

The 14th International Kuroshio Science Symposium

November 13 - 14, 2021

Kochi University, Kochi, Japan (Online)

URL: https://www.kochi-u.ac.jp/kuroshio/14th_symposium-e.html

Program

Nov. 13 (Sat)

Opening Program (9:00-9:15)

Welcome remark

Dr. Hiroyuki Ukeda, Director in charge of International Affairs, Kochi University

Symposium overview

Plenary Lecture (9:15-10:00)

Ion Microprobe Analysis of Biological Hard Tissue
Yuji Sano, Director of Center for Advanced Marine Core Research, Kochi University

Theme Session 1 Four-Dimensional Kuroshio Marine Science (4D-KMS) research project (10:15-11:15)

10:15-10:20 What's the 4D-Kuroshio Project?
Masao Iwai (Kochi University)

10:20-10:35 Discovery of Mn-microparticles in oxic deep-sea sediments: implications for the global manganese budget.
Go-Ichiro Uramoto (Kochi University)

10:35-10:50 Chronological Distribution of Dinoflagellate-Infecting Virus in Marine Sediment Core.
Michiko Takahashi (Kochi University)

10:50-11:05 Radiocarbon dating of dead precious corals collected from Ashizuri Fishing Field.
Tomoyo Okumura (Kochi University)

11:05-11:15 Questions and Answers

Oral Session 1 Biodiversity (12:15-13:45, Room 1)

Chairs: Antonino Mendoza (Bicol University Tabaco Campus, Philippines) and Tetsuya Sakurai (Kochi University, Japan)

12:15-12:30 (O1-1)

Floristic diversity in East Antarctica.

Felix Bast, Wahid Ul Rahman, Khem Chand Saini, Pushpendu

Kundu (Central University of Punjab, India) Kriti Gupta (DAV College, Bathinda, India)

12:30-12:45 (O1-2)

Assessing River Health Condition using Biological Indices of Macro-invertebrate Assemblage in Different Riparian Vegetation of Inarihan River, Bicol Region.

Sandy Rey B. Bradecina (CBSUA- Calabanga Campus, Philippines), Imee Franz Siales (CBSUA-Pili Campus, Philippines)

12:45-13:00 (O1-3)

Larval and Juvenile Fish Assemblage in the Estuary of Northern Vietnam.

Thanh T. Tran (VNU Univ. Sci., Vietnam Natl. Univ., Vietnam), Izumi Kinoshita (Kochi Univ., Japan), Hau D. Tran (Hanoi Natl. Univ. Edu., Vietnam)

13:00-13:15 (O1-4)

A study on the threatened and endangered avifauna of Polachira wetland, Kollam, Kerala, India.

Laseetha TG, (Research Scholar, PG and Research Department of zoology, SN College, Kollam, India), Dr. S Jisha (Assistant Professor, Dept of zoology, SN College, Kollam), Dr. B Hari (Assistant Professor, Department of zoology, SN College, Kollam, India)

13:15-13:30 (O1-5)

Role of Kuroshio Current: promoter or barrier in connecting biodiversity in Kuroshio Triangle

Allen Chen (Biodiv. Res. Center, Academia Sinica, Taiwan)

Oral Session 2 Fisheries Science (12:15-13:45, Room 2)

Chairs: Plutomeo Nieves (Bicol University, Tabaco Campus, Retired) and Dana Ulanova (Kochi University, Japan)

12:15-12:30 (O2-1)

Effects of the Monomeric Components of a Biodegradable Polymer PHBH on the Growth of Pathogenic *Vibrio parahaemolyticus* in vitro and on the Survival of Infected Kuruma Shrimp (*Marsupenaeus japonicus*)

Kimio Fukami (Kochi University, Japan), Fumika Takagi (Kochi University, Japan), Kohei Sonoda (Higashimaru Co.

Ltd., Japan), Hiroshi Okamoto (Higashimaru Co. Ltd., Japan), Sayaka Shimizu (Kochi University, Japan), Kaito Ishigo (Kochi University, Japan), Michiko Takahashi (Kochi University, Japan), Daisuke Kaneno (Kochi University, Japan), Takao Horikawa (Kaneka Corporation, Japan), and Masaki Takita (Kaneka Corporation, Japan)

12:30-12:45 (O2-2)

Effects of Temperature and Photoperiod in the Molting Schedule of Giant Mud Crab, *Scylla serrata* (Forskål, 1775) (Crustacea: Brachyura: Portunidae)

Darwin C. Biag (Camarines Norte State College-Institute of Fisheries and Marine Sciences, Philippines), Antonino B. Mendoza, Jr. (Bicol University Tabaco Campus, Philippines)

12:45-13:00 (O2-3)

Synthesis and Characterization of Antigen-Loaded Chitosan Microparticles and Its Potential Application for Oral Vaccination Against *Aeromonas hydrophila* in Nile Tilapia *Oreochromis niloticus* L.

Benyl John A. Arevalo (Inst. of Fish. and Mar. Sci., Camarines Norte State Coll., Philippines), Juvy J. Monserate (Dept. of Chem., Central Luzon State Univ., Philippines), Karl Marx A. Quiazon (Dept. of Aquac., Central Luzon State Univ., Philippines)

13:00-13:15 (O2-4)

In Vitro Microbial Composition Changes in Striped Catfish Skin Mucus Microbiota Challenged by *Aeromonas hydrophila*
Kenneth Joseph C. Bureres (Dept. Mar. Biotechnol. Resour. NSYSU, Taiwan), Liang-Chun Wang (Dept. Mar. Biotechnol. Resour. NSYSU, Taiwan)

13:15-13:30 (O2-5)

Seeding and culture development of filamentous green macroalga for biomass production.

Alvin P. Monotilla (Marine Biology Section, Department of Biology, University of San Carlos, Nasipit, Talamban, Cebu City, 6000, Philippines)

13:30-13:45 (O2-6)

Taking Stock of the Fish Processors in the Municipality of Pasacao, Camarines Sur, Philippines.

Cristina P. Lim (Sagnay Campus, Partido State University, Philippines)

Oral Session 3 Coral Reef Science (coral eco-physiology) (14:00-15:15, Room1)

Chairs: Miguel Enrique A. Azcuna (Batangas State University, Philippines) and Satoko Sekida (Kochi University, Japan)

14:00-14:15 (O3-1)

Spatio-temporal Variability in Coral Diversity and Benthic Cover of Coral Reefs in Four Marine Key Biodiversity Areas (MKBAs) in the Philippines.

Ma. Marivic C. Pepino (Oceanbio Laboratory, Division of Biological Sciences, College of Arts and Sciences, University of the Philippines Visayas, Philippines), Wilfredo L. Campos (Oceanbio Laboratory, Division of Biological Sciences, College of Arts and Sciences, University of the Philippines Visayas, Philippines), Liezel C. Paraboles (San Carlos University, Cebu City, Philippines), Lorelie A. Burgos (Kuroshio Science Program Graduate School of Integrated Arts and Sciences Kochi Univ., Philippines), Mary Ann Cielo L. Malingin (Oceanbio Laboratory, Division of Biological Sciences, College of Arts and Sciences, University of the Philippines Visayas, Philippines), Kim P. Nunez (Oceanbio Laboratory, Division of Biological Sciences, College of Arts and Sciences, University of the Philippines Visayas, Philippines), Ryan Dexter R. Piloton (Oceanbio Laboratory, Division of Biological Sciences, College of Arts and Sciences, University of the Philippines Visayas, Philippines)

14:15-14:30 (O3-2)

Respiration breaking temperature of alga-depleted coral indicates coral host is not so physiologically thermal sensitive as predicted.

Jih-Terng Wang (Dept. Oceanogr., NSYSU, Taiwan), Yi-Ting Wang (Dept. Oceanogr., NSYSU, Taiwan), Chaolun A. Chen (BRC, Acad. Sinica, Taiwan), Pei-Jei Meng (NMMBA; Gen. Edu. Cent., Nat. Dong Hwa U., Taiwan)

14:30-14:45 (O3-3)

Characterization and Biochemical Evaluation of Nematocysts Derived from *Millepora tenera* (Nemenzo, 1975) Milleporidae in Badoc, Ilocos Norte.

Rhea R. Espiritu, Andres Y. Tungpalan/Mariano Marcos State University - College of Aquatic Sciences and Applied Technology, Philippines

14:45-15:00 (O3-4)

Transcriptomic Insights into the Heat Stress Response of Temperate Region Coral *Acropora hyacinthus*.

Sam Edward N. Manalili (Agric. Mar. Sci. program, Kochi University, Japan), Dan Anthony U. Bataan (Kuroshio Sci. program, Kochi University, Japan), Takuma Mezaki (Kuroshio Biol. Res. Found., Japan), Shashank Keshavmurthy (Biodiv. Res. Cen., Academia Sinica, Taiwan), Satoko Sekida (Kuroshio Sci. unit, Kochi University, Japan), Dana Ulanova (Faculty of Agric. and Mar. Sci., Kochi University, Japan), Tetsuya Sakurai (Faculty of Agric. and Mar. Sci., Kochi University, Japan), Satoshi Kubota (Kuroshio Sci. unit, Kochi

University, Japan)

15:00-15:15 (O3-5)

Coral chromosome variations and their potential sexual characteristics using molecular cytogenetic analysis.

Joshua Vacarizas (Kuroshio Sci. Program, Kochi Univ., Japan), Takahiro Taguchi (Kochi Gakuen Univ.), Takuma Mezaki (Kuroshio Biol. Res. Found., Japan), Rei Kawakami (Agric. Mar. Sci. program, Kochi Univ., Japan), Satoshi Kubota (Kuroshio Sci. unit, Kochi Univ., Japan)

Oral Session 4 Coastal Environment and Resource Management (14:00-15:15, Room 2)

Chairs: Alex P. Camaya (Bicol University Tabaco Campus, Philippines) and Takuro Noguchi (Kochi University, Japan)

14:00-14:15 (O4-1)

Keystone index and relative total impact of each functional group of the Bogtong Bay seagrass model.

Partido State University, Philippines

14:15-14:30 (O4-2)

Biomass and Growth Dynamics of intertidal *Cymodocea serrulata* and *Halodule uninervis* in Maqueda Channel, Caramoan Peninsula, Philippines..

Partido State University, Philippines

14:30-14:45 (O4-3)

The Use of Integer Linear Programming in the Formulation of a Transboundary MPA Network between Batanes and Kenting.

Monique Mercado (Institute of Marine Ecology and Conservation, National Sun Yat-sen University, Taiwan), Pierre Alexandre Château (Dept of Marine Environment and Engineering, NSYSU, Taiwan), Yang-Chi Chang (Dept of Marine Environment and Engineering, NSYSU, Taiwan)

14:45-15:00 (O4-4)

Establishment and Operationalization of Northern Pacific Seaboard Fisheries Management Area

Emma L. Ballad (DA-Bureau of Fisheries and Aquatic Resources Region 2, Philippines), Angel B. Encarnacion (DA-Bureau of Fisheries and Aquatic Resources Region 2, Philippines)

15:00-15:15 (O4-5)

Performance in Governance of the Bureau of Fisheries and Aquatic Resources in Cagayan Valley Region.

Aeron D. Mayor (Bureau of Fisheries and Aquatic Resources Region 02), Lilia M. Tamayao (Cagayan State University,

Philippines)

Oral Session 5 Marine Biology (marine parasitology and gastropod biology) (15:30-16:30, Room 1)

Chairs: Kristian Aldea (Catanduanes State University, Philippines) and Yoshiro Nishio (Kochi University, Japan)

15:30-15:45 (O5-1)

Change in trematode community in the mud snail, *Batillaria attramentaria*, after the 2011 Tohoku earthquake tsunami.

Osamu Miura (Agric. Mar. Sci. program, Kochi Univ., Japan)

15:45-16:00 (O5-2)

Philometra sp. (Nematoda: Philometridae) Infecting the Ovaries of *Nemipterus japonicus* and its Effect on Host Fecundity.

Junard A. Catabay (Inst. of Fisheries & Aqua Sci., Bataan Peninsula ST Univ., Philippines), Earl John T. Lozano Jr. (Univ. of the Phil., Los Baños, Philippines), Loinda R. Baldrias (Coll of Vet Med, Univ. of the Phil., Los Baños, Philippines), Blesshe L. Querijero (Inst. of Biol. Sci., Univ. of the Phil., Los Baños, Philippines), Vachel Gay V. Paller (Inst. of Biol. Sci., Univ. of the Phil., Los Baños, Philippines)

16:00-16:15 (O5-3)

Discovery, Diversity And Distribution of Littoraria Species (Gastropoda: Littorinidae) focussing Kerala Coast : A Review. Aneesa Khalid A Khadar (Research Scholar, PG & Research Dept. of Zoology, SN College, Kollam, Kerala, India), Dr. S. Jisha (Assistant Professor, PG & Research Dept. of Zoology, SN College, Kollam, Kerala, India) Dr. B. Hari (Assistant Professor, PG & Research Dept. of Zoology, SN College, Kollam, Kerala, India)

16:15-16:30 (O5-4)

Effect of Pea Crab (Pinnotheridae) on the Reproductive Potential and Health Condition of Distant Scallop (*Bractechlamys vexillum*, Reeve 1853) from Asid Gulf, Philippines.

Ian Cris R. Buban (Bicol University Tabaco Campus, Philippines), Alex P. Camaya (Bicol University Tabaco Campus), Renan U. Bobiles (Bicol University Tabaco Campus, Philippines)

Oral Session 6 Marine Virology (15:30-16:30, Room 2)

Chairs: Anabelle Dece A. Espadero (Mindanao State University at Naawan) and Maki Terammoto (Kochi University, Japan)

15:30-15:45 (O6-1)

Amoeba-Infecting Giant Viruses Isolated from Uranouchi Inlet, Japan.

Naohisa Tateishi, Yoshihito Takano, Michiko Takahashi, Keizo Nagasaki (Kochi Univ., Japan)

15:45-16:00 (O6-2)

Intraspecific Infection Specificity of a Double-stranded DNA Virus Infecting a Harmful Bloom-causing Alga *Heterosigma akashiwo*.

Haruna Hiromoto, Yusaku Funaoka, Michiko Takahashi (Kochi University, Japan), Daichi Morimoto, Hiroaki Takebe (Kyoto University, Japan), Kei Wada (Miyazaki University, Japan), Keizo Nagasaki (Kochi University, Japan)

16:00-16:15 (O6-3)

Possible Molecular Mechanism Determining Complicated Intraspecific Infection Specificity of Algal Viruses.

Yusaku Funaoka (Agric. Mar. Sci. program, Kochi Univ., Japan), Haruna Hiromoto (Agric. Mar. Sci. program, Kochi Univ., Japan), Michiko Takahashi (Kochi University, Japan), Daichi Morimoto, Hiroaki Takebe (Kyoto University, Japan), Kei Wada (Miyazaki University, Japan), Keizo Nagasaki (Kochi University, Japan)

16:15-16:30 (O6-4)

Proposal of Medical Science Targeting Algal Viruses.

Keizo Nagasaki, Yusaku Funaoka, Haruna Hiromoto, Michiko Takahashi, Hiromichi Maeda, Kazuhiro Hanazaki (Kochi Univ., Japan), Daichi Morimoto, Hiroaki Takebe (Kyoto Univ., Japan), Kei Wada (Miyazaki Univ., Japan)

14th (Sun)

Oral Session 7 Marine Biology and Ecology (9:00-10:15, Room 1)

Chairs: Renan U. Bobiles (Bicol University Tabaco Campus, Philippines) and Ichiro Mine (Kochi University, Japan)

9:00-9:15 (O7-1)

Diversity of Marine Arthropods Associated with Littoral Seaweeds Along Southern Coast of Kerala, India.

Kanni J Mohan (Research Scholar, P. G. & Research Department of Zoology, S. N. College, Kollam, Kerala, India), Dr. S. Jisha (Assistant Professor, P.G & Research Department of Zoology, S. N. College, Kollam, Kerala, India), Dr. B. Hari (Assistant Professor, P.G & Research Department of Zoology, S. N. College, Kollam, Kerala, India)

9:15-9:30 (O7-2)

Change in the Reproductive Potential of Distant Scallop (*Bractechlamys vexillum*, Reeve 1853) from Asid Gulf, Philippines .

Renan U. Bobiles (Coastal Resource Management Unit, Bicol University Tabaco Campus, Philippines), Ian Cris R. Buban (Coastal Resource Management Unit, Bicol University Tabaco Campus, Philippines)

9:30-9:45 (O7-3)

Phylogeny of lionfish (Scorpaenidae, Pteroini) revisited and solution to the taxonomic confusion of *Dendrochirus* and *Pterois* using multilocus and morphological data.

Tak-Kei Chou (Department of Oceanography, National Sun Yat-sen University, Taiwan), Te-Yu Liao (Department of Oceanography, National Sun Yat-sen University, Taiwan)

9:45-10:00 (O7-4)

Population Genetic Structure and Morphometric Studies of *Selaroides leptolepis* (Carangidae) in the Tropical Western Pacific.

Lorenzo C. Halasan (Dept. of Marine Biotechnology & Resources - National Sun Yat-sen University, Taiwan), Hsiu-Chin Lin (Dept. of Marine Biotechnology & Resources - National Sun Yat-sen University, Taiwan)

10:00-10:15 (O7-5)

The stock identification of silky shark (*Carcharhinus falciformis*) in the Indo-Pacific Ocean.

Chia-Yun Li (NSYSU, Taiwan), Shang-Yin Vanson, Liu (NSYSU, Taiwan), Wen-Pei, Tsai (NKUST, Taiwan)

Oral Session 8 Human society, life & symbiosis with ecosystem (9:00-10:15, Room 2)

Chairs: Teresa N. Avila (Partido State University) and Mitsukazu Sakata (Kochi University, Japan)

9:00-9:15 (O8-1)

Developing Farmers and Fisherfolks Entrepreneurial Capacity towards Community Based-Enterprise.

Partido State University, Philippines.

9:15-9:30 (O8-2)

Traditional Knowledge of Medicinal Plants by the Dayak Mahap and Malays in Tembesuk Village, Nanga Mahap District, Sekadau Regency.

Yeni Mariani (Faculty of Forestry of Tanjungpura Univ., Indonesia), Fathul Yusro (Faculty of Forestry of Tanjungpura Univ., Indonesia), Sofia Aliza Maharani (Faculty of Forestry of Tanjungpura Univ., Indonesia), Gusti Eva Tavita (Faculty

of Forestry of Tanjungpura Univ., Indonesia)

9:30-9:45 (O8-3)

Ethnomedicinal Plants Used by The Community of Dayak Kanayant Tribe in The Tonang Village West Kalimantan, Indonesia.

Fathul Yusro (Faculty of Forestry Tanjungpura Univ., Indonesia), Yeni Mariani (Faculty of Forestry Tanjungpura Univ., Indonesia), Rika Purnama Sari (Faculty of Forestry Tanjungpura Univ., Indonesia)

9:45-10:00 (O8-4)

Effects of Somatic Cell Count in the Microbial Profile of Raw Milk and their Antibiotic Susceptibility.

Ivy Jamela Nieves (Bicol University Tabaco Campus, Philippines), Jose Arceo Bautista (University of the Philippines Los Baños, Philippines)

10:00-10:15 (O8-5)

Physic-Chemical and Microbial Quality of Soft-White Cheese Made from Raw Milk with Different Somatic Counts.

Ivy Jamela Nieves (Bicol University Tabaco Campus, Philippines), Jose Arceo Bautista (University of the Philippines Los Baños, Philippines)

Oral Session 9 Environmental Science (10:30-12:00, Room 1)

Chairs: Raul G. Bradecina (Partido State University) and Kars Myriam (Kochi University, Japan)

10:30-10:45 (O9-1)

Bio-Physical Assessment of the Selected Coastal Ecosystems in Zambales, Philippines.

Annie Melinda Paz-Alberto (CLSU), Kathrina M. Mapanao (CLSU, Philippines), Daryl A. Juganas (CLSU, Philippines), Hanna Mae T. Carganilla (CLSU, Philippines), Joshua A. Capones (CLSU, Philippines), Shirly C. Serrano (CLSU, Philippines)

10:45-11:00 (O9-2)

Physico-Chemical Features of Azhoor and Perunguzhi Region of Muthalapozi Estuary, Southern Part of Kerala, India Using Hydrochemical Parameters.

Mariyam Fazula A (Central Marine Fisheries Research Institute, India, Department of Aquatic Biology and Fisheries, University of Kerala, India), Anil M K (Central Marine Fisheries Research Institute, India) Gomathi P (Central Marine Fisheries Research Institute, India) and Ponni J Mohan (Central Marine Fisheries Research Institute, India)

11:00-11:15 (O9-3)

Social-environmental analysis of CH₄ in the South China Sea and bordering regions.

Hsiao-Chun Tseng (Institute of Marine Environment and Ecology, National Taiwan Ocean University, Taiwan), Alice Newton. (CIMA, Campus de Gambelas, Universidade do Algarve, Portugal), Chen-Tung Arthur Chen (Department of Oceanography, National Sun Yat-sen University, Taiwan), Alberto V. Borges (Université de Liège, Unité d'Océanographie Chimique, Institut de Physique, Belgium)

11:15-11:30 (O9-4)

Abundance and Characteristics of Microplastic in Cultured Green Mussels (*Perna viridis*) in Sorsogon Bay, Philippines. Mark Ariel D. Malto (Bicol University Tabaco Campus (BUTC), Philippines), Prof. Antonino B. Mendoza Jr. (BUTC, Philippines), Dr Plutomeo M. Nieves (BUTC, Philippines), Dr Renan U. Bobiles (BUTC, Philippines), Dr Alex P. Camaya (BUTC, Philippines), Prof. Skorzeny De Jesus (BUTC, Philippines)

11:30-11:45 (O9-5)

Wind loads Simulation from Biomass Power Plant. Edmark P. Bulaong (Environmental Management, Central Luzon State University, Philippines), Maryson Sarah D. Fernando (Business Management, Central Luzon State University, Philippines)

11:45-12:00 (O9-6)

Value Chain Analysis of Lawlaw Sardines in Bulan-Masbate Areas.

Raul G. Bradecina (Partido State University, Philippines)

Oral Session 10 Socioeconomics and Social Development (10:30-12:00, Room 2)

Chairs: Emma L. Ballad (Bureau of Fisheries and Aquatic Resources Regional Office 2, Philippines) and Takushi Namba (Kochi University, Japan)

10:30-10:45 (O10-1)

Socio-Economic Sensitivity and Adaptive Capacity of Fishers in San Miguel Island, Tabaco City, Philippines.

Plutomeo M. Nieves, Antonino B. Mendoza Jr. and Michael C. Borejon

10:45-11:00 (O10-2)

Socio-demographic Profiling, Capacity Building and Needs Assessment of Small- Island Communities: A Science & Technology-Based Inputs for Sustainable Livelihood Development of Selected Fisherfolks in Magallanes, Sorsogon.

ELDEN G. ORGELA (Sorsogon State University, Philippines), LENEY D. BERDIN (Sorsogon State University, Philippines), VIVIEN L. CHUA (Sorsogon State University, Philippines), RON JAY P. DANGCALAN (University of the Philippines Los Baños, Philippines), Clarice C. Pulumbarit (University of the Philippines Los Baños, Philippines)

11:00-11:15 (O10-3)

Effects of ICT on Economic Activity in Disadvantaged Area: The Case in Kochi, Japan.

Yasukazu Satake (Kochi Univ., Japan)

11:15-11:30 (O10-4)

Preliminary Study of the Regional Revitalization Effect of Workations in Japan.

Shota Tajima (Chiba Univ.), Airi Hirose (Chiba Univ., Japan)

11:30-11:45 (O10-5)

Human Development Programs And The Contextual Root Of Chronic Street Families.

Irene B. Bueno (Kuroshio Sci. Bicol Univ., Philippines)

11:45-12:00 (O10-6)

Local Development from the Perspective of Social Economy.

Muyi Chou (National Taiwan Univ., Taiwan), Dung-sheng Chen (National Taiwan Univ., Taiwan)

Theme Session 2 Kuroshio Science towards Integrated Coastal Zone Management in the Kuroshio Region (14:45-15:45)

14: 45-15: 05 Introduction: The Problems and Political Response for Coastal Environment and Natural Resources.

Teruyuki Shinbo (Kochi University)

15:05-15:15 Intertidal seagrass beds and riverine mangroves as fish habitat: Implications for coastal fish resource management.

Yohei Nakamura (Kochi University), Allyn Duvin Pantallano (Mindanao State University at Naawan), Anabelle Dece A. Espadero (Mindanao State University at Naawan)

15:15-15:25 Unvegetated tidal flat as habitas for endangered benthic animals: Importance of animal burrows for symbiotic species.

Gyo Itani (Kochi University), Kristian Aldea (Catanduanes State University), Yuto Shiozaki (Kochi University), Sota Kirihara (Kochi University) and Yumi Henmi (Kyoto University)

15: 25-15: 35 Analyzing Factors of Participation in MPA

Management and its Incentive Mechanism

Emma L. Ballad (BFAR R02) and Teruyuki Shinbo (Kochi University)

15:35-15:45 Questions and Answers

15:45-16:00 Closing Program

Program (Poster Presentation)

Poster Session (12:45-14:30)

(P-1) Characteristics of Volcanic Ash Soils around Mt. Mayon in Philippines with Special Reference to Direction from the Crater

Sarrah D. Sambajon (Kuroshio Science Program, Kochi University, Japan), Koya Kobayashi (Agriculture and Marine Science Program, Kochi University, Japan Present: Graduate School of Life and Environmental Science, Tsukuba University, Japan), Megumi Hoshina (Agriculture and Marine Science Program, Kochi University, Japan), Sevela Tabayag-Almorfe (Agriculture and Forestry, Bicol University Philippines, Philippines), Alex Camaya (Fisheries, Bicol University Philippines, Philippines), Sota Tanaka (Kuroshio Science Program, Kochi University, Japan)

(P-2) Molecular-assisted Taxonomic Studies on Asparagopsis (Bonnemaisoniales, Rhodophyta) from the West Philippine Sea

Wilfred John E. Santiañez, John Michael L. Lastimoso, and Ivan Patrick B. Tualla (G. T. Velasquez Phycological Herbarium and The Marine Science Institute, College of Science, University of the Philippines, Philippines)

(P-3) Coral Cover and Biodiversity in Pristine and Disturbed Sites Along the Verde Island Passage

Miguel Enrique A. Azcuna (Verde Is. Passage Center for Oceanographic Res. and Aquatic Life Sci., Batangas State Univ., Philippines), Jonel A. Corral (Verde Is. Passage Center for Oceanographic Res. and Aquatic Life Sci., Batangas State Univ., Philippines), Enriquo M. Velasquez (Verde Is. Passage Center for Oceanographic Res. and Aquatic Life Sci., Batangas State Univ.), Jayvee A. Saco ((Verde Is. Passage Center for Oceanographic Res. and Aquatic Life Sci., Batangas State Univ., Philippines)

(P-4) Estimation of The Maximum Utilization Area Including Home Range And Peripheral Sites: A Case Study Using Japanese Macaque

Kana Terayama (Kuroshio Sic., Kochi Univ., Japan), Hiroshi Ebihara (WMO, Japan), Hironori Seino (WMO, Japan),

Motomi Genkai-Kato (Kuroshio Sic., Kochi Univ., Japan)

(P-5) Historical Shoreline Analysis in Selected Areas in East coast of Albay

Joshua Karl B. Bista (Bicol Univ., Philippines), Antonino B. Mendoza Jr. (Bicol Univ., Philippines)

(P-6) Planning of ghost net removal to promote sustainable fishery in Penghu, Taiwan

Wen-Hong Liu (Institute of Marine Affairs of Business Management, NKUST, Taiwan), Kuo-Huan Ting (Institute of Marine Affairs of Business Management, NKUST, Taiwan), Ying-Yi Kao (Institute of Marine Affairs of Business Management, NKUST, Taiwan), Wai-lam Wong (Institute of Marine Affairs of Business Management, NKUST, Taiwan)

(P-7) Utilization of Herbivore Macro Invertebrates as Indicator of Reef Resiliency

Michael C. Borejon (Bicol University Tabaco Campus, Philippines), Antonino B. Mendoza Jr. (Bicol University Tabaco Campus, Philippines), Joshua Karl B. Bista (Bicol University Tabaco Campus, Philippines)

(P-8) Laboratory Cultivation of Selected Seagrass Species in Sagñay, Camarines Sur, Philippines

Janeth A. Cledera (Partido State Univ., Ateneo de Manila Univ., Philippines), Arni E. Gambe-Gilbuena (Ateneo de Manila Univ., Philippines)

(P-9) Chemical interactions between marine invertebrate-associated bacteria evaluated by culture-based method

Yuta Matsubara (Agric. Mar. Sci. program, Kochi Univ., Japan), Dana Ulanova (Kuroshio Sci. unit, Kochi Univ., Japan)

(P-10) *Halymenia durvillei*-Associated Bacteria Exhibit Antibacterial and Quorum Quenching Potential

Francis Reuben Paul A. Padayao (Applied Microbiology and Molecular Biology, Department of Biology, University of San Carlos, Philippines), Norman G. Quilintang (Applied Microbiology and Molecular Biology, Department of Biology, University of San Carlos, Philippines), Mary Hannah Rose A. Padayao (Applied Microbiology and Molecular Biology, Department of Biology, University of San Carlos, Philippines), Jenny Marie R. Patalinghug (Applied Microbiology and Molecular Biology, Department of Biology, University of San Carlos, Philippines), Paul John L. Geraldino (Applied Microbiology and Molecular Biology, Department of Biology, University of San Carlos, Philippines), Jonie C. Yee (Applied Microbiology and Molecular Biology, Department of Biology, University of San Carlos, Philippines), and Gem Stephen Rana

(Applied Microbiology and Molecular Biology, Department of Biology, University of San Carlos, Philippines)

(P-11) Effect of COVID 19 on the Total Production of Sardines in Bulan, Sorsogon: A Simple *Ex Ante* and *Ex Post* Economic Analysis

Antonino Mendoza (Bicol Univ. Tabaco Campus, Philippines), Plutomeo Nieves (Bicol Univ. Tabaco Campus, Philippines), Wilfredo Campus (Univ. of the Phils Visayas, Philippines)

(P-12) Effects of Different Levels of *Pinus tabulaeformis* Pollen on Growth and Stress Resistance of Milkfish Fry (*Chanos chaos*)

Analyn B. Baldove (Institute of Fisheries and Marine Sciences, Camarines Norte State College, Philippines)

(P-13) Community Building and Social Responsibility: A Review of Field-based Methods in Higher Education Domain
Shinn-Shyr Wang (Department of Economics, National Chengchi University, Taiwan) and Yi-fan Cai (National Chengchi University, Taiwan)

Poster Session (Only Displaying Poster)

(P-21) Value Chain Analysis of Sardines Fishery in Magallanes, Sorsogon

Elden G. Orgela (Sorsogon State University, Philippines), Antonino B. Mendoza Jr., (Bicol University Tabaco Campus Graduate School, Philippines)

(P-22) Ornamental fishes inhabiting in Kayamkulam backwater, Kerala, India

Sooraj B, S Jisha and B Hari, Sree Narayana (College, Kollam, Kerala, India, affiliated to University of Kerala, India)

(P-23) Cancelled

(P-24) Reproductive Biology of Three-spotted Crab (*Portunus sanguinolentus*, Herbst 1783) from Sagñay Coastal Waters, Camarines Sur, Philippines

John Christopher C. Nolia (Institute of Fisheries and Marine Sciences, Camarines Norte State College Mercedes Campus, Philippines)

(P-25) Seed germination characteristics of an endangered evergreen broadleaf tree, *Rhododendron uwaense*

Yuki Watanabe (Division of Biological Science, Science Program, Graduate School of Integrated Arts and Sciences, Kochi University, Japan), Motoki Higa (Faculty of Science and Technology, Kochi University, Japan)

(P-26) Valuing the Conservation of Atulayan Bay Marine Protected Area in Sagñay, Camarines Sur, Philippines

Joela Mizchelle A. dela Vega (Kuroshio Sci. Program, Kochi Univ., Japan), Teruyuki Shinbo (Grad. School of Kuroshio Sci., Kochi Univ., Japan), Canesio D. Predo (College of Forestry and Natural Resources, Univ. of the Philippines Los Baños, Philippines), Leonardo M. Florece (Sch. of Envi. Sci. and Mngt., Univ. of the Philippines Los Baños, Philippines), Marisa J. Sobremisana (Sch. of Envi. and Mngt. Univ. of the Philippines Los Baños, Philippines).

(P-27) Modelling Historical Changes of Water Bodies Using GIS in Pangasinan, Philippines

Edmark P. Bulaong (Institute for Climate Change and Environmental Management, Central Luzon State University, Philippines)

(P-28) Stock and Industry Assessment of Aramang (Palaemonidae) in Aparri, Cagayan, Philippines

Evelyn C. Ame (Bureau of Fisheries and Aquatic Resources 02, Philippines), Melanie C. Villarao (Bureau of Fisheries and Aquatic Resources 02, Philippines), Ma. Fatima B. Laeno (Bureau of Fisheries and Aquatic Resources 02, Philippines)

(P-29) Reproductive Biology and Population Dynamics of Largehead Hairtail (*Trichiurus lepturus* Linnaeus, 1758) in Babuyan Channel, Philippines

Melanie C. Villarao (BFAR Region 02, Philippines), Erickson F. Gumiran (BFAR Region 02, Philippines), Leon Antonio Jr. (BFAR R02, Philippines) Angel B. Encarnacion (BFAR R02, Philippines)

(P-30) Why Do Fishers Tend to Prefer Soft Management Approaches Over Dwindling Scallop Resources in Asid Gulf, Masbate, Philippines?

Alex P. Camaya, Ian Cris R. Buban, Renan U. Bobiles (Coastal Resource Management. Unit, Bicol University, Tabaco Campus Philippines) Christian D. Cabiles (College of Agriculture and Fisheries, Catanduanes State University, Philippines)

(P-31) Air humidity controls epiphyte distributions at small spatial scales with apparently homogenous precipitation: A case study from a mature evergreen broadleaf forest in southwest Japan

Mifumi Seto (Kuroshio Sci. Program, Kochi Univ., Japan), Motoki Higa (Sci. and Tech., Kochi Univ., Japan)

(P-32) Relationship Between the Situation of the Nursery School, the Burn-out Phenomenon and the Rhythm of Life of Nursery Schoolteachers under the Spread of COVID-19

Misako Kawamata (Fac. of Edu. Kochi Univ., Japan), Hitomi Takeuchi (Fac. of Edu. Kochi Univ., Japan), Miyo Nakade (Dept. Nutri. Tokai Gakuen Univ., Japan), Tetsuo Harada (Fac. of Edu. Kochi Univ., Japan)

(P-33) Daytime Sleepiness Associated With Parenting Stress In Japanese Infant's Parent And Its Changes After COVID-19

Hitomi Takeuchi (Fac. of Edu., Kochi Univ., Japan), Misako Kawamata (Fac. of Edu., Kochi Univ., Japan), Mayuko Inari (Fac. of Nutri., Tokai Gakuen Univ., Japan), Tetsuo Harada (Fac. of Edu., Kochi Univ., Japan), Miyo Nakade (Fac. of Nutri., Tokai Gakuen Univ., Japan)

(P-34) How Employment Conditions and Sleep Issues for Mothers with Children Aged 3-5 Relate to Parenting Stress.

Mayuko Inari (Sch. Health & Nutr., Tokaigakuen Univ., Japan), Hitomi Takeuchi (Fac. Educ., Kochi Univ., Japan), Tetsuo Harada (Fac. Educ., Kochi Univ., Japan), Misako Kawamata (Fac. Educ., Kochi Univ., Japan), Mamiko Kurotani (Sch. Home Econ., Aichi Gakusen Univ., Japan), Miyo Nakade (Sch. Health & Nutr., Tokaigakuen Univ., Japan)

(P-35) Morphological Anomalities Found in *Ione comuta* (Isopoda, Ionidae), Parasitic on *Neotrypaea japonica* (Decapoda, Callinassidae) from Uranouchi Inlet.

Hiroshi Kume (Kuroshio Sci. Kochi Univ., Japan), Takuro Oshima (Faculty Edu. Kochi Univ., Japan) , Gyo Itani (Kuroshio Sci. Kochi Univ., Japan)

(P-36) Inter-annual Changes in Meiofaunal Communities in a Seagrass site in Southern Guimaras, West Central Philippines.

Lorelie A. Burgos (Kuroshio Sci. Program, Kochi Univ., Japan), Annabelle G. C. del Norte-Campos (College of Arts and Sciences, Univ. of the Philippines Visayas, Philippines), Wilfredo L. Campos (College of Arts and Sciences, Univ. of the Philippines Visayas, Philippines)

(P-37) Early Survival and Growth Rates of *Stylophora pistillata* and *Acropora solitaryensis* in Temperate Zone

Mai Mori (Agric. Mar. Sci. program, Kochi Univ., Japan), Tappei Izutsu, Ryuta Sughiyama, Ryo Takahashi, Keigo Hashimoto (School of Mar. Sci. and Tech., Tokai Univ., Japan) , Takuma Mezaki (Kuroshio Biol. Res. Found., Japan) , Masako Nakamura (School of Mar. Sci. and Tech., Tokai Univ., Japan), Satoshi Kubota (Kuroshio Sci. unit, Kochi Univ., Japan).

(P-38) Preliminary Study of Distribution of Sicklefin Lemon Shark (*Negaprion acutidens*) around the Coast of Pratas Island in Donsha Atoll

Yu Y. Chen (General education center, Aletheia Univ., Taiwan), Wei C. Chiang (Eastern Mar. Biol. Res. Center, Fisheries Res. Inst., Taiwan)

(P-39) Length-Weight Relationship and Condition Factor of the Tomato Hind Grouper, *Cephalopholis sonnerati* (Valenciennes 1828) from Vizhinjam Coast, Kerala, India
Ponni J Mohan (Kerala University of Fisheries and Ocean Studies, India), M K Anil (Vizhinjam Regional Centre of Central Marine Fisheries Research Institute, India), Mariyam Fazula A (University of Kerala, India)

(P-40) Estimating catch and effort for managing the fisheries for sardines from Ticao Pass to Samar Sea
Wilfredo L. Campos (UP Visayas, Philippines), Antonino Mendoza, Plutomeo Nieves (Bicol University Tabaco Campus, Philippines), Jesus Racuyal (Samar State University, Philippines) and Alexanra Bagarinao (UP Visayas, Philippines)

(P-41) Determination of Maximum Quantum Yield in *Gracilaria edulis* (Rhodophyceae) under Varying Time Using Pulse Amplitude Modulation Fluorometry

Luigi P. Villalobos (Verde Is. Passage Center for Oceanographic Res. and Aquatic Life Sci., Batangas State Univ., Philippines), Najeen Arabelle M. Rula (Verde Is. Passage Center for Oceanographic Res. and Aquatic Life Sci., Batangas State Univ., College of Arts and Sciences, Batangas State Univ. and College of Agri. and Forestry, Batangas State Univ., Philippines), Jayvee A. Saco (Verde Is. Passage Center for Oceanographic Res. and Aquatic Life Sci., Batangas State Univ., College of Arts and Sciences, Batangas State Univ. and College of Agri. and Forestry, Batangas State Univ., Philippines)

Other Events

PHILJAPKUS (Filipino Alumnus) events

Date: 15th (Mon), Nov., 2021

Time: 13:00-15:50 *UTC + 8 hours: Taiwan & Philippines

Regional Revitalization Forum

Date: 17th (Wed), Nov., 2021

Time: 9:00-11:00 *UTC + 8 hours: Taiwan & Philippines