

Evolutionary Biology Textbook

Evolution
 Evolution and Ecology of the Organism
 Readers of the Book of Life
 A Guide to Academia
 Evolution
 Evolutionary Biology
 An Introduction to Molecular Evolution and Phylogenetics
 Evolutionary Developmental Biology
 Lone Survivors
 Human Evolutionary Biology
 The Tangled Bank
 Genesis
 Evolutionary Causation
 Sewall Wright and Evolutionary Biology
 The Oxford Handbook of Evolution, Biology, and Society
 Population Genetics
 The Princeton Guide to Evolution
 Urban Evolutionary Biology
 Evolution
 Icons of Evolution
 Essential Readings in Evolutionary Biology
 Evolutionary Theory
 Encyclopedia of Evolutionary Biology
 Outlines of Evolutionary Biology
 Principles of Evolutionary Medicine
 Climbing Mount Improbable
 Evolutionary Genetics
 Evolutionary Biology
 The Theory of Evolution
 The Evolutionary Biology of Species
 Relentless Evolution
 Trying Biology
 How and Why Species Multiply
 Evolutionary Biology
 Into the Jungle
 Narrow Roads of Gene Land: Volume 1: Evolution of Social Behaviour
 The Evolutionary Biology of Plants
 Evolutionary Biology
 Human Evolutionary Biology
 Evolutionary Systems Biology

Evolutionary Biology Textbook

Downloaded from archive.imba.com by guest

MARISA TOWNSEND

Evolution Oxford University Press

Traces scholarly thought from the nineteenth-century birth of evolutionary biology to the mapping of the human genome through forty-eight essays, arranged in chronological order, each preceded by a one-page essay that explains the significance of the chosen work.

Evolution and Ecology of the Organism University of Chicago Press

DNA can be extracted and sequenced from a diverse range of biological samples, providing a vast amount of information about evolution and ecology. The analysis of DNA sequences contributes to evolutionary biology at all levels, from dating the origin of the biological kingdoms to untangling family relationships. An Introduction to Molecular Evolution and Phylogenetics presents the fundamental concepts and intellectual tools you need to understand how the genome records information about evolutionary past and processes, how that information can be "read", and what kinds of questions we can use that information to answer. Starting with evolutionary principles, and illustrated throughout with biological examples, it is the perfect starting point on the journey to an understanding of the way molecular data is used in modern biology. Online Resource Centre The Online Resource Centre features: For registered adopters of the book: - Class plans for one-hour hands-on sessions associated with each chapter - Figures from the textbook to view and download

Readers of the Book of Life Princeton University Press

Urban Evolutionary Biology fills an important knowledge gap on wild organismal evolution in the urban environment, whilst offering a novel exploration of the fast-growing new field of evolutionary research. The growing rate of urbanization and the maturation of urban study systems worldwide means interest in the urban environment as an agent of evolutionary change is rapidly increasing. We are presently witnessing the emergence of a new field of research in evolutionary biology. Despite its rapid global expansion, the urban environment has until now been a largely neglected study site among evolutionary biologists. With its conspicuously altered ecological dynamics, it stands in stark contrast to the natural environments traditionally used as cornerstones for evolutionary ecology research. Urbanization can offer a great range of new opportunities to test for rapid evolutionary processes as a consequence of human activity, both because of replicate contexts for hypothesis testing, but also because cities are characterized by an array of easily quantifiable

environmental axes of variation and thus testable agents of selection. Thanks to a wide possible breadth of inference (in terms of taxa) that may be studied, and a great variety of analytical methods, urban evolution has the potential to stand at a fascinating multi-disciplinary crossroad, enriching the field of evolutionary biology with emergent yet incredibly potent new research themes where the urban habitat is key. Urban Evolutionary Biology is an advanced textbook suitable for graduate level students as well as professional researchers studying the genetics, evolutionary biology, and ecology of urban environments. It is also highly relevant to urban ecologists and urban wildlife practitioners.

A Guide to Academia Harvard University Press

For sophomore- to junior-level courses in Evolution, with an Introductory Biology prerequisite. This text introduces biology majors to the basic concepts of the fields comprising Darwinian biology: population genetics, population ecology, community ecology, macroevolution, physiological ecology, systematics, and functional morphology. The general theme is the interconnectedness of organism, environment, and evolution. Just as biochemistry and molecular biology provide the foundation for our understanding of the cell, evolutionary biology and ecology are used to construct a foundation for understanding the organism. Using evocative language and an eye-catching magazine format, the authors aim to prepare undergraduates for more advanced specialist courses in Darwinian biology as they pursue their degrees.

Evolution Oxford University Press

Spanning evolutionary science from its inception to its latest findings, from discoveries and data to philosophy and history, this book is the most complete, authoritative, and inviting one-volume introduction to evolutionary biology available. Clear, informative, and comprehensive in scope, *Evolution* opens with a series of major essays dealing with the history and philosophy of evolutionary biology, with major empirical and theoretical questions in the science, from speciation to adaptation, from paleontology to evolutionary development (evo devo), and concluding with essays on the social and political significance of evolutionary biology today. A second encyclopedic section travels the spectrum of topics in evolution with concise, informative, and accessible entries on individuals from Aristotle and Linnaeus to Louis Leakey and Jean Lamarck; from T. H. Huxley and E. O. Wilson to Joseph Felsenstein and Motoo Kimura; and on subjects from altruism and amphibians to evolutionary psychology and Piltown Man to the Scopes trial and social Darwinism. Readers will find the latest word on the history and philosophy of evolution, the nuances of the science itself, and the intricate interplay among evolutionary study, religion, philosophy, and

society. Appearing at the beginning of the Darwin Year of 2009—the 200th anniversary of the birth of Charles Darwin and the 150th anniversary of the publication of the *Origin of Species*—this volume is a fitting tribute to the science Darwin set in motion.

Evolutionary Biology Macmillan Higher Education

A brilliant book celebrating improbability as the engine that drives life, by the acclaimed author of *The Selfish Gene* and *The Blind Watchmaker*. The human eye is so complex and works so precisely that surely, one might believe, its current shape and function must be the product of design. How could such an intricate object have come about by chance? Tackling this subject—in writing that the *New York Times* called "a masterpiece"—Richard Dawkins builds a carefully reasoned and lovingly illustrated argument for evolutionary adaptation as the mechanism for life on earth. The metaphor of Mount Improbable represents the combination of perfection and improbability that is epitomized in the seemingly "designed" complexity of living things. Dawkins skillfully guides the reader on a breathtaking journey through the mountain's passes and up its many peaks to demonstrate that following the improbable path to perfection takes time. Evocative illustrations accompany Dawkins's eloquent descriptions of extraordinary adaptations such as the teeming populations of figs, the intricate silken world of spiders, and the evolution of wings on the bodies of flightless animals. And through it all runs the thread of DNA, the molecule of life, responsible for its own destiny on an unending pilgrimage through time. *Climbing Mount Improbable* is a book of great impact and skill, written by the most prominent Darwinian of our age.

An Introduction to Molecular Evolution and Phylogenetics

Oxford University Press, USA

Everything you were taught about evolution is wrong.

Evolutionary Developmental Biology Legare Street Press

"This book should interest scholars in both biology and the humanities. To bring both kinds of reader to a common platform, the first part compares two problem-solving strategies: the "objectivist" approach common in natural sciences and hermeneutics as used in the humanities. The second part surveys aspects of the development of twentieth-century biology, also accentuating branches that never became part of today's mainstream. The third part reviews a large body of recent evidence, which can be interpreted in favor of the author's arguments."--BOOK JACKET.

Lone Survivors Oxford University Press

Genesis: The Evolution of Biology presents a history of the past two centuries of biology, suitable for use in courses, but of interest more broadly to evolutionary biologists, geneticists, and biomedical scientists, as well as general readers interested in the

history of science. The book covers the early evolutionary biologists-Lamarck, Cuvier, Darwin and Wallace through Mayr and the neodarwinian synthesis, in much the same way as other histories of evolution have done, bringing in also the social implications, the struggles with our religious understanding, and the interweaving of genetics into evolutionary theory. What is novel about Sapp's account is a real integration of the cytological tradition, from Schwann, Boveri, and the other early cell biologists and embryologists, and the coverage of symbiosis, microbial evolutionary phylogenies, and the new understanding of the diversification of life coming from comparative analyses of complete microbial genomes. The book is a history of theories about evolution, genes and organisms from Lamarck and Darwin to the present day. This is the first book on the general history of evolutionary biology to include the history of research and theories about symbiosis in evolution, and first to include research on microbial evolution which were excluded from the classical neo-Darwinian synthesis. Bacterial evolution, and symbiosis in evolution are also excluded from virtually every book on the history of biology.

Human Evolutionary Biology JHU Press

Encyclopedia of Evolutionary Biology, Four Volume Set is the definitive go-to reference in the field of evolutionary biology. It provides a fully comprehensive review of the field in an easy to search structure. Under the collective leadership of fifteen distinguished section editors, it is comprised of articles written by leading experts in the field, providing a full review of the current status of each topic. The articles are up-to-date and fully illustrated with in-text references that allow readers to easily access primary literature. While all entries are authoritative and valuable to those with advanced understanding of evolutionary biology, they are also intended to be accessible to both advanced undergraduate and graduate students. Broad topics include the history of evolutionary biology, population genetics, quantitative genetics; speciation, life history evolution, evolution of sex and mating systems, evolutionary biogeography, evolutionary developmental biology, molecular and genome evolution, coevolution, phylogenetic methods, microbial evolution, diversification of plants and fungi, diversification of animals, and applied evolution. Presents fully comprehensive content, allowing easy access to fundamental information and links to primary research. Contains concise articles by leading experts in the field that ensures current coverage of each topic. Provides ancillary learning tools like tables, illustrations, and multimedia features to assist with the comprehension process.

The Tangled Bank Springer Science & Business Media

Evolutionary Theory is for graduate students, researchers, and advanced undergraduates who want an understanding of the mathematical and biological reasoning that underlies evolutionary theory. The book covers all of the major theoretical approaches used to study the mechanics of evolution, including classical one- and two-locus models, diffusion theory, coalescent theory, quantitative genetics, and game theory. There are also chapters on theoretical approaches to the evolution of development and on multilevel selection theory. Each subject is illustrated by focusing on those results that have the greatest power to influence the way that we think about how evolution works. These major results are developed in detail, with many accompanying illustrations, showing exactly how they are derived and how the mathematics relates to the biological insights that they yield. In this way, the reader learns something of the actual machinery of different branches of theory while gaining a deeper understanding of the evolutionary process. Roughly half of the book focuses on gene-based models, the other half being concerned with general phenotype-based theory. Throughout, emphasis is placed on the

fundamental relationships between the different branches of theory, illustrating how all of these branches are united by a few basic, universal, principles. The only mathematical background assumed is basic calculus. More advanced mathematical methods are explained, with the help of an extensive appendix, when they are needed.

Genesis Sinauer Associates Incorporated

Used widely in non-majors biology classes, *The Tangled Bank* is the first textbook about evolution intended for the general reader. Zimmer, an award-winning science writer, takes readers on a fascinating journey into the latest discoveries about evolution. In the Canadian Arctic, paleontologists unearth fossils documenting the move of our ancestors from sea to land. In the outback of Australia, a zoologist tracks some of the world's deadliest snakes to decipher the 100-million-year evolution of venom molecules. In Africa, geneticists are gathering DNA to probe the origin of our species. In clear, non-technical language, Zimmer explains the central concepts essential for understanding new advances in evolution, including natural selection, genetic drift, and sexual selection. He demonstrates how vital evolution is to all branches of modern biology—from the fight against deadly antibiotic-resistant bacteria to the analysis of the human genome.

Evolutionary Causation W. W. Norton & Company

A top researcher proposes a controversial new theory of human evolution in a book “combining the thrill of a novel with a remarkable depth of perspective” (*Nature*). In this groundbreaking and engaging work of science, world-renowned paleoanthropologist Chris Stringer sets out a new theory of humanity's origin, challenging both the multiregionalists (who hold that modern humans developed from ancient ancestors in different parts of the world) and his own “out of Africa” theory, which maintains that humans emerged rapidly in one small part of Africa and then spread to replace all other humans within and outside the continent. Stringer's new theory, based on archeological and genetic evidence, holds that distinct humans coexisted and competed across the African continent—exchanging genes, tools, and behavioral strategies. Stringer draws on analyses of old and new fossils from around the world, DNA studies of Neanderthals (using the full genome map) and other species, and recent archeological digs to unveil his new theory. He shows how the most sensational recent fossil findings fit with his model, and he questions previous concepts (including his own) of modernity and how it evolved. With photographs included, *Lone Survivors* will be the definitive account of who and what we were—and will change perceptions about our origins and about what it means to be human. “An essential book for anyone interested in psychology, sociology, anthropology, human evolution, or the scientific process.” —*Library Journal* “Highlights just how many tantalizing discoveries and analytical advances have enriched the field in recent years.” —*Literary Review*

Sewall Wright and Evolutionary Biology Princeton University Press

Publisher Description

The Oxford Handbook of Evolution, Biology, and Society University of Chicago Press

Wide-ranging and inclusive, this text provides an invaluable review of an expansive selection of topics in human evolution, variation and adaptability for professionals and students in biological anthropology, evolutionary biology, medical sciences and psychology. The chapters are organized around four broad themes, with sections devoted to phenotypic and genetic variation within and between human populations, reproductive physiology and behavior, growth and development, and human health from evolutionary and ecological perspectives. An introductory section provides readers with the historical, theoretical and methodological foundations needed to understand

the more complex ideas presented later. Two hundred discussion questions provide starting points for class debate and assignments to test student understanding.

Population Genetics John Wiley & Sons

Why is `blood thicker than water'? Are we innately violent or pacific? Why are plants and animals sexual? Why do we grow old and die? Such questions have motivated the life-work of W.D. Hamilton, widely acknowledged as the most important theoretical biologist of the 20th century. His papers continue to exert an enormous influence and they are now being republished for the first time. This first volume contains all of Hamilton's publications prior to 1981, a set especially relevant to social behavior, kinship theory, sociobiology, and the notion of `selfish genes'. Each paper is introduced by an autobiographical essay written especially for this collection. Accessible to non-specialists, this fascinating volume features several of the most read and famous papers of modern biology.

The Princeton Guide to Evolution University of Chicago Press

Trace the evolutionary history of fourteen different species of finches on the Galapagos Islands that were studied by Charles Darwin.

Urban Evolutionary Biology Prentice Hall

Futuyma (ecology and evolution, SUNY Stony Brook) covers such subject areas as phylogeny, paleobiology, genetic mechanisms of change and speciation, character evolution, the theory of processes and macroevolution, and new molecular perspectives. Numerous line drawings, charts, diagrams, and maps are provided. Annotation copyrighted by Book News, Inc., Portland, OR

Evolution W. W. Norton & Company

This book contains an overview of research on the interaction of biological and sociological processes. Issues explored include: the origins of social solidarity; religious beliefs; sex differences; gender inequality; human happiness; social stratification and inequality; identity, status, and other group processes; race, ethnicity, and discrimination; fertility and family processes; crime and deviance; cultural and social change.

Icons of Evolution Oxford University Press

With recent technological advances, vast quantities of genetic and genomic data are being generated at an ever-increasing pace. The explosion in access to data has transformed the field of evolutionary genetics. A thorough understanding of evolutionary principles is essential for making sense of this, but new skill sets are also needed to handle and analyze big data. This contemporary textbook covers all the major components of modern evolutionary genetics, carefully explaining fundamental processes such as mutation, natural selection, genetic drift, and speciation. It also draws on a rich literature of exciting and inspiring examples to demonstrate the diversity of evolutionary research, including an emphasis on how evolution and selection has shaped our own species. Practical experience is essential for developing an understanding of how to use genetic and genomic data to analyze and interpret results in meaningful ways. In addition to the main text, a series of online tutorials using the R language serves as an introduction to programming, statistics, and analysis. Indeed the R environment stands out as an ideal all-purpose source platform to handle and analyze such data. The book and its online materials take full advantage of the authors' own experience in working in a post-genomic revolution world, and introduces readers to the plethora of molecular and analytical methods that have only recently become available. Evolutionary Genetics is an advanced but accessible textbook aimed principally at students of various levels (from undergraduate to postgraduate) but also for researchers looking for an updated introduction to modern evolutionary biology and genetics.

Related with Evolutionary Biology Textbook:

- What Language Is Parado No Bailao : [click here](#)