

Japan Society for the Promotion of Science
Asian CORE Program
**Establishment of Research and Education Network on Coastal Marine Science in
Southeast Asia (2011-2015): COMSEA**

**Asian CORE-COMSEA Seminar
on
Coastal Ecosystems in Southeast Asia**

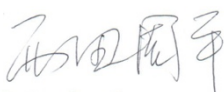
**24–26 February, 2016
Atmosphere and Ocean Research Institute
University of Tokyo**

Preface

With the aim of enhancing multilateral collaboration on research and education of coastal marine science among five Southeast Asian countries (Indonesia, Malaysia, Philippine, Thailand and Vietnam) and Japan, our current project entitled “Establishment of Research and Education Network on Coastal Marine Science in Southeast Asia (COMSEA)” was started in April 2011 as a project of the Asian CORE Program of the Japan Society for the Promotion of Science (JSPS), succeeding the previous 10-year JSPS project “Coastal Marine Science (2001–2010). To our pleasure, our collaboration has advanced with good harmony and success to date, and now the COMSEA project is close to its completion in the end of March 2016. In this respect, it would be highly timely to synthesize our 5-year activities in this occasion, not only on scientific accomplishments but also on strategic and logistic merits and challenges to be considered/improved in our continued collaboration.

The Seminar comprises five Sessions with different foci. Session-1 will invite presentations on recent research highlights by members of different groups, including 20 oral and 27 poster presentations. Session-2 will present and discuss on the results from the “Integrative Ecosystem Research (IER)” which focused on the large seagrass ecosystem in the Merambong Shoal, Johor, Malaysia, also including related contributions from other areas and countries. In Session-3, the activities by each research group will be presented and summarized by the Group Leaders, while in Session-4, the activities in the collaborating countries will be synthesized by the National Coordinators. The final session, Session-5, will be for our discussion on our future collaboration, which would be highly appropriate, since, to our pleasure, our proposal submitted to the Core-to-Core Program of JSPS last year has been approved for our activities from April 2016 for next three years. I hope that the presentations and active discussion in all these sessions will have fruitful outputs.

Last but not least, I would like to thank the JSPS and the other supporting agencies for financial support, the local members for their hard work for preparation, and, in advance, the session chairs and all participants for your cooperation, presentation and fruitful discussion.



Shuhei Nishida, Ph. D.
Coordinator of Asian CORE-COMSEA Project
Center for International Collaboration
Atmosphere and Ocean Research Institute
University of Tokyo

Schedule Outline

24 Feb. (Wed)

09:00–09:30 Registration
09:30–10:00 **Opening ceremony**
10:00–10:15 Break
10:15–12:00 **Session-1: Recent research highlights**
12:00–13:00 Lunch (with poster)
13:00–15:00 **Session-1: Continued**
15:00–15:30 Break (with poster)
15:30–16:45 **Session-1: Continued**
16:45 Adjourn
(Dinner on own)

25 Feb. (Thu)

09:00–10:50 **Session-2: Synthesis reports of the Integrative Ecosystem Research (IER) on seagrass ecosystem**
10:50–11:00 Break
11:00–12:00 **Session-2: Continued**
12:00–13:00 Lunch (with poster)
13:00–14:10 **Session-2: Continued**
14:10–14:30 Break
14:30–16:15 **Session-3: Synthesis Reports from Research Groups**
16:15–16:30 Break
16:30–17:30 **Session-3: Continued**
17:30 Adjourn

26 Feb. (Fri)

09:30–10:40 **Session-4: National Reports**
10:40–11:00 Break
11:00–12:00 **Session-4: Continued**
12:00–13:00 Lunch
13:00–14:00 **Session-5: Toward future collaboration**
14:00 Adjourn

Organizing Committee

International Organizing Committee

Shuhei Nishida (Chair)	University of Tokyo, Japan
Dirhamsyah	Research Center for Oceanography-LIPI, Indonesia
Fatimah Md. Yusoff	Universiti Putra Malaysia, Malaysia
Miguel D. Fortes	University of the Philippines, Philippine
Voranop Viyakarn	Chulalongkorn University, Thailand
Tran Dinh Lan	Institute of Marine Environment and Resources, Vietnam

Local Organizing Committee

Shuhei Nishida (Chair)	University of Tokyo
Akihiko Morimoto	Ehime University
Mitsunori Iwataki	University of Tokyo
Ken-ichi Hayashizaki	Kitasato University
Hiroyuki Motomura	Kagoshima University
Toshihiko Fujita	National Museum of Nature and Science
Koji Inoue	University of Tokyo
Teruhisa Komatsu	University of Tokyo
Mitsuo Uematsu	University of Tokyo
Yutaka Michida	University of Tokyo

Secretariat (Atmosphere and Ocean Research Institute, University of Tokyo)

Kazue Aoki
Naoko Hara
Yasushi Narita
Yoko Kuroda
Akiko Kasuya

Program
(Speakers are underlined)

24 Feb. (Wed)

09:00–09:30 Registration
09:30–10:00 Opening ceremony

10:00–10:15 Break

Session-1: Recent research highlights

Chair: A. Morimoto

10:15–10:30 **What we learnt about eutrophication in the upper Gulf of Thailand**
Anukul Buraanaprantheprat, Akihiko Morimoto, Atsushi Kaneda,
Yoshihisa Mino, Vichaya Gunboa, Pachoenchoke Jintasaerane, Joji
Ishizaka [S1-1]

10:30–10:45 **Sustainable aquaculture to improve productivity and water quality
of marginal brackishwater pond**
Suhendar Sachoemar, Tetsuo Yanagi, Ratu Siti Aliah [S1-2]

10:45–11:00 **Comparative analysis of water column corrections for detection and
mapping of coastal substrates with satellite remotely sensed data**
Nurul Nadiah Yahya, Mazlan Hashim, Syarifudin Misbari, Norin Nazira,
Samsudin Ahmad, Terushisa Komatsu [S1-3]

Chair: M. Iwataki

11:00–11:15 **Flow cytometry analyses of the prolonged blooms of toxic
dinoflagellate *Alexandrium minutum* on the northeast coast of
Peninsular Malaysia**
Chui-Pin Leaw, Ing-Kuo Law, Winnie Lik -Sing Lau, Guat-Ru Liow,
Kieng-Soon Hii, Po-Teen Lim [S1-4]

11:15–11:30 **Effect of temperature and pH on growth of *Ostreopsis cf. siamensis***
Nantapak Potisarn, Ingon Thongcomdee, Thaithaworn Lirdwitayaprasit
[S1-5]

11:30–11:45 **A ten-year tendency of nutrients and phytoplankton off the western
coast of Mekong Delta**
Kim Thi Thanh, Nguyen Cong Thanh, Truong Van Tuan and Nguyen Van
Nguyen [S1-6]

11:45–12:00 **Molecular phylogeny of cyclopoid copepods of the family Oithonidae**
Mary Mar Noblezada, Hiroomi Miyamoto, Shuhei Nishida [S1-7]

12:00–13:00 Lunch (with poster)

Chair: K. Hayashizaki

13:00–13:15 **Trophic ecology of *Sardinella lemuru* (Pisces, Clupeidae) during the
seasonal coastal upwelling in Southeastern Sulu Sea, Philippines**

- Ephrime B. Metillo, Wilfredo L. Campos, Cesar L. Villanoy, Ken-ichi Hayashizaki, Takashi Tsunoda, Shuhei Nishida [S1-8]
- 13:15–13:30 **Coral-associated viruses and bacteria in the Ha Long Bay, Vietnam**
Pham The Thu, Nguyen Thi Thu, Dinh Van Nhan, Yvan Bettarel [S1-9]
- 13:30–13:45 **Which organs of *Enhalus acoroides* can be used as bio-indicator for heavy metals?**
Xuan-Vy Nguyen, Minh-Hue Tran, Jutta Papenbrock [S1-10]
- 13:45–14:00 **Seagrass restoration studies in Spermonde Islands**
Rohani Ambo-Rappe, Susan L. Williams [S1-11]
- Chair: T. Fujita**
- 14:00–14:15 **Status of seagrass species and distribution in Malaysia**
Japar Sidik Bujang, Muta Harah Z., Hayashizaaki, K., Nurul Farahin N.S., Shiamala, D.R., Emmclan L.S.H. [S1-12]
- 14:15–14:30 **Success of sexual propagated corals from rearing larvae to mature colonies in Thailand**
Suchana Chavanich, Voranop Viyakarn, Pataporn Kuanui, Se Songploy, Toshihiko Fujita, Kenji Iwao, Makoto Omori [S1-13]
- 14:30–14:45 **Spatio-temporal Distribution of Family Spionidae (Annelida: Polychaeta) in Banate Bay, northern Iloilo, Philippines**
Lorelie A. Burgos, Wilfredo L. Campos, Annabelle del Norte Campos [S1-14]
- 14:45–15:00 **Patterns in the distribution of soft corals across the Pahang and Johor Islands in the South China Sea**
Norhanis Razalli, Zulfigar Yasin, Lutfi Haron, Meii Mohamad-Norizam, Nithiyaa Nilamani, Aileen Tan Shau-Hwai [S1-15]
- 15:00–15:30 Break (with poster)
- Chair: K. Matsuura**
- 15:30–15:45 **Fish diversity assessment of Merambong seagrass ecosystem: A decade of monitoring research**
Aziz Arshad, Mazlan Abd Ghaffar [S1-16]
- 15:45–16:00 **On the resiliency development of sympatric scats (*Scatophagus argus*) and halfbeaks (*Zenarchopterus dunckerii*) from the coastal waters of Johore Straits**
Mazlan Abd Ghaffar, Aziz Arshad, Marina H., Diana A.Z. [S1-17]
- 16:00–16:15 **The status of fish diversity and fisheries of the Nai lagoon, Vietnam**
Nguyen Van Quan, Nguyen Duc The, Pham Van Chien, Nguyen Thi Huong Lien [S1-18]
- Chair: K. Inoue**
- 16:15–16:30 **Heavy metal concentrations in demersal and pelagic fishes along the Kapuas River estuary, Indonesia**
Zainal Arifin, Triyoni Purbonegoro, Koji Inoue [S1-19]
- 16:30–16:45 **Mobility Pattern of Toxic Trace Elements in Selected Food Chains**

Representing the Foodweb of Merambong Seagrass Area, Johor, Malaysia

Syaizwan Zahmir Zulkifli, Aqilah Mukhtar, Ferdaus Mohamat-Yusuff, Ken-ichi Hayashizaki, Koji Inoue, Ahmad Ismail, Nobuyuki Miyazaki [S1-20]

16:45 Adjourn

(Dinner on own)

25 Feb. (Thu)

Session-2: Synthesis reports of the Integrative Ecosystem Research (IER) on Seagrass Ecosystem

Chair: F. Md. Yusoff

- 09:00–09:10 **An introduction to the integrated ecosystem research on seagrass ecosystems in Malaysia**
Shuheji Nishida, Fatimah Md Yusoff [S2-1]
- 09:10–09:30 **Macrophytes diversity of Merambong shoal, Johor from 2012-2015**
Muta Harah Zakaria, Japar Sidik Bujang, Ken-ichi Hayashizaki, Nurul Nur Farahin Syed, Shiamala Devi Ramaiya and Emmclan Lau Sheng Hann [S2-2]
- 09:30–09:50 **Seagrass Mapping Along Coastal Region of Malaysia Peninsula Using Satellite Remote Sensing Data**
Mazlan Hashim, Syarifudin Misbari, Nurul Nadiah Yahya, Samsudin Ahmad, Mohd Nadzri Reba, Teruisha Komatsu [S2-3]
- 09:50–10:10 **The changes in diversity and distribution of marine in the seagrass bed of Merambong Shoal, south coast of Peninsular Malaysia from year 2013 to 2014**
Aileen Tan S.H., Teh C.P., Amelia N.P.F., Nithiyaa N., Poi K.Y., Chang G.O.J.L., Muhammad Lutfi, Nor Syahida, Norhanis M.R., Woo S.P., T. Fujita, Zulfigar Y. [S2-4]
- 10:10–10:30 **Species composition of ichthyofauna surrounding the Merambong shoals, Johore Straits, Malaysia**
Mazlan Abd Ghaffar, Aziz Arshad [S2-5]
- 10:30–10:50 **Comparison of zooplankton abundance and community in seagrass and non-seagrass areas of Merambong Shoal**
Afiq Auji Azmi, Teruaki Yoshida, Tatsuki Toda, Othman bin Haji Ross [S2-6]
- 10:50–11:00 Break
- Chair: M.H. Zakaria**
- 11:00–11:20 **A recurrence bloom of the ichthyotoxic dinoflagellate *Karlodinium australe* causing massive fish-kills along the Johor Strait in 2015**
Po Teen Lim, Nyuk Fong Kon, Sing Tung Teng, Hong Chang Lim, Ing Kuo Law, Winnie Lik Sing Lau, Mitsunori Iwataki, Gires Usup, Chui Pin

- Leaw [S2-7]
- 11:20–11:40 **Food web analysis on seagrass bed ecosystems in Malaysia using stable isotopes**
Ken-ichi Hayashizaki, Muta Harah Zakaria, Japar Sidik Bujang, Fatimah Md. Yusoff, Shuhei Nishida [S2-8]
- 11:40–12:00 **Pollution and food web around the Merambong seagrass area: Organotin and related compounds**
Hiroya Harino, Madoka Ohji, Ken-ichi Hayashizaki, Koji Inoue, Fatimah Md. Yusoff and Shuhei Nishida [S2-9]
- 12:00–13:00 Lunch (with poster)
- Chair: K. Inoue**
- 13:00–13:15 **Assessment of Heavy Metals Concentrations in Sungai Pulai Estuary and Western Johor Strait Malaysia**
Ahmad Ismail, Syaizwan Zahmir Zulkifli, Che Abd Rahim Mohamed, Ferdaus Mohamat-Yusuff, Koji Inoue [S2-10]
- 13:15–13:35 **Seagrass response to stress as a major determinant of ecosystem resilience in Philippine coastal environment**
Miguel D. Fortes [S2-11]
- 13:35–13:50 **Greater $\delta^{13}\text{C}$ than $\delta^{15}\text{N}$ stable isotope shifts in demersal zooplankton from milkfish farm-impacted seagrass beds in Northwestern Philippines**
Ephrime B. Metillo, Ronald Villanueva, Ken-ichi Hayashizaki, Saturo Tamada, Masayoshi Sano, Shuhei Nishida [S2-12]
- 13:50–14:10 Discussion
- 14:10–14:30 Break

Session-3: Synthesis Reports from Research Groups (Abstracts: P. 48–54)

Chair: T. Fujita

- 14:30–14:35 **Introduction** Shuhei Nishida
- 14:35–14:55 **ACORE-COMSEA (2011–2015): Synthesis report from the Physics Group (G1)**
Akihiko Morimoto [S3-1]
- 14:55–15:15 **ACORE-COMSEA (2011–2015): Synthesis report from the HAB Group (G2H)**
Mitsunori Iwataki [S3-2]
- 15:15–15:35 **Synthesis report from G2M (Macrophytes) of five years activity in ACORE-COMSEA project**
Ken-ichi Hayashizaki [S3-3]
- Chair: A. Morimoto**
- 15:35–15:55 **ACORE-COMSEA (2011–2015): Synthesis report from the Plankton Group (G2P)**
Shuhei Nishida [S3-4]
- 15:55–16:15 **ACORE-COMSEA (2011–2015): Synthesis report from the Benthos**

Group (G2B)

Toshihiko Fujita [S3-5]

16:15–16:30 Break

16:30–16:50 **ACORE-COMSEA (2011–2015): Progresses of fish diversity studies in Peninsular Malaysia and northern Vietnam (G2F)**

Keiichi Matsuura [S3-6]

16:50–17:10 **ACORE-COMSEA (2011–2015): Synthesis report from the Pollution Group (G3)**

Koji Inoue [S3-7]

17:10–17:30 Discussion (Moderator: S. Nishida)

26 Feb. (Fri)

Session-4: National Reports (Abstracts: P. 55–59)

Chair: S. Nishida

09:30–09:40 **Introduction** Shuhei Nishida

09:40–10:00 **ACORE-COMSEA Report 2011-2015: Indonesia**

Dirhamsyah [S4-1]

10:00–10:20 **ACORE-COMSEA Report 2011-2015: The Malaysian Chapter**

Fatimah Md. Yusoff [S4-2]

10:20–10:40 **ACORE-COMSEA Report 2011-2015: Philippine**

Miguel D. Fortes [S4-3]

10:40–11:00 Break

Chair: F. Md. Yusoff

11:00–11:20 **Thailand and Asian-CORE-COMSEA Program**

Voranop Viyakarn [S4-4]

11:20–11:40 **Country National Synthesis Report: Vietnam (ACORE – COMSEA Program: 2011–2015)**

Tran Dinh Lan [S4-5]

11:40–12:00 Discussion

12:00–13:00 Lunch

Session-5: Toward future collaboration (Moderator: Shuhei Nishida)

13:00–14:00 Discussion

14:00 Adjourn

Poster presentation

- P-1 Past, current and future of seagrass biomass in Merambong Shoals and vicinity**
Syarifudin Misbari, Mazlan Hashim, Nurul Nadiah Yahya, Samsudin Ahmad, Mohd Nadzri Reba, Teruhisa Komatsu
- P-2 Spatio-temporal seagrass occurrence along coastline of Johore, Malaysia: a satellite remote sensing analysis**
Mazlan Hashim, Syarifudin Misbari, Nurul Nadiah Yahya, Samsudin Ahmad, Mohd Nadzri Reba, Teruhisa Komatsu
- P-3 Characterization of sonar data for detection and mapping of coastal substrates**
Samsudin Ahmad, Mazlan Hashim, Syarifudin Misbari, Nurul Nadiah Yahya, Mohd Reba, Teruhisa Komatsu
- P-4 The characteristic of temperature-salinity, chlorophyll-*a* and sound speed in seawater in Danang–Quynhon (Vietnam)**
Tran Anh Tu, Le Duc Cuong, Akihiko Morimoto
- P-5 Effect of eutrophication on the geographical distribution of dinoflagellate cysts in Manila Bay**
Elsa F. Furio, R.V. Azanza, V.M. Borja, N.C. Gatdula, M.D. Santos, M. Iwataki
- P-6 Distribution of Dinoflagellate cysts in Modern Sediments of Lampung bay (Sumatra, Indonesia): a focus on three toxic species *Alexandrium sp.*, *Pyrodinium bahamense var. compressum*, and *Cochlodinium polykrikoides***
Hikmah Thoha, Muawanah, Mariana D. Bayu, Tumpak Sidabutar, Oksto Ridho Sianturi, Nurul Fitriya, Sugestiningih, Kazuya Takahashi, Mitsunori Iwataki, Estelle Masseret
- P-7 Sustainable use and conservation of coastal area in the Southeast Asia: A case study of Lampung Bay, Indonesia**
Kazumi Wakita, Muawanah, Mitsunori Iwataki, Teruhisa Komatsu, Hisashi Kurokura, Yasuwo Fukuyo
- P-8 New records of anthiine fishes (Teleostei, Perciformes, Serranidae) from North Sulawesi, Indonesia**
Teguh Peristiwady, Seishi Kimura, Keiichi Matsuura, Hiroyuki Motomura, Wulan Koagouw, Petrus Ch. Makatipu, Widhya Nugroho Satrioajie, Kunto Wibowo
- P-9 Feeding patterns of three species of cardinalfishes in seagrass beds in central Philippines**
Wilfredo Campos, Khrsha M. Duno, Lindsay S. Biantan, Alexanra A. Bagarinao, Lucas R. Felix, Donna M. Guarte, Liezel C. Paraboles
- P-10 Reef and shore fishes of Ha Long Bay, a World Heritage site in northern Vietnam**
Seishi Kimura, Nguyen Van Quan, Hiroyuki Motomura, Masanori Nakae, Hisashi Imamura, Nozomi Muto, Nguyen Duc The, Pham Van Chien, Tomohiro Yoshida, Yusuke Hibino, Byeol Jeong, Hiromu Suzuki, Satokuni Tashiro and Keiichi Matsuura
- P-11 Fish species diversity around Bidong Island off Terengganu, Peninsular Malaysia**

Keita Koeda, Mazlan Abd Ghaffar, Aziz Arshad, Seah Ying Giat, Siti Tafzilmeriam bt Sheikh Abdul Kadir, Azwarina bt Mohd Azmi Ramasamy, Yusof Shuaib Ibrahim, Masanori Nakae, Mozomu Muto, Ai Yoshiura, Rei Matsuo, Seishi Kimura, and Hiroyuki Motomura

P-12 Influence of tidal levels on the meiofaunal assemblages in a NaGISA rocky shore site in the Taklong Island National Marine Reserve, southern Guimaras, west central Philippines

Annabelle del Norte-Campos, Lorelie A. Burgos, Patrick Uygen, Maria Carla A. Barbasa, Patrick Uygen

P-13 The diurnal changes of seawater pH and alkalinity on the coral reefs of the Straits of Malacca and South China Sea

Zulfigar Yasin, Nithiyaa Nilamani, Norhanis Razalli, Zulfikar, Aileen Tan Shau-Hwai

P-14 Effects of multiple human impacts for the seagrass beds in Thailand

Kenji Sudo, Masahiro Nakaoka, Sombat Poovachiranon, Ukkrit Satapoomin, Napakhwan Whanpetch, Chittima Aryuthaka

P-15 Taxonomy, traditional use and overfishing: sea cucumber from the genus *Stichopus* in the Straits of Malacca

Woo Sau Pinn, Zulfigar Yasin, Aileen Tan Shau-Hwai, Toshihiko Fujita (P. 75)

P-16 Family Ophidiasteridae (Echinodermata: Asteroidea) in the shallow waters of Southeast Asia

Mikihito Arai, Toshihiko Fujita, Voranop Viyakarn, Suchana Chavanich, Aileen Tan Shau-Hwai and Zulfigar Yasin

P-17 The impact of land reclamation activities at Merambong shoal on the socio-economic status of fishermen

Nora Azura Jumain, Nitty Hirawaty Kamarulzaman, Ismail Abd Latif, Fatimah Md Yusoff

P-18 Taxonomy and fisheries of commercially harvested jellyfish *Crambionella* (Scyphozoa) from central Java, Indonesia

Jun Nishikawa, Susumu Ohtsuka, Mulyadi, Nova Mujiono, Dhugal J. Lindsay, Hiroomi Miyamoto, Shuhei Nishida

P-19 Community structure of seagrass and distribution of dugong (*Dugong dugon* Muller) in West Kotawaringin, Central Kalimantan, Indonesia

Wawan Kiswara, Syarif I. T. Alkadri, Didit E. Prasetyo, Nunik Sulistyowati, Andrian Saputra, Suko Wardono

P-20 Seagrass condition and dugong existence studies in Haruku Strait

Andri Irawan, Arif Seno Adji, Terry Indrabudi, Sam Wouthuyzen, Wawan Kiswara

P-21 Assessment of physical parameters against carbon sequestration of seagrass *Enhalus acoroides* at Pari Island, Seribu Islands, Jakarta Bay, Indonesia

Deni Fajar Sidiq, Ivonne M. Radjawane, Wawan Kiswara

P-22 Accumulation of natural polonium in green mussel at the West Coast Straits of Johor, Malaysia

Che Abd Rahim Mohamed, Lim Mei Peng, Syaizwan Zahmir Zulkifli, Ahmad Ismail

- P-23** An attempt for targeted mutagenesis of CYP1A gene on Javanese medaka, *Oryzias javanicus* by CRISPR/Cas 9 System
Suhaila Binti Rusni, Mieko Sassa, Masato Kinoshita, Yusuke Takehana, Koji Inoue
- P-24** Antifouling Biocides Profile in Sediment and Biota Collected from Seagrass Area of Sungai Pulai Estuary, South of Johor
Aqilah Mukhtar, Ferdaus Mohamat-Yusuf, Syaizwan Zahmir Zulkifli, Hiroya Harino, Ahmad Ismail, Koji Inoue
- P-25** Carbon and nitrogen stable isotope ratios in seaweed and seagrass community along in Southern Peninsular Thailand
Anchana Prathep, Piyalap Tuntriprapas, Satoru Tamada, Ken-ichi Hayashizaki
- P-26** Variation of zooplankton community composition in the reclaimed Merambong seagrass area, Malaysia
Hazel M. Peralta, Fatimah Md Yusoff, W. Nur Leena, Shuhei Nishida
- P-27** Connectivity between mangrove creek and seagrass bed acting as important nursery habitat for reef fishes in Ishigaki, Japan
Vu Manh Hung, Casareto B.E., Hayashizaki Ken-ichi, Suzuki Y.