

Tellbreen – The Swiss Cheese on Svalbard

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Summary: Englacial and subglacial channels on Tellbreen, a small valley glacier located north-east of Longyearbyen, the main city in Svalbard, Norway, were explored, using speleological methods. In both years, 2011 and 2012, cave systems were mapped and are now used to describe both the hydrological system as well as the thermal history of the glacier. Previous studies have indicated that small cirque glaciers in Svalbard are dynamically inactive, with low ice velocities and no subglacial drainage systems (e.g. HODGKINS, 1997; ETZELMÜLLER et al., 2000). Recent investigations, however, indicate that many of small Svalbard glaciers were formerly wet-based and much more dynamically and geomorphologically active during their Little Ice Age maxima than they are today (cf. BAELUM & BENN, 2011). This project is a systematic investigation of this subject, using glacio-speleological techniques to access the glacier beds.

Keywords: ice cave, glacier hydrology

References:

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