
The Life Of The Greatest Biologists Charles Darwin

Charles Darwin will forever be one of the greatest biologists in history. He is known for the development of his theory of evolution through natural selection, that gave us an image of how we evolved and came to be where we are today. He published his famous book *On the Origin of Species* that explains his theory how certain organisms are able to adapt to the changing environments around them and continue to survive and reproduce with their advantages. His other book *The Descent of Man* talks about how we evolved from apes and goes into detail on our early ancestors and their features. Learning more into Darwin's theories makes you wonder how he was able to find them and what he went through in his time. Darwin lived an amazing life, and every part of it played a role in his discoveries to his theories and helped us learn how he came to his findings.

Born into a wealthy family in Shrewsbury 1809, Darwin was the youngest of five children. His father was a well-known physician, but he did not remember much of his mother, she died when he was eight years old. Darwin attended a boarding school at nine years old but often found the lessons boring. At his home, his older brother Erasmus built a laboratory in the garden shed, and Darwin played as his assistant as they did fun experiments related to science. After leaving school, his father sent him to Edinburgh University in Scotland to study medicine, in hopes to become a doctor, however, he did not enjoy the surgical operations one bit. During his time at the university, Darwin joined the Plinian Society that studied natural history. He enjoyed debating in the society and even wrote some papers for them. It made a welcome change for the lectures he attended at the university, which he found tedious and uninteresting, causing him to neglect his studies.

Darwin's father found out that Darwin did not want to become a physician, so he sent him to Cambridge University to study a degree to become a priest. He often enjoyed hunting, playing cards, and drinking with his friends at Cambridge, who also were very wealthy because of their families and did not need a job at the time. While attending Cambridge, he continued to be captivated by the natural history and took a course in Geology. He was fond of observing plants and beetles and would go on walks with his Professor who he was acquainted with. After a class trip to study rocks in North Wales, Professor Henslow informed Darwin of a voyage on a ship, which offered a space to anybody who volunteered to go without pay. He would be the ship's naturalist, and go around collecting plants and animals. Darwin accepted the offer, and took part in "The Voyage of the Beagle." After a two month delay due to heavy winds, they set sail on December 27th, 1831, on the trip around the world in which Darwin's love for science prevailed over other interests.

The journey allowed Darwin to experience first-hand the vegetation of the tropics, the forest-covered mountains, and great deserts. The near five-year journey provided Darwin what he believed to be the first real education of his mind. He studied several branches of natural history and wrote everything in his journal on his observations and different animals he encountered. During a visit to the Galapagos islands, Darwin had some incredible observations that would later help him to develop his famous theory. Two things really stood out in his observations, the first being the finches and their beaks. On each island, each of these birds had a different beak, perfect for eating the food of each different island where it lived. Once, they were all the same

bird with the same beak and Darwin wondered why it changed. The other observation he made was at the Cape Verde Islands, where he discovered shells at the top of a mountain standing forty-five feet above sea level. Darwin concluded that over time the earth was slowly changing, and the ground at the bottom of the sea had grown very slowly to become the top of the mountain.

Upon returning to England, Darwin spent the next two years finishing his journal of travels. He also worked with the geological society and acted as an honorary secretary. He attended the meeting of several other scientific societies in London until he moved to the countryside due to his poor health. Darwin got married to his first cousin Emma Darwin on January 29th, 1839. They had ten children, and seven survived to adulthood. For the remainder of his life, Darwin was plagued by illness, often suffering from stomach problems, vomiting, and shivering. He rarely left his home, and could not attend dinner parties or host many of his scientific friends.

The remainder of his life was dedicated to his scientific work and the publishing of several books that gave him enjoyment and helped him temporarily forget about his discomforts. Darwin was able to take the time he needed to go back to his old explorations during his voyage find the answers to why his observations happened. Looking back at the finches, he figured out that they all came from the same family and evolved over hundreds and thousands of years. Depending on where the finches lived, they adjusted and adapted to their surroundings so they could have an advantage in survival. Over generations, they developed different beaks allowing them to utilize them for their specific environment which in turn allowed them to live a full life. It's hard to believe that Finches can alter their appearance on beaks even though they come from the same family, but they were able to excel and continue to pass down their adaptation. His findings on why and how the finches evolved helped him in the success of his theory of natural selection.

Darwin kept his theories to himself for a while, until 1858 when a naturalist named Alfred Wallace asked him to look at a paper he had written of his own theory of evolution. Darwin realized that Wallace's theory had a lot of similarities to his, and they later published their theories together. Shortly after, he published one of his most famous books *The Origin of Species* in 1859. This book introduced the scientific theory that animals evolve over generations through natural selection. It included evidence he gathered from his voyage along with subsequent findings. In 1871, he published *The Descent of Man* which applied the evolution of theory to humans along with many related issues, including differences between races and sex as well as evolutionary psychology. Some people agreed with Darwin's ideas, but many others were upset and shocked. Eventually, more and more people came to accept his theory of evolution.

Charles Darwin died on April 19th, 1882, at the age of 73. He believed his success as a man in science was due to several mental qualities and conditions. He highlights the four most important aspects, number one being the love of science and passion for it. Second, Patience: the unbounded patience in long reflecting on any subject. Third, hard work: the industry on observing and collecting facts. Four, creativity: the fair share of invention, as well as common sense.

The discoveries by Darwin will forever be one of the biggest findings of mankind. He gave us an understanding of our background and how we came to be who we are today. Darwin's voyage led him to create his theories of evolution by natural selection, and publish his two famous

books. Darwin's lifetime was nothing but adventurous, and every part of his life led up to him becoming a spectacular biologist who will never be forgotten.

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