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Nota di contenuto	The Concerns for Global Sustainability of Freshwater Ecosystems -- Freshwater Pollution: Effects on Aquatic Life and Human Health -- Freshwater contamination: sources and hazards to aquatic biota -- Correlation Between Pollution Trends of Freshwater Bodies and Bacterial Disease of Fish Fauna -- Impact of Pollution on Quality of Freshwater Ecosystems -- Heavy metal intrusion and accumulation in aquatic ecosystems -- Impact of climate change on freshwater ecosystem and its sustainable management -- Role of biotools in restoration of freshwater ecosystems Bioremediation -- A Sustainable and Emerging Tool for Restoration of Polluted Aquatic Ecosystems -- Biosorption as Environmentally Friendly Technique for Heavy Metal Removal from Wastewater -- Biotechnological interventions as an aquatic clean up

tool -- Analysis of hydrology, sediment retention, biogenic-calcification and -scavenging as self-remediative lacustrine functions -- Remediation of pesticides through microbial and phytoremediation techniques -- Trends in Phyto-management of Aquatic Ecosystems and Evaluation of Factors Affecting Removal of Inorganic Pollutants from Water Bodies -- Urban Pond Ecosystems: Preservation and Management Through Phytoremediation -- Aquatic Pollution Stress and Role of Biofilms as Environment Cleanup Technology -- Wonders of Nanotechnology for Remediation of Polluted Aquatic Environs.

Sommario/riassunto

Freshwater is a finite resource and is being deteriorated directly and indirectly by anthropogenic pressures. Preserving the quality and availability of freshwater resources is becoming one of the most pressing environmental challenges on the international horizon. To ensure the preservation as well as availability of freshwater resources, there is a need to understand the ecology of the freshwater systems, pollution problems, their impacts, restoration techniques to be opted and the conservation measures. In this backdrop the present book on 'Freshwater Pollution Dynamics and Remediation' has been compiled. The book provides an understanding about the present state of art, pollution impacts including the changes in the environmental quality as well as the shift in the aquatic biological communities of the fragile freshwater ecosystems. Besides, the impact of deteriorating quality of the freshwater ecosystems on the animal and human health is also discussed in detail. This book provides a comprehensive account of the techniques based on updated research in biotechnology, bio-remediation, phyto-remediation and nano-bioremediation. The role of biosorbers and biofilms as a remediation tool has also been detailed. The book is a ready reference for researchers, scientists and educators who are involved in the freshwater pollution, remediation and management studies. The book editors with an expertise in diverse research fields in freshwater ecosystems have congregated the most inclusive research accounts on the freshwater pollution and remediation and thus developed a repository of diverse knowledge on the subject.
