



**SOUVENIR**

**National Conference  
Climate Change: Its Impact on Bioresources of  
The Himalayan Region (CCIBHR-2022)**



**ORGANIZED BY**

**Department of Chemistry  
S.S.M.M.U.S.S.S. Government Post Graduate College  
Dwarahat, Almora (Uttarakhand) India**

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**Uttarakhand State Council for Science & Technology, Dehradun  
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**Editor**

**Dr. Darshan Singh**



## National conference

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(5th & 6th June 2022)

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# National Conference On Climate Change: Its Impact on Bioresources of the Himalayan Region (CCIBHR-2022)

5<sup>th</sup>-6<sup>th</sup> June, 2022

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## Effect of Climate Change on Diversity of Aquatic Hyphomycetes

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### *Abstract*

Aquatic Hyphomycetes also known as fresh water Hyphomycetes, Amphibious Fungi or Ingoldian Fungi are the dominant colonizers of allochthonous organic materials (leaves, needles, twigs and branches of terrestrial plants). They are characterized by tetra-radiate or sigmoid spores. Among all the fungi which colonize the submerged leaves, Aquatic Hyphomycetes are known to be the most active group. They increase the nutritive value of leaves and the detritivores prefer such colonized leaves. They also macerate leaf tissues with pectinolytic enzymes and facilitate release of fine particulate organic matter which is an important food resource for aquatic invertebrates. Diversity of aquatic Hyphomycetes is highest in non-polluted, relatively cool, well aerated streams running through deciduous forest.

It is well known that climate change has been affecting the ecology of living organism. The changes in climate are expected to have an impact on fungal biodiversity. Climate change effects in the community composition, growth, reproduction and decomposing activity of Aquatic Hyphomycetes. Low concentration of oxygen and high concentration of metals, nitrate and sulphate reduced the diversity of Aquatic Hyphomycetes. Temperature appears to be an important factor affecting the occurrence, distribution and metabolism of the Aquatic Hyphomycetes.

**Keywords:** Aquatic Hyphomycetes, Diversity, Climate change.

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