

Tectonic geomorphological and paleoseismological study in the Anoriguchi Canyon: Foraminiferal analysis and ^{14}C dating

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It is well known that there exist numerous submarine active faults in the Nankai Trough area. We have to reveal geometry and slip history of these faults, to reveal the origins of the past destructive earthquakes as well as to predict future large earthquakes in more detail. From this point of view, we have conducted a tectonic geomorphological and paleoseismological feasibility study on a submarine active fault of the Nankai Trough area in the Anoriguchi Canyon from FY2016 (Sugito et al., 2018). In this presentation, we report our result of a series of core analysis, including foraminiferal analysis and radiocarbon dating. Based on the data obtained, we infer that the submarine active fault across the Anoriguchi Canyon probably slipped one or more time(s) during this ~10,000 years to produce north-side-up vertical offset of ~10 m. This study illustrates the importance of the tectonic geomorphological and paleoseismological approaches in the studies of historical earthquakes and near-future earthquake potentials.

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<References>

Sugito et al., 2018, The 125th Ann. Meet. Geol. Soc. Japan, R8-P-7.

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