

Charles Robert Darwin

QUICK FACTS

Birthday February 12, 1809
Sun Sign Aquarius
Died On April 19, 1882, age 73

FAMILY

Spouse Emma Wedgwood
Children Ten children

AWARDS

Fellowship of the Royal Society (1839)
 Royal Medal (1853)
 Wollaston Medal (1859)
 Copley Medal (1864)
 Doctor of Laws (Honorary), Cambridge (1877)

DID YOU KNOW?

- He was born on the same day as Abraham Lincoln
- He composed a pro/con list to decide on whether to marry
- He married his first cousin
- He was a divinity student
- He appeared on the 10-pound note for 18 years
- He was buried inside Westminster Abbey

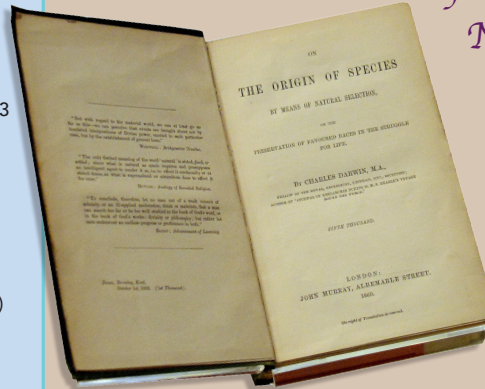


Charles Darwin at age 7. This chalk drawing is the earliest picture known of Charles Darwin, by Ellen Sharples.

DARWIN in Malibu

I have called this principle, by which each slight variation, if useful, is preserved, by the term of Natural Selection.

— Charles Darwin



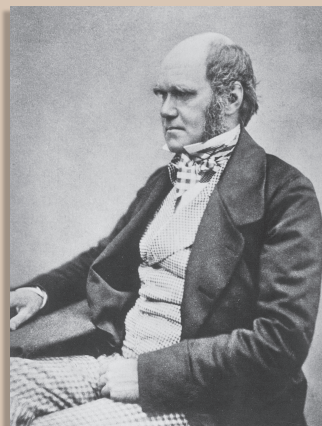
John Murray, London, 2nd edition, 1860. National Museum of Scotland, Edinburgh, Scotland, UK.

On the Origin of Species by Means of Natural Selection, or the Preservation of Favoured Races in the Struggle for Life

Darwin published his theory of evolution with compelling evidence in his 1859 book *On the Origin of Species*. By the 1870s, the scientific community and a majority of the educated public had accepted evolution as a fact. Many favored competing explanations which gave only a minor role to natural selection and it was not until the emergence of the modern evolutionary synthesis from the 1930s to the 1950s that a broad consensus developed in which natural selection was the basic mechanism of evolution. Darwin's scientific discovery is the unifying theory of the life sciences, explaining the diversity of life.

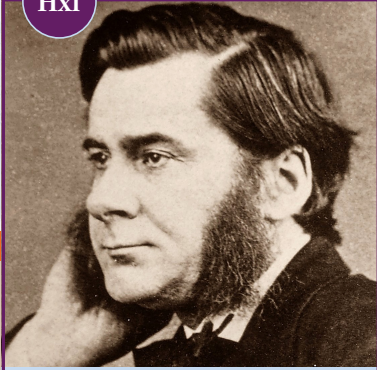
SUMMARY OF DARWIN'S THEORY

- Every species is fertile enough that if all offspring survived to reproduce, the population would grow (fact).
- Despite periodic fluctuations, populations remain roughly the same size (fact).
- Resources such as food are limited and are relatively stable over time (fact).
- A struggle for survival ensues (inference).
- Individuals in a population vary significantly from one another (fact).
- Much of this variation is heritable (fact).
- Individuals less suited to the environment are less likely to survive and less likely to reproduce; individuals more suited to the environment are more likely to survive and more likely to reproduce and leave their heritable traits to future generations, which produces the process of natural selection (fact).
- This slowly effected process results in populations changing to adapt to their environments, and ultimately, these variations accumulate over time to form new species (inference).



Darwin, c. 1854, when he was preparing "On the Origin of Species" for publication.





Thomas Henry Huxley

QUICK FACTS

Birthday	May 4, 1825
Sun Sign	Taurus
Died On	June 29, 1895, age 70

FAMILY

Spouse	Henrietta Anne Heathorn
Children	Eight children

AWARDS

Royal Medal (1852)
 Wollaston Medal (1876)
 Clarke Medal (1880)
 Copley Medal (1888)
 Linnean Medal (1890)
 Hayden Memorial Geological Award (1893)

DID YOU KNOW?

- He was the grandfather of novelist Aldous Huxley
- He was largely self-taught
- He was a pallbearer at the funeral of Charles Darwin
- One of his biology students was H.G. Wells

DARWIN in Malibu

1860 OXFORD EVOLUTION DEBATE

The great debate between Thomas Huxley and Bishop Samuel Wilberforce played a huge part in the theory of evolution's spreading through history.

The date is June 30, 1860. The place is the Oxford University Museum. Inside, hundreds of onlookers gather around a heated debate. The topic? Evolution versus creationism.

The Huxley-Wilberforce debate – also known as the “1860 Oxford evolution debate” – was a series of lectures about the scientific evidence for evolution and whether it could coexist with a literal interpretation of the Bible.

The debate was dominated by its two individuals: Thomas Huxley and Bishop Samuel Wilberforce. Huxley, nicknamed “Darwin’s Bulldog,” was an avid defender of Darwin’s 1859 *Origin of Species*. Wilberforce, also called “Soapy Sam” for his “greasy” demeanor, was the Bishop of Oxford and a proponent of biblical literalism.

The discussion is remembered both as the first public rebuff to creationism and second for a particularly memorable moment in which Huxley criticized Wilberforce by choosing to be an ape’s descendant over that of an intellectually dishonest man.

Darwin himself was too sick to attend. In his absence, the fierce debate raged on.



Present day Oxford University Museum of Natural History where the 1860 Debate took place.

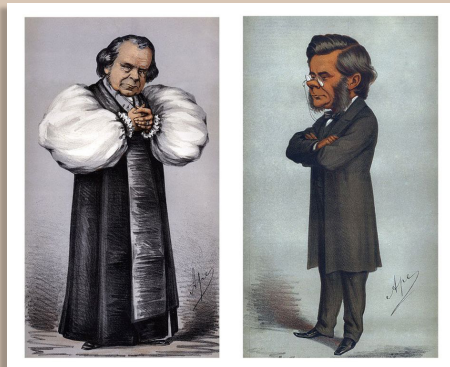


2010 Stone pillar erected outside the Oxford University Museum of Natural History commemorating the 150th anniversary of the event.

SIGNIFICANCE

The debate itself was not widely publicized. No transcript of the debate ever existed. It is unlikely that many members of the general public were aware of its importance at the time. Despite this lack of initial publicity, the debate has grown to near-mythic status as the first face-off between biblical literalism and the growing science of evolution.

Huxley’s response to the Bishop – that he would rather be related to an ape than someone who uses their intellect to attack science – is widely repeated. Despite uncertainty over the precise wording, Huxley’s message was clear: intellectual honesty beats pride every time.



Vanity Fair caricatures of Samuel Wilberforce (left, July 1869) and Thomas Huxley (right, January 1871).



Wlb



Samuel Wilberforce

QUICK FACTS

Birthday September 7, 1805
Sun Sign Virgo
Died On July 19, 1873, age 67

Ordination 1828
Post (at time of his death) Bishop of Winchester
Previous Posts Bishop of Oxford
Dean of Westminster

FAMILY

Spouse Emily Sargent
Children Five children



1837—Samuel Morse invents the telegraph (Morse code arrives the following year).



1878—Thomas Edison invents the cylinder phonograph (known then as the tin foil phonograph).



1885—Karl Benz invents the first practical automobile powered by an internal-combustion engine.

DARWIN in Malibu

1805

September 7, 1805
Samuel Wilberforce is Born

Wlb

1806
Beethoven Composes His Fourth Symphony

February 12, 1809
Charles Darwin is Born

Drw

January 19, 1809
Edgar Allan Poe is Born
February 12, 1809
Abraham Lincoln is Born

May 4, 1825
Thomas Huxley is Born

Hxl

January 13, 1813
Jane Austen's romantic novel of manners, *Pride and Prejudice* is published

September 3, 1838
Frederick Douglass made his dramatic escape from slavery —from Baltimore, through Delaware, to Philadelphia

December 19, 1843
Charles Dickens publishes *A Christmas Carol*

September 17, 1849
Harriet Tubman and brothers escaped from slavery

May 6, 1856
Sigmund Freud is Born

November 30, 1853
Charles Darwin Received the Royal Medal of The Royal Society

November 24, 1859
On the Origin of Species is published

June 30, 1860
Oxford Evolution Debate

July 19, 1873
Samuel Wilberforce's death

Wlb

December 10, 1869
Voting rights for Women law passed in Wyoming

March 24, 1874
Harry Houdini is Born

April 19, 1882
Charles Darwin's death

Drw

January 30, 1882
Franklin D. Roosevelt is Born

June 29, 1895
Thomas Huxley's death

Hxl

January 1, 1892
First Immigrants Pass through Ellis Island

1895

