

Tsunami and co-seismic events observed in back-marsh sediment along the Pacific coast, Shikoku.

Makoto Okamura [1], Hiromi Matsuoka [2], Eikichi Tsukuda [3]

[1] Nat. Env. Sci., Kochi Univ., [2] Natural Environmental Sci., Kochi University, [3] Geological Survey of Japan

<http://sc1.cc.kochi-u.ac.jp/~mako-ok>

Along the Pacific-side of Shikoku, we obtained six tsunami events during the time period between 1260yBP and 2210yBP from cores at subsiding areas. Average interval of tsunami events show 200 years. The subsidence rate is 1.3m/ky.

Along the Pacific-side of Shikoku where co-seismic subsidence and tsunami were observed during and after the historical Nankaido earthquakes. We obtained those events from the core samples by piston- and vibro-samplers. We could confirmed from paleoenvironmental studies that the back-marshs are basically a fresh-water lake and during the short period after tsunami events, exotic materials had been deposited abruptly. During the time period between 2210yBP and 1260yBP, six event layers were recognized. The average interval of these events is about 200 years which is much longer than interval of the earthquakes during the historical time. We are planning to obtain the most recent sediments to be able to correlate the dates of historical great earthquakes and also obtain older Holocene sediments to calculate the reliable average recurrence interval of great earthquakes and the rate of subsidence. Among the detected events, event A and B are comparable to the 889 and the 684 Hakuho earthquakes, respectively. The susiding rate is about 1.3m/ky.