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Traces of tsunamis/storms in coastal lowland, the Pacific coast of Atsumi Peninsula, central Japan

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The study of natural disaster event deposits on a coastal lowland such as tsunami deposits and storm deposits may be effective for estimating characteristics and recurrence intervals of natural disaster events.

The Pacific coast of Astumi Peninsula has been repeatedly damaged by the tsunamis induced by the Tokai and Tonankai earthquakes and many storms.

In this study, 3 short core samples were obtained at coastal lowland of the region. For the comparison, beach and river deposits around the site were sampled.

Grain size distribution of sand layers and roundness of quartz grains in the layers were measured. Contemporary, Pb-210 and Cs-137 activities were measured for depositional age estimation of the sand layers. In addition, historical records of tsunami and storm events were collected.

The results of roundness measurement show that several sand layers are mixture of beach and river sands which implies flooding of sea water through river channel formed the sand layers. Age estimation of the key-core shows that upper 2 sand layers may be correlated with historical tsunami events in the Edo era.

Keywords: tunami deposits, Atsumi Peninsula