

in 1847, but withdrawn and not published till 1851, and is of first-rate importance as proving the Lycopodiaceous nature of *Lepidodendron*. He was at first disposed to regard *Triplosporites* as a genus, but afterwards with due reservation withdrew it.

For a list of Brown's minor labours, I must refer to the reprint of his works by Mr. Bennett in the volumes of the Ray Society. They are chiefly systematic, and were contributed to Aiton's 'Hortus Kewensis,' the 'Botanical Register,' and 'Botanical Magazine,' and especially to Bennett's "Plantæ Javanicæ Rariores," which include his observations on the classification of ferns, and his monograph of *Sterculiaceæ*, *Cyrtandreæ*, *Phytocreneæ*, and on other plants of singular structure and obscure affinities. In 1832, he contributed to the first volume of the 'Journal of the Royal Geographical Society' a paper on the Botany of the Swan River Settlement. In 1850 he laid before this Society, at the request of Humboldt, his views as to the origin and propagation of the Gulf-weed; in which he opposed the prevalent view that that plant originates, as well as propagates itself, where now found. This is his penultimate contribution to our Society's publications.

In the above imperfect sketch of some of Brown's great labours and discoveries, I feel that I have inadequately acknowledged the debt which botanical science owes to him. To compare his labours with those of his successors in the latter half of that century, the first half of which he so greatly adorned, would be an invidious task. It will be for the botanists of the nineteenth century to say for how long a period the name of Brown should carry with it the proud title conferred upon it by Humboldt, and confirmed with acclamation by the botanists of every country in Europe, of "Botanicorum facile princeps, Britanniarum gloria et ornamentum, totam botanices scientiam ingenio mirifico complectens."

EULOGIUM ON CHARLES DARWIN.

By PROFESSOR W. H. FLOWER, C.B., F.R.S., F.L.S.

THE Council of the Linnean Society has honoured me with the request that I would say some words regarding the life and work of our illustrious member Charles Darwin, whose name, it may be said with truth, is more widely known throughout the civilized world than any other that has been enrolled upon the list of Fellows of the Society.

Darwin has, moreover, special claims for consideration from us on such an occasion as this, inasmuch as a large and very important portion of his work was first communicated to the world by means of papers read at our Meetings and published in our Journal.

Here, on the 1st of July 1858, was read the celebrated essay "On the Variation of Organic Beings in a State of Nature, on the Natural means of Selection, on the Comparison of Domestic Races and True Species."

Here also were first made known, in a succession of memoirs, extending over many years, those remarkable investigations into the structure and life-history of plants, "any one of which, taken on its own merits" (I quote the words of one of our leading authorities in this department of science), "would alone have made the reputation of any ordinary botanist."

Darwin's life and Darwin's work are, however, so familiar to every one here, and have been so recently and so exhaustively treated of, in every aspect in which they can be viewed, that to attempt to say anything new upon them, or even to clothe what is well known in any original form, would be for me a hopeless task.

The brevity with which I will speak will therefore be not a measure of our appreciation of the subject or of the man, but of a conviction that few words are needed to express what we all know and all feel.

The recently published 'Life and Letters' has brought before a wide circle of readers a most vivid presentiment of what Darwin really was.

A character so simple, so transparent, so unaffected, duly recognizing its own strength, and at the same time fully conscious of its own imperfections, a life so singularly consistent, so steadily uniform throughout in its aims, and so undeviatingly honest to all its convictions: such a character and such a life, already well known to his intimate friends, is now before the whole world revealed, as one may say, to its very depths.

Nothing more of any importance, either of character or life, will ever be known. Any additional detail of incident or adventure that can ever be brought to light, any further publication of his voluminous correspondence, would only fill in little vacuities that may be left in the picture, but will never alter the outlines, or the colour, or the tone. The picture, as already drawn in that book, will remain, substantially, the same, for it is that of the man himself, and, as I have said, of a man singularly free from the complexities and contradictions which make up the composite character of many whose names have risen conspicuous above those of their fellow men. To the admirable qualities of his domestic life, his modesty, his graciousness, his geniality, his generous appreciation of the work and opinions of others, justice has been fully rendered, even by the least sympathetic critics of his scientific work. One of the most recent of these is constrained to say, "To know Darwin was to feel attracted to him, to know much of him was to love him."

It concerns us here to speak rather of the one great characteristic which, throughout the whole of his lengthened career, dominated all others, and made him what he was,—the consuming,

irrepressible longing to unravel the mysteries of living nature, to penetrate the shroud which conceals the causes and methods by which all the wonders and all the diversity, all the beauty, yes, and all the deformity, too, which we see around us in the life of animals and plants have been brought about.

Against our ignorance on these subjects his life was one long battle, and in reading its history and seeing the gradual development of his plan of operations, one is continually reminded of a great strategist directing a vast army spread over a wide and varied field of operations; now surveying the whole at a glance, now pressing on his various forces wherever an opening presents itself anywhere along the line, now carefully scrutinizing the weak and the strong points of every position; omitting no precaution where danger threatens, now bringing one branch of the forces to bear, followed up and supported, if need be, by others of a different kind, one after another in close and telling array; masses of facts, experiments, observations, and arguments thrown in to stop a breach or strengthen any menaced or wavering post, and all arranged, grouped, marshalled, and handled with the skill and vigilance with which a successful general handles a living army in the conduct of a great and complicated campaign.

To all this, most of the work which we others do is but irregular guerilla warfare, attacks on isolated points, mere outpost skirmishing, while his was the indefatigable, patient, intermittent toil, conducted in such a manner and on such a scale that it could scarcely fail to secure victory in the end.

The main victory gained by his work was, as we all know, the destruction of the conception of species as being beyond certain narrow limits fixed and unchangeable, a conception which prevailed almost universally before his time. That this has been gained chiefly by means of Darwin's work and writing, there can be no doubt. Let us admit that others had prepared the way, that the work was carried on simultaneously by many others also, that if the present generally accepted view is true, it must have made its way if Darwin had not lived or spoken; I say, grant all this to the fullest, and the fact remains that he was the main agent in the conversion of almost the whole scientific world from one to a totally opposite conception of one of the most important operations of nature.

Such a revolution as this, with all its momentous consequences to the study of zoology and botany, effected in so short a space of time, is, as has often been said, without a parallel in the history of science, and it is one the full significance of which those who have not lived through it, and been workers at biology in both the pre-Darwinian and post-Darwinian epochs, must find difficulty in realizing.

There is, moreover, no doubt but that this rapid conversion was much facilitated by the fascinating nature of the theory of the operation of natural selection in intensifying and fixing

variation, as originally propounded in these rooms independently and simultaneously by Darwin and by Wallace. This theory has been subjected to keen criticism, and difficulties have undoubtedly been shown in accepting it as a complete explanation of many of the phenomena of evolution. That other factors have been at work besides natural selection in bringing about the present condition of the organic world, probably every one now admits, as, I need not say, Darwin did himself. There is, however, not now the time, nor is this the occasion to enter into a critical examination of this large and complex subject. Indeed, the time seems scarcely yet come when we can do so with the necessary calmness and impartiality. Prejudices on the one hand and on the other, and the cloud of side-issues which were aroused when the theory was first promulgated, and which prevented many from understanding what was really implied by it, still hover around, and many of us deem it best to rest with suspended judgment not only upon this, but upon the various other hypotheses put forward to account for the origin of species, and to turn again with increased interest and zeal to investigate the facts upon which these hypotheses are based. No one can deny that, whatever opinion may ultimately prevail regarding Darwin and his works, the controversies that have gathered round them have proved a marvellous stimulus to research, and have given new life to investigations into a great variety of subjects,—subjects so diverse as palæontology, morphology, embryology, the geographical distribution, the habits, and the life-history of all living things,—into every branch, in fact, of biological science.

They have made us also realize in fuller measure than ever before the depth of the still unfathomed mysteries that confront us everywhere. The endeavour to penetrate these mysteries, to solve some of these problems which lie everywhere in our path in wandering through the field of nature, is surely a most legitimate employment for the faculties of man; and he who has devoted to this endeavour a life of patient, eager, and, above all, honest toil, undaunted by constant physical weakness and suffering, and has steadily persevered to the end in his one great aim, alike through evil report and good report, deserves our gratitude and our reverence.

Though Darwin did not tear down the curtain which obscures our gaze into the past and lay bare to our vision the birth of life, and all its various manifestations upon earth, as has been too rashly said by some of his enthusiastic disciples, he lifted the veil here and there, and gave us glimpses which will light the path of those who follow in his steps, and, even more than this, he showed by his life and by his work, beyond any one of the age in which we live, the true methods by which alone the secrets of nature may be won.
