

Preface

Fungi are achlorophilous heterotrophs and thrive in or on any animate or inanimate object in nature. They flourish in any environment—terrestrial or aquatic, freshwater or marine. Saprophytically, they proliferate on a variety of materials of plant, animal and human origin, found in any ecosystem on the earth. Thus, the range and variety of substrata on which fungi can be found growing are enormous. The biodegrading activity of fungi is immense without which humans will drown in an ocean of leaf litter. These fascinating organisms also are known to grow parasitically on plants, animals and human beings causing various diseases. The symbiotic or mutualistic relationships of fungi with many other entities are also of great significance such as their mycorrhizal associations with various plant roots, endophytic associations with almost all known plants on earth, but for a few, and their associations with algal forms in case of lichens. In a nut shell, fungi can be found on anything and everything on earth in one way or the other. This emphasizes their importance in our life as they can be seen or isolated from a tiny soil particle to a big stone piece in a museum including many objects submerged in water consisting of decomposing plant or animal materials. Various substrata for fungi have been looked for these organisms by different mycologists all over the world. In this book, fungi observed on some of the important substrata have been presented and their significance discussed.

The book encompasses 17 chapters on fungi from different substrates including fossilized leaves. In addition to non-living substrates, association of pathogenic fungi with important plants like Wheat, Rice, Soybean and Brassicas have also been discussed and reviewed in different chapters. Some animal and human pathogens have also been covered. Besides the taxonomic information, some ecological aspects like distribution and substrate/host preferences have also been dealt with in some chapters, where appropriate. Fungi-like organisms, the myxomycetes, are discussed in Chapter 6. Thus, the book has covered a variety of substrates, their fungal colonizers, and ecology as well. Updated information, for all these aspects have been discussed and presented. How and up to what extent, the fungi associated with various materials deteriorate them, have also

been elaborated in chapters dealing with dairy products and materials of cultural heritage significance.

Thus, the book has attempted to present information for as many substrates as possible—living, senescing, and decomposing, with widely approached and updated information. However, these are not complete in a sense, as all information available cannot be put in one book.

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