

Lithology and age of sediments accumulated in linear depressions on the Nagakabe Ridge in Kamikochi, Japanese Alps

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There are many double ridged on the Nagakabe Ridge extending from Tokusaka to Chogatake Mountain, northeast of Kamikochi, southern Japanese Alps; most of them are interpreted as the deep-seated gravitational slope deformation features. In order to reveal the development history of these geomorphic features, the sediments accumulated in the linear depressions between the ridges were drilled by the hand auger boring, and the lithology were described and the ages were estimated. The drill sites are located along the climbing trail about 2000 m (Point A) and 2050 m (Point B) above sea level, and are surrounded by conifer trees. The sited are on the flat surfaces between the multiple ridges, and nine cores 80-160 cm long were obtained. The sediments are composed of the upper part of carbonaceous mud and the lower part of yellowish-brown silt (pebbly in part), between which is the gray mud-silt; the thickness of these sediments are variable from site to site. The fraction of 62-200 micro meters of the sediments are composed of volcanic glass and crystal, clastic material, and plant fragment. The volcanic glasses are the mixture of bubble wall-type and pumice-type glasses. The core GUNK-7 from Point A, ca 160 cm long, starts to include bubble wall-type glasses from the depth of 87-92 cm, and for the core GUNK-2 from Point B, ca 150 cm long, the depth is 62-72 cm. The values of refractive index of these volcanic glasses are scattered around 1.510, and are coincide with those of Kikai Akahoya tephra about 7300 cal BP. We will also report the AMS 14C ages of plants included in the sediments.

Keywords: deep seated gravitational slope deformation, double ridge, Nagakabe ridge, Kamikochi