Core Sessions

Sessions focusing on global issues with sustainable, fair and efficient proposals for their solutions.

2-1 Future Prediction of Marine Environment based on the Reconstruction of Oceanic Paleotemperature: Scientific Approach for SDGs Goal 13 & 14

Session Organizers: Yoshihiro Shiraiwa, and Jaime Toney

Sep 26 (Tue) Conference Room 202A

Keywords
- Climate Change
- Global Environment Prediction
- Sustainable Development Goals (SDGs) 13 & 14
- Marine Biodiversity
- Marine & Terrestrial Paleotemperature Reconstruction

Opening & Keynote Lecture

Chair: Yoshihiro Shiraiwa, University of Tsukuba

9:30-10:10

Jaime Toney University of Glasgow

Perspectives on Linking Marine and Terrestrial Paleoclimate Records – Gaps in Our Understanding

J. Toney (Univ. Glasgow)

Part 1

Chair: Jaime Toney, University of Glasgow

10:10-10:30

Mike M. Zwick University of Glasgow (PhD student)

Recording High-resolution Changes in Temperature and Hydrology from the Canadian Prairie

M. Zwick¹, J. Plançon², B. Cavadini², H. Haig², J. Toney¹ (Univ. Glasgow; 'Univ. Regina)

10:30-10:50

Antonio García-Alix University of Granada

The Application of Marine Temperature Proxies in Lacustrine Environments - The case of Long Chain Alkyl Diols in Alpine Lakes.

A. García-Alix (Univ. Granada)

10:50-11:10

Coffee Break

Part 2

Chair: Yoshihiro Shiraiwa, University of Tsukuba

11:10-11:40

Ken Sawada Hokkaido University

Alkenone Thermometry in the Neogene Deep Sea Sediment: Calibration, Source, and Production

K. Sawada (Hokkaido Univ.)

11:40-12:00

Satoshi Furuta Hokkaido University / JAMSTEC (Present)

Long-chain Alkenones and Alkenediones in the Miocene to Pleistocene Sediments from the NE Atlantic

S. Furuta¹, K. Sawada¹, H. Nakamura¹ (Hokkaido Univ., JAMSTEC, Osaka City Univ.)

12:00-12:30

Hiroya Araie Kanto Gakuin University

Characterization of Newly Isolated Isochrysos Species from Canadian saline Lakes for their Alkenone Unsaturation Index (UK‘37)-temperature Calibrations


12:30-14:00

Lunch Break and Lancheon Meeting

Part 3

Chair: Ken Sawada, Hokkaido University

14:00-14:30

Yoshihiro Shiraiwa University of Tsukuba

Metabolic Pathway of Long-chain Ketones (Alkenones) in Haptophytes and its Application to Biofuel Production and Paleothermometry

Shiraiwa’s Team of CREST/JST (Univ. Tsukuba, Hokkaido Univ.)

14:30-14:50

Ranjith Kumar Bakku University of Tsukuba (PhD Student)

Elucidation of Carbon Allocation Mechanism into Alkenones and other Energy Storage Components under Nitrogen Limitation in the Haptophyte Alga Emiliania huxleyi CCMP 2090

R. K. Bakku, Y. Hanawa, H. Araie, Y. Shiraiwa, I. Suzuki (Univ. Tsukuba)

14:50-15:10

Hirotoshi Endo University of Tsukuba

Genetic Transformation of Haptotypte Algae

H. Endo, Y. Hanawa, H. Araie, I. Suzuki, Y. Shiraiwa (Univ. Tsukuba)

15:10-15:30

Coffee Break

Part 4

Chair: Iwane Suzuki, University of Tsukuba

15:30-16:00

Francisco J. Jimenez-Espejo JAMSTEC

Eolian Input and Marine/Continental Paleoenvironmental Changes during the Holocene in the Western Mediterranean

F. J. Jimenez-Espejo (JAMSTEC)

15:50-16:20

Laura Villanueva Royal Netherlands Institute for Sea Research

Genetic Controls of Lipid Biomarkers Involved in Sea Surface Temperature Paleothermometer

L. Villanueva (NIOZ)

16:20-16:40

Yutaka Hanawa University of Tsukuba

Determination of Alkenones by Total Organic Carbon (TOC) Analyzer and Fourier Transform Infrared Spectrophotometer (FTIR) in Non-Destructive Haptophyte Cells

Y. Hanawa, Y. Shiraiwa (Univ. Tsukuba)

16:40-17:00

Julien Plancq University of Glasgow

Environmental Controls on the Distribution of Long-chain Alkenones in the Canadian Prairies: Insights for the Development of the Lacustrine Alkenone-based Temperature Proxy

J. Plancq¹, B. Cavadini², H.A. Haig³, P.R. Leavitt⁴, J.M. Couto⁴, S. Juggins¹, J.L. Toney¹ (Univ. Glasgow; 'Univ. Regina)

Closing Remarks

Chair: Jaime Toney, University of Glasgow

Closing Party (Restaurant near the Conference Venue: TBA)
Luncheon Meeting  
Sept. 26 (Tue), 2017  
Place: TBA to selected participants  

Discussion on  
Future Collaboration and Exchange of Scholars: Funding, Fellowship etc.  

Chair: Y. Shiraiwa (U. Tsukuba, Japan)  

Participants from  
University of Glasgow (UK), NIOZ (The Netherlands), JAMSTEC (Japan), Hokkaido University (Japan), and University of Tsukuba (Japan) including Invited PhD Students  

Mike M Zwick (U. Glasgow, UK)  
Ruth Perez Gallego (NIOZ, The Netherlands)  
Ranjith Kumar Bakku (U. Tsukuba, Japan)  

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