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THE death of Alfred Russel Wallace on November 7, at ninety years of age, marks a milestone in the history of biology. For he was the last distinguished representative of a type that can never be again—a combination of naturalist-traveller, biologist, and geographer, a knower of species, and yet from first to last a generaliser "inquisitive about causes," and, with all this, an investigator who stood outside any of the usual methods of analysis, with "a positive distaste for all forms of anatomical and physiological experiment." It will probably be a very long time before a biologist again rises to real distinction apart from experimental analysis in some form or other. His career and scientific work were described in these columns by Prof. H. F. Osborn in June of last year (vol. lxxxix., p. 367), and we hope to publish a further appreciation of him next week. Here, therefore, we do little more than record his death and point to some outstanding characteristics of his life.

In thinking of Wallace's contributions to science, we recall first the feverish week at Ternate, when he wrote his famous letter to Darwin, "like a thunderbolt from a cloudless sky," expounding the idea of natural selection—a letter which was communicated, along with extracts from Darwin's unpublished work, to the Linnean Society at the historical meeting on July 1, 1858. Everyone is proud of the magnanimity with which each discoverer treated the claims of the other. Their detachment from everything but getting at the truth was congruent with the nobility of both. It was indeed just what might have been expected, but there was throughout an instinctive generosity which has always appealed to the ethical imagination. Darwin's helpful friendliness was met by Wallace's devoted loyalty, which was conspicuous, for instance, when he gave his fine book of 1889 the title "Darwinism," or emphasised at the 1908 celebration the fact that the idea of natural selection had occurred to Darwin nearly twenty years before the joint paper of 1858. Well was it said of him, "Darwinii æmulum, immo Darwinium alterum."

After natural selection, one thinks of the geographical distribution of animals, and it may be justly said that this study, which has evolved vigorously in many directions in the last generation, got its modern start from Wallace's standard work (1876), which fulfilled its intention of bearing to the eleventh and twelfth chapters of the "Origin of Species," a relation similar to that which "Animals and Plants under Domestication" bears to the first. It was followed up by the more popular "Island Life," which has been a stimulus to many a travelling naturalist, and has prompted numerous investigations.

The building up of a science often reminds one of the waves making a new beach—multitudes of particular movements which are not in themselves permanent, but make others of more lasting effect possible. Perhaps the same should be said of

much that Wallace's fertile mind contributed, for instance, in regard to sexual selection, concerning which he was wisely sceptical, in regard to "warning colours" and "recognition marks," in regard to the part played by instruction and imitation in the development of instinctive behaviour; and many more instances might be given. As an old man he was impatient of the recent work which centres round Mendelism and mutations, but it was a fine example of his earlier plasticity of mind that he entirely agreed with Weismann in finding the transmission of acquired characters unproved. His independence was conspicuously shown by the vigour with which he maintained in his "Darwinism" and elsewhere that the facts of man's higher nature compel us to postulate a special "spiritual influx," comparable to that which intervened, he thought, when living organisms first appeared and when consciousness began. He may have lacked philosophical discipline, but he was never wanting in the courage of his convictions. Throughout his life he was given to puzzling over difficult problems far beyond the range of biology—in economics and astronomy, in psychology and politics, and perhaps it was this width of interest in part that kept him young so long.

There was a great humanity about Alfred Russel Wallace, which won affection as surely as his services to science commanded respect. Like many hard workers he found time to be generously kind to young men; he did not suffer fools gladly, but he was always ready to champion the cause of the oppressed; he could never divest himself of his citizenship, and almost to his last breath he was thinking of how things might be made better in the State. By nature quiet, gentle, reflective, and religious, he had no ambitions save for truth and justice and the welfare of his fellow-men; he was satisfied with plain living and high thinking, with his garden, and with that "double vision" which was always with him. For, whatever we may think of his "spiritualism," it was peculiarly his—

To see the world in a grain of sand,
And heaven in a flower;
To grasp infinity in the palm of the hand
And eternity in an hour.