Microbial Ecology

AN EVOLUTIONARY APPROACH

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With its unique combination of both evolutionary and ecological insights, *Microbial Ecology* examines microorganisms from individual, population, and community perspectives. Species interactions including competition, predation, parasitism, and mutualisms as well as microbial communication through quorum sensing are examined through the lens of evolutionary ecology, providing key insights into the values of both scientific perspectives. Microbial sex and reproduction, nutrient cycling, and the effects evolutionary cheating on microbial populations and processes are also explored and offer opportunities for students and researchers in microbial ecology and evolutionary biology to understand the topics from alternative viewpoints. Using a microbial perspective, optimal foraging, genome reduction, novel evolutionary mechanisms, bacterial speciation, r and K selection, and many other topics are measured. The result of this dual-focus approach is a context for understanding microbes in nature and a framework for microbiologists working in industry, medicine, and the environment.

KEY FEATURES:

- Applies evolutionary ecological concepts to microbes
- Examines individual, population, and community ecology
- Covers subjects from origin of life to modern microbial ecology
- Explores species interactions, quorum sensing and cheating, and nutrient cycling from an evolutionary view
- Includes color topic highlights and a full-color insert

RELATED TITLES:

Maier/Pepper/Gerba: *ENVIRONMENTAL MICROBIOLOGY*, (ISBN 0124975704)

Paul: *SOIL MICROBIOLOGY AND BIOCHEMISTRY*, (ISBN 0125468067)

ISBN-13: 978-0-12-369491-1