Darwin, evolution, evolutionisms: a selective chronology (1809-2009)

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(eds.)

Darwin, Evolution, Evolutionisms

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DARWIN, EVOLUTION, EVOLUTIONISMS: A SELECTIVE CHRONOLOGY (1809-2009)

- 1809 Birth of Charles Robert Darwin (1809-1882)
- 1809 *Philosophie zoologique* by Jean Baptiste Monet, chevalier de Lamarck (1744-1829)
- 1817 *Le règne animal distribué d'après son organisation, pour servir de base à l'histoire naturelle des animaux et d'introduction à l'anatomie comparée* by Georges Cuvier (1769-1832)
- 1830 Debate between Georges Cuvier and Geoffroy Saint-Hilaire (1772-1844) at the *Academie des Sciences*
- 1830-1833 *Principles of Geology* by Charles Lyell (1797-1875)
- 1831-1836 Voyage of *H. M. S. Beagle*
- 1835 Charles Darwin visits the Galapagos Islands
- 1838 Charles Darwin conceived his theory of natural selection
- 1839 *Journal of Researches into the Geology and Natural History of the Various Countries Visited by H.M.S. Beagle* by Charles Darwin
- 1843 Richard Owen (1804-1892) establishes the distinction between homology and analogy
- 1844 *Vestiges of the Natural History of Creation* by Robert Chambers (1802-1871), published anonymously
- 1856 Discovery of Neanderthal remains in Germany
- 1858 Charles Darwin receives an unpublished essay from Alfred Russel Wallace (1823-1913) that proposes a theory of natural selection very similar to his
- 1858 Joint presentation of extracts of Charles Darwin's earlier writings on natural selection and Alfred Wallace's unpublished essay to the *Linnean Society of London* by Charles Lyell and Joseph Dalton Hooker (1817-1911)
- 1859 *On the Origin of Species by Means of Natural Selection, or the Preservation of Favoured Races in the Struggle for Life* by Charles Darwin
- 1860 The first translations of *The Origin of Species* are published
- 1860 Debate between Bishop Samuel Wilberforce (1805-1873) and Thomas Henry Huxley (1825-1895) at the *British Association for the Advancement of Science*
- 1861 Discovery of *Archaeopteryx lithographica* remains in Germany

- 1862 William Thomson, Lord Kelvin (1824-1907), estimated that the age of the Earth was between 20 million and 400 million years
- 1863 *Evidence as to Man's Place in Nature* by Thomas Henry Huxley
- 1864-1867 *Principles of Biology* by Herbert Spencer (1820-1903)
- 1866 Gregor Mendel (1822-1884) publishes his work on the inheritance in pea plants
- 1868 *The Variation of Animals and Plants Under Domestication* by Charles Darwin
- 1868 *Natürliche Schöpfungsgeschichte* by Ernst Hæckel (1834-1919)
- 1871 *The Descent of Man, and Selection in Relation to Sex* by Charles Darwin
- 1872 *The Expression of the Emotions in Man and Animals* by Charles Darwin
- 1872 Sixth edition of *The Origin of Species*
- 1876 *Darwiniana* by Asa Gray (1810-1888)
- 1882 Death of Charles Darwin
- 1883 Francis Galton (1822-1911) coins the term "Eugenics"
- 1885 August Weismann (1834-1914) presents the Continuity of the Germ-plasm Theory
- 1887 *The life and letters of Charles Darwin, including an autobiographical chapter* edited by Francis Darwin (1848-1925)
- 1889 Francis Galton presents the Law of Ancestral Heredity
- 1891 Discovery of Java Man by Marie Eugene Dubois (1858-1940)
- 1894 *Materials for the Study of Variation* by William Bateson (1861-1926)
- 1896 James Mark Baldwin (1861-1934) presents the "Baldwin Effect"
- 1897 William Thomson, Lord Kelvin, advances with a new estimate on the age of the Earth: between 20 and 40 million years
- 1900 Mendel's laws are independently "rediscovered" by Hugo de Vries (1848-1935), Carl Correns (1864-1933) and Erich von Tschermak (1871-1962)
- 1901-1903 *Die Mutationslehre* by Hugo de Vries
- 1902 *Mutual Aid: A Factor of Evolution* by Peter Kropotkin (1842-1921)
- 1903 Wilhelm Ludwig Johannsen (1857-1927) introduces the distinction between genotype and phenotype
- 1904 Nelson Ernest Rutherford (1871-1937), based on the new knowledge of radioactivity, discredits Lord Kelvin's reduced estimates on the age of the Earth
- 1908 Establishment of the Hardy-Weinberg law
- 1909 Centenary of Charles Darwin's birth and the 50th anniversary of the first publication of *The Origin of Species*. Cambridge is the main stage of the celebrations, gathering scientists and dignitaries from many different countries
- 1909 Constantin Mereschkowsky (1855-1921) introduces the concept of Symbiogenesis
- 1909 Discovery of the Burgess Shale by Charles Walcott (1850-1927)
- 1911 Lucien Cuénot (1866-1951) introduces the concept of Pre-adaptation
- 1912 Alfred Wegener (1880-1930) presents the Theory of Continental Drift
- 1912 Discovery of the Piltdown Man

- 1915 *The Mechanism of Mendelian Heredity* by Thomas Hunt Morgan (1866-1945), Alfred H. Sturtevant (1891-1970), Calvin B. Bridges (1889-1938) and Herman Joseph Muller (1890-1967)
- 1919 *The Physical Basis of Heredity* by Thomas Hunt Morgan
- 1924 *The Origin of Life* (in Russian) by Alexander Ivanovich Oparin (1894-1980)
- 1925 Discovery of the Taung Baby by Raymond Dart (1893-1988)
- 1925 Scopes Monkey Trial in Dayton, Tennessee
- 1929 *The Origin of Life* by John Burdon Sanderson Haldane (1892-1964)
- 1929 Trofim Lysenko (1898-1976) rejects the validity of Mendelian Genetics and of chromosome theory
- 1930 *The Genetical Theory of Natural Selection* by Ronald Aylmer Fisher (1890-1962)
- 1932 “The roles of mutation, inbreeding, crossbreeding, and selection in evolution” by Sewall Wright (1889-1988)
- 1932 *The Causes of Evolution* by J. B. S. Haldane
- 1937 *Genetics and the Origin of Species* by Theodosius Dobzhansky (1900-1975)
- 1940 *The Material Basis of Evolution* by Richard B. Goldschmidt (1878-1958)
- 1942 *Evolution: The Modern Synthesis* by Julian Huxley (1887-1975)
- 1942 *Systematics and the Origin of Species* by Ernst Mayr (1904-2005)
- 1944 *Tempo and Mode in Evolution* by George Gaylord Simpson (1902-1984)
- 1950 *Variation and Evolution in Plants* by George Ledyard Stebbins (1906-2000)
- 1953 Discovery of the double helix by James Watson (b. 1928) and Francis Crick (1916-2004)
- 1954 New estimates indicate that the Earth is 5 or 6 billion years old
- 1955 Henry Bernard D. Kettlewell’s (1907-1979) studies on predation in peppered moths demonstrated the effects of natural selection in the wild
- 1955 *Le phénomène humaine* by Pierre Teilhard de Chardin (1881-1955)
- 1959 Centenary of the *The Origin of Species* and the 150th anniversary of Charles Darwin’s birth. Chicago is the centre of the major celebrations, gathering scientists and dignitaries from around the world
- 1964 “The Genetical Evolution of Social Behaviour” by William Donald Hamilton (1936-2000)
- 1968 Motoo Kimura (1924-1994) proposes the Neutral Theory of Molecular Evolution
- 1972 “Punctuated Equilibria: An Alternative to Phyletic Gradualism” by Niles Eldredge (b. 1943) and Stephen Jay Gould (1941-2002)
- 1974 Discovery of Lucy by Donald Johanson (b. 1943)
- 1975 *Sociobiology: The New Synthesis* by Edward Osborne Wilson (b. 1929)
- 1975 Beginning of the Sociobiology Debate
- 1976 *The Selfish Gene* by Richard Dawkins
- 1978 *On Human Nature* by Edward O. Wilson

1981	Arkansas Creation Trial
1982	Centenary of Charles Darwin's death
1996	Pope John Paul II accepts evolution, with the exception of the human soul
2005	Dover Intelligent Design Trial
2009	Several events take place all around the world celebrating the 150 th anniversary of <i>The Origin of Species</i> and the bicentenary of Charles Darwin's birth

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