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

[M-IS11]tsunami deposit

convener:Tetsuya Shinozaki(Center for Research in Isotopes and Environmental Dynamics (CRiED), University of Tsukuba), Takashi Chiba(Maritime Disaster Prevention Center), Daisuke Ishimura(首都大学東 京大学院都市環境科学研究科地理学教室)

Tue. May 22, 2018 5:15 PM - 6:30 PM Poster Hall (International Exhibition Hall7, Makuhari Messe) The 2011 off the Pacific coast of Tohoku Earthquake and tsunami have an influence on the development of tsunami deposit research. After the tsunami, a lot of findings have been reported on various research fields. However, identification criteria of the tsunami deposit are not yet established. Moreover, it is still uncertain how to use the tsunami deposit in the risk assessment. In this session, we welcome researches from all aspect of sedimentary records of modern and paleo tsunamis both onshore and offshore, and numerical and experimental modeling studies for risk assessment. In addition, we also welcome other event deposits, such as flooding and storm surge, that they are considered to be important for discrimination of tsunami deposit.

[MIS11-P07]Environmental change of marine sediment at Onagawa bay before/after 3.11Tsunami

*Nanami Tsujioka^{1,3}, Kosuke Tsutsumi^{1,5}, Yuka Yokoyama¹, Izumi Sakamoto¹, Mikio Fujimaki¹, Daijiro Takahashi⁴, Hazuki Sakamoto⁵, Kenji Kaneko², Akihiro Kijima² (1.Tokai University, 2.Tohoku University, 3.Aero Asahi Corporation, 4.Kokusai Kogyo Co., Ltd., 5.IDEA Consultants, Inc.) Keywords:Tsunami deposit, Sanriku coast, 2011Tohoku earthquake

In the Onagawa bay, quality of sea bottom environment in the gulf has changed by 3.11 earthquake disasters. All of Sanriku area such as Ohtsuchi, Toni, Okirai, Ohfunato, Hirota bay expressions has turned into environment of the sabulosity from nature of the mud sea-bottom environment. However, the Onagawa bay varied from sabulosity to nature of the mud environment unlike other areas. Therefore we carried out bottom of the sea environmental research around the Onagawa bay.

The sabulosity sediment zone presents an oval shape and is distributed over the north and south direction that located form between Izushima island and Futamatajima island in the Gulf of Onagawa heads of a bay. The sand zone becomes an infinitesimal grain concentrically toward the outside. The particle size becomes small from the heads of a bay to bay-back area. From the quality of bottom observation that continued after an earthquake disaster, the tendency that sandy sediment returned to toward heads of a bay was gradually recognized by bay-back area. Two directions are considered as the origin of the sand zone distributed near the heads of a bay. One is the direction which assumes Kinkasan island and southern Abukuma mountains the origin and takes the other in the northern Kitakami mountainous district origin, and a long-distance travel is estimated all. However, the possibility that the reef distributed near the heads of a bay supplies sabulosity sediment because of the erosion by the wave is estimated.