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by Functional Significance; Organisms Found in Freshwater Systems; Summary; Questions for Thought; Chapter 8. Microbes and Plants; Viruses; Archaea; Bacteria; Protocista; Fungi; Plantae; Summary; Questions for Thought; Chapter 9. Animals; Invertebrates; Phylum Chordata, Subphylum Vertebrata; Summary; Questions for Thought; Chapter 10. Biodiversity of Freshwaters; Measures of Diversity; Temporal and Spatial Factors Influencing Evolution of Freshwater Organisms

Short-Term Factors Influencing Local Distribution of Species Invasions of Nonnative Species; Extinction; What Is the Value of Freshwater Species Diversity?; Summary; Questions for Thought; Chapter 11.

Aquatic Chemistry Controlling Nutrient Cycling: Redox and O₂; Chemicals in Freshwaters; Redox Potential, Potential Energy, and Chemical Transformations; Oxygen: Forms and Transformations; Photosynthesis; Distribution of Dissolved Oxygen in the Environment; Summary; Questions for Thought; Chapter 12. Carbon; Forms of Carbon; Transformations of Carbon

A General Introduction to Nutrient Cycling and the Carbon

Cycle Summary; Questions for Thought; Chapter 13. Nitrogen, Sulfur, Phosphorus, and Other Nutrients; Nitrogen; Sulfur; Phosphorus; Silicon, Iron, and Other Trace Nutrient Cycles; Gradients of Redox and Nutrient Cycles and Interactions among the Cycles; Summary; Questions for Thought; Chapter 14. Effects of Toxic Chemicals and Other Pollutants on Aquatic Ecosystems; Basic Toxicology; Bioassessment; Acid Precipitation; Metals and Other Inorganic Pollutants; Organic Pollutants; Suspended Solids; Thermal Pollution; Summary Questions for Thought

Sommario/riassunto

This book is a general text covering both basic and applied aspects of freshwater ecology and serves as an introduction to the study of lakes and streams. Issues of spatial and temporal scale, anthropogenic impacts, and application of current ecological concepts are covered along with ideas that are presented in more traditional limnological texts. Chapters on biodiversity, toxic chemicals, extreme and unusual habitats, and fisheries increase the breadth of material covered. The book includes an extensive glossary, questions for thought, worked examples of equations, and real-life problems.
