

International symposium on coastal ecosystem change in Asia: hypoxia, eutrophication, and nutrient conditions

Date: November 14-15, 2019

Place: Media Hall, Ehime University, Matsuyama, Japan
(1st floor of Center for Information Technology, Ehime University)

Organizing Committee: Xinyu GUO, Akihiko MORIMOTO, Michinobu KUWAE, Naoki YOSHIE (Center for Marine Environmental Studies, Ehime University)

Purpose:

With increasing of nutrient load into coastal water, some environmental issues have been reported to occur in many bays and shelf seas in Asia. For example, hypoxia water has been observed in the Bohai Sea, East China Sea, Thailand Bay, and Jakarta Bay in recent 10 years. On the other hand, the hypoxia water has been reported in many bays and inland seas in Japan for more than 30 years. The reduction of nutrient load into coastal water in Japan has been continued for many years but the hypoxia water is still observed now. Apparently, the occurrence of hypoxia water is not a simple problem related only to nutrients load into the coastal water. The eutrophication and nutrient condition outside the coastal water should also affect the occurrence of hypoxia water. This symposium will provide an opportunity to summarize our understanding on the occurrence of hypoxia water and some related issues in the coastal water in Asia.

Schedule

November 14

9:00-9:30 Registration

9:30-9:45 Opening remark (Prof. Shinsuke TANABE, Director of Center for Marine Environmental Studies, Ehime University, Japan)

Chair of Session: Akihiko MORIMOTO

9:45-10:15

Chen-Tung Arthur CHEN (National Sun Yat-sen University, Taiwan): Kuroshio and Hypoxia in the East and South China Seas

10:15-10:45

Di TIAN (Second Institute of Oceanography, China): Impact of dissolved oxygen and nutrients from Kuroshio on the hypoxia off the Changjiang Estuary

10:45-11:15

Feng ZHOU (Second Institute of Oceanography, China): The connection and disconnection of phytoplankton production and subsurface hypoxia: hints from the physically complex dynamic system off the Changjiang Estuary

11:15-11:45

Xinyu GUO (Ehime University, Japan): A method for tracing nutrients from different origins in a low-trophic ecosystem model and evaluating their contribution to primary production in a shelf sea

11:45-12:00 Group photo

12:00-14:00 Lunch and poster

Chair of Session: Feng ZHOU

14:00-14:30

Hao WEI (Tianjin University, China): Physical and biogeochemical variability in Yellow and Bohai Seas from joint analysis of model simulations and observations

14:30-15:00

Ting-Hsuan HUANG (National Sun Yat-sen University, Taiwan): The Taiwan Strait resembles a quasi-cul-de-sac in late NE monsoon season

15:00-15:30

Goh ONITSUKA (National Research Institute of Fisheries and Environment of Inland Sea, Japan Fisheries Research and Education Agency, Japan): Harmful algal blooms in western Japan

15:30-15:45 Coffee Break

Chair of Session: Hao WEI

15:45-16:15

Anukul BURANAPRATHEPRAT (Burapha University, Thailand): Material transport from the river mouths to the Upper Gulf of Thailand under variations in river discharge

16:15-16:45

Akihiko MORIMOTO (Ehime University, Japan): Hypoxia in the Upper Gulf of Thailand –Hydrographic observation and modeling-

16:45-17:15

Jianping GAN (Hong Kong University of Science and Technology, Hong Kong): On Ocean Circulation, Ecosystem and Hypoxia along the coastal transition zone off Hong Kong (OCEAN_HK)

18:00 Reception

November 15

Chair of Session: Muhammad ILYAS

9:00- 9:30

Ario DAMAR (Bogor Agricultural University, Indonesia): The eutrophication states and nutrient-phytoplankton dynamics of eutrophied tropical embayment of Jakarta Bay, Indonesia: temporal dynamics from 2001 to 2017

9:30- 10:00

Suhendar I SACHOEMAR (Agency for the Assessment and Application of Technology, Indonesia): The environmental study to understand the hypoxia behavior in Jakarta Bay

10:00- 10:30

Endro SOEYANTO (Agency for the Assessment and Application of Technology, Indonesia): Behavior and residence time of river waters in Jakarta Bay

10:30-10:45 Coffee Break

Chair of Session: Goh ONITSUKA

10:15-10:45

Haruo ANDO (Tokyo Metropolitan Research Institute for Environmental Protection, Japan): Long-term change in the state of water pollution in Tokyo Bay: Tokyo Bay, trend analysis, COD, nutrients and hypoxia

10:45-11:15

Satoshi AKIYAMA (Research Institute of Environmental, Agriculture and Fisheries, Osaka Prefecture, Japan): Tempo-spatial variations of hypoxia water and nutrient conditions, and emerging problems in Osaka Bay, Japan

11:15-11:45

Yoshihisa MINO (Nagoya University, Japan): Oxygen consumption rate in the Mikawa Bay using an optical oxygen sensor

11:45-14:00 Lunch and poster

Chair of Session: Naoki YOSHIE

14:00-14:30

Yuichi HAYAMI (Saga University, Japan): Hypoxic water mass in Ariake Sea, Japan -mechanisms of multi-time scale variations-

14:30-15:00

Tetsuo YANAGI (Kyushu University, Japan): Disappearance of hypoxia in Dokai Bay, Japan

15:00-15:30

Toshiyuki TAKAO (Waterfront Vitalization and Environment Research Foundation, Japan): Enhancing water exchange and suppressing the effects of anoxic water in an inner bay by placement of water flow pipes through tsunami protection breakwaters

15:30-15:45 Coffee Break

Chair of Session: Xinyu GUO

15:45-16:15

Naoki YOSHIE (Ehime University, Japan): Long-term variation of nutrient concentration in the Western Seto Inland Sea

16:15-16:45

Michinobu KUWAE (Ehime University, Japan): Decadal and centennial variability in fish abundance in the Seto Inland Sea during the last 2900 years

16:45-17:15

Moriaki YASUHARA (The University of Hong Kong, Hong Kong): Human-induced marine ecological degradation: historical ecology and the Anthropocene

17:15-17:30 Closing remark (Hidetaka TAKEOKA, Ehime University, Japan)

November 16: Field observation

References

Center for Information Technology, Ehime University

Address: 3 Bunkyo-cho, Matsuyama 790-8577, Japan

Website: <http://www.ehime-u.ac.jp>

Location & Campus (English)

https://www.ehime-u.ac.jp/en_page/access/johoku-campus/

Location & Campus (Japan)

<https://www.ehime-u.ac.jp/overview/access/johoku/>

The poster presentation will be held in the space beside the Media Hall

About Matsuyama

<http://www.city.matsuyama.ehime.jp/lang/en/> (English)

<http://www.city.matsuyama.ehime.jp/lang/ch/> (Chinese)

<http://www.city.matsuyama.ehime.jp> (Japanese)