

## **ABSTRACT**

Micromorphology of glaciofluvial sediments were only partially shown by Mahaney et al. (2001). This paper deals with the main diagnostic textures of glaciofluvial sediments and changes of their micromorphology caused fluvial transport.

The samples were collected. All samples were collected by Peter Mida and Martin Hanáček in Svalbard in August 2012. Two glacial samples and six glaciofluvial samples were taken near the glacier Bertilbreen and one glacial sample and seven glaciofluvial samples were taken near the glacier Hørbyebreen. Samples were examined under electron microscope. The correlation analyses was used to set the main glaciofluvial microtextures. Similarity of the samples was tested by one-way ANOVA.

Increasing numbers of V-shaped pits, rounded grains, meandering ridges and microblocks are typical for characteristic microtextures of glaciofluvial grains which had greater rate of fluvial transport. But the grains mainly transported by glacier had a greater percentage occurrence of subangular grains, straight steps, straight and curved grooves, adhering particles, pitting and V-shaped etch pits.

**Keywords:** exoscopy, quartz grains micromorphology, glaciofluvial sediments