1. Record Nr. UNINA990009521960403321

Autore	Briggs, David
Titolo	Plant microevolution and conservation in human-influenced ecosystems / by David Briggs
Pubbl/distr/stampa	Cambridge, : Cambridge university press, 2009
ISBN	978-0-521-52154-3
Descrizione fisica	XIX, 598 p. : ill. ; 25 cm
Disciplina	574.5 581.38
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Collocazione	60 581.38 BRIGD 2009
Lingua di pubblicazione	Inglese
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Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020
ISBN	3-030-35296-X
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (XII, 359 p. 28 illus., 24 illus. in color.)
Disciplina	579.16
Soggetti	Microbial ecology Environmental management Water Hydrology Microbial genetics Microbiology Microbial Ecology Environmental Management Microbial Genetics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Preface -- Foreword -- Antibiotics used in aquaculture and their biological effects in fish -- Socio-political challenges facing microbiology research in Africa -- Low-Cost Household Water Treatment (HWT) Technologies for Microbiological Contaminants -- Microbial pathogens in water resource sediments: towards setting up guidelines for microbial sediment quality -- Some bacterial pathogens of public health concern in water and wastewater -- Understanding the development and structure of biofilms in water distribution systems and household water storage containers -- Enrichment versus non-enrichment methods of biodegradation of hydrocarbons -- Emerging viral diseases, resistance and impact in the environment -- Fermented foods and beverages in Africa and their potential health benefits -- Use of effective and competitive native strains of Rhizobium inoculants for

sustainable agricultural productivity -- The Significance of Cryptosporidium and Giardia in Africa -- Vibrio cholerae and Cholera -- The use of biosurfactants in the bioremediation of oil-polluted water -- The era of bacterial genomics in antibiotic research in Africa -- Environmental risk related to Bacterial predation on Cyanobacteria -- Next-generation sequencing as a tool for profiling soil microbial communities in South Africa -- Biocidal activity of Algerian plant extracts on selected bacteria of public health concern -- Emerging and re-emerging bacterial pathogens of humans in environmental and hospital settings -- Prevalence of pathogenic E. coli genes on toilet sears from rural and peri-urban communities in South Africa -- Index.

Sommario/riassunto

Scientific output in low- and middle-income countries is greatly challenged by numerous factors. This is particularly pronounced in sub-Saharan African countries, despite the continent being the world’s second largest and second most-populous continent, currently undergoing rapid economic growth. Financial constraints and unclear areas of focus when funding is available, are among the limiting factors, with the consequence being the development of inadequate policies, especially those relating to environmental protection and conservation. This 13-chapter book is a unique piece in the field of microbiology, designed to stimulate some research areas in Africa by illustrating interesting and informative examples of the current applied research agenda in environmental microbiology in selected countries within the continent. With authors from the North, South, East and West of Africa, the book touches diverse applied methods and approaches to meet the pragmatic needs faced by environmental microbiologists in Africa. Also included are topics on viruses, bacteria (including cyanobacteria), and protozoa, and their importance in disease. Sustainable agriculture and aquaculture, and eco-friendly oil and hydrocarbon bioremediation and degradation approaches are highlighted. Microbial involvement in different common indoor (e.g., household kitchens, latrines, and hospitals) and outdoor settings including air, soil, and water habitats, and their resistance to commonly used antibiotics, are described. Hopefully, the work presented here will stimulate the need for increasing modern training and funding initiatives to prepare African microbiologists to meet the challenges they face in African universities and research laboratories.