

THE
JOURNAL OF BOTANY

BRITISH AND FOREIGN.

EDITED BY

JAMES BRITTEN, K.S.G., F.L.S.

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NEW YORK
BOTANICAL
GARDEN

VOL. XLIX.

ILLUSTRATED WITH PLATES AND CUTS

LONDON:
WEST, NEWMAN & CO., 54, HATTON GARDEN.

1911.

reached the marvellous total of 1012 species [of British Flowering Plants presumably] as against 800 last year. This collection must surely be a record for any schoolboy, and we must again congratulate Graveson on his energetic and enthusiastic work." Thus Bootham School, whose Natural History Society is the oldest of any such school society in England, creates another record, and at the same time it is pleasant to realize that mere collecting is by no means the only thing encouraged at that school, which has produced, to mention a few of its botanists only, J. G. Baker, E. G. Baker, F. W. Oliver, A. H. Burt, Miller Christy, H. Corder, H. Tuke Mennell, and the late James Backhouse and Silvanus Thompson. Some other branches of Natural Science and Literature are equally well represented by distinguished names among the alumni of this well-known Friends' School.—H. S. THOMPSON.

PYRUS CORDATA DESV. IN MONMOUTHSHIRE (v.-c. 35).—Just within the county, close to the Wye, on a high rough bank, in the parish of Dixon, I found two plants of this species in 1910. It grows within a few miles in Gloucestershire, at Symonds Yat, and in Herefordshire, on the Doward. When I pointed out the trees to Mr. Ley, he agreed to the identification.—H. J. RIDDELSDELL.

REVIEWS.

A Monograph of the British Lichens, being a Descriptive Catalogue of the Species in the Department of Botany, British Museum.
Part II. By ANNIE LORRAIN SMITH, F.L.S. 8vo, cl., pp. 409; 59 plates. Price £1 1s.

MANY years have elapsed since the publication (in 1894) of the first volume of a *Descriptive Catalogue of the British Lichens in the National Herbarium*, compiled by the late Rev. J. M. Crombie. At the death of the author 66 genera of British Lichens out of a total of 93, according to the arrangement given in the *Conspectus Generum* of vol. i., had thus been published, including descriptions of 580 species, with numerous subspecies, varieties, and forms. Lichenologists have been expecting eagerly, and now welcome joyfully, the appearance of vol. ii. of the Catalogue, in which Miss Lorrain Smith carries to completion the work projected by Crombie.

It would seem by reference to the *Conspectus* in vol. i. that the greater part of the work had already been accomplished in that volume, which leaves only 26 genera to be dealt with, according to the original arrangement. It happens, however, that these remaining genera include the largest, and some of the most perplexing, groups of lichens, and therefore it is perhaps fair to say that the bulk of the work has fallen to Miss Smith. The 26 genera of Crombie have increased by additions and subdivisions to 55, including the large number of 858 species, as against 580 of the previous volume. The additions are due partly to the in-

clusion among lichens of plants formerly regarded as algæ (*Cænogonium*, *Racodium*), partly to the discovery in recent times of genera new to Britain (e. g. *Gongylia*). The subdivisions bring the book into line with Continental text-books, and cannot fail to be acceptable to students who have had to grapple hitherto with the unwieldy mass of incongruous species "lumped" together under such genera, for instance, as *Lecidea* and *Verrucaria* in the older manuals. It is, of course, quite possible to go to the other extreme by the process known as "splitting," but while this has been avoided, confusion is obviated by careful and systematic reference to modern synonyms. As stated in the introduction to this volume, "more importance is assigned in these days to the microscopic character of the apothecia than was allowed by Nylander and Crombie in their scheme of classification." Relying on such natural distinctions, Miss Smith adopts 11 of the genera into which *Lecidea* has been divided, with three subgenera of the restricted genus—*Psora*, *Biatora*, *Mycoblastus*. Of the old genus *Graphis*, as described in Leighton's *Lichen-Flora of Great Britain and Ireland*, only four species are retained under that generic name, the rest being assigned to *Phæographis* and *Graphina*. We venture to think that the author might have gone a step further, and adopted *Aulacographa* for *G. elegans* and the allied species with a furrowed proper margin to the fruit. Out of *Verrucaria* of the old lichenologists, 13 genera are taken, which yet leaves 48 species in the type-genus.

A systematic and modern revision of natural affinities is indicated by the removal in the scheme of this volume of the orders *Cladoniaceæ* and *Gyrophoraceæ* to the subtribe *Lecideei*, and of *Dirinaceæ* and *Roccellaceæ* to the *Graphidei*. *Strigula*, *Endococcus*, and *Myriangium*, regarded by Crombie and other lichenologists of his time as belonging to lichens (see vol. i.), are here relegated to fungi pure and simple. This fact is mentioned by Miss Smith (p. 263), though the names are not to be found in the index, whilst *Agyrium* and *Odontotrema*, presumably also fungi (vol. i. p. 15), are left without reference.

Since in these and other details the systematic arrangement preferred by Miss Smith differs rather widely from that propounded by Crombie in the introduction to vol. i., we are inclined to think that a new *Conspectus Generum*, following the lines adopted in this volume, might have been desirable. The meagre glossary of technical terms prefixed to vol. i. has expanded in this to one that is copious as well as clear, while the admirable index to the entire work will be especially hailed as a boon by those students whose good resolutions of indexing the previous volume for themselves have never been carried out. After the small figures of microscopic details in the first part of the work, the fifty-nine full-page illustrations of the second part come as a pleasing surprise. These plates, ranging from a view of the plant as it appears *in situ* to highly magnified points of structure, are attractive and, so far as we have had an opportunity of testing them, accurate.

In looking through this manual we are reminded of the general acceptance at the present time of the once much controverted doctrine of symbiosis in lichens. Ignored by Crombie in vol. i., and indignantly repudiated by Nylander and Leighton, it is assumed as an undoubted fact by the author of the present volume. Indeed, not the least interesting and valuable feature of the book is the mention under each genus of the particular algal form that constitutes the "symbiont," or messmate, in the composition of the lichen.

It is hardly necessary to say that this manual is indispensable to the student of British Lichens. While no futile attempts at "popularizing" them are made by the sacrifice of technical terminology, the somewhat pedantic and deterrent style of preceding Lichen-Floras has been happily avoided, and thus it may well be hoped that recruits will be enlisted for the practical study of these interesting plants. That increased activity of this kind has manifested itself of late is proved by the success of the recently established Exchange Club of British Lichens, which already can boast of members from all parts of the United Kingdom, and has resulted in the discovery of a considerable number of species new to the British Flora, or even to science, all of which are described in the addenda to this volume. The few misprints observed are mainly in local names, and are no doubt due to defective handwriting on labels; one contributor, at any rate, feels he must cry *meâ culpâ* in this respect! It need only be added that no more effective proof could be given of the richness of the National Herbarium than the fact that a catalogue of species therein contained, described by an expert, becomes an admirable and exhaustive Manual of British Lichens.

H. P. READER.

Flora of Jamaica: containing Descriptions of the Flowering Plants known from the Island. By WILLIAM FAWCETT, B.Sc., F.L.S., and ALFRED BARTON RENDLE, D.Sc., F.R.S. Vol. i. Orchidaceæ. Pp. xviii. 150, 32 plates. Price 10s. 6d. Dulau, Soho Square, W.

THIS well-printed and well-illustrated volume is the first instalment of an important undertaking for which the Trustees of the British Museum are responsible. That such a work was in preparation has been known to the readers of this Journal, in which the descriptions of the new species contained therein have from time to time been printed, but these in their necessary isolation from the text could give no notion of the extent of the complete enumeration. The combination of authors is a happy one, for Mr. Fawcett left the Museum to become Director of Public Gardens and Plantations in Jamaica and there had the opportunity for twenty-one years of studying its flora *in situ*, and was able to obtain the loan of all the material in the Jamaican Herbarium and of a fine series of drawings made at the Gardens, under his supervision, by Miss Helen A. Wood; while Dr. Rendle's long connection with the Department of Botany has familiarized him