

## Age estimation of deep-seated catastrophic landslides in the Kii Mountain, Japan

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Research such as the <sup>14</sup>C dating and the tephrochronology, the dendrochronology is done about the landslide and debris flow but there are few cases of Deep-seated catastrophic landslides. In Kii mountains, Deep-seated catastrophic landslides collapse occurs repeatedly in the past. In this study, prehistoric deep-seated catastrophic landslides and their sediments were interpreted using high-resolution geomorphic map in the Kii Mountains. The samples for the dating were collected from deep-seated catastrophic landslides deposits. These are likely to have caused the trees to be trapped in the deposits due to landslide. Dating was performed at 21 deep-seated catastrophic landslides, and it was found that deep-seated catastrophic landslides have occurred since 8,000 to 29,000 years. The landslide dates were concentrated in the 1,300s, 1,500s, and 1,700s since the year 1000 AD. It is highly probable that large-scale sediment-related disasters have occurred every 100 to 200 years.

Keywords: Deep-seated catastrophic landslide, <sup>14</sup>C Dating, high-resolution geomorphic map