

## Iwatoyama landslide and natural dam caused by the AD 1714 Shotoku-Otari Earthquake in central Japan

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The Iwatoyama landslide, which caused the loss of 30 lives, was induced by the Shotoku-Otari earthquake ( $M 6 \frac{1}{4}$ ) on April 28 1714. This landslide is considered to be related to the Itoigawa-Shizuoka Tectonic Line active fault system located in northern Nagano Prefecture and believed to have created a natural dam obstructing the Himekawa River. However, little detailed information is known on the geologic and geomorphic features of the Iwatoyama landslide and its natural dam. We performed geologic and geomorphic investigation by air photo interpretation, geological exploration, and re-examination of historical documents as well as interviewing local residents. The principal results are: (1) the Iwatoyama landslide started on the western face of Mount Iwatoyama (1,356 m ASL), and the landslide mass directly moved down onto the Himekawa River, (2) the landslide mass obstructed the Himekawa River, resulting in formation of a dammed lake with an elongated water area extending 4 km upstream, (3) the height and width of the natural dam are estimated to be 80 m and 460 m, respectively, (4) the duration of the dammed lake was three days, and finally the dam collapsed causing a catastrophic flood, and (5) an integrated study of geology-geomorphology and historiography is beneficial for reconstructing landslides that occurred in historical times.

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