

Evoluzione Modelli Processi Ferraguti Castellacci

Chi ha realmente ..."prodotto" l'uomo? Ci siamo semplicemente evoluti dagli animali, oppure... Chi siamo e da dove veniamo sono quesiti filosofici che hanno accomunato pensatori di ogni epoca ed etnia, e le religioni vi hanno sviluppato sopra le loro teologie. La scienza, dal canto suo, ci sta "materialmente" lavorando, ma brancola nel buio poiché, nonostante le evidenze con le quali si scontra, continua a procedere ignorando la multidisciplinarietà. Questo libro al contrario, proprio unendo studi diversi ed apparentemente lontani tra loro, arriva a presentare un quadro scientifico e storico che apre una nuova via di pensiero. La riscoperta delle nostre vere origini è infatti un passaggio obbligato per il salto evolutivo già iniziato. Dal libro apprendiamo, assieme a molte altre cose interessanti, che esistono già molte evidenze di un improvviso cambiamento di alcuni nostri geni specifici del linguaggio e di altre fondamentali caratteristiche tipiche dell'attuale umanità. Tali "mutazioni" (che come si vedrà tali non sono) risultano realmente inspiegabili secondo la visione compartimentata e limitante della scienza accademica. Adottando invece un approccio multidisciplinare, cioè utilizzando i contributi di diverse discipline, emerge una stupefacente conclusione che per ora è appena adombrata e lasciata al lettore, data la sua importanza.

An "arresting" and deeply personal portrait that "confront[s] the touchy subject of Darwin and race head on" (The New York Times Book Review). It's difficult to overstate the profound risk Charles Darwin took in publishing his theory of evolution. How and why would a quiet, respectable gentleman, a pillar of his parish, produce one of the most radical ideas in the history of human thought? Drawing on a wealth of manuscripts, family letters, diaries, and even ships' logs, Adrian Desmond and James Moore have restored the moral missing link to the story of Charles Darwin's historic achievement. Nineteenth-century apologists for slavery argued that blacks and whites had originated as separate species, with whites created superior. Darwin, however, believed that the races belonged to the same human family. Slavery was therefore a sin, and abolishing it became Darwin's sacred cause. His theory of evolution gave a common ancestor not only to all races, but to all biological life. This "masterful" book restores the missing moral core of Darwin's evolutionary universe, providing a completely new account of how he came to his shattering theories about human origins (Publishers Weekly, starred review). It will revolutionize your view of the great naturalist. "An illuminating new book." —Smithsonian "Compelling . . . Desmond and Moore aptly describe Darwin's interaction with some of the thorniest social and political issues of the day." —Wired "This exciting book is sure to create a stir." —Janet Browne, Aramont Professor of the History of Science, Harvard University, and author of Charles Darwin: Voyaging

Issues of scale have become increasingly important to ecologists. This book addresses the structure of regional (large-scale) ecological assemblages or communities, and the influence this has at a local (small-scale) level. This macroecological perspective is essential for the broader study of ecology because the structure and function of local communities cannot be properly understood without reference to the region in which they are situated. The book reviews and synthesizes the issues of current importance in macroecology, providing a balanced summary of the field that will be useful for biologists at advanced undergraduate level and above. These general issues are illustrated by frequent reference to specific well-studied local and regional assemblages -- an approach that serves to relate the macroecological perspective (which is perhaps often difficult to comprehend) to the everyday experience of local sites. Macroecology is an expanding and dynamic discipline. The broad aim of the book is to promote an understanding of why it is such an important part of the wider program of research into ecology. Summarises the current macroecological literature. Provides numerous examples of key patterns. Explicitly links local and regional scale processes. Exploits detailed knowledge of one species assemblage to explore broad issues in the structuring of biodiversity.

In this magical novel a count from Milan stumbles upon a desolate community of lost noblemen on an uncharted island off the coast of Portugal. When he discovers, to his astonishment, that their ill-treated servant is in fact a maiden iguana, and then proceeds to fall in love with her, the reader is given a fantastic tale of tragic love and delusion that ranks among the most affecting in contemporary literature. "The reptilian servant is only the first in a series of fantastic touches that transform the narrative into a satiric fable dense with the echoes of Shakespeare's 'Tempest' and Kafka's 'Metamorphosis.' . . . The Iguana is a superb performance." € "New York Times Book Review

Le sfide dell'etica ambientale

Evolutionary Innovations

How a Hatred of Slavery Shaped Darwin's Views on Human Evolution

Unfinished Synthesis

Darwin's Sacred Cause

Grandi cambiamenti

Essays on Natural History

The two hundredth anniversary of the birth of Charles Darwin, February 12, 2009, occurred at a critical time for the United States and the world. In honor of Darwin's birthday, the National Research Council appointed a committee under the auspices of the U.S. National Committee (USNC) for DIVERSITAS to plan a Symposium on Twenty-first Century Ecosystems. The purpose of the symposium was to capture some of the current excitement and recent progress in scientific understanding of ecosystems, from the microbial to the global level, while also highlighting how improved understanding can be applied to important policy issues that have broad biodiversity and ecosystem effects. The aim was to help inform new policy approaches that could satisfy human needs while also maintaining the integrity of the goods and services provided by biodiversity and ecosystems over both the short and the long terms. This report summarizes the views expressed by symposium participants; however, it does not provide a session-by-session summary of the presentations at the symposium. Instead, the symposium steering committee identified eight key themes that emerged from the lectures, which were addressed in different contexts by different speakers. The focus here is on general principles rather than specifics. These eight themes provide a sharp focus on a few concepts that enable scientists, environmental NGOs, and policy makers to engage more effectively around issues of central importance for biodiversity and ecosystem management.

Evolutionary innovations—the bony skeleton of vertebrates, avian flight, or the insect pollination system of angiosperms, for example—have in recent years become the focus of much fertile new research in evolutionary biology. Innovations may hold the keys to understanding why whole new groups of organisms evolve or, conversely, why groups of organisms become extinct. This volume brings together contributors from the fields of morphology, genetics, embryology, physiology, and paleontology to present research on evolutionary innovations and to suggest directions for further work. The topics covered include the plurality of evolutionary innovations, patterns and processes at different hierarchical levels, evolutionary genetics of adaptations, heterochrony and other mechanisms of radical evolutionary change in early development, developmental mechanisms at the origin of morphological novelty, the evolution of morphological variation patterns, functional design and its punctuated products, plausibility and testability in assessing the consequences of evolutionary innovations, paradigms and pitfalls of studying physiological evolution, polyphyletic constructional breakthroughs in fossil and extant species, ecology of evolutionary innovations in the fossil record.

In 1972 Stephen Jay Gould took the scientific world by storm with his paper on punctuated equilibrium. Challenging a core assumption of Darwin's theory of evolution, it launched the controversial idea that the majority of species originates in geological moments (punctuations) and persists in stasis. Now, thirty-five years later, *Punctuated Equilibrium* offers his only book-length testament on a theory he fiercely promoted, repeatedly refined, and tirelessly defended. A century ago Darwin and Wallace explained how evolution could have happened in terms of processes known to take place today. This book describes how their theory has been confirmed, but at the same time "transformed", by recent research.

Evolving Pathways

Modeling for All Scales

Did Darwin Write the Origin Backwards?

Pattern and Process in Macroecology

The Theory of Evolution

Sabotage

Twenty-First Century Ecosystems

This revised edition incorporates the latest discoveries in the rapidly changing fields of neuroscience and physiological psychology and offers the most comprehensive and integrative coverage of research and theory in contemporary behavioural neuroscience.

A biography of the naturalist disputes misconceptions, discussing how Darwin concealed his theory of evolution for twenty years, agonizing over its implications and the impact it would have on his social standing.

With his customary brilliance, Gould examines the puzzles and paradoxes great and small that build nature's and humanity's diversity and order.

Provides an explanation of evolutionary processes, a refutation of the claims of creationists, and insight into the nature of scientific inquiry

Key Themes in Evolutionary Developmental Biology

Philosophy after Darwin

National Implementations, Impact Assessment and the Agenda for Future Reforms

An Introduction to System Simulation

Science and Religion in the Fullness of Life

Si può parlare oggi di una finalità dell'evoluzione?

The Pattern of Evolution

Development of the Nervous System, Second Edition has been thoroughly revised and updated since the publication of the First Edition. It presents a broad outline of neural development principles as exemplified by key experiments and observations from past and recent times. The text is organized along a development pathway from the induction of the neural primordium to the emergence of behavior. It covers all the major topics including the patterning and growth of the nervous system, neuronal determination, axonal navigation and targeting, synapse formation and plasticity, and neuronal survival and death. This new text reflects the complete modernization of the field achieved through the use of model organisms and the intensive application of molecular and genetic approaches. The original, artist-rendered drawings from the First Edition have all been redone and colorized so that the entire text is in full color. This new edition is an excellent textbook for undergraduate and graduate level students in courses such as Neuroscience, Medicine, Psychology, Biochemistry, Pharmacology, and Developmental Biology. Updates information including all the new developments made in the field since the first edition. Now in full color throughout, with the original, artist-rendered drawings from the first edition completely redone, revised, colorized, and updated.

Is it accurate to label Darwin's theory "the theory of evolution by natural selection," given that the concept of common ancestry is at least as central to Darwin's theory? Did Darwin reject the idea that group selection causes characteristics to evolve that are good for the group though bad for the individual? How does Darwin's discussion of God in *The Origin of Species* square with the common view that he is the champion of methodological naturalism? These are just some of the intriguing questions raised in this volume of interconnected philosophical essays on Darwin. The author's approach is informed by modern issues in evolutionary biology, but is sensitive to the ways in which Darwin's outlook differed from that of many biologists today. The main topics that are the focus of the book—common ancestry, group selection, sex ratio, and naturalism—have rarely been discussed in their connection with Darwin in such penetrating detail. Author Professor Sober is the 2008 winner of the Prometheus Prize. This biennial award, established in 2006 through the American Philosophical Association, is designed "to honor a distinguished philosopher in recognition of his or her lifetime contribution to expanding the frontiers of research in philosophy and science." This insightful collection of essays will be of interest to philosophers, biologists, and laypersons seeking a deeper understanding of one of the most influential scientific theories ever propounded.

This study provides a stimulating critique of contemporary evolutionary thought, analyzing the Modern Synthesis first developed by Theodosius Dobzhansky, Ernst Mayr, and George Gaylord Simpson. The author argues that although only genes and organisms are taken as historic "individuals" in conventional theory, species, higher taxa, and ecological entities such as populations and communities should also be construed as individuals—an approach that yields the ecological and genealogical hierarchies that interact to produce evolution. This clearly stated, controversial work will provoke much debate among evolutionary biologists, systematists, paleontologists, and ecologists, as well as a wide range of educated lay readers.

Originally published in the Italian, *Constraints and Possibilities* has caused a considerable stir in Europe and has already been translated into several languages. In what noted cyberneticist Heinz von Foerster called a stroke of genius, Ceruti applies a new perspective to our understanding of evolution, and startlingly outlines how the evolution of our knowledge and our knowledge of evolution have in fact been mirror images of each other. Expanding on the intellectual tradition of Gregory Bateson, Ervin Laszlo, Stephen Jay Gould, and Niles Eldredge, Ceruti's work is a testament to the paradigm shift occurring in science today. Indispensable reading for anyone interested in the evolution of our conception of knowledge.

The Privilege of Being a Physicist

The Evolution of Knowledge and Knowledge of Evolution

An Introduction to Probability and Inductive Logic

Principles of Evolutionary Medicine

Theory and Practice of Phylogenetic Systematics

Science on Trial

Darwin

Un viaggio meraviglioso nei grandi progetti della Natura illustrati dalla biologia evoluzionistica, la scienza naturale che si occupa di descrivere la storia della vita sulla Terra. Dietro ogni grande cambiamento evolutivo si cela non solo la darwiniana lotta per la vita, la competizione, ma anche un altro fattore decisivo, ossia la cooperazione. I geni collaborano tra loro nel genoma, i genomi nelle cellule, le cellule nei tessuti, gli organi negli organismi, gli organismi nelle popolazioni: l'interazione genera nuove risposte alle esigenze ambientali. Dalla storia della vita alle estinzioni, fino all'epigenetica, questo libro presenta le vie dell'evoluzione attraverso esempi curiosi di adattamenti del mondo animale e vegetale.

In this comprehensive work, John S. Wilkins traces the history of the idea of "species" from antiquity to today, providing a new perspective on the relationship between philosophical and biological approaches.--[book cover].

"People of good will wish to see science and religion at peace. . . . I do not see how science and religion could be unified, or even synthesized, under any common scheme of explanation or analysis; but I also do not understand why the two enterprises should experience any conflict." So states internationally renowned evolutionist and bestselling author Stephen Jay Gould in the simple yet profound thesis of his brilliant new book. Writing with bracing intelligence and elegant clarity, Gould sheds new light on a dilemma that has plagued thinking people since the Renaissance. Instead of choosing between science and religion, Gould asks, why not opt for a golden mean that accords dignity and distinction to each realm? At the heart of Gould's penetrating argument is a lucid, contemporary principle he calls NOMA (for nonoverlapping magisteria)--a "blessedly simple and entirely conventional resolution" that allows science and religion to coexist peacefully in a position of respectful noninterference. Science defines the natural world; religion, our moral world, in recognition of their separate spheres of influence. In elaborating and exploring this thought-provoking concept, Gould delves into the history of science, sketching affecting portraits of scientists and moral leaders wrestling with matters of faith and reason. Stories of seminal figures such as Galileo, Darwin, and Thomas Henry Huxley make vivid his argument that individuals and cultures must cultivate both a life of the spirit and a life of rational inquiry in order to experience the fullness of being human. In his bestselling books *Wonderful Life*, *The Mismeasure of Man*, and *Questioning the Millennium*, Gould has written on the abundance of marvels in human history and the natural world. In *Rocks of Ages*, Gould's passionate humanism, ethical discernment, and erudition are fused to create a dazzling gem of contemporary cultural philosophy. As the world's preeminent Darwinian theorist writes, "I believe, with all my heart, in a respectful, even loving concordat between . . . science and religion."

"Provocative and delightfully discursive essays on natural history. . . . Gould is the Stan Musial of essay writing. He can work himself into a corkscrew of ideas and improbable allusions paragraph after paragraph and then, uncoiling, hit it with such power that his fans know they are experiencing the game of essay writing at its best."--John Noble Wilford, *New York Times Book Review*

Rocks of Ages

The Evolving Biosphere

Seeking God in Science

Possibilità e validità delle teorie morali non-antropocentriche

Leonardo's Mountain of Clams and the Diet of Worms

L'eredità di Mendel

The Case for Evolution

Quali opzioni filosofiche contrassegnano il realismo? La questione della conoscenza del reale appartiene al pensiero filosofico di ogni tempo: nei dibattiti filosofici contemporanei essa si accende di varie tonalità, per il moltiplicarsi di forme di realismo e antirealismo. Il problema di fondo è se, conoscendo il reale, siamo consapevoli di ciò che comporta affermarsi conoscenti in termini personali e culturali. Quali concezioni della cultura possono accompagnare il sapere? Come affrontare i problemi attinenti al dialogo tra discipline? Il sapere, contrassegnato da rivoluzioni scientifiche e da trasformazioni storico-culturali, può ancora ricomporsi attorno a un metodo? Quali attenzioni richiede il pluralismo delle culture? Domande e risposte di carattere epistemologico e metodologico s'intrecciano nel presente volume: esse sono state elaborate scavando soprattutto in alcuni contesti culturali contemporanei e attingendo alle proposte provenienti dal pensiero di B. Lonergan. Le esplorazioni presenti in ciascun capitolo appartengono a una ricerca interdisciplinare, criticamente affrontata da docenti universitari che hanno selezionato peculiari nuclei problematici, rappresentativi di alcune sfide attuali sui versanti del sapere. Contributi di: Carlo Cirotto, Valter Danna, Rosanna Finamore, Pasquale Giustiniani, Paolo Gherri, Giuseppe Guglielmi, Pierpaolo Triani.

An introductory 2001 textbook on probability and induction written by a foremost philosopher of science.

Il presente volume intende contribuire ad accrescere l'attenzione che la Chiesa Cattolica riserva al confronto con la scienza, com'era negli auspici di Giovanni Paolo II e di Benedetto XVI. Due millenni di storia della Chiesa mostrano con chiarezza che essa ha giocato un ruolo rilevante nella società, trovando una corrispondenza con il sentire degli uomini del tempo. Una Chiesa – che dovesse condannare o censire senza comprendere i processi sociali e psicologici, in ultima analisi culturali, di una società, si porrebbe come un'istituzione destinata alla marginalità e irrilevanza. Precisamente questa era stata la ragione del Concilio Vaticano II (di cui si celebrava in ottobre del 2012 il cinquantenario dell'inizio dei lavori) e non a caso Papa Giovanni XXIII nel suo discorso inaugurale ammoniva: « Occorre che questa dottrina certa ed immutabile, alla quale si deve prestare un assenso fedele, sia approfondita ed esposta secondo quanto è richiesto dai nostri tempi ». Ora il dato di fatto sotto gli occhi di tutti è che la società a noi contemporanea è dominata (e lo sarà sempre più) da scienza e tecnologia. Pertanto una politica culturale di prospettiva deve necessariamente misurarsi, capire ed esaminare criticamente ciò che accade nel mondo scientifico. Un contesto accademico come la Gregoriana e la sua editrice è certamente il luogo per dare alcuni iniziali input in tal senso.

These sixteen essays, written with the clarity and candor for which Weiskopf is well known, give us a glimpse into his life work—both as a theoretical physicist and as a spokesman for all of humanity.

The Logic Behind the Science

Realismo e metodo

Punctuated Equilibrium

Chance, Change and Challenge

Evoluzione tra competizione e cooperazione

La riflessione epistemologica di Bernard Lonergan

Constraints and Possibilities

The long-awaited revision of the industry standard on phylogenetics Since the publication of the first edition of this landmark volume more than twenty-five years ago, phylogenetic systematics has taken its place as the dominant paradigm of systematic biology. It has profoundly influenced the way scientists study evolution, and has seen many theoretical and technical advances as the field has continued to grow. It goes almost without saying that the next twenty-five years of phylogenetic research will prove as fascinating as the first, with many exciting developments yet to come. This new edition of Phylogenetics captures the very essence of this rapidly evolving discipline. Written for the practicing systematist and phylogeneticist, it addresses both the philosophical and technical issues of the field, as well as surveys general practices in taxonomy. Major sections of the book deal with the nature of species and higher taxa, homology and characters, trees and tree graphs, and biogeography—the purpose being to develop biologically relevant species, character, tree, and biogeographic concepts that can be applied fruitfully to phylogenetics. The book then turns its focus to phylogenetic trees, including an in-depth guide to tree-building algorithms. Additional coverage includes: Parsimony and parsimony analysis Parametric phylogenetics including maximum likelihood and Bayesian approaches Phylogenetic classification Critiques of evolutionary taxonomy, phenetics, and transformed cladistics Specimen selection, field collecting, and curating Systematic publication and the rules of nomenclature Providing a thorough synthesis of the field, this important update to Phylogenetics is essential for students and researchers in the areas of evolutionary biology, molecular evolution, genetics and evolutionary genetics, paleontology, physical anthropology, and zoology.

Providing an updated state of the art report on the effects of the 2003 Common Agricultural Policy (CAP) reform, this volume has a particular emphasis on the governance of institutional changes and national/regional implementation. Written from an agricultural economist's point of view and enriched by the contribution of political scientists and policy makers, this book offers: - an updated report of the European debate on agricultural and rural policies; - an in-depth analysis of the decoupling process of the agricultural financial support in Europe; - an analysis of the CAP implementation in the old and new Europe Member States ; - a discussion on the future scenarios for the European Agricultural Policies Based on a selection of papers from the 109th Seminar of the European Association of the Agricultural Economists (EAAE), this book, with a foreword by Franz Fischler, also includes four commissioned contributions from leaders in the field including Sofia Davidova, Roberto Esposti, Tassos Haniotis and Johan Swinnen.

Wittgenstein famously remarked in 1923, "Darwin's theory has no more relevance for philosophy than any other hypothesis in natural science." Yet today we are witnessing a major revival of interest in applying evolutionary approaches to philosophical problems. Philosophy after Darwin is an anthology of essential writings covering the most influential ideas about the philosophical implications of Darwinism, from the publication of On the Origin of Species to today's cutting-edge research. Michael Ruse presents writings by leading modern thinkers and researchers—including some writings never before published—together with the most important historical documents on

Darwinism and philosophy, starting with Darwin himself. Included here are Herbert Spencer, Friedrich Nietzsche, Thomas Henry Huxley, G. E. Moore, John Dewey, Konrad Lorenz, Stephen Toulmin, Karl Popper, Edward O. Wilson, Hilary Putnam, Philip Kitcher, Elliott Sober, and Peter Singer. Readers will encounter some of the staunchest critics of the evolutionary approach, such as Alvin Plantinga, as well as revealing excerpts from works like Jack London's *The Call of the Wild*. Ruse's comprehensive general introduction and insightful section introductions put these writings in context and explain how they relate to such fields as epistemology, philosophy of mind, philosophy of language, and ethics. An invaluable anthology and sourcebook, *Philosophy after Darwin* traces philosophy's complicated relationship with Darwin's dangerous idea, and shows how this relationship reflects a broad movement toward a secular, more naturalistic understanding of the human experience.

All manner of models are used to describe, simulate, extrapolate, and ultimately understand the function of dynamic systems. These sorts of models are usually based upon a mathematical foundation that can be difficult to manipulate especially for students. *Modeling for All Scales* uses object-oriented programming to erect and evaluate the efficacy of models of small, intermediate and large scale systems. Such models allow users to employ intuitively based symbols and a systems ecology approach. The authors have been leaders in the systems ecology community and have originated much of the scientific vocabulary of the field. After introducing modeling and its benefits, there is a series of chapters detailing the more particular elements of successful simulation. There follows another series of chapters, each devoted to models of different sorts of systems. Small scale models of growth, competition, and evolution give way, successively, to larger and larger scale models such as international trade and the global geobiosphere. Anyone interested in an easy to use approach to modeling complex systems authored by perhaps the most original systems ecologists of the century will want this book. To further enhance the users ability to apply the lessons of this book, there is included a CD-ROM disc which provides the fundamental tools for modeling at all scales. Key Features * The book makes it possible to teach modeling and simulation without much prior knowledge of mathematics * Reasons for modeling and simulation are discussed * The book makes modeling and simulation fun by keeping focused on simplified overview minimodels that have important principles to science and society * The steps in successive chapters are arranged so that readers can teach themselves modeling, simulation, and the programming necessary to simulate the systems they diagram * The CD-ROM has minimodel programs and versions of QuickBasic and EXTEND to run them

Philosophical Essays on Darwin's Theory

Il Risveglio del Caduceo Dormiente

Classic and Contemporary Readings

The Extraordinary Story of Life on Earth

The Iguana

Evoluzione. Modelli e processi

The Common Agricultural Policy after the Fischler Reform

L'attribuzione dello status di 'persona' a soggetti in precedenza discriminati ha giocato un ruolo fondamentale nello storico processo di estensione dei diritti morali e civili a tutti gli esseri umani. Allo stesso modo, oggi, l'inclusione di almeno una parte del mondo non-umano all'interno della comunità morale è uno degli aspetti cruciali del discorso etico contemporaneo, un aspetto la cui importanza è stata infatti durante gli ultimi quarant'anni sostenuta da un numero crescente di autori. Ciononostante, sono stati pochi i tentativi di difendere la possibilità di un'etica ambientale che, pur fondandosi su una teoria morale non-antropocentrica, si dimostri tutt'altro che controintuitiva o anti-umanista. Ancora meno sono stati gli sforzi di stabilire delle coordinate teoriche in grado di difendere la validità formale e materiale dei diversi paradigmi teorici esistenti al suo interno. Questo libro rappresenta il tentativo di illustrare e discutere criticamente le condizioni di possibilità, di validità formale e di validità materiale della disciplina, e al contempo anche lo sforzo di conciliare tra loro tanto l'etica tradizionale con l'etica ambientale quanto le svariate proposte teoriche presenti all'interno di quest'ultimo campo di indagine. Nel rivolgere la propria attenzione a questioni di estrema rilevanza per l'agenda globale, cui sarà necessario far fronte in pochi decenni, l'etica ambientale contiene un invito alla ricerca quanto mai attuale e stimolante. Tale invito è stato qui raccolto con estremo interesse e con una grande passione. La speranza è che le riflessioni critiche contenute in questo volume siano in grado di suscitare lo stesso interesse e la stessa passione per le questioni sollevate dall'etica ambientale in altri studiosi: non solo estimatori, ma anche detrattori della materia.

How should the concept of evidence be understood? And how does the concept of evidence apply to the controversy about creationism as well as to work in evolutionary biology about natural selection and common ancestry? In this rich and wide-ranging book, Elliott Sober investigates general questions about probability and evidence and shows how the answers he develops to those questions apply to the specifics of evolutionary biology. Drawing on a set of fascinating examples, he analyzes whether claims about intelligent design are untestable; whether they are discredited by the fact that many adaptations are imperfect; how evidence bears on whether present species trace back to common ancestors; how hypotheses about natural selection can be tested, and many other issues. His book will interest all readers who want to understand philosophical questions about evidence and evolution, as they arise both in Darwin's work and in contemporary biological research.

From one of the world's most accomplished scientific thinkers comes a fascinating exploration of the way we investigate and understand the connections between the living and nonliving worlds. The doctrine of intelligent design is often the subject of acrimonious debate. *Seeking God in Science* cuts through the rhetoric that distorts the debates between religious and secular camps. Bradley Monton, a philosopher of science and an atheist, carefully considers the arguments for intelligent design and argues that intelligent design deserves serious consideration as a scientific theory. Monton also gives a lucid account of the debate surrounding the inclusion of intelligent design in public schools and presents reason why students' science education could benefit from a careful consideration of the arguments for and against it.

Hen's Teeth and Horse's Toes

Phylogenetics

Development of the Nervous System

Evidence and Evolution

La vera genesi dell'Homo sapiens

Bully for Brontosaurus: Reflections in Natural History

Managing the Living World Two Centuries After Darwin: Report of a Symposium

Lively and fascinating. . . . Gould] writes beautifully about science and the wonders of nature. Tracy Kidder

Evolutionary developmental biology, or 'evo-devo', is the study of the relationship between evolution and development. Dealing specifically with the generative mechanisms of organismal form, evo-devo goes straight to the core of the developmental origin of variation, the raw material on which natural selection (and random drift) can work. *Evolving Pathways* brings together contributions that represent a diversity of approaches. Topics range from developmental genetics to comparative morphology of animals and plants alike, and also include botany and palaeontology, two disciplines for which the potential to be examined from an evo-devo perspective has largely been ignored until now. Researchers and graduate students will find this book a valuable overview of current research as we begin to fill a major gap in our perception of evolutionary change.

La prima biografia italiana, scritta con fonti di prima mano, del padre della genetica Gregor Johann Mendel. Il libro porta a scoprire come Mendel, monaco agostiniano, condusse le sue ricerche all' interno dell' abbazia di Brno: dall' osservazione dell' orto e degli incroci di piante fino al primo autentico studio scientifico sulla trasmissione dei caratteri ereditari. Grazie alla scelta di un metodo di ricerca impeccabile e a una grande passione, Mendel fu in grado di formulare le leggi che ancora oggi sono alla base della genetica. La sua storia, tra meticolosi esperimenti e grandi scoperte, ma anche tra delusioni e ambizioni disattese, è un perfetto riassunto delle vicende che, ancora oggi, caratterizzano la vita di tanti scienziati.

Evolutionary science is critical to an understanding of integrated human biology and is increasingly recognised as a core discipline by medical and public health professionals. Advances in the field of genomics, epigenetics, developmental biology, and epidemiology have led to the growing realisation that incorporating evolutionary thinking is essential for medicine to achieve its full potential. This revised and updated second edition of the first comprehensive textbook of evolutionary medicine explains the principles of evolutionary biology from a medical perspective and focuses on how medicine and public health might utilise evolutionary thinking. It is written to be accessible to a broad range of readers, whether or not they have had formal exposure to evolutionary science. The general structure of the second edition remains unchanged, with the initial six chapters providing a summary of the evolutionary theory relevant to understanding human health and disease, using examples specifically relevant to medicine. The second part of the book describes the application of evolutionary principles to understanding particular aspects of human medicine: in addition to updated chapters on reproduction, metabolism, and behaviour, there is an expanded chapter on our coexistence with micro-organisms and an entirely new chapter on cancer. The two parts are bridged by a chapter that details pathways by which evolutionary processes affect disease risk and symptoms, and how hypotheses in evolutionary medicine can be tested. The final two chapters of the volume are considerably expanded; they illustrate the application of evolutionary biology to medicine and public health, and consider the ethical and societal issues of an evolutionary perspective. A number of new clinical examples and historical illustrations are included. This second edition of a novel and popular textbook provides an updated resource for doctors and other health professionals, medical students and biomedical scientists, as well as anthropologists interested in human health, to gain a better understanding of the evolutionary processes underlying human health and disease.

Riflessioni filosofiche e teologiche alla luce della scienza contemporanea.

Biological Hierarchies and Modern Evolutionary Thought

An Atheist Defends Intelligent Design

Species

A History of the Idea

Physiology of Behavior

Reconstructs the history of Earth within the context of a single calendar year, from the formation of Earth in January to the appearance of humans in December