Darwin Presents His Case Answers

Provides information about sex, relationships, and birth control, with an emphasis on informed consent and mutual respect, and discusses such options as parenthood, adoption, and abortion.

We all make mistakes. Nobody is perfect. And that includes five of the greatest scientists in history -- Charles Darwin, William Thomson (Lord Kelvin), Linus Pauling, Fred Hoyle, Albert Einstein. But the mistakes that these great scientists made helped science to advance. Indeed, as Mario Livio explains in this fascinating book, science thrives on error; it advances when erroneous ideas are disproven. All five scientists were great geniuses and fascinating human beings. Their blunders were part of their genius and part of the scientific process. Livio brilliantly analyses their errors to show where they were wrong and right, but what makes his book so enjoyable to read is Livio's analysis of the psychology of these towering figures. Along the way the reader learns an enormous amount about the evolution of life on earth and in the universe, but from an unusual vantage point -- the mistakes of great scientists rather than the achievements that made them famous.

This book examines the display of emotions by humans and animals. (PsycINFO Database Record (c) 2004 APA, all rights reserved)

From the conservative spokesperson and author of Slander and How to Talk to a Liberal comes an all new, timely, and thought-provoking study of American politics and religion that looks at the Left's attacks on the Judeo-Christian tradition. Reprint. 300,000 first printing.

Evolution and the Meaning of Life

A Scientist's Search for Common Ground Between God and Evolution

One Long Argument

What Darwin Got Wrong

The Explosive Origin of Animal Life and the Case for Intelligent Design

How and Why Species Multiply

Ongoing Issues

Jerry Fodor and Massimo Piatelli-Palmarini, a distinguished philosopher and scientist working in tandem, reveal major flaws at the heart of Darwinian evolutionary theory. They do not deny Darwin's status as an outstanding scientist but question the inferences he drew from his observations. Combining the results of cutting-edge work in experimental biology with crystal-clear philosophical argument they mount a devastating critique of the central tenets of Darwin's account of the origin of species. The logic underlying natural selection is the survival of the fittest under changing environmental pressure. This logic, they argue, is mistaken. They back up the claim with evidence of what actually happens in nature. This is a rare achievement - the short book that is likely to make a great deal of difference to a very large subject. What Darwin Got Wrong will be controversial. The authors' arguments will reverberate through the scientific world. At the very least they will transform the debate about evolution.

Popular Science gives our readers the information and tools to improve their technology and their world. The core belief that Popular Science and our readers share: The future is going to be better, and science and technology are the driving forces that will help make it better.

Historical biogeography—the study of the history of species through both time and place—first convinced Charles Darwin of evolution. This field was so important to Darwin’s initial theories and line of thinking that he said as much in the very first paragraph of On the Origin of Species (1859) and later in his autobiography. His methods included collecting mammalian fossils in South America clearly related to living forms, tracing the geographical distributions of living species across South America, and sampling peculiar fauna of the geologically young Galápagos Archipelago that showed evident affinities to South American forms. Over the years, Darwin collected other evidence in support of evolution, but his historical biogeographical arguments remained paramount, so much so that he devotes three full chapters to this topic in On the Origin of Species. Discussions of Darwin’s landmark book too often give scant attention to this wealth of evidence, and we still do not fully appreciate its significance in Darwin’s thinking. In Origins of Darwin’s Evolution, J. David Archibald explores this lapse, showing how Darwin first came to the conclusion that, instead of various centers of creation, species had evolved in different regions throughout the world. He also shows that Darwin’s other early passion—geology—proved a more elusive corroboration of evolution. On the Origin of Species has only one chapter dedicated to the rock and fossil record, as it then appeared too incomplete for Darwin’s evidentiary standards. Carefully retracing Darwin’s gathering of evidence and the evolution of his thinking, Origins of Darwin’s Evolution achieves a new understanding of how Darwin crafted his transformative theory.

Focusing on the ground-breaking and often controversial science of Charles Darwin, the author seeks to bridge the gulf between science and religion on the subject of human evolution.

The Reluctant Mr. Darwin: An Intimate Portrait of Charles Darwin and the Making of His Theory of Evolution (Great Discoveries)

Science as a Way of Knowing

The Galapagos Islands

Art, Evolution, Neuroscience

The Selfish Gene

Or the Preservation of Favored Races in the Struggle for Life

Origin of Species by Means of Natural Selection,

In a book that is both groundbreaking and accessible, Daniel C. Dennett, whom Chet Raymo of The Boston Globe calls "one of the most provocative thinkers on the planet," focuses his unerringly logical mind on the theory of natural selection, showing how Darwin's great idea transforms and illuminates our traditional view of humanity's place in the universe. Dennett vividly describes the theory itself and then extends Darwin's vision with impeccable arguments to their often surprising conclusions, challenging the views of some of the most famous scientists of our day.

Darwin in Russian Thought represents the first comprehensive and systematic study of Charles Darwin's influence on Russian thought from the early 1860s to the October Revolution. While concentrating on the role of Darwin's theory in the development of Russian science and philosophy, Vucinich also explores the dominant ideological and sociological interpretations of evolutionary thought, providing a deft analysis of the views held by the leaders of Russian nihilism, populism, anarchism, and marxism. Darwin's thinking profoundly influenced intellectual discourse in Russia: it effected the emergence of "theoretical theology," a modern effort to provide theological responses to the revolutionary changes in the natural sciences, contributed to the evolution of a modern scientific community, and spurred the rapidly growing concern with the epistemological and ethical foundations of science in general. Scholarly battles were waged among the critics of Darwin--Karl von Baer, Nikolai Iakovlevich Danilevskii and Sergei Ivanovich Korzhinskii, and others--and the defenders of the faith. Vucinich is able to delineate the distinctive national characteristics of Russian Darwinism: the strong influence of Lamarckian thought, the delayed recognition of the contributions of genetics, the near-universal rejection of Social Darwinism, the early anticipation of the triumph of "evolutionary synthesis," and the heavy concentration on the social and moral aspects of evolutionary thought. Vividly argued and rich in detail, Darwin in Russian Thought provides a unique glimpse into the Russian psyche. Darwin in Russian Thought represents the first comprehensive and systematic study of Charles Darwin's influence on Russian thought from the early 1860s to the October Revolution. While concentrating on the role of Darwin's theory in the development of Russian science and philosophy, Vucinich also explores the dominant ideological and sociological interpretations of evolutionary thought, providing a deft analysis of the views held by the leaders of Russian nihilism, populism, anarchism, and marxism. Darwin's thinking profoundly influenced intellectual discourse in Russia: it effected the emergence of "theoretical theology," a modern effort to provide theological responses to the revolutionary changes in the natural sciences, contributed to the evolution of a modern scientific community, and spurred the rapidly growing concern with the epistemological and ethical foundations of science in general. Scholarly battles were waged among the critics of Darwin--Karl von Baer, Nikolai Iakovlevich Danilevskii and Sergei Ivanovich Korzhinskii, and others--and the defenders of the faith. Vucinich is able to delineate the distinctive national characteristics of Russian Darwinism: the strong influence of Lamarckian thought, the delayed recognition of the contributions of genetics, the near-universal rejection of Social Darwinism, the early anticipation of the triumph of "evolutionary synthesis," and the heavy concentration on the social and moral aspects of evolutionary thought. Vividly argued and rich in detail, Darwin in Russian Thought provides a unique glimpse into the Russian psyche.

If Darwin were to examine the evidence today using modern science, would his conclusions be the same? Charles Darwin’s On the Origin of Species, published over 150 years ago, is considered one of history’s most influential books and continues to serve as the foundation of thought for evolutionary biology. Since Darwin’s time, however, new fields of science have immerged that simply give us better answers to the question of origins. With a Ph.D. in cell and developmental biology from Harvard University, Dr. Nathaniel Jeanson is uniquely qualified to investigate what genetics reveal about origins. The Origins Puzzle Comes Together If the science surrounding origins were a puzzle, Darwin would have had fewer than 15% of the pieces to work with when he developed his theory of evolution. We now have a much greater percentage of the pieces because of modern scientific research. As Dr. Jeanson puts the new pieces together, a whole new picture emerges, giving us a testable, predictive model to explain the origin of species. A New Scientific Revolution Begins Darwin’s theory of evolution may be one of science’s “sacred cows,” but genetics research is proving it wrong. Changing an entrenched narrative, even if it’s wrong, is no easy task. Replacing Darwin asks you to consider the possibility that, based on genetics research, our origins are more easily understood in the context of . . . In the beginning . . . God, with the timeline found in the biblical narrative of Genesis. There is a better answer to the origins debate than what we have been led to believe. Let the revolution begin! About the Author Dr. Nathaniel Jeanson is a scientist and a scholar, trained in one of the most prestigious universities in the world. He earned his B.S. in Molecular Biology and Bioinformatics from the University of Wisconsin-Parkside and his PhD in Cell and Developmental Biology from Harvard University. As an undergraduate, he researched the molecular control of photosynthesis, and his graduate work involved investigating the molecular and physiological control of adult blood stem cells. His findings have been presented at regional and national conferences and have been published in peer-reviewed journals, such as Blood, Nature, and Cell. Since 2009, he has been actively researching the origin of species, both at the Institute for Creation Research and at Answers in Genesis.

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.

Darwin's Origin of Species... Science or Fantasy?

The Collection That Shaped the Theory of Evolution

The Church of Liberalism

A Mousetrap for Darwin

Darwin's Dangerous Idea

Philosophical Essays on Darwin's Theory

Origins of Darwin's Evolution

In 1996 Darwin's Black Box thrust Lehigh University biochemist Michael Behe into the national spotlight. The book, and his subsequent two, sparked a firestorm of criticism, and his responses appeared in everything from the New York Times to science blogs and the journal Science. His replies, along with a handful of brand-new essays, are now collected in A Mousetrap for Dar critics, Behe extends his argument that much recent evidence, from the study of evolving microbes to mutations in dogs and polar bears, shows that blind evolution cannot build the complex machinery essential to life. Rather, evolution works principally by breaking things for short-term benefit. It can't construct anything fundamentally new. What can? Behe's money is on intellige

This book makes Moore's wisdom available to students in a lively, richly illustrated account of the history and workings of life. Employing rhetoric strategies including case histories, hypotheses and deductions, and chronological narrative, it provides both a cultural history of biology and an introduction to the procedures and values of science.

Evolutionary theory ranks as one of the most powerful concepts of modern civilization. Its effects on our view of life have been wide and deep. One of the most world-shaking books ever published, Charles Darwin’s On the Origin of Species, first appeared in print over 130 years ago, and it touched off a debate that rages to this day. Every modern evolutionist turns to Darwin’s w

Current controversies in the life sciences very often have as their starting point some vagueness in Darwin’s writings or some question Darwin was unable to answer owing to the insufficient biological knowledge available during his time. Despite the intense study of Darwin’s life and work, however, many of us cannot explain his theories (he had several separate ones) and the e behind them, nor do we appreciate the modifications of the Darwinian paradigm that have kept it viable throughout the twentieth century. Who could elucidate the subtleties of Darwin’s thought and that of his contemporaries and intellectual heirs—A. R. Wallace, T. H. Huxley, August Weismann, Asa Gray—better than Ernst Mayr, a man considered by many to be the greatest ev this gem of historical scholarship, Mayr has achieved a remarkable distillation of Charles Darwin’s scientific thought and his enormous legacy to twentieth-century biology. Here we have an accessible account of the revolutionary ideas that Darwin thrust upon the world. Describing his treatise as “one long argument,” Darwin definitively refuted the belief in the divine creation of ea establishing in its place the concept that all of life descended from a common ancestor. He proposed the idea that humans were not the special products of creation but evolved according to principles that operate everywhere else in the living world; he upset current notions of a perfectly designed, benign natural world and substituted in their place the concept of a struggle for su probability, chance, and uniqueness into scientific discourse. This is an important book for students, biologists, and general readers interested in the history of ideas—especially ideas that have radically altered our worldview. Here is a book by a grand master that spells out in simple terms the historical issues and presents the controversies in a manner that makes them underst perspective.

This account of Darwin's life and work also sketches the prevailing climate of scientific opinion when he began his researches. Every aspect of Darwin's work, including his contributions to geology and botany, is examined.

Darwin in Russian Thought

The Radiation of Darwin's Finches

Darwinian Agriculture

Brilliant Blunders

The Expression of the Emotions in Man and Animals

Darwin's Garden

Replacing Darwin

On the Origin of Species (or, more completely, On the Origin of Species by Means of Natural Selection, or the Preservation of Favoured Races in the Struggle for Life), [3] published on 24 November 1859, is a work of scientific literature by Charles Darwin which is considered to be the foundation of evolutionary biology.[4] Darwin's book introduced the scientific theory that populations evolve over the course of generations through a process of natural selection. It presented a body of evidence that the diversity of life arose by common descent through a branching pattern of evolution. Darwin included evidence that he had gathered on the Beagle expedition in the 1830s and his subsequent findings from research, correspondence, and experimentation

"Quammen brilliantly and powerfully re-creates the 19th century naturalist's intellectual and spiritual journey."--Los Angeles Times Book Review Twenty-one years passed between Charles Darwin's epiphany that "natural selection" formed the basis of evolution and the scientist's publication of On the Origin of Species. Why did Darwin delay, and what happened during the course of those two decades? The human drama and scientific basis of these years constitute a fascinating, tangled tale that elucidates the character of a cautious naturalist who initiated an intellectual revolution.

This is Charles Darwin's chronicle of his five-year journey, beginning in 1831, around the world as a naturalist on the H.M.S. Beagle.

Reveals how Darwin's study of fossils shaped his scientific thinking and led to his development of the theory of evolution. Darwin's Fossils is an accessible account of Darwin's pioneering work on fossils, his adventures in South America, and his relationship with the scientific establishment. While Darwin's research on Gal á pagos finches is celebrated, his work on fossils is less well known. Yet he was the first to collect the remains of giant extinct South American mammals; he worked out how coral reefs and atolls formed; he excavated and explained marine fossils high in the Andes; and he discovered a fossil forest that now bears his name. All of this research was fundamental in leading Darwin to develop his revolutionary theory of evolution. This richly illustrated book brings Darwin's fossils, many of which survive in museums and institutions around the world, together for the first time. Including new photography of many of the fossils--which in recent years have enjoyed a surge of scientific interest--as well as superb line drawings produced in the nineteenth century and newly commissioned artists' reconstructions of the extinct animals as they are understood today, Darwin's Fossils reveals how Darwin's discoveries played a crucial role in the development of his groundbreaking ideas.

The NEW Origin of Species

Popular Science

Genetic Engineering and the Future of Humanity

In the Light of Evolution

Popular Science Monthly

The Popular Science Monthly

The Foundations of Modern Biology

Biodiversity-the genetic variety of life-is an exuberant product of the evolutionary past, a vast human-supportive resource (aesthetic, intellectual, and material) of the present, and a rich legacy to cherish and preserve for the future. Two urgent challenges, and opportunities, for 21st-century science are to gain deeper insights into the evolutionary processes that foster biotic diversity, and to translate that understanding into workable solutions for the regional and global crises that biodiversity currently faces. A grasp of evolutionary principles and processes is important in other societal arenas as well, such as education, medicine, sociology, and other applied fields including agriculture, pharmacology, and biotechnology. The ramifications of evolutionary thought also extend into learned realms traditionally reserved for philosophy and religion. The central goal of the In the Light of Evolution (ILE) series is to promote the evolutionary sciences through state-of-the-art colloquia-in the series of Arthur M. Sackler colloquia sponsored by the National Academy of Sciences-and their published proceedings. Each installment explores evolutionary perspectives on a particular biological topic that is scientifically intriguing but also has special relevance to contemporary societal issues or challenges. This tenth and final edition of the In the Light of Evolution series focuses on recent developments in phylogeographic research and their relevance to past accomplishments and future research directions.

Natural Selection (Evolution): Fact or Fiction? It all started with Darwin. Have you ever wondered what Darwin’s Origin of Species... really says? Can you come up with logical answers as to why evolution is not fact? Geologist George Schulte provides a careful analysis and logical critique of Darwin’s book, chapter by chapter. Verifiable facts are separated from fantasy and each issue addressed with surprising results. Darwin’s Origin of Species...Science or Fantasy? will reveal: • The glaring lack of scientific evidence for Darwin’s theory • The case of the missing transitional forms • The crucial differences between natural selection and variation within species • The evidence that no one ‘kind’ has ever changed into another ‘kind’ • What the geologic record really says • The grave difficulties with Darwin’s theory in his own words This book will answer questions and settle issues. It is an invaluable resource for students, parents, teachers, and anyone who is interested in separating fact from fiction—the proven from the imagined.

The surge of evolutionary and neurological analyses of art and its effects raises questions of how art, culture, and the biological sciences influence one another, and what we gain in applying scientific methods to the interpretation of artwork. In this insightful book, Matthew Rampley addresses these questions by exploring key areas where Darwinism, neuroscience, and art history intersect. Taking a scientific approach to understanding art has led to novel and provocative ideas about its origins, the basis of aesthetic experience, and the nature of research into art and the humanities. Rampley’s inquiry examines models of artistic development, the theories and development of aesthetic response, and ideas about brain processes underlying creative work. He considers the validity of the arguments put forward by advocates of evolutionary and neuroscientific analysis, as well as its value as a way of understanding art and culture. With the goal of bridging the divide between science and culture, Rampley advocates for wider recognition of the human motivations that drive inquiry of all types, and he argues that our engagement with art can never be encapsulated in a single notion of scientific knowledge. Engaging and compelling, The Seductions of Darwin is a rewarding look at the identity and development of art history and its complicated ties to the world of scientific thought.

How tiny variations in our personal DNA can determine how we look, how we behave, how we get sick, and how we get well. News stories report almost daily on the remarkable progress scientists are making in unraveling the genetic basis of disease and behavior. Meanwhile, new technologies are rapidly reducing the cost of reading someone's personal DNA (all six billion letters of it). Within the next ten years, hospitals may present parents with their newborn's complete DNA code along with her footprints and APGAR score. In Genetic Twists of Fate, distinguished geneticists Stanley Fields and Mark Johnston help us make sense of the genetic revolution that is upon us. Fields and Johnston tell real life stories that hinge on the inheritance of one tiny change rather than another in an individual's DNA: a mother wrongly accused of poisoning her young son when the true killer was a genetic disorder; the screen siren who could no longer remember her lines because of Alzheimer's disease; and the president who was treated with rat poison to prevent another heart attack. In an engaging and accessible style, Fields and Johnston explain what our personal DNA code is, how a few differences in its long list of DNA letters makes each of us unique, and how that code influences our appearance, our behavior, and our risk for such common diseases as diabetes or cancer.

Principles of Geology

Evolution by Natural Selection

Darwin's Doubt

Godless

Or the Modern Changes of the Earth and Its Inhabitants Considered as Illustrative of Geology

Finding Darwin's God

How Understanding Evolution Can Improve Agriculture

Five years after returning from his trip around the world on HMS Beagle, the young Charles Darwin became the owner of Down House in Kent, where he moved his growing family, far away from the turmoil and distractions of London. He would live here for the rest of his life. It would become the place where he began work on his masterpiece On the Origin of Species. For almost twenty years he used the garden around him as his laboratory. In the orchard he conducted experiments on pollination. He built a dovecot where he could breed new strains of pigeons that helped him understand the questions of generation. On his daily walk along the sandbank he observed how plants competed for survival. In his heated greenhouse he conducted experiments on orchids and primulas. In solitude he was also able to struggle with the ideas of evolution that had haunted him since his voyage, and give him the courage to publish his revolutionary new ideas. Bringing Darwin's garden to the present day, Boulter unfolds a shining portrait of the formation of one of England's greatest thinkers and his relationship with the place he loved and shows how his experiments that he conducted over 150 years ago are still revealing new proofs and revelations as we continue to search for the origins of life. Praise for Extinction: "I much enjoyed Extinction, and its many conclusions, for which I have every sympathy. I wasn't brought up in science, but I do now begin to see what a vital thing it is in any life." John Fowles. 'Boulter has an intriguing tale to tell...It is indeed a story worth telling, and a book worth reading.' John Gribbin, Independent. 'Engagingly argued'. Times Literary Supplement.

When Charles Darwin finished The Origin of Species, he thought that he had explained every clue, but one. Though his theory could explain many facts, Darwin knew that there was a significant event in the history of life that his theory did not explain. During this event, the “Cambrian explosion,” many animals suddenly appeared in the fossil record without apparent ancestors in earlier layers of rock. In Darwin’s Doubt, Stephen C. Meyer tells the story of the mystery surrounding this explosion of animal life—a mystery that has intensified, not only because the expected ancestors of these animals have not been found, but because scientists have learned more about what it takes to construct an animal. During the last half century, biologists have come to appreciate the central importance of biological information—stored in DNA and elsewhere in cells—to building animal forms. Expanding on the compelling case he presented in his last book, Signature in the Cell, Meyer argues that the origin of this information, as well as other mysterious features of the Cambrian event, are best explained by intelligent design, rather than purely undirected evolutionary processes.

"A gifted and thoughtful writer, Metzl brings us to the frontiers of biology and technology, and reveals a world full of promise and peril." — Siddhartha Mukherjee MD, New York Times bestselling author of The Emperor of All Maladies and The Gene Passionate, provocative, and highly illuminating, Hacking Darwin is the must read book about the future of our species for fans of Homo Deus and The Gene. After 3.8 billion years humankind is about to start evolving by new rules... From leading geopolitical expert and technology futurist Jamie Metzl comes a groundbreaking exploration of the many ways genetic-engineering is shaking the core foundations of our lives — sex, war, love, and death. At the dawn of the genetics revolution, our DNA is becoming as readable, writable, and hackable as our information technology. But as humanity starts retooling our own genetic code, the choices we make today will be the difference between realizing breathtaking advances in human well-being and descending into a dangerous and potentially deadly genetic arms race. Enter the laboratories where scientists are turning science fiction into reality. Look towards a future where our deepest beliefs, morals, religions, and politics are challenged like never before and the very essence of what it means to be human is at play. When we can engineer our future children, massively extend our lifespans, build life from scratch, and recreate the plant and animal world, should we?

The book includes collection of theoretical papers dealing with the species problem, which is among most fundamental issues in biology. The principal topics are: consideration of the species problem from the standpoint of modern non-classical science paradigm, with emphasis on its conceptual status presuming its analysis within certain conceptual framework; evolutionary emergence of the species as discrete unit of certain level of generality; epistemological consideration of the species as a particular explanatory hypotheses, with respective revised concepts of biodiversity and conservation; considerations of evolutionary and phylogenomic species concepts as candidates for the universal one; re-appraisal of the biological species concept based on the "friend-foe" recognition system; species delimitation approach using multi-locus coalescent-based method; a re-consideration of the Darwin's species concept.

Volume X: Comparative Phylogeography

The Origin of Species

Charles Darwin

From Darwin to Einstein - Colossal Mistakes by Great Scientists That Changed Our Understanding of Life and the Universe

Darwin's Fossils

The Seductions of Darwin

Evolution Is a Myth. Darwin Admits Evolution Theory Is Not Supported by the Evidence.

After his famous visit to the Galápagos Islands, Darwin speculated that one might fancy that, from an original paucity of birds in this archipelago, one species had been taken and modified for different ends. This book is the classic account of how much we have since learned about the evolution of these remarkable birds. Based upon over a decade's research, Grant shows how interspecific competition and natural selection act strongly enough on contemporary populations to produce observable and measurable evolutionary change. In this new edition, Grant outlines new discoveries made in the thirteen years since the book's publication.

Ecology and Evolution of Darwin's Finches is an extraordinary account of evolution in action. Originally published in 1986. The Princeton Legacy Library uses the latest print-on-demand technology to again make available previously out-of-print books from the distinguished backlist of Princeton University Press. These editions preserve the original texts of these important books while presenting them in durable paperback and hardcover editions. The goal of the Princeton Legacy Library is to vastly increase access to the rich scholarly heritage found in the thousands of books published by Princeton University Press since its founding in 1905.

An ethologist shows man to be a gene machine whose world is one of savage competition and deceit

As human populations grow and resources are depleted, agriculture will need to use land, water, and other resources more efficiently and without sacrificing long-term sustainability. Darwinian Agriculture presents an entirely new approach to these challenges, one that draws on the principles of evolution and natural selection. R. Ford Denison shows how both biotechnology and traditional plant breeding can use Darwinian insights to identify promising routes for crop genetic improvement and avoid costly dead ends. Denison explains why plant traits that have been genetically optimized by individual selection--such as photosynthesis and drought tolerance--are bad candidates for genetic improvement. Traits like plant height and leaf angle, which determine the collective performance of plant communities, offer more room for improvement. Agriculturalists can also benefit from more sophisticated comparisons among natural communities and from the study of wild species in the landscapes where they evolved. Darwinian Agriculture reveals why it is sometimes better to slow or even reverse evolutionary trends when they are inconsistent with our present goals, and how we can glean new ideas from natural selection's marvelous innovations in wild species.

Charles Darwin's experiences in the Galápagos Islands in 1835 helped to guide his thoughts toward a revolutionary theory: that species were not fixed but diversified from their ancestors over many generations, and that the driving mechanism of evolutionary change was natural selection. In this concise, accessible book, Peter and Rosemary Grant explain what we have learned about the origin and evolution of new species through the study of the finches made famous by that great scientist: Darwin's finches. Drawing upon their unique observations of finch evolution over a thirty-four-year period, the Grants trace the evolutionary history of fourteen different species from a shared ancestor three million years ago. They show how repeated cycles of speciation involved adaptive change through natural selection on beak size and shape, and divergence in songs. They explain other factors that drive finch evolution, including geographical isolation, which has kept the Galápagos relatively free of competitors and predators; climate change and an increase in the number of islands over the last three million years, which enhanced opportunities for speciation; and flexibility in the early learning of feeding skills, which helped species to exploit new food resources. Throughout, the Grants show how the laboratory tools of developmental biology and molecular genetics can be combined with observations and experiments on birds in the field to gain deeper insights into why the world is so biologically rich and diverse. Written by two preeminent evolutionary biologists, How and Why Species Multiply helps to answer fundamental questions about evolution--in the Galápagos and throughout the world.

Did Darwin Write the Origin Backwards?

Down House and the Origin of Species

Genetic Twists of Fate

The Voyage of the Beagle

On the Origin of Species Illustrated

Michael J. Behe Answers His Critics

The Species Problem

The Origin of Species by Charles Darwin must rank as one of the most influential and consequential books ever published, initiating scientific, social and religious ferment ever since its first publication in 1859. Its full title is The Origin of Species by Means of Natural Selection, or the Preservation of Favoured Races in the Struggle for Life, in some editions prefaced by the word “On.” Darwin describes the book as simply an “abstract” of his ideas, which are more fully fleshed out and supported with detailed examples in his other, more scholarly works (for example, he wrote several long treatises entirely about barnacles). The Origin of Species itself was intended to reach a wider audience and is written in such a way that any reasonably educated and thoughtful reader can follow Darwin’s argument that species of animals and plants are not independent creations, fixed for all time, but mutable. Species have been shaped in response to the effects of natural selection, which Darwin compares to the directed or manual selection by human breeders of domesticated animals. The Origin of Species was eagerly taken up by the reading public, and rapidly went through several editions. This Standard Ebooks edition is based on the sixth edition published by John Murray in 1872, generally considered to be the definitive edition with many amendments and updates by Darwin himself. The Origin of Species has never been out of print and continues to be an extremely popular work. Later scientific discoveries such as the breakthrough of DNA sequencing have refined our concept of some of Darwin’s ideas and given us a better understanding of issues he found puzzling, but the basic thrust of his theory remains unchallenged. This book is part of the Standard Ebooks project, which produces free public domain ebooks.

Being an Attempt to Explain the Former Changes of the Earth's Surface, by Reference to Causes Now in Operation

Hacking Darwin

Ecology and Evolution of Darwin's Finches

Charles Darwin and the Genesis of Modern Evolutionary Thought

The Descent of Man, and Selection in Relation to Sex

Solving the Species Puzzle Through Time and Place