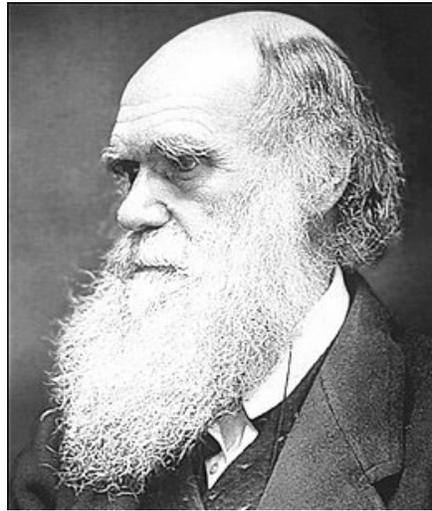


Charles Darwin 1809-1882



Charles Darwin was born on 12 February 1809 in Shrewsbury, Shropshire and just a few years ago we celebrated the two hundredth anniversary of his birth. His family was both wealthy and influential: his paternal grandfather was Erasmus Darwin, a leading intellectual of the day and his maternal grandfather was Josiah Wedgwood, the famous china manufacturer.

Darwin initially trained as a doctor and studied at Edinburgh University, but abandoned his course in medicine to study divinity at Cambridge. However he did not enter the Church and, when he was just 22 years old, joined a scientific expedition on the survey vessel HMS Beagle as the ship's naturalist. During a five-year adventure visiting the coasts of South America and Australia, he collected and studied countless different types of animals, plants and fossils.

At this time, most Europeans believed that the world was created by God in seven days as told in the Bible. On the voyage, Darwin read Charles Lyell's article called *Principles of Geology* which suggested that the fossils found in rocks were actually evidence of animals that had lived many thousands or even millions of years ago. Lyell's argument was reinforced in Darwin's mind by the variety of animal life and the geological features that he saw during his voyage. The breakthrough in his ideas came in the Galapagos Islands, 500 miles off the west coast of South America. Here Darwin noticed that each island had its own type of finch which were all closely related but clearly different. He was also fascinated by animals that he had not seen before, flightless cormorants and large lizards that swam in the sea.

When he returned to England in 1836, Darwin tried to solve the mystery that these observations presented and to work out how the species had arisen. He concluded that the animals he had observed on the remote Galapagos Islands had evolved in isolation from ancestors that arrived from the mainland. Influenced by the ideas of others, particularly the analysis of human population growth by Thomas Malthus, he formulated a theory of evolution by a process he called natural selection. His idea was that the animals (or plants) best suited to their environment are more likely to survive and reproduce, passing to their offspring the features which help them survive. Gradually, the species changes over time and a new type of animal or plant arises.

Darwin refined his theory for a further twenty years and then learned that another naturalist, Alfred Wallace, had similar ideas. This gave Darwin a sense of urgency to publish his theory and in 1859 his classic treatise, *On the Origin of Species by Means of Natural Selection*, appeared in the bookshops. We should not forget that Alfred Wallace came up with the same idea quite independently and, although overshadowed by Darwin, Wallace bore him no grudge and was in fact his greatest admirer.

The book was extremely controversial, mainly because a consequence of Darwin's theory was that man was simply an animal that had evolved from other animals, quite possibly from apes. This radically conflicted with Victorian belief on how the world was created. Darwin was strongly attacked in the newspapers, magazines and by society in general but particularly by the Church. However, his ideas gradually became less controversial and are now generally accepted as the way life on Earth has changed over time.

Charles Darwin died in Downe, Kent on 19 April 1882 aged 73, and was buried in Westminster Abbey.