

Genus Lentinus A World Monograph

The importance of fungal organisms as allergens and pathogens has been increasing considerably over the last decade. This is due, on the one hand, to a general increase in the incidence of allergies, but also to the growing number of immunocompromized individuals such as AIDS patients or transplant recipients. This book summarizes what is currently known about the allergens of Candida, Aspergillus, Cladosporium, Alternaria, Coprinus, and Psilocybe, among others, and describes the application of recombinant allergens for diagnosis and new forms of therapy. The virulence factors and defense mechanisms against Aspergillus and Candida infections are discussed as are the various causes of superficial skin infections with fungi and the aerobiology of fungal spores and mycelia. A comprehensive chapter on fungal toxins and their importance for human and animal health is included, followed by a summary of the present state of fungal genome sequencing. Finally, the now generally accepted new sequence-based systematics and phylogeny of allergenic and pathogenic fungi is presented. A glossary explains the highly specialized terminology of clinical and systematic mycology for the nonspecialist. Summarizing the most up-to-date molecular and clinical findings, this publication will be of interest not only to allergologists, mycologists and biologists, but to all clinicians who want to learn more about clinically important fungi as well as to lawyers concerned with lawsuits on 'sick building syndrome'.

In the Miombo ecoregion (2,865,000 km² or 9.1% of Africa), the Zambezan open forest constitutes the main vegetation unit. It extends to no less than eight countries, from Burundi in the North to South Africa in the South, and from Angola in the West to Mozambique in the East. The austral part of Africa's open forests falls within the Zambezan Regional Center of Endemism outlined by White in 1983. This book focuses mainly on the wetter Zambezan Miombo woodlands. Also patches of mosaic Zambezan dry evergreen forests and small areas of grasslands on Kalahari sands are incorporated in the study. The aim of this book is to gather together the amazing local environment knowledge of Zambezan open forests peoples in order to permit an easier improvement of their well-being. This research has been developed in an ethnoecological way of thinking. Indeed, the synergy arising from putting together local knowledge and updated ecological research provides huge information on ecosystem management, including biodiversity aspects. Ethnoecology is an emergent field that focuses on local peoples' perception and management of complex and co-evolved relationships between the cultural, ecological, and economic components of anthropogenic and natural ecosystems. In the present book, the Zambezan wild edible products are treated according to fourteen items (from fungi, plants and honey, to beverages and salt, through mammals, birds, fish, insects and other animals). Some other comments concern agriculture and ethnoecology. All together more than a thousand edible products are involved; their ecology, their phenology, as well as their nutritional values are presented and discussed. The iconography is supported by a CD with 387 color photographs. The earlier French version of 1997 has been reviewed and enlarged, taking into account recent progress of knowledge. An important bibliography is presented.

Mushrooms

Flora Malesiana Bulletin

Significance of Indian Medicinal Plants and Mushrooms

Mushrooms of the Southeastern United States

Mansfeld's Encyclopedia of Agricultural and Horticultural Crops

The Macrofungus Flora of China's Guangdong Province

The white button mushroom, Agaricus bisporus is one of the most widely cultivated mushroom species in the world. It is favored for its high nutritional value and multiple health benefits, especially by consumers interested in vegan and clean eating. This book presents fundamental guidelines for mushroom production as well as major scientific findings in this field. It covers mushroom production and trade, substrates properties, compost quality, breeding, pests and diseases, harvesting, and post-harvest technologies. With practical information on methods used by both commercial and small-scale growers. This is a valuable resource for researchers and students in horticulture, as well as professionals and growers.

The Genus LentinusA World MonographLubrecht & Cramer Limited

The Mycota

Nomenclatural study of the genus 'Agaricus' L. (Agaricales, Basidiomycotina) of the Iberian Peninsula and Balearic Islands

Fungal diversity, ecology and control management

A New England Perspective

Fungal Morphogenesis

Flora Agaricina Neerlandica –

This book presents research on the challenges and potential of fungal contribution in agriculture for food substantiality. Research on fungi plays an essential role in the improvement of biotechnologies which lead global sustainable food production. Use of fungal processes and products can bring increased sustainability through more efficient use of natural resources.

Fungal inoculum, introduced into soil together with seed, can promote more robust plant growth through increasing plant uptake of nutrients and water, with plant robustness being of central importance in maintaining crop yields. Fungi are one of nature s best candidates for the discovery of food ingredients, new drugs and antimicrobials. As fungi and their related biomolecules are increasingly characterized, they have turned into a subject of expanding significance. The metabolic versatility makes fungi interesting objects for a range of economically important food biotechnology and related applications. The potential of fungi for a more sustainable world must be realized to address global challenges of climate change, higher demands on natural resources.

This encyclopedic Volume, including nearly 1500 species and 650 color photographs, illustrates the diversity of mycoflora throughout northeastern North America. Professional and advanced mycologists will welcome the inclusion of microscopic features, chemical reagent data, information on classification, and author citations. The user-friendly keys and nontechnical language will appeal to the novice mushroom collector, as will the introductory information on fungal anatomy, collecting techniques, and mushroom cooking and preservation.

Diversity, Ecology and Biotechnology

Memoirs of the New York Botanical Garden

A World Monograph

The Genus Lentinus

Heart Rot and Root Rot in Tropical Acacia Plantations

Progress in Botany

Biodiversity of Fungi is essential for anyone collecting and/or monitoring any fungi. Fascinating and beautiful, fungi are vital components of nearly all ecosystems and impact human health and our economy in a myriad of ways. Standardized methods for documenting diversity and distribution have

been lacking. A wealth of information, especially regrading sampling protocols, compiled by an international team of fungal biologists, make Biodiversity of Fungi an incredible and fundamental resource for the study of organismal biodiversity. Chapters cover everything from what is a fungus, to maintaining and organizing a permanent study collection with associated databases; from protocols for sampling slime molds to insect associated fungi; from fungi growing on and in animals and plants to mushrooms and truffles. The chapters are arranged both ecologically and by sampling method rather than by taxonomic group for ease of use. The information presented here is intended for everyone interested in fungi, anyone who needs tools to study them in nature including naturalists, land managers, ecologists, mycologists, and even citizen scientists and sophiscated amateurs. Covers all groups of fungi - from molds to mushrooms, even slime molds Describes sampling protocols for many groups of fungi Arranged by sampling method and ecology to coincide with users needs Beautifully illustrated to document the range of fungi treated and techniques discussed Natural history data are provided for each group of fungi to enable users to modify suggested protocols to meet their needs

Advances in Macrofungi: Diversity, Ecology and Biotechnology discusses the diversity and ecology of edible, toxic, medicinal and mycorrhizal macrofungi: the impact of ectomycorrhizal fungi in terrestrial ecosystems, ectomycorrhizal complex in Boreal forests and commercial application of Pseudotsuga in silviculture: the nutritional evaluation and cultivation of edible wild mushrooms: the diversity of novel metabolites of macrofungi useful in food, pharmaceutical and cosmeceutical industries: mushrooms as tool for eco-friendly synthesis of nanoparticles and proteomics of edible and medicinal mushrooms. In addition, it covers experimental designs, methodological approaches, biogeochemical cycles, conceptual/hypothetical models and life history strategies, linking mycorrhizal diversity to plant performance, chemotaxonomy, role of mycorrhizae in forestry and macrofungi in nanotechnology. It provides a valuable resource to graduate, post-graduate and researchers (in botany, microbiology, ecology, biotechnology, forestry, life sciences and environmental sciences) to understand the diversity, ecology, therapeutic value, mutualistic associations and biotechnological potential of macrofungi.

Proceedings of a Workshop Held in Yogyakarta, Indonesia, 7-9 February 2006

Systematics and Evolution

International Journal of Mycology and Lichenology

Agaricus bisporus

Mycologia Helvetica

Evidence from Ribosomal RNA and Morphology

This book is a comprehensive field guide to the mushrooms of the southeastern United States. Although it will stand on its own, it is intended to compliment and serve as a companion to Mushrooms of Northeastern North America, also published by Syracuse University Press. Together these volumes form a foundation and reference for identifying mushrooms found in eastern North America from Canada to the subtropics of Florida and Texas. This book features more than 450 species that are fully described and illustrated with photographs, many for the first time in color. The photographs were selected for high-quality color fidelity and documentary merit, and reflect some of the aesthetic appeal of our subject. The number of species described and illustrated in color is substantially more than has previously appeared in any other single work devoted to the mushrooms of the southeastern United States. Cross referencing to additional species occurring in the region that are illustrated in Mushrooms of Northeastern North America is provided. Although this book contains the necessary detail required by advanced students and professional mycologists, it emphasizes identification based primarily on macroscopic field characters for easier use by a general audience. Each illustrated species is accompanied by a detailed description of macroscopic and microscopic features based on the concepts of their original authors.

Centenary commemoration of British Mycological Society looking at past, present and future of fungal research.

An Account of the Agaricoid Fungi (Holobasidiomycetes) of São Paulo State, Brazil

Nordic Macromycetes

Mushrooms of Northeastern North America

How to live and survive in Zambezan open forest (Miombo ecoregion)

A Comprehensive Treatise on Fungi as Experimental Systems for Basic and Applied Research

Nova Hedwigia

An account of the Agaricoid fungi(Holobasidiomycetes) of São Paulo State, Brazil.

With contributions by numerous experts

Notes on the Classification of Mushrooms

Phylogenetic Relationships of the Basidiomycete Genus Lentinus

21st Century Guidebook to Fungi

A Century of Mycology

Kingia

Zeitschrift für Kryptogamenkunde.

Kew Bulletin Additional Series X

African Study Monographs

How to Identify Mushrooms to Genus VI

Fungi in Sustainable Food Production

Biodiversity of Fungi

Shiitake News

Modern Genera

Fungal Morphogenesis brings together, for the first time, the full scope of fungal developmental biology.

Mycology, the study of fungi, originated as a subdiscipline of botany and was a des criptive discipline, largely neglected as an experimental science until the early years of this century. A seminal paper by Blakeslee in 1904 provided evidence for self incompatibility, termed "heterothallism", and stimulated interest in studies related to the control of sexual reproduction in fungi by mating-type specificities. Soon to follow was the demonstration that sexually reproducing fungi exhibit Mendelian inheritance and that it was possible to conduct formal genetic analysis with fungi. The names Burgett, Kniep and Lindegren are all associated with this early period of fungal genet ics research. These studies and the discovery of penicillin by Fleming, who shared a Nobel Prize in 1945, provided further impetus for experimental research with fungi. Thus began a period of interest in mutation induction and analysis of mutants for biochemical traits. Such fundamental research, conducted largely with Neurospora crassa, led to the one gene: one enzyme hypothesis and to a second Nobel Prize for fungal research awarded to Beadle and Tatum in 1958. Fundamental research in biochemical genetics was extended to other fungi, especially to Saccharomyces cerevisiae, and by the mid-1960s fungal systems were much favored for studies in eukaryotic molecular biology and were soon able to compete with bacterial systems in the molecular arena.

Inventory and Monitoring Methods

Growing Gourmet and Medicinal Mushrooms

The Agarics of São Paulo

International Journal of Medicinal Mushrooms

Advances in Macrofungi

(Except Ornamentals)

This is a comprehensive record of all the macrofungus found in Guangdong, China, in which 1,058 species under 239 genera, 56 families, 20 orders and 4 classes of Basidiomycotina and Ascomycotina are identified A detailed and comprehensive guide for growing and using gourmet and medicinal mushrooms commercially or at home. “Absolutely the best book in the world on how to grow diverse and delicious mushrooms.”—David Arora, author of Mushrooms Demystified With precise growth parameters for thirty-one mushroom species, this bible of mushroom cultivation includes gardening tips, state-of-the-art production techniques, realistic advice for laboratory and growing room construction, tasty mushroom recipes, and an invaluable troubleshooting guide. More than 500 photographs, illustrations, and charts clearly identify each stage of

cultivation, and a twenty-four-page color insert spotlights the intense beauty of various mushroom species. Whether you're an ecologist, a chef, a forager, a pharmacologist, a commercial grower, or a home gardener—this indispensable handbook will get you started, help your garden succeed, and make your mycological landscapes the envy of the neighborhood.

Mushroom Science

Fungal Allergy and Pathogenicity

Structural Botany Physiology Genetics Taxonomy Geobotany / Fortschritte der Botanik Struktur Physiologie Genetik Systematik Geobotanik

The mysterious world of fungi is once again unearthed in this expansive second edition. This textbook provides readers with an all-embracing view of the kingdom fungi, ranging in scope from ecology and evolution, diversity and taxonomy, cell biology and biochemistry, to genetics and genomics, biotechnology and bioinformatics. Adopting a unique systems biology approach - and using explanatory figures and colour illustrations - the authors emphasise the diverse interactions between fungi and other organisms. They outline how recent advances in molecular techniques and computational biology have fundamentally changed our understanding of fungal biology, and have updated chapters and references throughout the book in light of this. This is a fascinating and accessible guide, which will appeal to a broad readership - from aspiring mycologists at undergraduate and graduate level to those studying related disciplines. Online resources are hosted on a complementary website.