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Mass balance and climatic condition of Potanin glacier, Mongolia Altai II

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It is reported that Potanin glacier in western Mongolia is retreating. However, there were few glaciological observations. Furthermore, meteorological observations around the glacier have not been done yet.
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.
Mass balance year 2007/08 was estimated to extensive negative mass balance year which was also adapted to Russian Altai. Naturally, cumulative mass balance of glaciers in Altai show different tendency from world average. Annual air temperature shows warming trend whereas precipitation does not show the significant increase/decrease. Therefore, it is probable that precipitation as snow or rain had an influence on mass balance.

Keywords: glacier, mass balance, Altai, Mongolia, pollen analysis, warming