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

[M-IS11]tsunami deposit

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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-P12]Possible Tsunamiites in Lake Kasumigaura, Ibaraki, Japan

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We report here some newly found Tsunamiites in Lake Kasumigaura in addition to already reported three to four event sediments. Reported event sediments are those of Asama-A volcanic ashes in 1783AD and 1108AD and Fuji Hoei volcanic ash in 1707AD. Shell rich layer of Corbicula japonica exists between Fuji Hoei tephra and Asama B tephra which means water quality changed from marine to brackish in Lake Kasumigaura at that time. Water quality of Lake Kasumigaura changed fron brackish to fresh after the Fuji Hoei eruption, however, water exchange with ocean water had been continued until the construction of Hitachi-tonegawa Watergate was completed in 1963. Grain size analysis and total organic carbon, total nitrogen and total sulfur content measurement at each 1cm thickness was carried out with 70cm cored sediment obtained at the central part of the lake. As a result, grain size maxima and minima of total organic carbon correlate well. Ages of these event layers were estimated based on weight sedimentation rate and those layers can be correlated well with those of historic tsunamis in addition to newly found tephra layers.

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