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Nota di contenuto	Introduction to Cyanobacterial Blooms and Global Perspective -- The Evolutionary History of Cyanobacteria and Their Role in Earth's Biogeochemistry -- Ecological Drivers of Cyanobacterial Bloom Formation -- Nutrient Dynamics and Stoichiometry in Cyanobacterial Blooms -- Carbon Cycling and Sequestration in Cyanobacterial Dominated Ecosystems -- Nitrogen Fixation and Assimilation Pathways in Bloom Forming Cyanobacteria -- Phosphorus Metabolism and Its Influence on Bloom Dynamics -- Trace Metal Interactions and Their Impact on Cyanobacterial Physiology -- The Agricultural NEXUS: How Farming Practices Amplify Nutrient Inputs and Harmful Algal Bloom Indices -- Cyanobacterial Bloom Impacts on Aquatic Food Webs and

Ecosystem Services -- Climate Change and Its Effects on Cyanobacterial Bloom Frequency and Distribution -- Interactions between Cyanobacteria and Other Microbial Communities during Blooms -- Metagenomic Discoveries and the Expanding Horizons of Cyanobacterial Research -- Photosynthetic Adaptations and Light Harvesting in Bloom Forming Cyanobacteria -- Evolutionary Strategies for Bloom Formation and Persistence -- Future Directions in Cyanobacterial Bloom Research and Management Strategies -- Role of Cyanobacteria in Bioremediation and Environmental Restoration.

Sommario/riassunto

Cyanobacterial blooms have emerged as one of the most pressing ecological challenges of our time, significantly affecting aquatic ecosystems and human health. This comprehensive volume investigates into the multifaceted world of cyanobacterial blooms, examining their ecological dynamics, evolutionary adaptations, and profound biogeochemical impacts.
