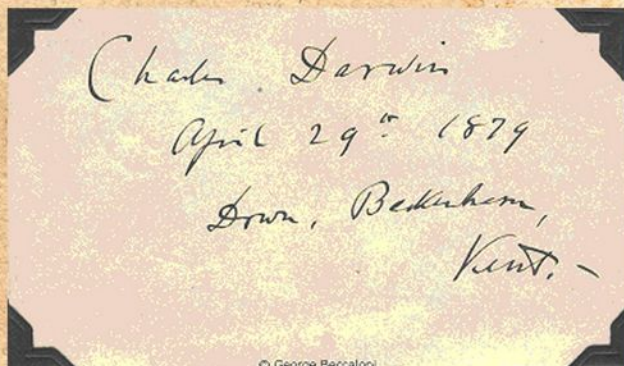


A Celebration: Charles Darwin & the Evolutionary Theory

2009 is an important year for the celebration of the life and work of Charles Darwin (12 February 1809 – 19 April 1882), a great British naturalist. It marked the 200th anniversary of his birth and also the 150th anniversary of the publication of *On the Origin of Species* (November 24, 1859), which has been referred to “the book that shook the world” ever since.

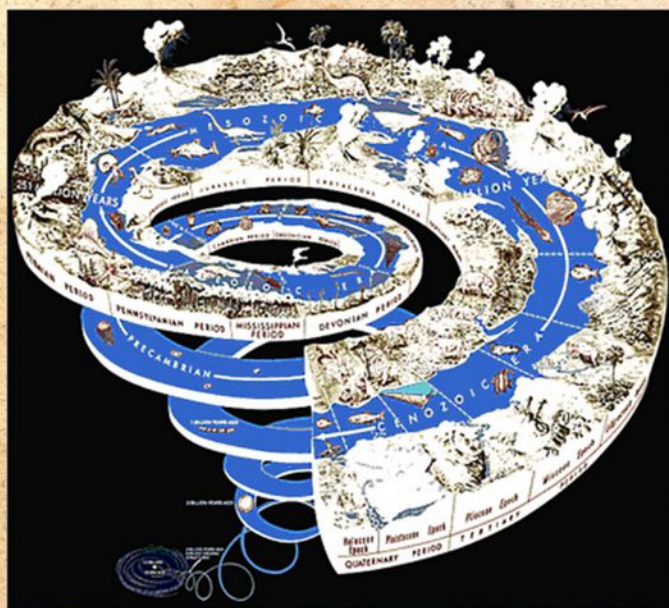


Signature from Darwin, an international celebrity

INTRODUCTION

“It is interesting to contemplate an entangled bank, clothed with many plants of many kinds, with birds singing on the bushes, with various insects flitting about, and with worms crawling through the damp earth, and to reflect that these elaborately constructed forms, so different from each other, and dependent on each other in so complex a manner, have all been produced by laws acting around us... Thus, from the war of nature, from famine and death, the most exalted object which we are capable of conceiving, namely, the production of the higher animals, directly follows. There is grandeur in this view of life, with its several powers, having been originally breathed into a few forms or into one; and that, whilst this planet has gone cycling on according to the fixed law of gravity, from so simple a beginning endless forms most beautiful and most wonderful have been, and are being, evolved.”

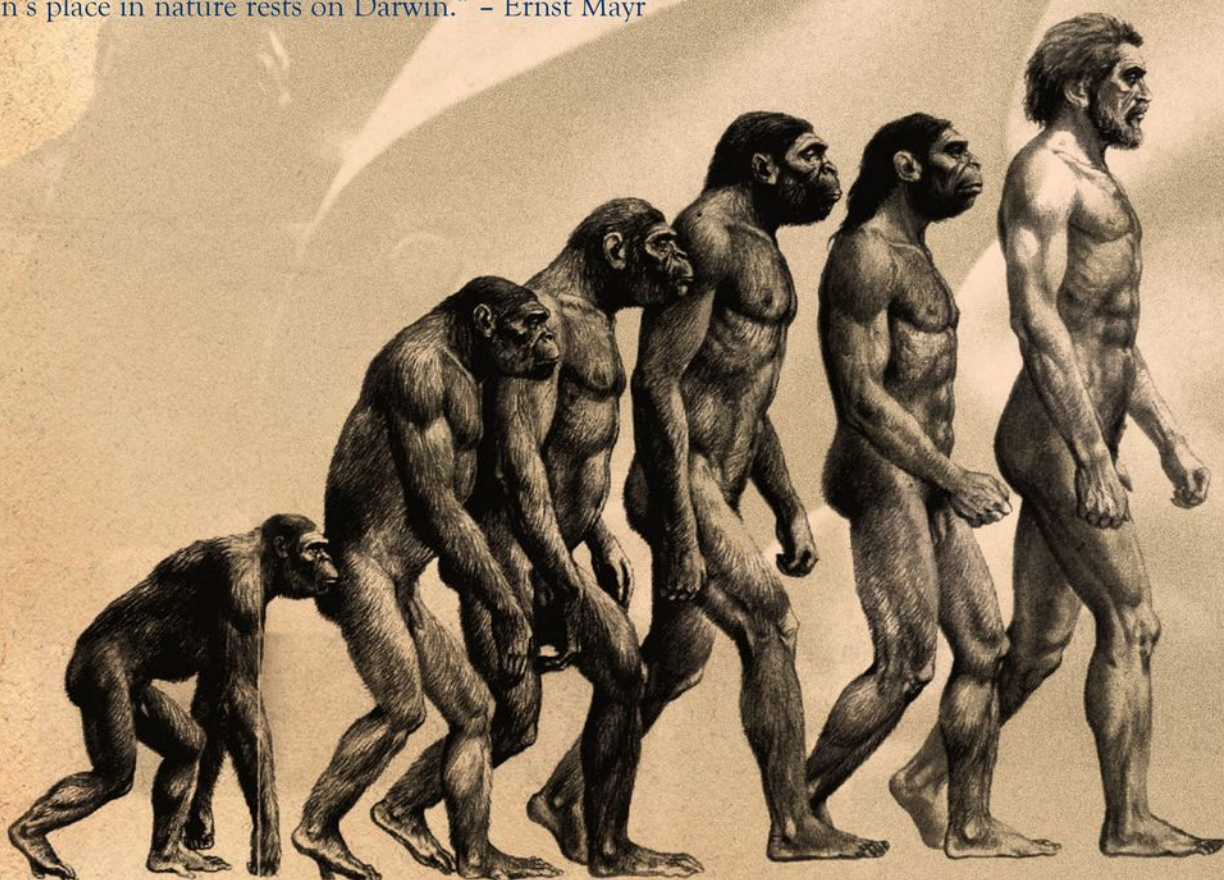
– Charles Darwin’s concluding remarks in the final chapter of “*On the Origin of Species*”



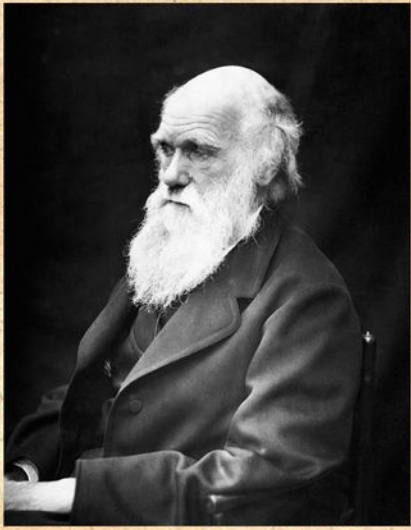
The diversity of life from a single origin

Two centuries after his birth and 150 years after the publication of “*On the Origin of Species*”, how much do most of us really know about Darwin’s life and work and about the theory and facts of evolution? and how many of us truly appreciate the grandeur of Darwin’s view of life?

“Every modern discussion of man’s future, the population explosion, the struggle for existence, the purpose of man and the universe, and the man’s place in nature rests on Darwin.” – Ernst Mayr



CHARLES DARWIN AND HIS IMPACT



Portrait of Charles Darwin (1809-1882)

Darwin was an eminent scientist and well known over the last 150 years for his revolutionizing theory of nature and challenging thinking of the day because his observations that - **every living thing is related and belongs to one big family** - placed humans firmly within the natural world. By this evolution process, organisms most suited to their environment survive and reproduce and pass their advantages to their offspring.

As the following quotes from The Charles Darwin Trust's Science Advisory Panel indicate, Darwin's innovative thoughts are just as important to our lives today as they were first announced.

(1) 'Charles Darwin's concept of evolution through natural selection is one of the most illuminating scientific ideas of all time for understanding our biosphere and humanity's place in nature. As an iconic figure, Darwin is matched only by Newton and Einstein - indeed, he has perhaps had a more pervasive influence on human culture than any other scientist.' ~ *Lord Rees of Ludlow*

(2) 'The two governing ideas of modern biology are first, the molecular basis of all life processes and second, the origin and evolution of all life processes by Darwinian natural selection.' ~ *Professor E O Wilson*.

"The publication of the *Origin of Species* ushered in a new era in our thinking about the nature of man. The intellectual revolution it caused and impact it had on man's concept of himself and the world were greater than those caused by the works of Copernicus, Newton, and the great physicists of more recent times." - Ernst Mayr

CHARLES DARWIN – A NATURAL LIFE

Charles Darwin was born on 12 February 1809, the son of a country physician Robert Darwin. As a child he loved the outdoors and collecting beetles.



A beetle specimen collected by Charles Darwin.

As a young man in university, he was far more interested in natural history than in medicine or divinity, the professions his family thought most suitable for him. Abandoned his studies of medicine then theology, Darwin joined a voyage around the world on the survey vessel H.M.S. Beagle as a naturalist, when he was just 22 years old. During this five-year adventure (2 December 1831- 29 October 1836), Darwin's two greatest virtues as a scientist, keenness of observation and the ability to ask searching questions, enabled him to collect hundreds of different types of plants, animals, fossils and rocks on this voyage.

THE MAKING OF A PHILOSOPHICAL NATURALIST

A world of change ~ In the 1820s, geologists had shown that Earth was not static or fixed, in fact, is still changing. This idea had a huge influence on Darwin's thought about how plant and animal species, too, had changed over millions of years.

Darwin's time in Edinburgh was crucial to his budding as a philosophical naturalist. In 1826, at his second year at Edinburg, Charles shifted his interest from medical to natural history. And later at Cambridge University where he was sent to become a clergyman, a respectable profession for a Cambridge graduate with a passion of natural history and science.

CHARLES DARWIN (1809-1882)

FIRST SCIENTIFIC PAPER

While at the Edinburg University, Darwin was encouraged by Robert Grant, an early evolutionist who was an admirer of the evolutionary writings of Jean-Baptiste Lamarck and Erasmus Darwin, Charles's grandfather. In year 1827, Darwin presented his first scientific paper to a student group on a bryozoan called *Flustra*.

BUDDING SCIENTIST

At the University of Cambridge, Darwin's interest in natural history blossomed into far more than a hobby. An elite circle of prominent professors, JS Henslow and Adam Sedgwick, served as mentors and role models for Darwin.

Reverend J. S. Henslow was known for his popular botany lectures and field outings. To help him brush up on his geology, Henslow introduced Darwin to Reverend Sedgwick whom was one of Britain's preeminent geologists. Sedgwick took Darwin on an eye-opening geological expedition through Wales. Darwin recalled, "This tour was of decided use in teaching me a little how to make out the geology of a country" — a skill Darwin would need much sooner than he imagined.



Reverend J. S. Henslow © AMNH Special Collections

THE BEAGLE VOYAGE

In 1831, Charles Darwin received an astounding invitation: to join the HMS Beagle as the ship's naturalist for a trip around the world. For most of the next five years, he filled dozens of notebooks with careful observations on animals, plants and geology, and collected thousands of specimens, which he crated and sent home for further study.



Beagle ship model

Darwin later called the Beagle voyage "by far the most important event in my life," saying it "determined my whole career." The Beagle voyage provided Darwin with a lifetime of experiences to ponder and the seeds of a theory he would work on which inspired the world greatly.

JOURNAL AND CORRESPONDENCE

All through the voyage, Darwin kept in touch by letter, writing to his father, sisters, brother, cousins, colleagues and school friends about his adventures.

Along with the personal connections, his letters cemented his professional ties to British scientists. By his return, he was ready to take his place among them, not just as an accomplished observer and collector, but as a theorist.



Darwin's papers on view at Down House, © AMNH / Denis Finnin

IDEA TAKES SHAPES

After the Beagle voyage, Darwin plunged into the work of writing up his Beagle research. From 1837 until his death on 19 April 1882, he devoted most of his time to the analysis and interpretation of his findings, first at London and, after 1842, in the small village of Down, 16 miles south of London. It was at Down, he wrote *On the Origin of Species* as well as most of his other major publications.

CHARLES DARWIN (1809-1882)

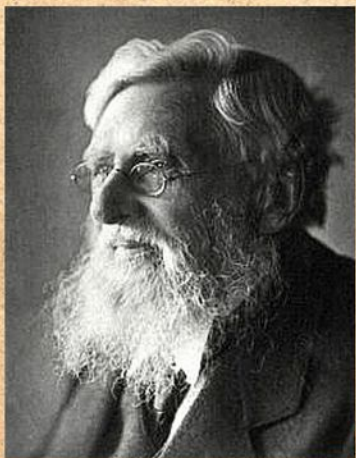
A LIFE’S WORK

Although Darwin had become convinced of the occurrence of evolution some time after his visit to the Galapagos Islands in 1835, his views had not reached maturity until 1844.

Working in his study at Down and corresponding with scientists around the world, including Alfred Russel Wallace, Darwin patiently completed the puzzle of evolution by natural selection. *On the Origin of Species* was the product of more than 20 years of dedicated labor. The book—and its companion volume, *the Descent of Man* – brought out a revolution. They also made Darwin the most revered, and controversial, scientist of his time.



DARWIN AND WALLACE DEVELOPED SIMILAR THEORY



Alfred Russel Wallace

Darwin began formulating his theory of natural selection in the late 1830s but he went on working quietly on it for twenty years. He wanted to amass a wealth of evidence before publicly presenting his idea. During those years he corresponded briefly with Wallace, who was exploring the wildlife of South America and Asia. Wallace supplied Darwin with birds for his studies and decided to seek Darwin's help in publishing his own ideas on evolution. He sent Darwin his theory in 1858, which, to Darwin's shock, nearly replicated Darwin's own. Charles Lyell and Joseph Dalton Hooker arranged for both Darwin's and Wallace's theories to be presented to a meeting of the Linnaean Society in 1858. Darwin had been working on a major book on evolution and used that to develop *On the Origins of Species*, which was published in 1859. Wallace, on the other hand, continued his travels and focused his study on the importance of biogeography.

(Source: http://evolution.berkeley.edu/evolibrary/article/_0_0/history_14)

DARWIN’S PUBLICATIONS

“ON THE ORIGIN OF SPECIES BY MEANS OF NATURAL SELECTION”

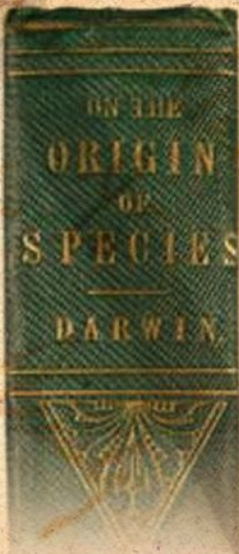
Before Darwin’s theory, “nature” was widely believed to be unstable and capricious, with monstrous births from union between species, and spontaneous generation of life. It was the publication of his book, *On the Origin of Species by Means of Natural Selection*, in 1859 that shook the world.

'We must, however, acknowledge, as it seems to me, that man with all his noble qualities... still bears in his bodily frame the indelible stamp of his lowly origin.' ~ Charles Darwin

The Origin of Species introduced the theory that populations evolve over the course of generations through a process of natural selection, and demonstrated evidence that the diversity of life arose through a branching pattern of evolution and common descent. This included the evidence that Darwin had accumulated on the voyage of the *Beagle* in the 1830s.

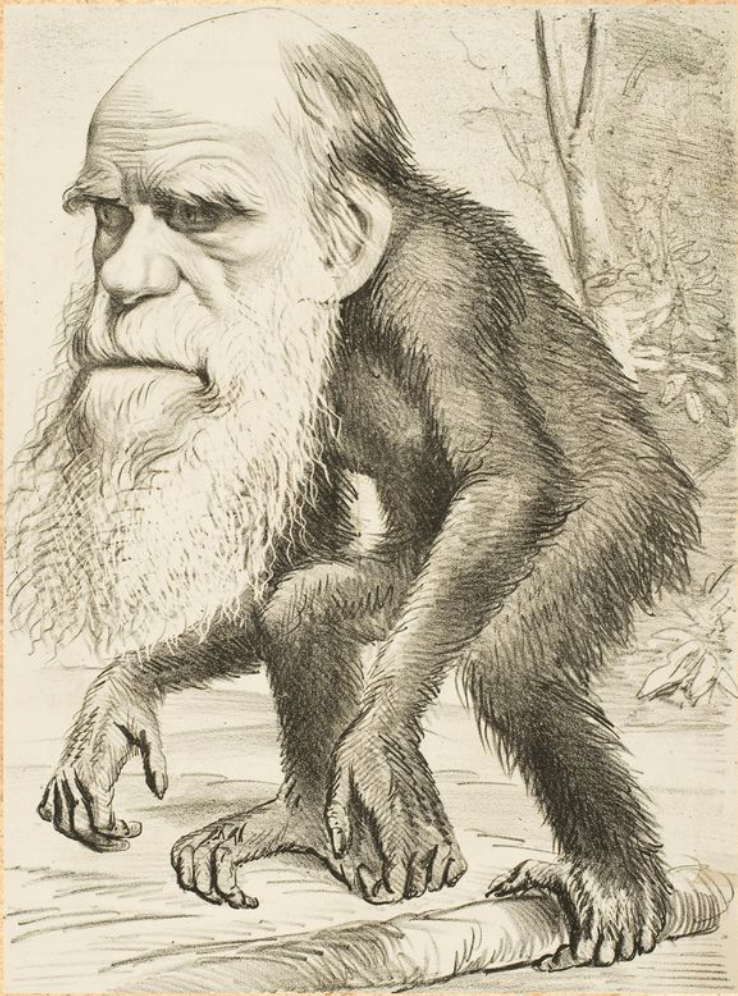
The *Origin of Species* departed in many different ways from established concepts of Darwin’s time, such as the dogma of creation and the constancy of species, and opened up many new directions for subsequent scientific research. Initially greeted with controversy, Darwin's ideas now form the foundation of modern biology.

The book was not only a best seller but also one of the most influential scientific books of all time. Yet it took time for its full argument to take hold. When we consider how few of the facts on which the modern biologists base their acceptance of evolution were then known, Darwin’s genius insights and complete mastery of the subject helped not only convince himself that the diversity of animal and plant life is due to descent with modification from common ancestors, but also eventually convinced the great majority of his biological colleagues.



CHARLES DARWIN (1809-1882)

Within a few decades, most scientists accepted that evolution and the descent of species from common ancestors were real. But natural selection - the basic mechanism of evolutionary change - had a harder time finding acceptance. Limited by his time, Darwin was wrong in his discussions of inheritance and the origin of variation among individuals within species. It would take the discovery of genes and mutations in the twentieth century to make natural selection an unavoidable explanation for the way life changed over time. 150 years on, instead of being obsolete, the Origin of Species has become so timely a classic.

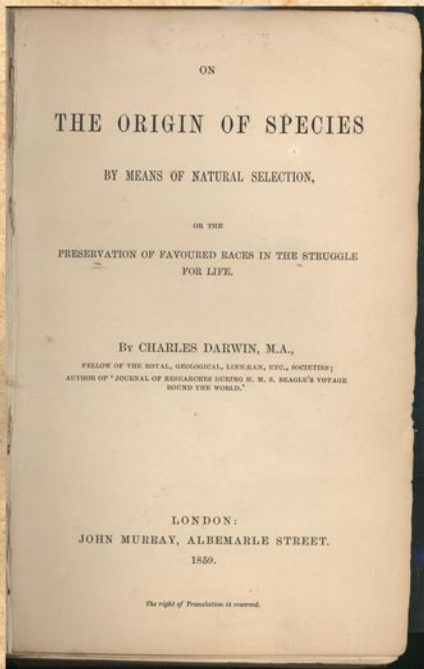


British cartoonists presented Darwin's theory in an unthreatening way. In the 1870s iconic caricatures of Darwin with an ape or monkey body emphasized his significance in transforming ideas, and the contribution to widespread identification of evolutionism with Darwinism.

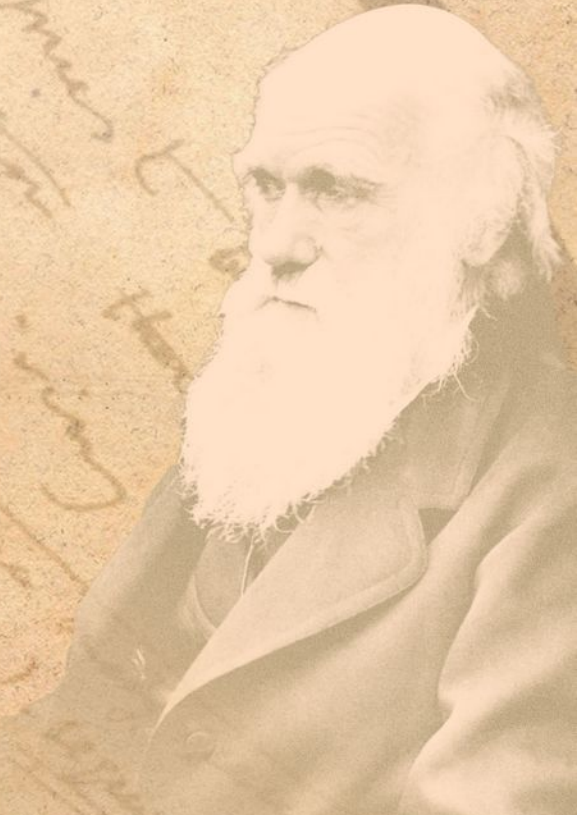
SUBSEQUENT EDITIONS

On the Origin of Species was first published on 24 November 1859. The success was immediate: the first edition was sold out on the day of its publication and a second printing was issued a month later on 28 December. The second edition was issued on 7 January 1860 which incorporated several corrections as well as a response to religious objections.

During Darwin's lifetime the book went through six editions, with cumulative changes and revisions to deal with counter-arguments raised. The third edition came out in 1861, with a number of sentences rewritten or added and an introductory appendix, *An Historical Sketch of the Recent Progress of Opinion on the Origin of Species*, while the fourth in 1866 had further revisions. The fifth edition, published in 1869, incorporated more changes and for the first time included the phrase "survival of the fittest", which had been coined by the philosopher Herbert Spencer in his *Principles of Biology* (1864).



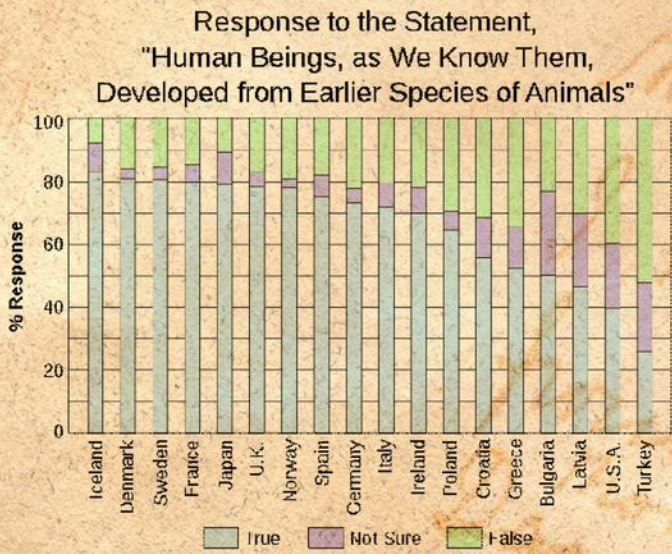
Title page of a first edition of *On the Origin of Species by Means of Natural Selection*.



CHARLES DARWIN (1809-1882)

DARWINISM & EVOLUTION

Despite the denial of creationists, the theory of evolution has gained ever increasing acceptance worldwide as a scientific explanation for the diversity and complexity of life on earth. Darwin would be delighted to see the progress, as shown in the figure below.



Views on human evolution in various countries
(Source: New Scientist 2006, 191 (2565): 11 and 2008, 198 (2652): 31)

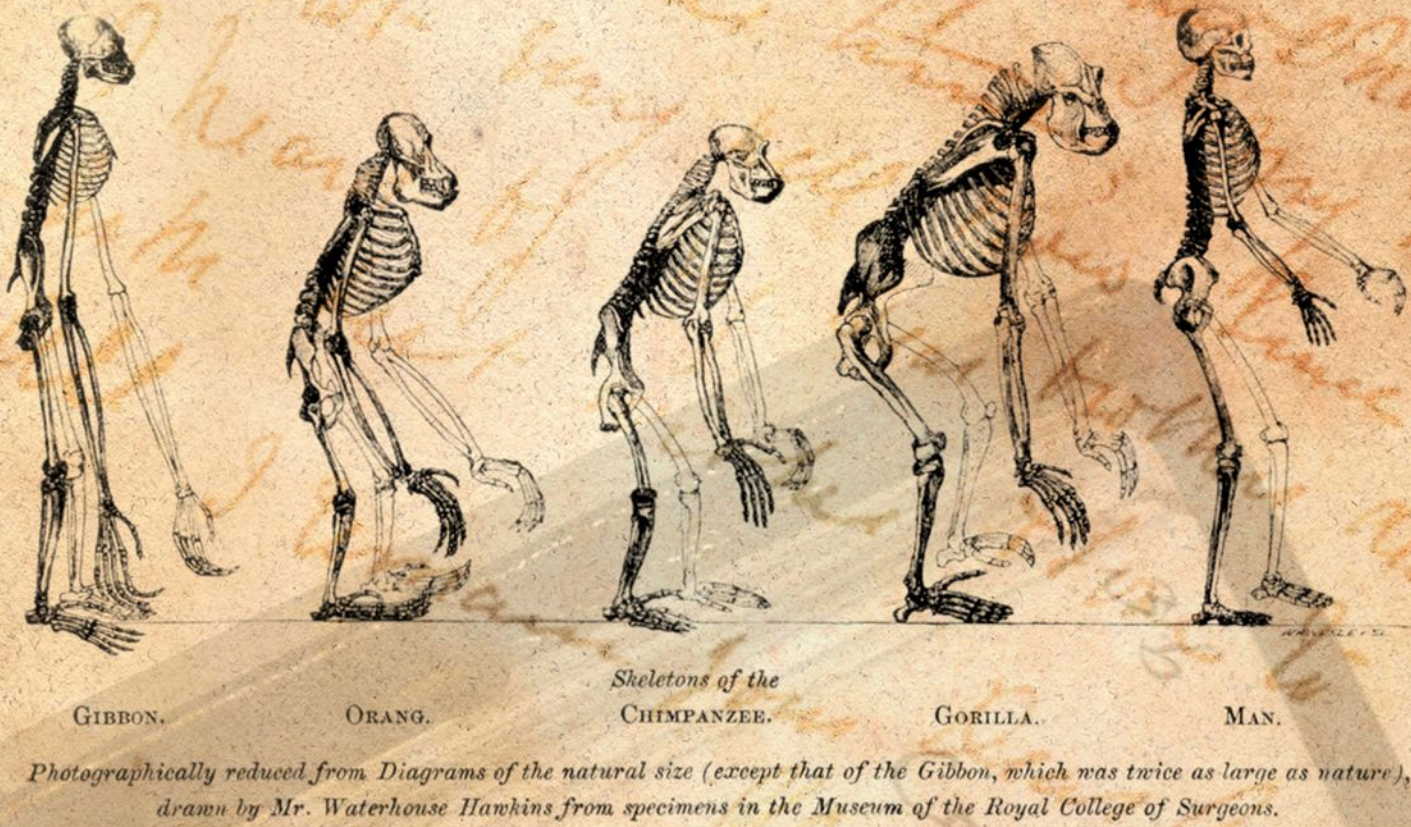
Since the publication of *the Origin of Species*, Darwinism may have been misapplied by some and misunderstood by many. Fortunately, many up-to-date books are now available on Darwin and evolution. The selected new books listed here are written either succinctly or in great detail, often from different perspectives or with different foci, and some of them are remarkably accessible to the general readers.

• **What are the best books about evolution?**

In terms of covering the theory of evolution, or in terms of presenting the evidence for evolution, or in terms for the layperson, what books would you recommend reading?

To understand Darwinism and the subsequent development of evolutionary theory, there is no better source for an introduction to its basic features than Darwin’s own book, *On the Origin of Species*.

Over the past 150 years, there have been so many books on Darwin and Evolution. Quite a few are available in HKU libraries (see exhibition list). Of course, no single book can cover everything about evolution. On the other hand, it is nearly impossible or unnecessary to read all the books in order to understand evolution in its full depth and breadth.



For a most succinct introduction to evolution and its impact on human culture, Mark Pallen’s *The Rough Guide to Evolution* is highly recommended.

For the evolution-curious, but uninformed, Jerry Coyne’s *Why Evolution Is True* is the book to read, as discovered by a reader who was raised in a very conservative Christian environment: “The disparity I discovered can hardly be exaggerated: what I had been taught bore essentially zero resemblance to the real thing. Genuine evolutionary theory was virtually unrecognizable in the creationists' caricatures of it. I learned that I had been lied to~intentionally, or not, I do not know~and that the quantity, diversity, and quality of evidence in support of evolution was simply crushing.”

For a synthesis of the theory of evolution and its history, *Evolution: the Triumph of an Idea* written by a science journalist, Carl Zimmer, is suitable for the average reader without a background in the subject.

For the general readers trying to understand the development of Darwin’s ideas, *Darwin: Discovering the Tree of Life* by Niles Eldredge is easy to follow. This book is the companion to the exhibition Darwin by American Museum of Natural History. Many of the objects on display on the exhibition are to be found among the 100 illustrations in this book. Drawing upon Darwin's own writings, including many of his most critical letters, notebooks and manuscripts, Eldredge traces the development of Darwin’s evolutionary ideas from the time of his HMS Beagle voyage to 1859 when he published *On the Origin of Species*, setting out the sequence of emergence of Darwin's key insights. Eldredge then explores the history of evolutionary thinking since Darwin. The book ends with a discussion of “intelligent design”— exposing it as just another, not particularly new, version of creationism.

For readers who are unfamiliar with the most recent antievolution movement by creationists or “Intelligent Design” proponents, many of the evolution books include chapters that demonstrate why Darwin's Theory of Evolution via Natural Selection is a genuine scientific theory, and why “Intelligent Design” is an un-testable, unscientific idea, and rebuke the claim of "Intelligent Design" as a credible scientific alternative.

Compared to Darwin’s time, today we have the advantage of 150 more years of scientific progress in genetics and molecular biology and in many other disciplines, such as embryology, developmental genetics, phylogenetics, paleontology, agriculture and medicine, ... We now have the opportunity to explore the latest insights from comparative genome science, which allows scientists to observe the process of evolution as documented at the level of individual DNA. All the scientific discoveries build a much stronger case for the fact of evolution and for Darwin's theory of how it works.

Evolution - Fact vs. Theory: As an example, “species change over time” is not a theory, it is an undeniable fact. But how and why the changes occur is the subject of evolutionary theory. “Evolution by means of natural selection” is a scientific theory, supported by numerous lines of empirical evidence.

Darwin would be amazed by so much more evidence for evolution available today than at his time. For those who want to see the evidence for evolution, Richard Dawkins’ ***The Greatest Show On Earth: The Evidence For Evolution*** is a must read, and Jerry Coyne's ***Why Evolution Is True*** is also a fine place to start.

For readers with scientific background and wish to learn more about the science of evolution today, there are several excellent college level textbooks on evolution.

HIGHLY RECOMMENDED TEXTBOOKS FOR AN INTRODUCTION TO EVOLUTION:

Evolution by Douglas Futuyma (2009)

Evolutionary Analysis by Scott Freeman and Jon C. Herron (2009)

Evolution by Nicholas H. Barton, Derek E. G. Briggs, Jonathan A. Eisen, and David B. Goldstein & Nipam-H. Patel (2007)

Evolution by Mark Ridley (2004)

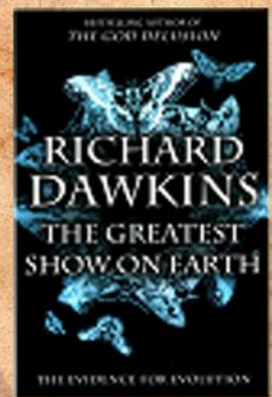
A Very Short Introduction to Evolution by Brian Charlesworth and Deborah Charlesworth (2003)

Evolution: an introduction by Stephen C. Stearns & Rolf F.Hoekstra (2000)

SELECTED RECENT BOOKS ON DARWIN AND EVOLUTION

The Greatest Show On Earth: The Evidence For Evolution by Richard Dawkins, 2009

When Darwin published the Origin of Species, there was far less evidence than we have today. That's why Dawkins sees the need to write a new book presenting evidence for evolution. All Dawkins’ previous bestsellers are about evolution, but not focused on the evidence. The book is well written and informative, has many color pictures in a more than 400 page volume, explaining why evolution is an established fact.

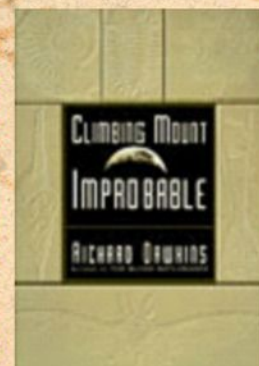
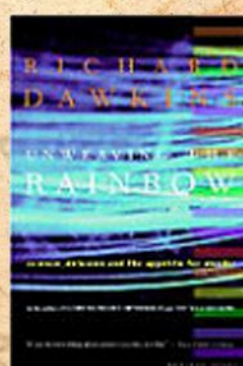
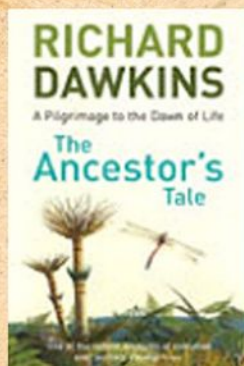
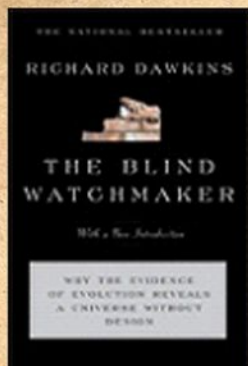
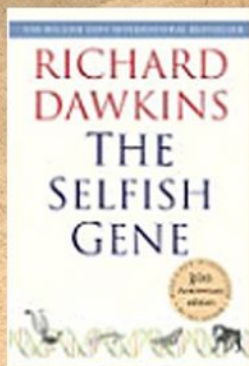


“If Charles Darwin would want to know how his theory had fared in the 21th century, this is the book he should read.” - a reviewer from amazon.com

“To call this book a defense of evolution utterly misses the point: The Greatest Show on Earth is a celebration of one of the best ideas humans have ever produced. It is hard not to marvel at Richard Dawkins’s luminous telling of the story of evolution and the way that it has shaped our world. In reading Dawkins, one is left awed at the beauty of the theory and humbled by the power of science to understand some of the greatest mysteries of life.” – Neil Shubin, author of *Your Inner Fish*

“Up until now, Richard Dawkins has said everything interesting that there is to say about evolution ~ with one exception. In The Greatest Show on Earth, he fills this gap, brilliantly describing the multifarious and massive evidence for evolution ~evidence that gives the lie to the notion that evolution is “only a theory”. This important and timely book is a must-read for Darwin Year.” – Jerry Coyne, author of *Why Evolution is True*

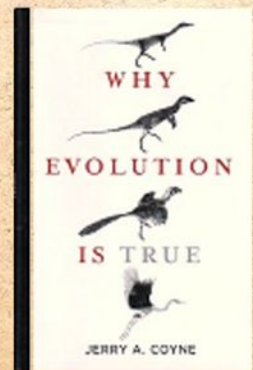
Richard Dawkins’ other books about evolution



CHARLES DARWIN (1809-1882)

Why Evolution Is True by Jerry A. Coyne 2009

“*Why Evolution Is True* weaves together the many threads of modern work in genetics, paleontology, geology, molecular biology, and anatomy that demonstrate the indelible stamp of the processes first proposed by Darwin. In crisp, lucid prose accessible to a wide audience, *Why Evolution Is True* dispels common misunderstandings and fears about evolution and clearly confirms that this amazing process of change has been firmly established as a scientific truth.” – Publisher comments

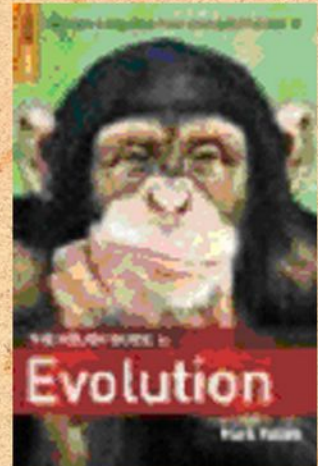


The Rough Guide to Evolution by Mark Pallen 2009

“This book is regarded as the most succinct introduction to evolution and its impact on human society and culture. Mark Pallen tells a compelling story about the origins, history and current thinking on evolution, by tracing the history of evolutionary thought, from the Greeks to Darwin to the very present, including an extensive overview of modern evolutionary biology.

...

If one is seeking a one-stop, all inclusive, guide to evolution and its intellectual and cultural impact on contemporary society, *The Rough Guide to Evolution* by Mark Pallen is the book. Without a doubt, Mark Pallen has demonstrated most persuasively, and most brilliantly, how and why evolution is so important. The book is suitable for everyone, both the scientifically literate, and especially, those who are not.” – review by John Kwok, posted on amazon.com



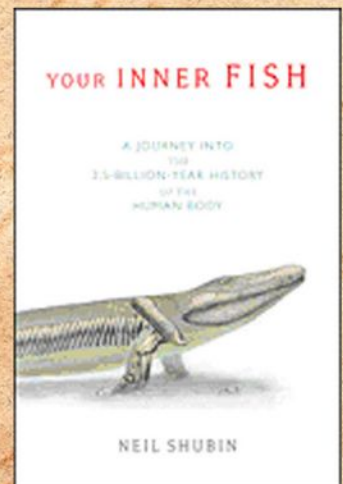
Your Inner Fish: A Journey into the 3.5-Billion-Year History of the Human Body by Neil Shubin, 2008

Excerpts from reviews posted on amazon.com:

“Shubin starts off with the search for a link between fish and land animals that took him to the Canadian Arctic and culminated in the discovery of Tiktaalik—a fish with a flattened head and flippers that made it look rather like a very primitive alligator in ways. The author then shows the evolution of necks and limbs. He does the same with some of the organs such as smell and vision, and shows their evolution as well.”

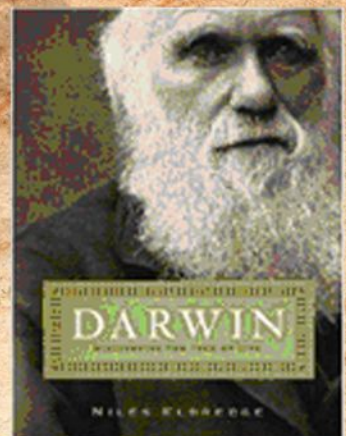
“Shubin joins the ranks of the best science popularizers with *Your Inner Fish*. A cross-disciplinary romp, from arctic fossil beds to genetic laboratories, Shubin shows how the human body carries within evidence of its simpler beginnings. ... No one can walk away from this book believing that evolution is anything like a ‘theory in crisis’.”

“This book left me with a deep appreciation for the wonder of the modern human body. Great information for the casual reader!”



Darwin: Discovering the Tree of Life by Niles Eldredge, 2005

“In anticipation of the bicentennial observance of Charles Darwin's birth in 1809, paleontologist and author Eldredge has organized an exhibition that coincides with the publication of this abundantly illustrated primer on Darwin's life, thought, and legacy. ... Eldredge sets forth the principles underlying evolutionary theory, discussing why it is a testable and prediction-making science, whereas creationism is not. Weaving Darwin's biography through the science, Eldredge expresses unabashed admiration for Darwin's intellect and successfully encapsulates his revolutionary ideas for the widest audience.”
- Gilbert Taylor, *Booklist*

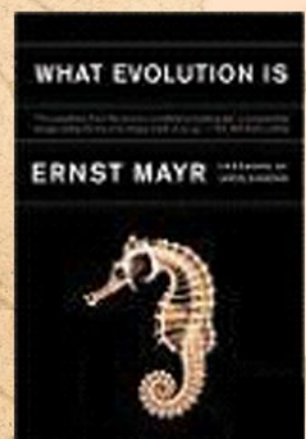


“This book primarily follows Darwin's progress on his theory in the 20 years between his return from the famous voyage on the Beagle and publication of his paradigm-shattering book, *On the Origin of Species*. Darwin dismembered some of his notebooks, but scholars have reconstructed most of them so that readers can follow his thought processes. ... Eldredge addresses advances in evolutionary theory since Darwin and takes on intelligent design. The author conveys his great admiration for his subject in a straightforward manner that will enlighten dedicated science readers.” - *Publishers Weekly*

What Evolution Is by Ernst Mayr, 2001

“Still the most lucid, most comprehensive, overview on modern evolutionary theory from one of its leading architects, finest thinkers and writers.”

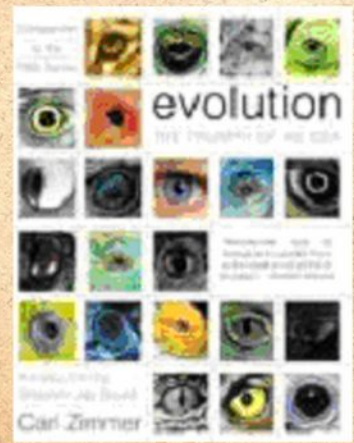
“This is a very good introductory overview of evolutionary theory, suitable for the enthusiastic novice, the educated skeptic, the qualified biologist, or for those who simply wish to know what has been going on in this fascinating field for the last 150 years and more of scientific enquiry. ... The writer, Ernst Mayr, only recently passed away aged over 100, and had been through a good deal of this scientific development, and is therefore in a unique position to approach the subject.” – Review by Roger McEvilly



CHARLES DARWIN (1809-1882)

Evolution: The Triumph of an Idea by Carl Zimmer, 2001

Evolution: The Triumph of an Idea is part of the Evolution Project which consists of the book, a seven-part television series, an extensive website (http://www.pbs.org/wgbh/evolution/about/overview_project.html), and an educational outreach initiative.



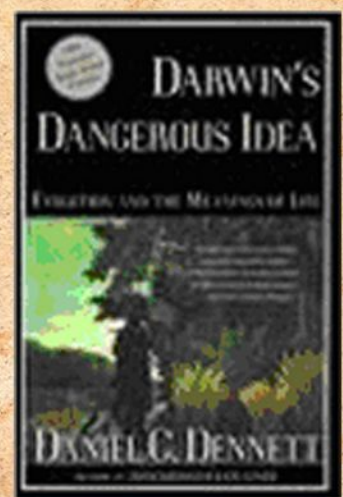
“The Evolution project is a really important one, because today even in educated parts of the world, there is a poor understanding of what evolution is. There is a great need for people to understand what it means, in order for them to feel comfortable about being a part of the natural world and this amazing planet Earth.” - *Jane Goodall, Primatologist and Conservationist*

“*Evolution: The Triumph of an Idea* is full of well-researched examples that enliven complex concepts about evolution, making advanced topics understandable to a wide audience. The book is not simply a restating of the information in the television series. It stands on its own as a superb educational reference. ... I recommend this book to those who wish to gain a better understanding of what evolution is and how it has shaped scientific thought, society, and culture. It is a good resource for use in the classroom and when coupled with the television series and other Evolution Project resources provides a valuable tool in teaching the basics of this important scientific concept.” - Review by Laura Klappenbach, about.com

Darwin's Dangerous Idea: Evolution and the Meanings of Life by Daniel C. Dennett, 1995

Excerpts from reviews posted on amazon.com:

“This is an excellent philosophical companion piece to writers on evolution such as Dawkins, Pinker, Ridley and George C. Williams. Dennett provides a great number of powerful mental images with which to think about evolution. ... Ultimately the best thing I took from this book was just how unlikely all this life is, and therefore how lucky we are to get a chance to walk on this glorious planet.”



There is “... a lot of whining about the misuses of Darwin's dangerous idea. Darwin is not responsible for these, of course, and they have nothing to do with the scientific validity of his theory. As Dennett points out, what's truly dangerous about Darwin's idea is the validity of it to explain much concerning the natural world, and hence its seductiveness, which can easily lead people to wrong conclusions.”

“Given Dennett's expansive reading of Darwin (i.e., the discussion isn't confined to biology), this book covers a lot of territory, and what you get is a critical overview of the most prominent theories, as well as controversies, in a wide variety of fields (biology, cosmology, philosophy, psychology, complexity theory, physics, computer science, architecture, engineering,...).”

“Recommended to all, but especially philosophers and biologists”

OTHER RECENT BOOKS ON EVOLUTION OR EVIDENCE FOR EVOLUTION

- Sean Carroll's ***The Making of the Fittest: DNA and the Ultimate Forensic Record of Evolution*** gives an excellent overview of the genetic basis of evolution and evolutionary change.
- Robert Martin's (2004) ***Missing Links: evolutionary concepts and transitions through time*** provides a solid overview of evolutionary change with many examples of transitions between species.
- Donald Prothero's ***Evolution: What the Fossils Say and Why It Matters*** is also considered to be one of the best books for the evidence in the fossil record.

by Courtesy of

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Reference Sites

School of Biological Sciences, HKU (<http://www.hku.hk/biosch>)

Darwin200 (<http://www.darwin200.org/more.html>)

American Museum of Natural History - Darwin (<http://www.amnh.org/exhibitions/darwin/intro/>)

The Complete Work of Charles Darwin Online (<http://darwin-online.org.uk/>)

Wikipedia (http://en.wikipedia.org/wiki/On_the_Origin_of_Species)



CHARLES DARWIN (1809-1882)

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* Also available as electronic book