

IMPACT OF CLIMATE CHANGE

BIODIVERSITY & ENVIRONMENT

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Impact of Climate Change Biodiversity and Environment

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2021

Associated Publishing Company®

A Division of

Astral International Pvt. Ltd.

New Delhi – 110 002

© 2021 EDITORS
ISBN : 978-93-89719-38-3

Publisher's Note:

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Published by : **Associated Publishing Company®**
A Division of
Astral International Pvt. Ltd.
– ISO 9001:2015 Certified Company –
4736/23, Ansari Road, Darya Ganj
New Delhi-110 002
Ph. 011-43549197, 23278134
E-mail: info@astralint.com
Website: www.astralint.com

Digitally Printed at : **Replika Press Pvt. Ltd.**

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Chapter 12

The Hydrochemistry and Planktonic Diversity of Gangayaar Stream with Special Reference to Different Pollution Sources

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Among the natural resources, water is essential for the existence of life on earth. Potable water is important for all living beings and the quality of water can be dramatically changed due to pollution. It relates to the condition of water and includes factors like how well it can support plants and animals, and whether it is fit for us to use. Water pollution is caused by foreign objects and chemicals build up in excess concentration. But, today water resources are under major stress around the world due to over-exploitation and pollution. In the present study, we have assessed the physico-chemical and bacteriological parameters along with the planktonic diversity of Gangayaar thodu, Venganoor, Thiruvananthapuram. The different physico-chemical parameters analysed in the study area were temperature, pH, electrical conductivity, total dissolved solids, alkalinity, hardness, free carbon dioxide, dissolved oxygen, sodium, potassium, nitrate, phosphate, sulphate, total coliforms and the identification and measurement of phytoplanktons. The quality of the stream has been decreased by sewage effluents and agricultural return flows. The increasing concentration of nutrients like nitrate, phosphate, and sulphate has positively influenced the growth of phytoplanktons in the stream. During the