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Evolutionary Parasitology: The Integrated Study of Infections, Immunology, Ecology, and Genetics

Paul Schmid-Hempel
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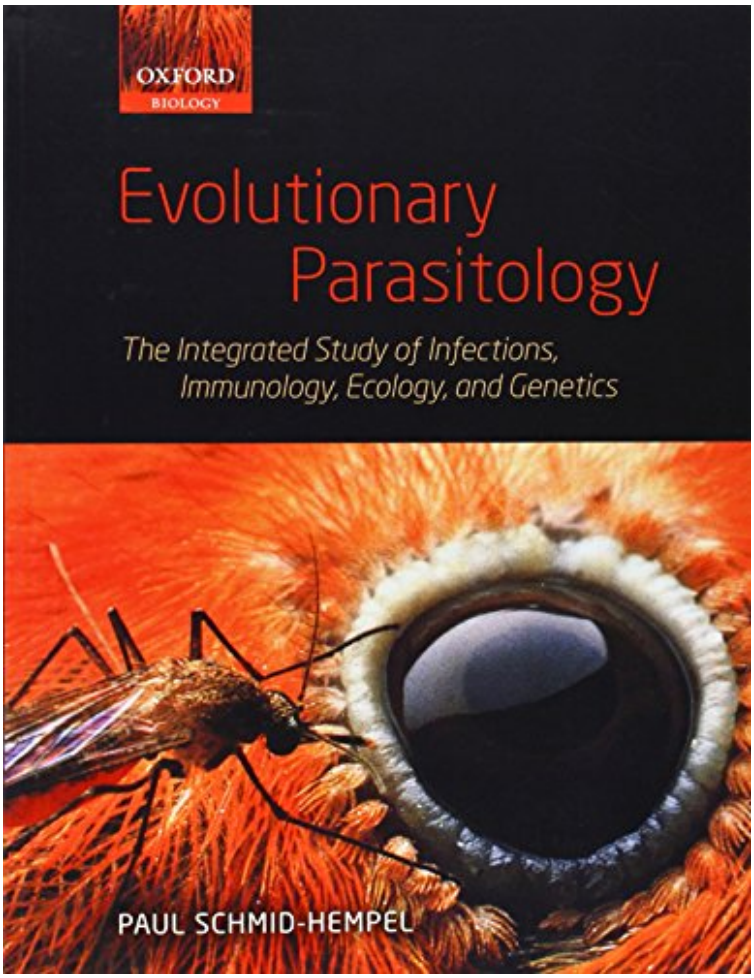

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Paul Schmid-Hempel : Evolutionary Parasitology: The Integrated Study of Infections, Immunology, Ecology, and Genetics before purchasing it in order to gage whether or not it would be worth my time, and all praised Evolutionary Parasitology: The Integrated Study of Infections, Immunology, Ecology, and Genetics:

1 of 1 people found the following review helpful. Fast DeliveryBy Ursus MajorGot the book very fast. This is a must for any evolutionary biologist or physiological ecologist interested in host-parasite relationships.

Parasites are everywhere. And they affect almost every aspect imaginable in the life of their hosts. Parasites influence host physiology, behavior, life histories, and the structure of entire ecosystems. To cope with these constant threats,

the host's immune system has evolved to become one of the most complex organs known. But parasites, too, have found their own ways to overcome defences and to manipulate their hosts for their own interests. As a result, hosts and parasite are constantly forced to adapt to one another, sometimes very rapidly, sometimes changes occur only over eons. But this struggle always has far reaching consequences for the biology of both parties. For the first time, this book gives a comprehensive overview over the many facets of host-parasite interactions, from the molecular bases to individual strategies and to the ecological and evolutionary consequences. It is informed by the progress in our understanding that has occurred over the past decades. No longer do we view well-adapted parasites to become harmless but, quite to the contrary, parasite virulence is, determined, both, by the processes that lead to harm and by the evolutionary costs and benefits of this damage. Similarly, parasitism is no longer regarded as being inevitably bad, rather it can be a major factor maintaining diversity in populations and communities, selecting for beautiful plumages of birds, or making us more social. Evolutionary Parasitology deals with a wide range of topics, from immunology, genetics, sexual selection, to population dynamics, ecology and co-evolution. Readers from different fields and with different backgrounds will find a rich source to meet their interests and to expand their insights into neighbouring disciplines.

"I would have loved to have read this book during my first year of graduate school. It is a wonderful and updated introduction to parasitology, full of fascinating examples and thought-provoking ideas. I think any current researcher in parasitology, or anyone with a slight interest in the field, would undoubtedly benefit from reading at least some of the various topics presented in this book." -- Trends in Ecology and Evolution"The volume offers an astonishing breadth of coverage...A primary strength of the book is the explicit aim to link largely to unconnected areas of research...This volume succeeds in offering an integrative biology of host-parasite interactions." -- The Quarterly of Biology, Andrea I. GrahamAbout the AuthorPaul Schmid-Hempel studied biology at the University of Zurich and in 1982 he received his PhD on the ecology of the Sahara Desert ant. He went on to do post-doctoral work at Oxford University (1982-1984) where he worked on an analysis of optimal strategies of animals. He then moved to the Zoological Institute of the University of Basel, where he was part of that group which set a new course for evolutionary ecology. In 1991 he was appointed professor for experimental ecology at the ETH Zurich, and is now Director of the Genetic Diversity Centre there. Since 2008 he has also been a non-resident Permanent Fellow of the Wissenschaftskolleg zu Berlin. His current research focuses on host-parasite interactions and co-evolution, maintenance of genetic diversity, recombination, social systems, immune defence strategies, and ecological immunology. He has published around 180 original articles, two books, and many articles in newspapers as part of his work in the public understanding of science.