Environmental Molecular Microbiology

This book highlights the current state of the art of environmental molecular microbiology. International experts have contributed chapters that describe the various technologies and their applications in environmental microbiology.

The first half of the book focuses on the microbial diversity and phylogeny of microorganisms in the environment and describes the molecular toolbox currently available for the study of the composition and diversity of microbial communities and their functions. Topics include the use of the 16S rRNA gene as a phylogenetic marker, metagenomics, metaproteomics, microarrays and molecular fingerprinting.

The second half focuses on the application of these approaches in various environments including soil, marine water, plants, humans and wastewater treatment. The last chapter of the book discusses the genetics and environmental implications of microbial biofilms.

An essential book for advanced students, research scientists, environmental agencies and industries involved in any aspect of environmental microbiology.

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