



Study on soil thermal regime over Qinghai-Tibet Plateau and its adjacent regions in last 30 years

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The changes of soil temperature at shallow surface could be described the thickness variation of active layer. The soil thermal regime over Qinghai-Tibet Plateau and its adjacent regions has been studied by analyzing the soil temperature data of 74 stations collected from 1977 to 2006. The results show that the accumulation of negative temperature at the depth of 5 cm, CTN, increased 35 [U+2103] per decade generally in last 30 years [U+FF0C] which varied more in the hinterland of the plateau than that in the periphery in winter. However, the variation in the hinterland keeps stable comparing with that in periphery in whole freezing-thawing process; the frozen thickness of active layer in the same regions was going to thinner; the decrease rate of thawing-freezing intensity, FTI, in the southern part with the latitude of 33°N was twice as much as that of the northern part while the elevation was less than 4000m, but the rate influenced by latitude was relative weakness while the elevation was higher than 4000m. All of above expressed that the stabilization of permafrost in the Plateau was changing.