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| 1. Record Nr. | UNISALENT0991001322289707536 |
| Autore | Kupershmidt, Boris A. |
| Titolo | The variational principles of dynamics / Boris A. Kupershmidt |
| Pubbl/distr/stampa | Singapore : World Scientific, c1992 |
| ISBN | 9810202741 |
| Descrizione fisica | xviii, 422 p. ; 23 cm. |
| Collana | Advanced series in mathematical physics ; 13 |
| Classificazione | 53.1.3 53.1.5 53.1.36 510.34 510.35 510.49 530.1'5 QC174.17 |
| Soggetti | Dynamics Mathematical physics Variational principles |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Includes bibliography and index |

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| 2. Record Nr. | UNINA9910682588203321 |
| Titolo | Evolutionary Biology: Contemporary and Historical Reflections Upon Core Theory // edited by Thomas E. Dickins, Benjamin J.A. Dickins |
| Pubbl/distr/stampa | Cham : , : Springer International Publishing : , : Imprint : Springer, , 2023 |
| ISBN | 3-031-22028-5 |
| Edizione | [1st ed. 2023.] |
| Descrizione fisica | 1 online resource (606 pages) |
| Collana | Evolutionary Biology – New Perspectives on Its Development, , 2524-776X ; ; 6 |
| Disciplina | 575 |
| Soggetti | Evolution (Biology) Science - History Evolutionary genetics Evolutionary developmental biology Life - Origin Evolutionary Theory Evolutionary Biology History of Science Evolutionary Genetics Evolutionary Developmental Biology Origin of Life |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Nota di bibliografia | Includes bibliographical references and index. |
| Nota di contenuto | Chapter 1: Introduction -- Part 1 -- Chapter 2: Every Evolutionist their Own Historian: The Importance of History, Context, and the Extended Evolutionary Synthesis -- Chapter 3: Commentary on Smocovitis: Yes Indeed, Evolutionary Biologists Should Pay More Attention to History -- Chapter 4: History, Evolution and the "Rashomon Effect":Reply to Svensson -- Part 2 -- Chapter 5: The creativity of natural selection and the creativity of organisms: Their roles in traditional evolutionary theory and some proposed extensions -- Chapter 6: Let there be light: A Commentary on Welch -- Chapter 7: Creative Destruction: A Reply to Haig -- Part 3 -- Chapter 8: The Organism in Evolutionary Explanation: From Early 20th Century to the Extended Evolutionary Synthesis -- |

Chapter 9: Causes and Consequences of Selection: A Commentary on Baedke & Fábregas-Tejeda -- Chapter 10: Organisms and the Causes and Consequences of Selection: A Reply to Vidya et al. -- Part 4 -- Chapter 11: The structure of evolutionary theory: Beyond Neo-Darwinism, Neo-Lamarckism and biased historical narratives about the Modern Synthesis -- Chapter 12: It's the endless forms, stupid: Commentary on Svensson -- Chapter 13: Ecology, Agents, and the Causes of Selection: A Reply to Shuker -- Part 5 -- Chapter 14: Hypertextuality of an hyperextended synthesis: On the interpretation of theories by means of selective quotation -- Chapter 15: Teleology, Organisms, and Genes: Commentary on Haig -- Chapter 16: A token response: A Reply to Fábregas-Tejeda and Baedke -- Part 6 -- Chapter 17: The Darwinian Core of Evolutionary Theory and the Extended Evolutionary Synthesis: Similarities and Differences -- Chapter 18: Evolution is Bigger than All of Us: Commentary on Vidya, Dey, Prasad, and Joshi -- Chapter 19: Why evolution is bigger than all of us: reply to Smocovitis -- Part 7 -- Chapter 20: Inclusive fitness: a scientific revolution -- Chapter 21: Phenotypes, Organisms, and Individuals: Commentary on Rodrigues and Gardner -- Chapter 22: On Monism and Pluralism: A Reply to Dickins, T.E. -- Part 8 -- Chapter 23: Evolution of Bacteriophage Latent Period Length -- Chapter 24: Optimality and Idealization in Models of Bacteriophage Evolution: Commentary on Abedon -- Chapter 25: On the use of r-K selection in studying the evolution of bacteriophages: A Reply to Dickins, B.J.A. -- Part 9 -- Chapter 26: Plasticity and information -- Chapter 27: Phenotypic Plasticity and Evolutionary Syntheses: Commentary on Dickins -- Chapter 28: On Rhetoric and Conceptual Frames: A Reply to Futuyma -- Part 10 -- Chapter 29: The curious incident of the wasp in the fig-fruit: sex allocation and the extended evolutionary synthesis -- Chapter 30: The Nuances of Biological Syntheses: Commentary on Shuker -- Chapter 31: On Ecological Truths and the Role of Philosophy: A Reply to Distin -- Part 11 -- Chapter 32: The Evolving Evolutionary Synthesis -- Chapter 33: Inclusive Fitness Theory as Scientific Revolution: Commentary on Fu-tuyma -- Chapter 34: Inclusive Fitness Theory Prefigured: A Reply to Rodrigues and Gardner -- Part 12 -- Chapter 35: Genes and organisms in the legacy of the modern synthesis -- Chapter 36: The Parallax View: Commentary on Ågren -- Chapter 37: Why We Disagree About Selfish Genes: A Reply to Welch -- Part 13 -- Chapter 38: Genetic Evolvability: Using a Restricted Pluralism to Tidy Up the Evolvability Concept -- Chapter 39: Pluralism and Progress in Evolutionary Biology: Commentary on Distin -- Chapter 40: Genetic Evolvability: A Reply to Ågren.

Sommario/riassunto

This book is reflecting upon core theories in evolutionary biology – in a historical as well as contemporary context. It exposes the main areas of interest for discussion, but more importantly draws together hypotheses and future research directions. The Modern Synthesis (MS), sometimes referred to as Standard Evolutionary Theory (SET), in evolutionary biology has been well documented and discussed, but was also critically scrutinized over the last decade. Researchers from diverse disciplinary backgrounds have claimed that there is a need for an extension to that theory, and have called for an Extended Evolutionary Synthesis (EES). The book starts with an introductory chapter that summarizes the main points of the EES claim and indicates where those points receive treatment later in the book. This introduction to the subjects can either serve as an initiation for readers new to the debate, or as a guide for those looking to pursue particular lines of enquiry. The following chapters are organized around historical perspectives, theoretical and philosophical approaches and the use of specific

biological models to inspect core ideas. Both empirical and theoretical contributions have been included. The majority of chapters are addressing various aspects of the EES position, and reflecting upon the MS. Some of the chapters take historical perspectives, analyzing various details of the MS and EES claims. Others offer theoretical and philosophical analyses of the debate, or take contemporary findings in biology and discuss those findings and their possible theoretical interpretations. All of the chapters draw upon actual biology to make their points. This book is written by practicing biologists and behavioral biologists, historians and philosophers - many of them working in interdisciplinary fields. It is a valuable resource for historians and philosophers of biology as well as for biologists. Chapters 8, 20, 22 and 33 are available open access under a Creative Commons Attribution 4.0 International License via link.springer.com.
