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Autore	Soni Ravindra
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Altri autori (Persone)	SuyalDeep Chandra Morales-OyervidesLourdes Sungh ChauhanJaspal
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Nota di contenuto	Chapter 1. Freshwater microbiology: recent updates and prospects -- Chapter 2. The Chemical Composition of the Water in the Rivers, Lakes, and Wetlands of Uttarakhand -- Chapter 3. Microbial diversity of cold-water reservoirs and their prospective applications -- Chapter 4. Overview of microbial associations and their role under aquatic ecosystems -- Chapter 5. Plant-microbe interaction in Freshwater ecosystem for improving water quality -- Chapter 6. Microbial interactions with aquatic plants -- Chapter 7. Status of Microplastic pollution in the freshwater ecosystems -- Chapter 8. Heavy metal pollution in water: Cause and remediation strategies -- Chapter 9. Recent advances in biological wastewater treatment -- Chapter 10. Recent developments in wastewater treatments -- Chapter 11.

Wastewater treatment: perspective and advancements -- Chapter 12. Overview of methods and processes used in waste water treatment -- Chapter 13. Role of microorganisms in polluted water treatment -- Chapter 14. Bioremediation of Polluted water -- Chapter 15. Pollution in freshwater: Impact and Prevention -- Chapter 16. Fresh water pollution: overview, prevention and control -- Chapter 17. Iron Degrading Bacteria in the Aquatic Environment: Current Trends and Future Directions -- Chapter 18. Bioactive compounds from aquatic ecosystem -- Chapter 19. Freshwater BGA: A potential candidate for sustainable agriculture and environment for the welfare of future planet earth -- Chapter 20. Factors affecting Fish migration.

Sommario/riassunto

This contributed volume deals with the various aspects of freshwater microbiology including diverse habitats, associated microorganisms, their ecological interactions, and industrial applications. Freshwater ecosystems are dynamic natural resources, providing sources of potable water, food, animal habitats, and recreation. Perspectives of microbial dynamics in freshwater bodies, covered in this title, provide a comprehensive and systematic analysis of microbial ecology in these ecosystems. These microbes are at the hub of biogeochemical cycles (carbon, nitrogen, phosphorus, potassium, and other elements). Moreover, they are an integral part of the aquatic food web and control the quality of freshwater bodies. Chapters in this title also discuss the issue of pollution in freshwater bodies and put forward available strategies for eco-friendly solutions. The book is a perfect documentation of primary and secondary data-based information on the latest research findings, case studies, experiences, and innovations in the field of freshwater microbiology. The book is of great use to students, researchers, and professionals studying aquatic sciences.