

Mass balance and climatic condition of Potanin glacier, Mongolia Altai

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It is revealed by Satellite image analysis that Potanin glacier in western Mongolia is retreating (Kadota and Gombo, 2007). There were few glaciological and climatological observations on and around the glacier.

For mass balance analysis, we conducted observation of surface height change in ablation area and net balance estimation using pollen analysis. It revealed that ablation rate in summer is large in ablation area and accumulation occurred in winter although winter ablation seemed too happened. We estimated the specific mass balance from the data.

Also, meteorological observation was conducted on and around the glacier. As for the air temperature, the measured one on the glacier was less in summer and more in winter compared the observed in the meteorological station in the nearest city. Energy balance calculation showed that global radiation is the main heat source for ablation of the glacier. Thus, it seems that snow fall quantity and period is affecting to the mass balance of this glacier.