

Changes in the proportion of precipitation occurring as snow in Tibet Plateau

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In order to study the characteristics of precipitation phase in Tibet Plateau area, the observation data from 39 stations in Tibet during 1979-2013 were studied the changes of snowfall/precipitation (S/P) ratio, and the main conclusions obtained are as follows: the average of S/P ratio in Tibet is 19.29%, and its spatial distribution is uneven. The value of S/P is low at east and hinterland of Tibet, while at north/west/south boundary of Tibet is high; the relationship between S/P and temperature and latitude is fitted accurately by exponential functions, and it will benefit places in Tibet which is lack of observational data. S/P ratio in Tibet has decreases distinctly during 35y, and the tendency rate is -1.27%/10a. Except few stations in south of Tibet, the S/P ratio is decreasing, and it is more significant in spring and autumn; the ratio of high latitude stations (>4500m), has faster decline than others.

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