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Titolo	Environmental and Microbial Relationships / / edited by Irina S. Druzhinina, Christian P. Kubicek
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ISBN	3-319-29532-2
Edizione	[3rd ed. 2016.]
Descrizione fisica	1 online resource (301 p.)
Collana	The Mycota, A Comprehensive Treatise on Fungi as Experimental Systems for Basic and Applied Research ; ; 4
Disciplina	570
Soggetti	Microbial ecology Mycology Agriculture Microbial genetics Microbial genomics Microbial Ecology Microbial Genetics and Genomics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Running hot and cold: recombination around and within mating type loci of fungi and other eukaryotes -- Ecological Biogeography of Lichen-forming Fungi -- The bright and dark sides of fungal life -- Disturbance in Natural Ecosystems: Scaling from Fungal Diversity to Ecosystem Functioning -- Fungi and Industrial Pollutants -- Plant cell wall polymer Degradation Strategies of fungi -- Evolution in heritable bacterial-fungal endosymbioses -- An emerging interdisciplinary field: Fungal Bacterial Interactions -- Lichen - bacterial interactions -- Mycorrhizal fungi and the soil carbon and nutrient cycling -- Understanding the Biodiversity and Functions of Root Fungal Endophytes: the ascomycete Harpophora oryzae as a model case -- Ecological genomics of mycotrophic fungi -- Nematophagous Fungi -- Beetles vs. fungi: trophic interactions in boreal forests.
Sommario/riassunto	This volume provides insights into current research on fungal populations, communities and their interactions with other organisms.

It focuses on fungal responses to the physical environment; interactions with bacteria, other fungi, invertebrates and plants; the role of fungi in ecosystem processes such as decomposition and nutrient cycling; and aspects of biogeography and conservation. Since the publication of the second edition of Volume IV in 2007, the massive use of “omics” methods has revolutionized our understanding of fungal lifestyles. Highlighting these advances, the third edition has been completely updated and revised. Several chapters deal with various applications of genomics and transcriptomics in biological pest control, as well as interactions with other living systems. This is an invaluable source of information both for scientists who wish to update their knowledge of current advances and for graduate students interested in obtaining a comprehensive introduction to this field of research. .