

Activity of the Kushibiki and Kamikawa faults in the northwestern part of Kanto Plain obtained by arrayed borehole survey

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We conducted arrayed borehole survey (10 boreholes respectively) across the Kushibiki and Kamikawa faults in the northwestern part of the Kanto Plain. The survey has revealed that the Kushibiki fault displaces the ca. 30 ka top surface of a 5m-thick gravel bed by 3m vertically. The average vertical slip rate of the Kushibiki fault is estimated to be around 0.1m/ky. The dip angle of the fault, at depth from 3m to 10m, is estimated to be about 26 degrees based on depth of the fault surface confirmed in two boreholes with an interval of 14m. The last faulting event might have occurred in Holocene time because a humic soil layer of 8 to 9 ka on the upthrown side is located at the same level with a humic bed of 2 to 3 ka on the downthrown side. We will also present a preliminary result of a trench that was excavated across the fault in February. The arrayed borehole survey across the Kamikawa fault made clear that the fault was reactivated after the deposition of As-BP tephra of 20 to 25 ka.

