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Periglacial Environment around Mount Warusawa, Southern Japanese Alps

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Observations were carried out at Maru-yama station (3020 masl) from September 7th 2006 to August 31st 2008. The annual mean air temperature at the station in 2007 was -1.6^{o}C. During this period, the normal value of the annual mean surface air temperature at Maru-yama was estimated to be -1.8^{o}C. This was achieved by evaluating the normal values at Mt. Fuji meteorological station (3775 masl) of the Japan Meteorological Agency with a lapse rate of 0.6^{o}C/100 m. Therefore, the climatic value of the annual mean air temperature at Maru-yama was estimated to be ca. -1.8^{o}C.

The ground temperature of the north slope was lower than that of the south slope, and the ground temperature of the surface rubble layer at the north slope was the lowest.

The estimated normal value of the annual mean air temperature was very close to the threshold value (ca. -2^{o}C) for the mountain permafrost distribution suggested by previous studies. And specific place in Maru-yama has a low-ground temperature possibility during the long period. Moreover, it is possible that some mountain permafrost conditions exist around the summit area of Maru-yama.

Keywords: Periglacial environment, Periglacial landform, Meteorological observation, Mountain Permafrost, Southern Japanese Alps