
Mr. Alfred Russell Wallace is the last of the great masters of evolution. It was his independent discovery of the theory of natural selection which caused Charles Darwin to write his “Origin of Species,” and from that day to this he has produced a series of important works dealing with various aspects of the theory. On Mimicry, on Geographical Distribution, on Island Life, and upon Tropical Life, he has produced works which are still authoritative. But there has always been a strain of eccentricity in his thought; he is a spiritualist, a land nationalist; he has denied the complete application of evolution to man, and quite recently he produced a book advocating a theory that the earth is the centre of the universe. The present work brings this latter line of reasoning to a head and therefore will fail to make any strong appeal except in quarters where the modern attitude toward man’s origin and future is still resisted. It is somewhat difficult to gather its general drift. The earlier part of the volume deals with purely biological topics and contains much interesting work supplementary to the writer’s previous inquiries. But the latter part seems to be more theological in tendency and attempts to revive the old teleological principles of Paley and the Bridgewater Treatises in the pre-Darwinistic period. These two portions of the work differ greatly in value.

Mr. Wallace gives a most interesting and valuable account in the early part of the work of the relative number of species in the various zoölogical divisions, which must have caused him a great deal of investigation since he deals with an enormous number of species. He arrives at the rather unexpected result that the number of species both of flora and fauna for every hundred square miles is practically the same throughout the world, though there is a slight superiority in some of the tropical regions, especially in South America. He gives some interesting examples of the possibilities and actualities of animal increase, and incidentally has an ingenious explanation of the curious fact that most of the migrating birds that are observed at the Heligoland Lighthouse are young birds because, he claims, the older birds fly higher, owing to their great strength. In another chapter he points out the importance of what he terms “recognition marks” for mere evolution purposes—a supplement to his researches on Mimicry.

Mr. Wallace is still a confirmed Darwinist and does not believe in the later principles of Mutation and Mendelism. He finds in heredity, variation, and increase, a sufficient cause for the origin of species, while he seeks for its occasion in the changes in the earth’s surface, in connection with which he gives a short but interesting account of the biological record. The difficulties that still remain are solved, according to Mr. Wallace, by Weismann’s theory of “germinal selection.”

So far Mr. Wallace’s work is supplementary to his previous inquiries and contains much of interest and even value for biological thinking. The latter part of his volume is of a different character, being devoted to a proof from the zoölogical record of the existence of a creative power, a directive mind and an ultimate purpose in evolution. Now it is rather astonishing that, with the increased development of biological inquiry and the large number of specific researches on special adaptations of animals to their
environment, no one has hitherto attempted to revive the teleological argument. Anyone who desires to prove the existence of purposive intelligence in the universe would have masses of evidence at his command. But, unfortunately, the whole tendency of Darwinism has been to undermine this argument as showing that the purposive adaptations have simply been brought about by blind chance through natural selection and the survival of the fittest. Mr. Wallace bravely attempts to get around this argument of his favorite author, but without avail, and he has by no means done justice even to his own position. One feels almost that this part of the book was written with a wearied mind, which is not astonishing considering the great age of its author. Its value is much less than that of the preceding half of the book, which, though somewhat miscellaneous in character, shows astonishing mental vigor.

\[1\] *The World of Life*. By Alfred Russell Wallace. Moffat, Yard & Co. $3.50.

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