

Contents

<i>List of contributors</i>	page viii
<i>Foreword</i>	xiii
Roderic Page	

Introduction	1
Serge Morand, Boris R. Krasnov and D. Timothy J. Littlewood	

PART I Evolutionary ecology of parasite diversity

1	Quantifying parasite diversity	9
	Robert Poulin	
2	Relationships between parasite diversity and host diversity	27
	Boris R. Krasnov and Robert Poulin	
3	Patterns of diversity and distribution of aquatic invertebrates and their parasites	39
	Tommy L. F. Leung, Camilo Mora and Klaus Rohde	
4	Under the changing climate: how shifting geographic distributions and sexual selection shape parasite diversification	58
	Lajos Rózsa, Piotr Tryjanowski and Zoltán Vas	
5	Impacts of parasite diversity on wild vertebrates: limited knowledge but important perspectives	77
	Frédéric Bordes and Serge Morand	

PART II The evolutionary history of parasite diversity

6	Revealing microparasite diversity in aquatic environments using brute force molecular techniques and subtle microscopy	93
	Aurélien Chambouvet, Thomas A. Richards, David Bass and Sigrid Neuhauser	
7	Evolution of simian retroviruses	117
	Ahidjo Ayoub and Martine Peeters	

8	The diversity and phylogeny of <i>Rickettsia</i>	150
	Lucy A. Weinert	
9	Advances in the classification of acanthocephalans: evolutionary history and evolution of the parasitism	182
	Martín García-Varela and Gerardo Pérez-Ponce de León	
10	The study of primate evolution from a lousy perspective	202
	David L. Reed, Julie M. Allen, Melissa A. Toups, Bret M. Boyd and Marina S. Asuncion	
11	Host correlates of diversification in avian lice	215
	Lajos Rózsa and Zoltán Vas	
12	Evolutionary history of Siphonaptera: fossils, origins, vectors	230
	Katharina Dittmar, Qiyun Zhu, Michael W. Hastriter and Michael F. Whiting	
13	Bat fly evolution from the Eocene to the Present (Hippoboscoidea, Streblidae and Nycteribiidae)	246
	Katharina Dittmar, Solon F. Morse, Carl W. Dick and Bruce D. Patterson	
14	The evolution of parasitism and host associations in mites	265
	Ashley Dowling	
15	Nematode life-traits diversity in the light of their phylogenetic diversification	289
	Serge Morand, Steve Nadler and Arne Skorping	
16	Phylogenetic patterns of diversity in cestodes and trematodes	304
	D. Timothy J. Littlewood, Rodney A. Bray and Andrea Waeschenbach	
17	Parasite diversification in Caribbean <i>Anolis</i> lizards	320
	Bryan G. Falk and Susan L. Perkins	
PART III Combining ecology and phylogenetics		
18	Comparative analysis: recent developments and uses with parasites	337
	Yves Desdevises, Serge Morand, Boris R. Krasnov and Julien Claude	
19	Phylogenetic signals in ecological properties of parasites	351
	Boris R. Krasnov, Serge Morand and Robert Poulin	
20	Parasite species coexistence and the evolution of the parasite niche	360
	Andrea Šimková and Serge Morand	

21	A community perspective on the evolution of virulence	376
	Hadas Hawlena and Frida Ben-Ami	
22	Host specificity and species jumps in fish–parasite systems	401
	Maarten P. M. Vanhove and Tine Huyse	
23	When is co-phylogeny evidence of coevolution?	420
	Timothée Poisot	
24	Bringing together phylogenies and behaviour in host–parasite interactions	434
	Tania Jenkins and Philippe Christe	
25	The evolutionary epidemiology of the hepatitis C virus	450
	Peter V. Markov, Rebecca Rose Gray, James Iles and Oliver G. Pybus	
26	Parasite diversity and diversification: conclusion and perspectives	473
	Armand M. Kuris	
	<i>Index</i>	480

The colour plate section appears between pages 274 and 275.