

Pokrywa śnieżna na tundrze w okolicy Polskiej Stacji Polarnej w Hornsundzie/Snow cover on the tundra around Polish Polar Station in Hornsund

I will present main goals of my dissertation and importance of this study for understanding of the Arctic environment. Following short introduction to methodology, new data gathered during spring fieldwork in Hornsund area will be presented. Spring measurement campaign was focused on snow density and depth distribution in different unglaciated areas, together with progressing changes in physico-chemical properties of snowpack during the ablation period. Differences in snow cover extent on various types of tundra vegetation will be presented on the base of images processed from time-lapse camera installed on Fugleberget summit and land cover maps available for this area. The orthorectified images obtained from the mentioned camera allowed also to control day by day changes of snow cover extent (SCE) in Fuglebekken catchment during melting period in 2014. Snow cover extent from high resolution ground based camera images will be compared with freely available LANDSAT 8 mission satellite imagery. The comparison will be a form of the test for the usefulness of LANDSAT data application in further studies outside the Fuglebekken catchment. Besides collected results that will be used in my dissertation, presentation will sum up activity and achievements made during the work on PhD thesis.