

Preliminary report on paleotsunami study in the coastal lowlands of Toyo, Shimanto and Kuroshio towns, Kochi Prefecture, western Japan

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Kochi Prefecture has been struck repeatedly by large tsunamis generated by subduction zone earthquakes along the Nankai Trough. Historical records through approximately 1,300 years indicate great earthquakes (M ~8) basically occurred at intervals of 100-200 years along the Nankai Trough. However, because historical documents are relatively sparse before the 16th century, it is difficult to evaluate magnitudes and rupture areas of earthquakes during this period. Tsunami deposits provide basic data for reconstructing not only the long-term earthquake history but also the magnitudes and the rupture areas. Therefore we studied tsunami deposits in Kochi Prefecture. We obtained cores and geoslices from coastal lowlands of Toyo Town, Shimanto Town and Kuroshio Town. We found some exotic sand layers interbedded in silt and clay beneath the each lowlands. We present initial findings following the preliminary results of radiocarbon dating and fossil diatom analysis for some cores.

Keywords: tsunami deposit, Nankai Trough, Toyo Town, Shimanto Town, Kuroshio Town, Kochi Prefecture