

Spatio – Temporal Variation of Vegetation During Holocene in the Himalayan Region

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Palaeovegetation records derived from pollen assemblages provide potential information on palaeoclimate due to its characteristically multivariate and multiscale nature with respect to both temporal and spatial scales. A good number of studies on climate changes based on palynology are available from the higher elevation sites of the Himalaya, but these are mostly from its Northwestern part and data from the Northeast Himalayan region are scanty. This paper gives a glimpse of palaeovegetation-palaeoclimate changes in the alpine Himalayan region during the Holocene based on evidence of pollen data from sub-surface sediments. Further, interpretation of fossil pollen data based on the calibration of modern climate vs. modern pollen data could be used in quantitative climate reconstruction from the pollen diagrams of this region have also been emphasized

In general in the Northwest Himalayan region, the climate was warm-moist during most part of Holocene with short phases interruption of colder and drier climate around 8.3-7.3 ka B.P., 6 - ~3 ka B.P. and 850 years B.P. In contrary data from the Northeast Himalaya is available only for Late Holocene, around 1.8 Ka B.P. the climate was comparatively warmer and moister similar to condition prevailing at present. There is further amelioration of climate around 1.1 Ka B.P. corresponding to Medieval warm period. Around 0.55 Ka B.P. there is a trend towards cooler and comparatively less moist climate corresponding to the little Ice Age. This is followed by an amelioration of climate comparable to present day climatic condition.