

The 8th International Symposium on Kuroshio Science

“Kuroshio University League Network Formation Toward
the Establishment of a Sustainable Society in the Kuroshio
Region Through Cross-Border Education”



Kochi U. Asakura Campus, Common Lecture Bldg. 2, Room 212
September 12, Friday, September 13, Saturday: Conference
Office of Kuroshio Science : 088-864-5786, km03@kochi-u.ac.jp

The Eighth International Symposium on Kuroshio Science

Kuroshio University League Network Formation Toward the Establishment of a Sustainable Society in the Kuroshio Region Through Cross-Border Education

1. Background and Objectives

Kuroshio region is an area that is under the influence of the Kuroshio current driven by Coriolis force of Earth's rotation. In the Edo period, this current is recognized as a black river rapidly running in the Pacific Ocean at the north of Hachijyo island that is located 300 km South of Edo (Tokyo).

This region shares typhoons, earthquakes, and volcanoes together with various resources. We have been engaged in studies for maintaining this area in a sustainable condition and named those studies Kuroshio Science. We have had conferences on Kuroshio Science starting with a Workshop and developed to a Symposium, beginning in 2007. Two cycles of conferences on Kuroshio Science were held in Kochi University, National Sun Yat-sen University (Kaohsiung), and Bicol University (Legaspi/Tabaco). Last year, we held the 7th Kuroshio Symposium in Pontianak city co-organized by University Malaysia Sarawak and Tanjungpura University.

This year, Kochi University would like to provide an opportunity for researchers and students to discuss the sustainability of the Kuroshio region in the following topics, hoping to form a solid platform and stimulate the collaboration among institutions along the Kuroshio current and those located in areas influenced by this current.

At the beginning of the third cycle of this Conference Series, We would like to put emphasis on the Cross-Border Education in this Kuroshio Region to establish a sustainable society in this area.

2. Venues

Common Lecture Bldg. 2, Room 212, Kochi University, Asakura, Kochi, 780-8520, Japan

Program

1st Day
12th, SEP, 2014

Opening ceremony

10:00 - 10:30 **Greetings and Forwards**

Hirokuni Taguchi

Kochi University

Yoshiaki Iiguni /

Kochi University

Houng Yung Chen

National SunYat Sen University

Te-Hao Chen

National Dong Hwa University

Milagros Morales

Bureau of Fisheries and Aquatic Culture Region 2

Morning Session

Keynote Lecture 1

Chairperson : Akira Tominaga

K-1

10:30 - 11:00 **Cross-Border Education in Kuroshio Region**

Fay Lea Patria M. Lauraya, Maureen Mamansag-Maceres

K-2

11:00 - 11:30 **Ocean Management: Integrated Approach of Science, Technology and Human Dimensions**

Hiroyuki Matsuda 2

Lunch

11:30 - 13:00

Afternoon Session

Session 1-1 : Network Formation and Studies of Kuroshio Ecosystems and Biodiversity

Chairperson : Hin-kiu Mok, Gyo Itani, Plutomeo M. Nieves

S1-1

13:00 - 13:20 **Reproductive Biology of Christian Crabs (*Charybdis feriatus*, Linnaeus, 1758) in San Miguel Bay, Philippines**

Plutomeo M. Nieves, Nelson R. Olfindo, Aldrin Mel Macale

S1-2

13:20 - 13:35 **Coastal Marine Ecosystems and Biodiversity of the Kuroshio Region: Intertidal and Mangrove Associated Gastropods in Catanduanes Island, Philippines**

Kristian Q. Aldea, Minerva I. Morales, Jimmy T. Masagca

S1-3

13:35 - 13:55 **The Mechanism of Swarming Rhythm in *Perinereis aibuhitensis* (Polychaeta) Population**

Yan Yi Wu, Keryea Soong

S1-4

13:55 - 14:10 **Different Responses of *Richelia*-diatom Symbioses between Hosts *Rhizosolenia* and *Hemiaulus* under Enhanced Nitrate Concentration**

Sing-how Tuo, Yuh-ling Lee Chen

Coffee Break

14:10 - 14:20

Session 1-2 : Network Formation and Studies of Kuroshio Ecosystems and Biodiversity

Chairperson : Maki Teramoto, Shuntaro Tsubaki, Ching-Nen Nathan Chen

S1-5

14:20 - 14:35 **Designing the Primers for Detecting *nifH* Gene of Potential N₂-Fixing Heterotrophic Microorganisms (α -, γ -proteobacteria) in the South China Sea**

Tien-Yi Chen, Yuh-ling Lee Chen, Der-Shyan Sheu

S1-6

14:35 - 14:55 **Pigment Production of a New Thermotolerant Microalga *Coelastrrella* sp. F50**

Che-Wei Hu, Lu-Te Chuang, Po-Chien Yu, Ching-Nen Nathan Chen

S1-7

14:55 - 15:15 **N₂-Fixing Organisms and Their Ecological Importance in the Kuroshio Current**

Houng-Yung Chen, Yuh-ling Lee Chen

S1-8

15:15 - 15:30 **Utilization of Algal Biomass by Microwave-Assisted Hydrothermal Reaction**

Shuntaro Tsubaki, Ayumu Onda, Tadaharu Ueda, Masanori Hiraoka

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Morning Session

Keynote Lecture 2

Chairperson : Kimio Fukami

K-3

9:00 - 9:30 **UP-Marine Science Institute Studies on the Oceanology and Marine Science of Waters being Fed to the Kuroshio Current**

Rhodora V. Azanza

Session 2-1 Network Formation and Studies of Marine Resources and Management

Chairperson : Rhodora V. Azanza, Te-Hao Chen, Akihiro Takemura

S2-1

9:30 - 9:45 **Assessment of San Jose Marine Protected Area Gonzaga, Cagayan Philippines**

Jamelita T. Flores, Alejandro Belen, Quirino G. Pascua

S2-2

9:45 - 10:00 **Pen Grow-Out Culture of the Deposit-Feeding Sea Cucumber, *Holothuria scabra* in Fish Farm Impacted Sediments**

Rafael Junnar Dumalan, Marie Antonette Juinio-Meñez

S2-3

10:00 - 10:20 **Whole Effluent Toxicity Testing of Sewage Discharges in Kenting National Park, Taiwan: Lethal and Sublethal Effects in Embryo-Larval Zebrafish**

Te-Hao Chen, Yi-Ling Chen, Chia-Yang Chen, Jing-O Cheng, Fung-Chi Ko

S2-4

10:20 - 10:40 **OPLAN Sagip Ludong: An Inter-Agency Network's Initiatives to Conserve Ludong (*Cestreaus* spp.) in Cagayan Valley, Philippines**

Evelyn C. Ame, Milagros Morales, Jovita P, Ayson

Coffee Break

10:40 - 10:55

Session 2-2 Network Formation and Studies of Marine Resources and Management

Chairperson : Yohei Nakamura, Milagros Morales, Yoshinori Morooka

S2-5

10:55 - 11:15

Lunar Impact on Spawning Rhythmicity in Tropical Fishes and Its Application to the Management of Fisheries Resources

Akihiro Takemura, Victor Soliman, Felix Ayson, Evelyn De Jesus Grace, Endang Sri Susilo

S2-6

11:15 - 11:30

Important Petroleum-Oil Degraders in Tropical Seawater

Maki Teramoto

S2-7

11:30 - 11:45

Economic Analysis of Climate Change Adaptation Strategies in Selected Coastal Areas in the Philippines

Asa Jose U. Sajise, Maripaz L. Perez, Paul Joseph Ramirez, and Glaiza Zamora

Lunch

11:45 - 13:15

Afternoon Session

Session 3 Cross-Border Education and Studies in Marine Biomedicine

Chairperson : Houng-Yung Chen, Akira Tominaga

S3-1

13:15 - 13:35 **Stargazers (Pisces: Uranoscopidae) Have More Bile for Calcium Uptake**

Jung-chen Hsu, Hin Kiu Mok

S3-2

13:35 - 13:50 **Molecular Cytogenetic Study on Scleractinian Corals (Detection of Characteristic Heterochromatin Distribution, Mini-Satellite DNAs Shared with a Human, and Highly Amplified rRNA Genes)**

Takahiro Taguchi, Satoshi Kubota, Takuma Mezaki, Satoko Sekida, Kazuo Okuda, Akira Tominaga

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S3-3

13:50 - 14:05 **Pseudoalteromonas A and B, Two Novel Metabolites from *Lobophytum crassum* Associated Bacterium *Pseudoalteromonas* sp. CGH2XX**

Yu-Hsin Chen, Yu-Chia Chang, Jimmy Kuo, Mei-Chin Lu, Tsong-Long Hwang, Ping-Jyun Sung

S3-4

14:05 - 14:20 **Inhibitory Effect on Carbohydrate Digestive Enzyme by the Plants**

MST Tamanna Niger, Kazuhiro Ohtani

S3-5

14:20 - 14:35 **Milkfish Lectins: Significance on Aquaculture Industry and Potential Application in Biomedicine**

Joshua Rovie Lee Daclan, Anacleto Argayosa

S3-6

14:35 - 14:50 **Suppression of Eosinophilia by *Petalonia binghamiae* Polysaccharides May Relate to Their Eotaxin-Binding Ability**

Akira Tominaga, Takahiro Taguchi, Yuko Konishi, Hiromi Okuyama, Yutaka Kusumoto, Shiro Ono

Coffee Break

14:50 - 15:00

2nd Day

13th, SEP, 2014

Session 4 History and Societies along Kuroshio Current; Network Formation of Cross-Border Education in Kuroshio Region

Chairperson : Fay Lea Patria M. Lauraya, Sylvano Mahiwo, Yoshiaki Iiguni

S4-1

15:00 - 15:20 **Kuroshio Regions: Global Currents in the Meta-Nation State Highways**

Sylvano D. Mahiwo

S4-2

15:20 - 15:40 **Cross-Border Education and Credit Transfer Scheme**

Yi-Ching Huang

S4-3

15:40 - 15:55 **Power Generation by Biomass Originated in Broad-leaved Trees : A Feasibility Study**

Yuji Fukuda, Yoshiaki Iiguni

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S4-4

15:55 - 16:10 **Impacts of Changing Human Lifestyle on Water Quality Surrounding MPAs along Lagonoy Gulf: A Study at San Miguel Island**

Katrina L. Canon

General Discussion

16:10 - 16:50

Closing Ceremony

16:50 - 17:00

Kimio Fukami

Kochi University