

## Latest faulting event of the Sakaitoge fault, central Japan, revealed by a trenching study

# Toshikazu Yoshioka[1], Kiyohide Mizuno[1], Masanobu Shishikura[1], Tatsuya Ishiyama[1], Takashi Hosoya[2], Tomoo Hashimoto[3]

[1] Active Fault Research Center, GSJ/AIST, [2] Chukai, [3] Chuokaihatu Co

<http://staff.aist.go.jp/yoshioka-t/index.html>

The Sakaitoge fault, that is the northwestern part of the Sakaitoge-Kamiya fault zone, is a left-lateral strike-slip active fault trending NNW-SSE to NW-SE direction in western Nagano Prefecture. The Active Fault Research Center, GSJ, AIST carried out a trenching survey on the Sakaitoge fault to assess the activity of this fault.

Three trenches (named trench A, B and C) were excavated at Hososhima area in Kiso Village to reveal the paleoseismic activity of this fault. Trenches are located along the base of the fault scarplet cutting a Late Pleistocene terrace surface. A reverse fault cutting the terrace deposits and the surface soil layers was observed on both walls of the trench C. A wedge shaped small graben is also observed in the upthrown side of the fault. The calibrated radiocarbon dates from the deformed soil are 6200-5900 cal yBP and 5900-5700 cal yBP, and the ages of the surface soil covering the fault zone are younger than 4400-4300 cal yBP. These dates show that the age of the last event of the Ibigawa fault is about 5900-4300 cal yBP. The trench outcrops also indicates that the penultimate event occurred after the deposition of the AT tephra layer, and unipenultimate event occurred in between 36,000 yBP and the deposition of the AT tephra layer.