

The latest surface-faulting event of the Tachikawa fault in metropolitan Tokyo: Examples from Hakonegasaki trenches

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Two trenching surveys and twenty-four boring surveys at Hakonegasaki in northwestern part of Tokyo Metropolis revealed that the latest surface-faulting event of the Tachikawa fault occurred between about 15600-13450 yBP and 7300 yBP.

The Tachikawa fault is a 22-km-long NW-SE-trending mainly reverse fault. We excavated two trenches in 2004, in order to directly obtain the paleoseismological data from the fault.

The trenches were excavated across 1- to 3-m-high SW-facing fault scarps at the Hakonegasaki A and B sites. Trench walls exposed predominantly gravel, loam and humic soil and fault planes showing vertical to 70E dip. The fault planes deform at least the top of gravel and are covered by humic soil.

The K-Ah tephra obtained from the bottom of humic soil shows about 7300 yBP and radiocarbon ages obtained from a humic sand layer in gravel shows 15600-13450 yBP.

Cray and silt layers of the paleo-Sayamagaike from boring cores show no evidence for drastic environmental change during their deposition.