



Recent variations of the nivo - thermic parameters in the territory of the Dolomites and venetian Prealps

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The analysis of recent snowfalls in the medium – high mountain areas of the Mediterranean basin, is considered as an important tool to evaluate the underway climatic change. Aim of the study was to define the space - altitudinal distribution of snowfall and temperatures and to outline the recent trend, considering the signal defined by similar recent studies in the Alps, which show a general decrease in of snowfall and an increase significant of temperatures. It was therefore considered monthly and seasonal thermo - nivometric data - relating to fifteen automatic measurement stations - operated by ARPAV - located at altitudes between approximately 1430 and 2620 ma.s.l. and activated during the second half of the 80s. The study area is extended for about 5000 sqkm. The parameters analysed were: cumulated of fresh snow, snowy days (with $H_n > 1\text{cm}$), continued persistence of snow on the ground and average air temperatures. in this area, at about 2000 meters, an average of 360 cm of seasonal fresh snow - between November and May - are recorded; the snow remains on the ground for about 190 days and there are about 50 days with snowfall ($h_n > 1\text{cm}$). Fresh snow increases, on average, of about 18 cm and remains down 8.5 in addition, each 100 meters of altitude. Finally, the average annual temperature is of about $2,8^\circ\text{C}$, with an elevation of 0°C at 2780 m a.s.l. The nivometric and thermometric trend shows a quite surprising evidences; both as regards the fresh snow for both snowy days, there was a general increase - resulting from some recent seasons very snowy – while with regard to the persistence of the snow on the ground, a signal more contrasted is evident. Temperatures show a marked increase - about 1.5°C - in the pre-Alps, while in the Dolomites, the temperatures tend widely to decline by about 0.5°C . Given the particularities of these results, it would be essential to extend the study area at the entire Venice Tridentine mountains, to understand if these signals is found to a more extensive scale

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