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EDITED BY

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

LATE SENIOR ASSISTANT, DEPARTMENT OF BOTANY, BRITISH MUSEUM.

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1921.

If the plant, therefore, is placed under *H. ciliatu*, it should stand thus: *H. ciliata* Bab. var. *angustifolia* Pugsley in Journ. Bot. lii. 331 (1914)=*H. glabra* (var. *vera* and var. *subciliata*) Babington, Prim. Fl. Sarn. 39 (1839); Lester-Garland, Fl. Jersey, 73 (1903); non Linn.=*H. ciliata* var. *subciliata* Moss in Camb. Br. Fl. iii. 10 (1920). This form does not seem to have been mentioned elsewhere by Babington, and I cannot find any allusion to it, even indirectly, by Syme or Hooker. Dr. Moss's remark that British botanists know quite well the plant intended seems very questionable. A sequence of this treatment is that under *Herniaria glabra* L. Dr. Moss adopts the name *H. glabra* var. *vera* Bab. Fl. Sarn. 39 (1839) to represent the specific type, thus making the usual form of this Jersey perennial stand for the annual plant of the Eastern Counties—a course that can only be defended owing to the lack of precision in Babington's description.—H. W. PUGSLEY.

*DRABA MURALIS* IN GLOUCESTERSHIRE. Swete (Fl. Bristol, p. 8: 1854) recorded this from an old quarry at Henbury, where Miss Powell has "found it plentifully for several years past"; Mr. White (Bristol Fl. 155: 1912) has seen specimens collected by her in 1834, and St. Brody's herbarium contained a specimen from the same locality gathered in 1871. Mr. White (*l. c.*) doubted the probability of its nativity there, "many miles from an undoubted native locality": I have however a record, dated 1908, from Kingscote, Nailsworth, and the *British Flora* gives a good many Somerset localities. The probability of *D. muralis* being native in v.c. 34 has been recently increased by its discovery by Mr. J. W. Haines, on an old broken down wall, in an out of the way part of the Forest of Dean. It is in some quantity here, and may perhaps be found on native soil in the neighbourhood: no other introduced plants were observed with it, except Sedums and the usual denizens of a wall flora.—H. J. RIDDELSDELL.

## REVIEWS.

*A Handbook of the British Lichens.* By ANNIE LORRAIN SMITH, F.L.S. Svo, cloth, pp. 158, with 90 figures in the text. British Museum (Natural History), London, S.W., 1921. Price 6s. 6d. net.

THIS volume fills a gap which has been very evident for many years to those interested in lichens. After a brief introduction, in which some aspects of the morphology, histology, and ecology of lichens are considered, the book becomes a useful and much needed key for placing these plants under their proper families, genera, and species. Hitherto British lichenologists have made keys for themselves, or have used foreign ones. There are many disadvantages in using a clavis intended for another country, which necessarily includes plants that are absent from our islands while it omits some that are present and neglects the peculiarities of our island flora.

As a test of the value of the book, I took a batch of lichens which I had recently named, and in every case except one the use of

the key enabled me quickly to allocate the plant to its proper species. The test was a severe one, as the lichens were *Ramalina Curnowii*, *R. breviscula* (which of course came under *R. siliquosa*, under which it is placed in the *Monograph of British Lichens* as a sub-species), *Lecania prosechoides*, *L. prosechoidiza*, *L. erysibe* var. *sincerior*, *Lecanora polytropa*, *Lecidea latypha*, *L. protrusa*, *Verrucaria viridula*, and *Arthopyrenia stigmatella*. In *Bilimbia aromatica* the spores in my specimen were rather larger than is given in the key, but it was easily run down. The only case in which the key failed was an unfair test—the plant was *Ramalina subfarinacea*, collected near Penzance from the branches of hawthorn, a very unusual habitat; I have indeed seen no British record of it save from rocks, and had never previously noticed it on trees. As the key only takes account of its saxicolous habitat, this anomalous plant was of course difficult to place. The example will however serve to illustrate the fact that there is no royal road to the determination of many species, and that a supplementary use of the *Monograph of British Lichens* is necessary for critical species and for those which are not exactly typical in respect either of structure or habitat. Another example is afforded by *Ramalina farinacea*; the key relies on its arboreal habitat, but it occasionally occurs on the sand of grey dune. To include all such erratic characters is not the purpose of the *Handbook*, and such inclusion would destroy its portability; one of its great advantages is that it is convenient for carrying in the pocket.

The main part of the work is more than a key: much information is given about the structure and ecology of the various lichens and a typical species of each genus is figured. The classification and nomenclature followed is that of the *Monograph*, of which any criticism would here be out of place. Where generally-known names have been superseded, the useful course of giving such names in brackets has been adopted.

The instructions on p. 13 in regard to the composition, use, and interpretation of chemical reactions are too concise to be exactly clear. The apothecium figured on p. 8 (reproduced from the *Monograph*) conveys the idea that a biatorine apothecium has a different internal structure from a lecideine one, which may not be the case: a biatorine hypothecium often only differs from a lecideine one in its external colour. The inclusion of algal cells below the hypothecium suggests a lecanorine apothecium in which the thalline margin has become obsolete. The rarity of typographical errors testifies to the care exercised in proof-reading: on p. 54 *subintricata* should replace *subimbricata*, and a comma has crept in between "Primary" and "thallus" (p. 71, line 3), in the wonderfully active way that commas have—there seems to be an affinity between them and their bacterial namesakes. The statement that "*Cladonia rangiferina* 'is the well-known reindeer-moss' needs a little amplification, owing to the difficulty of distinguishing between *C. rangiferina* and *C. sylvatica*. A general key for placing plants under their proper genera would have been useful and need not have seriously increased the size of the book, whose price places it within the range of the ordinary student. It

must be emphasized that in cases of doubtful, critical, or non-typical plants the *Handbook* cannot be substituted for the more complete *Monograph* by the same author.

W. WATSON.

*Aspects of Plant Life with special reference to the British Flora.*

By ROBERT LLOYD PRAEGER. (Nature Lover's Series.) 8vo, cloth, pp. 207, illustrated. S. P. C. K. 6s. net.

MR. PRAEGER'S pleasant and eminently readable style makes his books ideal for holiday perusal. The "Nature Lover" will from this book learn much of where, why, and how, plants grow in their homes, how they spread (dispersal) and colonise (migrate). Moreover, the information is very accurate, a rare thing in a popular book; it is scarcely to the author's discredit that he "does not attempt to make botany as amusing as fiction, as Grant Allen did in the *Story of the Flowers*"—to quote from a newspaper review of the work. The biology of the flower, the relations between "Plants and Men" and "Plants and Animals," as well as the plant itself and its life's work, are all interestingly outlined, and technical terms are so introduced as to make them seem real friends. In "Past and Present" the origin of the British flora is discussed, and in the last chapter "some interesting plant groups" are described. Mr. Praeger has not noticed the interesting contribution to *Knowledge* (Dec. 1916), in which Mr. C. L. Withycombe shows that the accepted story of the *Utricularia* is erroneous. The bladders have the sides drawn in when empty. A touch on the bristles causes the bladders to expand violently and suck in the intruder: the suction power was sufficient greatly to distort the head of a small tadpole whose tail was caught in an adjoining bladder. Darwin's failure to find irritability was due to insufficient observation.

The print and paper are good, the figures sufficient, although the frontispiece of Desert Plants seems rather out of place. The index is inadequate and the colour scheme of the cover does not please us, but these are small blemishes in an excellent little book.

A. J. W.

#### BOOK-NOTES, NEWS, ETC.

ROBERT ALLEN ROLFE, whose death at his residence at Kew on April 13, after a long illness, we briefly chronicled in our last issue, entered the Royal Gardens in 1879, and in the following year obtained by competitive examination a post in the Herbarium. There he devoted himself especially to the *Orchidaceæ*, on which order he soon became our leading authority, the value of his work being generally recognised. In 1893 he established *The Orchid Review*, which he conducted with marked ability and sometimes at pecuniary loss until the end of last year. But although it is in connection with Orchids that Rolfe's name will chiefly be remembered, much good work in other orders stands to his credit. He paid special attention to the *Selaginæ*; his paper on that order (*Journ. Linn. Soc., Bot.* xx. 338-358: 1883), as described by Linnaeus and other early authors, is a