A valuable and practical working handbook containing introductory and specialist content that tackles a major and growing field of environmental, microbiological and ecotoxicological monitoring and analysis. Includes introductory reviews, practical analytical chapters and a comprehensive listing of almost thirty Standard Operating Procedures (SOPs). For use in the laboratory, in academic and government institutions and industrial settings.

This handbook offers the first comprehensive treatment of molecular tools for monitoring toxigenic cyanobacteria. It provides detailed, practical coverage of the full array of available molecular tools and protocols, from water sampling, nucleic acid extraction, and downstream analysis—including PCR and qPCR based methods—to genotyping (DGGE), diagnostic microarrays, and community characterization using next-gen sequencing techniques.