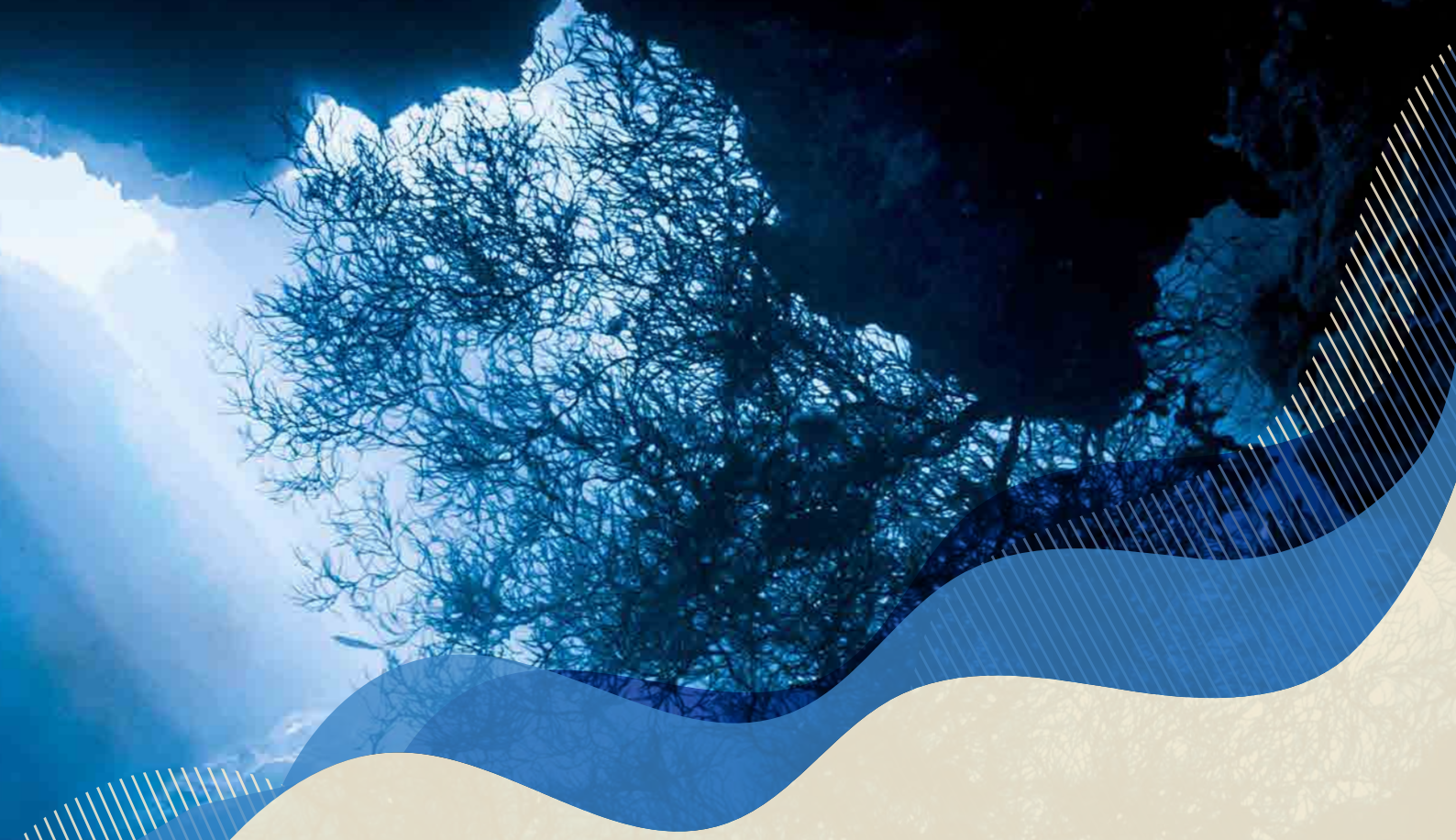

17 DSBS

Deep-Sea Biology Symposium

12-17 January 2025 • HONG KONG

The Hong Kong University of Science and Technology

1/F, Acdemic Building

Lecture Theatre A and B (LTA and LTB)

Organizers

香港科技大學 THE HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY

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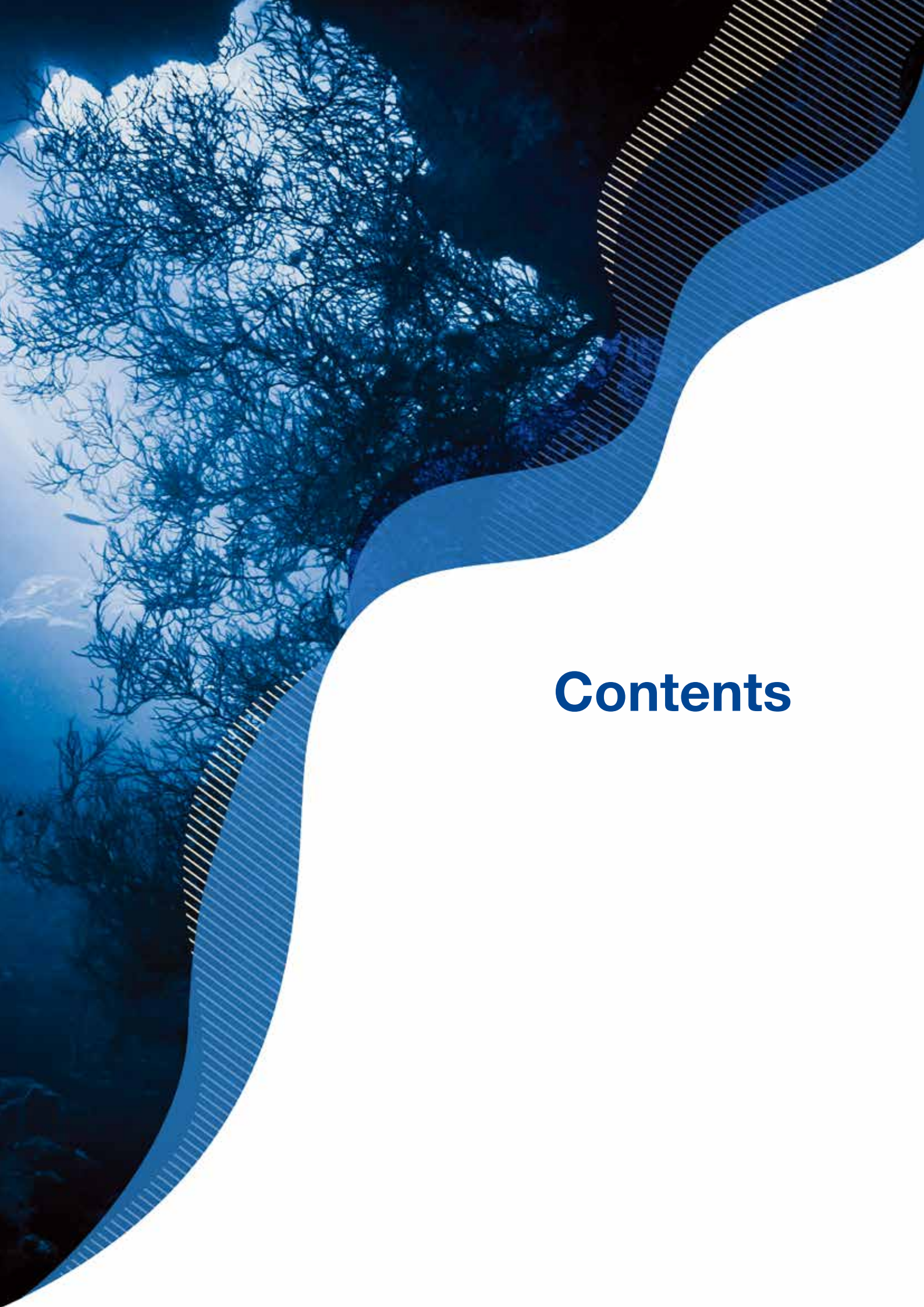
Journal of Marine Science and Engineering



Contents

Part I: Introduction

17th Deep-Sea Biology Symposium (2025)

12-17 Jan. 2025 | Hong Kong • China

@The Hong Kong University of Science and Technology

It is our great honor to hold the 17th Deep-Sea Biology Symposium (17DSBS) at the Hong Kong University of Science and Technology (HKUST), Hong Kong, China in Jan. 2025. This is the first time that the DSBS is held in Asia since 1977, representing a milestone for deep-sea research in the region.

17DSBS has secured 10 keynote speakers and 20 invited speakers, including top-notched marine scientists, as well as early career researchers. To support more young marine talents to participate in this event, the 17DSBS organizer offers multiple and diverse awards and financial aids for the participants. Besides the extensive scientific programme, the 17DSBS also arranges exciting social events as well as field trips for participants to experience the nature beauty of Hong Kong.

In a word, the 17DSBS provides a unique academic exchange platform between deep-sea biologists in Asia-Pacific region and their counterparts in other parts of the world.

Look forward to your active participation in 17DSBS!

Organizers and Sponsors

Organizers

香港科技大學
THE HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY

GML 广州海洋实验室

Co-organizers

香港海洋科學與工程院 HONG KONG ACADEMY OF MARINE SCIENCE & ENGINEERING

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Journal of *Marine Science and Engineering*

PeerJ Open Advances in Marine Biology

Welcome Message from the Chairman

Pei-Yuan Qian

Chairman, Organising Committee of 17DSBS

David von Hansemann Professor of Science

Chair Professor, Department of Ocean Science

Director, Hong Kong Branch of the Southern Marine Science and Engineering Guangdong Laboratory (Guangzhou)

Deputy Director, Southern Marine Science and Engineering Guangdong Laboratory (Guangzhou)

We are honored and excited to welcome you to the Hong Kong University of Science and Technology (HKUST) which will host the 17th Deep-Sea Biology Symposium (17DSBS). This will be the first time that the DSBS is held in Asia. The 17DSBS thus provides a unique opportunity for international participants to meet colleagues in Asia where deep-sea research has been flourishing over the past decade.

Developing from a fishing village over a century ago to a major maritime city nowadays, Hong Kong has a very strong sea heritage. At HKUST, the new Department of Ocean Science aims to establish a solid research and education platform for multi-disciplinary marine science and technology. Together with marine scientists from other local tertiary institutes, we are working hard to organize the 17DSBS as a platform for participants to share their achievements in deep-sea biology, as well as to network and connect with colleagues for future research collaborations. In the 17DSDS program, we will include keynote talks by eminent deep-sea biologists, invited talks for young scientists, enjoyable social events, and excursions to some famous maritime localities in Hong Kong (such as the rhyolitic columnar rock formation in Sai Kung, which has recently been designated as one of the first 100 International Union of Geological Sciences (IUGS) Geological Heritage Sites).

Looking forward to a pleasurable experience with all our participants in Hong Kong in January 2025.

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Prof. Malcolm R. Clark

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Prof. Roberto Danovaro


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Jeremy Horowitz

Lara Maleen Beckmann

Freya Hammar

Delphine Mestdagh

Part II: Scientific Programme Timetable

Time	12 Jan Sunday	Time	13 Jan Monday		Time	14 Jan Tuesday	
		08:30	**Registration**		09:00-09:25	**Keynote Lecture 4 Wang**	
		0900-09:30	**Opening Ceremony**			**Parallel Oral Sessions**	
		09:30-09:55	**Keynote Lecture 1 Clark**		09:30-11:00	6 Genomics & Metagenomics of Metazoans A	7 Ecology & Conservation A
		10:00-10:30	Group Photo & Tea Break		11:00-11:20	Tea Break	
		10:30-12:30	**Parallel Oral Sessions**		10:30-12:30	**Parallel Oral Sessions**	
			2 Microbiome	1 Biodiversity A		6 Genomics & Metagenomics of Metazoans B	7 Ecology & Conservation B
		12:40-14:00	Lunch		13:00-14:00	Lunch	
		14:15-14:40	**Keynote Lecture 2 Takai**		14:15-14:40	**Keynote Lecture 5 Colaco**	
		14:45-16:30	**Parallel Oral Sessions**		14:45-16:15	**Parallel Oral Sessions**	
			11 Decade of Ocean Science Program Highlights A	1 Biodiversity B		6 Genomics & Metagenomics of Metazoans C	7 Ecology & Conservation C
16:30-18:30	**Registration**	16:30-16:50	Tea Break		16:15-16:35	Tea Break	
		16:50-17:15	**Keynote Lecture 3 Li**				
18:00-19:30	**Welcome Dinner**	17:15-18:45	11 Decade of Ocean Science Program Highlights B		16:35-18:15	**Poster Sessions**	
		19:00-20:00	**Student Mixer**		18:15-19:30	**DSBSoc AGM**	

Time	15 Jan Wednesday		Time	16 Jan Thursday		Time	17 Jan Friday	
09:00-09:25	**Keynote Lecture 6 Teske**		09:00-09:25	**Keynote Lecture 7 Qiu**		09:00-09:25	**Keynote Lecture 9 Roberts**	
09:30-10:45	**Parallel Oral Sessions**		09:30-11:00	**Parallel Oral Sessions**		09:30-11:00	**Parallel Oral Sessions**	
	1 Biodiversity C	7 Ecology & Conservation D		5 Sensory Biology	7 Ecology & Conservation F		10 Arts and Science in Deep-Sea Environmental Management	12 Open Session A
10:45-11:05	Tea Break		11:00-11:20	Tea Break		11:00-11:20	Tea Break	
11:05-12:35	**Parallel Oral Sessions**		11:20-12:50	**Parallel Oral Sessions**		11:20-12:50	**Parallel Oral Sessions**	
	3 Symbiosis	7 Ecology & Conservation E		4 Deep Pelagic Ocean A	8 Climate Change & Human Impact A		1 Biodiversity D	12 Open Session B
12:40-13:50	Lunch		13:00-14:00	Lunch		13:00-14:00	Lunch	
14:00	**Field Trips**		14:15-14:40	**Keynote Lecture 8 Levin**		14:15-14:40	**Keynote Lecture 10 Danovaro**	
			14:45-16:30	**Parallel Oral Sessions**		14:45-16:30	**Parallel Oral Sessions**	
				4 Deep Pelagic Ocean B	8 Climate Change & Human Impact B		1 Biodiversity E	9 Novel Methods & Practices
			16:30-16:50	Tea Break		16:30-16:50	Tea Break	
			16:35-18:15	**Parallel Oral Sessions**		16:50-17:20	**Award Ceremony**	
				4 Deep Pelagic Ocean C	8 Climate Change & Human Impact C	17:20-18:00	**Closing Ceremony**	
			18:45-20:30	**Banquet**				

12 Scientific Sessions with 29 Sub-sessions

#	Sessions	Sessions Organizers	Sessions Chairs
1	**Biodiversity (6 sub-sessions)**	Dewi Langlet Patricia Velez Aguilar	Ka Hou Chu Jon Copley Adrian G. Glover Jerome Hui Dewi Langlet Hidetaka Nomaki Tim O'Hara Julia D. Sigwart Patricia Velez Aguilar
2	**Microbiome**	Haiwei Luo Xiang Xiao	Haiwei Luo Xiang Xiao
3	**Symbiosis**	Chaolun Li Hao Wang	Chaolun Li Hao Wang
4	**Deep Pelagic Ocean (3 sub-sessions)**	Veronique Merten Vanessa I. Stenvers Matthew Woodstock	Henk-Jan Hoving Veronique Merten Vanessa I. Stenvers
5	**Sensory Biology**	Karen Osborn Vanessa I. Stenvers	Karen Osborn Vanessa I. Stenvers
6	**Genomics and Metagenomics of Metazoans (3 sub-sessions)**	Holly M. Bik Jian-Wen Qiu	Holly M. Bik Corinna Breusing Yi Lan Jian-Wen Qiu
7	**Ecology and Conservation (5 sub-sessions)**	Joan M. Alfaro-Lucas Erin Easton Nicola Foster Astrid Leitner Paris Stefanoudis	Joan M. Alfaro-Lucas Payanee Annasawmy Daphne Cuvelier Fanny Girard Andrian Glover Astrid Leitner J Murray Roberts Andrew Sweetman
8	**Climate Change and Human Impacts (3 sub-sessions)**	Nélia Mestre Moriaki Yasuhara	Daniel O. B. Jones Nélia Mestre Moriaki Yasuhara

#	Sessions	Sessions Organizers	Sessions Chairs
9	**Novel Methods and Practices**	Adrienne Copeland Stephen Formel Ashley N. Marranzino	Kerry Howel Ashley N. Marranzino
10	**Arts and Science in Deep-Sea Environmental Management**	Maria Baker Jozée Sarrazin	Maria Baker Jozée Sarrazin
11	**Decade of Ocean Science Program Highlights (2 sub-sessions)**	Ana Hilario Lisa A. Levin	Ana Hilario Lisa A. Levin
12	**Open Session (2 sub-sessions)**	Dominique Anderson Maila Guilhon	Dominique Anderson Maila Guilhon

Rundown

Oral Presentations

Glance of Sessions and Venues:

Venue	13 Jan	14 Jan	15 Jan	16 Jan	17 Jan
LTA	Opening Ceremony Keynote Lecture 1, 2 & 3 Session 11 (A, B)	Keynote Lecture 4 & 5 Session 6 (A, B, C)	Keynote Lecture 6 Session 1C, 3	Keynote Lecture 7, 8 Session 4 (A, B, C), 5	Keynote Lecture 9, 10 Session 1(D,E),10 Closing Ceremony
LTB	Session 1 (A, B)	Session 7 (A, B, C)	Session 7 (D, E)	Session 7 (F), 8 (A, B, C)	Session 9, 12 (A, B)

12 January 2025 (Sunday)

1630-1830	**Registration**
1800-1930	**Welcome Dinner**

Day 1
13 January 2025 (Monday)

0830-0900	**Registration**
0900-0920	**Opening Ceremony (LT-A)**
	Opening Address 1: **Nancy Ip** *Hong Kong University of Science and Technology, Hong Kong, China*
	Opening Address 2: **Si Zhang** *Southern Marine Science and Engineering Guangdong Lab (Guangzhou), China*
	Opening Address 3: **Michelle Taylor** *Deep-Sea Biology Society*
0920-0930	**Group Photo**
0930-0955	**Keynote Lecture 1 [Croucher Keynote Lecture] (LT-A)** **Chair: Michelle Taylor** **Balancing Exploitation and Conservation in the Deep Sea: Challenges for Science** **Malcolm R. Clark** *National Institute of Water & Atmospheric Resources, New Zealand*
10:00-10:30	Tea Break

	Session 2: Microbiome **LT-A** **Chairs: Haiwei Luo & Xiang Xiao**	**Session 1: Biodiversity (A) Diversity and Taxonomy I** **LT-B** **Chairs: Julia D. Sigwart & Patricia Velez Aguilar**
1030-1045	**O2-1 [Invited Talk]: What are the Prevalent Clades Involved in Marine Biogeochemical Processes at Extreme Energy Limitation?** **Aurèle Vuillemin** *GFZ German Research Centre for Geosciences, Germany*	**O1A-1: Deep-Sea Biodiversity in the Aleutian Trench (Aleutbio)** **Angelika Brandt** *Senckenberg Research Institute and Natural History Museum, Germany*
1045-1100	**O2-2 [Invited Talk] : Distribution and Genomic Variation of Ammonia-Oxidizing Archaea in Abyssal and Hadal Surface Sediments** **Blandine Trouche** *University of Southern Denmark, Denmark*	**O1A-2: Meiofauna Patterns in Three Contrasting Habitats at the Lucky Strike Vent Field: Focus on Nematode Diversity** **William Johnson da Silva** *IFREMER, France*
1100-1115	**O2-3: Death in The Deep: Microeukaryotes in Hydrothermal Vent Food Webs** **Sarah K. Hu** *Texas A&M University, USA*	**O1A-3: Senckenberg Ocean Species Alliance (SOSA) — Novel Solutions Combining Discovery, Conservation and Fascination of Marine Invertebrates** **Julia D. Sigwart** *Senckenberg Research Institute and Natural History Museum, Germany*
1115-1130	**O2-4: Prevalent and Active Dehalogenation Metabolism in Microorganisms of the Deepest Oceanic Trench** **Rulong Liu** *Shanghai Ocean University, China*	**O1A-4: Diversity across the Philippine Sea: Benthic Megafauna Community Composition across Four Ridges in Southern Japan** **Leah A. Bergman** *Japan Agency for Marine-Earth Science and Technology, Japan*
1130-1145	**O2-5 : Crude-Oil Degradation Capabilities by Microscopic Fungi of Deep-Sea Hydrothermal Vents of The Gulf of California** **Diana L. Salcedo** *National Autonomous University of Mexico, Mexico*	**O1A-5: Exploring Deep-Sea Ecosystems in Palau with Baited Cameras and ROVs** **Harold K. Carlson** *University of Hawai'i at Mānoa, USA*
1145-1200	**O2-6: The Far-Reaching Impacts of Hydrothermal Plumes on Microbial Communities and Biogeochemistry Significance in The Okinawa Trough** **Min Yu** *Ocean University of China, China*	**O1A-6: Faunal Communities of Deep Arctic Methane Seeps are Specialized with Links to Hydrothermal Vents** **Mari H. Eilertsen** *University of Bergen, Norway*
1200-1215	**O2-7: Novel Insights into Microbial DMSP/DMS Cycling Mechanisms in Deep-sea Environments** **Xiao-Hua Zhang** *Ocean University of China, China*	**O1A-7: Biodiversity of Abyssal Polymetallic Nodule Fields in the Easternmost Region of the Clarion-Clipperton Fracture Zone, Pacific Ocean** **Chee Kong Chim** *National University of Singapore, Singapore*
1215-1230	**O2-8 : Nitrous Oxide Reduction by Model Deep-Sea Isolates and Susceptibility to Metal Exposure** **Miguel Semedo** *University of Porto, Portugal*	**O1A-8: Revealing Intra- and Inter- Trenches Biodiversity of Hadal Meiofauna Using Molecular Approaches** **Yick Hang Kwan** *University of Southern Denmark, Denmark*

1240-1400	Lunch	
1415-1440	**Keynote Lecture 2 (LT-A)** **Chair: Yong Wang** **Microbial Ecosystem in Deep-Sea Hydrothermal Systems** **Ken Takai** *Japan Agency for Marine-Earth Science and Technology, Japan*	
	Session 11: Decade of Ocean Science Program Highlights (A) **LT-A** **Chairs: Ana Hilario & Lisa A. Levin**	**Session 1: Biodiversity (B) Diversity and Taxonomy II** **LT-B** **Chairs: Jerome Hui & Patrica Velez Aguilar**
1445-1500	**O11A-1 [Invited Talk]: African Network of Deep-water Researchers** **Agnes Muthumbi** *University of Nairobi, Kenya*	**O1B-1 [Invited Talk]: Diversity, Ecology and Utilization of Deep-Sea Fungi from the Eastern Pacific and Gulf of Mexico** **Patricia Velez Aguilar** *National Autonomous University of Mexico, Mexico*
1500-1515	**O11A-2 [Invited Talk]: Deepening the Decade: Collaborative Action for Advancing Deep Ocean Science and Policy in the United Nations Decade of Ocean Science for Sustainable Development** **Elizabeth D. Hetherington** *Scripps Institution of Oceanography, University of California San Diego, USA*	**O1B-2 : Deep-Sea Fish Biodiversity on A Seamount Protected Area** **Eva Giacomello** *University of the Azores, Portugal*
1515-1530	**O11A-3: Prioritisation of Ocean Biodiversity Data Collection to Deliver a Sustainable Ocean** **Amelia E. H. Bridges** *University of Plymouth, UK*	**O1B-3: Diverse and Self-Sustaining Benthos of An Arctic Oil Seep** **Arunima Sen** *The University Centre in Svalbard, Norway*
1530-1545	**O11A-4: Deep-Ocean Stewardship Initiative: The Decade that was for the Decade that is** **Christopher Barrio Froján** *University of Southampton, UK*	**O1B-4: From Bubbles to Biology: Macrobenthos Abundance, Diversity, and Assemblage Structure at South Georgia's Methane Seeps** **Madeline P. B. C. Anderson** *British Antarctic Survey, UK*
1545-1600	**O11A-5: Climate Change and Deep Ocean Microbiomes and Ecosystems (DOME)** **Jiasong Fang** *Shanghai Ocean University, China*	**O1B-5: Serpentinite-Hosted Alkaline Seep Communities on the Mariana Forearc Show Lasting Impacts from Scientific Drilling** **Chong Chen** *Japan Agency for Marine-Earth Science and Technology, Japan*
1600-1615	**O11A-6: UN Ocean Decade Project COESS: Chemistry, Observation, Ecology of Submarine Seeps** **Glen T. Snyder** *University of Tokyo, Japan*	**O1B-6: Biogeography and Biodiversity of Hydrothermal Vent Fauna along the Central Indian Ridge** **Chailinn Park** *Korea Institute of Ocean Science & Technology, Busan, Republic of Korea*

1615-1630	**O11A-7: Deep Ocean Discoveries in the UN Ocean Decade: Opportunities for Science, Development and International Cooperation** **Anna Roik** *King Abdullah University of Science and Technology, Saudi Arabia*	**O1B-7: Faunal Novelty and Dynamic Controls on the YBW Vent Field, East Pacific Rise** **Timothy M. Shank** *Woods Hole Oceanographic Institution, USA*
1630-1650	Tea Break	
	Keynote Lecture 3 (LT-A) **Chair: Pei-Yuan Qian** **Exploring Deep-Sea Typical Habitats for Achieving Sustainable Development** **Jiabiao Li** *Second Institute of Oceanography, Ministry of Natural Resource, China*	
	Session 11: Decade of Ocean Science Program Highlights (B) **LT-A** **Chairs: Ana Hilario & Lisa A. Levin**	
1715-1730	**O11B-1: The Development and Upcoming Challenges of Area-Based Management Tools for the Areas beyond National Jurisdiction** **Yan Gao** *China Deep Ocean Affairs Administration, Ministry of Natural Resources, China*	
1730-1745	**O11B-2: Population Genetic Structure of the Deep-Sea Ophiuroidea across the North-Western Pacific: Subtle Differentiation within High Connectivity** **Dongsheng Zhang** *Second Institute of Oceanography, Ministry of Natural Resources, China*	
1745-1800	**O11B-3: Time in the Deep: Insights from the NorthEast Pacific Deep-sea Exploration Project (NEPDEP)** **Cherisse Du Preez** *Fisheries and Ocean Canada & the University of Victoria, Canada*	
1800-1815	**O11B-4: Searching the One and Finding the Other: A Story of Corals, Hydrothermal Vents and Cold Seeps** **Saskia Brix** *University of Hamburg, Germany*	
1815-1830	**O11B-5: From Barriers to Biodiversity – Phylogeographic Patterns in Deep-Sea Isopods in Two Major Oceanic Regions** **Stefanie Kaizer** *Senckenberg Research Institute and Natural History Museum, Germany*	
1830-1845	**Roundtable Discussion**	
1900-2000	**Student Mixer** (By Invitation) China Garden	

Day 2
14 January 2025 (Tuesday)

0900-0925	**Keynote Lecture 4 (LT-A)** **Chair: Zongze Shao** **Global Subseafloor Ecosystem and Sustainability** **Fengping Wang** *Shanghai Jiao Tong University, China*	
	Session 6: Genomics & Metagenomics of Metazoans (A) **LT-A** **Chairs: Corinna Breusing & Jian-Wen Qiu**	**Session 7: Ecology & Conservation (A)** **LT-B** **Chairs: Joan M. Alfaro-Lucas & Astrid Leitne**
0930-0945	**O6A-1 [Invited Talk]: Patterns of Genetic Diversity in Hydrothermal Vent Populations after the Hunga Tonga–Hunga Haʻapai Eruption** **Corinna Breusing** *University of Rhode Island, USA*	**O7A-1: Living on the Edge: The Mesopelagic Boundary Community of Monterey Submarine Canyon** **Astrid Leitner** *Oregon State University, USA*
0945-1000	**O6A-2: Sequencing Ultraconserved Elements (Uces) in Conservation: A Case Study of Deep-Sea Mussel Population Genomics** **Yi-Xuan Li** *Hong Kong Baptist University, Hong Kong, China*	**O7A-2: Abundance, Niche Diversity, and Differential Species Effects Impact Ecosystem Function on the Bottom of the Ocean** **Craig R. McClain** *University of Louisiana at Lafayette, USA*
1000-1015	**O6A-3: Genetic Divergence and Migration Dynamics of Co-Occurring Vent and Seep Macrofauna Highlight the Need for Deep-Sea Conservation** **Ting Xu** *The Hong Kong University of Science and Technology, Hong Kong, China*	**O7A-3: Faunal-Mediated Ecosystem Functioning in a Benthic Deep-Sea Canyon Community Recovering from a Severe Seabed Disturbance** **Rachel Hale** *National Institute of Water & Atmospheric Research, New Zealand*
1015-1030	**O6A-4 : Reduced Genetic Diversity and Limited Connectivity for Fisheries Impacted Populations of the Precious Coral Hemicorallium laauense** **Amy R. Baco** *Florida State University, USA*	**O7A-4: Revealing the Assembly Rules of Scavenging Fish Faunas in the Deep Western Pacific Aaron B. Judah** *University of Hawa i'i at Mānoa, USA*
1030-1045	**O6A-5: Life on Fire: Multiple-Omics Analyses Reveal Thermal Adaptations of Hot-Vent Endemic Alvinellid Worms** **Xing He** *Ocean University of China, China*	**O7A-5: The Distribution and Trophic Structure of Gelatinous Zooplankton Across the Deep Pelagic** **Julia M. Chavarry** *Scripps Institution of Oceanography, University of California San Diego, USA*
1045-1100	**O6A-6: Convergent Evolution of Distinctive Adaption to Extreme Environment in Deep-sea Organisms** **Longjun Wu** *The Hong Kong University of Science and Technology, Hong Kong, China*	**O7A-6: Squatlantis: Setting Physiological Baselines in the Seamounts of the SEP, Using New Records of Squat Lobsters** **Rosanne S. Dodde** *Universidad Católica del Norte, Chile*
1100-1120	Tea Break	

	Session 6: Genomics & Metagenomics of Metazoans (B) LT-A Chairs: Holly M. Bik & Jian-Wen Qiu	Session 7: Ecology & Conservation (B) LT-B Chairs: Joan M. Alfaro-Lucas & Daphne Cuvelier
1120-1135	**O6B-1 [Invited Talk]: Symbiont Transmission Mode and Stability of the Scaly-Foot Snail Holobiont** **Yi Lan** *The Hong Kong University of Science and Technology, Hong Kong, China*	**O7B-1: Animal Life in the Shallow Subseafloor Crust at Deep-Sea Hydrothermal Vents** **Sabine Gollner** *Royal Netherlands Institute for Sea Research, The Netherlands*
1135-1150	**O6B-2: Genomics Illuminates the Adaptation to Deep-Sea Chemosymbiosis in a Scallop** **Yi-Tao Lin** *Hong Kong Baptist University, Hong Kong, China*	**O7B-2: Beta-Diversity Along the Hydrothermal Vent Fields of the Mid-Atlantic Ridge** **Daphne Cuvelier** *University of the Azores, Portugal*
1150-1205	**O6B-3 : Genomic Insights into the Deep-Sea Adaptation and Rapid Colonization of Lindaspio Polybranchiata in a New Cold Seep** **Yujie Yan** *Institute of Oceanology, Chinese Academy of Sciences, China*	**O7B-3: Environmental Drivers and Microbial Mediation of Heterogeneity and Resilience of Carbonate Macrofauna at Methane Seeps** **Olívia S. Pereira** *Scripps Institution of Oceanography, University of California San Diego, USA*
1205-1220	**O6B-4: Draft Genome of Abyssal Sea Cucumbers from a Region Targeted for Seabed Mining** **Belen Arias** *Natural History Museum, UK*	**O7B-4: Foundational Bathymodioline Mussel Larvae Preferentially Settle on Established Biofilm Surfaces Near Hydrothermal Vents** **Tanika M. Ladd** *Western Washington University, USA*
1220-1235	**O6B-5 : Prokaryote-Eukaryote Co-Occurrence Predictions Using Multiomics to Link Ecosystem Function and Diversity in Deep-Sea Mining Areas** **Franck Lejzerowicz** *University of Oslo, Norway*	**O7B-5: Potential for Recovery of Deep-Sea Hydrothermal Vents Ecosystems After Burial by the Catastrophic Hunga Volcanic Eruption** **Shawn M. Arellano** *Western Washington University, USA*
1235-1250	**O6B-6: Characterization of Nuclear and Mitochondrial Genomes of Polynoids (Annelida: Polychaeta) in Deep-Sea Chemosynthetic Ecosystem** **Won-Kyung Lee** *Korea Research Institute of Bioscience and Biotechnology, Korea*	**O7B-6: Gas'tronomy at Methane Seeps: Isotopic Indicators of Eukaryotic Methane Use** **Lisa A. Levin** *Scripps Institution of Oceanography, University of California San Diego, USA*
1300-1400	Lunch	

1415-1440	**Keynote Lecture 5 [Croucher Keynote Lecture] (LT-A)** **Chair: Hao Wang** **Vulnerable Marine Ecosystems: Key Players for the Planet Health** **Ana Colaço** *University of the Azores, Portugal*	
	Session 6: Genomics & Metagenomics of Metazoans (C) **LT-A** **Chairs: Holly M. Bik & Yi Lan**	**Session 7: Ecology & Conservation (C)** **LT-B** **Chairs: Astrid Leitner & Andrew Sweetman**
1445-1500	**O6C-1: eDNA Metabarcoding Upholds the Patch-Mosaic Model for Meiofaunal Biodiversity in Deep-Sea Sediments** **Holly M. Bik** *University of Georgia, USA*	**O7C-1: Evidence of Dark Oxygen Production at the Abyssal Seafloor** **Andrew Sweetman** *The Scottish Association for Marine Science, UK*
1500-1515	**O6C-2: Molecular Assessment of Deep-Sea Bony Fishes: New Findings from the Western South** **Atlantic Heloísa De Cia Caixeta** *Universidade de São Paulo, Brazil*	**O7C-2 : Vulnerability of Tropical Fish Communities across Depth in the Central Indian Ocean** **Paris V. Stefanoudis** *University of Oxford, UK*
1515-1530	**O6C-3: Vertical Biodiversity Zonation Revealed by Environmental DNA in the Molloy Deep, the Deepest Point in the Arctic** **Véronique Merten** *GEOMAR Helmholtz Centre for Ocean Research Kiel, Germany*	**O7C-3: Habitat Distribution Modelling for the Azooxanthellate Coral Madracis interjecta in the Mesophotic and Deep Red Sea** **Megan K. B. Nolan** *King Abdullah University of Science and Technology, Saudi Arabia*
1530-1545	**O6C-4: Phylogenomics Shed New Light on the Placement of Siboglinidae** **Maeva Perez** *Hong-Kong Baptist University, Hong Kong, China*	**O7C-4 : Skeletal Growth, Micro-Anatomy and Metabolism of Cold-Water Coral Holobiont of Three Main Reef-Building Species** **Robbe Joëlle** *Sorbonne Université, France*
1545-1600	**O6C-5: Characterizing the Biodiversity and Bathymetric Distributions of Caribbean Deep-Sea Corals through eDNA** **Luke J. McCartin** *Lehigh University, USA*	**O7C-5 : Cost-Effective Deep-Sea Biodiversity Assessments Can Inform Conservation and Sustainable Management of Deep-Sea Ecosystems** **Telmo Morato** *University of the Azores, Portugal*
1600-1615	**O6-6: Advancing Deep-Sea Mollusk Shell Genomics: Insights from the Clam Archivesica marissinica** **Qi Dai** *Hong Kong Baptist University, Hong Kong, China*	**O7C-6 : [Invited Talk] : Trait-based Approaches to Inform Conservation in the Deep Sea** **Neus Campanyà I Llovet** *University of the Azores, Portugal*
1615-1635	Tea Break	
1635-1815	Poster Session Hallway Outside LT-A & LT-B	
1815-1930	Annual General Meeting of the Deep-Sea Biology Society (LT-A)	

Day 3
15 January 2025 (Wednesday)

0900-0925	**Keynote Lecture 6 [Croucher Keynote Lecture] (LT-A)** **Chair: Fenping Wang** **From Magma to Microbe: The Subsurface Biosphere of Guaymas Basin** **Andreas Teske** *University of North Carolina at Chapel Hill, USA*	
	Session 1 Biodiversity (C): Phylogenetics & Systematics **LT-A** **Chairs: Ka Hou Chu & Dewi Langlet**	**Session 7: Ecology & Conservation (A)** **LT-B** **Chairs: Fanny Girard & J Murray Roberts**
0930-0945	**O1C-1: Time-Calibrated Phylogenomic Analyses Reveal New Insights into the Evolution of Modern and Deep-Sea Asteroidea** **Mengjin Zhang** *The University of Hong Kong, Hong Kong, China*	**O7D-1 [Invited Talk]: Deep-sea Coral Ecosystem Dynamics through Space and Time: Implications for Conservation** **Fanny Girard** *University of Hawai'i at Mānoa, USA*
0945-1000	**O1C-2: Clue to the Maze: A History of Phylogenetic Relationships in Deep-Sea Typhlotanaidae (Crustacea: Tanaidacea)** **Marta Gellert** *University of Lodz, Poland*	**O7D-2: Time-Series Analysis of Benthic Megafauna in the Arctic Ocean** **Lilian Boehringer** *Alfred-Wegener-Institute, Germany*
1000-1015	**O1C-3: Phylogeography and Systematics of the Mesosignidae Schultz, 1969: Survey of Isopod Diversity in North Pacific Trenches** **Andreas Kelch** *Senckenberg Research Institute, Germany*	**O7D-3: Development of a Biologically-Validated, Global-Scale, Benthic Habitat Map for Use in Basin-Scale Marine Spatial Planning and Area Based Management** **Kerry Howell** *University of Plymouth, UK*
1015-1030	**O1C-4: Analysis of Vesicomyids Clam Shed Light on the Updated Taxonomy and Evolution** **Kexin Gao** *Ocean University of China, China*	**O7D-4: What Is a Biotope? Thoughts From a Classification Methods Comparison** **Rebecca E. Ross** *Institute of Marine Research, Norway*
1030-1045	**O1C-5: The Distribution of Hadal Snailfishes from the Trenches in the Northwestern Pacific** **Haruka Kamei** *University of Tokyo, Japan*	**O7D-5: Fading to Black: The Ambiguous Journey of Deep-Sea Shark Fisheries in the Philippines** **Titus Cañete** *Large Marine Vertebrates Research Institute Philippines, Philippines*
1045-1105	Tea Break	

	Session 3: Symbiosis LT-A Chairs: Chaolun Li & Hao Wang	Session 7: Ecology & Conservation (E) LT-B Chairs: Pavanee A. Annasawmy & Fanny Girard
1105-1120	**O3-1 [Invited Talk]: The Ins and Outs of Associations Between Beneficial and Pathogenic Bacteria of Deep-Sea Mussels** **Nicole Dubilier** *Max Planck Institute for Marine Microbiology, Germany*	**O7E-1 [Invited Talk]: Seamounts and Pinnacles of the Global Ocean** **Pavanee A. Annasawmy** *Fondation pour la Recherche sur la Biodiversité, France*
1120-1135	**O3-2: Exploring the Depths: Insights into Symbiosis-Driven Biodiversity in Cold Seeps** **Minxiao Wang** *Institute of Oceanology, Chinese Academy of Sciences, China*	**O7E-2: Comparing Megabenthic Communities of Cobalt-Rich Manganese Seamounts of the Mid-Pacific Mountains, Necker Ridge, and Hawaiian Ridge** **Sierra Landreth** *Florida State University, USA*
1135-1150	**O3-3: An Evolutionary Perspective on Symbioses of Alvinocaridid Shrimps** **Pierre Methou** *IFREMER, France*	**O7E-3: Diverse Megabenthic Communities Revealed by Video Surveys Along Boyd Seamount (Arctic Mid-Ocean Ridge), Norwegian Mineral-Exploration Area** **Irina Zhulay** *University of Bergen, Norway*
1150-1205	**O3-4: Host-symbiont Interactions in the Deep-sea Tubeworm Lamellibrachia columna** **Fan Hui** *Hong Kong Baptist University, Hong Kong, China*	**O7E-4: Vulnerable Marine Ecosystem Patch Distribution and Abundance Hotspots on Seamounts of the Hawaiian-Emperor Seamount Chain** **Virginia Biede** *Florida State University, USA*
1205-1220	**O3-5: Novel Structural Integration of Chemosymbionts in A Giant Deep-Sea Caudofoveate Worm-Mollusc from Cold Seeps** **Yunlong L** *Ocean University of China, China*	**O7E-5: Cold-Water Coral Distribution Across Oxygen Minimum Zones in the Galapagos Islands and Isla Del Coco, Eastern Tropical Pacific** **Ana Belén Yánez-Suárez** *Memorial University of Newfoundland and Labrador, Canada*
1220-1235	**O3-6: Abyssal Deposit Feeder Utilization of Gut Microbiota is Reflective of Feeding Ecology** **Lee C. Miller** *University of Hawai'i at Mānoa, USA*	**O7E-6: Investigating Environmental Controls on Cold-Water Coral Distributions Using a Combined 3D Photogrammetric and Benthic Monitoring Approach** **Corie M. Boolukos** *University College Cork, Ireland*
1240-1350	Lunch	
1400	Field Trips (Registrants only)	

Day 4
16 January 2025 (Thursday)

0930-0955	**Keynote Lecture 7 (LT-A)** **Chair: Ka Hou Chu** **Cold Seeps in the South China Sea: Species Composition and Biogeography** **Jian-Wen Qiu** *Hong Kong Baptist University, Hong Kong, China*	
	Session 5: Sensory Biology **LT-A** **Chairs: Karen Osborn & Vanessa I. Stenvers**	**Session 7: Ecology & Conservation (F)** **LT-B** **Chairs: Pavanee A. Annasawmy & Adrian G. Glover**
0930-0945	**O5-1 [Invited Talk]: Vision in the Deep – an Overview of Adaptations to Dim Light and Bioluminescence** **Tamara Frank** *Nova Southeastern University, USA*	**O7F-1: Bioturbation is a Key Function for the Preservation of the Abyssal Nodule Field Habitat** **Loïc Van Audenhaege** *National Oceanography Centre, UK*
0945-1000	**O5-2: Shrimp Glow, Did Ya Know? Understanding Bioluminescence in Deep-Sea Decapods** **Heather Bracken-Grissom** *Florida International University, USA*	**O7F-2: Marked Variability in Distance-Decay Patterns Suggests Contrasting Dispersal Ability in Abyssal Taxa** **Erik Simon-Lledó** *National Oceanography Centre, UK*
1000-1015	**O5-3: Bioluminescence and Environmental Light Drive Visual Evolution in the Deep Sea** **Danielle M. DeLeo** *Florida International University, USA*	**O7F-3: Feeding Niche Varies with Organismal Body Size in Abyssal Deposit Feeders** **Lucy V. M. Goodwin** *University of Liverpool, UK*
1015-1030	**O5-4 : Ontogenetic Variation in Sensory Detection in Hydrothermal Shrimp Alvinocarididae** **Adrien Mathou** *Sorbonne Université, France*	**O7F-4: Disparity of Dominant Species Across Three New Hydrothermal Vent Fields in the Mid-Atlantic Ridge** **Joan M. Alfaro-Lucas** *University of Victoria, Canada*
1030-1045	**O5-5: Bioluminescence in Deep-Sea Dragonfishes: Photophore Morphology and Proposed Functionality** **Ashley N. Marranzino** *NOAA Ocean Exploration Affiliate, USA*	**O7F-5: Abyssal Megafauna Communities and the Potential Influence of Sargassum Sedimentation – A Qualitative and Quantitative Assessment** **Dominik Scepanski** *University of Cologne, Germany*
1045-1100	**O5-6: Evolutionary Drivers of Eye Complexity and Transparency in Hyperiid Amphipods** **Vanessa I. Stenvers** *Smithsonian Institution, USA*	**O7F-6: Exploring the Growth of Deep-Sea Bivalves in Areas of Potential Seafloor Mining: Methods in Sclerochronology** **Lauren Geiser** *University of Leeds, UK*
1100-1120	Tea Break	

	Session 4: Deep Pelagic Ocean (A) LT-A Chairs: Henk-Jan Hoving & Véronique Merten	Session 8: Climate Change & Human Impact (A) LT-B Chairs: Daniel O. B. Jones & Nelia Mestre
1100-1115	**O4A-1 [Invited Talk]: Exploring Deep Sea Biodiversity with Environmental DNA** **Annette F. Govindarajan** *Woods Hole Oceanographic Institution, USA*	**O8A-1: Long-Term Impact and Biological Recovery in a Deep-Sea Mining Track after 44 Years** **Daniel O. B. Jones** *National Oceanography Centre, UK*
1135-1150	**O4A-2: Multi-Marker eDNA Metabarcoding Reveals Patterns of Multi-Trophic Interactions and Ecological Connectivity in the Mesopelagic** **Nina Yang** *Woods Hole Oceanographic Institution, USA*	**O8A-2: Long-Term Impacts of Deep-Sea Mining on Benthic Macrofaunal Communities** **Regan Drennan** *Natural History Museum, UK*
1150-1205	**O4A-3: Move Over Medusae: Trophic Ecology of Biomass-Dominant Gelatinous Zooplankton (Siphonophores and Pyrosomes) in the California Current Ecosystem** **Elizabeth D. Hetherington** *Scripps Institution of Oceanography, University of California San Diego, USA*	**O8A-3: Impacts of an Industrial Deep-Sea Mining Trial on Seafloor Biodiversity** **Eva C. D. Stewart** *Natural History Museum, UK*
1205-1220	**O4A-4 : First Investigations of Dietary and Habitat Overlap in Three New Zealand Deep-Sea Squid Species** **Samuel Clough** *Auckland University of Technology, New Zealand*	**O8A-4: The Environmental Impacts of Deep-Sea Mining** **Adrian G. Glover** *Natural History Museum, UK*
1220-1235	**O4A-5: Examining the Diets of Deep-Sea Cephalopods from the Northern Gulf of Mexico Using a Metabarcoding Approach** **Heather Judkins** *University of South Florida St. Petersburg, USA*	**O8A-5: The Persistent Impact of Abyssal Seafloor Disturbance** **Andrew R. Gates** *National Oceanography Centre, UK*
1235-1250		**O8A-6: Environmental Challenges of a Green Energy Transition in the Offshore Energy Sector: A Review to Guide Global Marine Planning in a Green Future** **Lucy Harris** *National Oceanography Centre, UK*
1300-1400	Lunch	

	Keynote Lecture 8 [Croucher Keynote Lecture] (LT-A) **Chair: Moriaki Yasuhara** **Deep Sea Biodiversity Under Climate Change: Contributions, Vulnerabilities and Conservation** **Lisa A. Levin** *Scripps Institution of Oceanography, University of California San Diego, USA*	
	Session 4: Deep Pelagic Ocean (B) **LT-A** **Chairs: Véronique Merten & Vanessa I. Stenvers**	**Session 8: Climate Change & Human Impact (B)** **LT-B** **Chairs: Nelia Mestre & Moriaki Yasuhara**
1445-1500	**O4B-1: The Hidden Diversity, Behaviour and Life Histories of Atlantic Deep-Sea Cephalopods** **Henk-Jan Hoving** *GEOMAR Helmholtz Centre for Ocean Research Kiel, Germany*	**O8B-1: Marine Litter in Brazilian Deep-Sea Fish Gastrointestinal Contents** **Flávia T. Masumoto** *Universidade de São Paulo/Instituto Oceanográfico, Brazil*
1500-1515	**O4B-2: In Situ Observations of Deep-Sea Cephalopods in Beaked Whale Predator's Foraging Habitat** **Julia Stefanschitz** *GEOMAR Helmholtz Centre for Ocean Research Kiel, Germany*	**O8B-2: Long-Term Ecotoxicological Effects of Sediment Plumes on Deep-Sea Invertebrates Following a Polymetallic Nodules Collection Trial** **Pasqualina Gaetano** *University of Algarve, Portugal*
1515-1530	**O4B-3 : Accidental in Situ Observations Reveal Previously Unknown Behaviour Type in Cephalopods, Relevant to Bentho-Pelagic Coupling** **Alexey V. Golikov** *GEOMAR Helmholtz Centre for Ocean Research Kiel, Germany*	**O8B-3: Ecotoxicological Effects in Hydrothermal Vent Shrimp and Polychaetes Exposed in Situ to Sulphide Particles** **Santiago Correia** *University of Algarve, Portugal*
1530-1545	**O4B-4 : Trophic and Functional Specialization in Deep-Pelagic Fish Along the Depth Gradient in the Bay of Biscay** **Liz Loutrage** *La Rochelle University, France*	**O8B-4: Are Sea Anemones Useful Tools for Assessing the Ecotoxicological Impact of Deep-Sea Sediments and Manganese Exposure?** **Juliano M. Vilke** *University of Algarve, Portugal*
1545-1600	**O4B-5: From the Deep-Sea and Beyond: How Patagonian Toothfish, a Megafauna, May Connect Distant Biomes** **Chi Hin Lam** *Large Pelagics Research Center, USA*	**O8B-5: Metal Impacts on Deep-Sea Microbial Diversity and N Cycling Potential** **Leonor Pizarro** *University of Porto, Portugal*
1600-1615	**O4B-6: The Success of Spiny-Rayed Fishes in the Deep-Pelagic Ocean Discovered Using a Large Midwater Trawl** **April Cook** *Nova Southeastern University, USA*	**O8B-6: Ecotoxicological Response to in situ Exposure to Sulphides in *Bathymodiolus* azoricus** **Leandro Marinho** *University of Algarve, Portugal*
1615-1630	**O4B-7: To Brood or Not to Brood: Predicting Larval Strategies in the Asteroidea** **Hugh Carter** *Natural History Museum, UK*	**O8B-7: In situ Disturbance Effects on the Proteome of the Hydrothermal Vent Mussel Bathymodiolus azoricus** **Cármen S. V. Sousa** *University of Algarve, Portugal*
1630-1650	Tea Break	

	Session 4: Deep Pelagic Ocean (C) LT-A Chairs: Henk-Jan Hoving & Vanessa I. Stenvers	Session 8: Climate Change & Human Impact (C) LT-B Chairs: Daniel O. B. Jones & Moriaki Yasuhara
1650-1705	**O4C-1 [Invited Talk]: Non-invasive Methods for Studying Midwater Jellyfish** **Gerlien Verhaegen** *University of Greifswald, Germany*	**O8C-1: Deep Pelagic Micronekton Reflect Differences in Mercury Bioavailability Within the Southern California Current Ecosystem** **Rachel S. Chen** *Scripps Institution of Oceanography, University of California San Diego, USA*
1705-1720	**O4C-2: Deep-Pelagic Nekton Research in the Gulf of Mexico: A 14-Year Synopsis and Future Directions** **Tracey Sutton** *Nova Southeastern University, USA*	**O8C-2: Maternal Transfer of Polycyclic Aromatic Hydrocarbons in Mesopelagic Fauna from the Northern Gulf of Mexico** **Isabel C. Romero** *University of South Carolina, USA*
1720-1735	**O4C-3: The Bathy and Abyssopelagic Micronekton Communities in the Eastern Pacific Clarion Clipperton Mining Zone** **Jeffrey C. Drazen** *University of Hawai'i at Mānoa, USA*	**O8C-3: Zooplankton Community Structure in The Abyssal Benthic Boundary Layer Varies Over Time with Organic Matter Flux** **Gabrielle N. Ellis** *University of Hawai'i at Mānoa, USA*
1735-1750	**O4C-4: Micronekton Community Assessment in A Deep-Sea Mining Site: Vertical Community Structuring and Biodiversity in an OMZ** **Victoria E. Assad** *University of Hawai'i at Mānoa, USA*	**O8C-4: Predicting Habitat Suitability Changes for Vulnerable Marine Ecosystems in the Northeast Atlantic under Future Climate Scenarios** **Jonatan F. Marquez** *Institute of Marine Research, Norway*
1750-1805	**O4C-5: Distinct Horizontal and Vertical Communities of Micronekton Across the Southern California Current Deep-Pelagic Ecosystem** **Elan J. Portner** *Scripps Institution of Oceanography, University of California San Diego, USA*	**O8C-5: Testing the Deep-Sea Glacial Disturbance Hypothesis of Norwegian Sea Diversity, Using Fossil Records** **Moriaki Yasuhara** *The University of Hong Kong, Hong Kong, China*
1805-1820	**O4C-6: Biological Traits Influence Contemporary and Historical Temporal Genomics of Pelagic Deep-Sea Species from The Gulf of Mexico** **Pedro A. Peres** *Florida International University, USA*	**O8C-6 : Lipid Dynamics in the Cold-Water Coral Dentomuricea aff. meteor: Effects of Ocean Warming and Reproductive Condition** **Anaïs Sire de Vilar** *University of the Azores, Portugal*
1820-1835	**O4C-7: Hepatic Steatosis in Hadal Snailfish as an Adaptation to Extreme Environment** **Guoyong Yan** *The Hong Kong University of Science and Technology, Hong Kong, China*	
1845-2030	Banquet	

Day 5
17 January 2025 (Friday)

0900-0925	**Keynote Lecture 9 [Croucher Keynote Lecture] (LT-A)** **Chair: Xiao-Hua Zhang** **Cold-Water Corals in a Changing Ocean** **J. Murray Roberts** *University of Edinburgh, UK*	
	Session 10: Arts and Science in Deep-Sea Environmental Management **LT-A** **Chairs: Maria Baker & Jozée Sarrazin**	**Session 12: Open Session (A)** **LT-B** **Chairs: Dominique Anderson & Maila Guilhon**
0930-0945	**O10-1 [Invited Talk]: Broadening Our Views on Common Heritage: Factoring in Art, Science and all Forms of Knowledge in the Politics and Regulatory Framing of the Deep Sea** **Pradeep A. Singh** *Research Institute for Sustainability, Germany*	**O12A-1 [Invited Talk]: Thinking Deeply: Reflections on Experiences, Practices and Values in Deep-Sea Science** **Diva Amon** *University of California Santa Barbara, USA*
0945-1000	**O10-2: Measuring the Success of the Kunming-Montreal Global Biodiversity Framework in the Deep Sea** **Anna Metaxas** *Dalhousie University, Canada*	**O12A-2 [Invited Talk]: Democratising the Deep Sea** **Sheena Talma** *University of Oxford, UK*
1000-1015	**O10-3 : Communicating Azores Deep-Sea Benthic Communities through Scientific Illustrations** **Inês Carneiro** *University of the Azores, Portugal*	**O12A-3: "Costa Rica Desconocida" - A Campaign for Awareness and Cultural Integration of Deep-Sea Environments** **Beatriz Naranjo-Elizondo** *Universidad de Costa Rica, Costa Rica*
1015-1030	**O10-4: Tracking Bottom-Fishing Activities of the European Union's Deep-Sea Fishing Fleet in Vulnerable Marine Ecosystem Areas** **Lissette Victorero** *Deep Sea Conservation Coalition, Netherlands*	**O12A-4: 'Dos' in Deep-Sea Research: The Case Study of the Octopus Odyssey** **Maila Guilhon** *University of Edinburgh Ocean Voices Programme, UK*
1030-1045	**O10-5 : One Thousand Reasons – an Inspiring Step towards the Protection and Sustainable Use of the Deep-sea** **Luciana Genio** *International Seabed Authority, Jamaica*	**O12A-5: Understanding Human Values and Risk Perceptions in Deep-Ocean Stewardship** **Laura Kaikkonen** *Finnish Environment Institute, Finland*
1045-1100	**O10-6: Coupling "Arts & Sciences": Inspiration and Innovation to Increase Ocean Literacy** **Jozée Sarrazin** *IFREMER, France*	**O12A-6: Enhancing the Voices of Deep-Sea Early Career Ocean Professionals – a Framework** **Vanessa Lopes** *University of Edinburgh,UK*
1100-1120	Tea Break	

	Session 1: Biodiversity (D): Ecology LT-A Chairs: Adrian G. Glover & Hidetaka Nomaki	Session 12: Open Session (B) LT-B Chairs: Dominique Anderson & Maila Guilhon
1120-1135	**O1D-1 [Invited Talk]: Ecology of Deep-Sea Protistan and Metazoan Meiofauna: Experimental Approaches** **Hidetaka Nomaki** *Japan Agency for Marine-Earth Science and Technology, Japan*	**O12B-1 Blue (un)certainties: Deep-Sea Mining Policy Process in the Arctic Mid-Ocean Ridge, Norway** **Aistė Klimašauskaitė** *University of Bergen, Norway*
1135-1150	**O1D-2 : A Deep-Sea Isopod That Consumes *Sargassum* Sinking from the Ocean's Surface** **Mackenzie Gerringer** *State University of New York at Geneseo, USA*	**O12B-2: Perspectives on Part II: Science-Policy Engagement, Challenges, and Opportunities for the Marine Genetic Resource Provisions of the BBNJ Agreement** **Muriel Rabone** *Natural History Museum, UK*
1150-1205	**O1D-3: Rocky Seafloor — Underestimated Driver for Habitat Heterogeneity and Benthic Biodiversity (RUBBLE)** **Torben Riehl** *Senckenberg Research Institute and Natural History Museum Frankfurt, Germany*	**O12B-3: The Ghost Net Movement Raises Awareness on the Vulnerability of Deep Sea Habitats** **Lynette Griffiths &Virginie Tilot** *Ghost NET Collective, Australia; Muséum National d'Histoire Naturelle, France*
1205-1220	**O1D-4: Illuminating the Diversity of Deep-Sea Anthozoans Found in Selected Sites of the Northwestern Pacific** **Kurt Bryant B. Bacharo** *University of the Ryukyus, Japan*	**O12B-4: A Different Approach to The Research Internship** **George Matsumoto** *Monterey Bay Aquarium Research Institute, USA*
1220-1235	**O1D-5: Calcareous Tubeworms (Serpulidae, Annelida) of the Abyss Revisited: Mystery of Elusive and Mysterious Mollusk-Like Worms Solved** **Elena Kupriyanova** *Australian Museum Research Institute, Australia*	**O12B-5: A Streamlined Data Pipeline for Image Contribution and Archiving in FathomNet** **Brian Schlining** *Monterey Bay Aquarium Research Institute, USA*
1235-1250	**O1D-6: A Pioneering Long-Term Experiment: Mesophotic Macrofouling Communities in the North Atlantic** **João Canning-Clode** *Agência Regional para o Desenvolvimento da Investigação Tecnologia e Inovação, Portugal*	**O12B-6: Sustainability and the Common Heritage of Humankind: What It Means to Safeguard the Area for Current and Future Generations** **Tajra Smajic** *The Chinese University of Hong Kong, Hong Kong, China*
1300-1400	Lunch	

1415-1440	**Keynote Lecture 10 [Croucher Keynote Lecture] (LT-A)** **Chair: Rui Zhang** **New Frontiers in Deep-Sea Biological Research** **Roberto Danovaro** *Polytechnic University of Marche, Italy*	
	Session 1: Biodiversity (E) Biogeography **LT-A** **Chairs: Dewi Langlet & Tim O'Hara**	**Session 9: Novel Methods & Practices** **LT-B** **Chairs: Adrienne Copeland & Ashley N. Marranzino**
1445-1500	**O1E-1 : Biogeography of Arctic Vents and Seeps: How and Why does it Differ as a Province?** **Jon Copley** *University of Southampton, UK*	**O9-1 [Invited Talk]: Progress in the Development of Standards and Best Practice in Benthic Imagery Annotation and Onward Data Use in AI Applications** **Kerry Howell** *Plymouth Marine Laboratory, UK*
1500-1515	**O1E-2: Across Trenches, Plains and Ridges – Distribution and Differentiation Patterns of Deep-Sea Isopods in the North Pacific Ocean** **Henry Knauber** *Senckenberg Research Institute and Natural History Museum Frankfurt, Germany*	**O9-2 [Invited Talk] : Towards Fully Open and FAIR Deep Sea Biology Data** **Karen I. Stocks** *Scripps Institution of Oceanography, University of California San Diego, USA*
1515-1530	**O1E-3: Global Evolutionary Biogeography of the Ophiuroidea** **Tim O'Hara** *Museums Victoria, Australia*	**O9-3: Capture by Hybridization, State of the Art Tool for Unravelling the Biodiversity of the Deep** **Babett Günther** *GEOMAR Helmholtz Centre for Ocean Research Kiel, Germany*
1530-1545	**O1E-4 : Exploring the Unknown: NOAA Okeanos Expeditions Reveal Alaska's Hidden Deep-Sea Sponge and Coral Communities** **Lara M. Beckmann** *University of Gothenburg, Sweden*	**O9-4: Mapping Tetractinellid Sponge Abundance and Sizes with Instance Segmentation: Exploring the Potential of New Technologies for Understanding Deep-Sea Ecosystems** **Nils Piechaud** *Institute of Marine Research, Norway*
1545-1600	**O1E-5: Inventory of Bathyal Holothurian Species in New Caledonia EEZ Over Half a Century** **Claire Laguionie** *Museum National d'Histoire Naturelle, France*	**O9-5: Deep-Sea Neoichnology: New Lebensspuren Classification Scheme and Applicabilit** **Olmo Miguez-Salas** *University of Barcelona, Spain*
1600-1615	**O1E-6: Spatial and Bathymetric Diversity of Tanaidacea (Crustacea) Assemblages in the Bering Sea and Aleutian Trench** **Kamila Głuchowska** *University of Łódź, Poland*	**O9-6: Computer Vision to Unravel Biotic and Abiotic Factors Explaining the Fine-Scale Distribution of Cold-Water Corals** **Marin Marcillat** *Institut Français de Recherche pour l'Exploitation de la Mer, France*
1615-1630	**O1E-7: The Phylogeography of the Cumacean *Eudorella Emarginata*** **Kai Okamoto** *The University of Tokyo, Japan*	**O9-7: Application and Transferability of Object Detection Models to Support the Identification of Benthic Epifauna from Imagery** **Kyran P. Graves** *University of Plymouth, UK*
1630-1650	Tea Break	
1650-1730	Closing Ceremony (LT-A)	

Poster Presentations

Venue: Hall Outside of LTA and LTB

Session 1: Biodiversity

P1-1: Integrative Taxonomy of the Southwest Atlantic Dragonfishes and Their Allies (Stomiiformes), Revealing of a New Species

Marcelo R. S. de Melo
Universidade de São Paulo, Brazil

P1-2: Characterization of Biofluorescence in Deep-Sea Fishes Collected off Southern Brazil

Marcelo R. S. de Melo
Universidade de São Paulo, Brazil

P1-3: Rissoid Snails (Gastropoda: Rissoidae) From Arctic Chemosynthesis-Based Ecosystems

Brenda Lizbeth Esteban-Vazquez
University of Bergen, Norway

P1-4: Three New Species of Deep-Sea Wood-Associated Sea Stars (Asteroidea: Caymanostellidae) from the Eastern Pacific

Zihui Shen
Scripps Institution of Oceanography, University of California San Diego, USA

P1-5: Southwest Indian Ocean Ridge Seamounts: What Influences Changes in Diversity

Narayanaswamy BE
Scottish Association for Marine Science, UK

P1-6: Newly Discovered High Diversity of Cold-Water Corals along the Continental Shelf Margin of Northwestern South China Sea

Meixia Zhao
South China Sea Institute of Oceanology, Chinese Academy of Sciences, China

P1-7: A New Genus of Ectoparasitic Myzostomida from the Pacific Abyss

Eva C. D. Stewart
Natural History Museum, UK

P1-8: Bathymetric Zonation and Speciation in Ocean Trenches: the Case of Northwestern Pacific Bivalves

Yo Asada
The University of Tokyo, Japan

P1-9: An Investigation into the Biodiversity of Deep-Sea Wood Falls in Montserrat

Eugenia Thomas
The University of the West Indies, St. Augustine, Trinidad and Tobago

P1-10: Geographical Subdivision of the Hydrothermal Vent Bythograeid Crabs in the Indian Ocean

Sook-Jin Jang
Korea Institute of Ocean Science & Technology, Republic of Korea

P1-11: Filling in the Missing Pieces of the Global Phylogenetic and Biogeographic Puzzle of Deep-Sea *Amphisamytha* (Annelida, Ampharetidae): Insights from the Northwest Pacific

Yanan Sun
Institute of Oceanology, Chinese Academy of Sciences, China

P1-12: Deep Pacific Relations: Towards a Phylogenetic Revision of the Isopod Genus *Nannoniscus* G.O Sars, 1870 Linking Morphology and Genetics

Klüh Dennis
University of Rostock, Germany

P1-13: Seafloor Observation Using Underwater Drone in Torigakubi Spur, Japan Sea

Yoshinori Ono
Chiba University, Japan

P1-14: Diversity of Demosponge Fauna in the Abyssal Nodule Fields of the Eastern Clarion-Clipperton Zone, Pacific Ocean

Swee-Cheng Lim
National University of Singapore, Singapore

P1-15: Assessing the State of Knowledge and Charting a Path for Deep-Sea Scientific Research in Barbados

Kyle Foster
University of the West Indies, St. Augustine, Trinidad and Tobago

P1-16: Remarkable New Findings of Deep-Sea Bivalve Diversity in the Abyssal Pacific Ocean

Thomas G. Dahlgren
University of Gothenburg, Sweden

P1-17: Molecular Diversity and Distribution of Tube-Dwelling Serpulid Worms in the Abyss

Helena Wiklund
University of Gothenburg, Sweden

P1-18: Shape Matters: Application of Geometric Morphometric Techniques in Deep-Sea Isopod Taxonomy (Asellota: Macrostylidae)

Anchita Casaubon
Senckenberg Institute and Natural History Museum Frankfurt, Germany

P1-19: Delving into the Depths: Investigating the Deep-Sea Biodiversity of the Tubbataha Reefs Natural Park, Philippines

Titus Cañete
Large Marine Vertebrates Research Institute Philippines, Philippines

P1-20: The Biodiversity of Hadal Holothurians in the Japan Trench and the Southern Kuril-Kamchatka Trench

Akito Ogawa
National Museum of Nature and Science, Japan

P1-21: A Biogeographical Inventory of Benthic Macrofauna Based on Long-Term Observations in the Arctic Ocean

Carolin Uhlir
Alfred Wegener Institute Helmholtz Center for Polar and Marine Research, Germany

P1-22: Cold-Water Corals from the 2024 Western Pacific International Cruise for Digital DEPTH - Preliminary Findings and Research Visions

Erika Gress
James Cook University Australia, Australia

P1-23: A New Species of the Subgenus *Stephanocyathus* (*Stephanocyathus*) (Scleractinia: Stephanocyathidae): Morphology, Mitochondrial Genome, and Phylogenetic Relationship

Bonnie Yuen Wai Heung
Hong Kong Baptist University, China

P1-24 : Genomics Reveal Evolutionary Surprises in Planktonic Ctenophores

Shannon B. Johnson
Monterey Bay Aquarium Research Institute, USA

P1-25: Meiobenthos Contribution to Bioturbation

Dewi Langlet
IFREMER, France

P1-26: Remarkable Diversity in a Polychaete Genus *Anguillosyllis* Day, 1963 (Annelida, Syllidae) from Polymetallic Nodule Exploration Areas, Eastern Clarion-Clipperton Zone, Abyssal NE Pacific

Regan Drennan
Natural History Museum, UK

P1-27: Application of FAIR Data Principles to a Multidecadal Benthic Invertebrate Time Series

Andrew R. Gates
National Oceanography Centre, UK

P1-28: Description of a New Genus and Species of Deep-Sea Mysids (Malacostraca, Peracarida, Mysida) from the Caroline Ridge, Northwest Pacific, with a Systematic Analysis of the Order

Xinzheng Li
Institute of Oceanology, Chinese Academy of Sciences, China

P1-29: The Paradox of Sameness: Morphological Variation in a Genetically Uniform Southern Ocean Isopod

Andreas Kelch
Senckenberg Research Institute, Germany

P1-30: Home Sweet Home: Coral-Associated Fauna in *Chrysogorgia* Duchassaing & Michelotti, 1864 Species

Saskia Brix
University of Hamburg, Germany

P1-31: Same (Sea) Bed Different Dreams: Biological Community Structure of the Haima Seep Reveals Distinct Biogeographic Affinities

Xing He
Ocean University of China, China

P1-32: New Records and DNA Barcoding of the Deep-Sea Cusk Eels (Teleostei: Ophidiiformes) from the Brazilian Continental Slope (24°-27°S)

Marcos R. dos Reis Junior
University of São Paulo, Brazil

P1-33: Consistency or Change in the Benthic Deep-Sea Macrofauna: An Update from the Central Arctic Ocean

Katharina Kohlenbach
Alfred Wegener Institute Helmholtz Center for Polar and Marine Research, Germany

P1-34: Ribbon Worms from Hydrothermal Vent Fields and Seamounts

Natsumi Hookabe
Japan Agency for Marine-Earth Science and Technology, Japan

Session 2: Microbiome

P2-1: Rapid Emergence and Evolution of Cold Seep Ecosystem at The Hydrate-Bearing Seafloor

Longhui Deng
Shanghai Jiao Tong University, China

P2-2: Adaptation to the Cold Seep: Sulfide Induces the Different Distribution of Squat Lobsters

Wenze Feng
South China Sea Institute of Oceanology, Chinese Academy of Sciences, China

P2-3: Variation of Microbial Nitrate Reduction Processes Across a Wide Range of Benthic Habitats in Continental Margins

Weikang Sui
Shanghai Jiao Tong University, China

P2-4: Biotransformations of Arsenic in Marine Sediments Across Marginal Slope to Hadal Zone

Zhuobo Li
Shenzhen International Graduate School, Tsinghua University, China

P2-5: In Situ Sampling Uncovers Seasonal Variability in Community Structure and Metabolism of Deep-Sea Microbes

Yinghui He
Shenzhen International Graduate School, Tsinghua University, China

P2-6: Bioluminescence in Mesopelagic Fish: The Microbiome Connection

Cinzia Corinaldesi
Polytechnic University of Marche, Italy

P2-7: Genetic Arsenal of a Coral Endosymbiotic Ruegeria Lineage Being Targeted as the Next-Generation Coral Probiotics

Mei Xie
The Chinese University of Hong Kong, Hong Kong, China

P2-8: Microbial Communities and Metagenomes in Methane-rich Deep Coastal Sediments

Binghe Zhao
Shenzhen International Graduate School, Tsinghua University, China

P2-9: Impact of Funnel Accumulation on the Community Structure and Ecological Functions of Hadal Microorganisms

Jiwen Liu
Ocean University of China, China

P2-10: Functional and Adaptive Study of the Sulfurovaceae Bacteria in the Gut of Polychaetes from Hydrothermal Vents and Whale Falls

Lisheng He
Institute of Deepsea Science and Engineering, Chinese Academy of Sciences, China

P2-11: The Co-Occurrence Patterns and Assembly Mechanisms of Microbial Communities in Haima Cold Seep

Changyu Zhu
Southern Marine Science and Engineering Guangdong Laboratory (Guangzhou), China

P2-12: Diet and Gut Microbiome of Parrotfish in the South China Sea

Lan Qiu
The Hong Kong University of Science and Technology, Hong Kong, China

P2-13: Microbial Biodiversity and Their Metabolic Potential in Marine Sediments

Xianzhe Gong
Southern Marine Science and Engineering Guangdong Laboratory (Guangzhou), China

P2-14: Unlocking Virus Diversity and Virus-mediated Microbial Mortality in Atlantis II Deep Brine Pool in Red Sea

Kevin Xu Zhong
The University of British Columbia, Canada

Session 3: Symbiosis

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Nan Xiang
The Chinese University of Hong Kong, Hong Kong, China

P3-2: Insight into the Adaptation Mechanisms of High Hydrostatic Pressure in Physiology and Metabolism of Hadal Fungi from the Deepest Ocean Sediment

Xi Yu
Shanghai Ocean University, China

P3-3: DeepSeaDB: An Integrated Functional and Evolutionary Genomic Database for Deep-Sea Organisms

Jiajie She
Southern Marine Science and Engineering Guangdong Laboratory (Guangzhou), China

P3-4: Metabolic Constraints on Symbiotic Relationships in the Abyss

Jennifer M. Durden
National Oceanography Centre, UK

P3-5: 3D Analysis of Bacteriocytes in the Deep-sea Mussel *Gigantidas platifrons*

Zhaoshan Zhong
Institute of Oceanology, Chinese Academy of Sciences, China

P3-6: Cooperation Between Bacteriocytes and Endosymbionts Drives Function and Development of Symbiotic Cells in Mussel Holobionts

Hao Chen
Institute of Oceanology, Chinese Academy of Sciences, China

P3-7: Insights into Symbiotic Interactions and Adaptation of a Deep-sea Seep Mussel through In-Situ Transplant Experiments and Omics Analyses

Tong Wei
The Hong Kong University of Science and Technology, Hong Kong, China

P3-8: Molecular Adaptation of Two Hot-Vent Chemosymbiotic *Alviniconcha* Snails Revealed by Multiple-Omics Analyses

Hui Wang
Ocean University of China, China

P3-9: Evolutionary Dynamics Exist Between Deep-Sea Mussels and Their Chemosynthetic Symbionts in Global Hydrothermal Vents

Yao Xiao
The Hong Kong University of Science and Technology, Hong Kong, China

P3-10: The Origin and Evolution of Host Association of Bdellovibrionota in Marine Ecosystems

Shan Zhang
The Hong Kong University of Science and Technology, Hong Kong, China

Session 4: Deep Pelagic Ocean

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Charlotte A. Seid
Scripps Institution of Oceanography, University of California San Diego, USA

P4-2: Examination of an Ecological Triple Junction: Mesopelagic Interactions with Surface and Bottom Faunas at the Oceanic Rim

Tracey Sutton
Nova Southeastern University, USA

P4-3: Interannual Variability of Local Cephalopod Community off Terceira Island Using Environmental DNA

Ina Vornsand
GEOMAR Helmholtz Centre for Ocean Research Kiel, Germany

P4-4: Investigating Evolutionary Adaptation and Metabolic Interaction Between Deep-sea Host and Their Symbionts Through Genome-Scaled Metabolic Modelling

Jiajie She
Southern Marine Science and Engineering Guangdong Laboratory (Guangzhou), China

P4-5: Using Low Volume eDNA Methods to Sample Pelagic and Deep-Pelagic Marine Animal Assemblages

C. Anela Choy
Scripps Institution of Oceanography, University of California San Diego, USA

P4-6: Quantification of Gelatinous Zooplankton Community Structures in Two Contrasting Ocean Regions

Nis Hansen
GEOMAR Helmholtz Centre for Ocean Research Kiel, Germany

P4-7: Trait Based Biodiversity Patterns in India's Deep Sea

Ramesh Chatragadda
CSIR-National Institute of Oceanography, India

Session 5: Sensory Biology

P5-1: Glowing in the Depths: Unraveling the Bioluminescent Origins of Deep-Sea Shrimps (Dendrobranchiata, Caridea)

Stormie B. Collins
Florida International University, USA

P5-2 : Ontogenetic Variation in Sensory Detection in Hydrothermal Shrimp Alvinocarididae

Adrien Mathou
Sorbonne Université, France

Session 6: Genomics and Metagenomics of Metazoans

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Pierre Methou
IFREMER, France

P6-2: Trophic Support in The High Antarctic Megafauna at Methane Seeps: Uncovering the Role of Chemosynthetic Production

Paola S. Padua
University of California Santa Barbara, USA

P6-3: Using eDNA to Map the Distribution of Deep-Sea Coral Epifaunal Associates on Seamounts in the Phoenix Islands Protected Area

Ryan McMullen
University of Miami, USA

P6-4: The Biomineralization Toolkit as Revealed by Genomic and Shell Matrix Proteomic Analyses of a Deep-Sea Vesicomyid Clam

Kexin Gao
Ocean University of China, China

P6-5: Environmental DNA Metabarcoding Reveals Spatial Variation in Eukaryotic Communities at Hydrothermal Vents of the Central Indian Ridge

Eun-Bi Kim
Korea Institute of Ocean Science and Technology, Republic of Korea

P6-6: Water Volume, Biological and PCR Replicates Influence the Environmental DNA (eDNA) Characterization of Deep-sea Pelagic Fish Communities

Pedro A. Peres
Florida International University, USA

P6-7: Proteomic Analyses Reveal the Key Role of Gene Co-Option in the Evolution of the Scaly-Foot Snail Scleritome

Wai Chuen Wong
The Hong Kong University of Science and Technology, Hong Kong, China

P6-8: A New Species of *Acharax* (Bivalvia, Solemyida, Solemyidae) from the Haima Cold Seep, with New Insights into the Mitogenome Characteristics of Solemyidae Bivalves

Mei Yang
Institute of Oceanology, Chinese Academy of Sciences, China

P6-9: Population Genetic Structure and Diversity of the Sharpchin Slickhead, *Bajacalifornia burragei*

Jacob W. Church
The Evergreen State College, USA

P6-10: Population Structure of Deep-Sea Octocoral *Acanella Arbuscula* (Isididae) Across the North Atlantic, Using Snps Generated from UCE Sequencing

Jessica D. Gordon
University of Essex, UK

P6-11: Metagenomic Analysis of Deep-sea Mussels Revealed a Mosaic Evolution Pattern of Endosymbionts Driven by Heterogeneous Environments

Yan Sun
Institute of Oceanology, Chinese Academy of Sciences, China

P6-12: Genomic Features and Distribution Patterns of Viruses That Infect Cyanobacteria in the Deep Dark Ocean

Can Ni
The Hong Kong University of Science and Technology, Hong Kong, China

P6-13: Comparative Transcriptomics for Mollusc Neuron Cell Type Identification

Rory Q. Houghton
The Hong Kong University of Science and Technology, Hong Kong, China

Session 7: Ecology and Conservation

P7-1: A Species Trait-Based Database for the Entire Offshore Pacific Bioregion, Canada

Joan M. Alfaro-Lucas
University of Victoria, Canada

P7-2: Baseline Assessment of Deep-Sea Biodiversity in Trinidad and Tobago: Implications for Conservation and Resource Management

Jaime-Leigh Lue Chin
The University of the West Indies at St. Augustine, Trinidad and Tobago

P7-3: Variation and Diversity of Deep Seabed Macrofaunal Communities in the Rockall Trough

Kate Fraser
The Scottish Association for Marine Science, Scotland

P7-4: Benthic Habitat Distribution and Diversity on the Slopes of Madeira

Julian B. Stauffer
GEOMAR Helmholtz Centre for Ocean Research Kiel, Germany

P7-5: Examining Abundance and Condition Changes in Northeast Pacific Seamount Foundation Species Using High-Resolution Photogrammetry Mosaics

Lindsay Clark
University of Victoria, Canada

P7-6: Expanding the Red List for Global Hydrothermal Vent Endemic Species

Anne H. S. Tandberg
Senckenberg Research Institute and Museum, Frankfurt am Main, Germany

P7-7: Macroinvertebrate Communities Inhabiting Hard Substrates at Southern California Methane Seeps

Kendra Lee
Scripps Institution of Oceanography, University of California San Diego, USA

P7-8 : Restoring Deep-Sea Habitats to Rebuild European Seas: the REDRESS project

Cristina Gambi
Polytechnic University of Marche, Italy

P7-9: Does Larval Behaviour Affect Dispersal? Using Larval Dispersal Modelling to Investigate Deep Sea Coral Connectivity in the Scotia Sea, Southern Ocean

Oenone Scott
University of Essex, UK

P7-10: Science-Policy Gap Analysis for Mesopelagic Fishes, Fisheries and Ecosystems

Ilysa Iglesias
Scripps Institution of Oceanography, University of California San Diego, USA

P7-11: Subseafloor Life at Hydrothermal Vents: Macrofauna Diversity and Trait-Analyses

Lara Baptista
Royal Netherlands Institute for Sea Research, Netherlands

P7-12: Microplastic Concentration in Mussels and Snails Living in Deep-Sea Hydrothermal Vents of the Southwest Pacific and Indian Oceans

Se-Joo Kim
University of Science & Technology, Korea

P7-13: The Natural History Museum Deep-Sea Research Lab: Advancing Knowledge in Biodiversity, Taxonomy, Ecology and Evolution

Georgina Glaser
Natural History Museum, UK

P7-14: Seabed Heterogeneity Regulates Megabenthic Community Patterns in Abyssal Nodule Fields

Bethany Fleming
University of Southampton, UK

P7-15: MEER: Extraordinary Flourishing Ecosystem in the Deep Ocean

Xiang Xiao
Shanghai Jiao Tong University, China

P7-16: A Hidden Skatepark: Discovery of a Skate Egg-Case Nursery on a Costa Rican Seamount

Beatriz Naranjo-Elizondo
Universidad de Costa Rica, Costa Rica

P7-17: Widespread Chemosynthesis in Seeps and Background Communities Through the Lens of Infauna in McMurdo Sound, Antarctica

Dexter Davis
Oregon State University, USA

P7-18: Understanding a Unique Larval Form: A Study of the Warén's Larva

Shawn M. Arellano
Western Washington University, USA

P7-19: Population Connectivity of Corals

Yiqiao Cao
The Hong Kong University of Science and Technology, Hong Kong, China

P7-20: Vertical Reefs of the GalÁPagos: Preliminary Results from the Fkt230918 Expedition

Katleen Robert
Memorial University, Canada

P7-21: Possible Effects of Deposition from Deep-Sea Sulfide Mining on Benthic Microbial Communities

Travis Washburn
Texas A&M University – Corpus Christi, USA

P7-22: Marine Mammal Communities and Human Activities Including DSM in the North-Eastern Tropical Pacific: Conservation and Management Strategies

Virginie Tilot
Muséum National d'Histoire Naturelle, France

P7-23: Biodiversity and Community Structure of Benthic and Demersal Scavengers at Inactive and Active Hydrothermal Areas on the Central and Southeastern Indian Ridge

Andrew Sweetman
The Scottish Association for Marine Science, UK

P7-24 : Re-visiting 1994-1997 Megafauna Data from IOM BIE Site (CCFZ, NE Pacific): A Work in Progress

Teresa Radziejewska
University of Szczecin, Poland

P7-25: Deep Sea Biotic Responses to the Neogene Indonesian Throughflow Dynamics

Jingwen Zhang
The University of Hong Kong, Hong Kong, China

P7-26: The Potential Mechanisms of the Slowdown of Host Cell Lysis after Prochlorococcus is Infected by Cyanopodoviruses

Tengjiao Li
The Hong Kong University of Science and Technology, Hong Kong, China

P7-27: Chemosynthetic Alphaproteobacterial Diazotrophs Reside in Deep-Sea Cold-Seep Bottom Waters

Jiawei Chen
The Hong Kong University of Science and Technology, Hong Kong, China

Session 8: Climate Change and Human Impacts

P8-1: Biomarkers Discovery for Risk Assessment in the Deep Sea

Nélia C. Mestre
University of Algarve, Portugal

P8-2: Effects of Long-Term Disturbance on Food Quality and Fauna in the Clarion Clipperton Zone

Rachel M. Jeffreys
University of Liverpool, UK

P8-3: Long-term Impacts of a Mining Disturbance Event on Abyssal Megafauna

Bethany Fleming
University of Southampton, UK

P8-4: Body Size-feeding Niche Relationships Vary Temporally in the Abyss

Lucy V. M. Goodwin
University of Liverpool, UK

P8-5: Deep-Sea Mining Disturbance Effects on Benthic Ecosystem Function and Macro-Infaunal Community Structure on The Chatham Rise, Southwest Pacific

Rachel Hale
National Institute of Water & Atmospheric Research, New Zealand

P8-6: Natural vs. Anthropogenic: Variability of Benthic Megafauna Communities in the Clarion-Clipperton Zone, Pacific Ocean

Lilian Boehringer
University Bremen, Germany

P8-7: A Retrospective Analysis of Microplastic Pollution Using Deep-Sea Natural History Collection Holothurians Specimens of the Indo-Pacific

Claire Laguionie
Sorbonne Université, France

P8-8: Economic Cost-Benefit Analysis Incorporating Environmental Impacts for Polymetallic Nodule Extraction in the Clarion-Clipperton Zone

Jon Copley
University of Southampton, UK

P8-9: Probabilistic Tools to Improve Environmental Risk Assessments for Human Activities in the Deep Sea

Laura Kaikkonen
University of Helsinki, Finland

P8-10: Deep-Sea Benthic Biodiversity and Function in a Changing Arctic Ocean

Christina Bienhold
Alfred Wegener Institute Helmholtz Centre for Polar and Marine Research, Germany

P8-11: DEEP REST: A Trans-Disciplinary European Project About the Conservation and Restoration of Marine Ecosystems in the Context of Deep-Sea Mining

Jozée Sarrazin
IFREMER, France

P8-12: Methane Use by Macrofauna at Methane Seeps off the Aleutian Margin of Alaska

Stefani Z. Martinez
University of Alaska Anchorage, USA

P8-13 : Ocean Warming Effects across Life History Stages of the Cold-Water Octocoral *Dentomuricea* aff. *meteor*: from Parental Spawning Time to Embryonic, Larval Development and Settlement

Anaïs S. de Vilar
University of the Azores, Portugal

P8-14: Adaptive Governance for Intertidal Sustainability Under Climate Change

Fortunatus Masanja
Guangdong Ocean University, China

P8-15: Sea Surface Salinity Change Since 1950: Internal Variability Versus Anthropogenic Forcing

Qiwei Sun
The Hong Kong University of Science and Technology, Hong Kong, China

P8-16: Juvenile Apple Snails as New Biomonitors: Insight into Copper and Lead Toxicity and Underlying Molecular Mechanisms

Yufei Zhou
Lingnan University, Hong Kong, China

P8-17: Epigenetic-Assisted Rapid Adaptation of Oysters in Response to Ocean Acidification

Xin Dang
The University of Hong Kong, Hong Kong, China

P8-18: Deep-sea Ostracods Faunal Turnover in the Southern Ocean During the Eocene-Oligocene Transition

Yumeng Wei
The University of Hong Kong, Hong Kong, China

P8-19: The impacts of Aluminum on Marine Diatoms: Structural Al in Biogenic Silica Quantified Using Advanced Nanomaterial Characterization Techniques

Ziheng Wang
The Hong Kong University of Science and Technology, Hong Kong, China

P8-20: Assessing the Response of Marine Fish Community to Climate Change and Fishing

Yiting Chen
The Hong Kong University of Science and Technology, Hong Kong, China

Session 9: Novel Methods and Practices

P9-1: Developing Automated Multi-Modal Monitoring Strategies of Vulnerable Marine Ecosystems (Vmes)

Chloe Game
University of Bergen, Norway

P9-2: Vehop: A Versatile, Easy-To-Use, and Homology-Based Phylogenomic Pipeline Accommodating Diverse Sequences

Yunlong Li
Ocean University of China, China

P9-3: VARS + AI: Can We Train a Machine to Annotate Midwater Animals?

Kyra Schlining
Monterey Bay Aquarium Research Institute, USA

P9-4: High-Resolution 2D Elemental Mapping of Desmophyllum Dianthus Cold-Water Corals in Comau Fjord, Chile

Adrian Castillo
SUNY College of Environmental Sciences & Forestry, USA

P9-5: Exploring the Growth of Deep-Sea Bivalves in Areas of Potential Seafloor Mining: Methods in Sclerochronology

Lauren Geiser
University of Leeds, UK

P9-6: DNA Barcoding: Comparing the Efficiency and Accuracy of Third Generation Sequencing Oxford Nanopore as A Tool for Species Identification of Deep-Sea Marine Invertebrates

Belen Arias
Natural History Museum, UK

P9-7: Defining the Target Population to Make Marine Image-Based Biological Data Fair

Jennifer M. Durden
National Oceanography Centre, UK

P9-8: A New Framework for Assessing Hydrodynamic Model Suitability for Biological and Ecological Studies

Oenone Scott
University of Essex, UK

P9-9: Cultivation of Novel Marine Bacteria from Deep Ocean Sediment Using Spent Culture of Ca. Bathyarchaeia Enrichment

Sidra Erum Ishaq
Shanghai Jiao Tong University, China

P9-10: Past, Present and Future of In-Situ Deep-Sea Experiments Using Ocean Networks Canada's Cabled Observatories

Fabio Cabrera De Leo
University of Victoria, Canada

P9-11: Madeira Island: A Natural Deep-Sea Research Vessel in the Atlantic

Diane Esson
University of Madeira, Portugal

P9-12: A Diffusion-Based Integrative Approach Toward the Cultivation of Previously Uncultured Bacteria in Marine Sediment

Tariq Ahmad
Shanghai Jiao Tong University, China

P9-13: Using Deep Learning in The Deep Sea: Using AI To Elucidate Biogeochemical Impact of Unknown Genes

Jacob H. Wynne
University of California Santa Barbara, USA

P9-14: Mussel Adhesion and Fatty Acids – A New Approach to Look into Adaptation of Mussel to the Environment

Chengjun Sun
First Institute of Oceanography, Ministry of Natural Resources, China

P9-15: Fathomverse: Where Gaming Meets Community Science to Explore Our Ocean

Giovanna Sainz
Monterey Bay Aquarium Research Institute, USA

P9-16: Seawater Nitrate Assessment Using a Correction Algorithm of Temperature and Pressure up to 10000 Meters

Xingyue Zhu
The Hong Kong University of Science and Technology, Hong Kong, China

P9-17: High-Precision Deep-Sea Pressure Sensor Based on Fast Wavelength Scanning of DFB Lasers

Zhenghao Zhang
The Hong Kong University of Science and Technology, Hong Kong, China

P9-18: The Development and Applications of a Controllable Lander for in situ, Long Term Observation of Deep-sea Chemosynthetic Communities

Zhendong Luan
Institute of Oceanology, Chinese Academy of Sciences, China

Session 10: Arts and Science in Deep-Sea Environmental Management

P10-1: "Hoshizuna: The Floating Star-Sand" Art Installation

Dewi Langlet
IFREMER, France

P10-2: Depicting the Deep: The Art of Illustrating Science

Christopher B. Froján
University of Southampton, UK

P10-3: REV Ocean: Bridging Science and Solutions for Ocean Health

Eva Ramirez-Llodra
REV Ocean, Norway

Session 11: Decade of Ocean Science Program Highlights

P11-1: Offshore Industry and Research Community Collaboration to Enable Greater Access to the Deep Ocean for Scientific Research

Lucy Harris
University of Southampton, UK

P11-2: Fluid and Heat Exchange Between Seamounts and the Phenomenal Ecological Effects

Heidi Gartner
Institute of Ocean Sciences, Canada

P11-3 : The Deep Ocean Observing Strategy: Identifying Collective Solutions for Global Challenges

Leslie M. Smith
Your Ocean Consulting, USA

P11-4: Application of UN Decade Endorsed Deep-Sea Typical Habitats Programme on Deep-Sea Governance

Yinxia Fang
Second Institute of Oceanography, Ministry of Natural Resources, China

P11-5: New Discoveries in Deep-Sea Seamount Habitats

Xuewei Xu
National Deep Sea Center, Ministry of Natural Resources, China

P11-6: Digital Representative of Deep-Sea Habitats Towards an Increased Oceanic Resilience

Yuntao Wang
Second Institute of Oceanography, Ministry of Natural Resources, China

P11-7: Capacity Building for Ocean Literacy Training on Marine Biodiversity in the Deep Sea

Qiuci Sun
Second Institute of Oceanography, Ministry of Natural Resources, China

Session 12: Open Session

P12-1: Navigating Gender at Sea: Recommendations for Making Seagoing Fieldwork Safer for Transgender and Gender Diverse Scientists

Lee C. Miller
University of Hawai'i at Mānoa, USA

P12-2: Brazilian Women in Deep-Sea Biology: Representativeness, Challenges, and Prospects

Heloísa De Cia Caixeta
Universidade de São Paulo, Brazil

P12-3: Deep-Sea Ecosystems of the Indian Ocean > 1,000 M

Elin A. Thomas
The University of Western Australia, Australia

P12-4: Biodiversity and Nitrogen Metabolism in the Plastisphere impacted by Urban Nitrogen Loading from a Coastal Mega-City

Ziqiu Lin
The Hong Kong University of Science and Technology, Hong Kong, China

P12-5: Corrosion Inhibition of Marine Streptomyces on Sulfate-Reducing Bacteria

Jian Wang
The Hong Kong University of Science and Technology, Hong Kong, China

P12-6: Novel Natural Product Discovery from Red Sea Bacteria

Muyang Xue
The Hong Kong University of Science and Technology, Hong Kong, China

P12-7: Coevolution and Adaptation of TNPs and PRMs in Natural Ascrotal Mammals Support the Black Queen Hypothesis

Simin Chai
The Hong Kong University of Science and Technology, Hong Kong, China

P12-8: Exploration of Proteomic Diversity and Cardiovascular Toxicity Mechanism of Stonefish (*Synanceia verrucosa*) Venom

Hao Li
The Hong Kong University of Science and Technology, Hong Kong, China

P12-9: Global Distribution of Bioactive Compounds from Deep-sea Organisms: Exploring the Influence of Phylogeny and Environment

Adrian Glover
Natural History Museum, UK

Abstracts

For detailed abstracts, please kindly refer to: https://17dsbs.hkust.edu.hk/uploads/pdf%3AAppendix.pdf

Keynote Speakers

Prof. Malcolm R. Clark

National Institute of Water & Atmospheric Research, New Zealand

Keynote Lecture* 1:

Balancing Exploitation and Conservation in the Deep Sea: Challenges for Science

Prof. Malcolm R. Clark is a Principal Scientist with NIWA in Wellington, New Zealand. He worked extensively on stock assessment of deepwater fisheries in the 1980s and 1990s before broadening research to more general ecology of deep-sea ecosystems, especially seamounts, leading the Census of Marine Life programme on seamounts in the early 2000s. His current research work focusses on evaluating environmental effects of human activities (such as commercial fishing and potential seabed mining), and the application of ecological risk and impact assessments to inform management options in the deep sea.

His studies have involved a lot of time at sea; with over 80 research surveys from the Antarctic to the North Sea. Malcolm has published widely, with 160 journal papers and book chapters, and a similar number of technical reports and articles.

Dr. Ken Takai

Japan Agency for Marine-Earth Science and Technology, Japan

Keynote Lecture 2:

Microbial Ecosystem in Deep-Sea Hydrothermal Systems

Dr. Takai received a Ph.D. in fisheries science from Kyoto University in 1997. He worked as a research fellow at the Japan Society for the Promotion of Science and the Japan Science and Technology Agency, and in 2009 became the program director of the Extremobiosphere Research Program at the Institute of Biogeosciences, and the unit leader of the Precambrian Ecosystem Laboratory at JAMSTEC. Since September 2012, he has also served as a visiting professor at JAXA's Institute of Space and Astronautical Science. He specializes in the physiology and ecology of microorganisms and organisms that live in extreme conditions on Earth, such as the deep sea or the crust interior, as well as explaining the formation and structure of their ecosystems. He is an astrobiologist and geobiologist.

Prof. Jiabiao Li

Second Institute of Oceanography, Ministry of Natural Resource, China

Keynote Lecture 3:
Exploring Deep-Sea Typical Habitats for Achieving Sustainable Development

Prof. Jiabiao Li, a marine geologist and Academician of Chinese Academy of Engineering. He once served as the Director General and Secretary of the Party Committee of the Second Institute of Oceanography, Ministry of Natural Resources of China, the Founding Chair of the ISO/TC8/SC13 Marine Technology. Currently, he is the Vice Chairman of the Chinese Society for Oceanography, the Vice Chairman of the Zhejiang Association for Science & Technology, the Chairman of the Innovation China Green Low Carbon Innovation Consortium, the Vice Chairman of the Chinese Society of Oceanology and Limnology, the Deputy Director of the Special Committee on Atmosphere and Oceanography of the Chinese Academy of Sciences, and the Leader of the Overall Expert Group for Deep-Sea and Polar Key Technologies and Equipment of the Ministry of Science and Technology. He has been working on the research of seabed science and seabed exploration engineering and has made important achievements and contributions in the delimitation of continental shelf and the demarcation of international seabed sulphide. He is the Chief Scientist of China's Marginal Sea Two-Phase 973 Programs, CNSF major basic research projects of the China's Marginal Seas and Southeast Asian Ring Subduction System, National Key R&D Program of China Sinking and floating intelligent acoustic detection technology, and UN ocean decade Program of the Digital DEPTH.

Prof. Fengping Wang

Shanghai Jiao Tong University, China

Keynote Lecture 4:
Global Subseafloor Ecosystem and Sustainability (GSES)

Prof. Fengping Wang is a distinguished professor of School of Oceanography, Shanghai Jiao Tong University, and executive director of the International Center for Deep Life Investigation (IC-DLI). She was funded by National Science Foundation of China for Distinguished Young Scholars, and awarded the Outstanding Scientist medal by Chinese Association of Microbial Ecology. Prof. Wang focuses on study of marine deep biosphere. She has participated deep ocean expeditions with Human Operated Vehicle (HOV) four times, diving >5000m deep into the ocean. She sailed two times for subseafloor life exploration with the International Ocean Discovery Program (IODP). She is a world renown deep-sea microbiologist, leading the research on the diversity, evolution, and ecological/geochemical functions of deep ocean microorganisms. Currently, Prof. Wang serves as Advisory Board member of Deep-Ocean Stewardship Initiative (DOSI), International Board member and ambassador of the International Society for Microbial Ecology (ISME), Scientific Committee member of IODP-China, vice chairman of the Geobiology Branch of the Chinese Paleontological Society, and deputy director of China Geomicrobiology Science Committee. She also serves as associate editor and editor of several international academic journals such as "Frontiers in Marine Sciences", "Environmental Microbiology", "mLife", and "Applied and Environmental Microbiology".

Prof. Ana Colaço

University of the Azores, Portugal

Keynote Lecture* 5:
Vulnerable Marine Ecosystems: Key Players for the Planet Health

Prof. Ana Colaço is a researcher at the University of the Azores for more than 20 years. She specializes in Vunerable marine Ecosystems, namely in hydrothermal vent and sponge aggregations. She studies trophic ecology of deep-sea systems, benthic ecology, ecosystem functioning and conservation. She has large experience in international cooperation participating in several projects as the institutional PI dedicated to observatories and tools for extreme environments (ESONET; EXOCET/D; FIXO3), and ecology and impact on the Deep-sea (CHEMECO; DeepFun- FCT MIDAS, JPIO MiningImpact I & II, Sponges-H2020; FunAzores-Açores2020, DeepRest). She participated on the Second and Thirds World Ocean Assessment of the United Nations and contributed to The Portuguese Agenda for the Ocean promoted by the Portuguese Science Foundation. She was involved as an expert in several science-policy panels of the European Commission, International Seabed Authority, and the Portuguese government, and as nominee in CBD processes such as EBSA and the post 2020 GBF. She is presently co-chair of the Working Group Deepsea ecology (WGDEC) from the International council for the exploitation of the Sea. She participated to over 40 oceanographic cruises with submersibles (including 12 as a PI) and to five manned submersible dives (Alvin, Nautile and Lula1000). She is Commissaire of the Sargasso Sea Commission and member of the Advisory Boad of DOSI.

Prof. Andreas Teske

University of North Carolina at Chapel Hill, USA

Keynote Lecture* 6:
From Magma to Microbe: The Subsurface Biosphere of Guaymas Basin

Prof. Andreas Teske is a professor in the Department of Earth, Marine and Environmental Sciences at the University of North Carolina at Chapel Hill. His expertise focuses on microbial ecology of extreme marine habitats, especially hydrothermal vents and the deep marine biosphere, to which he was introduced at the Woods Hole Oceanographic Institution. After joining UNC Chapel Hill in 2002, Dr. Teske continued to work on the microbial ecology of the sulfur and methane cycle in hydrothermal vents, methane seeps and the deep sedimentary subsurface where he is interested in the natural diversity of the indigenous microbial communities as well as their environmental tolerances and physiological adaptations. He has been working for many years in cold and hot seeps involved in the rapid microbial and abiotic hydrocarbon production and consumption, in the Gulf of Mexico and in Guaymas Basin in the Gulf of California, and has led multiple expeditions with research ship Atlantis and deep-sea submersible Alvin. His current work focuses on deep subsurface drilling across Guaymas Basin where bacteria and archaea cope with distinct temperature and redox gradients that impose strong selective pressures of the subsurface biosphere. Since 2010, Dr. Teske serves as chief specialty editor for Extreme Microbiology in Frontiers of Microbiology.

Prof. Jian-Wen Qiu

Hong Kong Baptist University, Hong Kong, China

Keynote Lecture 7:
Cold Seeps in the South China Sea: Species Composition and Biogeography

Prof. Jian-Wen Qiu is a Professor at Hong Kong Baptist University. He is a member of the Hong Kong government's Advisory Council on Environment and serves as the chairman of the Marine Parks Board. Additionally, he serves as a member of WWF's Advisory Committee for the Mai Po and Inner Deep Bay Ramsar Site, as well as the Scientific Committee for the Ocean Park Conservation Fund. His research focuses on marine biodiversity, ecology, and genomics. Currently, he investigates deep-sea biodiversity, genetic connectivity, and genome-level adaptations to extreme environmental conditions. He also studies shallow-water benthic ecology and coral reef ecology, aiming to document changes in these ecosystems in response to environmental and anthropogenic stressors, utilizing both conventional and environmental DNA approaches.

Prof. Lisa A. Levin

Scripps Institution of Oceanography, USA

Keynote Lecture* 8:
Deep Sea Biodiversity Under Climate Change: Contributions, Vulnerabilities and Conservation

Prof. Lisa A. Levin is a Distinguished Professor Emerita at the Scripps Institution of Oceanography, University of California, San Diego and former Director of the Center for Marine Biodiversity and Conservation at Scripps. Her research examines the biodiversity of deep continental margin ecosystems, the effects of climate change (especially ocean deoxygenation) and human impacts on the deep ocean, with over 50 research cruises and 70 submersible dives in the Pacific, Indian and Atlantic Oceans. She is a co-founder of the Deep-Ocean Stewardship Initiative, which seeks to advise on ecosystem-based management of resource use in the deep ocean and strategies to maintain the integrity of deep-ocean ecosystems within and beyond national jurisdictions. She also represents the Deep Ocean Observing Strategy (a program within GOOS) to the Decade for Ocean Science. Dr. Levin is active in bringing climate science to policy and has contributed to multiple IPCC reports, UNFCCC Ocean Dialogues, World Ocean Assessments, the BBNJ Agreement and International Seabed Authority. She is a new member of the US National Academy of Sciences, has lifetime achievement awards from the Am. Soc. Limnology and Oceanography and Western Society of Naturalists, and has been awarded the Prince Albert I Medal of Science.

Prof. J. Murray Roberts

University of Edinburgh, UK

Keynote Lecture* 9:
Cold-Water Corals in a Changing Ocean

Prof. J. Murray Roberts is Professor of Applied Marine Biology & Ecology at the University of Edinburgh. He founded Edinburgh's Changing Oceans research group, chairs the Joint Working Group between St Abbs Marine Station and the University and led the EU Atlantic research programmes ATLAS (2016-20) and iAtlantic (2019-24). In 2022 was appointed a Sargasso Sea Commissioner and member of the Scottish Science Advisory Council to government. He studies marine ecosystems in a changing ocean focussing upon structural habitats such as cold-water corals in the deep ocean. He has published over 100 peer reviewed publications, is senior author of the textbook 'Cold-water Corals', a contributing author to the 2014 and 2019 Intergovernmental Panel on Climate Change Reports and consultant to the United Nations Convention on Biological Diversity, amongst others. His fieldwork has taken him to sites off the UK, Norway, Ireland, the SE United States, Cape Verde off West Africa and the Pitcairn islands in the South Pacific.

Prof. Roberto Danovaro

Polytechnic University of Marche, Italy

Keynote Lecture* 10:
New Frontiers in Deep-Sea Biological Research

Prof. Roberto Danovaro is an ecologist and professor of marine biology at the Polytechnic University of Marche. Scientist and explorer, he conducted expeditions in all continents, from Antarctica to the northern Atlantic, from the Indian to the Pacific Ocean, from the coral triangle to the Mediterranean and Black Sea with an interdisciplinary approach exploring the ecological interactions from viruses to whales. Specialized in deep-sea ecology he explored several world trenches down to 11000-m depth. He is currently investigating in the impact of global climate change on abyssal life.

** Croucher Keynote Lectures, supported by the Croucher Foundation*

Invited Speakers

Dr. Diva Amon

University of California at Santa Barbara, USA

O12A-1_Invited Talk:
Thinking Deeply: Reflections on Experiences, Practices and Values in Deep-Sea Science

Dr. Diva Amon is a Caribbean marine biologist focused on the little-known habitats and animals of the deep ocean, and how our actions are impacting them. She works at the nexus of science, policy and communication and has a deep desire to see stewardship measures applied to the deep ocean as well as the engagement of a broader group of global stakeholders towards this effort. Diva has participated in research cruises around the world, produced over 75 peer-reviewed papers, and delivered numerous presentations to decision-makers. Amon is a science advisor to the Benioff Ocean Science Laboratory at the University of California, Santa Barbara, and a founder and director of SpeSeas, an organization dedicated to marine science, education, and advocacy in her home country, Trinidad and Tobago. She is also a 2020 National Geographic Emerging Explorer and a World Economic Forum Friend of Ocean Action. Amon gained a PhD from the University of Southampton, and did postdoctoral research at the University of Hawaii at Manoa and the Natural History Museum, London. Amon has also received several awards, including the International Seabed Authority Secretary-General's Award for Excellence in Deep-Sea Research, and the ASLO's Yentsch-Schindler Early Career Award.

Dr. Pavanee A. Annasawmy

Fondation pour la Recherche sur la Biodiversité, France

O7E-1_Invited Talk:
Seamounts and Pinnacles of the Global Ocean

Dr. Pavanee A. Annasawmy is a biological oceanographer, originally from Mauritius Island, but currently living and working in France. She has spent the last ten years working on the fishes, crustaceans and cephalopods, so called micronekton, inhabiting the twilight zone. She started working on seamounts during her PhD whereby she investigated the community composition, migration, distribution and trophic position of micronekton at two shallow seamounts of the Indian Ocean. Since 2023, she was nominated by the United Nations as the coordinating author for the subchapter on seamounts and pinnacles for the third World Ocean Assessment. She has convened a team of experts from 4 continents to collaborate in the writing of this subchapter. The subchapter on seamounts will describe the changes in our knowledge between 2018 to 2023, the pressures that these ecosystems are facing, and the remaining knowledge gaps. Since the beginning of this year, she has embarked on an ambitious scientific project called MAGMA which aims at characterizing the global bathymetry and assessing the impact of the habitat types and the environment on the biomass and aggregation of micronekton so as to identify areas requiring special protection.

Dr. Corinna Breusing

University of Rhode Island, USA

O6A-1_Invited Talk:
Patterns of Genetic Diversity in Hydrothermal Vent Populations after the Hunga Tonga–Hunga Ha‘apai Eruption

Dr. Corinna Breusing is a marine research associate at the University of Rhode Island (RI, USA), where she originally started as a postdoc in 2018. Prior to joining URI, she completed a postdoctoral program at the Monterey Bay Aquarium Research Institute (CA, USA). Corinna received her Ph.D. degree in Biological Oceanography from the University of Kiel in collaboration with the Helmholtz Center for Ocean Research Kiel, Germany, in 2016. She further holds a Master's degree in Biological Oceanography (2012) and a Bachelor's degree in Biology (2010), both from the University of Kiel, Germany. Corinna's work primarily focuses on the evolutionary biology of marine microbial symbioses, including the role of symbionts in driving ecological partitioning, adaptation and speciation of host organisms at deep-sea hydrothermal vents. Her research relies heavily on molecular biological, bioinformatic and modelling techniques. In addition to her research, Corinna is strongly committed to increasing diversity, equity, inclusion and social justice in the marine sciences.

Dr. Nicole Dubilier

Max Planck Institute for Marine Microbiology, Germany

O3-1 _Invited Talk:
The Ins and Outs of Associations Between Beneficial and Pathogenic Bacteria of Deep-Sea Mussels

Dr. Nicole Dubilier is a Director at the Max Planck Institute for Marine Microbiology in Bremen, Germany where she heads the Symbiosis Department. Her lab studies the diversity, ecology and evolution of symbioses between microorganisms and marine invertebrates from environments such as deep-sea hydrothermal vents and cold seeps, as well as shallow-water coral reefs and seagrass meadows. Using a wide array of methods ranging from single gene analyses to omics, whole organism physiology and in-situ experimental work, Dubilier and her team have revealed how beneficial interactions with microorganisms allow animals to thrive in nutrient poor environments.

Dubilier moved from the USA to Germany as a teenager and gained her PhD in Marine Zoology at the University of Hamburg, Germany. After a two-year postdoctoral fellowship at Harvard University, she joined the Max Planck Institute for Marine Microbiology in 1997. Dubilier's awards and honors include the Leibniz Prize (Germany's most prestigious research prize), a Gordon and Betty Moore Marine Microbial Initiative Investigator Award, and a European Research Council Advanced Grant. She is an elected Fellow of the German National Academy of Sciences (Leopoldina), the European Molecular Biology Organization (EMBO), the American Academy of Microbiology, the European Academy of Microbiology, and the Academy of Sciences and Humanities Hamburg, and was the President of the International Society of Microbial Ecology (2020-2022). She serves on many national and international advisory boards, scientific councils and other commissions of trust, and is engaged in advancing gender equity in science.

Dr. Tamara Frank

Nova Southeastern University, USA

O5-1_Invited Talk:
Vision in the Deep – an Overview of Adaptations to Dim Light and Bioluminescence

Dr. Tamara Frank is a professor at the Guy Harvey Oceanographic Center at Nova Southeastern University in Dania Beach, Florida where she is the head of the Deep-sea Biology lab. She has been exploring the deep ocean for 30 years and is a veteran of over 100 research expeditions. Her main areas of research are 1) vision and bioluminescence in deep-sea crustaceans and 2) vertical and horizontal distribution patterns of deep-sea crustaceans in the Gulf of Mexico. Current research includes 1) analyzing changes in the micronektonic crustacean assemblage in the Gulf of Mexico since the 2010 DeepWater Horizon oil spill using traditional trawling techniques and 2) determining photosensitivty of both photophores and photoreceptors using special temperature insulated, light-tight collectors deployed from opening/closing Tucker Trawls and ROVs, together with a shipboard electrophysiological recording system.

Dr. Fanny Girard

University of Hawaii at Manoa, USA

O7D-1_Invited Talk:
Deep-sea Coral Ecosystem Dynamics through Space and Time: Implications for Conservation

Dr. Fanny Girard is an Assistant Professor in the Department of Oceanography at the University of Hawai'i at Mānoa. She earned a PhD in Marine Biology from the Pennsylvania State University, a MSc in Marine Ecology from the University of Western Brittany (France) and BS in Biology from Sorbonne University (France). Fanny did a first postdoc at Ifremer, studying hydrothermal vents. She then moved to California for a postdoctoral fellowship at the Monterey Bay Aquarium Research Institute.

Her research mainly focuses on the ecology of deep-sea vulnerable marine ecosystems, including chemosynthetic and deep-sea coral ecosystems, and particularly on how these ecosystems respond to environmental change and anthropogenic disturbance. Relying on non-invasive methods such as imagery, her goals have been to advance our knowledge of the basic biology and ecology of poorly known systems and fill crucial knowledge gaps on the spatial and temporal dynamics of benthic ecosystems in relation to environmental change. She aims to use this newly acquired knowledge to inform management and conservation strategies to protect these ecosystems.

Dr. Annette F. Govindarajan

Woods Hole Oceanographic Institution, USA

O4A-1_Invited Talk:
Exploring Deep Sea Biodiversity with Environmental DNA

Dr. Annette F. Govindarajan studies the diversity, ecology, and evolution of marine animals, with an emphasis on developing and applying new approaches and technologies to enable her science aims. She received a PhD from the MIT/Woods Hole Oceanographic Institution (WHOI) in 2004, where she studied the evolution of hydrozoan life cycle stages. Her postdoctoral research, also at WHOI, examined evolutionary relationships within the Thaliacea (salps, pyrosomes, and doliolids). Dr. Govindarajan now leads a laboratory in WHOI's Biology Department where she is focused on elucidating deep sea animal biodiversity using environmental DNA (eDNA) analyses. As the lead in the Biodiversity component of WHOI's Ocean Twilight Zone Program and through participation in NOAA's Ocean Exploration Cooperative Institute, she develops and applies eDNA approaches to study animal distributions, diel vertical migration, and food webs. Research in her laboratory includes studies on animal distributions, the ecology of eDNA (shedding, transport, and decay), the development and use of autonomous sampling technology, platforms, and experimental approaches, and reference barcode library generation. Dr. Govindarajan is a co-inventor of the midwater AUV Mesobot as well as a large-volume autonomous sampler targeting deep sea applications.

Dr. Elizabeth D. Hetherington

Scripps Institution of Oceanography, University of California San Diego, USA

O11A-2_Invited Talk:
Deepening the Decade: Collaborative Action for Advancing Deep Ocean Science and Policy in the United Nations Decade of Ocean Science for Sustainable Development

Elizabeth D. Hetherington is a marine ecologist specializing in pelagic food webs and the science-policy interface. She earned her Ph.D. in Biology from UC San Diego in 2018. Following this, she conducted postdoctoral research in Anela Choy's lab at the Scripps Institution of Oceanography, focusing on gelatinous zooplankton in the California Current Ecosystem. Liz is currently a teaching professor at Scripps and an early-career researcher with the Deep Ocean Observing Strategy. She co-leads the science-to-policy working group and serves as a liaison to the UN Ocean Decade.

Dr. Kerry Howell

University of Plymouth, UK

O9-1_Invited Talk:
Progress in the Development of Standards and Best Practice in Benthic Imagery Annotation and Onward Data Use in AI Applications

Dr. Kerry Howell is Professor of deep-sea ecology at the Plymouth Marine Laboratory and the University of Plymouth. She has expertise in use of ROVs and AUVs, seafloor imagery acquisition and analysis, predictive modelling of species distributions, and the application of deep-learning to image analysis. Throughout her career Kerry's research has been focused on sustainable management of the deep-sea ecosystem. Her research has supported the design of national and international marine protected area networks, including the creation of reliable habitat maps, and models of population connectivity that under-pin the design. Her current research is focused on the automation of biological observations using image-based methods to generate the big data needed to construct more reliable models of biodiversity distributions in time and space. She has published >70 peer reviewed publications, and > 20 advisory reports. She is co-lead of the UN Ocean Decade Programme Challenger 150, a global initiative to map life in the deep ocean in support of UN Sustainable Development Goals. In this role, Kerry is working with the global deep-sea research community in efforts to standardise data collection, processing, and management, which includes the development of AI approaches to image-based data analysis.

Dr. Yi Lan

The Hong Kong University of Science and Technology, Hong Kong, China

O6B-1_Invited Talk:
Symbiont Transmission Mode and Stability of the Scaly-Foot Snail Holobiont

Dr. Yi Lan completed her PhD from the Division of Life Science at the Hong Kong University of Science and Technology. Following her graduation, she commenced her Postdoctoral training and later assumed the role of Research Assistant Professor in the Department of Ocean Science at the same university. Throughout her career, she has dedicated many years to deep-sea biology, specializing in symbiosis through the application of omics and molecular biology techniques

Dr. Neus Campanyà I Llovet

University of the Azores, Portugal

O7C-6_Invited Talk:
Trait-based Approaches to Inform Conservation in the Deep Sea

Dr. Neus Campanyà I Llovet started her journey as a deep-sea ecologist at the University of Southampton, UK, studying long-term changes in the life-history biology of holothurians from the Porcupine Abyssal Plain (NE Atlantic) for her MSc degree. She further worked on the trophic ecology of benthic communities from a highly heterogenous submarine canyon (Barkley Canyon, NE Pacific) during her PhD at Memorial University of Newfoundland, in Canada. She started her work on trait-based ecology during her postdoctoral and junior researcher positions at IMAR and IICM-OKEANOS at the University of the Azores where she published "FUN Azores", a trait-database from the Azores Marine Park, one of the largest Marine Protected Areas Networks in Europe that includes areas Beyond National Jurisdiction and is geographically dominated by seamounts. This database was built through a collaborative approach with various taxonomists and ecologists, and therefore, includes a variety of taxa from all sizes (meio-, macro-, and megafauna) from the benthic, benthopelagic, and pelagic environments. She expanded her research to polar and subpolar environments during her post-doctoral research at the Ocean Frontiers Institute in Canada and BSc degree at the University of Barcelona. She is open for collaborations on trait-based ecology in the deep sea.

Dr. Agnes Muthumbi

University of Nairobi, Kenya

O11A-1_Invited Talk:
African Network of Deep-water Researchers

Profile

Professor, Department of Biology, Faculty of Science and Technology, University of Nairobi, Kenya

Working Experience

- Over 30 years' experience as a researcher in marine biology and lecturer at the University of Nairobi
- Head of Marine & Freshwater Science thematic group in the Department of Biology, Focal Point for Kenya to the Indian
- Ocean Rim Academic Group (IORAG), Indian Ocean Rim Association (IORA).
- Member of the Forum for Academic and Research Institutes (FARI), a Nairobi Convention Initiative
- Member of the Advisory committee of Deep Ocean Stewardship Initiative (DOSI)
- Senior editor of Cambridge Prisms: Plastics Journal
- Member and one of the coordinators of the African Network of Deepwater Researchers (ANDR) (together with McQuaid K, and Elegbede I. and supported by Howell K)

Dr. Hidetaka Nomaki

Japan Agency for Marine-Earth Science and Technology, Japan

O1D-1_Invited Talk:
Ecology of Deep-sea Protistan and Metazoan Meiofauna: Experimental Approaches

Dr. Hidetaka Nomaki is a principal scientist of X-star, Japan Agency for Marine-Earth Science and Technology (JAMSTEC). He received a PhD at the university of Tokyo in 2005 and start working at JAMSTEC as a postdoctoral researcher. His main research interests are deep-sea ecology and relevant biogeochemical cycles, particularly at the bathyal to abyssal muddy sediment habitats. He carries out in situ incubation/experimental techniques on the deep-sea floor using ROVs or HOV and investigates feeding ecology, metabolic activities, carbon and nitrogen budgets. Recently he also starts working on the plastic pollution issue and a development of novel biodegradable plastics that can be degraded on the abyssal seafloor.

Dr. Pradeep Singh

Research Institute for Sustainability, Germany

O10-1_Invited Talk:
Broadening Our Views on Common Heritage: Factoring in Art, Science and all Forms of Knowledge in the Politics and Regulatory Framing of the Deep Sea

Dr. Pradeep A. Singh is a Fellow at the Research Institute for Sustainability - Helmholtz Centre Potsdam (RIFS), Germany. He advises several governments, the International Union for Conservation of Nature (IUCN), and other actors on the legal and regulatory aspects of deep seabed mining. An up-and-coming expert on the topics of ocean governance and the international law of the sea, Pradeep has been following multilateral negotiations at the International Seabed Authority and other multilateral ocean fora for nearly a decade. He holds degrees from Harvard Law School, the University of Edinburgh and the University of Malaya.

Dr. Karen I. Stocks

Scripps Institution of Oceanography, USA

O9-2_Invited Talk:
Towards Fully Open and FAIR Deep Sea Biology Data

Dr. Karen I. Stocks is the Director of the Geological Data Center at Scripps Institution of Oceanography, where she specializes in the curation and dissemination of oceanographic data. After a PhD in Biological Oceanography at Rutgers University and postdoctoral research jointly hosted between Scripps Institution of Oceanography and the San Diego Supercomputer Center on the biodiversity and biogeography of seamounts, the deep sea still holds a special place in her heart. She currently leads the SeaFAIRer team at the Deep Ocean Observing Strategy, working to make deep ocean data more Findable, Accessible, Interoperable, and Reusable.

She is also a member of the DeCODER project, working towards global discoverability of geosciences data; the Director of the CCHDO global database of hydrographic measurements; and the Scripps lead for Rolling Deck to Repository, a multi-institution collaboration managing data from the US Academic Research Fleet.

Ms. Sheena Talma

University of Oxford, UK

O12A-2_Invited Talk:
Democratising the Deep Sea

Ms. Sheena Talma is a marine biologist, her work focuses on deep-sea ecosystems, fisheries, and genetics. As a freelance consultant, she works with several organizations both within her home country and internationally. Sheena is a NatGeo Explorer, an Ocean Voices Fellow, and also serves as a part-time lecturer at the University of Seychelles. Sheena finds the most joy in working within the science-to-policy nexus and highlighting the relationship between nature and humans. She aspires to work with collaborators to garner more deep-sea scientists within the Western Indian Ocean Region and to further highlight the need for science to be led by a diverse group of partners.

Dr. Blandine Trouche

University of Southern Denmark, Demark

O2-2_Invited Talk:

Distribution and Genomic Variation of Ammonia-oxidizing Archaea in Abyssal and Hadal Surface Sediments

Dr. Blandine Trouche earned her PhD in microbiology from the University of Western Brittany (UBO) in Brest, France in 2021. Her thesis research, under the direction of Dr Sophie Arnaud-Haond (MARBEC, Ifremer) and Dr Loïs Maignien (UBO), focused on the ecogenomics of deep-sea sediments, with a particular focus on archaeal communities of South Pacific marine trench systems. She is currently a post-doc in Julie Reveillaud's team at MIVEGEC (INRAE) in Montpellier, France, studying the microbiome of Culex mosquitos.

Dr. Patricia Velez Aguilar

National Autonomous University of Mexico, Mexico

O1B-1_Invited Talk:

Diversity, Ecology and Utilization of Deep-sea Fungi from the Eastern Pacific and Gulf of Mexico

Dr. Velez earned her B.S. (2008), M.S. (2010), and Ph.D. (2014) degrees in Biological Sciences from the National Autonomous University of Mexico (UNAM) for her work on marine fungi. Next, she performed two postdoctoral stays at the UNAM and the CICESE studying molecular ecology of freshwater and deep-sea fungi respectively. Now, she is a faculty member (Research Professor) at the Institute of Biology, UNAM where her work aims to explore the diversity, ecology and potential utilization of fungal communities, particularly in marine ecosystems. She teaches courses on Molecular Ecology of Microbial Communities and Taxonomy and Conservation in the Graduate School of Biological Sciences at the UNAM, and has mentored more than 20 graduate and undergraduate students in diverse topics of mycology.

Dr. Gerlien Verhaegen

University of Greifswald, Germany

O4C-1_Invited Talk:
Non-invasive Methods for Studying Midwater Jellyfish

Dr. Gerlien Verhaegen is a postdoctoral researcher working on the ecology and evolution of deep-sea and/or polar jellyfish at the University of Greifswald and the Alfred Wegener Institute, in Germany. She graduated her PhD in 2018 at the University of Greifswald, working on the adaptation and phenotypic plasticity of a worlwide invasive freshwater snail. She then transition her focus to deeper and saltier waters for her first postdoc, discovering a passion for midwater jellyfish at the Japan Agency for Marine- Earth Science and Technology. Her current project focuses on studying the diversity, distribution, ecology, and genetic connectivity of Southern Ocean gelatinous zooplankton. For this she is applying a broad range of techniques, from ecological niche modelling, population genetics, to environmental DNA.

Dr. Aurèle Vuillemin

GFZ German Research Centre for Geosciences, Germany

O2-1_Invited Talk:
What Are the Prevalent Clades Involved in Marine Biogeochemical Processes at Extreme Energy Limitation?

Dr. Aurèle Vuillemin studied Earth and Environmental Sciences and completed a PhD in limnogeology at the University of Geneva. Since then he has spent over ten years as a researcher at the GFZ Potsdam and the LMU Munich, Germany working on geomicrobiology and microbial ecology. In parallel to geochemistry and mineralogy, he applies metagenomics and metatranscriptomics to environmental studies of aquatic sedimentary environments. As manager of the EU-funded project PROSPECTOMICS, he focuses on the development of meta-omics tools for minimally invasive hydrocarbon prospection in marine sediments.

His investigations have focused on geochemically diverse systems, such as the abyssal plains of the North Atlantic, the Namibian coastal oxygen minimum zone, and various lakes as recorders of Quaternary climate evolution. By tracing microbial redox processes and organic matter remineralization in the sedimentary subsurface, he unravels microbial biogeochemical cycles in terms of environmental records and bioavailable substrates. He asserts that “all sediments are buried alive” and that the metabolic activity of the subsurface microbial biosphere modifies the geological signal.

In his talk he will present results on microbial activity in organic-lean sediments of the North Atlantic and Barents Sea, wherein specific microbial clades take advantage of energy limitation, outcompeting sulfate reduction.

Part III: Symposium Information

Symposium Venue

Lecture Theatre A and B, The Hong Kong University of Science and Technology, Hong Kong, China

Lecture Theatre A and B (LTA and LTB) have the capacity of 400 or 300ppl, respectively. The opening/closing ceremony and keynote lectures will be in the LTA and two parallel sessions will be in LTA and LTB.

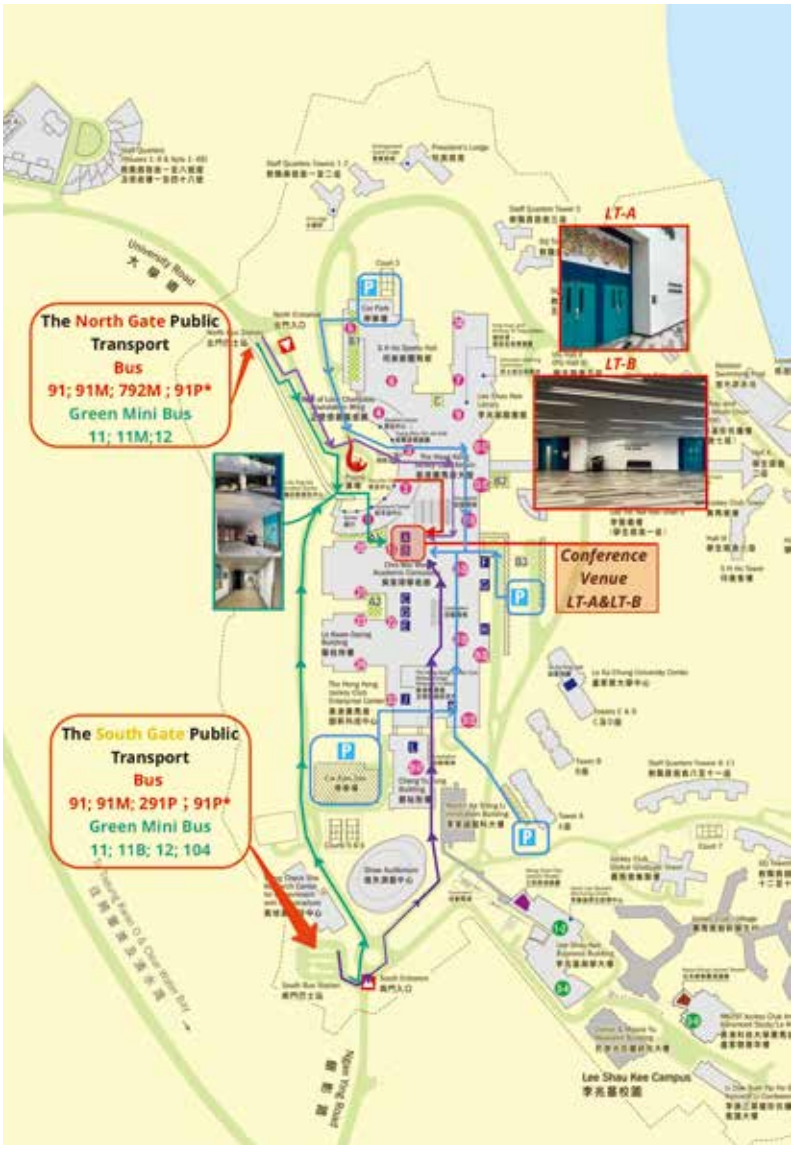
The ways to the Venue

1) By public transportation to get to North Gare or South Gate: follow the **GREEN** or **PURPLE** lines

North Gate	South Gate
From Choi Hung MTR station: • 91 or 91M bus (use Exit C2) • 11 minibus (use Exit C1)	**From Choi Hung MTR station:** • 91M bus (use Exit B2) • 11 minibus (use Exit B1)
From Hang Hau MTR station: • 11M minibus (use Exit B1)	**From Po Lam MTR station:** • 91M bus (use Exit A2) • 12 minibus (use Exit B1)
From Tiu Keng Leng MTR station: • 792M bus (use Exit A1)	**From Ngau Tau Kok MTR station:** • 104 minibus (use Exit A)
From Sai Kung bus terminus: • 792M bus; 12 minibus	**From Ngau Tau Kok MTR station:** • 104 minibus (use Exit A)

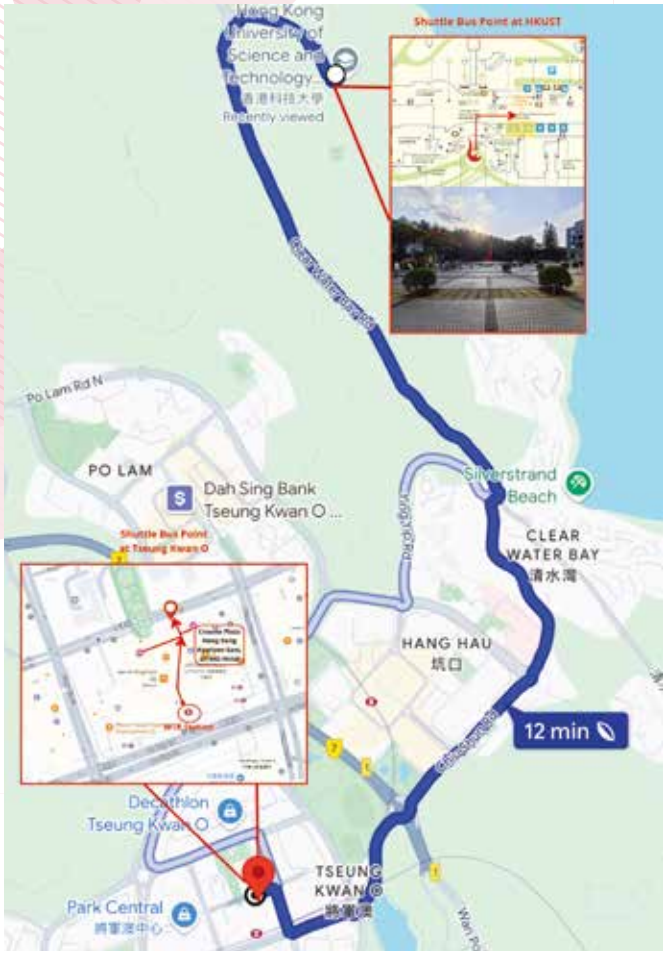
2) By Private Cars: refer to the parking lot and follow the **BLUE** lines

3) By free shuttle bus from Tseung Kwan O MTR Station: follow the **RED** line



Tseung Kwan O <----> HKUST Shuttle Bus Route and Timetable

Date	Time	Route	HKB Staff
12 Jan. 2025	20:00	HKUST Red Bird > Tseung Kwan O	Esme & Lori Deng Ziyin: 86 15529344565 Jiang Dianhang: 86 13045026201
13 Jan. 2025	8:10	Tseung Kwan O > HKUST Red Bird	Esme & Lori Ma Haiying: 852 61538410 Liu Ling li: 86 15902940417
	19:00	HKUST Red Bird > Tseung Kwan O	Deng Ziyin: 86 15529344565 Jiang Dianhang: 86 13045026201
	20:15 Student Mixer	HKUST Red Bird > Tseung Kwan O	Ma Haiying: 852 61538410 Liu Ling li: 86 15902940417
14 Jan. 2025	8:20	Tseung Kwan O > HKUST Red Bird	Deng Ziyin: 86 15529344565 Jiang Dianhang: 86 13045026201 Xiao Yao: 86 18571402818
	18:30	HKUST Red Bird > Tseung Kwan O	Li Pei Meng :86 19806247801 Ma Haiying: 852 61538410 Liu Ling li: 86 15902940417
	19:45 AGM	HKUST Red Bird > Tseung Kwan O	Deng Ziyin: 86 15529344565 Jiang Dianhang: 86 13045026201 Xiao Yao:86 18571402818
15 Jan. 2025	8:20	Tseung Kwan O > HKUST Red Bird	Deng Ziyin: 86 15529344565 Jiang Dianhang: 86 13045026201 Xiao Yao: 86 18571402818 Li Pei Meng :86 19806247801
	14:10	HKUST Red Bird > Tseung Kwan O	Deng Ziyin: 86 15529344565 Jiang Dianhang: 86 13045026201 Xiao Yao: 86 18571402818 Li Pei Meng : 86 19806247801
16 Jan. 2025	8:20	Tseung Kwan O > HKUST Red Bird	Deng Ziyin: 86 15529344565 Jiang Dianhang: 86 13045026201 Xiao Yao:86 18571402818
	20:45	HKUST Red Bird > Tseung Kwan O	Li Pei Meng :86 19806247801 Ma Haiying: 852 61538410 Liu Ling li: 86 15902940417
17 Jan. 2025	8:20	Tseung Kwan O > HKUST Red Bird	Li Pei Meng :86 19806247801 Ma Haiying: 852 61538410 Liu Ling li: 86 15902940417
	18:05	HKUST Red Bird > Tseung Kwan O	Deng Ziyin: 86 15529344565 Jiang Dianhang: 86 13045026201 Xiao Yao:86 18571402818



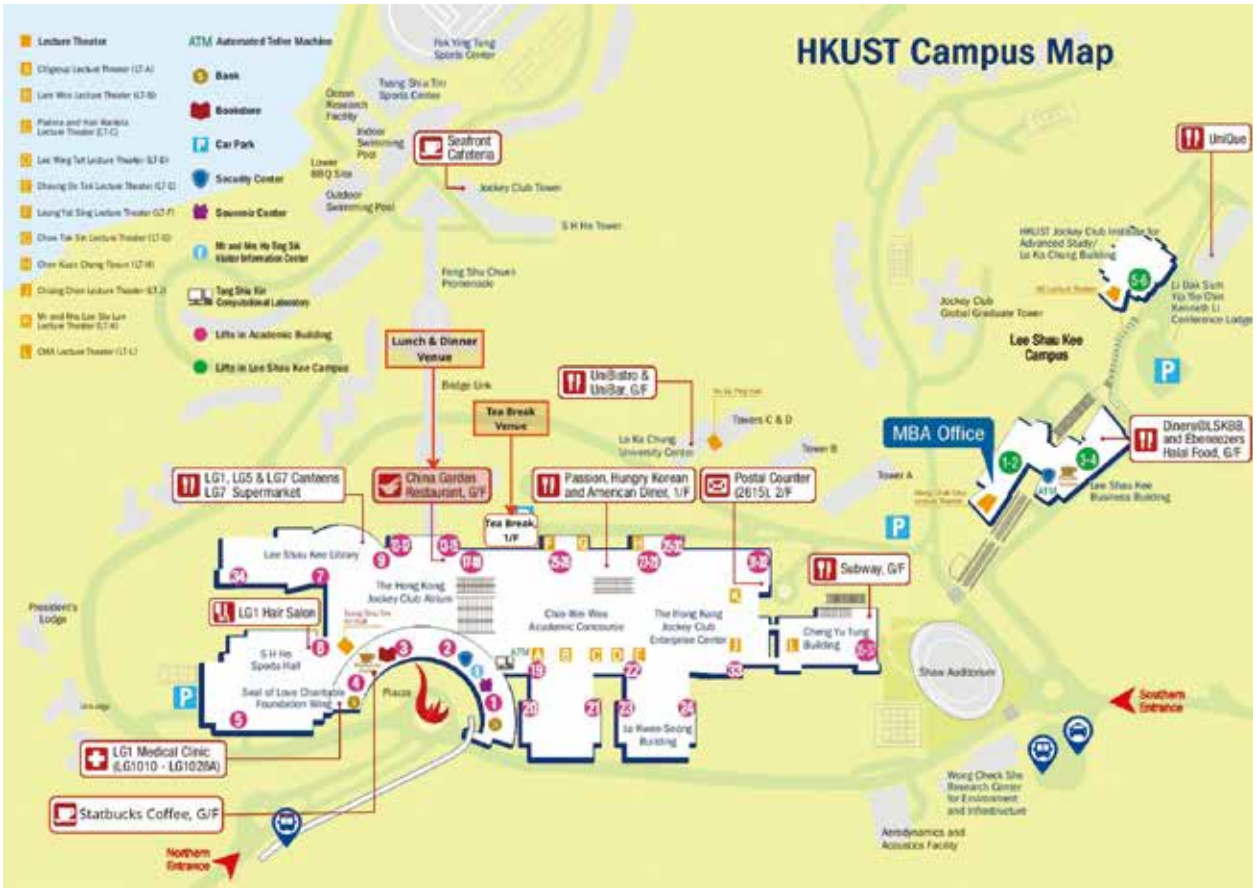
4) Barrier-Free Route to the Venue Site: follow the **GREEN** Line

1. From Red Bird, go toward the Visitor Centre.
2. Locate the entrance next to the Visitor Centre
3. Go through the entrance with an automatic door.
4. Go down the corridor and you will find the second set of lecture theatre (RM1106) entrance doors with an automatic door.
5. Toilets for wheelchair users are available in the corridor.

*More information please refer to: **https://cso.ust.hk/tran/pt**

Dining Arrangement

Lunch, Cocktail Reception, Student Mixer, Banquet: China Garden
Tea Break: Location near LTA



Lunch

Time: 13th January 2025 12:40 – 14:00
14th January 2025 13:00 – 14:00
15th January 2025 12:40 – 13:50
16th January 2025 13:00 – 14:00
17th January 2025 13:00 – 14:00

Welcome Dinner

Time: 12th January 2025 18:00 – 19:30

Student Mixer

Time: 13th January 2025 19:00 – 20:00

Banquet

Time: 16th January 2025 18:15 – 20:15

Tea Breaks

Venue: Near LTA

Time: 13th January 2025 10:00 – 10:30; 16:30 - 1650
14th January 2025 11:00 – 11:20; 1615 - 1635; 1745 -1815
15th January 2025 10:45 – 11:05
16th January 2025 11:00 – 11:20; 1630 – 1650
17th January 2025 11:00 – 11:20; 1630 – 1650

Please refer to the map and link below for other dining options and coffee shops on campus:
https://cso.ust.hk/locations/restaurants

Field Trips

Hong Kong has remarkably rich biodiversity and a natural terrain with diverse habitats. The 17DSBS has arranged three guided field trips in the afternoon of 15 January for the 17DSBS participants to appreciate the natural beauty of the city. These include the Hong Kong UNESCO Global Geopark, the Hoi Ha Wan Marine Park, and the Hong Kong Wetland Park.

Field Trips Shuttle Bus Timetable and Contact Staff

Time	Route	HKB Staff
14:00	HKUST Red Bird > Hong Kong Geopark	Rong: (852) 5338 3292 Tong Wei: (852) 6475 7645
17:45	Hong Kong Geopark > HKUST	Rong: (852) 5338 3292 Tong Wei: (852) 6475 7645
14:00	HKUST Red Bird > Hoi Ha Wan Marine Park	Prof. KH Chu: (852) 9383 0460 Tang Jianwei: (852) 9485 2058 Qin Dapeng: (852) 6342 2114
17:00	Hoi Ha Wan Marine Park > Sai Kung > HKUST > Tseung Kwan O	Prof. KH Chu: (852) 9383 0460 Tang Jianwei: (852) 9485 2058 Qin Dapeng: (852) 6342 2114
14:00	HKUST Red Bird > HK Wetland Park	Lori : (852) 6708 6647 Lin Ziqiu: (852) 9427 7059 Sun Qiwei: (852) 5642 4104
16:45	Hong Kong Wetland Park > Tseung Kwan O > HKUST > Sai Kung	Lori: (852) 6708 6647 Lin Ziqiu: (852) 9427 7059 Sun Qiwei: (852) 5642 4104

Code of Conduct

Wear Masks If Necessary:

If there are health concerns or if someone in the room is unwell, consider wearing a mask to protect yourself and others. If you are feeling unwell, it is best to avoid attending in person to prevent spreading illness.

Limit Food and Drinks:

NO food or drinks at the conference venue (LT-A&B). Please enjoy tea breaks outside of the conference venue.

Mute Your Phone:

Ensure your phone is silent or in vibrate mode to avoid interruptions.

Arrive on Time:

Punctuality shows respect for everyone's time. Aim to arrive a few minutes early.

Be Mindful of Noise:

Keep conversations to a minimum when others are speaking. Avoid making unnecessary noise, such as tapping on laptops or shuffling papers.

Part IV: General Information

From Airport / Train Station to HKUST

You may arrive in Hong Kong from different borders. Please refer to the brief transportation information at the bottom of the map. For those from the Hong Kong International Airport and West Kowloon Train Station, please refer to more details below.

From Hong Kong International Airport

- **Red taxi (Hong Kong International Airport -> HKUST)**
  Estimated travel time: 45 minutes
  Estimated cost: HK$360

- **Airport Express (Hong Kong International Airport -> Kowloon Station) + Red taxi (Kowloon Station -> HKUST)**
  Estimated travel time: 25 + 30 minutes
  Estimated cost: HK$100 + HK$140

- **Bus A29 (Hong Kong International Airport -> Po Lam) + Taxi (Red or Green) or Bus 91M (Po Lam -> HKUST)**
  Estimated travel time: 100 + 15 minutes
  Estimated cost: HK$44 + HK$70/HK$4.8

Information on getting to HKUST:
https://newstaffguide.hkust.edu.hk/about-hkust/getting-to-hkust

From West Kowloon Train Station To HKUST

- **Red taxi (West Kowloon Train Station -> HKUST)**
  Estimated travel time: 30 minutes
  Estimated cost: HK$170

- **MTR (West Kowloon Station -> Hong Kong -> North Point -> Hang Hau) + Bus 91M or 11M (Hang Hau -> HKUST) or Taxi (Red or Green)**
  Estimated travel time: 41 + 15 minutes
  Estimated cost: HK$11 + HK$4.8 or HK$6.8/HK$47

Wi-Fi Access

For Wi-Fi Connection for HKUST Guests, please refer to:
https://itsc.hkust.edu.hk/services/general-it-services/wifi

On-campus Medical and Dental Services

On-campus Medical Clinic

Appointments can be made at +852 2358-6670.

The opening hours are as follows:
Monday - Friday: 0900 - 1645 (lunch: 1230 - 1330)
Saturday: 0900 – 1145
Sunday & Public Holidays: Closed
Location: At LG1 (take lift no. 3 next to the Starbucks).

Dental Clinic

Appointments for consultation should be made in advance by calling +852 2358-8747 or in person.

The opening hours are as follows:
Monday - Saturday except Thursday: 0900 - 1700 (lunch: 1230 - 1330)
Thursday: 0900 - 1230
Sunday & Public Holidays: Closed
Location: At LG1 (next to the Medical Clinic)

Currency and Financial Considerations

Official Currency:

The official currency in Hong Kong is the Hong Kong Dollar (HKD). Familiarize yourself with its symbol (HK$) and exchange rates.

Currency Exchange:

Currency exchange services are widely available at airports, banks, and exchange bureaus. Compare rates to ensure you get a fair deal.

Payments:

Mobile payment platforms like Alipay and WeChat Pay are popular in Hong Kong. If you have these Apps set up, they can be convenient for transactions. Most establishments accept major credit and debit cards (Visa, MasterCard, American Express). Notify your bank of your travel plans to avoid any issues with transactions. While cards are widely accepted, it is advisable to carry some cash for small purchases, transportation, and local markets.

Tax Refunds for Tourists:

Tourists may be eligible for tax refunds on certain purchases. Keep receipts and inquire about the process if you make significant purchases.

Visa and Travel

Visa

Before your travel to Hong Kong, please check if visit visa or entry permit is required.

Travel in Hong Kong

An ideal destination to meet, explore opportunities, and exchange ideas. As a reputable international business hub, the city's solid fundamentals, unique position, and authentic experiences enrich world-class business events set to make connections and inspire in every way. For more options, please refer the website: **https://17dsbs.hkust.edu.hk/visa**

- **Victoria Harbour in Hong Kong**
- **The Peak Hong Kong**
- **Ngong Ping 360 Cable Car**
- **Wong Tai Sin Temple**
- **Hong Kong Palace Museum**
- **Ocean Park Hong Kong**
- **Hong Kong Disneyland Park**

Weather

In January, Hong Kong experiences cool and mild winter weather. The average temperature during this month ranges from around 14 to 19 degrees Celsius (57 to 66 degrees Fahrenheit). However, it is important to note that temperatures can fluctuate, and occasional cold fronts can bring cooler temperatures. January is also one of the driest months in Hong Kong, with relatively low rainfall. While the weather is generally comfortable, it is advisable to pack light layers and a jacket or sweater for cooler evenings. Overall, January offers pleasant conditions for exploring the city and enjoying outdoor activities in Hong Kong.

Usually, the severe weather (e.g. rainstorm and typhoon) happens in summer. In case of Black Rainstorm Signal or Typhoon No. 8 Signal or above during the symposium period, the event will be suspended. We will announce the information on the website. Stay tuned!

For more details regarding warnings for severe weather, please refer to the Hong Kong Observatory. For tropical cyclone and rainstorm warning arrangements, please refer to:

- **Tropical Cyclone**
- **Amber or Red Rainstorm Warning**
- **Black Rainstorm Warning**
- **Catering Arrangements**

Check-in and check-out procedure in Crown Plaza Kowloon East and Vega Suites

Check-In Process	Check-Out Process
Arrival Time: Please arrange your arrival time. The check-in time is 3PM. This will help us manage the flow of guests and ensure that your accommodation is ready.	**Check-Out Time:** The check-out time is before 12AM. We kindly ask that you adhere to this time to allow the hotel staff to prepare for incoming guests.
Required Documents: Upon arrival, please have the following documents ready: A valid government-issued ID Confirmation email or booking reference number Payment method (if not already settled)	**Room Inspection:** Prior to check-out, please ensure that all personal belongings have been removed from the room. The hotel staff will conduct a brief inspection.
Check-In Location: Check-in will take place at [insert location, e.g., the front desk or designated area]. The front desk staff will be available to assist you with the process.	**Payment Settlement:** If there are any additional charges (e.g., mini-bar, room service), these will be settled at the time of check-out. Please ensure your payment method is available.
Key Collection: After completing the check-in paperwork, you will receive your room key. Please let us know if you have any special requests or requirements.	**Return of Keys:** Please return your room key to the front desk upon check-out.

Part V: Accessibility, Inclusion, Support and Safety at 17DSBS

The 17DSBS local organizing team will provide sorts of supports to enhance the accessibility to the symposium at Hong Kong. The brief information is shared below and for more details, please refer to the full document **(https://dsbsoc.org/wp-content/uploads/2023/08/General_Accessibilty_v3_UpdatedAug23.docx.pdf).**

Financial Support

Several financial supports are provided and please check “Awards & Financial Aides” section for more details. Students, early career scientists, female scientists are welcome to apply for the financial support.

Presentation Support

Visual Support: to enhance the visual appearance of oral and poster presentations, the Deep-Sea Biology Society provides a detailed guideline for the preparation of oral presentation PPT and poster. For more details, please refer to guideline under Abstract section.

Audio support: Immersive reader function is available for all digital content on the 17DSBS website. Please select the digital content, right click and choose “Open in reading mode” to enjoy customized font type and size, as well as the background colour.

Support for presenters: wireless microphone, microphone with height-adjustable stand, and laser pointers will be available in the meeting rooms for speakers.

Safety Support

Mental health support: one or two support personnel will stand by at the registration desk and ready to provide immediate assistance for those who need help.

Hygiene support: Hand sanitizers will be available on the registration desk and room entrance desks. All common areas in the symposium room will be cleaned every day.

Covid-19: To prepare for the worst case (covid-19 pandemic), the 17DSBS local organizing team has the following arrangements. 1) Online login information will be shared to all participants and onsite ones can switch to online mode if they feel uncomfortable. 2) Face masks and Covid-19 virus testing kits are available from the registration desk. Participants can seek assistance if they need help.

Food safety support: To ensure food safety for those who suffer food allergies, the 17DSBS LOC will conduct a survey through Google form to collect the case of allergies. All food/drink served in tea breaks, reception and banquet will be labeled with dietary/intolerance information. Conference lunch will be provided by different restaurants on university campus. Participants have the responsibility to check with the restaurant staff for suspected allergens.

Campus safety support: campus security staff is on duty 24 hours. For emergency, please contact 2358 8999 for reporting top emergencies, or 2358 6565 for request of assistance or enquires. For ambulance service, please call 2358 8999 for cases within the campus, or 999 for cases outside the campus.

Venue management support: Conduct code is defined by the Deep-sea Biology Society. Any unacceptable behaviour will be stopped immediately and the responsible attendee(s) will be removed from the symposium venue without warning and without refund. Please download the conduct code here

On-site accessibility Support

Transportation to HKUST: private and public transportation information is shared on the 17DSBS website and this booklet. Please refer to “Transportation” section for more details. Parking areas are labelled on the UST campus map.

Path suggestion to the venue site: a detailed campus map and floorplan is shared on the “Venue” section on the 17DSBS website.

Other Support

Religious and baby nursing support: to enhance inclusion, we encourage scientists of different religions as well as female scientists to attend the symposium. The 17DSBS LOC will provide quiet rooms for the purpose of praying or baby nursing/baby changing.

Social activity support: The 17DSBS LOC organizes field trips for participants to join as a group. Three options are available and please reserve your field trip through registration. The field trips are optional and on a first-come first-serve basis. Other options for individual visits are listed on the “Visa and Travel” section.

Local language support: to facilitate the quick adaptation of overseas participants, LOC prepared a short audio to introduce the pronunciation of some basic Cantonese. **Please click here to listen.**

Part VI: Event Summary and Highlights

The 17th Deep-Sea Biology Symposium (17DSBS) was successfully hosted at the Hong Kong University of Science and Technology during 12-17 Jan. 2025. This symposium attracted nearly 400 participants from over 30 countries and regions, focusing on several cutting-edge research areas in deep-sea biology, including biodiversity conservation, environmental protection, genomics, climate change, new methodologies and practices, as well as deep-sea environmental policies and management.

Group photo at the Opening Ceremony

1. Opening Ceremony

Professor Nancy Y. Ip, President of the Hong Kong University of Science and Technology, Professor Zhang Si, Director of the Southern Marine Science and Engineering Guangdong Laboratory (Guangzhou), and Dr. Michelle Taylor, President of the Deep-Sea Biology Society, delivered the welcome remarks, and they warmly welcomed experts from around the world to Hong Kong for this significant academic event.

Prof. Nancy Ip, President of The Hong Kong University of Science and Technology

Prof. Si Zhang, Director of the Southern Marine Science and Engineering Guangdong Laboratory (Guangzhou)

Dr. Michelle Taylor, President of the Deep-Sea Biology Society

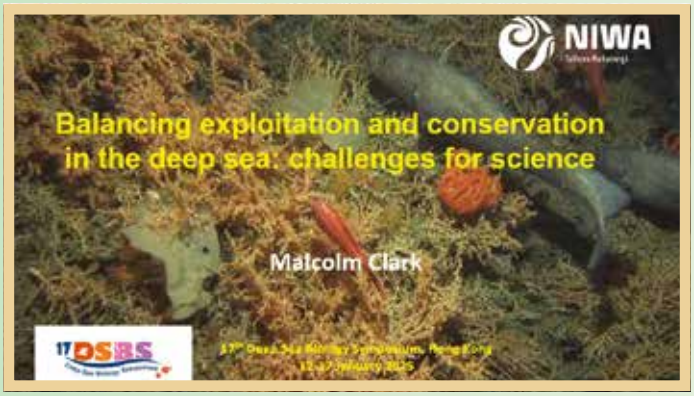
2. Key Highlights of the Oral Presentations (keynote lectures and invited talks):

The symposium featured ten keynote lectures from renowned marine scientists, including Professor Malcolm Clark from New Zealand, Professor Ana Colaco from Portugal, Professor Roberto Danovaro from Italy, Professors Lisa Levin and Andreas Teske from the United States, Professor J Murray Roberts from the United Kingdom, Dr. Ken Takai from Japan, and Professors Li Jiabiao and Wang Fengping from mainland China, along with Professor Qiu Jianwen from Hong Kong, China.

Keynote Lectures

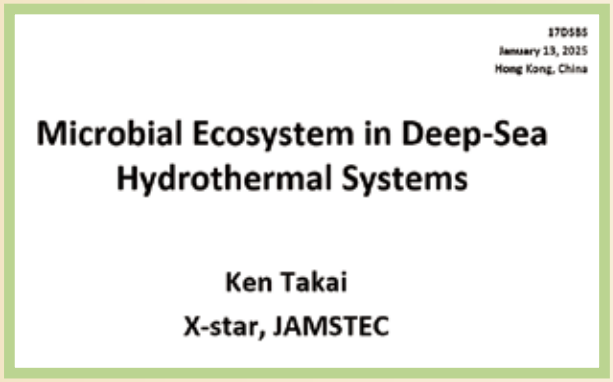
Prof. Malcolm Clark

National Institute of Water & Atmosphere Resources, New Zealand



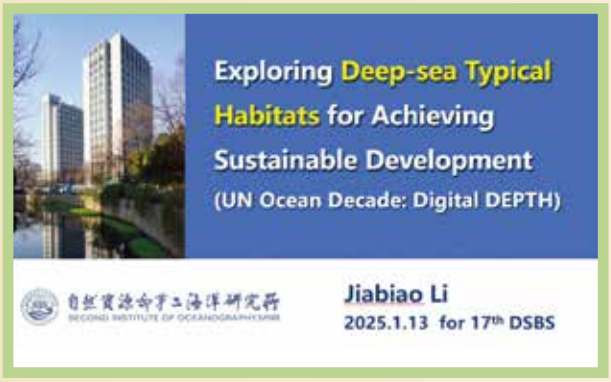
Dr. Ken Takai

Japan Agency for Marine-Earth Science and Technology, Japan



Prof. Jiabiao Li

Second Institute of Oceanography, Ministry of Natural Resource, China



Prof. Fengping Wang

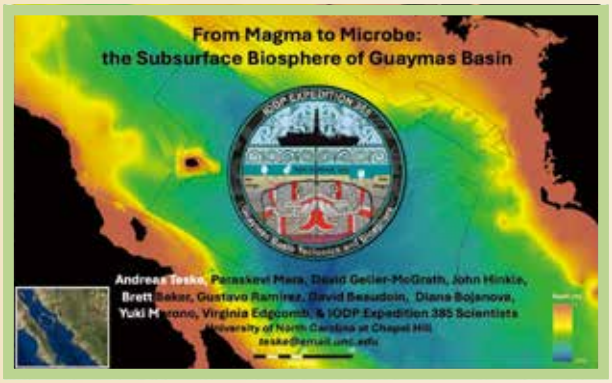
Shanghai Jiao Tong University, China

Prof. Ana Colaco

University of the Azores, Portugal

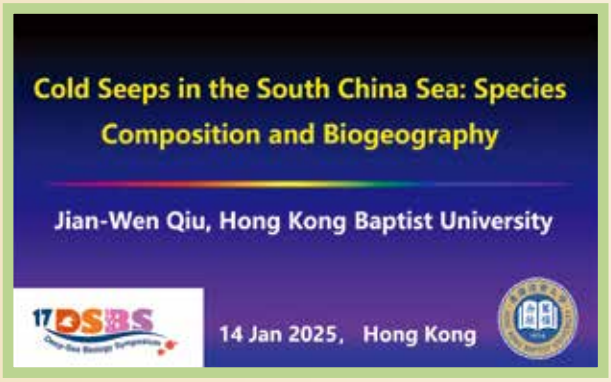
Prof. Andreas Teske

University of North Carolina at Chapel Hill, USA



Prof. Jian-Wen Qiu

Hong Kong Baptist University, Hong Kong, China



Prof. Lisa A. Levin

Scripps Institution of Oceanography, University of California San Diego, USA

Prof. J Murray Roberts

University of Edinburgh, UK

Prof. Roberto Danovaro

Polytechnic University of Marche, Italy

Invited Talks

Additionally, 20 distinguished marine scientists delivered invited talks in the 12 scientific sessions.

Scientific session 1: Biodiversity

Dr. Hidetaka Nomaki

Japan Agency for Marine-Earth Science and Technology

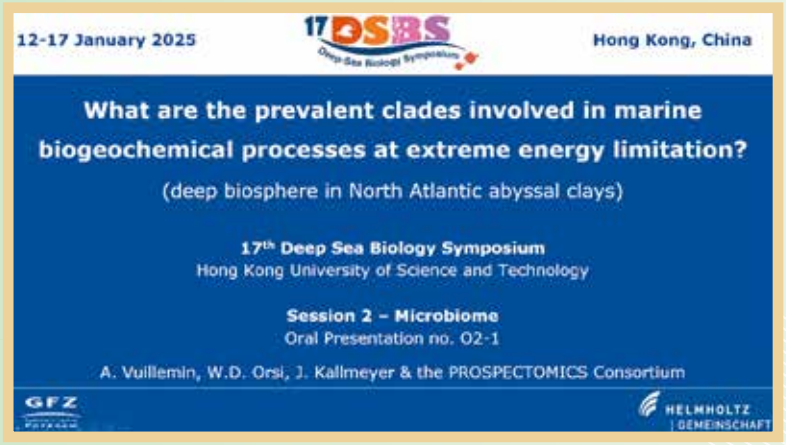
Dr. Patricia Velez Aguliar

National Autonomous University of Mexico

Scientific session 2: Microbiome

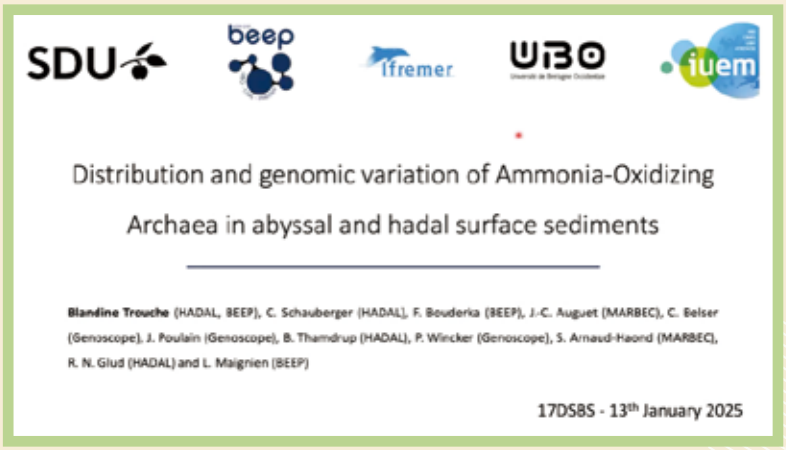
Dr. Aurele Vuillemin

GFZ German Research Centre for Geosciences, Germany



Dr. Blandine Trouche

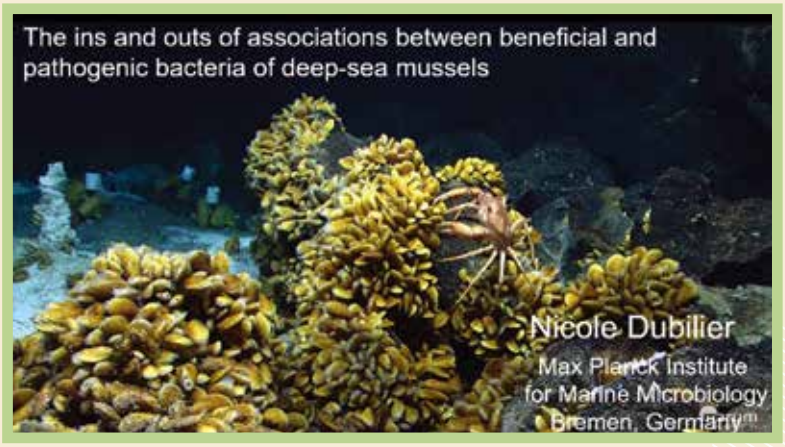
University of South Denmark, France



Scientific Session 3: Symbiosis

Dr. Nicole Dubilier

Max Planck Institute for Marine Microbiology, Germany



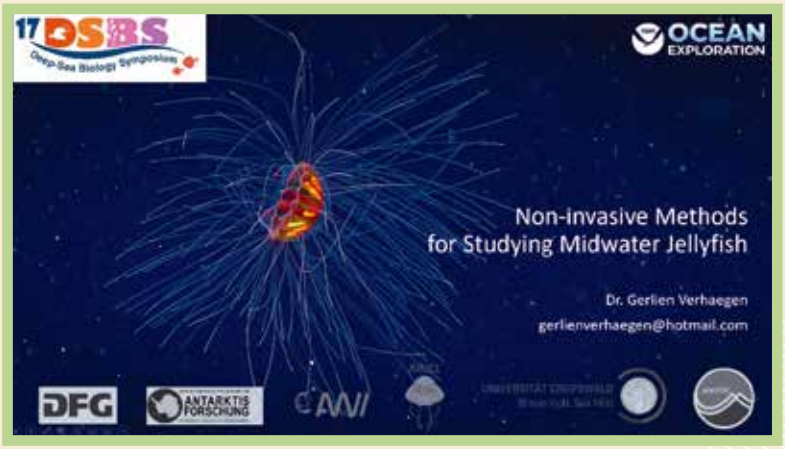
Scientific session 4: Deep Pelagic Ocean

Dr. Annette F. Govindarajan

Woods Hole Oceanographic Institution, USA

Dr. Gerlien Verhaegen

University of Greifswald, Germany



Scientific Session 5: Sensory Biology

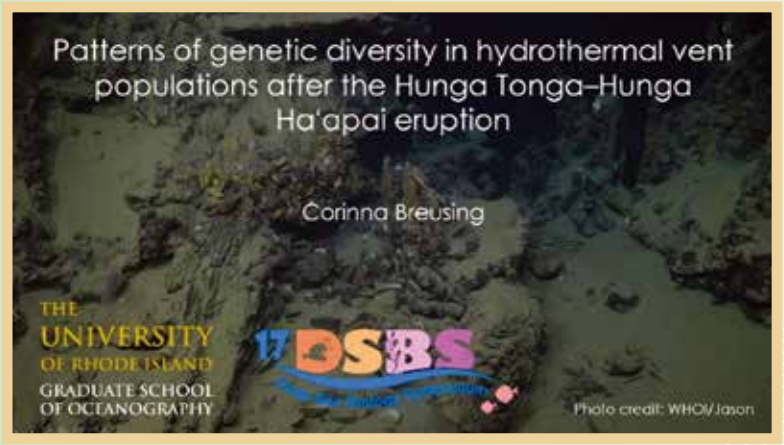
Dr. Tamara Frank

Nova Southeastern University, USA

Scientific session 6: Genomics & Metagenomics of Metazoans

Dr. Corinna Breusing

University of Rhode Island, USA



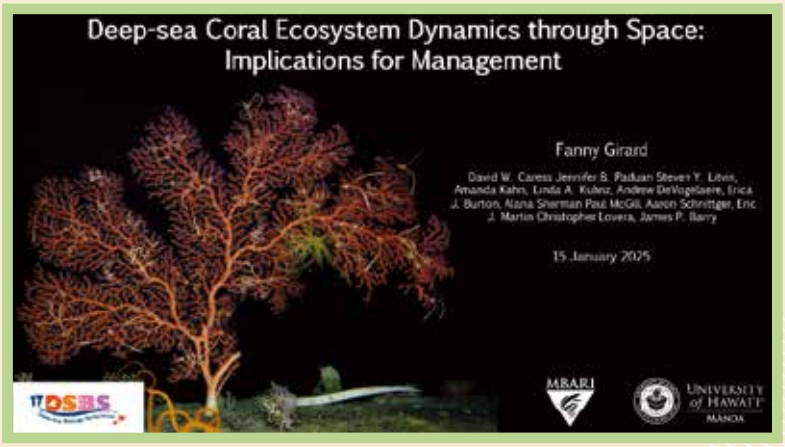
Dr. Yi Lan

The Hong Kong University of Science and Technology, Hong Kong, China

Scientific Session 7: Ecology & Conservation

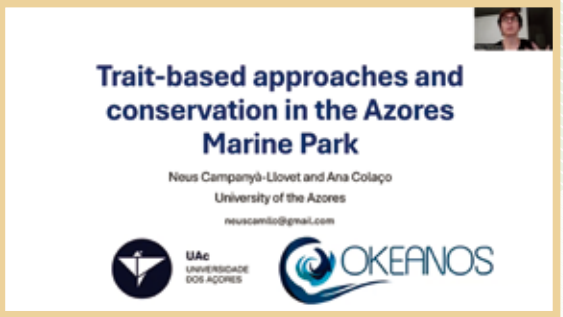
Dr. Fanny Girard

University of Hawai'i at Mānoa, USA



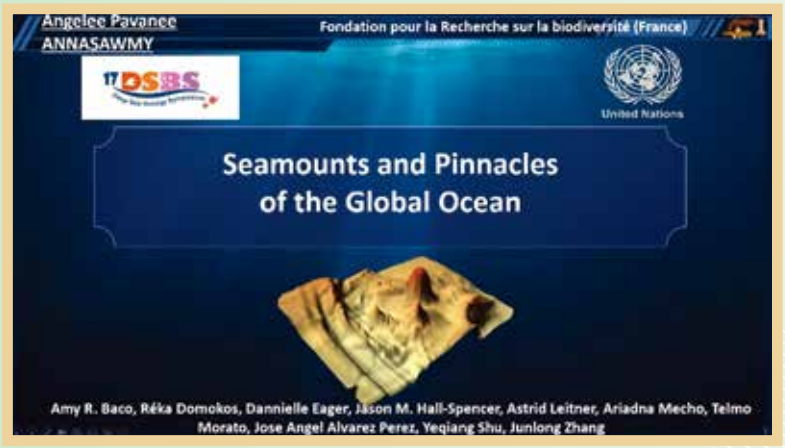
Dr. Neus Campanyà I Llovet

University of the Azores, Portugal



Dr. Pavanee A. Annasawmy

Fondation pour la Recherche sur la Biodiversité



Scientific Session 9: Novel Method & Practices

Dr. Kerry Howell

University of Plymouth, UK

Dr. Karen I. Stocks

Scripps Institution of Oceanography, University of California San Diego, USA

Scientific session 10: Arts and Science in Deep-Sea Environmental Management

Mr. Pradeep A. Singh

Research Institute for Sustainability, Germany

Scientific Session 11: Decade of Ocean Science Program Highlights

Prof. Agnes Muthumbi

University of Nairobi, Kenya

Dr. Elizabeth D. Hetherington

Scripps Institution of Oceanography, University of California San Diego, USA

Scientific session 12: Open Session

Dr. Diva Amon

University of California Santa Barbara, USA

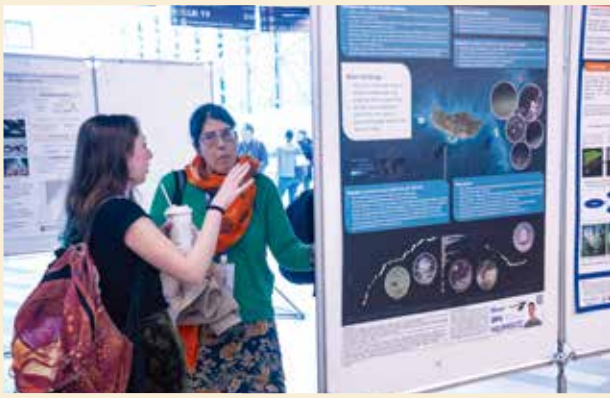
Ms. Sheena Talma

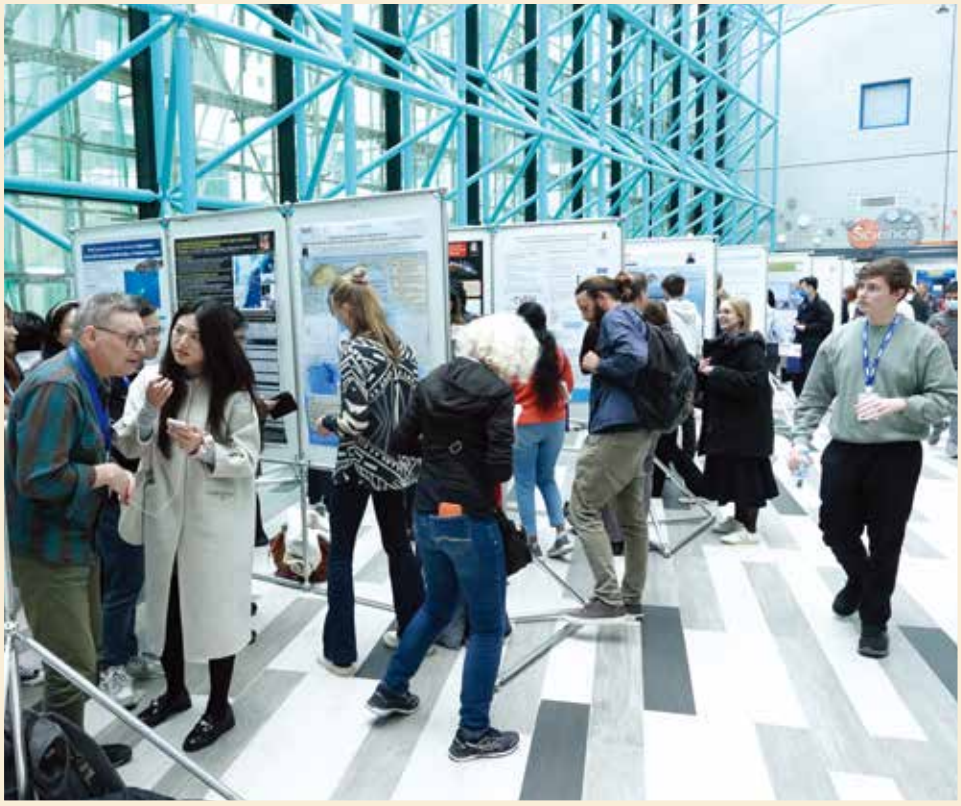
University of Oxford, UK

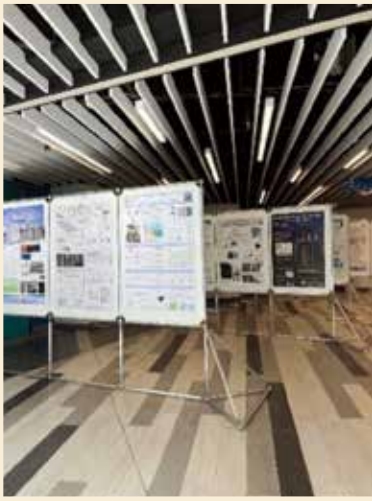
The 17th Deep-Sea Biology Symposium has attracted nearly 400 participants from over 30 countries and regions. Among them, 47 are from Hong Kong, 57 from mainland China, and the remainder from overseas. The symposium is featured with 10 keynote talks, 20 invited talks, 161 regular talks and 164 poster presentations.

3. Poster Session:

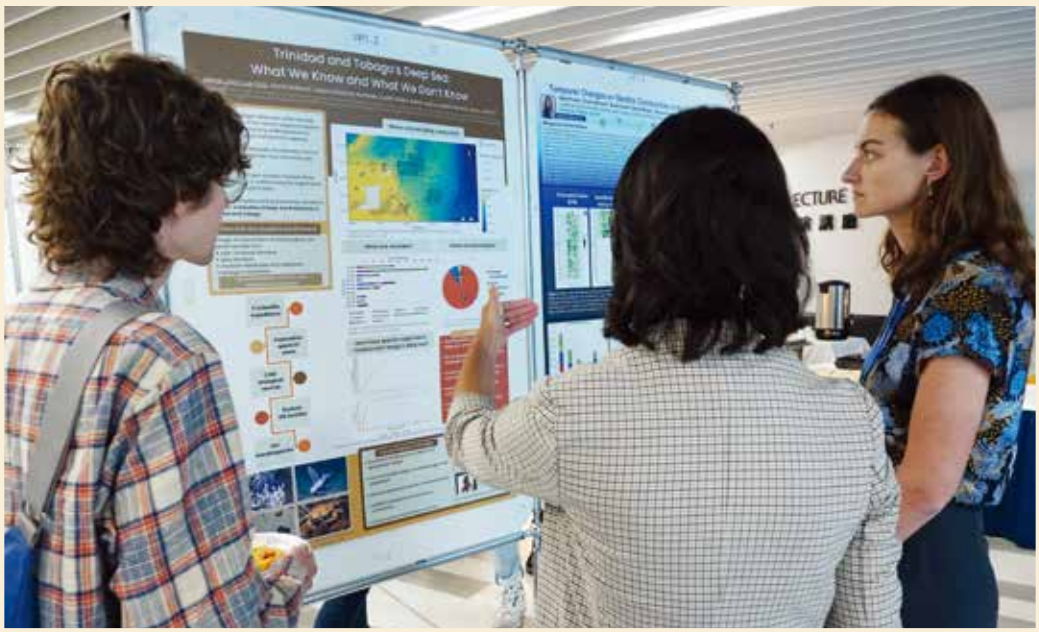
There are the total of 164 posters presented on the symposium, including 157 onsite and 7 online. The organizing team offered free poster printing service for over 130 poster presenters to facilitate their overseas traveling. The poster session turned out to be very successful.








Conclusions
Acknowledgements


Trinidad and Tobago's Deep Sea:
What We Know and What We Don't Know

4. Student Mixer:

A student mixer is a great opportunity for the students to meet fellow students and senior scientists attending 17DSBS. A student mixer was organized in the evening of 13 Jan., in which 13 experienced scientists met with 76 students to talk about research, career path, and other issues of mutual interest.

5. Field Trips

Three field trips were organized for the participants in the afternoon of 15 Jan. 2025 to introduce them to the natural beauty of Hong Kong.

Hong Kong UNESCO Global GeoPark

Spanning 50 square kilometres, the GeoPark showcases breathtaking volcanic landscapes, including hexagonal volcanic columns, sea caves, and stacks, formed around 140 million years ago. Additionally, it highlights diverse sedimentary rock formations and features attractions such as the High Island Reservoir and ancient rock carvings. In this field trip, 49 participants visited the High Island Reservoir East Dam with the globally rare rhyolitic volcanic hexagonal rock columns.

Hoi Ha Wan Marine Park

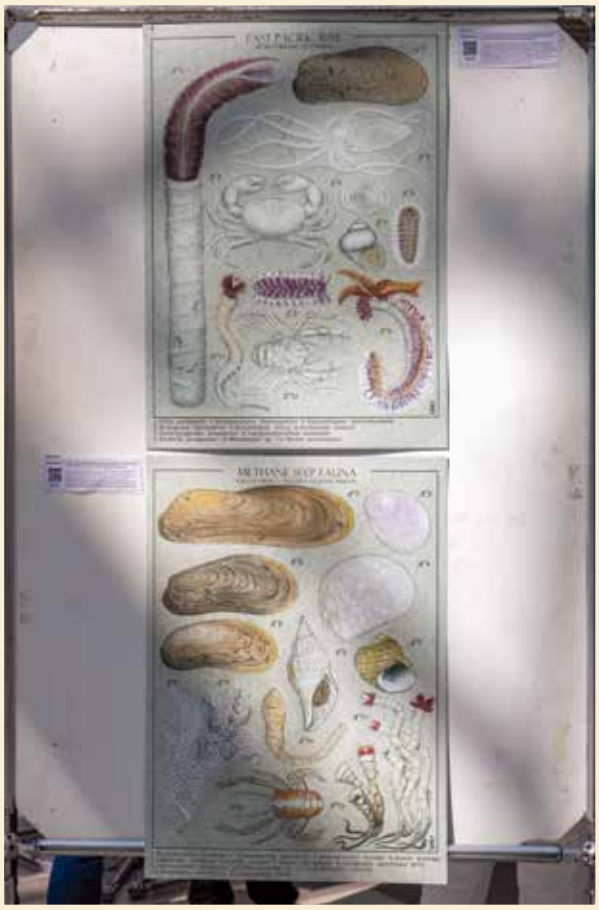
The trip to Hoi Ha Wan Marine Park, with 36 people in total, allows the participants to delve into the vital role of coral in our marine ecosystem, such as exploring the coral nursery facility established by WWF-HK and the Coral Academy of the Chinese University of Hong Kong at the Hoi Ha Marine Life Centre. Additionally, the visitors embarked on a guided ride aboard Transparency, the glass-bottomed boat, where they can marvel at the diverse array of corals and fish thriving in Hoi Ha Marine Park.

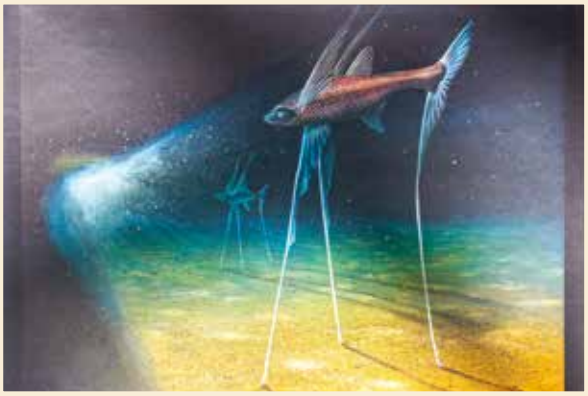
Hong Kong Wetland Park

The Hong Kong Wetland Park is a 60-hectare ecological park, and it serves as a conservation, education, and recreational hub Interpreters will bring participants visit most parts of the park to explore the seasonal charms of wetlands and to discover different wetland plants and animals, such as Pui Pui's Home, Stream Walk, Life Zone, Succession Walk, Riverside Hide, and Mangrove Boardwalk. This trip has attracted 18 participants to explore the region's diverse wetland ecosystem, rich biodiversity and offering interactive exhibitions, outdoor habitats, guided tours, and recreational facilities.

6. Art Exhibition

The Deep-sea Biology Society, along with session chairs Dr. Jozee Sarrazin and Dr. Maria Baker, organized an engaging Art Exhibition at the 17th Deep-sea Biology Symposium (17DSBS). Featuring 39 artworks from 8 talented artists, the exhibition celebrates marine creatures and emphasizes the importance of conservation. Within the 3-day exhibition, each piece invites visitors to explore the beauty and diversity of deep-sea life while fostering discussions about the connection between art and science. This collaboration aims to raise awareness about environmental management and inspire a deeper appreciation for the ocean's fragile ecosystems.





7. Performance on Chinese Culture

We coordinated with the Hong Kong Tourism Board to arrange several performances to introduce the participants to various aspects of Chinese culture, including:

Classical Folk Music Quartet

Chinese Calligraphy on Paper fan

Grasshopper Weaving with Bamboo

Paper Cutting

8. Other Social Moments

9. Closing and Award Ceremony

The 17th Deep-sea Biology Symposium successfully concluded in the afternoon of 17 Jan. 2025. Dr. Michelle Taylor, President of the Deep-Sea Biology Society, and Prof. Pei-Yuan Qian, Chairman of the Local Organizing Committee of the 17DSBS, delivered closing remarks to wrap up the symposium. They expressed their delight on the presence of so many talented young researchers who shared their achievements during the symposium. Dr. Taylor and Prof. Qian encouraged these emerging marine scientists to continue exploring the deep sea for the sustainable management and development of our blue ocean. Finally, they extended their gratitude to all speakers, participants, staff, and volunteers whose contributions made the event a success.

Dr. Michelle Taylor, President of the Deep-Sea Biology Society

Prof. Pei-Yuan Qian, Chairman of the Local Organizing Committee of the 17DSBS

Group Photo at the closing ceremony

Group Photo of the organizing team and student helpers

Award Ceremony: Moment of Honor

In the Award Ceremony, a total of six categories of awards with 35 awardees from 17 countries were announced, including Best Presentation Awards, Early Career Scientist Awards, 17DSBS/DOSI/DSBSoc Travel Awards and Financial Aid for 17DSBS participants. Congratulations to all awardees for your outstanding performance!

DOSI Travel Awards

Dr. Maila Guilhon, the representative of DOSI (Deep-Ocean Stewardship Initiative), presented DOSI Travel Award certificates to five awardees. *Awardees Miss Sidra Erum Ishaq was not present.

From left to right: Dr. Maila Guilhon, Prof. Agnes Muthumbi, Mr. Juliano Marcelo Vilke, Dr. Ramesh Chatragadda, Mr. Kurt Bryant Bacharo

DSBSoc Travel Awards

Prof. Julia Sigwart, the representative of the Deep-sea Biology Society, presented DSBSoc Travel Award certificates to seven awardees. *Awardee Dr. Pedro Augusto da Silva Peres was not present.

From left to right: Ms. Oenone Scott, Dr. Luke McCartin, Ms. Erika Belen Gress, Ms. Lucy Goodwin, Ms. Brenda Lizbeth Esteban Vazquez, Ms. Jaime-Leigh Lue Chin, Ms. Heloisa De Cia Caixeta, Prof. Julia Sigwart

17DSBS Travel Awards

Prof. Pei-Yuan Qian, the chairman of the 17DSBS Local Organizing Committee, presented Travel Award certificates to seven awardees. *Awardee Dr. Loïc Van Audenhaege was not present.

From left to right: Dr. Irina Zhulay, Dr. Nina Yang, Dr. Elin Thomas, Dr. Cármen Sofia Vieira de Sousa, Dr. Tanika Ladd, Dr. Pasqualina Gaetano, Dr. Pavanee Annasawmy, Prof. Pei-Yuan Qian

Early-Career Scientist Awards

Prof. Qian presented certificates to three awardees. *Awardee Dr. Patricia Velez was not present.

From left to right: Dr. Natsumi Hookabe, Dr. Leah Ann Bergman, Dr. Maria Belen Arias Mella, Prof. Pei-Yuan Qian

Financial Aid

Prof. Qian presented the award certificate to Ms. Beatriz Naranjo-Elizondo.

From left to right: Ms. Beatriz Naranjo-Elizondo, Prof. Pei-Yuan Qian

Best Presentation Awards

Prof. Qian and Dr. Taylor presented certificates to eight best presentation awardees, recognizing their outstanding presentations at the 17DSBS.

Best Oral Presentation Award for Students

From left to right: Prof. Pei-Yuan Qian, Ms. Sierra Landreth (First Place), Mr. Juliano Marcelo Vilke (Second Place), Dr. Michelle Taylor

Photos of the best oral presentation awardees during their presentations. Ms. Sierra Landreth (left), Mr. Juliano Marcelo Vilke (right).

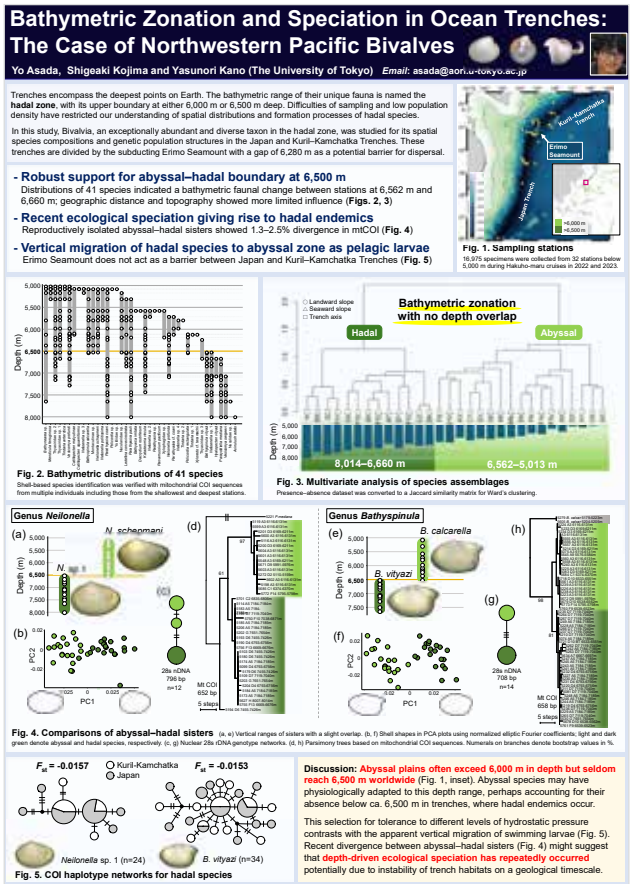
Best Oral Presentation Award for Early-Career Scientists

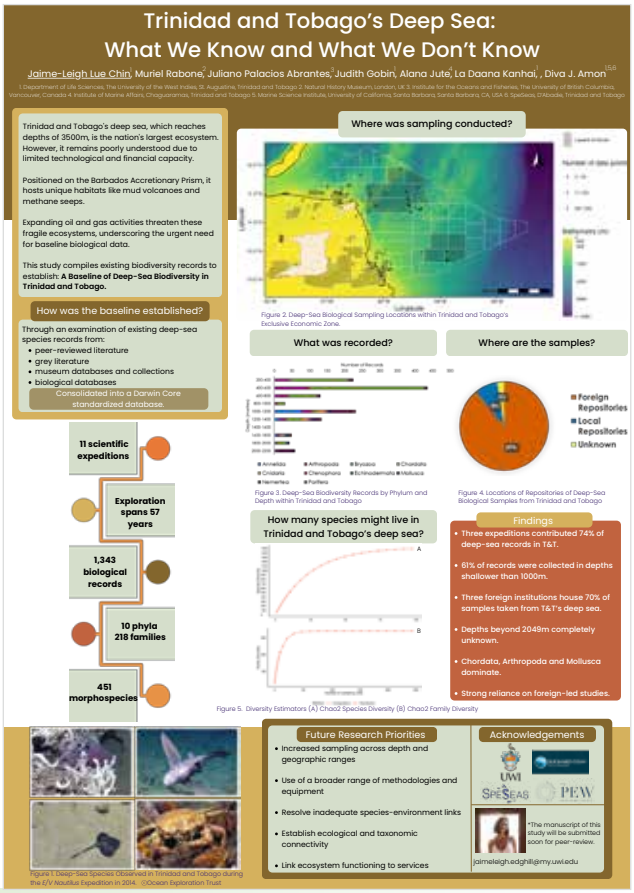
From left to right: Prof. Pei-Yuan Qian, Dr. Irina Zhulay (Second Place), Ms. Vanessa Stenvers (First Place), Dr. Michelle Taylor

Photos of the best oral presentation awardees during their presentations. Dr. Irina Zhulay (left), Ms. Vanessa Stenvers (right)

Best Poster Presentation Awards for Students

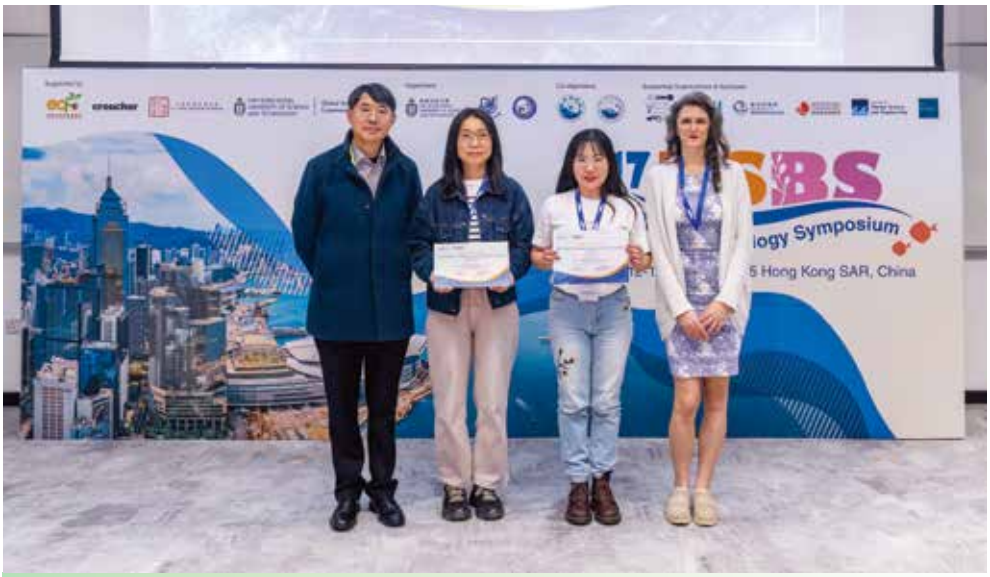
From left to right: Prof. Pei-Yuan Qian, Mr. Yo Asada (First Place), Ms. Jaime-Leigh Lue Chin (Second Place), Dr. Michelle Taylor



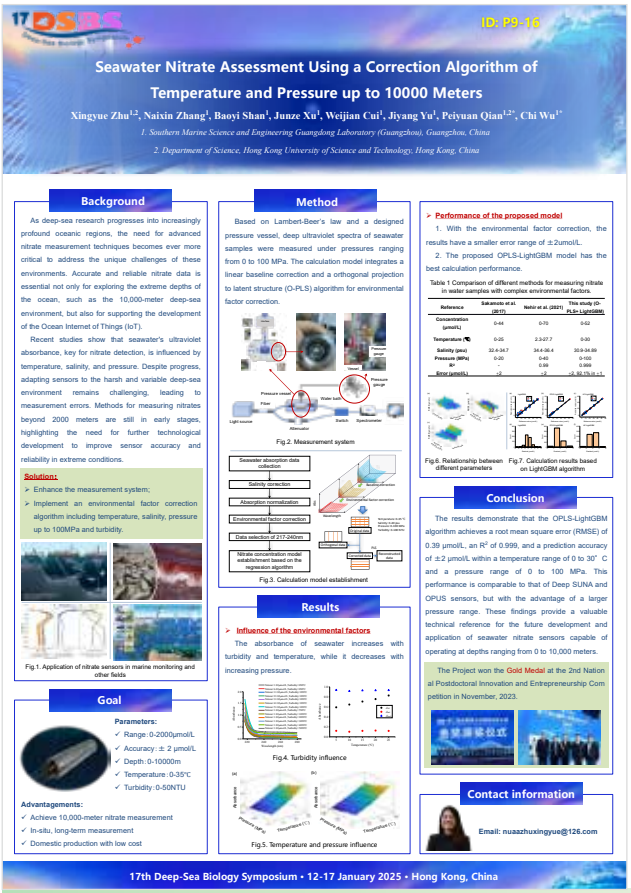


Poster file of the awardees, from left to right: Mr. Yo Asada (First Place), Ms. Jaime-Leigh Lue Chin (Second Place)

Best Poster Presentation Awards for Early-Career Scientists



From left to right: Prof. Pei-Yuan Qian, Dr. Xingyue Zhu (Second Place), Dr. Shan Zhang (First Place), Dr. Michelle Taylor



Poster file of the awardees, from left to right: Dr. Xingyue Zhu (Second Place), Dr. Shan Zhang (First Place)

Travel Award Report

DOSI Travel Award

Agnes Muthumbi

My experience during the 17DSBS in Hong Kong (Agnes Muthumbi, University of Nairobi, Kenya)

I am lucky to have received a travel grant to attend the 17th DSBS, thanks to the symposium organisers and DOSI for the support. The symposium was from the 13th to 18th January 2025. I arrived in Hong Kong on Saturday 11th January in the evening, my first time to travel this far to the east which of course comes with the jetlag experience. Although I had a bit of rough time with the immigration at the airport, I soon forgot that because everything else worked so smoothly, thanks to the order and good planning of the country and a public transport system that works well. I had my first meeting (the DOSI Day) on 12th and that went quite well. It was a good interaction with other DOSI members.

The DSBS was so well organised with very exciting presentations both for plenary and parallel sessions. Excellent logistical organisation that ensured good use of time and side meetings and other activities.

What I noticed with the presentations is that there was a lot taxonomic work unlike most other scientific meetings I have attended and that was quite encouraging to know that taxonomic research is still being supported. I was able to connect with many researchers that hopefully we can collaborate together in future

The food was excellent and the service was superb, so much choices of foods and enough for all, cannot compare with any other scientific meeting I have attended in the recent past.

The symposium provided an opportunity to visit Hong Kong that I probably would never have had the opportunity to visit. Seeing all those very tall buildings, it was amazing. I also had the opportunity to sleep in the highest level so far -floor 38. That I will not forget, for a long time, and sometimes the fear of the lift getting stuck halfway up especially when alone in the lift. For Hong Kong, this never happened.

Thanks so much to all who made it possible for me to attend the 17DSBS in Hong Kong.

DOSI Travel Award

Juliano Marcelo

I would like to begin by expressing my sincere gratitude to the 17th Deep Sea Biology Symposium (DSBS) committee and DOSI for the travel grant that enabled me to attend this life-changing conference. As a PhD student just starting my journey, participating in the 17th DSBS was a significant milestone. It not only broadened my perspective on deep-sea research but also introduced me to the incredible work being done in this field.

Beyond the knowledge gained, the conference provided a valuable opportunity to connect with fellow students and establish meaningful networks. Surrounded by some of the most renowned researchers in deep-sea science, I was inspired by the way the event fostered an environment where young researchers and students were encouraged to share their work. The respectful discussions, constructive feedback, and recognition of outstanding contributions made this an incredibly enriching experience.

I am honoured to have received two awards (2nd of Best Oral Presentation and Travel grant) at DSBS. More than just recognition, these awards have renewed my energy and curiosity for discovery—the very passion that keeps science alive. I am grateful for this encouragement and look forward to continuing my research with even greater enthusiasm.

DOSI Travel Award

Kurt Bryant B. Bacharo

The idea of doing deep-sea biology, had never occurred to me, as I have been used in studying the readily accessible shallow-water reefs in the Philippines, where there has been little to no infrastructural support for deep-sea research. In 2023, I joined Professor James Reimer's laboratory at the University of the Ryukyus in Okinawa, Japan as a graduate student. It was here that I have been introduced to the Japan Agency for Marine-Earth Science and Technology (JAMSTEC). Through the generous grant poured by Ocean Census, I was able to participate in my first deep-sea research cruise aboard JAMSTEC's R/V Kaimei that explored the biodiversity found in the limestone caves of the Daito Islands and the seamounts of the Kyushu-Palau Ridge. This cruise was led by chief scientist Dr. Yoshihiro Fujiwara, who was my supervisor's former postdoctoral advisor.

Boarding the research vessel for three weeks with no prior cruise experience, I gradually learned its intricacies from ROV deployment, video annotations, and specimen identification/sorting. The collected deep-sea coral samples were DNA barcoded and examined under a scanning electron microscope. These provided me the opportunity to generate preliminary findings for my thesis on the diversity of deep-sea corals across selected sites of the northwestern Pacific, of which I presented during the 17th Deep-Sea Biology Symposium (DSBS).

The 17th DSBS marked a significant milestone as it is the first of its kind to be held in Asia. Since its inception, DSBS have been majorly held in the United States and countries across Europe that would provide logistical challenges for visa-restricted passport holders. The venue in Hong Kong that grants visa-free entry to nationals from approximately 170 countries and territories, stirs advantageously to scientists like myself, to be untroubled of the logistical burden. Further, the grants I received from the Deep Ocean Stewardship Initiative (DOSI) and Ocean Census helped in alleviating the financial strains.

Arriving in Hong Kong for the first time on the Sunday evening of January 12, I fell in love with the cosmopolitan city by its neon lights, and the stunning views of the towering skyscrapers. The efficient transportation system made it seamless for me to arrive at my hotel and get some much-needed rest. By Monday morning, it marked the start of the symposium sessions, shuttle buses near the hotels were facilitated by the local organizing team that would facilitate transportation directly to Hong Kong University of Science and Technology (HKUST). At the symposium venue, I was

reunited with Dr. Leah Bergman and Dr. Natsumi Hookabe, senior colleagues at JAMSTEC who played key roles on the expedition I had participated in prior. Apart from them, I did not know anyone, except for few scientists that I knew by name from scientific articles. As the symposium progressed, familiarity becomes the norm where everyone in the community was just so welcoming and actively engaged.

I was a bit nervous waiting for my presentation which was on Friday morning, but I took that opportunity to assimilate new information by taking a keen interest and drawing inspiration into the exceptional research works of other people. Their topics ranged from theoretical, experimental, and systemic issues, each contributed to a broader understanding of deep-sea biology. Two talks resonate to me deeply, these include the presentation made by Dr. Julia Sigwart and Dr. Diva Amon. The former highlighted the need for modern approaches in taxonomy, an often-overlooked field, and is now, sadly being integrated with more economically motivated disciplines for it to secure funding. Whereas the latter, addressed the elephant in the room, on how deep-sea biology could be more inclusive, and equitable to all, particularly to scientists coming from low-to-middle-income and developing nations. On the day of my talk, I am comforted by the support provided by my JAMSTEC colleagues and newly acquainted friends. This was later followed by kind words from Dr. Michelle Taylor and Dr. Jessica Gordon, few of the deep-sea coral geeks present in the gathering.

Attending the 17th DSBS to share our work was a privileged that I am grateful for. But probably for someone coming from a humble background and who is just starting to dive into the deep-sea, the real rewards are the experiences gained, and the human connections that were built after the event. I am really looking forward to the 18th DSBS in Bergen!

DOSI Travel Award

Ramesh Chatragadda

I had the privilege of attending 17th Deep Sea Biology Symposium (17DSBS) held from 12-17 January 2025 at Hong Kong University of Science and Technology, Hong Kong SAR, China. I had the privilege of attending my first-ever Deep-Sea Biology Symposium, a milestone experience that broadened my knowledge and perspectives on this fascinating field. The event exceeded my expectations, offering invaluable insights into deep-sea biodiversity patterns from diverse regions. The symposium highlighted the urgent need for conservation efforts, particularly in the face of deep-sea mining, which poses a devastating threat to biodiversity. Several researchers have emphasized the importance of protecting deep-sea diversity, including unique ecosystems like cold seeps and hydrothermal vents. The event also underscored the significance of innovative research techniques, such as eDNA and metabarcoding, in monitoring diversity and distribution patterns of microbes and macroorganisms from pelagic and benthic regions. Ultimately, the symposium stressed the vital role of deep-sea researchers in conservation efforts and encouraged collaborative efforts to protect the world's precious deep-sea ecosystems.

I sincerely thank Prof. Pei-Yuan Qian and all other organizers for their wonderful hospitality during this symposium. I am deeply impressed by the exceptional organization, impeccable time management, warm hospitality, and meticulous attention to detail, including food arrangements, transportation, and overall care, provided during this symposium. The entire experience was truly rejuvenating, leaving me feeling inspired, refreshed, and renewed. I am extremely grateful to DOSI for giving me the Travel award to attend and present my research in this symposium.

This experience has not only broadened my knowledge but also forged connections with fellow researchers, paving the way for potential collaborations and future research initiatives focused on deep-sea biodiversity in Indian waters. I would like to extend my sincere gratitude to all the researchers and colleagues who shared their valuable insights and expertise at this symposium. I am eagerly looking forward to reconnecting with them at future events and continuing the exchange of knowledge and ideas.

DOSI Travel Award

Sidra Erum Ishaq

Exploring the Frontiers of Deep-Sea Research: My Experience at 17DSBS

Attending the 17th Deep-Sea Biology Symposium (17DSBS) was an incredible opportunity to immerse myself in the latest advancements in deep-sea microbiology, engage with leading scientists, and share my own research on cultivating uncultured deep-ocean microbes. Receiving the **Travel Award** made this journey possible, and I am deeply grateful for the support. I was particularly excited to explore novel cultivation techniques, exchange ideas with experts, and gain insights that could enhance my research.

Scientific Takeaways

One of the most fascinating sessions focused on **deep-sea microbial ecology**, where **Dr. Ken Takai** presented groundbreaking research on the microbial ecosystem in Deep-Sea hydrothermal systems. This talk directly aligned with my work on alkane-degrading microbes, sparking new ideas for refining my experimental approaches. Additionally, discussions on in-situ cultivation techniques resonated with my research on the Spent **culture medium method**, inspiring potential modifications to improve the recovery of previously uncultured microbes.

Networking and Collaborations

Beyond the engaging talks, **networking was a key highlight** of my experience. I had the chance to connect with researchers working on manganese-oxidizing microbes with **Andrew K Sweetman**, leading to insightful discussions on possible **co-metabolic interactions** that could shape my future studies. Conversations with fellow early-career scientists were equally inspiring—we exchanged ideas on optimizing cultivation strategies, opening doors for future collaborations.

Personal Reflections

What stood out to me the most was the collective passion and dedication of the **deep-sea research community**. The symposium reinforced my commitment to exploring the metabolic potential of uncultured microbes and motivated me to integrate **genomics with cultivation techniques** for a more comprehensive understanding of deep-sea microbial life. This experience has broadened my scientific perspective and given me fresh inspiration for my research journey.

Conclusion

Attending **17DSBS** was a truly enriching experience, providing invaluable scientific insights and networking opportunities. I am thankful for the support that made this journey possible and look forward to applying the knowledge gained to my research. For any early-career scientist passionate about **deep-sea biology,** I highly recommend participating in future **DSBS events**—it is an unparalleled opportunity to learn, collaborate, and contribute to this exciting field.

DOSI Travel Award

Tariq Ahmad

The Deep-Sea World: Biology, Adaptations, and Discoveries My Journey at 17DSBS

Attending the 17th Deep-Sea Biology Symposium (17DSBS) was a remarkable experience that provided me with the opportunity to engage with leading scientists, discuss innovative research, and present my work on the cultivation of deep-sea microbes. Receiving the Travel Award made it possible for me to be part of this prestigious event, and I am truly grateful for the support. I was eager to explore new perspectives on microbial ecology, network with experts, and gain insights that would enhance my research on deep-sea microbiology.

Exploring Cutting-Edge Research

The symposium featured a diverse range of talks and discussions, but the most inspiring sessions for me were those focused on the microbiome and novel methods and practices. A presentation on deep-sea bacteria, archaea and their role in biogeochemical cycles mainly resonated with my research on exploration of sulfur oxidizing microbes. It was fascinating to see how recent advancements in molecular techniques are improving our ability to study these elusive microorganisms. Additionally, discussions on Distribution and Genomic Variation of Ammonia-Oxidizing Archaea provided valuable insights into potential metabolic pathways that could be relevant to my work.

Building Meaningful Connections

One of the most rewarding aspects of 17DSBS was the opportunity to interact with fellow researchers. Engaging conversations with scientists working on deep-sea symbioses gave me fresh perspectives on the adaptations of microbes in extreme environments. I also had insightful discussions with researchers interested in Polymetallic nodules, leading to exciting ideas about potential interdisciplinary collaborations. These exchanges not only broadened my understanding of deep-sea microbial processes but also opened doors for future research opportunities.

Reflections and Future Directions

What I found most inspiring about 17DSBS was the passion and enthusiasm of the deep-sea research community. From early-career scientists to well-established experts, everyone shared a common goal: to push the boundaries of knowledge in deep-sea biology. This experience has reinforced my motivation to continue exploring the metabolic potential of uncultured microbes and to incorporate innovative cultivation techniques into my work. The discussions and insights gained at this symposium will undoubtedly shape my future research directions.

Final Thoughts

Participating in 17DSBS was an unforgettable experience that provided me with valuable scientific knowledge and networking opportunities. I am deeply appreciative of the support that allowed me to attend, and I look forward to applying the insights gained to my research. I encourage all early-career researchers to take part in future DSBS events, as they offer an unparalleled platform for learning, collaboration, and discovery in the field of deep-sea biology.

DOSI Travel Award

Titus Cañete

Hong Kong was a first for me, and it was colder than I had expected. Thankfully, I had family in the city who made sure I was geared up for the weather. But beyond the crisp air and towering skylines, what truly made this trip memorable was attending the 17th Deep-Sea Biology Symposium (DSBS)—a gathering of some of the world's brightest minds in deep-sea research.

Every day began with train and bus rides to the venue—quiet moments that became my personal preparation time before immersing myself in a whirlwind of scientific discussions. The symposium was filled with incredible talks, and I often found myself caught between the difficult decision of grabbing one of the delicious snacks or diving into a conversation with a fellow researcher—sometimes, we managed to do both!

The sheer excitement in the room was contagious. During many of the lectures, the audience would erupt in "oohs" and "aahs" as speakers presented groundbreaking discoveries—powerful reminders of just how much we still have to learn about our deep oceans.

One of the highlights of the event was reconnecting with friends I had met before. We became daily lunch buddies, making it much easier to meet new people and engage in discussions beyond the conference halls. And speaking of lunch—every meal was an adventure. You never knew what you were about to eat, until you suddenly realized it was jellyfish!

There was a running joke at the event: You can only pick two—science, socializing, or sleep. I made my choice early on: science and socializing. Late-night discussions, exchanging ideas, and absorbing all the new knowledge were worth the sacrifice of a few hours of sleep.

When it was finally my turn to present, I stood before a room full of deep-sea scientists, heart pounding. I started with a joke to ease the nerves and hopefully delivered a talk that did justice to the incredible research happening in our region (I was told I did).

Although this wasn't my first trip abroad, I am always amazed by how different cultures can be, even just a short distance from home. Hong Kong is definitely a place I'd love to visit again—maybe even for a future research collaboration.

The 17th DSBS was more than just a conference. It was an experience—one filled with brilliant science, inspiring people, and a renewed sense of wonder for the deep. I am deeply thankful to have been given the opportunity to attend and represent my country and our research at such a prestigious event. A huge thanks to everyone who supported me in making this participation possible!

17DSBS Travel Award

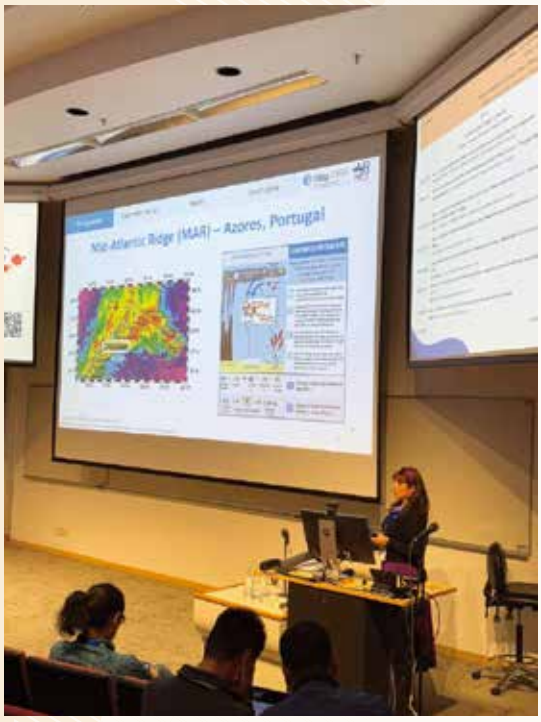
Cármen Sofia Vieira de Sousa

Hello! I am Cármen Sofia Vieira de Sousa, and I am thrilled to share that my application for the travel grant was successfully awarded, enabling me to attend the 17th Deep-Sea Biology Symposium (17DSBS), held from 12-17 January 2025, at the Hong Kong University of Science and Technology (HKUST).

This award provided me with an incredible experience. I had the opportunity to meet outstanding researchers at the international level, attend fascinating presentations across various areas of deep-sea science, and share my own research on the effects of metal toxicity in deep-sea mussels within the context of deep-sea mining.

This symposium was not just a scientific event to present and discuss ideas but also a gateway to valuable networking, cultural exchange, and personal growth. I immersed myself in the rich traditions of Chinese culture, tasted delicious traditional cuisine, and explored the beauty of Hong Kong, including a memorable visit to the Marine Park.

This time in Hong Kong was nothing short of amazing, filled with inspiring people, vibrant energy, and unforgettable moments. I truly hope to return to this wonderful city and its welcoming community in the future!



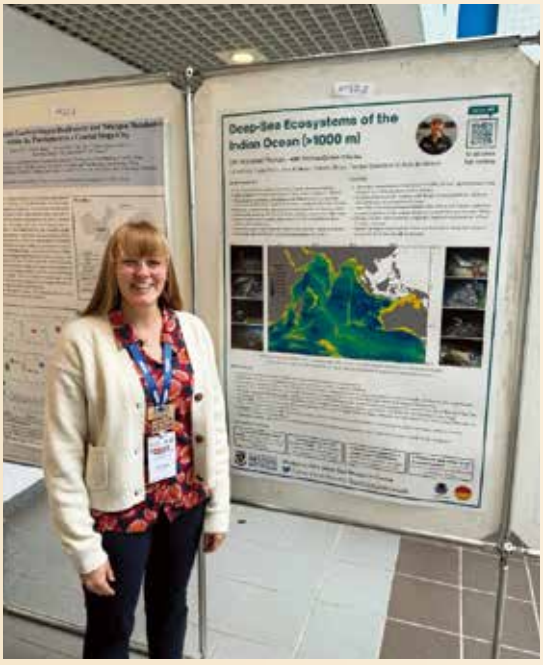
17DSBS Travel Award

Elin Thomas

With the support of the 17DSBS Travel Award, I attended the 17th Deep-Sea Biology Symposium in January 2025, hosted by the Hong Kong University of Science and Technology. This was the first time that the Symposium was held in Asia and my first time visiting bustling Hong Kong. It was a busy and exciting week and I'm very grateful to the 17DSBS Secretariat for supporting my attendance.

At the Symposium, I represented both the Deep-Ocean Stewardship Initiative (DOSI) in my role as Communications Manager, and the University of Western Australia, where I am an Adjunct Research Fellow. We held DOSI Day the day before the Symposium kicked off and it was great to see a lot of the discussions that started at DOSI Day continue throughout the week.

On the first day of the Symposium, I co-presented a talk titled 'The decade that was for the Decade that is' with DOSI Programme Officer, Dr Chris Barrio Froján, during the 'Decade of Ocean Science Program Highlights' session. This talk summarised the work the DOSI has been doing since it was founded over a decade ago in 2013 and during the current UN Ocean Decade (2021-2030). This was a great session of talks, and I particularly enjoyed learning about the variety of deep-sea Decade-endorsed programmes and projects, including the Digital DEPTH led by China Deep Ocean Affairs Administration, and how to get more involved with the Decade. There



were so many brilliant talks throughout the week that it was often difficult to pick between the parallel sessions! I'm grateful that the sessions were recorded and I've caught up on a number of talks since returning home.

I also presented a poster on the "Deep-sea ecosystems of the Indian Ocean (>1000 m)" during Tuesday afternoon's poster session. This was a great opportunity to network and discuss my research findings with other deep-sea scientists. I was excited to hear that the review paper on which my poster was based is being used to help update a description of the Indian Ocean region for the development of regional environmental management plans. The Symposium allowed for several networking opportunities like this, and the daily sit-down lunches provided good chances to meet and chat with senior and early-career researchers that I hadn't met before. This was a highlight for me, especially catching up with colleagues and collaborators, some of whom I'd only ever met online before this Symposium. As DSBSoc President, Dr Michelle Taylor, reiterated throughout the week, this is a wonderful deep-sea research community, and I feel privileged to be a part of it!

17DSBS Travel Award

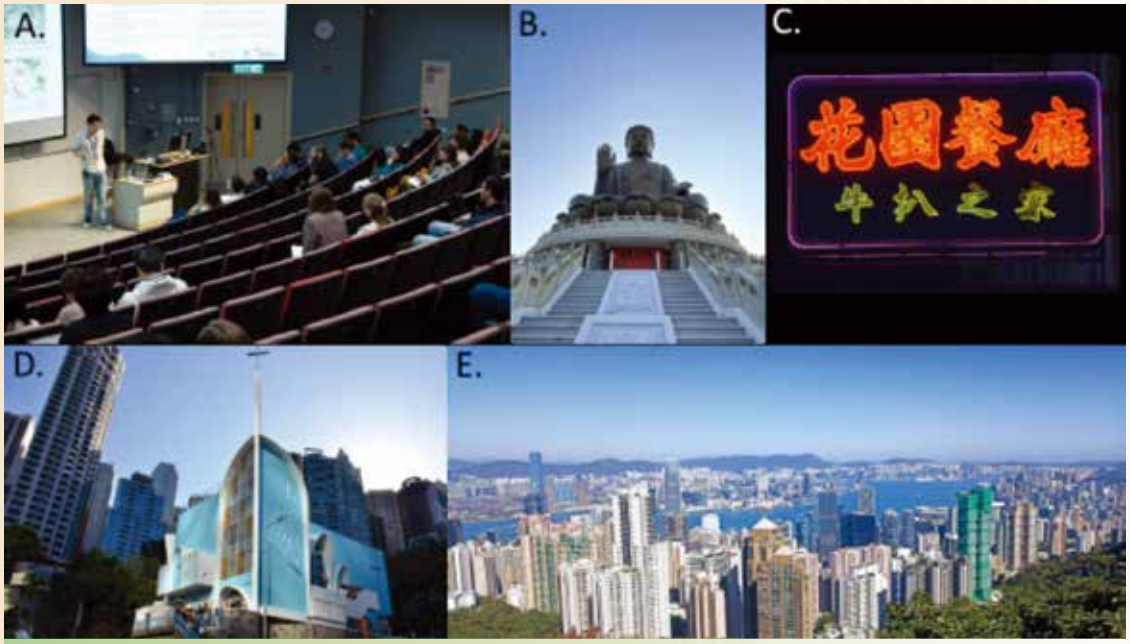
Loïc Van Audenhaege

I am a postdoctoral researcher at the National Oceanography Centre in Southampton, UK, specializing in the study of megafaunal communities in polymetallic nodule abyssal plains of the Pacific Ocean using benthic imagery. I was honoured to receive a travel award to attend the 17th Deep-Sea Biology Symposium in Hong Kong.

This symposium provided a unique platform to explore the remarkable diversity of deep-sea ecosystems and the latest advancements in deep-sea research. The wide array of presentations and posters showcased cutting-edge findings, offering valuable insights into emerging research trends that will shape the field in the coming years. As an early-career researcher, this exposure has been instrumental in refining my research focus and aligning my work with the broader trajectory of deep-sea ecology.

Beyond the scientific discussions, the conference was an excellent opportunity to connect with leading experts and fellow early-career researchers from around the world—an interaction that had been limited in recent years due to the COVID-19 pandemic. Engaging with peers and mentors fostered discussions on potential collaborations and data sharing. More specifically, my presentation sparked insightful conversations, leading to invaluable feedback and new ideas for refining my work.

Finally, my time in Hong Kong allowed me to experience a part of the Greater Bay Area, one of the world's largest urban regions. I was captivated by its rich cultural and historical heritage, which added a memorable dimension to this rewarding academic journey.



***A**. Loïc Van Audenhaege presenting on Thursday 16th of January 2025 at the Deep-Sea Biology Symposium, **B**. The Tian Tan Buddha on Lantau Island, **C**. Example of iconic neon signs of Mong Kok at night, **D**. St. Joseph's Church under evening light, **E**. Skyscraper panorama from the Peak in Hong Kong Island.*

17DSBS Travel Award

Nina Yang

As an as early-career deep-sea scientist, attending the 17th Deep-Sea Biology Symposium at HKUST was an invaluable opportunity. This event not only broadened my scientific horizons but also provided me with the chance to share my research and engage with colleagues in person!

One of the most memorable aspects of the conference was the range of scientific topics, particularly those focused on deep sea ecology, conservation, and pelagic biology. I was especially interested in talks that highlighted the use and integration of cutting-edge tools such as acoustics, camera systems, stable isotopes, and various 'omics techniques. These innovations showcased how researchers are tackling ecological questions in this vast ecosystem where deep waters present significant barriers. I also attended talks outside my immediate field, such as those on Sensory Biology, which deepened my appreciation for life in the deep sea and its remarkable adaptations.

I was fortunate to present my current research during the Deep Pelagic Ocean session. My work applies multi-marker eDNA metabarcoding approaches to characterize water column biodiversity and community structure, spanning from the surface to the base of the mesopelagic zone. Taking an ecological network perspective, I presented on multi-trophic interactions spanning microbes to top predators and discussed their implications for ecosystem stability and resilience. I am grateful to the session organizers for this opportunity. Sharing this work with the community was an exciting opportunity to foster conversations about new approaches for deep sea research.

Networking was another highlight of the conference. During the poster session, lunch hour, and tea breaks, I had the chance to meet collaborators I had only worked with virtually over Zoom. Meeting in person provided a unique opportunity to strengthen these relationships and advance our shared goals. These interactions reaffirmed my belief in the importance of collaboration and interdisciplinary dialogue in advancing deep-sea research.

Attending 17DSBS was an inspiring experience that will undoubtedly shape my research and professional growth in the years to come. I am deeply grateful to the organizers and sponsors of the travel award for making this opportunity possible. I look forward to continuing the conversations started at the symposium and contributing to the exciting future of deep-sea science.

17DSBS Travel Award

Pavanee Annasawmy

I am a biological oceanographer and for the last 10 years, I have been working on a group of organisms collectively called micronekton. Micronekton is composed of fish, crustaceans, and squids that range from 2 to 20 cm in size and live in the deep ocean. I was nominated by the United Nations to act as coordinating author to assemble a team of experts to work on the supchapter on seamounts for the 3rd World Ocean Assessment.

For the first time in my career, I was given the opportunity by the DSBS organizing committee to take part in the symposium as co-chair and as an invited speaker in the "Ecological Impacts of Abrupt Bathymetry" sub-session under the session on "Ecology and Conservation". During the symposium, I introduced my writing team's work on "Seamounts and Pinnacles of the Global Ocean". I focused my talk on my work on seamounts of the Indian Ocean which I studied extensively. My research has questioned some well-known paradigms in seamount research. One of my significant contributions to seamount research, demonstrates how seamounts form distinct "isotopic" barriers in the ocean and how climate change will shift the trophic distribution and resource partitioning of epipelagic and mesopelagic organisms. This research highlights the critical role of seamounts in marine ecosystems and the potential impacts of climate change on these unique habitats.

The opportunity to attend the 17th DSBS symposium was an important career stepping stone since my achievements and contributions to seamount research was recognized at the international level despite my young age. This symposium helped me put myself forward as the micronekton expert from the Indian Ocean. This opportunity enhanced my visibility in the scientific community. My intervention attracted interesting questions from the audience and from researchers who came to discuss with me afterwards. I used this opportunity to network with other researchers and solidified collaborations on research projects and papers within the DOSI network and beyond. The travel award enabled me to participate fully in the symposium and maximize my professional development opportunities.

17DSBS Travel Award

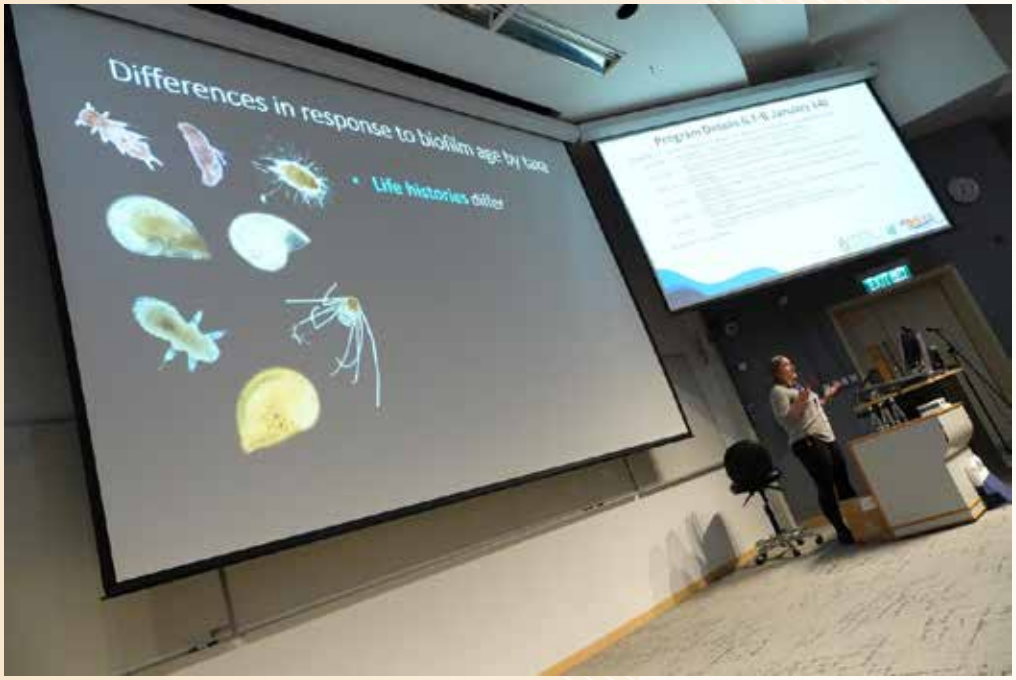
Pasqualina Gaetano

The 17th Deep-Sea Biology Symposium was a great opportunity for a junior postdoc like me, newly immersed in the field of deep-sea research. The diverse and engaging topics explored during the daily sessions, along with the multidisciplinary and insightful talks and posters presented, created an invaluable platform for learning, professional development, and interactions within the deep-sea biology community.

17DSBS Travel Award

Tanika Ladd

For the 17th Deep-Sea Biology Symposium, a horde of scientists from around the world descended on Hong Kong. I was one of these scientists coming from the United States where I am currently a postdoctoral researcher at Western Washington University. This was my first time in Hong Kong and to get there I took the longest flight I have ever taken (~13 hrs). The week of the symposium flew by as we dove into the science, caught up with old colleagues and friends, made new connections, and explored the beautiful city of Hong Kong. I was excited to share the newest results from our work on microbial biofilms and larvae at the East Pacific Rise hydrothermal vents and I am happy that my presentation was early in the week before I became to sleep deprived. No matter how many times I give talks or stand up in front of audiences, I still get nervous, but conferences like this one are so important and inspiring, especially as an early career scientist, because you come away with great feedback, new ideas, and a network of people that all love science as much as you do. You can't help but return home with motivation, despite the fact that you probably need a break. Not only was the science terrific, but the local organizing committee at the Hong Kong University of Science and Technology (HKUST) made everything run smoothly, fed us wonderful food, and made the overall symposium a success. Outside of the lecture halls, some of my favorite experiences of the week included visiting the Hong Kong UNESCO Global Geopark, watching horseracing at the Happy Valley Racecourse, walking the busy streets of the city, and eating so much delicious food. I could have spent a lot longer being a tourist in Hong Kong but that just means I'll have to come back for another trip in the future. I greatly appreciate the 17DSBS travel award that allowed me to attend in person and get this amazing experience, I am looking forward to the next symposium and another adventure!



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