

BIOLOGY IN ENGLISH

Alfred Wallace independently formulated a natural selection hypothesis to explain life evolution

Like Darwin, **Alfred Russel Wallace** (1823-1913) was a naturalist (**figure 1**). While he was a schoolteacher at Leicester in 1844-1845, he met Henry Walter Bates, a biologist who interested him in insects. Together, they went on a collecting trip to the Amazon that lasted several years. Wallace's knowledge of the world's flora and fauna was further expanded by a tour he made of the Malay Archipelago from 1854

to 1862. Later, he divided the islands into a western group and an eastern group on the basis of their different plants and animals. The dividing line between these islands is a narrow but deep strait now known as the **Wallace Line**.

Just as Darwin had done, Wallace wrote articles and books that clearly showed his belief that species changed over time and that it was possible for new species to evolve. Later, he said that he had pondered for many years about a mechanism to explain the origin of a species. He, too, had read Malthus's essay on human population increases, and in 1858, while suffering an attack of malaria, the idea of «survival of the fittest» came upon him. He quickly completed an essay discussing a natural selection process, which he chose to send to Darwin for comment. Darwin was stunned upon its receipt. Here before him was the

hypothesis he had formulated as early as 1844, but never published. Darwin told his friend and colleague Charles Lyell that Wallace's ideas were so similar to his own that even Wallace's «terms now stand as heads of my chapters» in the book he had begun in 1856.

Darwin suggested that Wallace's paper be published immediately, even though he himself as yet had nothing in print. Lyell and others scientists who knew of Darwin's detailed work substantiating the process of natural selection suggested that a joint paper be read to the Linnean Society. The title of Wallace's section was *On the Tendency of Varieties to Depart Indefinitely from the Original Type*. Darwin allowed the abstract of a paper he had written in 1844 and an abstract of his book *On the Origin of Species* to be read. This book was published in 1859.



Figure 1 Alfred Russel Wallace in a painting in London's Natural History Museum's exhibition.

ANSWER

Did the work of Wallace lend support to the natural selection hypothesis?