

Japan Geoscience Union Meeting 2011

(May 22-27 2011 at Makuhari, Chiba, Japan)

©2011. Japan Geoscience Union. All Rights Reserved.



SCG062-10

Room:IC

Time:May 27 14:30-14:45

Active faults along the southeastern margin of the Echigo Plain based on tectonic geomorphology and borehole data

Hiroyuki Tsutsumi^{1*}, Tatsuya Ishiyama², Takehiko Suzuki³, Daisuke Hirouchi⁴, Toshifumi Imaizumi⁵, Takanobu Kamataki⁶, Abe Kohei⁷

¹Kyoto University, ²ERI, University of Tokyo, ³Tokyo Metropolitan University, ⁴Shinshu University, ⁵Tohoku University, ⁶OYO Corporation, ⁷M. T. brain Co, Ltd.

We studied active faults/folds along the southeastern margin of the Echigo Plain based on analysis of tectonic geomorphology and borehole data. The margin east of Nagaoka City is marked by west-facing fold scarps on fluvial terraces for a distance of 10 km that are probably related to an east-dipping reverse fault. Boreholes revealed that the erosional boundaries between the Plio-Pleistocene Uonuma Formation and late Quaternary terrace gravels are higher to the east across the fold scarps. We plan to calculate the slip rate of the east-dipping reverse fault by estimating the ages of the fluvial terraces based on tephrochronology.

Keywords: Echigo Plain, Nagaoka City, tectonic landform, fault slip rate, borehole survey