Reconstruction of the behavior of Fujikawa-kako faults based on the off fault paleoseismology

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The Fujikawa-kako faults, which have the highest vertical slip-rate among onshore active faults in Japan, are situated at the northern extension of the Suruga trough. However, no historical record has obtained on their activity and related crustal movement. Although many investigations including trench excavation surveys were carried out to reveal the fault activity in the recent geological time after the 1995 Hyogo-ken Nanbu Earthquake, the recurrence interval and the age of the latest event have been uncovered through these surveys.

The authors tried to apply the off fault paleoseismological research for the faults.

Using chronological data of off fault geological features such as failure of fault scarp, emargence of marine terraces, and sudden depression of marshes, it is revealed that the Fujikawa-kako faults has repeatedly activated at ca. 6000 cal BP, 4500 cal BP, 3000 cal BP and 1500 cal BP during the Holocene.