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‘Dr. Wallace’s “Darwinism.”’

*Darwinism*. By Alfred Russel Wallace, LL. D., F.L.S. London: Macmillan & Co. 1889.

In the preparation of the present work Mr. Wallace has done a service for which the student and a large body of general readers will be cordially thankful. The voluminous and broadly-scattered literature of Darwinism, and the intricacies of the subject, have prevented that free use of the facts supporting evolution which are necessary for the proper comprehension of the argument of the modern biologist, despite the exceedingly lucid expositions which appear in Mr. Darwin’s several treatises. We have here the underlying facts of the case, so to speak, brought clearly home to us—a vista of the principles upon which is founded the doctrine of variation and natural selection. The book is, in short, a text-book of Darwinism, and it will be profitably used by all who venture into the realm of the “Origin of Species.” Apart, however, from any direct connection with the topic which it is intended to elucidate, the book will be found to have its special value in the large number of facts in the economy of nature which it unfolds, the greater number of which, probably unappreciated by ninety-nine hundredths of ordinary humanity, fall within the boundaries of every-day observations. The reader will find in these facts an almost inexhaustible store of interesting material—material of that kind which cannot but lead to a more thorough enjoyment and higher appreciation of the works of nature by which he is surrounded.

It is fortunate that the task of elucidating and supplementing Darwin should have fallen to the lot of one so competent as Mr. Wallace, and it is not less fortunate that Mr. Wallace should possess the same rare gifts of argumentation and diction which everywhere stamp the works of the greater master. Science, indeed, offers few parallels to the case of the double-minds which in independent, but identical, action formulated the most far-reaching law of organic physics, and so expounded it as to make it common property rather than the property of the scientist alone. With almost unexampled modesty, and with a denial of self-glorification

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which belongs to but few men of research, Mr. Wallace gives to Darwin most of that which belongs equally to himself, and which he earned after years of equally painstaking research and observation.

Much of the present volume is devoted to an examination of that mainstay of Darwinism, the law of natural selection, and the preservation of favored or special races in the struggle for existence. Mr. Wallace holds as firmly as ever to the broad principles which are the expression of this law, and cements with many new facts the gaps of supposed inconsistencies which Mr. Darwin’s critics have from time to time brought forward, and which in certain directions had led Darwin himself to modify his own views. The chapters on mimicry and color-adaptation, and on the general uses of color, are in this connection specially interesting, and they constitute of themselves a charming romance of natural history. It is here that Mr. Wallace exhibits that deep penetration and keen analysis which at once stamp him as a master, and which only intensify by strong contrast the peculiarly non-scientific position which he assumes regarding the “spiritual” development of man. The metaphysical conceptions on this point may or may not meet with favor, but like all speculations which go beyond the realm of fact, and a logical deduction from fact they lack the scientific method. And singularly enough, this is precisely what Mr. Wallace urges against the speculations of a school of American evolutionists, the so-called “neo-Lamarckians,” who, to use his own words, have introduced “in place of the well-established and admitted laws to which Mr. Darwin appeals” “theoretical conceptions which have not yet been tested by experiments or facts, as well as metaphysical conceptions which are

incapable of proof.” It will thus be seen that Mr. Wallace takes broad issue with the neo-Lamarckians, or those who would substitute for natural selection the force of direct mechanical or physical action upon an organism to produce variation, a conception that was vaguely formulated by the distinguished antagonist of Cuvierism in the early part of this century, the author of the “Philosophie Zoologique.”

It is as yet impossible to say in how far Lamarckism may be an actual condition, and therefore, to what an extent it may serve to explain the origination of species. That a direct relation exists between an organism and its surroundings, and that direct modifying effects may be carried to an organism, or the parts of an organism, from these surroundings, there can be little or no question; but, nevertheless, it would seem that in most cases the individualization or rendering permanent of the effects produced must fall under a general law of natural selection. The modification of parts through use or disuse, the mechanical genesis of special structures, as well as the broad effects of acceleration and retardation, clearly fall under some such law.

In his treatment of the problems heredity, hybridity, and fertility, Mr. Wallace is singularly happy, although it cannot be said that his arguments always carry conviction with them. The limitation of space naturally prevents that detailed marshalling of facts, and consequently that close reasoning with which Mr. Darwin's works have made us acquainted. The subject of “Geographical Distribution” lies in the direct line of research of the author, and receives careful consideration. Less fortunate is the treatment of the “Geological Evidences of Evolution.” The supposed law of “physiological selection,” which was put forward with considerable warmth some little time ago by Prof. Romanes, finds no favor with the author, —indeed, it might be said to receive its death-blow at his hands.

Angelo Heilprin.

*The Alfred Russel Wallace Page*, Charles H. Smith, 2021.