

**Recent developments in Paleo-environmental studies**  
**-Bremen University, National Taiwan University, Vietnam National University Hanoi**  
**University of Science & Hokkaido University Joint Workshop-**

**14-17 Feb 2014**  
**Sapporo, Japan**

**14 Feb, 2014 (Fri)**

10:00- 16:30 Pre-Workshop meeting with respective hosts

**15 Feb, 2014 (Sat)**

10:00- 10:15 Welcome remarks and logistics

10:15- 10:45 **Holocene changes in the Bering Strait inflow**

Masanobu Yamamoto (Faculty of Environmental Earth Science, Hokkaido Univ.)

-Coffee break-

11:00-11:30 **Recent development in paleoclimate study in Vietnam**

Nguyen Thuy Duong, and Nguyen Van Vuong (VNU-Hanoi Univ. of Science)

11:30-12:00 **Tropical climate and vegetation response to Heinrich Event 1**

Dian Handiani<sup>1</sup>, André Paul<sup>2,3</sup>, Matthias Prange<sup>2,3</sup>, Ute Merkel<sup>2,3</sup>, Lydie Dupont<sup>3</sup>, and Xiao Zhang<sup>2</sup> (<sup>1</sup>JAMSTEC, <sup>2</sup>Dept. of Geosciences, Univ. of Bremen, <sup>3</sup>MARUM, Univ. of Bremen)

-Lunch Break-

13:30-14:00 **Reconstruction of vertical thermal structure in the western tropical Pacific: A Multi-planktonic foraminiferal Mg/Ca approach**

Takuya Sagawa (Faculty of Sciences, Kyushu Univ.)

14:00-14:30 **Seasonal to decadal climate signals in skeletal growth and trace elements of the Pacific sclerosponge**

Kazuto Ohmori (Faculty of Science, Hokkaido Univ.)

-Coffee Break and Poster Session-

15:45-16:15      **Monthly resolved coral records of past Caribbean climate**  
Thomas Felis, Cyril Giry, Henry C. Wu, and William M. Brocas (MARUM, Univ. of Bremen)

16:15-16:45      **Rapid events in the Arctic Ocean and their linkage to the global climate system**  
Ludvig Löwemark (Dept. of Geosciences, National Taiwan Univ.)

16:45-17:15      **Mid- to Late-Holocene Australian-Indonesian summer monsoon variability**  
Stephan Steinke<sup>1</sup>, Mahyar Mohtadi<sup>1</sup>, Matthias Prange<sup>1</sup>, Vidya Varma<sup>1,2</sup>, Daniela Pittauerova<sup>3</sup>,  
and Helmut W. Fischer<sup>3</sup> (<sup>1</sup>MARUM, Univ. of Bremen <sup>2</sup>Dept. of Meteorology, Stockholm Univ.,  
<sup>3</sup>Inst. of Environmental Physics, Univ. of Bremen)

### **16 Feb 2014 (Sun)**

9:30- 10:00      **Evidence for coupling between CO<sub>2</sub> and climate in the late Cenozoic cooling**  
Osamu Seki<sup>1</sup>, Daniela N. Schmidt<sup>2</sup>, Kimitaka Kawamura<sup>1</sup>, Richard D. Pancost<sup>3</sup> (<sup>1</sup>Inst. of Low  
Temperature Science, Hokkaido Univ., <sup>2</sup>School of Earth Sciences, Univ. of Bristol, <sup>3</sup>School of  
Chemistry, Univ. of Bristol)

10:00-10:30      **Paleoceanographic change related to the Mediterranean Outflow Water around the  
Iberian Margin: Implication for marine productivity reconstructed by biomarker analysis**  
Satoshi Furota, Ken Sawada (Faculty of Science, Hokkaido Univ.)

-Coffee Break-

10:45-11:15      **Coral evidence of El Niño variability during the Pliocene warm period**  
Tsuyoshi Watanabe<sup>1</sup>, Atsushi Suzuki<sup>2</sup>, Shoshiro Minobe<sup>1</sup>, Tatsunori Kawashima<sup>1</sup>, Koji Kameo<sup>3</sup>,  
Kayo Minoshima<sup>2</sup>, Yolanda M. Aguilar<sup>4</sup>, Ryoji Wani<sup>5</sup>, Hodaka Kawahata<sup>6</sup>, Kohki Sowa<sup>1</sup>, Takaya  
Nagai<sup>1</sup>, Tomoki Kase<sup>7</sup> (<sup>1</sup>Faculty of Science, Hokkaido Univ., <sup>2</sup>National Institute of Advanced  
Industrial Science and Technology, Tsukuba, <sup>3</sup>Faculty of Science, Chiba Univ., <sup>4</sup>Petrolab, Mines  
and Geosciences Bureau, <sup>5</sup>Interdisciplinary Research Center, Yokohama National Univ.,  
<sup>6</sup>Atmosphere and Ocean Research Inst., Univ. of Tokyo, <sup>7</sup>Dept. of Geology and Paleontology,  
National Museum of Nature and Science, Tokyo)

11:15-11:45      **Variations in primary production of cyanobacteria, dinoflagellate and coccolithophorid  
reconstructed by biomarkers analyses of the mid-Cretaceous Oceanic Anoxic Events  
(OAEs) sediments in the Vocontian Basin, SE France**  
Takuto Ando<sup>1</sup>, Ken Sawada<sup>1</sup>, Reishi Takashima<sup>2</sup>, Hiroshi Nishi<sup>2</sup> (<sup>1</sup>Faculty of Science, Hokkaido  
Univ., <sup>2</sup>Museum of Tohoku Univ., Tohoku Univ.)

-Lunch Break-

- 13:15-13:45      **Pacific Equatorial Age Transect: Exploring the Cenozoic History of the Pacific**  
Heiko Pälike<sup>1</sup> *et al.* (<sup>1</sup>MARUM, Univ. of Bremen)
- 13:45-14:15      **Variations in sea surface temperature and primary productivity reconstructed by algal biomarkers in the Neogene equatorial Pacific sediments**  
Ken Sawada<sup>1</sup>, Hideto Nakamura<sup>1</sup>, Madoka Kobayashi<sup>1</sup>, Shinya Yamamoto<sup>2</sup> (<sup>1</sup>Faculty of Science, Hokkaido Univ., <sup>2</sup>Yamanashi Inst. of Environmental Sciences)

-Coffee Break-

- 14:30-15:00      **A biomarker perspective on the variation of terrigenous matter transport in the Neogene eastern equatorial Pacific sediment**  
Hideto Nakamura<sup>1</sup>, Ken Sawada<sup>1</sup>, Madoka Kobayashi<sup>1</sup>, Shinya Yamamoto<sup>2</sup> (<sup>1</sup>Faculty of Science, Hokkaido Univ., <sup>2</sup>Yamanashi Inst. of Environmental Sciences)
- 15:00-15:30      **Climate variability in the Andes during the last 25 m.y. deduced from the mineral composition of ODP Site 1237, the southeastern Pacific**  
Irino, T., Noma, E., Hasrizal, B.S., Yamamoto, M. (Faculty of Environmental Earth Science, Hokkaido Univ.)
- 15:30-16:00      **Patterns of Evolution and Environmental change: the Panama Gateway closure**  
Helena Fortunato (Faculty of Science, Hokkaido Univ.)

-Break-

- 16:15-16:45      TBA  
16:45-17:15      TBA

**17 Feb 2014 (Mon)**

- 10:00-17:00      Discussion on future cooperation  
17:30-              Outreach activity “Sci-Tech Talk” (Stephan Steinke and Ludvig Lowemark)

-Poster Session-

1. **Daily growth and trace elemental analysis in Tridacna shells from Okino-tori island, Japan: Possible new typhoon proxy**  
Taro Komagoe<sup>1</sup>, Tsuyoshi Watanebe<sup>1</sup>, Kotaro Shirai<sup>2</sup> (<sup>1</sup>Faculty of Science, Hokkaido Univ., <sup>2</sup>Atmosphere and Ocean Research Inst., Univ. of Tokyo)
  
2. **Lipid biomarker compositions in culture strains of marine picoplankton Parmales and Bolidomonas**  
Chisato Kanou<sup>1</sup>, Ken Sawada<sup>1</sup>, Akira Kuwata<sup>2</sup>, Shinya Yoshikawa<sup>3</sup>, Mutsuo Ichnomiya<sup>4</sup>, Masanobu Kawachi<sup>5</sup>  
(<sup>1</sup>Faculty of Science, Hokkaido Univ., <sup>2</sup>Tohoku National Fisheries Research Inst., <sup>3</sup>Fukui Prefectural Univ., <sup>4</sup>Prefectural Univ. of Kumamoto, <sup>5</sup>Center for Environmental Biology and Ecosystem studies, National Inst. for Environmental Studies, Tsukuba)
  
3. **High-resolution isotopic records in Oman corals: Indian Monsoon climate reconstruction**  
Takaaki Watanabe<sup>1</sup>, Tsuyoshi Watanabe<sup>1</sup>, Atsuko Yamazaki<sup>2</sup>, Michel R Claereboudt<sup>3</sup>, Miriam Pfeiffer<sup>4</sup>  
(<sup>1</sup>Faculty of Science, Hokkaido Univ., <sup>2</sup>Atmosphere and Ocean Research Inst., <sup>3</sup>Sultan Qaboos Univ., <sup>4</sup>RWTH Aachen)
  
4. **Multidecadal climatic reconstruction using sclerochronological and geochemical approaches of freshwater peal mussels in Hokkaido, Japan**  
Mayumi Suzuki<sup>1</sup>, Tsuyoshi Watanabe<sup>1</sup>, and Kotaro Shirai<sup>2</sup> (<sup>1</sup>Faculty of Science, Hokkaido Univ., <sup>2</sup>Atmosphere and Ocean Research Inst., Univ. of Tokyo)
  
5. **Diagenetic alteration of long chain alkenones during early stage of thermal maturation: examination for haptophyte biomarker in ancient sediment**  
Ryohei Abe, Ken Sawada, Hideto Nakamura (Faculty of Science, Hokkaido Univ.)
  
6. **Paleoenvironmental variations recorded by kerogens in middle Miocene turbidite sediments of the Kawabata Formation, central Hokkaido, Japan**  
Takaaki Mori<sup>1</sup>, Ken Sawada<sup>1</sup>, Satoshi Furota<sup>1</sup>, Gentaro Kawakami<sup>2</sup> (<sup>1</sup>Faculty of Science, Hokkaido Univ., <sup>2</sup>Geological Survey of Hokkaido)
  
7. **Paleovegetation schanges reconstructed by new proxies for *n*-alkyl lipids released from terrestrial plant-derived kerogens by hydrolysis in Cretaceous sediments, Hokkaido, Japan**

Yuma Miyata, Hideto Nakamura, Ken Sawada (Faculty of Science, Hokkaido Univ.)

**8. Paleoenvironment and paleoecosystem reconstructed by thermochemolysis of kerogens in sedimentary rocks at the Permian-Triassic transition in South China**

Shuji Ogata<sup>1</sup>, Ken Sawada<sup>1</sup>, Kunio Kaiho<sup>2</sup> (<sup>1</sup>Faculty of Science, Hokkaido Univ., <sup>2</sup>Inst. of Geology and Paleontology, Tohoku Univ.)

**9. Surface ocean current and ice drift in the Northwind and Chukchi basins in the western Arctic Ocean during the last 76,000 years**

Kenta Suzuki (Faculty of Science, Hokkaido Univ.)

**10. Variation of very fine grained black carbon supply to a northern island of Japan during the last 5 ky**

Y. Nakai, T. Irino, and K. Kawamura (Faculty of Environmental Science, Hokkaido Univ.)