

Holocene rock avalanche phenomena from the upper Okumatashirodani Basin, Kamikochi Valley, northern Japanese Alps

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Hummocks and a minor ridge both of which have been considered to be moraines are present on alluvial fans near the Shinmurabashi Bridge, Tokusawa Area of Kamikochi Valley in the Hida Mountains. A series of geomorphological, lithological, and chronological studies of these landforms and their forming materials revealed that hummocks and a minor ridge were formed by two different rock avalanches that occurred on the steep east face of Kitahotaka-dake north ridge about 3000 m ASL and ran into valley floor near the Shinmurabashi Bridge. A terrestrial cosmogenic nuclide dating method of igneous rocks comprising hummocks and a minor ridge showed that hummocks were formed during 6.0-7.9 ¹⁰Be ka and a ridge was during 0.8-1.1 ¹⁰Be ka.

Keywords: landslide, in-situ terrestrial cosmogenic nuclide dating, Hida Mountains