
Oral | Symbol H (Human Geosciences) | H-DS Disaster geosciences

[H-DS29_28AM1] Geohazards in humid, tectonically active countries and their precursors

Convener: *Masahiro Chigira (Disaster Prevention Research Institute, Kyoto University), Satoru Kojima (Department of Civil Engineering, Gifu University), Hiroshi YAGI (Faculty of Art, Science and Education, Yamagata University), Taro Uchida (National Institute for Land and Infrastructure Management), Chair: Ryoko Nishii (University of Tsukuba), Shintaro Yamasaki (Kitami Institute of Technology)

Mon. Apr 28, 2014 10:00 AM - 10:45 AM 415 (4F)

This session covers mass movements of landslide, slope failure, debris flow, and gravitational slope deformation in tectonically active, humid countries, and aims to discuss on their mechanisms, characteristics of occurrence sites, the significance in geological time scale, and the methodology to mitigate their affects by researchers with various related research fields.

10:00 AM - 10:15 AM

[HDS29-P06_PG] Development of Lake Shibire and its geomorphological relationship with landslides in Misaka Mountains, central Japan

3-min talk in an oral session

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Keywords: landslide, lacustrine deposit, Aira-Tanzawa tephra, 14C dating, late Pleistocene

Geomorphological classification mapping and geological investigation were carried out to reconstruct the development of Lake Shibire (890 m ASL, max depth 9.5 m, perimeter 1.2 km) in Yamanashi Prefecture. Lake Shibire was formed on a closed depression of the hilly mound with antislopes that was produced by landslide on the steep slopes adjacent to the lake. Other smaller landslide bodies were also identified next to Lake Shibire. Lacustrine deposits with plant macro fossils and a thin vitric ash layer (Aira-Tanzawa, 30 cal ka) were discovered from the side slope of a small channel close to Lake Shibire. Radiocarbon age of a plant macro fossil sampled from the bottom of the lacustrine deposits was 47-46 cal ka. The paleo Lake Shibire was likely to consist of independent two or more basins in the late Pleistocene and only one basin has survived to the present-day Lake Shibire. It is also likely that a single basin was decoupled into two or more basins due to occupation of landslide masses caused by secondary landslide activities adjacent to the basins, and only the certain basin linked to the present-day Lake Shibire has endured.