History of tsunami inundations in Sendai Plain, detected from coastal geology

Yuki Sawai[1]; Masanobu Shishikura[1]; Yukinobu Okamura[1]; Than Tin Aung[1]; Tabito Matsu'ura[1]; Keita Takada[2]; Yushiro Fujii[1]; Kenji Satake[1]

[1] Active Fault Research Center, AIST, GSJ; [2] FUKKEN CO.LTD.

We detected that the AD869 Jogan tsunami extensively inundated middle-southern Sendai plain. Japan trench repeatedly produced earthquakes and tsunamis, and the AD 869 Jogan tsunami is regarded one of the largest tsunamis around the Sendai plain. We reconstructed inundation area of the Jogan tsunami using geological records beneath the study site.

Inundation area of the Jogan tsunami is shown by a sand sheet, which is so-called tsunami deposit. The tsunami deposit of the Jogan tsunami distributes about 1-2 km far from the present shoreline. Such lateral distribution is more extensive than inundation areas of the recent 1933 Showa-sanriku and a historic Keicho tsunamis.

Further deep cores record that such large tsunamis repeatedly inundated middle-southern Sendai plain during the late Holocene. We will present the detailed data of the inundation history.