri, <i>Chulalongkorn University, Thailand</i>
A5-05	Organic carbon content in the sediment core from Bangpakong River mouth, Thailand	Pisit Suksawad, <i>Chulalongkorn University, Thailand</i>
A5-06	Geochemistry of core sediments in the nearshore area of the Bay of Bengal, Bangladesh	H. M. Zakir Hossain, <i>Jashore University of Science and Technology, Bangladesh</i>
A5-07	A review of the effects of turbidity and anthropogenic pollution on seagrass carbon sequestration in urban areas	Yuxin Liang, <i>Universiti Sains Malaysia, Malaysia</i>
A5-08	Concentrations of nitrate and other nutrients in groundwater and surface river water in Rayong Province, Thailand	Chirapa Tanya, <i>Chulalongkorn University, Thailand</i>
A5-09	Source and fate of organic matter in Bandon Bay, Thailand as evidenced by carbon and nitrogen contents and stable isotope composition	Narainrit Chinfak, <i>East China Normal University, China</i>
<b>Session A6: Climate variability in the Indo-Pacific Maritime Continent (IPMC): Understanding impacts on atmosphere-ocean dynamics</b>		
A6-01	Seasonal variations in the food habits of <i>Sardinella lemuru</i> in response to climate-induced plankton dynamics: implications for fisheries management and food security in Prigi waters, Indonesia	Yanida Azhari Julianinda, <i>Universitas Brawijaya, Indonesia</i>
A6-02	Climate comfort level analysis and projection for tourism in the Toba Caldera Geopark	Marzuki Sinambela, <i>Indonesia State College of Meteorology Climatology and Geophysics (STMKG), Indonesia</i>

ID	Presentation Titles	Presenters
A6-04	Tidal flood study in the coastal area of the Surabaya city in 2021 based on sea level analysis	Ahmad Fadlan, <i>STMKG, Indonesia</i>

## Sub-theme B

### Marine Biodiversity, Seafood Safety and Security

ID	Presentation Titles	Presenters
<b>Session B1: Biogeography and dispersal of marine life in the Western Pacific</b>		
B1-01	Gamete development of gorgonian, <i>Dichotella gemmacea</i> and diversity of gorgonians in Thailand	Konrawat Janhom, <i>Chulalongkorn University, Thailand</i>
B1-02	Distinguish the variations of Indo-Pacific multi-decadal climate variability on spatiotemporal distribution of yellowfin tuna population	Kuo-Wei Lan, <i>Department of Environmental Biology and Fisheries Science, NTOU</i>
B1-03	Abundance, distribution, and diversity of Tuna larvae (Family Scombridae) in the Philippine waters	Laureana T. Nepomuceno, <i>Bureau of Fisheries and Aquatic Resources, The Philippines</i>
B1-04	Tissue culture and development of multiple shoots in Thai seagrasses, specifically <i>Enhalus acoroides</i> (L.F.) Royle	Pattama Tongkok, <i>Kasetsart University, Thailand</i>
B1-05	The effects of fertilization on the Growth of <i>Enhalus acoroides</i> (L.F.) Royle in plantlet culture	Attawut Khantavong, <i>Kasetsart University, Thailand</i>
B1-06	Sediment characteristics in the upper intertidal seagrass beds in the Andaman Sea coast of Thailand	Yaowaluk Monthum, <i>Kasetsart University, Thailand</i>
B1-07	Dynamics of green <i>Noctiluca scintillans</i> bloom at Bangsean beach, Chonburi province, Thailand from July to September 2023	Chayanee Kiemvatchara, <i>Burapha University, Thailand</i>
B1-08	Carbon-Nitrogen content variation and allelopathic disruption of Renieramycin M-Producing sponge <i>Xestospongia</i> sp. in the Gulf of Thailand	Gad Elsayed Mohamed, <i>Chulalongkorn University, Thailand</i>
B1-09	Zooplankton composition at estuarine front of tidal influenced Kuala Terengganu estuary, Terengganu	Thaarshini Paramasivan, <i>Universiti Malaysia Terengganu, Malaysia</i>
B1-10	Early life dynamics of <i>Sardinella gibbosa</i> in central Philippines	Alexandra Bagarinao-Regalado, <i>The University of Tokyo, Japan</i>
<b>Session B2: Systematics, taxonomy, and phylogenetics of marine life in the Western Pacific</b>		
B2-01	Species diversity of marine organisms and their relationship with echinoderms along Samaesarn Island and adjacent areas, Chonburi, Thailand	Arom Mucharin, <i>National Science Museum, Thailand</i>

ID	Presentation Titles	Presenters
B2-02	<i>Coscinodiscus</i> in Viet Nam: diversity and phylogeny	Huynh Thi Ngoc Duyen, <i>Vietnam Academy of Science and Technology, Vietnam</i>
B2-03	Antibacterial activities screening on Nudibranch-associated bacteria from northeast of Bali, Indonesia	Fadillaisyia Riandani Putri, <i>Marine Education and Research Organisation (MERO) Foundation, Indonesia</i>
B2-04	Biomass and benthic microalgae communities in mudflats that affected and unaffected by coastal erosion in Ban Laem, Phetchaburi, Thailand	Karantharat Huangnak, <i>Chulalongkorn University, Thailand</i>
B2-05	Community structure of macrobenthos in Ban Laem Estuary, Thailand: comparison between mudflats affected and unaffected by coastal erosion	Natchanon Wongyai, <i>Chulalongkorn University, Thailand</i>
B2-06	The diversity of marine mollusks on underwater rock piles from the South Andaman Sea, Thailand	Ratchaneewarn Sumitrakij, <i>National Science Museum, Thailand</i>
B2-07	Phylogeny and thecal plate morphology of an undescribed species of <i>Scrippsiella</i> from Central Luzon, Philippines	Samantha Patricia C. Esteban, <i>Central Luzon State University, The Philippines</i>
B2-08	Some new records and species of Vietnamese marine macroalgae	Nguyen Thi Xuan Thuy, <i>Vietnam Academy of Science and Technology, Vietnam</i>
B2-09	Genetic diversity assessment of <i>Calappa bilineata</i> from coastal area in Ranong, Thailand	Vararin Vongpanich, <i>Department of Marine and Coastal Resources, Bangkok, Thailand</i>
B2-10	Genus <i>Halophila</i> is under the perspective of ITS secondary structure	Nguyen Nhat Nhu Thuy, <i>Vietnam Academy of Science and Technology, Vietnam</i>
<b>Session B3: Vulnerability of the coral reef ecosystem towards extreme environmental fluctuations</b>		
B3-01	Coral-killing sponges in Nusa Dua, Bali	Dwi Haryanti, <i>Diponegoro University, Indonesia</i>
B3-02	Coral spawning in the closed system aquarium using biosphere transfer technology might be possible to increase the coral reefs	Pachoensuk Theeranukul, <i>Innoqua Inc., Japan</i>
B3-03	Into the skeleton: a permanent sink of microplastic in reef-building corals	Suppakarn Jandang, <i>Kyushu University, Kasuga, Japan</i>
<b>Session B4: Coral reef resilience to climate change and human impacts</b>		
B4-01	Water quality at Tubbataha reefs: a comparison between the different areas	Lara Sotto, <i>University of the Philippines, Diliman, Quezon City, The Philippines</i>

ID	Presentation Titles	Presenters
B4-02	Differential impacts of size and species selective fishing on reef fish populations across a gradient of market demand	Tanmay Wagh, <i>Dakshin Foundation, India</i>
B4-03	Study on small marine debris in corals ( <i>Turbinaria sp.</i> ) at Koh Ya, Trang Province	Thikompon Wongtawatchai, <i>Department of Marine and Coastal Resources, Thailand</i>
B4-04	Coral reef resilience in the lower Gulf of Thailand: ecological and social assessments	Panisara Jitkaew, <i>Prince of Songkhla University, Thailand</i>
B4-05	Influence of environmental factors on juvenile coral density at Mu Ko Chumphon, the western Gulf of Thailand	Sittiporn Pengsaku, <i>Ramkhamhaeng University, Thailand</i>
B4-06	Composition and abundance of juvenile corals on underwater pinnacles in Surat Thani Province, the Gulf of Thailand	Makamas Sutthacheep, <i>Ramkhamhaeng University, Thailand</i>
B4-07	Diversity and density of juvenile corals in Mu Ko Similan, the Andaman Sea, Thailand	Wanlaya Klinthong, <i>Ramkhamhaeng University, Thailand</i>
B4-08	Size-frequency distribution and mortality rate of juvenile corals on a shallow reef flat in Chumphon Province, the Gulf of Thailand	Charenmee Chamchoy, <i>Ramkhamhaeng University, Thailand</i>
B4-09	Initial reports on artificial hybridization of <i>Tridacna gigas</i> and <i>T. derasa</i>	Gabriella Juliane Maala, <i>University of the Philippines, The Philippines</i>
<b>Session B5: Fisheries, biodiversity and dynamics of mangroves' aquatic ecosystem</b>		
B5-01	Rhizophora diversity's hallmark, Neil Island, the Andaman Sea	K Sivakumar, <i>Annamalai University, India</i>
B5-02	Population structure of commercial Opossum Shrimp <i>Mesopodopsis orientalis</i> (Tattersall, 1908) in mangrove of Phetchaburi Province, Thailand	Boonyaporn Prajai, <i>Chulalongkorn University, Thailand</i>
B5-03	Assessing shellfish diversity of aquatic habitats of the Sundarbans mangrove ecosystem of Bangladesh	Md. Nazmus Sakib, <i>Sher-e-Bangla Agricultural University (SAU), Bangladesh</i>
B5-04	Application of eDNA metabarcoding in the assessment of fish biodiversity in Philippine mangroves: prospects, challenges, and opportunities	Camila Frances P. Naputo, <i>University of the Philippines Diliman, The Philippines</i>
B5-05	Diversity of molluscs in the mangrove forest reserves of Peninsular Malaysia	Brian Chew Bo En, <i>UCSI University KL Campus, Malaysia</i>
B5-06	Stuck in the mud: using a metabarcoding approach to capture biodiversity patterns in mangroves and seagrass	Emma Isabelle Rossouw, <i>Stellenbosh University, South Africa</i>

ID	Presentation Titles	Presenters
<b>Session B6: Conservation of marine endangered species</b>		
B6-01	Carrying capacity of seagrass habitats as dugong feed in Thailand	Tipamat Upanoi, <i>Department of Marine and Coastal Resources, Thailand</i>
B6-02	Study of the distribution and density of dugongs in Trang province by aerial survey	Piyarat Khumraksa, <i>Department of Marine and Coastal Resources, Thailand</i>
B6-03	Age class of stranded marine mammal in the upper Gulf of Thailand, 2018–2022	Luxkana Munkhetkit, <i>Department of Marine and Coastal Resources, Thailand</i>
B6-04	Coral conservation and restoration towards sustainable ecosystem at Pulau Bidong, Terengganu, East Coast of Peninsular Malaysia	Zainudin Bachok, <i>Universiti Malaysia Terengganu, Malaysia</i>
B6-05	Measurement of glucocorticoid activity in a rescued striped dolphin ( <i>Stenella coeruleoalba</i> ) in Phuket, Thailand	Patcharaporn Kaewmong, <i>Department of Marine and Coastal Resources, Thailand</i>
B6-06	The study of comparison of heavy metal level in stranded marine endangered species along the Thai coast	Usawadee Detsri, <i>Department of Marine and Coastal Resources, Thailand</i>
B6-07	First report of <i>Cyamus boopis</i> from a humpback whale ( <i>Megaptera novaeangliae</i> ) in the coastal East China Sea	Xiaowan Ma, <i>Fourth Institute of Oceanography, China</i>
B6-08	Assessing Billfish abundance and investigating fishers' perceptions in the context of Billfish conservation: a study in Kuantan, Pahang, Malaysia	Mohamed Juliana, <i>International Islamic University Malaysia, Malaysia</i>

### Sub-theme C

#### Ocean and Human Health

ID	Presentation Titles	Presenters
<b>Session C1: Marine chemical Contaminants of Emerging Concern (CEC)</b>		
C1-01	Pharmaceuticals in urbanized riverine and estuarine waters of Hong Kong	Qiong Luo, <i>City University of Hong Kong, China</i>
C1-02	Pharmaceutical pollution in the world's estuaries: a review	Demilade T. Adedipe, <i>City University of Hong Kong, China</i>
C1-03	Groundwater quality in Pag-asa Island, West Philippine Sea	Valerie D. Culis, <i>University of the Philippines Diliman, The Philippines</i>
C1-04	Contamination status, bioaccumulation profiles, and human health risk assessment of polychlorinated biphenyls (PCBs) in shark species from Indonesia	Dede Falahudin, <i>National Research and Innovation Agency, Indonesia</i>

ID	Presentation Titles	Presenters
C1-05	Organic extraction method for determination of UV stabilizers in plastics	Xinghuo Wang, <i>East China Normal University, China</i>
C1-06	Biomagnification of mercury in marine organisms from Rayong Bay, Thailand	Suriyapong Kumsopar, <i>Chulalongkorn University, Thailand</i>
C1-07	Eutrophication status in estuaries of Ba Ria - Vung Tau, Vietnam	Phan Minh Thu, <i>Vietnam Academy of Science and Technology, Vietnam</i>
C1-08	Can waste shells be used in the removal of contaminants of concerns in wastewater?	Egbedi Brakemi, <i>South East Technological University, Ireland</i>
C1-09	Ecological risk assessment of heavy metal pollutants and total petroleum hydrocarbons in sediments off north of the Yellow River estuary, China	Yongzhi Wang, <i>First Institute of Oceanography, China</i>
C1-10	Spatial distribution, sources and ecological risk of polycyclic aromatic hydrocarbons (PAHs) in the sediment of Peter the Great Bay (the Sea of Japan/East Sea)	Tatiana Chizhova, <i>Far Eastern Branch, Russian Academy of Sciences, Russia</i>
C1-11	Mussel watch: POPs in the Russian section of the Northeast Pacific ecosystems	Vasiliy Tsygankov, <i>Far Eastern Federal University, Russia</i>
<b>Session C2: Source, transport, fate, impacts and mitigation strategies of marine plastics and microplastics</b>		
C2-01	Small island waste management by using UAV images on Balang Lompo Island, Pangkep district, South Sulawesi, Indonesia	Syazwi Quthbi Al- Azizi, <i>Bandung Institute of Technology, Indonesia</i>
C2-02	Analyzing the coupled relationship between the distribution of marine microplastics in the Northwestern Pacific Ocean and global climate	Jungang Lu, <i>East China Normal University, China</i>
C2-03	Juvenile fish ingest microplastics? Juvenile fish microplastics story in the South China Sea	Xinyu Bu, <i>East China Normal University, China</i>
C2-04	Changes and transport of microplastics in the riverbed of the mainstream below the Three Gorges Dam of the Yangtze River	Changxing Zong, <i>East China Normal University, China</i>
C2-05	Characteristics and sources of microplastic fibers in the Yangtze River Basin, China	Li Qingqing, <i>East China Normal University, China</i>
C2-06	Understanding sources, transport, and accumulation of small microplastics (<1 mm) in beach sediments of western Philippines using Nile Red staining and image-based machine learning	Jan Danielle P. Bonita, <i>University of the Philippines Diliman, The Philippines</i>
C2-07	Relation between surface hardness and elasticity to Carbonyl Indexes of plastic products and environmental Plastic debris	Emiko Fujita, <i>Chiba Institute of Technology, Japan</i>

ID	Presentation Titles	Presenters
C2-08	Development of semi-automatic analytical methods for fine microplastics larger than 1 µm in surface water by Raman Imaging Microscopy	Yutaka Kameda, <i>Chiba Institute of Technology, Japan</i>
C2-09	The studying of the distribution of floating debris released from river mouths in the inner Gulf of Thailand by numerical model	Chaninat Prichameth, <i>Chulalongkorn University, Thailand</i>
C2-10	The first multi-compartment analysis of microplastics in the Karnafully river, Bangladesh	Md. Jaker Hossain, <i>East China Normal University, China</i>
C2-11	Microplastics in two marine sponges from Rayong Bay	Akaracha Tongrod, <i>Chulalongkorn University, Thailand</i>
C2-12	Occurrences of microplastics larger than 20 microns in surface waters of the Philippines	Yuka Motohashi, <i>Chiba Institute of Technology, Japan</i>
C2-13	Patterns of plastic occurrence during the pre- and post-super Typhoon Rai (Odette) event in Olango Island Wildlife Sanctuary (OIWS), Philippines	Apple AJ Langcamon, <i>University of San Carlos, The Philippines</i>
C2-14	Plastic Waste Analysis and Brand Audit (WABA) in mangrove ecosystems as an approach to support the enforcement of Extended Producer Responsibility (EPR) policy	Evelyn B. Taboada, <i>SouthEast Asia Marine Plastics (SEAMaP) Project</i>
C2-15	Stony corals as a biological sink for microplastics: a case study in Hong Kong	Ken Chue-Ho Yuen, <i>The Hong Kong Polytechnic University, China</i>
C2-16	Plastic size does matter: combined effects of microplastics and the toxic dinoflagellate <i>Alexandrium tamarense</i> on the edible green-lipped mussel <i>Perna viridis</i>	Elizaldy Acebu Maboloc, <i>The Hong Kong Polytechnic University, China</i>
C2-17	International coastal cleanup scientific report: items and monthly variations of river, beach, and underwater litters in the northeast coast of Bali	Kharisma Halisah, <i>Indonesian Marine Education and Research Organization (MERO Foundation), Indonesia</i>
C2-18	Macroplastics deposited in the coastal mangrove areas in Olango Island, Cebu	Francis Dave C. Siacor, <i>University of San Carlos, The Philippines</i>
C2-19	Circulation and transport patterns in the Nha Trang Bay	Thinh Nguyen-Duc, <i>Vietnam Academy of Science and Technology, Vietnam</i>
C2-20	Abundance and composition of microplastics in sediment from Bangpakong River, Thailand	Noppasorn Horthiwong, <i>Chulalongkorn University, Bangkok, Thailand</i>
C2-21	Occurrence of microplastics larger than 20 microns in sediments of Tokyo Bay	Eiji Fukazawa, <i>Chiba Institute of Technology, Japan</i>
C2-22	Occurrences of microplastics larger than 20 microns in surface waters at Tokyo Bay	Gaksuhi Fujimura, <i>Chiba Institute of Technology, Japan</i>

ID	Presentation Titles	Presenters
C2-23	Simulation of floating macro plastic debris particles in Karimunjawa National Park Water	Ivonne M. Radjawane, <i>Bandung Institute of Technology, Indonesia</i>
C2-24	Effect of monsoon on microplastic bioavailability and ingestion by zooplankton in tropical coastal waters of Sabah	Teruaki Yoshida, <i>Universiti Malaysia Sabah, Japan</i>
C2-25	Microplastics in water and Acetes shrimps in Chao Phraya Estuary, Thailand	Massakorn Pimsarn, <i>Chulalongkorn University, Thailand</i>
C2-26	A study on the abundance of microplastics on beaches in Southeast Sarawak, Malaysia	Clarence Tay, <i>Swinburne University of Technology, Malaysia</i>
C2-27	Comparative analysis of microplastic abundance in sea surface water and tap water across three states in Malaysia	Changi Wong, <i>Swinburne University of Technology, Malaysia</i>
C2-28	Vertical distribution of microplastic larger than 20 microns in Tokyo Bay waters	Yutaro Numazawa, <i>Chiba Institute of Technology, Japan</i>
C2-29	Unveiling the presence of global-scale microplastics greater than 20 µm in oceans: a study with volunteer ships	Emiko Fujita, <i>Chiba Institute of Technology, Japan</i>
C2-30	Investigations of Microplastics in Surface Water at Rivers, Lakes and Bays using a Novel Automated Microplastic Sample Preparation System	Yutaka Kameda, <i>Chiba Institute of Technology, Japan</i>
C2-31	Development of a semi-automatic software to identify microplastics from imaging data by Micro-Fourier-transform infrared spectroscopy	Yutaka Kameda, <i>Chiba Institute of Technology, Japan</i>
C2-32	Development of a portable and affordable sampling device for microplastics in water samples	Yutaka Kameda, <i>Chiba Institute of Technology, Japan</i>
C2-33	Polyethylene terephthalate (PET) bottles along the Coastline of Capayas Island, Palawan, Philippines: Evidence of Transboundary Plastic Pollution?	Kim Ryan S. Mantuhac, <i>Mindanao State University-Iligan Institute of Technology, The Philippines</i>
C2-34	Quantity and physical characteristics of microplastics in beach sand along the coast of Mueang and Chana district, Songkhla province, Thailand	Siriporn Borrirukwisitsak, <i>Silpakorn University, Thailand</i>
<b>Session C3: Deoxygenation in the Western Pacific: Implications for coastal and open ocean ecosystems</b>		
C3-01	Seasonal variation and spatial extent of deoxygenation in Bolinao, northwestern Philippines	Raffi R. Isah, <i>University of the Philippines, The Philippines</i>
<b>Session C4: Ocean acidification and its impacts on marine ecosystems</b>		
C4-01	Low-pH seawater observed along Thailand coast in the northern Strait of Malacca	Chalermrat Sangmanee, <i>Department of Marine and Coastal Resources, Thailand</i>

ID	Presentation Titles	Presenters
C4-02	Biogeochemical properties of shallow-water CO <sub>2</sub> seeps in the Himeshima and Showa Iwojima Islands, Japan	Masahiko Fujii, <i>The University of Tokyo, Japan</i>
C4-03	Carbonate chemistry baseline information on Philippine coral reefs	Raffi R. Isah, <i>University of the Philippines, The Philippines</i>
<b>Session C5: Mitigation and management of harmful algal blooms</b>		
C5-01	The IOC Harmful Algal Information System	Eileen Bresnan, <i>Marine Directorate of the Scottish Government, United Kingdom</i>
C5-02	Phylogeny and ultrastructure of a new non-toxigenic <i>Amphidoma</i> species isolated from the Western Pacific	Koyo Kuwata, <i>University of Tokyo, Japan</i>
C5-03	Morphology and phylogeny of karenian dinoflagellates from the eastern coast of Hokkaido, Japan	Koyo Kuwata, <i>University of Tokyo, Japan</i>
<b>Session C6: Marine toxins and seafood safety</b>		
C6-01	Economic loss of white spot syndrome virus disease in whiteleg shrimp ( <i>Litopenaeus vannamei</i> ) farming business	Sonia Putri Maulidya, <i>Universitas Brawijaya, Indonesia</i>
C6-02	Light-regulated microalgae metabolite retinal transport and transformation through the food chain effectively inhibited the growth and disturbed the liver-gut axis of marine medaka ( <i>Oryzias melastigma</i> )	Haisu Liu, <i>Jinan University, China</i>
C6-03	Plant growth promoting bacteria associated with edible sea grapes <i>Caulerpa lentillifera</i> (J. Agardh 1837)	Bui Thi Ngoc Trieu, <i>Institute of Oceanography, Vietnam</i>
C6-04	Investigate lipid and protein oxidation in herring ( <i>Sardinella gibbosa</i> ) by sodium acetate during preservative time.	Thi Thiet Doan, <i>Institute of Oceanography, Vietnam</i>
C6-05	Light-induced algae retinal stress can deform fish spines	Lei Cui, <i>Jinan University, China</i>
C6-06	Seasonal changes of tetrodotoxin and its analogue composition in <i>Takifugu niphobles</i> pufferfish caught in Korean Waters	Bong ki Park, <i>Chung-Ang University, Republic of Korea</i>
C6-07	Temporal monitoring of pinnatoxins in shellfish collected from the Korean Peninsula	Chan-Young Kim, <i>Jeju National University, Republic of Korea</i>
C6-08	Rapid monitoring of Cyclic Imines in marine organisms using LC-MRM-MS platform	D.S. Dissanayake, <i>Jeju National University, Republic of Korea</i>
C6-09	Mass spectral matching-based detection for pteriatoin isomers in marine organisms	Hye Won Kim, <i>Chungnam National University, Republic of Korea</i>

ID	Presentation Titles	Presenters
C6-10	Dietary exposure assessment of azaspiracids (AZAs) in imported shellfish using maximum likelihood estimation from left-censored data	Hyojin Kwon, <i>Chung-Ang University, Republic of Korea</i>
C6-11	Maximum likelihood estimation of brevetoxin (BTX) in imported shellfish in Korea	Hyojin Kwon, <i>Chung-Ang University, Republic of Korea</i>
C6-12	Simultaneous surveillance of pectenotoxins (PTXs) in imported shellfish and their dietary exposure assessment	Changsun Choi, <i>Chung-Ang University, Republic of Korea</i>
C6-13	UHPLC-MS/MS detection and dietary exposure assessment of YTX and in imported shellfish in South Korea	Changsun Choi, <i>Chung-Ang University, Republic of Korea</i>
C6-14	TTX screening of <i>Atergatis floridus</i> (Linnaeus, 1767) and <i>Atergatis integerrimus</i> (Lamarck, 1818) collected from Jeju Coast using a competitive ELISA	Jong-Seop Shin, <i>Jeju National University, Republic of Korea</i>
C6-15	Semi-quantitative non-targeted screening of novel marine toxins using LC/MRM-MS	Nari Seo, <i>Chungnam National University, Republic of Korea</i>
C6-16	Quantification of tetrodotoxin (TTX) and its analogue in boxfish <i>Ostracion immaculatum</i> Temminck & Schlegel, 1850 from Jeju Island, Korea	Nobuhisa Kajino, <i>Jeju National University, Republic of Korea</i>
C6-17	Investigation of extraction efficiency and matrix effect in Palytoxin quantification using LC/MRM-MS	R.P.G.S.K. Amarasiri, <i>Jeju National University, Republic of Korea</i>
C6-18	Investigation of contamination levels of CI toxins in imported shellfish products available in South Korea	Young-Sang Kim, <i>Jeju National University, Republic of Korea</i>
<b>Session C7: Harmful jellyfish in the Southeast Asian region: Networking across the oceans</b>		
C7-01	New records of two box jellyfish in the eastern Gulf of Thailand	Isara Arsiranant, <i>Department of Marine and Coastal Resources, Thailand</i>
C7-02	Should we worry about box jellyfish sting to the face?	Muhamad Na'im Bin Ab Razak, <i>Hospital Lahad Datu, Malaysia</i>
C7-03	First documented case of jellyfish sting with Irukandji like syndrome in Sabah coastal water	Muhamad Na'im Bin Ab Razak, <i>Hospital Lahad Datu, Malaysia</i>

## Sub-theme D

### Emerging Ocean Science and Cross-cutting Issues

ID	Presentation Titles	Presenters
<b>Session D1: Ocean observing technology and systems in the Indo-Pacific: major advances and challenges</b>		
D1-01	Field observation of rip currents at Kata Noi Beach, Phuket, Thailand	Suriya Kumnaundao, <i>Kasetsart University, Thailand</i>

D1-02	Advancing <i>in-situ</i> measurements for enhanced understanding of the Gulf of Thailand's environmental dynamics	Tanuspong Pokavanich, <i>Kasetsart University, Thailand</i>
D1-03	Zonal structure of tropical Pacific surface salinity anomalies affects the eastern and central Pacific El Niños differently	Cong Guan, <i>Chinese Academy of Sciences, China</i>
D1-04	Satellite observed multisource internal tide radiation and interference in the Banda Sea	Peiwen Zhang, <i>Institute of Oceanology Chinese Academy of Sciences, China</i>
<b>Session D2: Ocean observing technology and systems in the Indo-Pacific: Major advances and challenges</b>		
D2-01	Exploring the biodiversity at Koh He, Phuket, using eDNA technique together with metagenomics analysis	Vararin Vongpanich, <i>Department of Marine and Coastal Resources, Thailand</i>
D2-02	Effects of artificial light at night on gene expression in the coral, <i>Acropora digitifera</i>	Kelly Rome A. Publico, <i>University of the Philippines Diliman, The Philippines</i>
D2-03	Evaluating three environmental DNA (eDNA) sampling methods to observe small pelagic fish community compositions	Xueding Wang, <i>The University of Tokyo, Japan</i>
<b>Session D3: Satellite and airborne remote sensing techniques for marine ecosystem monitoring and management</b>		
D3-01	Long-term variations in phytoplankton production measured by satellite ocean remote sensing data in the Northwest Pacific	Seunghyun Son, <i>NOAA/NESDIS Center for Satellite Applications and Research (STAR), USA</i>
D3-02	Development of neural network models for distributions of plastics patches in the ocean by Sentinel-2 high-resolution data	Yutaka Kameda, <i>Chiba Institute of Technology, Japan</i>
D3-03	Working time of acoustic survey methods for the truthing of optic remote sensing	Hajime Okawa, <i>Kitasato University, Japan</i>
<b>Session D5: Deep-sea exploration and research in the Western Pacific</b>		
D5-01	Methane seepage caused by gas hydrate dissociation in the middle Okinawa Trough since the Last Glacial Maximum	Ang Li, <i>Qingdao Institute of Marine Geology, China</i>
D5-02	Gas hydrates and natural gas discharge in the Sea of Okhotsk	Renat Shakirov, <i>V.I. Il'ichev Pacific Oceanological Institute, Russia</i>
<b>Session D6: Sustainable financing of blue carbon</b>		
D6-01	The impact of density on biomass: a study of changes in blue carbon in the seagrass ecosystems of Thailand	Tipamat Upanoi, <i>Department of Marine and Coastal Resources, Thailand</i>

## Special Forum

Science for local-level environmental management, ecosystem conservation and sustainable use in the South China Sea and Gulf of Thailand

ID	Presentation Titles	Presenters
SF-01	Marine protected areas contribute to sustainable socio-economic development	Nguyen Van Vu, <i>The Management Board of the Cu Lao Cham Marine Protected Area, Vietnam</i>
SF-02	Reef coral decline and adaptive solutions for coral reef conservation in Nui Chua National Park, Vietnam	Thai Minh Quang, <i>Vietnam Academy of Science &amp; Technology, Vietnam</i>
SF-03	The study on social and economic impacts from marine protected area announcement and the utilization of the Losin Island, Pattani, Thailand	Aekkarak Faiboon, <i>Prince of Songkla University, Thailand</i>
SF-04	Achievements in sea turtle conservation in Con Dao waters, Vietnam	Nguyen Khac Pho, <i>Con Dao National Park, Vietnam</i>
SF-05	Basic cognition, methods, and implementation route of marine detailed planning from the perspective of territorial spatial planning	Wenxiu Xing, <i>First Institute of Oceanography, China</i>
SF-06	Promotion of blue economy in Trat Province, Thailand	Laddawan Sangsawang, <i>Department of Marine and Coastal Resources, Thailand</i>
SF-07	A conceptual framework for blue economy resilience to build sustainable and adaptive capacity	Han Zhang, <i>Ocean College, Zhejiang University, China</i>
SF-08	Eutrophication reduced carbon sequestration in tropical seagrass beds	Zhijian Jiang, <i>Chinese Academy of Sciences, China</i>
SF-09	Hydrogen-producing capability of green microalgae found in Sarawak, Malaysia	Jonathan Lee Wen Han, <i>Swinburne University of Technology Sarawak, Malaysia</i>
SF-10	Reef caretaker: coral rehabilitation as part of participatory management of marine parks in Lang Tengah Island, Malaysia	Azrin Asyikin Mohd Shukor, <i>Marine Conservation and Research Organization (PULIHARA), Malaysia</i>

An underwater scene with various marine life including fish, jellyfish, and coral. The background is a gradient of blue, transitioning from light at the top to dark at the bottom. A white rounded rectangle is centered in the lower half, containing the text.

# **Decade Action Workshops**

## DECADE ACTION WORKSHOPS

The Decade Action Workshops allow UN Ocean Decade Actions, particularly those which have a focus on the region, to bring together Action partners, review their development progress, catalyze new partnerships, and deliberate on action plans.

Workshops	Titles
Workshop 1	GEM: Global Estuaries Monitoring Programme
Workshop 2	MBON and ML2030: Marine biodiversity monitoring and research in East and Southeast Asia
Workshop 3	UN 21: Accelerate marine spatial planning in the Western Pacific and its adjacent area
Workshop 4	UN 22: Stem the tide of Asia's riverine plastic emission into the ocean
Workshop 5	UN 24: How CSK-2 could provide solutions for society?
Workshop 6	Ocean Prediction: Developing a regional network in the Western Pacific and Marginal Seas of South and East Asia for bridging the gaps in ocean prediction and applications
Workshop 7	GEMS Ocean and UNEP COBSEA: Upscaling ocean observation, monitoring, and modelling for early warning in the East Asian Seas
Workshop 8	Mitigation of Natural Incidence Towards an Increased Oceanic Resilience
Workshop 9	Ocean Literacy with all: Dialogue with ECOPs
Workshop 10	ECOP: UN Decade actions and multidisciplinary practices addressing ECOP challenges
Workshop 11	UN23: Accelerating capacity development transformation in the Western Pacific – Regional Network of Training and Research Centers (RTRCs) on Marine Science
Workshop 12	Ocean Biomolecular Observing Network (OBON)
Workshop 13	CoastPredict - Transforming Observation and Prediction of the Global Coastal Ocean to Support Coastal Resilience

## Decade Action Workshop 1

### Global Estuaries Monitoring (GEM) Programme

**Venue:** Jubilee B, 11<sup>th</sup> Floor

**Date:** 24 April 2024

**Time:** 13:00–17:00

**Conveners:**

Kenneth Mei Yee Leung

City University of Hong Kong, Hong Kong SAR, China

Chong Chen

City University of Hong Kong, Hong Kong SAR, China

Time	Presentation Titles	Speakers
<b>Session 1: Progress of the GEM Programme</b>		<b>Moderator: Chong Chen</b>
13:00–13:30	Welcome Speech and Introduction of the GEM Programme	Kenneth Mei Yee Leung, <i>City University of Hong Kong, China</i>
13:30–13:55	A review on pharmaceutical contamination in the world's estuaries	Demilade T. Adedipe, <i>City University of Hong Kong, China</i>
13:55–14:20	Pharmaceuticals in urbanized riverine and estuarine waters of Hong Kong	Qiong Luo, <i>City University of Hong Kong, China</i>
14:20–15:00	Research progress and prospects of the GEM Programme	Chong Chen, <i>City University of Hong Kong, China</i>
15:00–15:30	<b>Coffee Break</b>	
<b>Session 2: Prospects of the GEM Programme</b>		<b>Moderator: Kenneth Mei Yee Leung</b>
15:30–16:15	<b>Open Discussion:</b> Co-design collaborative projects and action plans for the next phase of GEM	All Members
16:15–17:00	<b>Open Discussion:</b> Explore practical solutions in combating chemical pollution in the world's estuaries	All Members

## Decade Action Workshop 2

### MBON & ML2030: Marine biodiversity monitoring and research in East and Southeast Asia

**Venue:** Somerset A, 5<sup>th</sup> Floor

**Date:** 24 April 2024

**Time:** 10:00–15:00

**Conveners:**

Masahiro Nakaoka            Hokkaido University, Japan

Aileen Tan Shau Hwai        Universiti Sains Malaysia

Time	Presentation Titles	Speakers
<b>Session 1: Status of coastal ecosystem monitoring and research</b>		<b>Moderator: Masahiro Nakaoka</b>
10:00–10:15	Introduction and overview	Masahiro Nakaoka, <i>Hokkaido University</i>
10:15–10:25	Report from each country. 1: Indonesia	Udhi E Hermawan, <i>BRIN, Indonesia</i>
10:25–10:35	Report from each country. 2: Philippines	Ephrime Metillo, <i>Mindanao State University Iligan, The Philippines</i>
10:35–10:45	Report from each country. 3: Malaysia	Abe Woo, <i>Universiti Sains Malaysia</i>
10:45–10:55	Report from each country. 4: Thailand	Tamasak Yeemin, <i>Ramkhamhaeng University, Thailand</i>
10:55–11:05	Report from each country. 5: Japan	Toshihiko Fujita, <i>National Museum of Nature and Science, Tokyo, Japan</i>
11:05–11:20	New technology development to enhance biodiversity monitoring in coastal ecosystems	Takehisa Yamakita, <i>JAMSTEC, Japan</i>
11:20–12:00	<b>Breakout Session 1: How to enhance marine biodiversity monitoring in Eastern and Southeastern Asia?</b>	
12:00–13:00	<b>Lunch Break</b>	
<b>Session 2</b>		
13:00–13:15	Status of marine biodiversity data use for actual conservation and management actions	Zulfigar Yasin, <i>Universiti Sains Malaysia</i>
13:15–13:30	Progress of citizen science toward wider monitoring of coastal marine biodiversity	Angela Quiros, <i>ABS-CBN Foundation International</i>
13:30–13:45	Blue Carbon in coastal area: Its potential for implementing carbon mitigation policy and carbon credit marketing	Anchana Prathep, <i>Prince of Songkhla University, Thailand</i>

Time	Presentation Titles	Speakers
13:45–14:00	Use of marine biodiversity monitoring for international policy making: Our contribution to CBD-Kunming-Montreal Biodiversity Framework	Masahiro Nakaoka, <i>Hokkaido University, Japan</i> Ryo Kohsaka, <i>University of Tokyo, Japan</i>
14:00–14:40	<b>Breakout Session 2: How to link marine biodiversity monitoring to actual practices and policy-making?</b>	
14:40–15:00	<b>Summary discussion:</b> Toward sustainable biodiversity monitoring and research programs in Asia-Pacific regions	Aileen Tan Shau Hwai, <i>Universiti Sains Malaysia</i>

## Decade Action Workshop 3

### UN 21: Accelerating Marine Spatial Planning in the Western Pacific

**Venue:** Mayfair C, 11<sup>th</sup> Floor

**Date:** 24 April 2024

**Time:** 13:00–17:00

**Conveners:**

Zhiwei Zhang                      IOC Sub-Commission for the Western Pacific, IOC/UNESCO

Sakanan Plathong                Prince of Songkla University, Thailand

Moon-Suk LEE                    Korea Institute of Ocean Science & Technology, Korea

Time	Presentation Titles	Speakers
<b>Session 1: Opening</b>		<b>Moderator: Zhiwei Zhang</b>
13:00–13:15	1.1 Opening Remarks 1.2 Self-introduction 1.3 Purpose	Wenxi Zhu, <i>IOC/WESTPAC</i>
<b>Session 2: UN 21 Progress and Challenges</b>		<b>Moderator: Moon-Suk LEE</b>
13:15–13:30	2.1 Updates on the implementation of UN21: Accelerating Marine Spatial Planning in the Western Pacific, Regional Component of MSPglobal 2.0	Zhiwei Zhang, <i>IOC/WESTPAC</i>
13:30–13:45	2.2 The Lesson Learned MSP Development and Implementation in Indonesia	Ir. Suharyanto, <i>Ministry of Marine Affairs and Fisheries, Indonesia</i>
13:45–14:00	2.3 The Development of Marine spatial Planning system in Korea	Areum Jang, <i>Korea Institute of Ocean Science &amp; Technology, Republic of Korea</i>
14:00–14:15	2.4 Marine Spatial Planning Initiatives in Thailand	Chanokphon Jantharakhantee, <i>Department of Marine and Coastal Resources, Thailand</i>
14:15–14:30	2.5 How to consider marine disaster prevention into Marine Spatial Planning in local level of China–Taking Dongtou, Zhejiang province as an example	Honghao Tang, <i>Second Institute of Oceanography, MNR, China</i>
14:30–14:45	2.6 Case study on the development of a marine space policy simulator for sustainable marine spatial management in Korea	Seungwon Kang, <i>Korea Institute of Ocean Science &amp; Technology, Republic of Korea</i>
14:45–15:00	2.7 Role of Foundation in the MSP Development: A Prospect from China Practice	Min Wang, Xuefeng Li, <i>China Oceanic Development Foundation, China</i>
15:00–15:30	<b>Coffee Break</b>	

Time	Presentation Titles	Speakers
<b>Session 3: Panel and Group Discussion on developing a Regional MSP Roadmap for the Western Pacific</b>		<b>Moderator: Sakanan Plathong Zhiwei Zhang</b>
15:30–16:45	<p>3.1 Thematic talk–Background of Regional MSP Roadmap for the Western Pacific</p> <p>3.2 Discussion</p> <ul style="list-style-type: none"> <li>✓ What are the main challenges in MSP development and implementation (Legislation and regulation/Rules/ Stakeholder engagement/ Capacity Development/Outreach Communication and etc.) and how can they be addressed in this region?</li> <li>✓ What are the priority areas and key elements that should be included in the Regional MSP roadmap(2025–2030)?</li> <li>✓ Suggestions towards the development of the Regional MSP Roadmap</li> </ul>	<p>Maeve Nightingale, <i>IUCN Asia Regional Office</i></p> <p>Arief Widiyanto, <i>Ministry of Marine Affairs and Fisheries, Indonesia</i></p> <p>Sora Yoon, <i>Korea Institute of Ocean Science &amp; Technology, Republic of Korea</i></p> <p>Sazlina Salleh, <i>University Sains Malaysia, Malaysia</i></p> <p>Zhen Guo, <i>First Institute of Oceanography, Ministry of Natural Resources, China</i></p>
<b>Session 4: Summary and Way Forward</b>		
16:45–17:00	<b>Discussion</b>	

## Decade Action Workshop 4

### UN 22: Stem the tide of Asia's riverine plastic emission into the ocean

**Venue:** Mayfair C, 11<sup>th</sup> Floor

**Date:** 24 April 2024

**Time:** 10:00–12:00

**Conveners:**

Daoji Li	East China Normal University, China
Phaothep Cherdsukjai	Department of Marine and Coastal Resources, Thailand
Ho Van The	Vietnam Academy of Science and Technology Institute of Oceanography, Vietnam
Agung Dhamar Syakti	Raja Ali Haji Maritime University, Indonesia
Lixin Zhu	East China Normal University, China

Time	Presentation Titles	Speakers
<b>Session 1: Opening and Decade project introduction</b>		
09:45–10:00	Check-in and sign ups	
10:00–10:05	Opening remarks/Welcomes	Daoji Li, <i>East China Normal University, China</i>
10:05–10:20	Decade project introduction: The UN Decade Action 22 “Stem the Tide of Asia’s Riverine Plastic Emission into the Ocean”	Daoji Li, <i>East China Normal University, China</i>
10:20–10:35	Situation analysis: Current status of riverine plastic pollution in Westpac region	Lixin Zhu, <i>East China Normal University, China</i>
10:35–10:50	Riverine microplastic monitoring: strategies and limitations	Vo Tran Tuan Linh, <i>Vietnam Institute of Oceanography, Vietnam</i>
10:50–10:55	Questions regarding to the UN22 project	
<b>Session 2: Discussions and brainstorming</b>		<b>Moderator: Phaothep Cherdsukjai</b>
10:55–11:40	Breakout groups (Depending on the number of attendees) Questions: <ul style="list-style-type: none"> <li>• What are the key knowledge gaps to be filled in monitoring riverine plastic and microplastic in West Pacific region?</li> <li>• Major factors contributing to riverine plastic pollution?</li> <li>• How to better involve other stakeholders to curb riverine plastic pollution? Any good practice or lessons learned from current initiatives?</li> <li>• Suggestions to co-develop UN22 decade project?</li> </ul>	
<b>Session 3: Closing and workshop photo</b>		
11:40–12:00	<ul style="list-style-type: none"> <li>• Summary of Break-out Groups Recommendations</li> <li>• Recap of Key insights and Takeaways</li> <li>• Encouragement for Continued Engagement and Action Beyond the Workshop</li> </ul>	

## Decade Action Workshop 5

### CSK-2 workshop at the regional UN Decade Conference: How CSK-2 could provide solutions for society?

**Venue:** Kensington A, 5<sup>th</sup> Floor

**Date:** 24 April 2024

**Time:** 10:00–15:00

**Conveners:**

Kentaro Ando

JAMSTEC, Japan

Xiaopei Lin

Ocean University of China, Qingdao, China

Time	Presentation Titles	Speakers
<b>Session 1: Introduction session</b>		
10:00–10:30	1.1. Opening remarks 1.2. Self-introduction 1.3. Purpose of the two sessions	
<b>Session 2: Co-design and co-production of Kuroshio information with modelling community</b>		
10:30–12:00	2.1.a. Observation of Kuroshio for weather and climate prediction	Akira Nagano, <i>JAMSTEC, Japan</i>
	2.1.b. Observation of Kuroshio for weather and climate prediction	Zhaohui Chen, <i>Ocean University of China, China</i>
	2.2 Current status of modelling for weather and climate prediction (remote)	Qiyang Chen or Dr. Sumei Ma (TBD)
	2.3. Data sharing and utilization for weather and climate prediction	Guimei Liu, <i>National Marine Environmental Forecasting Center, China</i>
	2.4. Requirements and actions by Ocean Predict Regional Hub	Swadhin Behera, <i>JAMSTEC, Japan</i>
	2.5. Identification of gaps for co-design and co-production	
12:00–13:00	<b>Lunch Break</b>	
<b>Session 3: Brainstorming for marine ecosystem change prediction in the Kuroshio region</b>		
13:00–14:30	3.1. Biological and biogeochemical observation for elucidation of Kuroshio Paradox (Invited)	Professor Hiroaki Saito, <i>AORI, University of Tokyo, Japan</i>
	3.2. Modelling of Marine Ecosystem	Lan Smith, <i>JAMSTEC, Japan</i>
	3.3 Understanding Biophysical Science Behind Changes in Coastal Ecosystem Note: Join virtual meeting	Angel Balisi Encarnacion, <i>Bureau of Fisheries and Aquatic Resources, Department of Agriculture, Philippines</i>
	3.4. Identification of gaps and way forward to fill the gaps Discussion	All participants
<b>Session 4: Summary and Way Forward</b>		
14:30–15:00	<b>Discussion</b>	

## Decade Action Workshop 6

### OceanPrediction: Developing a regional network in the Western Pacific and Marginal Seas of South and East Asia (WPMSEA) for bridging the gaps in ocean prediction and applications

**Venue:** Kensington B, 5<sup>th</sup> Floor

**Date:** 24 April 2024

**Time:** 13:00–17:00

**Conveners:**

Swadhin Behera

JAMSTEC, Japan

Enrique Alvarez

Ocean Prediction Decade Collaborative Center, France

Fadli Syamsudin

National Research and Innovation Agency, Indonesia

Chalermrat Sangmanee

Phuket Marine Biological Center, Thailand

Time	Presentation Titles	Speakers
<b>Session 1</b>		<b>Chairs: Swadhin Behera Enrique Alvarez</b>
13:00–13:20	Opening remarks	Enrique Alvarez, <i>Coordinator, OceanPrediction DCC (remote)</i> Srinivas Kumar, <i>Vice-Chair, IOC (remote)</i> Fadli Syamsudin, <i>Convener</i> Chalermrat Sangmanee, <i>Convener</i>
13:20–14:05	Developing the regional hub of the ocean forecast systems including digital twin and smart interface technologies:	
	• The operational ocean forecasting activities in seas around Indonesia	Andri Ramdhani, <i>BMKG, Indonesia (remote)</i>
	• JCOPE as an operational forecasting system for sustainable developments	Yasumasa Miyazawa, <i>JAMSTEC, Japan (remote)</i>
	• The operational forecasting systems at NMEFC for various ocean applications	Dakui Wang and Liying Wan, <i>NMEFC, China</i>
14:05–14:35	Co-developing forecast systems including biogeochemistry and climate	
	• Ocean's role in mid-latitude air-sea interactions	Masami Nonaka, <i>JAMSTEC, Japan</i>
	• Ocean's role in climate variability in Southeast Asia	Fadli Syamsudin, <i>BRIN, Indonesia</i>
14:35–14:50	Downstream services	
	• Ocean forecast-based downstream services in Southeast Asia	Chalermrat Sangmanee, <i>DMCR, Thailand</i>
14:50–15:00	<b>Discussions:</b> understanding gaps and way forward	

Time	Presentation Titles	Speakers
15:00–15:30	<b>Coffee Break</b>	
<b>Session 2</b>	<b>Chairs: Fadli Syamsudin Chalermrat Sangmanee</b>	
15:30–15:45	Biogeochemistry modeling activities in the region	
	<ul style="list-style-type: none"> <li>Development of biogeochemical modeling for coastal regions of Japan</li> </ul>	Hakase Hayashida, <i>JAMSTEC, Japan</i>
15:45–16:00	Supporting outreach activities like ocean literacy, capacity developments and ocean policy	
	<ul style="list-style-type: none"> <li>The capacity development and ocean literacy activities in Indonesia</li> </ul>	Adi Rameyo, <i>BRIN, Indonesia (remote)</i>
16:00–16:45	Links to other programs	
	<ul style="list-style-type: none"> <li>CSK-2 activities and possible links with the OceanPrediction DCC WPMSEA</li> </ul>	Kentaro Ando, <i>JAMSTEC, Japan</i>
	<ul style="list-style-type: none"> <li>OceanPrediction DCC Indian Ocean region activities</li> </ul>	Sudheer Joseph, <i>INCOIS, India (remote)</i>
	<ul style="list-style-type: none"> <li>The activities at Regional Integrated Multi-Hazard Early Warning System for Africa and Asia</li> </ul>	K.J. Ramesh, <i>RIMES</i>
16:45–17:00	<b>Discussion, summary and wrap-up</b>	

## Decade Action Workshop 7

### GEMS Ocean: Upscaling ocean observation, monitoring, and modelling for early warning in the East Asian Seas

**Venue:** Chelsea A, 5<sup>th</sup> Floor

**Date:** 24 April 2024

**Time:** 13:00–17:00

**Conveners:**

Joana Akrofi

United Nations Environment Programme, Kenya

Mahesh Pradhan

UNEP/COBSEA

Time	Presentation Titles	Speakers
<b>Session 1: Opening Session</b>		<b>Moderator: Mahesh Pradhan</b>
13:00–13:10	<i>Scene Setting:</i> Introduction to the workshop	Margarita Victoria Caballa, <i>UNEP/COBSEA</i>
13:10–13:20	Objectives of the workshop	Joana Akrofi, <i>UNEP, Kenya</i>
13:20–13:30	<b>Opening Remarks</b>	Louise Demarange, <i>UNESCO/IOC</i>
<b>Session 2: Progress in Ocean observation and monitoring</b>		<b>Moderator: Louise Demarange</b>
13:30–13:50	Overview of COBSEA programme, strategies, and priority actions	Mahesh Pradhan, <i>UNEP/COBSEA</i>
13:50–14:10	Coordination of Ocean Observation, Essential Ocean variables	Emma Heslop, <i>UNESCO/IOC</i>
14:10–14:30	Overview of GEMS Ocean Programme & milestones, the Digital Twin prototype - Caribbean case study	Joana Akrofi, <i>UNEP, Kenya</i>
14:30–14:50	Emerging tools for sustainable ocean management: Concept of Digital Twinning of the Ocean	Muriel Lux, <i>Mercator Ocean International</i>
14:50–15:00	<b>Plenary/Q&amp;A</b>	All
15:00–15:30	<b>Coffee Break</b>	
<b>Session 3: Dialogue</b>		<b>Moderator: Joana Akrofi</b>
15:30–16:00	DIALOGUE – East Asian Seas priorities for GEMS Ocean/COBSEA/WESTPAC & Partners joint initiatives	All
16:00–16:30	Proposed co-design framework for joint initiatives – GEMS Ocean/COBSEA/WESTPAC & Partners	All
16:30–17:00	<b>Plenary &amp; Way forward</b>	All



## Decade Action Workshop 8

### Mitigation of Natural Incidence Towards an Increased Oceanic Resilience (MoNITOR)

**Venue:** Kensington B, 5<sup>th</sup> Floor

**Date:** 24 April 2024

**Time:** 10:00–12:00

**Conveners:**

Yuntao WANG

Second Institute of Oceanography, MNR, China

Tanuspong POKAVANICH

Kasetsart University, Thailand

Yang LIU

Ocean University of China, China

Time	Presentation Titles	Speakers
<b>Session 1: Speeches</b>		<b>Moderator: Tanuspong Pokavanich</b>
10:00–10:05	Welcome remarks	Tanuspong POKAVANICH, <i>Kasetsart University, Thailand</i>
10:05–10:20	Introduction of MoNITOR project	Yuntao WANG, <i>Second Institute of Oceanography, MNR, China</i>
10:20–10:35	Impacts of and adaptation to Marine Heatwaves (MHWs): Taking Coral Reef Ecosystems as an Example	Cai Rongshuo, <i>Third Institute of Oceanography, MNR, China</i>
10:35–10:50	Effects of hypoxia and ocean acidification on marine ecosystem (Invited)	Tahirah Jaafar, <i>University Malaysia Terengganu, Malaysia</i>
10:50–11:00	Remote sensing to monitor plankton bloom in the inner Gulf of Thailand	Jutarak Luang-on, <i>JAMSTECs, Japan</i>
11:00–11:20	Q&A and Discussion	Yang LIU, <i>Ocean University of China, China</i>
<b>Session 2: UN Decade action and collaboration</b>		<b>Moderator: Yuntao Wang</b>
11:20–11:30	COASTAL-SOS related topic	Khanittha UTHAIPAN, <i>Kasetsart University, Thailand</i>
11:30–11:40	Participation in the ECOP Programme of the UN Ocean Decade	Baolan Wu, <i>Hong Kong University of Science and Technology, China</i>
11:40–11:55	Signing of MOU between SIO and collaborative institutions	Tanuspong POKAVANICH, <i>Kasetsart University, Thailand</i>
11:55–12:00	Closing	Yuntao WANG, <i>Second Institute of Oceanography, MNR, China</i>

## Decade Action Workshop 9

### Ocean Literacy with all: Dialogue with ECOPs

**Venue:** Jubilee A, 11<sup>th</sup> Floor

**Date:** 24 April 2024

**Time:** 10:00–12:00

**Conveners:**

Raphael Roman                      IOC-UNESCO, Canada

Debarati Sengupta                      Estuarine and Coastal Studies Foundation, India

Time	Presentation Titles	Speakers
<b>Session 1: Ocean Literacy Presentations</b>		<b>Moderator: Raphael</b>
10:00–10:05	Introductory remarks	Raphael Roman, <i>IOC-UNESCO, ECOP Asia Coordinator</i>
10:05–10:17	<u>Presentation:</u> <i>The Global IOC Ocean Literacy Programme: Opportunities for the region</i>	Valentina Lovat, <i>UNESCO Ocean Literacy Programme</i>
10:18–10:30	<u>Presentation:</u> <i>Youth Activation for Ocean Literacy in Malaysia</i>	Afiq Durrani Mohd Fahmi, <i>Universiti Malaysia Terengganu, Malaysia</i>
10:31–10:43	<u>Presentation:</u> <i>Bridging the Science-Policy Interface: Perspectives from Indian Sundarbans</i>	Debarati Sengupta, <i>Estuarine and Coastal Studies Foundation, India</i>
10:44–10:56	<u>Presentation:</u> <i>Oceanic Frontiers: Fostering Public Engagement and Harnessing Citizen Science for Coastal Empowerment</i>	Elsie Gabriel, <i>Young Environmentalists Programme Trust, UNESCO Green Citizen, India</i>
10:57–11:09	<u>Presentation:</u> <i>A Two-way Journey of Ocean Literacy in Zhanjiang, China</i>	Shenghui Li, <i>Guangdong Ocean University, China</i>
<b>Session 2: ECOP Videos and Panel Discussion</b>		<b>Moderator: Raphael &amp; Debarati</b>
11:10–11:17	A compilation of short Ocean Literacy videos will be shown. These videos are part of an Ocean Literacy series co-developed by the ECOP Programme Ocean Literacy Task Team and ECOP Asia’s Ocean Literacy Hub. This campaign aims to gather information and materials on efficient, successful, and innovative practices in Ocean Literacy around Asia.	
11:15–12:00	Panel Discussion and Q&A with audience	

## Decade Action Workshop 10

### ECOPs: UN Decade actions and multidisciplinary practices addressing ECOPs challenges

**Venue:** Jubilee A, 11<sup>th</sup> Floor

**Date:** 24 April 2024

**Time:** 13:00–17:00

**Conveners:**

Yushi Morioka

Wang Yuntao

Wang Lin

Sazlina Salleh

Thai To Duy

Chalermrat Sangmanee

Seung-Tae Yoon

Japan Agency for Marine-Earth Science and Technology, Japan

Second Institute of Oceanography,  
Ministry of Natural Resources, China

Institute of Oceanology, Chinese Academy of Sciences, China

Center for Policy Research, Universiti Sains Malaysia, Malaysia

Institute of Oceanography, Vietnam

Department of Marine and Coastal Resources, Thailand

Kyungpook National University, Korea

Time	Presentation Titles	Speakers
<b>Session 1: Introduction &amp; Group Photo</b>		
13:00–13:15	Chair: Yushi Morioka (JAMSTEC/APL)	
<b>Session 2a: Multidisciplinary practices from UN Decade Actions</b>		Chair: Yuntao Wang Chalermrat Sangmanee Sazlina Salleh
13:15–13:30	Translating Science into Actionable Solutions	Aileen Tan, <i>Universiti Sains Malaysia, Malaysia</i>
13:30–13:45	UNDOS Implementation Efforts in Korea in relation to ECOP challenges	Wonho Yih, <i>Korean Academy of Marine Science, Geosystem Research, Republic of Korea</i>
13:45–14:00	Use of nighttime light data to monitor and assess coastal fisheries under the impacts of human activities and climate and environmental changes	Yang Liu, <i>Ocean University of China, China</i>
14:00–14:15	Rock Oyster: Unveiling the Nexus of Heavy Metals, Rare Earth Elements, and Microplastics in Peninsular Malaysia's Coastal Waters and Their Implications for Ocean and Human Health	Fuad Miskon, <i>IUM/INOCEM, Malaysia</i>
14:15–14:30	Ocean Science Bigdata contest: the first UN Ocean Decade Activity in Korea	Soyeona Park, <i>Haebomdata Inc., Republic of Korea</i>
<b>Session 2b: Group Discussion</b>		
14:30–14:45	Chair: Yushi Morioka (JAMSTEC/APL)	
15:00–15:30	<b>Coffee Break</b>	

Time	Presentation Titles	Speakers
<b>Session 3a: Multidisciplinary practices from ECOP Asia</b>		<b>Chair: Lin Wang Seung-Tae Yoon To Duy Thai</b>
15:30–15:45	Rise and spread of K-ECOP	Jae-Hyoung Park, <i>Pukyong National University, Republic of Korea</i>
15:45–16:00	Ocean AI company founded by oceanographic and information technology researchers	Yusuke Tanaka, <i>Ocean Eyes Co., Ltd., Japan</i>
16:00–16:15	Participation and Progress in the CSK-2 Programme as an ECOP	Baolan Wu, <i>The Hong Kong University of Science and Technology, China</i>
16:15–16:30	Make progress and learn from the research on marine fisheries	Hui Zhang, <i>Institute of Oceanology, Chinese Academy of Sciences, China</i>
16:30–16:45	Ocean Synergy: Uniting Efforts in Climate Change Research	Pimchanok Buapet, <i>Prince of Songkla University, Thailand</i>
<b>Session 3b: Group Discussion (all)</b>		
16:45 17:00	<b>Chair: Yushi Morioka (JAMSTEC/APL)</b>	

## Decade Action Workshop 11

### Accelerating capacity development transformation in the Western Pacific – Regional Network of Training and Research Centers (RTRCs) on Marine Science

**Venue:** Jubilee B, 11<sup>th</sup> Floor

**Date:** 24 April 2024

**Time:** 10:00–12:00

**Conveners:**

Augy Syahailatua      National Research and Innovation Agency, Indonesia

Gil Jacinto              University of the Philippines Diliman, the Philippines

Shengle Yin              IOC/WESTPAC, Thailand

Time	Presentation Titles	Speakers
10:00–10:10	Opening remarks	Wenxi Zhu, <i>Head of IOC Sub-Commission for the Western Pacific (WESTPAC)</i>
<b>Presentations of RTRCs representations</b>		<b>Moderator: Augy Syahailatua</b>
10:10–10:20	RTRC-Ocean Dynamic and Climate	Xunqiang Yin, <i>First Institute of Oceanography, China</i>
10:20–10:30	RTRC-Marine Biodiversity and Ecosystem Health	Indra Bayu Vimono / Augy Syahailatua, <i>National Research and Innovation Agency, Indonesia</i>
10:30–10:40	RTRC-Marine Plastic Debris and Microplastics	Daoji Li, <i>East China Normal University, China</i>
10:40–10:50	RTRC-Marine Toxins and Seafood Safety	Ha Dao Viet, <i>Institute of Oceanography, Vietnam</i>
10:50–11:00	RTRC-Reef Management and Restoration	Vanessa Baria-Rodriguez, <i>University of the Philippines Diliman, The Philippines</i>
11:00–11:10	RTRC-Coastal Contaminant Monitoring and Marine Innovation Technologies	Kenneth M. Y. Leung, <i>City University of Hong Kong, China</i>
<b>Brainstorming and Discussion</b>		<b>Moderator: Gil Jacinto</b>
11:10–11:50	Guide questions: <ul style="list-style-type: none"> <li>- What role can RTRCs play in addressing the UN Ocean Decade Challenges in the Western Pacific?</li> <li>- How can RTRCs collaborate and accelerate their joint efforts to address regional cross-cutting issues?</li> <li>- How can RTRCs maintain their operational sustainability and effectiveness?</li> <li>- How do RTRCs collaborate with national and international projects to meet their needs?</li> <li>- Suggestions for future RTRC development.</li> </ul>	
11:50–12:00	<b>Wrap-up and closure</b>	Augy Syahailatua, <i>National Research and Innovation Agency, Indonesia</i> Gil Jacinto, <i>University of the Philippines Diliman, The Philippines</i>

## Decade Action Workshop 12

### Ocean Biomolecular Observing Network (OBON)

**Venue:** Mayfair B, 11<sup>th</sup> Floor

**Date:** 24 April 2024

**Time:** 13:00–17:00

**Conveners:**

Willie Wilson Marine Biological Association, UK

Jodie Van De Kamp CSIRO, Australia

Aileen Tan Shau Hwai CEMACS, Malaysia

Time	Presentation Titles	Speakers
<b>Session 1: OBON – Setting the scene</b>		<b>Moderator: Jodie Van De Kamp</b>
13:00–13:20	Introduction to session and overview of Ocean Biomolecular Observing Network (OBON)	Jodie Van De Kamp, <i>CSIRO, Australia</i>
13:20–13:40	Overview of Australian national scale eDNA activities	Jodie Van De Kamp, <i>CSIRO, Australia</i>
13:40–14:00	Advances in eDNA autonomous sampling – towards a global eDNA observing system	Willie Wilson, <i>MBA, UK</i>
14:00–14:20	Overview of the ANEMONE project: eDNA in the Indo-Pacific region.	Michio Kondoh, <i>Tohoku University, Japan</i>
14:20–14:40	Towards enhancing marine eDNA based research in Southeast Asia	Mohammed Rizman bin Iddid, <i>Universiti Malaya, Malaysia</i>
14:40–15:00	Building a multi-national genomics observatory – the European Marine Omics Biodiversity Observation Network (EMO BON)	Nicholas Pade, <i>European Marine Biological Resource Centre – EMBRC, France</i>
15:00–15:30	<b>Coffee Break</b>	
<b>Session 2: Challenges and Barriers</b>		<b>Moderator: Willie Wilson</b>
15:30–16:15	<b>Discussion</b> on what the challenges and barriers are that prevent researchers in tropical & sub-tropical ecosystems from using environmental DNA tools to understand biological functioning and biodiversity in the ocean.	Willie Wilson & Jodie Van De Kamp
16:15–16:45	<b>Discussion</b> on how to initiate or strengthen OBON in the WESTPAC region.	Willie Wilson & Jodie Van De Kamp
16:45–17:00	Priorities and Actions	Willie Wilson & Jodie Van De Kamp

## Decade Action Workshop 13

### CoastPredict - Constructing a WestPAC UN Decade Action

**Venue:** Somerset B, 5<sup>th</sup> Floor

**Date:** 24 April 2024

**Time:** 13:00–17:30

**Conveners:**

Aileen Tan Shau Hwai      Centre for Marine & Coastal Studies (CEMACS),  
Universiti Sains Malaysia

Aletta T. Yñiguez          Marine Science Institute, University of Philippines Diliman

Abe Woo Sau Pinn        Centre for Marine & Coastal Studies (CEMACS),  
Universiti Sains Malaysia

Nadia Pinardi             Department of Physics and Astronomy, Alma Mater  
Studiorum University of Bologna, Italy

Time	Presentation Titles	Speakers
<b>Plenary Session</b>		
CoastPredict overview		Chair: Abe Woo
13:00–13:20	> Introduction - programme and projects - set the questions for breakout session > GlobalCoast implementation framework - leveraging international collaboration and synergies at global Pilot Sites	Nadia Pinardi, <i>UNIBO, Italy</i>
13:20–13:35	Examples from the Mediterranean	Francesco Trotta, <i>CMCC, Italy</i>
WESTPAC Region Ocean Decade actions - leveraging international collaboration through CoastPredict to advance local and regional initiatives		Chair: Nadia Pinardi
13:35–14:15	Philippines Observing System - SUSTAIN affiliated project and Pilot Sites	Aletta Yñiguez, <i>University of Philippines Diliman, The Philippines</i>
	Restore our Coasts - coastal restoration Malaysia Pilot Site	Aileen Tan, <i>University Sains Malaysia, Malaysia</i>
	JAMSTEC	Toru Miyama, <i>JAMSTEC, Japan</i>
	China Coastal Seas Pilot Site	Guimei Liu, <i>NMEFC, China</i>
<b>Breakout Working Session</b>		
14:15–15:00	WESTPAC Region priorities: Identify priority 'Impact Areas' and stakeholders for different WESTPAC coastal areas / sites and how an Ocean Decade action could be designed to address these + Slide	Breakout group moderators: Nadia Pinardi Abe Woo Aletta Yñiguez

Time	Presentation Titles	Speakers
15:00–15:30	<b>Coffee Break</b>	
15:30–16:00	Breakout Working Session continues	
16:00–16:30	Breakout group feedback	Chair: Abe Woo Nadia Pinardi Aletta Yñiguez
<b>Discussion Session</b>		
16:30–17:00	Synthesis of next steps, commitments to engage IOC WestPAC and member states, identification of potential partnerships	Moderator: Nadia Pinardi

An underwater scene with a blue gradient background. In the foreground, there are silhouettes of coral and a jellyfish. In the middle ground, there are several fish swimming. In the background, there are more fish and a large, faint silhouette of a whale. The overall scene is serene and aquatic.

# Decade Action Incubators

## DECADE ACTION INCUBATORS

The Decade Action Incubators serve as an interactive forum to catalyze partnerships, strengthen dialogue from ocean knowledge generators to knowledge users, initiate co-designing processes, and facilitate the development of potential Decade programmes or projects.

Incubators	Titles
Incubator 1	ECOPs' effort in citizen science
Incubator 2+10	Coastal ecosystems as nature-based solution for climate change mitigation
Incubator 3	Deoxygenation effects on fisheries and aquaculture: Linking ecological changes to human welfare in the Western Pacific
Incubator 4	Ocean Solutions: Understanding multiple stressors on coastal ecosystems and providing scientific solutions to benefits people, nature and economy
Incubator 5	Advancing the application of remote sensing for ocean sustainability
Incubator 6	Establishing decision-support tools for Eutrophication and Harmful Algal Blooms (EuHABs) Management
Incubator 7	Coral reef monitoring guidelines for MPA management
Incubator 8	Mobilizing actions for enhancing coral reef resilience
Incubator 9	Advancing marine conservation in the Coral Triangle region
Incubator 11	Jellyfish morphological and molecular identification for ocean health assessment
Incubator 12	Environmental DNA (eDNA) Technology for Coastal Ecosystem Management-Development and Application

## Decade Action Incubator 1

### ECOPs' Effort in Citizen Science

**Venue:** Mayfair B, 11<sup>th</sup> Floor

**Date:** 25 April 2024

**Time:** 10:00–12:00

**Conveners:**

Abe Woo Sau Pinn                      Universiti Sains Malaysia, Malaysia

Yuki Minegishi                              University of Tokyo, Japan

Wulan Koagouw                              National Research and Innovation Agency, Indonesia

Time	Presentation Titles	Speakers
<b>Plenary Session</b>		<b>Moderator: Abe Woo</b>
10:00–10:20	Introduction – Why is the working group formed What do we want to achieve and objectives? Getting involved?	Yuki Minegishi, <i>University of Tokyo, Japan</i>
<b>Panel Session</b>		<b>Moderator: Abe Woo</b>
10:20–11:40	COLLECT Project: Citizen Observation of Local Litter in Coastal ECosysTems	Annette Jaya-Ram, <i>Universiti Sains Malaysia, Malaysia</i>
	Collaborative actions with local communities toward citizen science in Sanriku	Yuki Minegishi, <i>University of Tokyo, Japan</i>
	Our Singapore Reef Initiatives	Sam Shu Qin, <i>Singapore</i>
	ANEMONE: Biodiversity monitoring network Using eDNA in collaboration with local communities	Michio Kondoh, <i>Tohoku University, Japan</i>
<b>Open Discussion</b>		
11:40–12:00	Synthesis of priorities, gaps, next steps, commitments to engage and identification of potential partnerships	Moderator: Wulan Koagouw

## Decade Action Incubator 2 and 10

### Coastal ecosystems as nature-based solution for climate change mitigation

**Venue:** Jubilee B, 11<sup>th</sup> Floor

**Date:** 25 April 2024

**Time:** 10:00–14:30

**Conveners:**

Anchana Pratthep	Prince of Songkla University, Thailand
Milica Stankovic	Prince of Songkla University, Thailand
Supranee Kampongsun	Head of Office, IUCN Thailand Programme
Adirake Markphol	Marine and Coastal Program Officer, IUCN Thailand Programme
Pornrutai Chotvijit	Monitoring, Evaluation, Accountability, and Learning Officer-MEAL, IUCN Thailand Programme
Mathew Vanderklift	IORA Indian Ocean Blue Carbon Hub, CSIRO Environment, Australia
Tipamat Upanoi	Department of Marine and Coastal Resources, Thailand

Time	Presentation Titles	Speakers
<b>Session 1: Experts talks on coastal ecosystems and nature-based solutions</b>		<b>Moderator: Anchana Pratthep Mathew Vanderklift</b>
10:00–10:05	Welcome Remarks	Prof. Dr. Anchana Pratthep, <i>Faculty of Science, Prince of Songkla University</i>
10:05–10:30	Nature-based solutions: tackling societal challenges to provide human well-being and biodiversity benefits	Supranee Kampongsun, <i>Head of Office, IUCN Thailand Programme</i>
10:30–10:45	Case studies to support implementation of nature-based solutions in the UK	Prof. Dr. William Austin, <i>St. Andrews University, United Kingdom</i>
10:45–11:00	Case studies to support implementation of nature-based solutions in the China	Assoc. Prof. Dr. Zhao Peng, <i>Hainan University, China</i>
11:00–11:15	Coastal blue carbon on nature-based solutions for climate mitigation	Prof. Dr. Anchana Pratthep, <i>Faculty of Science, Prince of Songkla University</i>
11:15–11:35	NbS coastal ecosystems brainstorming – open floor / Q&A Guided question: Opportunity and challenges to apply NbS to mitigate climate impacts	Prof. Dr. Anchana Pratthep, <i>Faculty of Science, Prince of Songkla University</i> Supranee Kampongsun, <i>Head of Office, IUCN Thailand Programme</i>
11:35–11:45	Nature finance	Dr. Mathew Vanderklift, <i>IORA Indian Ocean Blue Carbon Hub, CSIRO Environment, Australia</i>
11:45–12:00	Financing NbS projects - Open floor discussion	Dr. Mathew Vanderklift, <i>IORA Indian Ocean Blue Carbon Hub, CSIRO Environment, Australia</i>
12:00–13:00	<b>Lunch Break</b>	
<b>Session 2: Nature-based solutions an interactive perspective</b>		<b>Moderator: IUCN, Thailand</b>

Time	Presentation Titles	Speakers
13:00–14:30	Interactive workshop on improving the quality of the nature-based solutions: inclusive eight dimension focused	Pornrutai Chotvijit, <i>Monitoring, Evaluation, Accountability and Learning Officer-MEAL, IUCN Thailand Programme</i> Supranee Kampongsun, <i>Head of Office, IUCN Thailand Programme</i>
14:30–14:55	Open discussion and summary	Supranee Kampongsun, <i>Head of Office, IUCN Thailand Programme</i>
14:55–15:00	Next step and closing remarks	Tipamat Upanoi, <i>Department of Marine and Coastal Resources, Thailand</i>

## Decade Action Incubator 3

### Charting Deoxygenation Zones: Locating Occurrences And Assessing The Multifaceted Effects On Fisheries, Aquaculture, And Human Populations In The Western Pacific

**Venue:** Chelsea A, 5<sup>th</sup> Floor

**Date:** 25 April 2024

**Time:** 10:00–15:00

**Conveners:**

Gil Jacinto                                      University of the Philippines Diliman

Aileen Tan Shau Hwai                      Universiti Sains Malaysia

Denise Breitburg                              Smithsonian Environmental Research Center, USA

Time	Presentation Titles	Speakers
10:00–10:10	Introduction and Opening Remarks	Gil Jacinto, <i>University of the Philippines Diliman, The Philippines</i>
10:10–10:20	The Invisible Menace: How Deoxygenation is Affecting Oceanic Life	Rudolf Wu, <i>Education University of Hong Kong, China</i>
10:20–10:30	Deoxygenation and the Complexity of Local Conditions	Minhan Dai, <i>Xiamen University, China</i>
10:30–10:40	Reducing The Challenge of Low Oxygen to Mariculture by Enhancing Hypoxia Tolerance Ability: A Case Study from Abalone Aquaculture in China	Weiwei You, <i>Xiamen University, China</i>
10:40–10:50	Impacts on Coastal Fisheries and Aquaculture – Effects and Case	Aileen Tan, <i>Universiti Sains Malaysia, Malaysia</i>
10:50–11:10	Panel discussion	
11:10–11:20	<b>Short Break</b>	
11:20–11:30	Revitalizing WESTPAC O2NE: A New Chapter	Gil Jacinto, <i>University of the Philippines Diliman, The Philippines</i>
11:30–12:00	Discussion of Status, Needs, and Future Direction	
12:00–13:00	<b>Lunch Break</b>	
13:00–13:15	Launching A Scientific Review – The Review Paper Initiative	Denise Breitburg, <i>Smithsonian Environmental Research Center, USA</i>
13:15–14:15	Break-out session – Identification and Validation of Deoxygenated Areas and Locations Where Deoxygenation Occurs or has Affected Fisheries and Aquaculture	Gil Jacinto, <i>University of the Philippines Diliman, The Philippines</i>
14:15–14:30	Break-Out Session Group Reports – Brief Presentations	Group Representatives
14:30–14:45	<b>Discussion: Next Steps Towards a Decade Project – Activities, Timeline, and Funding</b>	
14:45–15:00	<b>Summary and Conclusion</b>	

## Decade Action Incubator 4

Ocean Solution: Understanding multiple stressors on coastal ecosystems and providing scientific solutions to benefits people, nature and economy

**Venue:** Kensington A, 5<sup>th</sup> Floor

**Date:** 25 April 2024

**Time:** 10:00–15:00

**Conveners:**

Aileen Tan Shau Hwai

Centre for Marine & Coastal Studies (CEMACS),  
Universiti Sains Malaysia, Malaysia

Somkiat Khokiattiwong

WESTPAC, Thailand

Maria Lourdes San Diego-McGlone

University of Philippines, The Philippines

Liyang Zhang

Third Institute of Oceanography, China

Chalermrat Sangmanee

Department of Marine and Coastal Resources,  
Thailand

Time	Presentation Titles	Speakers
10:00–10:05	<b>Opening Remarks</b> Introduction to the Incubator Program	
10:05–10:20	<b>Setting the stage</b> Health of Ocean under Multiple Ecosystem Stressors (HOMES): Sustainability of the Maritime Continent (Recently endorsed as a UN Decade Action)	Rencheng Yu, <i>Institute of Oceanography, Chinese Academy of Sciences, China</i>
<b>Invited Presentation</b>		
10:20–11:00	Translating climate change science to the local narrative	Zulfigar Yasin, <i>CEMACS, USM, Malaysia</i>
	Issues, impacts of stressors and possible solutions in coastal waters heavily influenced by mariculture in Bolinao, Philippines	Charissa Ferrera, <i>UP, The Philippines</i>
	High productive ecosystem under pressure from anthropogenic activities of upper Gulf of Thailand	Varintha Vasinamekhin, <i>Department of Marine and Coastal Resources, Thailand</i>
	Influence of mariculture pond on regional green house emission and nutrients budget	Liyang Zhan, <i>TIO, China</i>
11:00–12:00	<b>Discussion</b> How to move on the establishment of the regional multi-stressor collaboration network and activities - Knowledge gaps, regional activities, required capacity development, action such as pilot research/monitoring sites. - Tentative plan of actions, etc.	
12:00–13:00	<b>Lunch Break</b>	
13:30–14:30	<b>Discussion</b> continues	
14:30–15:00	<b>Conclusion and Way Forward</b> towards a Decade Project	

## Decade Action Incubator 5

### Advancing the application of remote sensing for ocean sustainability

**Venue:** Kensington B, 5<sup>th</sup> Floor

**Date:** 25 April 2024

**Time:** 10:00–15:00

**Conveners:**

Tatsuyuki Sagawa                      Tottori University of Environmental Studies, Japan

Wenting Cao                                Ministry of Natural Resources, China

Wirote Laongmanee                      Burapha University, Thailand

Time	Presentation Titles	Speakers
<b>Session 1: Ocean remote sensing 1</b>		
10:00–10:15	Ocean remote sensing programme in WESTPAC and coastal habitat monitoring project	Tatsuyuki Sagawa, <i>Tottori University of Environmental Studies, Japan</i>
10:15–10:30	Seagrass and seaweeds mapping tool	Genki Terauchi, <i>NPEC, Japan</i>
10:30–10:45	Coastal habitat mapping project in Thailand	Werachart Pengchumrus, <i>DMCR, Thailand</i>
10:45–11:00	Discussion for habitat monitoring	Tatsuyuki Sagawa, <i>Tottori University of Environmental Studies, Japan</i>
11:00–11:15	Blue carbon project in ORSP	Wenting Cao, <i>Ministry of Natural Resources, China</i>
11:15–11:30	Blue carbon in mangrove and seagrass ecosystems in South and Southeast Asia	Milica Stankovic, <i>Prince of Songkla University, Thailand</i>
11:30–11:45	Blue carbon, co-benefit, and credit value: an e-ASIA Joint Research Program	Ken-ichi Hayashizaki, <i>Kitasato University, Thailand</i>
11:45–12:00	Discussions for blue carbon	Wenting Cao, <i>Ministry of Natural Resources, China</i>
12:00–13:00	<b>Lunch Break</b>	
<b>Session 2: Ocean remote sensing</b>		
13:00–13:15	Pollution project in ORSP	Wirote Laongmanee, <i>Burapha University, Thailand</i>
13:15–13:30	Identifying red tides in the upper Gulf of Thailand using ocean color techniques and satellite imagery Project	Jutarak Luang-on, <i>JAMSTEC, Japan</i>
13:30–13:45	Discussions for pollution	Wirote Laongmanee, <i>Burapha University, Thailand</i>
13:45–14:15	General Discussions	Tatsuyuki Sagawa, <i>Tottori University of Environmental Studies, Japan</i>
14:15–15:00	WESTPAC ORSP and UN Ocean Decade	Tatsuyuki Sagawa, <i>Tottori University of Environmental Studies, Japan</i>

## Decade Action Incubator 6

### Establishing Decision-Support Tools for Eutrophication and Harmful Algal Blooms (EuHABs) Management

**Venue:** Jubilee A, 11<sup>th</sup> Floor

**Date:** 25 April 2024

**Time:** 10:00–14:30

**Conveners:**

Eko Siswanto                      Japan Agency for Marine-Earth Science and Technology, Japan

Aletta T. Yñiguez                University of the Philippines, Philippines

Anukul Buranapratheprat      Burapha University, Thailand

Jing Zhang                        University of Toyama, Japan

Jutarak Luang-on                Japan Agency for Marine-Earth Science and Technology, Japan

Liu Qian                          Ocean University of China, China

Time	Presentation Titles	Speakers
<b>Session 1: Remote sensing: A tool for red tide monitoring</b>		<b>Moderator: Eko Siswanto</b>
10:00–10:15	Harnessing Earth Observation for monitoring Asian coastal oceans	Eko Siswanto, <i>Japan Agency for Marine-Earth Science and Technology, Japan</i>
10:15–10:30	Estimation of phytoplankton abundance using MODIS data for monitoring fish kill events in Jakarta Bay	Sam Wouthuyzen, <i>National Research and Innovation Agency, Indonesia</i>
10:30–10:45	Satellite-based monitoring of harmful algal blooms in the upper Gulf of Thailand	Jutarak Luang-on, <i>Japan Agency for Marine -Earth Science and Technology, Japan</i>
10:45–11:00	Q & A	
<b>Session 2: Remote sensing and model for water quality assessment and management</b>		<b>Moderator: Jutarak Luang-on</b>
11:00–11:15	Regional efforts for assessing eutrophication by satellite-derived chlorophyll-a with Global Eutrophication Watch	Genki Terauchi, <i>Northwest Pacific Region Environment Cooperation Centre, Japan</i>
11:15–11:30	The important role of surface current convergence on Noctiluca red tide in the upper Gulf of Thailand	Anukul Buranapratheprat, <i>Burapha University, Thailand</i>
11:30–11:45	Development of physical-sediment-ecosystem models for nutrient management of a semi-enclosed sea in Japan	Akihiko Morimoto, <i>Ehime University, Japan</i>
11:45–12:00	Q & A	

Time	Presentation Titles	Speakers
12:00–13:00	<b>Lunch Break</b>	
<b>Session 3: From observation to policy for EuHAB management</b>		<b>Moderator: Aletta T. Yñiguez</b>
13:00–13:15	From observations to early-warning systems for coastal water health and HABs: challenges and opportunities	Aletta T. Yñiguez, <i>University of the Philippines, The Philippines</i>
13:15–13:30	Risk assessment and early warning of harmful algal blooms to safeguard aquaculture	Keith Davidson, <i>The Scottish Association for Marine Science, UK</i>
13:30–13:45	Regional policy responses to ocean eutrophication and HAB in the Asia Pacific	Youna Lyons, <i>Advisory Committee on the Protection of the Sea</i>
13:45–14:00	Innovative HAB monitoring and management : Vital to the development of a regional blue economy road map	Rhodora Azanza, <i>University of the Philippines, The Philippines</i>
14:00–14:30	<b>General Discussion &amp; Closing</b>	<b>Moderator: Aletta T. Yñiguez</b>

## Decade Action Incubator 7

### Coral reef monitoring guidelines for MPA management

**Venue:** Somerset B, 5<sup>th</sup> Floor

**Date:** 25 April 2024

**Time:** 10:00–15:00

**Conveners:**

Thamasak Yeemin                      Marine Science Association of Thailand, Thailand

Vo Si Tuan                                Institute of Oceanography, Vietnam

Tadashi Kimura                      Palau International Coral Reef Center, Palau

Time	Presentation Titles	Speakers
<b>Session 1</b>		<b>Moderators:</b> Tadashi Kimura Vo Si Tuan
10:00–10:15	Fostering a regional Global Coral Reef Monitoring Network (GCRMN) network to support coral reef monitoring	Tadashi Kimura, <i>Palau International Coral Reef Center, Palau</i>
10:15–10:30	A draft coral reef monitoring guideline for managing marine protected areas in the Western Pacific	Thamasak Yeemin, <i>Marine Science Association of Thailand, Thailand</i> Vo Si Tuan, <i>Institute of Oceanography, Vietnam</i>
10:30–10:45	Recommendations derived from a coral reef monitoring guideline for managing marine protected areas in Vietnam	Nguyen Van Long, <i>Vietnam Institute of Oceanography, Vietnam</i>
10:45–11:00	Reef health indicators for coral reef management	Suharsono, <i>Asosiasi Koral, Kerang dan Karang Indonesia</i>
11:00–12:00	Interactive discussion	Invited Speakers & Participants
12:00–13:00	<b>Lunch Break</b>	
<b>Session 2</b>		<b>Moderators:</b> Thamasak Yeemin Jamrearn Buaruang
13:00–13:15	Research on physiological ecology to assist coral reef monitoring	Takashi Nakamura (University of the Ryukyus, Japan)
13:15–13:30	Technology and innovation facilitate coral reef monitoring	Suchai Worachananant, <i>Kasetsart University, Thailand</i>
13:30–13:45	Emerging vital methodologies for coral reef monitoring	Felipe M. G. Mattos, <i>Marine Biodiversity Research Group, Thailand</i>
13:45–14:00	Opportunities and challenges in capacity building for coral reef monitoring	Lalita Putchim, <i>Department of Marine and Coastal Resources, Thailand</i>

Time	Presentation Titles	Speakers
14:00–14:30	Interactive discussion	Invited Speakers & Participants
14:30–15:00	Wrap-up and way forward	Thamasak Yeemin, <i>Marine Science Association of Thailand, Thailand</i> Vo Si Tuan, <i>Vietnam Institute of Oceanography, Vietnam</i> Tadashi Kimura, <i>Palau International Coral Reef Center, Palau</i>

## Decade Action Incubator 8

### Mobilizing Actions for Enhancing Coral Reef Resilience

**Venue:** Mayfair C, 11<sup>th</sup> Floor

**Date:** 25 April 2024

**Time:** 10:00–15:00

**Conveners:**

Makamas Sutthacheep      Ramkhamhaeng University, Thailand

Karenne Tun                      National Parks Board, Singapore

Vanessa Baria-Rodriguez      University of the Philippines Diliman, Philippines

Wichin Suebpala                  Ramkhamhaeng University, Thailand

Time	Presentation Titles	Speakers
<b>Session 1</b>		<b>Moderators:</b> Wichin Suebpala Makamas Sutthacheep
10:00–10:15	Concept and research trend of resilience-based management for coral reefs	Thamasak Yeemin, <i>Marine Science Association of Thailand, Thailand</i>
10:15–10:30	Roles of reef monitoring to support coral reef resilience	Karenne Tun, <i>National Parks Board, Singapore</i>
10:30–10:45	How do young scientists in WESTPAC support Resilience-Based Management (RBM) research advancement?	Vanessa Baria-Rodriguez, <i>University of the Philippines, The Philippines</i>
10:45–11:00	Lessons learned from Locally Managed Marine Areas (LMMAs) in the Philippines	Michael P. Atrigenio, <i>University of the Philippines, Philippines</i>
11:00–12:00	Interactive discussion	Invited Speakers & Participants
12:00–13:00	<b>Lunch</b>	
<b>Session 2</b>		<b>Moderators:</b> Karenne Tun Vanessa Baria-Rodriguez
13:00–13:15	Other effective area-based conservation measures (OECMs) development in Vietnam for protection of marine biodiversity	Nguyen Thanh Hai (Pacific Environment, USA)
13:15–13:30	Roles of Reef Check Malaysia to support reef resilience	Julian Hyde, <i>Reef Check Malaysia, Malaysia</i>
13:30–13:45	Coral reef resilience case-studies in Thailand	Petch Manopawitr, <i>Senior Conservation Scientist</i>
13:45–14:00	Synthesized outcomes of the CorReCAP Project through a monograph “Coral Reefs of the Western Pacific Ocean in a Changing Anthropocene”	Jing Zhang, <i>East China Normal University, China</i> Thamasak Yeemin, <i>Marine Science Association of Thailand, Thailand</i>

Time	Presentation Titles	Speakers
14:00–14:30	Interactive discussion	Invited Speakers & Participants
14:30–15:00	Wrap-up and way forward	Karenne Tun, <i>National Parks Board, Singapore</i> Vanessa Baria-Rodriguez, <i>University of the Philippines, The Philippines</i> Wichin Suebpala, <i>Ramkhamhaeng University, Thailand</i> Makamas Sutthacheep, <i>Ramkhamhaeng University, Thailand</i>

## Decade Action Incubator 9

### Advancing Marine Conservation in the Coral Triangle Region

**Venue:** Mayfair A, 11<sup>th</sup> Floor

**Date:** 25 April 2024

**Time:** 10:00–15:00

**Conveners:**

Satrio Adi Wicaksono IUCN Asia Regional Office, Thailand

Christovel Rotinsulu Coral Triangle Initiative on Coral Reefs, Fisheries, and Food Security Regional Secretariat, Indonesia

**Description**

Marine Protected Areas (MPAs) and MPA networks stand out as highly effective tools for conserving biodiversity and managing natural resources within the globally significant Coral Triangle region, known for its marine biodiversity. To enhance MPA effectiveness, continuous learning from international standards and knowledge resources is essential. The IUCN Green List Standard is a global benchmark for assessing effective governance and management of protected and conserved areas, both marine and terrestrial, to deliver successful conservation outcomes. In 2022, IUCN conducted a regional workshop in Bali, Indonesia, to explore the MPA capacity development programme development for the Coral Triangle region based on the IUCN Green List.

This incubator will further validate the use of the Green List as a diagnostic tool for benchmarking MPA performance. Stakeholders from the Coral Triangle region and beyond will be invited to discuss the mainstreaming of the IUCN Green List, regional coordination platform and strengthening site-based capacity building.

Time	Presentation Titles	Speakers
10:00–10:20	<b>Opening remarks:</b> <ul style="list-style-type: none"> <li>- IUCN</li> <li>- CTI-CFF Regional Secretariat</li> </ul>	<ul style="list-style-type: none"> <li>- Dindo Campilan, <i>IUCN Asia Regional Director and Hub Director for Oceania</i> (video remarks)</li> <li>- Frank Keith Griffin, <i>Executive Director of CTI-CFF Regional Secretariat</i></li> </ul>
10:20–10:35	<ul style="list-style-type: none"> <li>- MoU signing between CTI-CFF Regional Secretariat and IUCN (tbc)</li> <li>- Group Photo</li> </ul>	
10:35–12:00	<b>Panel discussion</b> (including Q&A) on: <ul style="list-style-type: none"> <li>- Support for Coral Triangle countries in enhancing MPA effectiveness: CTI-CFF strategy and RPOA 2.0, update on SOMACORE (Solutions for Marine &amp; Coastal Resilience in the Coral Triangle) Project</li> <li>- Status and challenges of MPAs in the Coral Triangle Region</li> </ul>	<ul style="list-style-type: none"> <li>- Chris Rotinsulu, <i>CTI-CFF Regional Secretariat Deputy Executive Director of Program Services</i></li> <li>- Country representatives from:               <ul style="list-style-type: none"> <li>o Indonesia (Ahmad Sofiulah)</li> <li>o Malaysia (Adam Malik bin Masidi)</li> <li>o Papua New Guinea (Bernard Suruman)</li> <li>o Philippines (TBD)</li> </ul> </li> </ul>

Time	Presentation Titles	Speakers
		<ul style="list-style-type: none"> <li>○ Solomon Islands (Trevor Maeda)</li> <li>○ Timor-Leste (TBD)</li> </ul> <p><i>Moderator: Satrio Adi Wicaksono, Programme Officer, IUCN Asia Regional Office</i></p>
12:00–13:00	<b>Lunch Break</b>	
13:00–13:50	<p><b>Presentations (panel) (including Q&amp;A):</b></p> <ol style="list-style-type: none"> <li>1. Overview of SOMACORE</li> <li>2. Advancing area-based biodiversity protection and conservation management in marine and coastal ecosystems and MPAs in Asia</li> <li>3. IUCN Green List and new potential financing mechanisms and sustainability of MPAs (examples: CTCF/Coral Bonds/Blue Bonds and ideas on associated metrics, etc.)</li> </ol> <p>Overview by CTI-CFF Strategic NGO Partners in enhancing effectiveness of MPAs in Coral Triangle region</p>	<ol style="list-style-type: none"> <li>1. Jan H Steffan, <i>Project Director, GIZ</i></li> <li>2. (A) James Hardcastle, <i>IUCN Head of Protected and Conserved Areas</i> (B) Maeve Nightingale, <i>IUCN ARO Head Marine and Coastal Programme</i></li> <li>3. Siska Sihombing, <i>Programme Officer, IUCN Protected and Conserved Areas</i></li> <li>4. Short presentations by CI, CTC, TNC, WWF, and WCS (tbc)</li> </ol> <p><i>Moderator: Corzzierrah Posala, CTI-CFF Regional Secretariat Senior Technical Programme Manager</i></p>
13:50–14:45	<p><b>Panel Discussion and Plenary Session</b></p> <p><i>Discussion themes:</i></p> <ol style="list-style-type: none"> <li>1. <i>Assessing scientific requirements for effective marine Protected and Conserved Area Management</i></li> <li>2. <i>Aligning marine commitments to KMGBF Target 3</i></li> <li>3. <i>Exploring multiple pathways for financing MPAs (including Green List as a supporting tool)</i></li> </ol>	<p>Facilitated plenary discussion involving CTI-CFF and key enabling partners, such as GIZ, ADB, and USAID</p> <p><i>Moderator: James Hardcastle, IUCN Head of Protected and Conserved Areas</i></p>
14:45–15:00	Celebrating Green List in Asian MPAs	<p><i>Speaker and Facilitator: MKS Pasha, Asia Regional Coordinator Protected and Conserved Areas and IUCN Green List</i></p>

Supported by IUCN, CTI-CFF Regional Secretariat, and CTI-CFF Strategic Partners



**CORAL TRIANGLE INITIATIVE**  
ON CORAL REEFS, FISHERIES AND FOOD SECURITY



## Decade Action Incubator 11

### Jellyfish morphological and molecular identification for ocean health assessment

**Venue:** Chelsea B, 5<sup>th</sup> Floor

**Date:** 25 April 2024

**Time:** 10:00–15:00

**Conveners:**

Libertine Agatha F. Densing

Visayas State University – Alangalang, Philippines

Mohammed Rizman bin Idid

Universiti Malaya, Malaysia

Filipina B. Sotto

Holy Name University, Philippines

Time	Presentation Titles	Speakers
<b>Session 1: Preliminaries (Setting the scene)</b>		
10:00–10:05	Opening remarks and setting the symposium's objectives	Aileen Tan, <i>Universiti Sains Malaysia, Malaysia</i>
10:06–10:51	Developing Global Standards for Understanding Scyphozoan (and other Gelatinous Zooplankton) Diversity and Distributions	Mike N. Dawson, <i>University of California, Merced, USA</i>
10:52–11:22	Jellyfish science in Southeast Asia: current status, challenges and way forward	Mohammed Rizman bin Idid, <i>Universiti Malaya, Malaysia</i>
11:23–11:43	Jellyfish Research in the Philippines: Assessing Current Trends, Overcoming Challenges, and Charting Future Directions	Filipina Sotto, <i>Holy Name University, Philippines</i>
11:44–12:00	JellyGo Presentation/Demonstration	Sim Yee Kwang, <i>Universiti Sains Malaysia</i>
12:00–13:00	<b>Lunch Break</b>	
<b>Session 2: Interactive Forum</b>		
13:00–14:00	<b>Brainstorming Session:</b> <ul style="list-style-type: none"> <li>Country-specific project ideas addressing jellyfish-specific Ocean Decade Challenges.</li> </ul> Commitment towards contributing to the Ocean Decade Outcomes.	<i>Facilitator:</i> Mohammed Rizman bin Idid
14:00–14:30	Presentation of key takeaways, challenges, and opportunities related to jellyfish research and ocean health in their region.	Participant/Country representative
14:31–15:00	<b>Closing and Way Forward</b> <ul style="list-style-type: none"> <li>Reflect on the commitments made and the shared knowledge gained during the country-specific sessions.</li> </ul> Concluding remarks that encourage ongoing communication, outline the next steps for collaboration, and set a date for a follow-up meeting or symposium.	<i>Facilitator:</i> Mohammed Rizman bin Idid Filipina Sotto

## Decade Action Incubator 12

### Environmental DNA (eDNA) Technology for Coastal Ecosystem Management-Development and Application

**Venue:** Somerset A, 5<sup>th</sup> Floor

**Date:** 25 April 2024

**Time:** 10:00–15:00

**Conveners:**

Xiaowei Zhang      Nanjing University, China

Time	Presentation Titles	Speakers
10:00–10:10	<b>Opening remarks</b> The advancing of eDNA technology of eDNA for marine biodiversity research and monitoring	Xiaowei Zhang, <i>Nanjing University, China</i> Kazi Ahsan Habib, <i>Sher-e-Bangla Agricultural University, Bangladesh</i>
<b>Invited Presentations</b> <i>current application of DNA technology and its biodiversity research, monitoring, and challenges for marine ecosystem management</i>		<i>Moderator:</i> Ichika Sicaipram Abe Woo Sau Pinn
	Recent trends of global ecosystems biomonitoring by eDNA technology	Yan Zhang, <i>Nanjing University, China</i>
10:10–12:10	Case Study--the results from the initiative eDNA training workshop organized by WESTPAC, DMCR and NJU	Jianghua Yang, <i>Nanjing University, China</i>
	Application of eDNA in mangroves' aquatic biodiversity study	Tadashi Kajita, <i>University of the Ryukyus, Japan</i>
	A review of eDNA study in Thailand	Ichika Sicaipram, <i>Chulalongkorn University, Thailand</i>
	An eDNA pilot study: Mangroves and marine biodiversity in Klang Islands.	Cheah Hong Leong, <i>Monash University Malaysia</i>
	Application of eDNA technologies in marine biodiversity monitoring of Guangdong Province, China	Jianqing Lin, <i>Shantou University, China</i>
	eDNA sampling of marine fish	Tran Cong Thinh, <i>Institute of Oceanography, Vietnam</i>
12:00–13:00	<b>Lunch Break</b>	
13:00–14:00	<b>Brainstorming and Discussion</b> - up-to-date technology on the technical sampling and analysis of eDNA, - DNA barcoding library of different marine organisms,	<i>Moderator:</i> Wenxi Zhu Xiaowei Zhang

Time	Presentation Titles	Speakers
	<ul style="list-style-type: none"> <li>- a vision and potential of replicating the success regionally,</li> <li>- identify challenges and knowledge gaps in the region that need to be fulfilled through strengthening collaboration of participants</li> <li>seek the possibility of further development of the regional eDNA activities in supporting the achievement of UN Ocean Decade Challenges.</li> </ul>	
14:00-14:10	<b>Wrap-up and closure</b>	

An underwater scene with various marine life including fish, jellyfish, and coral. The background is a gradient of blue, transitioning from light at the top to dark at the bottom. A white rounded rectangle is centered in the lower half, containing the text.

# **Townhall Session & Side Events**

An underwater scene with a blue gradient background. In the upper right, several fish are swimming. In the lower left, there is a cluster of coral. In the lower center, there is a large jellyfish. In the lower right, there is another jellyfish and a school of small fish. The text "Townhall Session" is centered in the middle of the image.

# Townhall Session

## TOWNHALL SESSION

### Decade Vision 2030

**Venue:** Mayfair B, 11<sup>th</sup> Floor

**Date:** 24 April 2024

**Time:** 17:15–18:30

The UN Decade of Ocean Science for Sustainable Development ('Ocean Decade') launched a strategic ambition setting process in June 2023 (called 'Vision 2030'), to identify a common measure of success for each of the Ocean Decade Challenges on the road to 2030. The Vision 2030 process is supposed to provide the answer to the question: *"What does success look like for this Challenge at the end of the Decade [or sooner]?"*.

The Townhall Session aims to :

- Develop a better understanding of the Vision 2030;
- Share perspectives, together with actional recommendations towards addressing ocean priority issues and achieving sustainable development in the region;
- Foster engagement of partners/stakeholders in the Decade Development and implementation.

#### Programme

1. Briefing (5 mins)
  - Wenxi Zhu, IOC Sub-Commission for the Western Pacific & Decade Coordination Office for the region, IOC/UNESCO
2. Vision 2030 and outcomes of the Barcelona Conference (15 mins)
  - Julian Barbieri, Ocean Decade Global Coordinator, IOC/UNESCO
3. Panel discussion about solutions to ocean priority issues in the region (30 mins)
  - Marine pollution (with a focus on plastic pollution)
    - Deo Florence L. Onda, University of the Philippines
  - Sustainable development of marine living resources, particularly fisheries
    - Vo Si Tuan, Vietnam Institute of Oceanography
  - Ocean based solutions to climate change mitigation and adaptation.
    - Swadhin K. Behera, Application Laboratory, Japan Agency for Marine-Earth Science and Technology
  - Indigenous knowledge and empowerment of local/coastal communities
    - Aileen Tan, Centre for Marine and Coastal Studies, Universiti Sains Malaysia
  - Science – policy interface
    - Rokhmin Dahuri Ismai, Former Minister of Maritime Affairs and Fisheries & President of Indonesia Aquaculture Society
4. Q/A with audience (25 mins)

Side Events

An underwater scene with a blue gradient background. In the upper right, several fish are swimming. In the lower left, there is a large, faint illustration of a whale. At the bottom, there are silhouettes of coral and two jellyfish. Several white circles are scattered throughout the scene, resembling bubbles or light reflections.

# Side Events

## Side event

### Marine Ecological Ranching

**Venue:** Mayfair A, 11<sup>th</sup> Floor

**Date:** 23 April 2024

**Time:** 12:10–12:55



Marine ecological ranching is a fishery model based on the key principles of marine ecosystem-based management. In a degraded marine environment, various methods such as artificial reef deployment, seagrass bed restoration, stock enhancement, and release techniques are employed to rebuild or rehabilitate essential habitats. Marine ecological ranching aims to restore and bolster fishery resources, enhance the ecological balance of the marine ecosystem, and achieve the sustainable development of marine resources.

#### Objectives

Develop a better understanding about marine ecological ranching; engage interested stakeholders from diverse sectors, including scientific community, policymakers, and private sectors; and explore the possibility of cooperation under the framework of the IOC Sub-Commission for the Western Pacific and the UN Ocean Decade.

#### Programme

Moderator: Rencheng Yu, Institute of Oceanology Chinese Academy of Sciences (IOCAS)

1. Briefing
2. Overview of Marine Ecological Ranching: Concept, System, and Practices  
--- Libin Zhang, Institute of Oceanology Chinese Academy of Sciences)
3. Panel discussion  
--- Zainal Arifin, Research Center for Oceanography, National Research and Innovation Agency, Indonesia;  
--- Fan Wang, Director General, Institute of Oceanology Chinese Academy of Sciences, China;  
--- Rokhmin Dahuri Ismail, President of Indonesia Aquaculture Society
4. Q/A

## Side event

### Corporate forum: Ways forward to achieve SDGs

**Venue:** Mayfair B, 11<sup>th</sup> Floor

**Date:** 24 April 2024

**Time:** 10:00–12:00

#### Conveners:

Thon Thamrongnawasawat

Kasetsart University, Thailand

Suchai Worachananant

Kasetsart University, Thailand

Sarawut Siriwong

Burapha University, Thailand

Jitraporn Phaksopha

Kasetsart University, Thailand

#### Description

Healthy oceans are critical for life on earth; hence, the protection, conservation and sustainable use of marine resources is the main premise as indicated in SDG14, advocating for the importance of keeping our Oceans clean and safe for the correct functioning of ecosystems, society and even the economy. To achieve the SDG 14, and many other incorporated goals, many business corporations tended to set their business standards to help alleviate the global impact and accelerate the ambitious goals of sustainable development. This special forum aims to bring various stakeholders which establish their own strategies to help protect the ocean and, consequently, moving forward to achieve the SDGs. This forum will specifically focus on valuable experiences from various business cooperation with innumerable lessons among their economically viable, socially responsible and environmentally friendly business practices.

Time	Presentation Titles	Speakers
10:00–11:30	Seminar: Strategies to help protect the ocean and Ways forward to achieve SDGs	<i>Moderator:</i> Thon Thamrongnawasawat Kasetsart University, Thailand
	<ul style="list-style-type: none"> <li>Driving Sustainable Ocean through Technology &amp; Collaborative Approach under “Ocean for Life” Strategy - PTT-EP</li> </ul>	Ms. Bussaban Cheencharoen Vice President, Stakeholder Management and Social Responsibility Department PTT Exploration and Production Public Company Limited or PTTEP
	<ul style="list-style-type: none"> <li>Role of oil and gas structures in supporting fish and fisheries: insight from Australia and Thailand – Chevron</li> </ul>	Dr. Travis Elsdon Marine Environmental Scientist Chevron Energy Technology Pty. Ltd., Australia
	<ul style="list-style-type: none"> <li>Innovation for ocean and marine mammal observation – Systronics</li> </ul>	Mr. Tanawat Thongkam Deep Technology Manager Systronics, Thailand
	<ul style="list-style-type: none"> <li>CROSSROADS Maldives OECS - Singha Estate</li> </ul>	Ms. Thitima Rungkwansiroj Chief Executive Officer Singha Estate PCL, Thailand
11:30–12:00	<b>Discussion: Ways forward to achieve SDGs</b>	

## Side event

### Building Partnerships for Sustainable Mangrove Management

**Venue:** Chelsea A, 5<sup>th</sup> Floor

**Date:** 24 April 2024

**Time:** 10:00–12:00

**Conveners:**

Siriporn Sriaram

Daorong Jaijing

Nattapong Jirawattanaworakul

Dr. Pierre Echaubard

Jaruwan Enright

Blue Renaissance, Thailand Mangrove Alliance  
Mangrove Conservation Division, Department  
of Marine and Coastal Resources, Thailand

Dow Thailand Group, Thailand

NatureMind-ED, Thailand

Knowledge for Development Foundation (K4D)

**Description**

Recognizing the vital role that healthy mangroves play in Thailand's coastal ecosystems and economy, the Department of Marine and Coastal Resources (DMCR) with the support from Dow Thailand Group spearheaded the establishment of the Thailand Mangrove Alliance in 2018. This public-private partnership brings together various stakeholders to accelerate mangrove and coastal conservation and restoration. Through collaboration, capacity building, and knowledge sharing, the Alliance aims to achieve sustainable development goals. The upcoming workshop will specifically focus on valuable experiences from Thailand Mangrove Alliance partners. These include citizen science initiatives, incentive mechanisms that encourage mangrove conservation and restoration, educational programs, and the development of a sustainable "blue carbon" program. Additionally, the workshop will address the significant threat of marine debris to coastal ecosystems.

Time	Presentation Titles	Speakers
<b>Session 1:</b>	Sharing experiences from the Thailand Mangrove Alliance partners	<i>Moderator:</i> Siriporn Sriaram <i>Blue Renaissance, Thailand</i>
10:00–10:15	Lesson learned & Way forward from the Thailand Mangrove Alliance	Siriporn Sriaram <i>Blue Renaissance &amp; Thailand Mangrove Alliance, Thailand</i>
10:15–10:30	Incentive for mangrove restoration	Daorong Jaijing <i>Department of Marine and Coastal Resources, Thailand</i>
10:30–10:45	Mangrove – Seagrass Monitoring Framework: Lesson learned from Krabi	Dr. Pierre Echaubard <i>NatureMind-ED</i>
10:45–11:00	Community driven stewardship of mangrove forest	Jaruwan Enright <i>Knowledge for Development Foundation (K4D), Thailand</i>
11:00–11:05	Q&A	All speakers

Time	Presentation Titles	Speakers
<b>Session 2:</b>	Seminar: From Roots to Results: The Power of Partnership in Mangrove Conservation	<i>Moderator:</i> Siriporn Sriaram <i>Blue Renaissance, Thailand</i>
11:05–11:10	Recap of the previous session and introduction of the panelists	Siriporn Sriaram <i>Blue Renaissance, Thailand</i>
11:10–11:20	A Policymaker’s Perspective: Fostering Public-Private Partnerships for Mangrove Restoration and Conservation	Dr. Pinsak Suraswadi <i>Department of Marine and Coastal Resources, Thailand</i>
11:20–11:30	Unleashing the Power of Partnership: Public-Private Action for Mangrove & Coastal Biodiversity	Poranee Kongamornpinyo <i>Dow Thailand Group, Thailand</i>
11:30–11:40	Empowering Change: How Mangrove Education Creates Environmental Champions	Alex Rendell <i>Environmental Education Centre Thailand</i>
11:40–11:55	Q&A	
11:55–12:00	Group photo	

## Side event Meet the Journals

**Venue:** Mayfair B, 11<sup>th</sup> Floor

**Date:** 24 April 2024

**Time:** 12:10–12:55

### Objectives

- Provide an opportunity for the Conference Participants to interact with representatives from scientific journals;
- Facilitate discussions on publishing research findings, including manuscript preparation, submission, peer review processes, and publication;
- Foster a diverse and inclusive conversation about the publication process and the role of journals in advancing marine science, environments, and oceanography in the region.

### Programme

Moderator: Tatchai Pussayanavin, Faculty of Science, Ramkhamhaeng University

Coordinator: Makamas Sutthacheep, Faculty of Science, Ramkhamhaeng University

1. Briefing and opening remarks
2. Introduction of Journals
  - Applied Environmental Research (AER Journal), Chulalongkorn University, Thailand--- Penradee Chanpiwat, Editor-in-Chief;
  - Journal of Fisheries and Environment (JFE), Kasetsart University, Thailand-- Narongrit Muangmai, Managing Editor;
  - Phuket Marine Biological Center (PMBC) Bulletin--- Chalermrat Sangmanee, MDPI, Thailand---- Janenipa Saupsor, Section Managing Editor and Deputy Office Manager of MDPI Thailand;
3. Q&A session with the audience
4. Wrap up

## Side event

### Seagrass Crisis: Call for Solutions and Collaborations

**Venue:** Mulberry A, 10<sup>th</sup> Floor

**Date:** 24 April 2024

**Time:** 13:00–15:00

**Conveners:**

Tanuspong Pokavanich

Kasetsart University, Thailand

Pimchanok Buapet

Coastal Oceanography and Climate Change, Research Center, Prince of Songkhla University, Thailand

**Description**

Thailand is currently experiencing a severe crisis with the widespread die-off of seagrass beds, threatening the ecological balance and livelihoods dependent on these vital marine ecosystems. The side event, "Seagrass Crisis: Solutions and Collaborations," aims to address the urgent need for action in response to the recent seagrass die-off along the coast of Thailand. By fostering collaborations and bringing together a diverse range of stakeholders, this event seeks to develop innovative solutions to mitigate seagrass degradation and restore coastal ecosystems.

Time	Presentation Titles	Speakers
13:00–13:05	Opening Remarks	Dr. Pinsak Suraswadee <i>Director General, Department of Marine and Coastal Resources (DMCR), Thailand</i>
13:05–13:20	Summary of Up-to-Date Findings on Seagrass Die-Off in Thailand	Dr. Kongkiat Kittiwattanawong, <i>DMCR, Thailand</i>
13:20–13:35	State of Knowledge Overview: Seagrass Research in Thailand	Assoc. Prof. Dr. Pimchanok Buapet, <i>Prince of Songkhla University, Thailand</i>
13:35–14:05	Preventive Measures and Restoration Potential	
	1. Seagrass Restoration from a Global Perspective	Dr. Mat Vanderklift, <i>CSIRO, Australia</i>
	2. From Research to Implementation: Knowledge for Seagrass Restoration in Thailand	Assoc. Prof. Chatcharee Kaewsuralikhit, <i>Kasetsart University, Thailand</i>
14:05–14:30	Expanding Impacts Beyond Research	
	1. Community-led Seagrass Conservation Initiatives	Jirapong Jeewarongkukul, <i>Enlive Foundation, Thailand</i>
	2. Blue Financing Landscape	Siriporn Sriaram, <i>Blue Renaissance, Thailand</i>
14:30–15:00	Calling for Collaborations <ul style="list-style-type: none"> <li>Introduction of a collaborative database platform for stakeholders to share expertise and resources. Attendees are encouraged to detail how they can contribute towards seagrass conservation.</li> </ul>	<i>Facilitator:</i> Assist. Prof. Dr. Ponlachart Chotikarn, <i>Coastal Oceanography and Climate Change Research Center, Prince of Songkhla University, Thailand</i>

## Side event

### Launch of UNESCO/UNIQLO Sustain Our Ocean Project

**Venue:** Kensington A, 5<sup>th</sup> Floor

**Date:** 24 April 2024

**Time:** 15:30–17:00

#### Introduction

UNESCO in partnership with Fast Retailing, Ltd., the parent company of UNIQLO, is launching a project on ocean education called “Sustaining Our Ocean: Building Healthy Relationships with Oceans in South-East Asia through Education for Sustainable Development.” Three countries are joining this project: Indonesia, Thailand, and Viet Nam.

The launch will be organized as a side event of the 2<sup>nd</sup> UN Ocean Decade Regional Conference & 11<sup>th</sup> WESTPAC International Marine Science Conference<sup>1</sup> which is held in Bangkok from 22 to 25 April 2024.

The objectives of the launch event are:

- Share good practices in ocean education that are experiential and action-oriented.
- Discuss ocean education approaches and learning activities for children and young people.
- Strengthen regional and national community of practice in ocean education.

Time	Presentation Titles
15:30–15.40	Opening Remarks
15:40–16:10	Sharing of good practices and discussion - Good practices in Thailand by Assoc. Prof. Dr. Aor Pranchai, Department of Silviculture, Faculty of Forestry, Kasetsart University, Thailand - Spo-GOMI by Ms Yuka Yokokawa, Fast Retailing, Ltd. – parent company of UNIQLO <a href="https://www.uniqlo.com/jp/ja/contents/sustainability/society/youth/school/spogomi/">https://www.uniqlo.com/jp/ja/contents/sustainability/society/youth/school/spogomi/</a>
16:10–16:50	Sharing of project plans in Indonesia, Thailand, and Vietnam
16:50–17:00	Wrap-up

Before the side event, a planning meeting with project stakeholders from National Agencies and Ranong UNESCO Biosphere area will be held from 13:00 to 17:00 on 23 April at Room Chelsea B, 5<sup>th</sup> Floor

## Side event

### Tools for improving MPA management effectiveness

**Venue:** Somerset A, 5<sup>th</sup> Floor

**Date:** 24 April 2024

**Time:** 15:30–17:00

**Conveners:**

Petch Manopawitr	Department of Marine and Coastal Resources (DMCR), WildAid, ZSL and WCS, Thailand
Pinsak Suraswadi	DMCR, Thailand
Alisa Srisawat	Marine Resource Conservation Office, DMCR
Mohammad Khalid Pasha	Protected and Conserved Areas, IUCN, Thailand
Nuthathai Chotechuang	WildAid, Thailand
Sitthichai Jinamoy	Hornbill Research Foundation, Thailand
Orapan Nabangchang	National Ecosystem Assessment Thailand, Thailand

**Description**

Aligning with the Kunming-Montreal Global Biodiversity Framework and global commitments to achieve 30x30 there has been a rapid expansion in the number and coverage of marine protected areas (MPAs) globally. However, many MPAs are poorly managed and lack sufficient enforcement to secure marine sites under effective management in large part due to the inherent financial and logistical difficulties associated with patrolling and managing often large, remote tracts of ocean. Currently there are several management tools that have been developed to improve management effectiveness of the MPAs including SMART, METT, the IUCN Green List and other innovative approach and innovation like community-led coastal fisheries management, Skylight and other financial solutions.

The METT, or the Management Effectiveness Tracking Tool, was first established in 2002. It was designed to measure progress in management effectiveness at particular sites over time. It is a simple, cheap, and flexible tool that can give a quick overview of the effectiveness of protected area management without requiring expensive consultants or taking up too much time for managers, rangers, or others responsible for governance.

SMART was developed as a tool to address these critical resource gaps, to make enforcement and management more efficient and cost-effective. SMART is now the world's leading protected area management tool helping conservation practitioners in more than 1,000 sites in over 80 countries (21 governments have adopted SMART nationally) to collect, interpret and use information to make decisions and inform strategies over time with reliable, quantitative data. Marine application is growing (to date it is used at 145 sites across 18 countries) and there is real value in further expanding the uptake by marine sites.

The IUCN Green List of Protected and Conserved Areas Programme (GL) was developed by the IUCN Green List of Protected Areas: Standards Committee. The IUCN Green List Programme aims to encourage, achieve, and promote effective, equitable

and successful protected areas in all partner countries and jurisdictions. The overarching objective of the Programme is to increase the number of protected and conserved areas that deliver successful conservation outcomes through effective and equitable governance and management.

Through this side event we aim to raise awareness of the potential application of these tools in marine systems and other innovative approach including community-led coastal fisheries management, technology like Skylight and financial solutions for MPAs that can contribute to more effective spatial planning and management strategies for both MPA management and improved fisheries outcomes.

Time	Presentation Titles	Speakers
15:30–15:35	Introduction and Group Photo	Dr Petch Manopawitr
15:35–15:45	Scaling up Marine Protected Areas in Thailand from vision to action	Dr Pinsak Suraswadi <i>DMCR, Thailand</i>
15:45–15:55	Understanding management effectiveness in Marine Protected Areas and OECMs – key to achieve national and global commitments in biodiversity conservation	Dr Petch Manopawitr <i>DMCR, WildAid, ZSL and WCS, Thailand</i>
16:55–17:05	Development and implementation of Marine SMART to support MPA management in Thailand	Ms Alisa Srisawat <i>DMCR, Thailand</i>
16:05–16:15	Application of METT4 in Thailand’s marine ASEAN Heritage Parks and the way forward	Dr Petch Manopawitr <i>DMCR, WildAid, ZSL and WCS, Thailand</i>
16:15–16:25	Enhancing Marine Protected Area management through the Green List	Mr. Mohammad Khalid Pasha <i>IUCN, Thailand</i>
16:25–16:35	WildAid’s solutions to improving enforcement of marine protected areas – how technology can protect MPAs	Ms. Nuthathai Chotechuang <i>WildAid, Thailand</i>
16:35–16:45	Skylight and other technologies to improve maritime surveillance and enforcement for MPAs	Mr. Sitthichai Jinamoy <i>Hornbill Research Foundation, Thailand</i>
16:45–16:55	Cost and benefit of MPAs – Financial solutions	Dr Orapan Nabangchang <i>National Ecosystem Assessment Thailand, Thailand</i>
16:55–17:00	Wrap-up and recommendations	Dr Petch Manopawitr

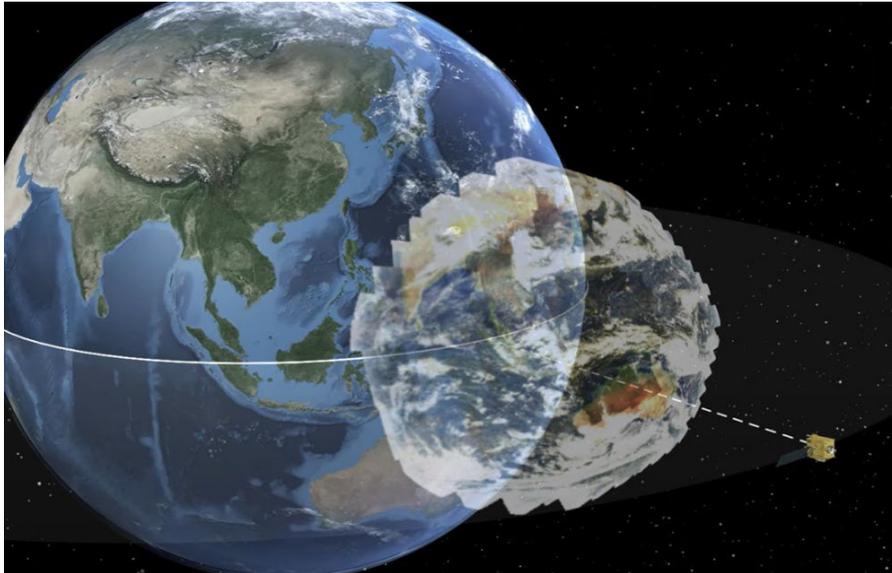
## Side event

### Ocean Satellite (GOCI-II) and its Application for Sustainable Development

**Venue:** Mayfair A, 11<sup>th</sup> Floor

**Date:** 24 April 2024

**Time:** 12:10–12:55



#### Objective:

To introduce the Korea's Ocean Satellite, GOCI-II, and advance the application of remote sensing for sustainable development among countries in the region.

#### Programme:

1. Introduction of Korea's Geostationary Ocean Color Satellite, GOCI-II
2. Utilization of GOCI-II for the region
3. Panel discussion on joint utilization of the GOCI-II for ocean management in the region

# LOGISTIC INFORMATION



## Conference Venue

The Conference will take place at the **Berkeley Hotel Pratunam**, Bangkok, Thailand. Its location allows easy access to popular shopping centers and **public transport** within walking distance.

### Check-in Desks

Participants are required to finish their onsite check- and pick up their name badges and conference packages, by presenting to the local staff, their QR-code which will be sent to your registered email address before the Conference begins. Given the large number of participants, you are strongly advised to make onsite check-in as early as possible.

The check-in desks are located in the foyer, in front of the Room Jubilee, 11<sup>th</sup> floor. The check-in opens at:

17:00–22:00,	21 April 2024
07:00–08:20,	22-25 April 2024

### Conference Rooms

The Conference rooms are located on the 5<sup>th</sup>, 10<sup>th</sup> and 11<sup>th</sup> floors.

The **Mayfair Grand Ballroom**, where the Opening Ceremony will be held, is located on the 11<sup>th</sup> floor. With a capacity to accommodate up to 2,000 guests, the pillar-less ballroom can also be partitioned into 3 smaller rooms, facilitating parallel sessions.

Other meeting rooms available for the Conference include the **Kensington A**, **Kensington B**, **Chelsea A**, **Chelsea B**, **Somerset A**, **Somerset B** on the 5<sup>th</sup> floor, the **Mulberry A** on the 10<sup>th</sup> floor and the **Jubilee A** and **Jubilee B** on the 11<sup>th</sup> floor.

### Poster Area

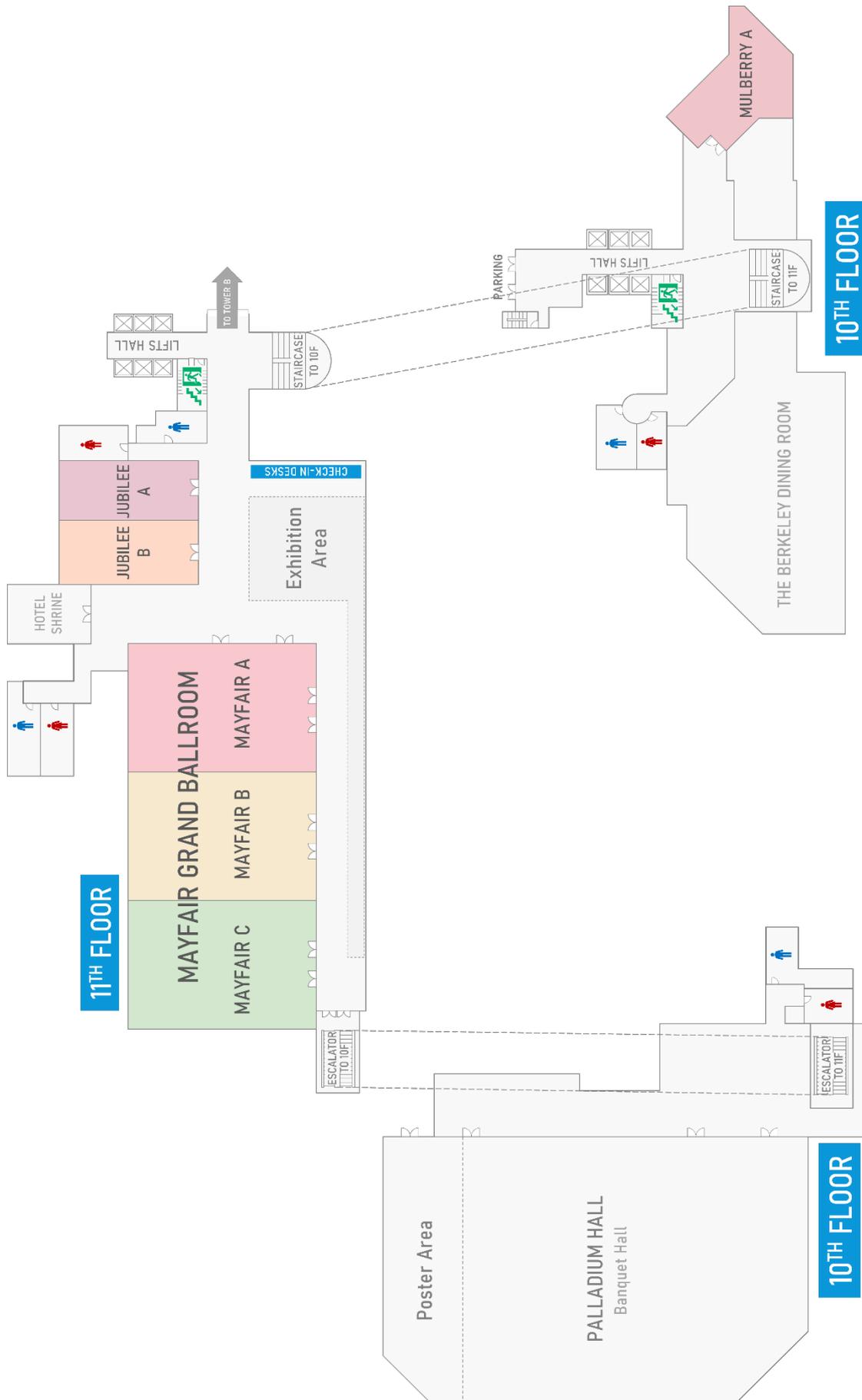
Poster presentations will be held in **Palladium Hall B** on the 10<sup>th</sup> floor, adjacent to Palladium Hall A, the venue for lunch and the reception dinner. The poster opening ceremony is scheduled for the evening of 22 April 2024, while the official poster session will commence in the evening of the 23 April 2024. The displays will be accessible throughout the entire duration of the Conference.

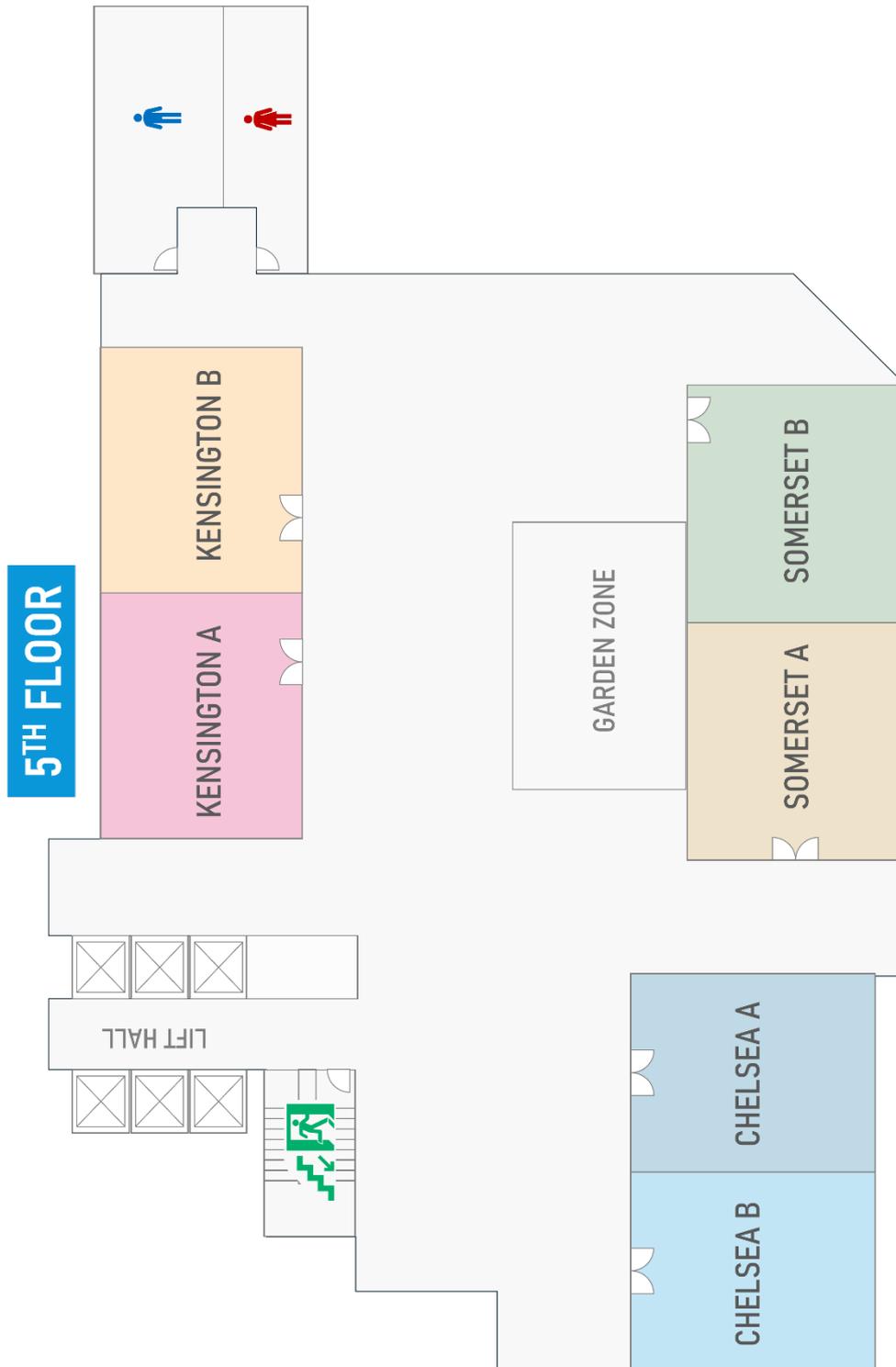
### Exhibition Booths

Scientific, technology and commercial exhibitions will be held throughout the entire duration of the Conference, from 22<sup>nd</sup> to 25<sup>th</sup> April 2024. The exhibition area, located in the foyer, will be right next to the reception desks and the plenary hall, where the opening ceremony and all keynotes will take place.

### Banquet Hall

**Palladium Hall A** on the 10<sup>th</sup> floor, which can accommodate up to 1,100 guests, will serve as the Conference' banquet hall for lunches and the reception dinner.





# Guideline for Presenters of Scientific Sessions and Special Forum

## Preparation and submission of presentation/poster

Oral presenter	Poster presenter
<b>Preparations of your presentation/poster</b>	
1. Please name your file in the format: Session number_fullname (Example: A2_Jane_Doe)  2. Slide size could be either standard (4:3) or widescreen (16:9). However, widescreen (16:9) is recommended.  3. Allocated time for each presentation: 15 mins, including Q&A.	1. Please name your file in the format: PSession number_fullname (Example: PA2_Jane_Doe)  2. Printed in A0 size in portrait orientation, the presenter is responsible for printing out his/her poster and bring it to the meeting venue.
<b>Submission of presentation/poster</b>	
<p>To ensure the smooth running of all sessions, Presenters are encouraged to submit their presentation files (either in PPT or in PDF file with high resolution), preferably by 17 April 2024. All received files for oral presentations will be uploaded in advance to the PC in each room.</p> <p><i>Option 1:</i> Please upload your file to the Dropbox folders created for each session and the Special Forum. You can find the upload link in the email attachment which was sent to your registered email address on 5 April 2024.</p> <p><i>Option 2:</i> For those who are unable to access Dropbox, you can send your file (if not larger than 25 MB) to <a href="mailto:iocwestpac2024.presentation@gmail.com">iocwestpac2024.presentation@gmail.com</a>. In case that your file is too large to be sent via email, please upload it to a file-sharing service and forward the link to us at: <a href="mailto:iocwestpac2024.presentation@gmail.com">iocwestpac2024.presentation@gmail.com</a>.</p>	

## Poster set-up and removal

Poster presenters are responsible to set up their posters at the poster area in the Palladium Hall B, on 10<sup>th</sup> floor of the Conference venue.

The poster set-up time is:           17:00–22:00,   21 April 2024  
   07:00–15:30,   22 April 2024

You will find a code for your poster in the Abstract Book and locate your poster board with the code. Our staff will standby and provide assistance if needed.

Poster presenters are expected to be present beside their posters during the official poster session on 17:30–19:00, 23 April 2024.

Presenters are kindly reminded to remove their posters by 25 April 2024 before 16:00.

# Transportation

## From the Airports to the Conference venue



### From [Suvarnabhumi Airport \(BKK\)](#)

Airport website: <https://suvarnabhumi.airportthai.co.th/>

Suvarnabhumi Airport is the main international airport serving Bangkok and Thailand.



### [By Airport Rail Link](#)

The Airport Rail Link is a daily transportation service connecting the Suvarnabhumi Airport with downtown Bangkok. The service operates daily from 6:00 to 24:00. You may disembark at Phaya Thai Station or Ratchaprarop Station. Phaya Thai Station is about a 10-minute car ride from the Conference venue, while Ratchaprarop Station is approximately 700 meters away.

From Ratchaprarop station, descend the stairs, and walk straight south towards the direction of Indra Square. Continue straight ahead, then turn left. The hotel will be on your left. For a comfortable arrival, especially if you have heavy luggage, the Local Committee recommends taking a taxi from the station.



### [By Car](#)

The Conference venue is situated at the distance of around 32 km from the airport. It takes approximately 40-60 minutes to reach the venue, depending on traffic conditions.



### [By Taxi](#)

To reach the hotel from Suvarnabhumi International Airport, you can opt for a metered taxi stationed on the 1<sup>st</sup> floor. Follow the signs directing you to the "Public Taxi" area and obtain a ticket indicating the designated parking space for your taxi. Inform the taxi driver of your destination, and be prepared to cover the expressway toll which typically amounts to around 75 Baht at the toll gates. The taxi fare to the hotel is approximately 400 Baht, with an additional service surcharge of 50 Baht on top of the metered price.



### From [Don Mueang International Airport \(DMK\)](#)

Airport website: <https://donmueang.airportthai.co.th/en>

Don Mueang International Airport is another airport located in the north of Bangkok. It is a regional commuter flight hub and center of low-cost airlines for both domestic and international destinations.



### [By Bangkok Bus Line A3](#)

Bus A3 connects the Don Mueang Airport with Bangkok downtown. The service operates daily from 7:00 to 23:00, with buses departing every 30 minutes. The bus fare is 50 THB per person and the ticket can be bought on board. You can board the bus at Exit 6 of Terminal 1, or at Exit 12/14 at Terminal 2. Disembark at the stop "Opposite Indra Square Pratunum" and walk straight south. Turn left at the traffic junction, the venue will be on your left.



### By Car

The distance between Don Mueang Airport and the Conference venue is approximately 24 km, which will usually take around 40 minutes by car. However, the travel time may vary, depending on the traffic.



### By Taxi

To reach the Conference venue from Don Mueang International Airport, you can opt for a metered taxi stationed below the arrival hall outside the airport building. Follow the signs directing you to the "Public Taxi" area and obtain a ticket designating your taxi. Inform the taxi driver of your destination. The taxi fare to the venue is approximately 300 Baht, with an additional service surcharge of 50 Baht on top of the metered price. The passenger is responsible for covering all toll charges at the toll gates.

## Transportation services near the Conference venue



**Airport Rail Link:** 10-minute walk to Ratchaprarop Station



**BTS Skytrain:** 10-minute walk through Skywalk to Chidlom and Siam Station



**By Boat:** 5-minute walk to Pratunam Pier (opposite the venue)

The hotel also provides a free-of-charge shuttle van service, which brings guests to Central Chidlom, Siam Paragon, Central World, and nearby BTS Stations (Chidlom and Siam).

## Useful Information



### Bangkok

Bangkok, the capital city of Thailand, is a vibrant and bustling metropolis known for its rich history, diverse culture, and energetic atmosphere. Located on the banks of the Chao Phraya River in central Thailand, Bangkok is a city of contrasts, where ancient temples and palaces stand alongside modern skyscrapers and bustling markets.

One of the most prominent features of Bangkok is its magnificent temples, which are scattered throughout the city. Wat Arun, also known as the Temple of Dawn, with its towering spires, is an iconic landmark along the river. The Grand Palace complex, which includes the stunning Wat Phra Kaew (Temple of the Emerald Buddha), is a must-visit attraction, showcasing exquisite craftsmanship and intricate design. Bangkok is a city that seamlessly blends tradition with modernity, offering visitors a fascinating mix of cultural experiences, vibrant street life, delectable cuisine, and a glimpse into Thailand's rich heritage. It's a city that never sleeps, with something to offer everyone, from history enthusiasts and food lovers to shopaholics.



### Weather

In April, Bangkok will mostly experience strong sunshine with temperatures ranging from 27°C to 36°C and about 6.6 rainy days. It is recommended that participants bring sunscreen, a hat, and an umbrella to protect themselves from sunburn.



### Time Zone

GMT+0700



### Currency and ATM

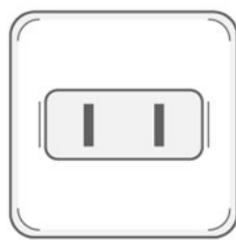
The exchange rate of one US dollar to Thai baht is approximately 33 Baht. Most retailers in Bangkok will only accept Thai baht in cash. Credit and debit cards (VISA, Master Card) are accepted in larger stores, restaurants, and hotels. Foreign currencies can be exchanged at the airports or some sky-train (BTS) stations with exchange booths. Cash in local currency can be withdrawn from ATMs throughout the city, withdrawal fee may be applied.

As taxi drivers and small vendors may not accept large bills, the Conference Committee recommends participants to always carry some change. You may achieve this by purchasing a small item like a bottle of water or a snack at a nearby convenience store.

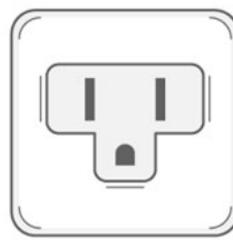


### Electricity and Electric Outlet

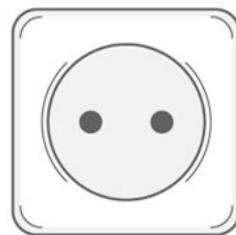
Power outlets in Thailand are of types A, B, C, and O. The most common socket types available in most hotels and accommodations are type A and a hybrid variant which is compatible with all four types. The standard voltage is 220V, and the standard frequency is 50 Hz. The use of appliances designed for 100V or 110V appliances is cautioned without a suitable adaptor/converter due to the risk of burnout.



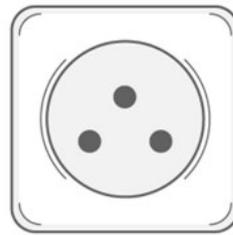
Type A



Type B



Type C



Type O



source: <https://world-power-plugs.com/>



**2<sup>nd</sup> UN Ocean Decade Regional Conference**  
**11<sup>th</sup> WESTPAC International Marine Science Conference**  
*“Accelerating Ocean Science Solutions For Sustainable Development”*

22–25 April 2024, The Berkeley Hotel Pratunam, Bangkok, Thailand

