

Slip Rate Estimates for the Ikeda Fault of the Median Tectonic Line Active Fault Zone in Shikoku, Southwest Japan

Hideaki Goto[1]

[1] Hiroshima Univ.

An active fault zone extends for about 190 km along the Median Tectonic Line (MTL) in Shikoku, southwest Japan. MTL is an arc-parallel, right-lateral strike-slip fault related to the oblique subduction of the Philippine Sea plate beneath the Eurasian plate along the Nankai trough. It is one of the most active inland faults in Japan and one of the major strike-slip faults in the world. However, documented offset of structural or geomorphic markers is limited along the fault zone.

New estimates on the Quaternary slip rate of the Ikeda fault, which is the central segment of the MTL in Shikoku, are provided. I reconstruct and describe the distribution of late Pleistocene fluvial terraces and fluvial terrace riser as offset geomorphic marks. Two 120m offset of terrace riser which built up by last 20ka are found. These results translate to an average slip rate of 6mm/yr, which is concordant with the rate on the eastern and central segment of the MTL in Shikoku.