

OBSERVATIONS ON TEMPERATURE VARIATION IN ALPINE ZONE OF UTTARAKHAND: A CASE STUDY OF TUNGNATH

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Abstract: The metrological data for maximum, minimum and soil temperature was recorded at 3600 mt. altitude during 2015-16 for Ph.D. programme under the topic “Phenological response of four Rhododendron species with reference to climate change” and compared with the data recorded for same parameters at the same altitude and place collected during June to September, 1979 by High Altitude Plant Physiology Research Centre Srinagar. In weekly temperature recording it is observed that the maximum air temperature has increased from 2 to 4 °C as well as the minimum temperature has also decreased up to 2 to 3°C within a span of 35 years. However, soil temperature has shown the increase of about 2 to 3 °C. It indicates that though the variation in mean temperature does not increase significantly but the difference between maximum and minimum temperature has increased drastically. This clearly indicates that the variation in temperature which is responsible for all the metabolic processes in plants and plays a significant role in plant adaptation has significantly increased in both sides. Which means that plants has to face both extreme low as well as high temperatures, which may cause loss of those species which has low adaptation potential to these temperature extremes.

Keywords: Alpine Zone, Metrological data, Temperature, Uttarakhand

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