

Bed rock creep in Shimanto Belt, Ikawa area in the southern part of the Akaishi Mountains

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In the Ikawa area of the southern part of the Akaishi Mountains, the occurrence of bed rock creep was described by Hisada and Shindou (1982) and Chigira (1998). There are few works which discuss the relationship between lithofacies and geological structures and bed rock creep over a wide area. The authors studied the relationship between them. The lithology in this area is classified into four lithofacies units (A-B-C-D). The strata strike northeast and dip northwest. Unit A consists mainly of sandstone-rich alternation of sandstone and mudstone. Units B, C and D compose are characterized by mudstone dominant lithofacies. Bed rock creep in this area is controlled by geological structure and is apt to occur if the slope of the mountains is parallel with strikes of strata. Also compared with a slope with a infacing dip, it is concluded that a slope with a hangnail dip may tend to cause large-scale collapse (or large-scale bed rock creep). It is probable that the large-scale collapses occur more frequently in the alternation of sandstone and mudstone terrain rather than the mudstone dominant one.