

Paleotsunami history of Choshi City, Chiba prefecture during past three thousand years

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In the area facing to the southern part of Japan Trench, the elucidation of the seismic tsunami history based on the coastal sediment has not been conducted well in comparison with the area of the northern and central parts of Japan Trench. This study investigated tsunami deposits at Kobatake-ike pond (at 11 m elevation) of Choshi City, Chiba prefecture. We detected three sand deposits within the mud and peat layer. Based on multi-proxy analyses (grain size distributions, diatom assemblages, and geochemical markers), sandy deposits were identified as tsunami deposits. Radiocarbon dating revealed that deposits in Kobatake-ike pond record three large tsunami events during past three thousand years; tsunami were probably triggered by the earthquakes at southern part of Japan Trench. Timing of these tsunami events might have been close to the occurrence of tsunamis along the central part of Japan Trench and so spatial-temporal relationship between generation of tsunami events in southern and central parts of Japan Trench should further be investigated.