
Alfred Russell Wallace, 1823-1913.

Daily papers, weekly periodicals and magazines of all kinds have repeated the ordinary human details of the life of the great scientist who, for more than half a century, held the world at audience, so that it seems superfluous to repeat them here. But perhaps an attempt to look at his entomological work may be not quite uninteresting to our readers. It has been said that an entomologist should have two lives, one to collect and know his material, the other to bring out the scientific bearing of what has been so assiduously collected. In his long life of 90 years Alfred Russell Wallace enjoyed these two lives, so to speak, and made use of them both to the full, as well as using a large proportion of his energies in his later years in applying his observations and scientific methods of thinking to the solution of the many difficult social problems of the day.

His early efforts in natural history began about 1840, when we find him devoting his spare time to collecting and preserving plants and eagerly reading books of travel. About 1844, when living at Leicester, he met with H. W. Bates, an ardent entomologist, and no doubt, under his guidance, extended his love of nature to insects. The mutual love of natural history and travel at last became so dominant in the desires of both that a joint expedition to the Amazons was commenced in 1848, for the purpose of collecting natural history specimens and to gather facts, as Wallace tells us, "towards solving the problem of the origin of species."

After four adventurous years on the Amazons and the Rio Negro, he returned home in 1852, and the following year published his "Travels on the Amazon," a work which contains a vast assemblage of facts, forming a broad basis for suggestion as to the causes and modes of the transformation of species. Scarcely a chapter of this charming work but contains many observations on the magnificent butterflies and beetles of this prolific region. One of his first observations was to note the large number of species of butterflies, while the number of individuals of each species were by no means numerous. In two months 558 species of Lepidoptera were taken, of which more than 400 were Rhopalocera. Of insects of all orders, he met with 1,300 species in the same period.

Of the papers written by him at this period perhaps the following were the most interesting:—

Remarks on the Habits of the *Hesperiidae*. 1853. "Zoologist."

On the Insects used for Food by the Indians of the Amazons. 1854. "Trans. Ent. Soc. Lond."

On the Habits of the Butterflies of the Amazon Valley. 1854. "Trans. Ent. Soc. Lond."

In 1854 Wallace was again on his travels, this time eastward, and the next eight years were spent in visiting and collecting over the larger islands of the Malay Archipelago, not even excepting New Guinea. Although he returned in 1862 it was not until 1869 that his delightful book of travel, the "Malay Archipelago" was published.

But in the meantime no fewer than eighteen important papers were brought out in the Journals of the Linnean, the Zoological and Entomological Societies, and twelve articles to other scientific periodicals, all dealing with some of the special results of his collecting and observation. Among those papers contributed to the last named Society were the following :—

On the *Pieridae* of the Indian and Australian Regions, 1857.

A Catalogue of the *Cetoniidae* of the Malayan Archipelago with descriptions of New Species, 1868.

Notes on Eastern Butterflies, 3 Parts. 1869.

Description of a New Species of Ornithoptera (*O. brookeana*). 1855.

Letters from the Aru Islands and from Batchian. 1858-9.

To the pages of the *Zoologist* he contributed :—

Letters from Singapore; Borneo. 1854-5.

Entomology of Malacca. 1855.

Observations on the Zoology of Borneo. 1856.

In the year 1855 Wallace contributed an important paper to the pages of the *Annals and Magazine of Natural History*, "On the Laws which regulate the Introduction of New Species." This was followed by the brilliant and since famous essay published conjointly with Darwin's essay on the subject of Variation and entitled "On the Tendency of Varieties to depart indefinitely from the Original Type." This was published in the *Journal of the Linnean Society*, in 1858.

In 1864 he published a very long and important memoir in the same periodical entitled "The Phenomena of Variation and Geographical Distribution as illustrated by the *Papilionidae* of the Malayan Region," which, perhaps is one of the finest pieces of special pleading ever written in support of a theory.

The year 1871 saw a collection of some ten essays published previously in various reviews, re-issued under the title of *Natural Selection*, including "Mimicry and other Protective Resemblances among Animals," and the paper on the *Papilionidae* of the Malayan Region under another title. The two volumes "The Geographical Distribution of Animals" appeared in 1876, "Tropical Nature" in 1878, "Island Life" in 1880. All contain much observation on Insect Life. From that time onwards, Wallace continued to write book after book dealing more and more as he advanced in life with the social problems of the day and the incidence of natural laws on the human race, for whom he had conceived an intense sympathy during his early wanderings as a surveyor.

The Entomological Society he joined as far back as 1863, and became a Life Member, he was twice a member of the Council, in 1866 and 1872, he was a Vice-president in 1864 and again 1869, and in the two following years he was President. He was a Fellow of the Zoological, the Linnean, and the Royal Societies. Our great Universities honored him, Oxford made him a D.C.L., and Dublin an L.L.D. He was the possessor of a Royal Society Medal, awarded in 1868, and in 1876 he was President of the Biological Section of the British Association at their meeting at Glasgow. His signal worth was recognised by the nation in a Pension from the Civil List.

Full of honors and at a ripe old age, he passed away without the suffering which is the lot of so many when they go "beyond the bar."—
H. J. T.