

Contents

Part I Molecular and Genome Evolution

1	Comparative Biochemistry and Evolution of Milk Oligosaccharides of Monotremes, Marsupials, and Eutherians.	3
	Tadasu Urashima, Michael Messer and Olav T. Oftedal	
2	Genomics-Based Insights into the Evolution of Secondary Metabolite Biosynthesis in Actinomycete Bacteria	35
	Sergey B. Zotchev	
3	A Preliminary Transcriptomic Study of Galaxiid Fishes Reveals a Larval Glycoprotein Gene Under Strong Positive Selection	47
	Graham P. Wallis and Lise J. Wallis	
4	Land Bridge Calibration of Rates of Molecular Evolution in a Widespread Rodent	69
	J. S. Herman, J. Paupério, P. C. Alves and J. B. Searle	
5	Polyploid Speciation and Genome Evolution: Lessons from Recent Allopolyploids.	87
	Malika L. Ainouche and Jonathan F. Wendel	
6	Evolutionary Divergence in Human Versus Mouse Innate Immune Gene Regulation and Function	115
	Ronan Kapetanovic, Juliana K. Ariffin and Matthew J. Sweet	
7	Evolutionary Genomics of Miniature Inverted-Repeat Transposable Elements (MITEs) in Plants.	157
	Jiongjiong Chen, Qun Hu, Chen Lu and Hanhui Kuang	

8	Horizontal Gene Transfer and the Role of Restriction-Modification Systems in Bacterial Population Dynamics	169
	George Vernikos and Duccio Medini	
9	Quartet Partitioning Reveals Hybrid Origins of the Vertebrate	191
	Michael Syvanen, Bryan Ericksen, Simone Linz and Jonathan Ducore	
10	Evidence for Ancient Horizontal Gene Acquisitions in Bdelloid Rotifers of the Genus <i>Adineta</i>	207
	Boris Hespels, Jean-François Flot, Alessandro Derzelle and Karine Van Doninck	

Part II Phylogeography, Speciation and Coevolution

11	Evolutionary History of Maternal Plant-Manipulation and Larval Feeding Behaviours in Attelabidae (Coleoptera; Curculionoidea) and Evolution of Plant-Basal Weevil Interaction	229
	Chisato Kobayashi, Yudai Okuyama, Kazuhide Kawazoe, Masakado Kawata and Makoto Kato	
12	Microevolution of Insect–Bacterial Mutualists: A Population Genomics Perspective	247
	Amanda M. V. Brown	
13	Why Did Terrestrial Insect Diversity Not Increase During the Angiosperm Radiation? Mid-Mesozoic, Plant-Associated Insect Lineages Harbor Clues	261
	Conrad Labandeira	
14	The Evolution and Pollination of Oceanic Bellflowers (Campanulaceae)	301
	Marisa Alarcón, Juan José Aldasoro, Cristina Roquet and Jens M. Olesen	
15	In Search of Phylogeographic Patterns in the Northeastern Atlantic and Adjacent Seas	323
	Sara M. Francisco, Joana I. Robalo, André Levy and Vítor C. Almada	

16	The Evolutionary Space Model to be Used for the Metagenomic Analysis of Molecular and Adaptive Evolution in the Bacterial Communities	339
	E. V. Pershina, A. S. Dolnik, G. S. Tamazyan, K. V. Vyatkina, Y. B. Porozov, A. G. Pinaev, S. O. Karimov, N. A. Provorov and E. E. Andronov	
17	Topopatric Speciation: From Simulations to Theory	357
	David M. Schneider	
 Part III Exobiology and Origin of Life		
18	A Trip Through Chemical Space: Why Life Has Evolved the Chemistry That It Has	371
	William Bains	
	Index	395

Evolutionary Biology: Genome Evolution, Speciation,
Coevolution and Origin of Life

Pontarotti, P. (Ed.)

2014, IX, 398 p. 84 illus., 59 illus. in color., Hardcover

ISBN: 978-3-319-07622-5