
[JJ] Evening Poster | M (Multidisciplinary and Interdisciplinary) | M-IS Intersection

[M-IS10]Paleoclimatology and paleoceanography

convener:Yusuke Okazaki(Department of Earth and Planetary Sciences, Graduate School of Science, Kyushu University), Atsuhiko Isobe(Research Institute for Applied Mechanics, Kyushu University), Akihisa Kitamura(静岡大学理学部地球科学教室, 共同), Masaki Sano(Faculty of Human Sciences, Waseda University)

Wed. May 23, 2018 5:15 PM - 6:30 PM Poster Hall (International Exhibition Hall7, Makuhari Messe)

Past environmental changes and events at multi-decadal to tectonic timescale toward an understanding of Earth climate system by an integration of terrestrial and marine proxy studies and numerical modeling will be discussed. We welcome a variety of paleo-environmental studies from a wide range of background. In particular, a series of presentations relating to the Anthropocene will be planned. This is a merged session of A-OS31 "Linkage between oceanography and paleoceanography in marginal, shelf and coastal oceans" and M-IS23 "Paleoclimatology and paleoceanography" sessions at JPGU 2017. We hope that this session will provide an opportunity to promote communication between participants from multidisciplinary field.

[MIS10-P11]Preliminary reconstruction of lake-level changes during the last 50 ka based on fossil diatom assemblages in Lake Biwa

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Keywords:Lake Biwa, planktonic diatom, transfer function, lake-level change, sand content, C/N ratio

This is a preliminary report of a research for reconstruction of lake-level change history of Lake Biwa based on the transfer function of diatom assemblage into water depth made from those of surface sediment. We investigated diatom assemblages, sand content, and C/N ratio in drilling core sample from the lake bottom and surface sediment samples from the lake bottom from 5 m to 30 m in depth off estuary of Echi River, Lake Biwa.

Rate of planktonic species of diatom assemblage in the surface sediment vs water depth can be changed into the transfer function of water depth. The transfer function applied to drilled sediment from Lake Biwa into lake-level change history during the last 50 ka. And a comparison based on rate of complete valves of diatom assemblages (%), number of valves per gram of diatom assemblages (valves/g), sediment structure, sand content (%), and C/N ratio indicates that these proxies can remove the noise of reconstruction of lake-level changes like flood sediments.