

## Holocene paleoseismic events of Asamigawa fault in the coarse-grained sediments at the Hamawaki area in Beppu City, Japan

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Vertical displacements associated with the Asamigawa fault, at the out of Beppu alluvial fan, western Japan, are recorded in coarse-grained Holocene sediments. Two 20 m-long cores obtained from a modern coastal plain on hanging wall side and above of the fault zone, have examined using cm-scale sedimentary facies analysis and radiocarbon dating. Based on the results, sedimentary units can be correlated across the fault, which are thicker on the hanging wall side. Given that the stratigraphic correlations concur with age-based correlations using accelerator mass spectrometric radiocarbon dates, the thickness variations within the several units may be interpreted to be related to paleoseismic events of the fault. The vertical displacement of shallow marine sediment suggests that the average vertical-slip rate of this fault is at least 1.4 mm/year after 7,300 cal BP.