



# The 17<sup>th</sup> INTERNATIONAL KUROSHIO SCIENCE SYMPOSIUM

“Marine Resources Nurtured by the Biological and Environmental Diversity of the Kuroshio Region: Collaborative Research for Innovation in Elucidation, Utilization, and Management”

November 4<sub>MON</sub>-6<sub>WED</sub>, 2024

Venue: Asakura Campus, Kochi University

**ABSTRACT BOOK**

# **Schedule**

## **Day 1: November 4 (Mon)**

Networking Event with Alumni and Students for the Kochi University 75th Anniversary Ceremony (Venue: Classroom 153)

- 9:00 Opening Ceremony
- 9:05 Keynote Lecture 1  
“Promoting the Aquaculture Industry with Sustainable Deep Ocean Water Resources”  
Huang, P.-Y. (TAMSUO Aquatic Products, Taiwan)
- 9:30 Reports from Alumni
- 10:30 Break
- 10:40 Reports from Alumni
- 11:30 Lunch
- 12:30 End of Networking Event

17th International Kuroshio Science Symposium Day 1 (Venue: Classroom 153)

- 13:00 Opening Ceremony  
Ukeda, H. (President, Kochi University, Japan)
- 13:15 Keynote Lecture 2  
“Currents of Early Globalization: Kuroshio and the Manila-Acapulco Galleon Trade (1565-1815)”  
Gerona, D. M. (Partido State University, Philippines)
- 13:50 Break
- 14:00 O1-01 “Can Indigeneity and Indigenous Fishing Practice Strengthen Resiliency of Fishing Communities against Climate Change and Promote Blue Transformation that can Support a Sustainable Blue Economy? Evidence from Tuna Hand Line Fishery of Lagonoy Gulf, Philippines”  
Bradecina, R. G. (Partido State University, Philippines)
- 14:15 O2-02 “Microfinance, Social Networks, and Marine Protected Area Compliance in Fishing Communities”  
dela Vega, J. M. A. (Partido State University, Philippines)

- 14:30 O1-03 “Promoting Effective MPA Management by Local Communities for Coastal Resource Conservation: Approach from Fostering Social Capital”  
Shinbo, T. (Kochi University, Japan)
- 14:45 Break
- 15:00 O1-04 “Gliding Over Waves: Exploring the Mysterious Journey of Bony Flyingfish (*Hirundichthys oxycephalus*) in the Northwestern Pacific”  
Chang, S.-K. (National Sun Yat-Sen University, Taiwan)
- 15:15 O1-05 “The Age and Reproduction of *Sardinella lemuru* in East Central”  
Parreño K. A. (University of the Philippines Visayas, Philippines)
- 15:30 O1-06 “Path of the Kuroshio”  
Yoritaka, H. (Kochi University, Japan)
- 15:45 O1-07 “Latitudinal Diversity Gradients of Marine Benthos Along Japan’s Coasts”  
Jaspe, B. T. (Kochi University, Japan)
- 16:00 O1-08 “Lithium and Strontium Isotopic Observation of Hot Spring Waters in the Noto Peninsula before and after the 2024 M7.6 Earthquake: Implications for the Origin of Geofluids Involved in Earthquakes”  
Zandvakili, Z. (Kochi University, Japan)
- 16:15 Poster session in Classroom 152
- 18:00 End of Day 1 Events

#### Poster Session (Venue: Classroom 152)

- P-01 “Ethnobotany and Antioxidant of Secondary Metabolite from Understorey Plant of Sinsagok Forest in Sanggau Regency West Kalimantan Indonesia”  
Diba, F. (Bogor Agricultural University, Indonesia)
- P-02 “Marine Conservation Actions on Islands: The Impact of Designing Sustainable Tourism Activities on the Core Competencies of College Students in Taiwan”  
Tseng, S.-W. (National Taiwan Ocean University, Taiwan)
- P-03 “Nesting Site Preferences of Sand Dwelling Gobies Revealed by Tailored Artificial Reefs”  
Godfrey, H. H. (Kyoto University, Japan)
- P-04 “Development of a Method to Quantify the Impact of Bio-irrigation through *Upogebia* Burrows on the Marine Environment”  
Takeno, K. (Kyoto University, Japan)
- P-05 “Functional Analysis of Increased GRP78 Expression due to Cellular Aging”  
Escareal, Z. A. K. B. (Kochi University, Japan)

- P-06 “*Ulva meridionalis*-derived Polysaccharides Activate the  $\beta$ -catenin Pathway in Intestinal Epithelial Cells”  
Maejima, Y. (Kochi University, Japan)
- P-07 “Regulation of Bioactive Compound Production in Co-cultures of Marine Bacteria”  
Hirano, A. (Kochi University, Japan)
- P-08 “Effect of Phosphite-utilizing Bacteria on the Growth of Other Bacteria”  
Homareda, A. (Kochi University, Japan)
- P-09 “Abdominal and Pleopod Variation of the Bopyrid Isopod *Ione cornuta*, a Parasite of the Ghost Shrimp *Neotrypaea japonica*, in Western Japan”  
Kume, H. (Kochi University, Japan)
- P-10 “How Well Do Protected Areas Conserve Biodiversity across Taxa amidst Climate Change”  
dela Vega, J. M. A. (Kochi University, Japan)
- P-11 “Genomic Divergence of *Acropora hyacinthus* from Kochi versus *Acropora* Species in Okinawa”  
Manalili, S. E. N. (Kochi University, Japan)
- P-12 “Tellinid Bivalves of Shallow Depths in Uranouchi Inlet, Tosa Bay, Japan (Bivalvia: Tellinidae)”  
Ito, S. (Kochi University, Japan)
- P-13 “The Status of the Loggerhead Turtle Nesting and Coastal Environment on Kochi Beach”  
Yamaguchi, N. (Kochi University, Japan)
- P-14 “Larval Development of the Deep-Sea Sponge-Associated Shrimp, *Spongiicola venustus* (Decapoda: Spongicolidae), Documented for the First Time in 150 Years”  
Nakayama, K. (Kochi University, Japan)
- P-15 “Dose-Response and Molecular Regulatory Patterns of *Gracilariopsis heteroclada* to Fluoroquinolones”  
Lin, K. (Guangdong Ocean University, China)
- P-16 “*Azolla* Culture at Varying Amounts of (*Best organic material in Study 1*)”  
Molina, C. C. (Ilocos Sur Polytechnic State College, Philippines)

## Day 2: November 5 (Tue)

### 17th International Kuroshio Science Symposium Day 2 (Venue: Media no Mori)

- 9:30 Keynote Lecture 4  
“Science, People and Governance: Operating the Philippines’ Northern Pacific Seaboard Fisheries Management Area”  
Ballad, E. L. (Bureau of Fisheries and Aquatic Resources, Philippines)
- 9:55 O2-01 “Status and Prospects of the Fishery Resources of Divilacan, Isabela”  
Ame, E.C. (Bureau of Fisheries and Aquatic Resources, Philippines)
- 10:10 O2-02 “Ticao-Burias Pass Protected Seascape (TBPPS): Socio-Economic Baseline Study”  
Nieves, P. M. (University of Santo Tomas–Legazp, Philippines)
- 10:25 O2-03 “Developing a Coastal Resource and Environment Mapping Protocol using Drone Survey-QGIS-Photogrammetry Applications”  
Espadero, A. D. A. (Mindanao State University at Naawan, Philippines)
- 10:40 Break
- 11:00 O2-04 “Who Concerns the Channels? The Impact of Offshore Wind Farm Channel Planning on Stakeholders in Taiwan”  
Tseng, S.-W. (National Taiwan Ocean University, Taiwan)
- 11:15 O2-05 “Institutional Fragmentation in Fisheries Management: Co-Management and the Circumstances of Countries in the Kuroshio Current Region”  
Wu, B-S., Yang, M-H. (National Taiwan Ocean University, Taiwan)
- 11:30 O2-06 “Legal Frameworks for Offshore Wind Energy Development in Taiwan and Japan: Marine Spatial Planning and Future EEZ Governance”  
Tsai, W-T., Yang, M-H. (National Taiwan Ocean University, Taiwan)
- 11:45 O2-07 “A Comparative Analysis of Risk Management Practices in Marine Activities between Taiwan and Japan: With a Focus on Diving Insurance Policies”  
Lin, Y-Y., Yang, M-H. (National Taiwan Ocean University, Taiwan)
- 12:00 Break
- 12:15 O2-08 “Analysis of Extractive, Phytochemistry and GCMS of Gaharu (*Aquilaria malacensis* Lamk) from Landak Regency West Kalimantan Indonesia”  
Diba, F. (Tanjungpura University, Indonesia)
- 12:30 O2-09 “The Characteristics of Gelam (*Melaleuca leucadendra*) Essential Oils From Sambas Regency and Singkawang City of West Kalimantan, Indonesia”  
Yusro, F. (Tanjungpura University, Indonesia)

- 12:45 O2-10 “The Chemical Compound Profiles of and Anti-Fungal Activity of Essential Oils of Bay Leaves (*Syzygium polyanthum*) from Two Areas in West Kalimantan, Indonesia”  
Mariani, Y. (Tanjungpura University, Indonesia)
- 13:00 Commemorative Photo
- 13:10 Lunch
- 14:30 Keynote Lecture 5  
“Looking inside the Marine Research Center for Verde Island Passage after Five Years”  
Saco, J. A. (Batangas State University, Philippines)
- 14:55 O2-11 “Marine Macrophyte Assessment in Claver, Surigao del Norte, Philippines”  
Calala, L.R. (Mindanao State University at Naawan, Philippines)
- 15:10 O2-12 “Taxonomic Delimitation of the Monostromatic Green Algal Genera *Monostroma* Thuret 1854 and *Gayralia* Vinogradova 1969 (Ulotrichales, Chlorophyta)”  
Cui, J. (Guangdong Ocean University, China)
- 15:25 O2-13 “Dose-response Pattern of Marine Macroalgae *Gracilaria bailinae* to Three Fluoroquinolones and the Cause-Outcome Relationship of Dose, Growth, Toxicity and Absorption”  
Lin, K. (Guangdong Ocean University, China)
- 15:40 O2-14 “Expanding land-based cultivation of *Ulva* “SeaWheat” from Kochi, Japan”  
Hiraoka, M. (Kochi University, Japan)
- 15:55 Break
- 16:15 Keynote Lecture 6  
“Evaluate Northwest Pacific Fisheries Resources Using DNA Markers”  
Lin, H.-C. (National Sun Yat-Sen University, Taiwan)
- 16:40 O2-15 “Population Genetics and Evolutionary History of the Indian Squid, *Uroteuthis duvaucelii* (d’Orbigny, 1935), in the Central Indo-Pacific”  
Halasan, L. C. (National Sun Yat-Sen University, Taiwan)
- 16:55 O2-16 “Statolith Elemental Signatures of the Squid, *Uroteuthis duvaucelii*, in the Tropical Western Pacific”  
Legaspi, J. (Kochi University, Japan)
- 17:10 O2-17 “Elemental Profiles and Cyclic Growth Patterns in Japanese Precious Corals: Insights from *Corallium japonicum* and *Pleurocorallium konojoi*”  
Pepino, M.M.C. (Kochi University, Japan)
- 17:25 Break
- 17:35 O2-18 “Intensity of Wood Attacks Marine Borers at Sea on Meranti and Bengkirai Wood”  
Yanti, H. (Tanjungpura University, Indonesia)

- 17:50 O2-19 “Macrofaunal Assemblage and Habitat Conditions of River Systems in Claver, Surigao del Norte, Philippines”  
Padilla, R.F.Q (Mindanao State University at Naawan, Philippines)
- 18:05 O2-20 “Impact of Trematode Parasitism on the Distribution Patterns of *Batillaria multiformis* in Intertidal Zones”  
Bradecina, S. R. B. (Kochi University, Japan)
- 18:20 Closing Ceremony  
Itani, G. (Symposium Chair, Kochi University, Japan)
- 18:30 Move to the Cafeteria
- 18:45 Banquet
- 20:45 End of Day 2 Events

### **Day 3: November 6 (Wed)**

#### Excursion - Ryuga-do Limestone Cave Tour (Half Day)

Ryuga-do Cave is one of the three largest limestone caves in Japan. This cave is unique in that ruins from approximately 2,000 years ago were discovered. The total length of this cave is 4,000 m, but an approximately 1,000 m long route has been developed. We will take visitors on a tour of the cave, explaining the cave organisms and the stalactite dating results, which are currently underway at Kochi University.