

Lippert, J., M. Wastl, J. Stötter, A. P. Moran, Th. Geist, C. Geitner (2006): Measuring and Modelling Ablation and Accumulation on Glaciers in Northern Iceland. Zeitschrift für Gletscherkunde und Glazialgeologie. in press.

Abstract

Ablation and accumulation measurements since the year 2000 are used to calibrate a degree-day climate glacier model for Tröllaskagi Peninsula, Northern Iceland. The model calculates daily ablation and accumulation from temperature and precipitation measurements in Akureyri. Modelling results in low average degree-day factors for snow ($k_s = 3.9 - 4.3$ mm w.e./Kd) and high precipitation gradients with more than four times higher accumulation than winter precipitation in Akureyri.

The model is able to explain the measured summer and winter balances. A future use for a long time reconstruction using all climate data from Akureyri is therefore possible.