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Titolo	Microbial Ecotoxicology / / edited by Cristiana Cravo-Laureau, Christine Cagnon, Béatrice Lauga, Robert Duran
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2017
ISBN	3-319-61795-8
Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (362 pages) : illustrations (some color)
Disciplina	576.165
Soggetti	Microbial ecology Ecotoxicology Microbiology Microbial Ecology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	A brief introduction to the history of pollution: from local to global -- From Microbial Ecology to Microbial Ecotoxicology -- Inter-disciplinary in microbial ecotoxicology: Microbiology and Chemistry in the Environment: 2 symbiotic species in the same biotope -- Microbial responses to pollution - Ecotoxicology: Introducing the different biological levels -- Metabolic responses : Engineered nanoparticles in the environments: interactions with microbial systems and microbial activity -- Genetic adaptation : Marine Microbial Community Adaptation and Resiliency to Anthropogenic Stresses through Horizontal Gene Transfer -- Genetic adaptations of bacteria for metabolism of polycyclic aromatic hydrocarbons -- Microbial community response: Microbial community responses to contaminants and the use of molecular techniques -- Bacterial community response to hydrocarbon contamination in soils and marine sediments: a critical review of case studies -- Ecological indicators of ecosystem recovery : Microbial communities as ecological indicators of ecosystem recovery following chemical pollution -- Microbial Biomarkers -- Bacterial bioreporter applications in ecotoxicology: concepts and practical approach -- Microbial Biosensors for metal(loid)s -- Microbial Ecotoxicology:

	Looking to the Future.
Sommario/riassunto	This book is a treatise on microbial ecotoxicology, discussing the effect of pollutants on microbial ecosystems and the role of microorganisms in ecosystems services. Emphasizing the microbial responses to pollution at different biological levels, it focuses on metabolic pathways, genetic adaptation and response at the whole-microbial community level. It also addresses the ecological indicators of ecosystem recovery, as well as microbial biomarkers and biosensors as tools for microbial ecotoxicology. .