

THERMAL DYNAMICS OF THE PERMAFROST ACTIVE LAYER IN EBBA VALLEY (CENTRAL SPITSBERGEN) IN THE YEARS 2009-2012

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ABSTRACT

During the period between summer 2009 and summer 2012 measurements of ground temperature in active layer of permafrost were conducted. Studies were realised in Ebba valley (central Spitsbergen). For this part of Svalbard archipelago dry polar climate type is distinctive. Variations in the ground temperatures had a typical course in the summer months but some significant anomalies were observed during winter periods. Ground thermal conditions are strongly influenced by air temperature changes but vegetation cover and sediment moisture are also relevant. Studies show that active layer properties are spatially differentiated and selection of representative measuring positions is a complex issue.

KEYWORDS: Active Layer, Ground Temperature, Permafrost, Svalbard