

Abstract

This work summarizes one decade of spatial snow cover distribution research on the highest plateau of Eastern Krkonoše. This research was done in respect to periglacial landforms, which develop on these localities. The research was carried out during winter seasons 2003/2004 until 2012/2013 on Čertova louka meadow and Modré sedlo saddle. The main goal of the study was to analyze spatial snow depth variability during the season. Next goal was to analyze of possible interaction of snow distribution between both localities. The measurement was carried out manually by snow probe within regular net of 141 points. Our data were further compared with snow depth on professional meteorological station near Luční bouda chalet and with regular measurements of mountain rescue guards. As the main indicator of spatial snow distribution during the season was calculated general variability index. The highest values of snow depth were regularly reached at central terrain depression at Čertova louka meadow (max. 570 cm). On the other hand the lowest values were reached on the edge of Modré sedlo saddle (min. 35 cm). The difference between those two localities is also documented by values of general variability index for Čertova louka meadow (97) and for Modré sedlo saddle (33). The greatest values were usually measured during February and the snowpack regularly lasted at least until April with the maximum of 227 days. The method of general variability index showed good results and seemed to be an appropriate method for comparing of spatial distribution of snow depth between two localities. The hypothesis of interaction between both localities was not confirmed nor refused.