Record Nr. UNINA9910298354303321 Systematics and Evolution: Part A / / edited by David J. McLaughlin, **Titolo** Joseph W. Spatafora Pubbl/distr/stampa Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, . 2014 **ISBN** 3-642-55318-4 Edizione [2nd ed. 2014.] Descrizione fisica 1 online resource (478 p.) Collana The Mycota, A Comprehensive Treatise on Fungi as Experimental Systems for Basic and Applied Research, , 2945-8056;; 7A Disciplina 579.5012 Soggetti Microbiology Plants - Evolution Fungi Mycology Plant Evolution Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Includes bibliographical references and indexes. Nota di bibliografia Nota di contenuto Fungi from PCR to genomics: The spreading revolution in evolutionary biology -- Excavata: Acrasiomycota; Amoebozoa: Dictyosteliomycota, Myxomycota -- Systematics of the Straminipila: Labyrinthulomycota, Hyphochytriomycota and Oomycota -- Rhizaria: Phytomyxea --Microsporidia -- Chytridiomycota, Monoblepharidomycota and Neocallimastigomycota -- Blastocladiomycota -- Zygomycetous Fungi: Phylum Entomophthoromycota and subphyla Kickxellomycotina --Glomeromycota -- Pucciniomycotina -- Ustilaginomycotina --Tremellomycetes and related groups -- Dacrymycetes --Agaricomycetes. Sommario/riassunto This volume includes treatments of systematics and related topics for both fungi and fungus-like organisms in four eukaryotic supergroups, as well as specialized chapters on nomenclature, techniques and evolution. These organisms are of great interest to mycologists, plant pathologists and others, including those interested in the animal parasitic Microsporidia. Our knowledge of the systematics and evolution of fungi has made great strides since the first edition of this

volume, largely driven by molecular phylogenetic analyses. Consensus

among mycologists has led to a stable systematic treatment that has since become widely adopted and is incorporated into this second edition, along with a great deal of new information on evolution and ecology. The systematic chapters cover occurrence, distribution, economic importance, morphology and ultrastructure, development of taxonomic theory, classification and maintenance and culture. Other chapters deal with nomenclatural changes necessitated by revisions of the International Code of Nomenclature for algae, fungi and plants, including the elimination of separate names for asexual states, as well as methods for preservation of cultures and specimens, character evolution and methods for ultrastructural study, the fungal fossil record and the impact of whole genomes on fungal studies.