## Re-examination of tsunami heights distribution during the 1854 Ansei Tokai Earthquake

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The great Nankai Trough earthquake has been accepted for the recurrence on the characteristic earthquake based on the plate tectonic interpretation. On the other hand, Seno (2012) pointed out the possibility that overlapping regions are few and complementary in the seismic zone of the Ansei Tokai Earthquake and the Showa Tonankai Earthquake. It is necessary to similar reinterpretation of the tsunami source. In this research, we reexamined the historical documents related to the Ansei Tokai earthquake Tsunami, along the coast of the Izu Peninsula from the coast of the Kii Peninsula, close to the source area of the Ansei Tokai earthquake. Furthermore, field survey for tsunami trace height based on historical documents conducted to clarify the characteristics of the tsunami height distributions.

We extracted historical materials on the 1854 Ansei Tokai Earthquake published in the Japan Earthquake reference material as "Zotei Dai Nippon Jishin shiryo", "Shinshu Nihon Jishin Shiryo" and so on. 801 documents stored in these collections were selected and checked for newly found documents that have not been used in previous research. We conducted a field survey on tsunami trace height information obtained through historical document. We reviewed carefully these selected historical documents, and evaluation for tsunami trace height on the field was carried out by GNSS and laser range finder measurement. For the comprehensive tsunami trace height distribution, the data evaluated by previous research [Hatori (1977); Tsuji et al. (1991); Namegaya & Tsuji (2005); Tsuji et al. (2013); Tsuji & Saito (2014); Imai et al. (2017)] were partially used.

There are two peaks of the tsunami height during the tsunami trace height distributions on the Ansei Tokai earthquake tsunami, the one as the tsunami trace height was reached 22 m at Kuzaki the east of the Shima Peninsula. the other one as the tsunami trace height was exceeding 15 m at Iruma the south east of Izu Peninsula. This information are extremely important clues to re-examine for the tsunami source of the Ansei Tokai earthquake. We examine the tsunami source that explains such tsunami trace height distribution in this presentation.

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