The Ecology of Mycobacteria: Impact on Animal's and Human's Health

Jindrich Kazda, Ivo Pavlik, Joseph O. Falkinham III, Karel Hruska
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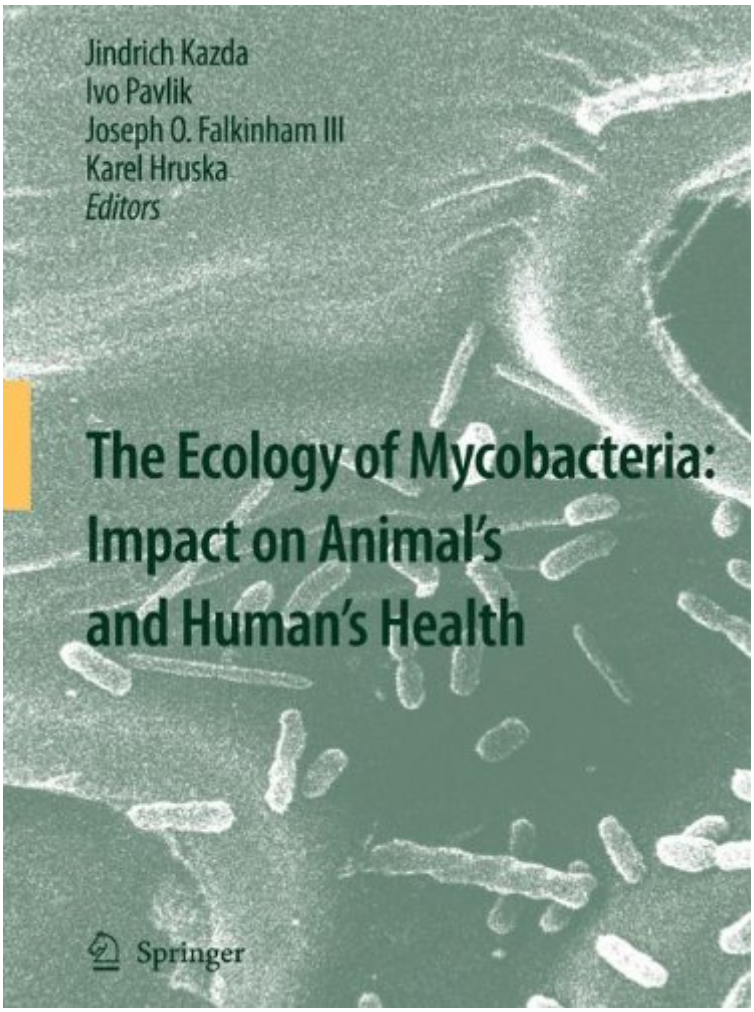

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Jindrich Kazda, Ivo Pavlik, Joseph O. Falkinham III, Karel Hruska : The Ecology of Mycobacteria: Impact on Animal's and Human's Health before purchasing it in order to gage whether or not it would be worth my time, and all praised The Ecology of Mycobacteria: Impact on Animal's and Human's Health:

habitats and the overlapping of these biotopes by humans and animals contributed to the spread of mycobacteria and perhaps to their convergence to pathogenicity. It was not our intention to present a compendium covering all published results, but rather to issue a readable book, which is illustrative and thus focused on the principle facts. The increase in

the number of Editors has allowed the sharing of original experiences regarding the ecology of mycobacteria, published here for the ?rst time in some cases. The supplemented edition should serve as a guide to these discoveries and also contribute to an understanding of clinically signi?cant species in human and animal medicine. Borstel, Germany, January 2009 Jindrich Kazda EditorsComments The editors responsible for the chapters are listed under the title of each chapter. Authors are listed under the titles of subchapters. The references are listed as they appear in the databases Reference Manager (Thomson Reuters, Philadelphia) as imported from Web of Science (Thomson Reuters, Philadelphia) or PubMed (Medline, NLM Bethesda). A few citations, not indexed, were cited according to the reprints or books available. This principle resulted in minor differences in the titles (not all reference titles are in English, some references have capitalized title words, not all species names are according to the contemporary nomenclature and in italics). Some journals are cited with abbreviated titles, some in full, as available in the source databases. These differences were left in the format of the database.

From the reviews: If you are by any means interested in the microbial ecology of mycobacteria this book is your choice. The pictures are of high technical standard and imminently supply the body of the text by references. addresses a wide range of scientists and others who are engaged in epidemiology, epizootology, immunology, environmental ecology, and animal husbandry. It presents the state of the art of the ecology of mycobacteria, a virtual gold mine of the subject. Do not miss it. (Niels Skovgaard, International Journal of Food Microbiology, Vol. 136, 2010) The primary focus is the ecology of mycobacteria species in human and animal diseases, including mycobacteria interactions and roles in the environment. The editors have included examples, graphics, bibliographies, and references to the illustrations to explain the concepts and ideas discussed. The information included in this work is recent and relevant and will be useful to readers wishing to gain an understanding of general mycobacterial ecology. Summing Up: Recommended. Lower-division undergraduates through graduate students, general audiences. (P. M. Watt, Choice, Vol. 47 (7), March, 2010)From the Back CoverThe Ecology of Mycobacteria principally emphasizes the ecological characteristics of the environmental mycobacteria. It is now well understood that the incidence and prevalence of potentially pathogenic mycobacteria is increasing in humans and animals. Further, proof that mycobacteria are normal inhabitants of drinking water distribution systems and household water systems, indicates that humans and animals are surrounded by mycobacteria and thus at risk. It is anticipated that the emphasis on ecology and routes of infection will result in a text of widespread use for clinicians and for research scientists in medicine, academia, and industry. In addition to identifying habitats and thereby sources of mycobacteria infecting humans and animals, the text identifies those mycobacterial characteristics that determine its range of habitats. Additionally, the text comments critically on the available methods to identify those protocols with values in mycobacterial research. In that manner, although there are no chapters specifically devoted to methods, superior methods for mycobacteria will be identified. A new text is needed for the mycobacteria because the prevalence of disease caused by the environmental potentially pathogenic mycobacteria is increasing. This increase is due to a number of factors. Host factors contribute to an increasing population of individuals more susceptible to mycobacterial infection. For example, the aging of the human population and the increasing frequency of immunosuppressed individuals as a result of infection (e.g. HIV), chemotherapy, and transplant-associated immunosuppression are all factors leading to increased susceptibility of infection with environment derived mycobacteria. Moreover, the role of mycobacteria as triggers in different autoimmune diseases is more and more evident. It is highly probable that peptidoglycans, lipoglycans, lipoproteins, heat shock proteins and some other structures from the mycobacterial cell wall, participate in different pathways of non-specific inflammatory reactions in humans, namely those with a specific genetic disposition. In such events mycobacteria in drinking water and food, even devitalized, have to be considered as a public health risk. Second, human-engineered systems such as drinking water distribution systems are creating a habitat for the selection and proliferation of the potentially pathogenic mycobacteria. In as much as drinking water brings together overlapping habitats of both mycobacteria and humans and animals, a review of mycobacterial ecology is timely. The ecology of mycobacteria helps to understand the circulation of mycobacteria into the respective disciplines such as epidemiology, epizootology, immunology, environmental ecology, animal husbandry and environment conservation.