

**OBITUARY.****Alfred Russel Wallace, O.M.**

By the death of Alfred Russel Wallace, on November 7 last, at the age of ninety years, the Royal Geographical Society, to which he was elected in 1854, loses one of its oldest and most distinguished Fellows; and Natural Science, especially in its biogeographical aspect, one of those who have, in most widely extending its boundaries and deeply influencing the thought of his time, achieved a name which will live as long as Natural Knowledge is cultivated. With Wallace there passes almost the last

of the great field naturalist travellers who, with eyes open for all the "ologies," were "searchers after truth, and interpreters of nature." His name must be listed in the illustrious company of Humboldt, Belt, Bates, Tristram, Hooker, and Darwin, to indite only those names that rise unbidden to the mind.

A. R. Wallace was born at Usk, in Monmouthshire, in January, 1823. He obtained his early education at Hertford Grammar School, and thereafter assisted, for a short time, an elder brother in land-surveying in various parts of rural England. During these excursions he was brought into direct contact with country life whereby his inborn love of Nature was greatly stimulated, and he began to collect and study insects and plants. At the age of twenty-one he became English master in a college in Leicester, where he nursed his growing tastes by observation in the open and by reading books of travel, till dominated by an irresistible passion to see with his own eyes "all those wonders which I delighted to read of in the narratives of travellers." In Leicester he encountered Henry Walter Bates, a keen entomologist, and a man with like dominating aspirations and enthusiasms to his own, with whom he formed a warm friendship, and kept up a correspondence after he left Leicester. This happy association formed the starting-point of the remarkable careers of both men, and in due time of the evolution of two illustrious names in biological science.

In 1848 the two friends set sail together for Para to study the natural history of the Amazonian region. After a couple of years' association they chose different spheres of exploration. Wallace proceeded to investigate the great northern tributary of the Amazon, the Rio Negro, finally penetrating along the Rio dos Uaupés, the largest branch of the latter previously unvisited by a scientific investigator. In this journey he encountered endless annoyances, difficulties, and dangers, but surmounted them all with the unexampled patience, perseverance, and good temper which were notable characteristics of the man. During his four assiduous years in this region he not only accumulated large botanical and zoological collections, but a vast store of facts and observations, and, what was of still greater value, a rich asset of experience, which began shortly to bear unexpected fruit. On his way home in 1852, Wallace suffered the heart-breaking misfortune, "which every traveller and naturalist," to use his own words, "will fully appreciate," of losing the bulk of his journals and the entire collections he was bringing with him, by the burning, in mid-ocean, of the vessel in which he was a passenger. Those on board escaped in a leaky boat in which, for ten days before their rescue by a passing ship, they suffered much from exposure and from the daily dread of foundering. The results of this expedition, which, but for his shipwreck, would have been more important, are recorded first in a paper to this Society in June, 1853, and in his 'Narrative of Travels in the Amazon and Rio Negro,' published just one year after he had set foot in England. Throughout his travels, Wallace paid special attention to the physical geography and geology of the regions he traversed in relation to their fauna, flora, and inhabitants, and, but for the loss of his notes and sketches, he had intended to devote his book to the 'Physical History of the Amazon.'

The pleasures he found in the "contemplation of the strange and beautiful objects continually met with, and the deep interest arising from the study of the varied races of mankind," determined him to continue the pursuit he had entered upon, and to re-visit the tropics. Accordingly, we find that, before the middle of 1854, Wallace had already arrived in Singapore, the threshold of that Eastern Archipelago with which his name was destined to be very closely identified. One of the objects of his visit to the Amazon was the hope of finding some solution to the origin of species—a question he seems to have constantly pondered and puzzled over in his new sphere of exploration. The problems of specific and individual variation—the great differences in the midst of much likeness existing between

the inhabitants of neighbouring land masses—now provided him with much food for meditation; as also the close relation between preceding geological changes and the amount of difference existing between animals of adjacent districts. He became deeply impressed with “the importance of a minute knowledge of the different groups and their geographical distribution to the mapping out of the islands and continents of a former epoch.” This is evident from his paper “On the Law that has regulated the Introduction of New Species,” which he contributed to the *Annals and Magazine of Natural History* in 1855. It was not till 1858, however, when lying under an attack of malarial fever, with his body prostrate but (as so frequently occurs during the height of this fever) his brain exhilarated, active, clear, and released from the inhibition that mazes the thing thought upon “with thinking of it,” that in an illuminating flash the solution of this question revealed itself clearly to his mind, in the idea of “the survival of the fittest” as an application of the facts set out in an Essay on Population, by Malthus, which had greatly impressed him. The moment the abatement of his fever permitted, Wallace rose from his bed, committed to paper his now famous essay, “On the Tendency of Varieties to depart indefinitely from the Original Type,” and posted it off to Darwin, with whom he had been in correspondence over cognate subjects, which, however, had “led him to conclude that the latter had arrived at no definite view as to the origin of species.” As is well known, this communication fairly staggered its recipient, for “the key to this mystery” had suggested itself to Darwin many years before—as was known only to his intimate friends—furnished by the accidental perusal of the same famous Essay of Malthus, which had, strangely enough, led Wallace to the same idea. “Wallace,” writes Darwin, “has arrived at almost exactly the same general conclusions as I have on the origin of species;” if he “had my manuscript sketch written out in 1842 he could not have made a better short abstract.” It was with great difficulty that Darwin would allow his scruples to be overcome about “honourably publishing,” his sketch now that “Wallace has sent me an outline of his doctrine.” “I cannot tell whether to publish now would not be base and paltry.” In his magnanimity Darwin was all for sending Wallace’s paper to be published without any reference to his own earlier discovery and to the greater mass of evidence he had accumulated in its support. The *Darwinian Theory* was thus nearly coming to be designated the *Wallacean Theory*; but, as is well known, through the influence of Hooker and Lyell, Wallace’s essay and Darwin’s preliminary abstract were simultaneously communicated to the Linnean Society at its memorable meeting on July 1, 1858—both naturalists appearing as equally great and independent discoverers of the Origin of Species. The unselfishness of both authors in the matter—Darwin acknowledging Wallace’s priority; Wallace always conceding pride of place to Darwin as the prime discoverer and elaborator of the theory—and their unbroken life-long friendship are matters of history, too delightful and uncommon among even “friendly rivals” to be ever allowed to be forgotten to the two men.

In 1859, while still in the East, Wallace contributed to the *Journal* of this Society an account of his visits to New Guinea and its neighbouring islands; and in 1860 to the Linnean Society a further paper on the subject, so full of attraction for him, of “The Zoological Geography of the Malay Archipelago.” In 1862 he finally returned home, and for six years devoted himself to the study and arrangement of the enormous materials he had collected, and to contributing to numerous societies and journals instructive papers containing new facts or fresh expositions or amplifications of the propositions in his theory of the origin of species. In 1863, there was printed in our *Journal* his very important paper on the “Physical Geography of the Malay Archipelago,” illustrated by a map on which for the first time the islands

are divided into two regions by what is now known as Wallace's Line. This was a prodromus to the eagerly expected narrative of his travels, discoveries, and explorations which appeared in 1869 under the attractive title of 'The Malay Archipelago; the Land of the Orang Utan and the Bird of Paradise.' That it has been reprinted more than a dozen times is sufficient evidence of its scientific value and the measure of its appreciation by the public. The only other two books of travel to be compared with it for interest are Bates' 'Naturalist on the Amazon' and Darwin's 'Voyage of the *Beagle*.' From this time till the end of his life Wallace's pen was never long idle. In 1870 appeared his 'Essays on Natural Selection;' and in 1876 his *magnum opus* 'The Geographical Distribution of Animals.' "This grand and memorable work," to quote Darwin's appreciation of it, "will last for years as the foundation for all future treatises on Geographical Distribution." The author intended it to be a contribution amplifying chapters x. and xi. of 'The Origin of Species,' which Darwin accepted as "the highest conceivable compliment" paid to him. In 1880, Wallace produced his 'Island Life,' a volume with an alluring title, which has given, and will long continue to afford, pleasure of the most elevated sort to all lovers of Nature, and attract many to visit the regions of the globe so delightfully described therein. To the same category belongs his 'Darwinism' and his 'Tropical Nature,' the latter a volume of essays on a variety of interesting subjects, philosophically treated, bearing on life in the equatorial zone.

The epoch-marking results of Wallace's life-work—as of Darwin's—must be credited to the observations he was enabled to make as a traveller and explorer, and are to be rightly claimed as triumphs for geographical science. It is to this aspect that we have mainly confined our review of the accomplishments of this illustrious Fellow of the Society.

This is neither the place nor the occasion to do more than refer to the strong convictions he has given expression to upon spiritualism, vaccination, the nationalization of the land, and many other social subjects. Whatever may be the final verdict on his opinions and theories on these subjects, there can be no question that Wallace passed nothing from his pen that he had not carefully weighed, and which he believed to be scientifically sound and for the advancement of natural knowledge, or the benefit or amelioration of his fellows.

Wallace was a man of extraordinary energy, with a vast capacity for work. His literary activity was extraordinary; he laid aside his pen only to die. He was a retiring man, but ever ready to give of his rich experience to those especially who, impelled by a real love for natural history, were anxiously meditating to follow his own conspicuous example. The present writer is only one among many who can gratefully recall how fully, kindly, and even enthusiastically Wallace entered into the plans formed for his visit five and thirty years ago to the Eastern Archipelago, and for all his wise criticism and sound and most helpful advice. His sympathies were of the widest. What he considered wrong, oppressive, or unjust, wherever it occurred, moved him strongly. He possessed an even temper, and maintained wonderful patience amid the dangers, difficulties, and annoyances of travel. Notoriously magnanimous, unselfish, unspoiled by his honours and his fame, his mind showed all the elements of nobility.

Upon such a man honours would inevitably be showered. His genius and abilities were recognized both at home and abroad. Of his many distinctions the following may be mentioned; the Fellowship, the Royal and the Darwin Medals of the Royal Society; the Founder's Medal of the Royal Geographical Society; the first Darwin-Wallace Gold Medal of the Linnean Society specially struck in 1908 to commemorate the fiftieth anniversary of the reading of the joint papers by Darwin and himself; the degree of LL.D. from Dublin and of D.C.L. from Oxford; and the

Gold Medal of the Geographical Society of Paris. In 1881 Wallace was granted a Civil List pension, and in 1908 the King conferred upon him the high distinction of the Order of Merit.

HENRY O. FORBES.

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