

### REVIEWS.

HOLTUM, R. E., *Plant Life in Malaya*, VIII + 254 pp., with frontispiece (photograph) and 51 full page plates with numerous line drawings — Longmans, Green & Co Ltd., London, New York, Toronto, Febr. 1954 — Price 18/—.

This charming and handy book printed on excellent paper, with its numerous clear pictures of well-known Malayan plants, reminds one in many ways of Merrill's "Plant Life of the Pacific World" (MacMillan 1946, New York), which has perhaps served Prof. Holtum as an example. Its size being only slightly smaller than Merrill's book and the area covered being very considerably smaller, its descriptions of plants are naturally more detailed; the more so as only a choice has been made, in which the special interests of the author — ferns, orchids, gingers — are evident though not predominant.

The plants described are not regionally arranged. The 17 chapters are rather headed by names of life-forms, striking organs, and special habitats. As is pointed out in the Preface, the book is "intended primarily for the Malayan resident who wishes to begin a study of Malayan plants". In this purpose the book will doubtless prove to be a success: the reader is gradually taught quite a bit of botany of various fields, morphology, anatomy, ecology, hybridisation, etc. These are demonstrated at plants which are within easy reach of the ordinary layman for which it is destined. Short opening and concluding chapters deal with general features of tropical plants and with the Malayan forest. Since the author is a well-known expert and the Malayan flora as here described is a very good example of any flora between, say, Calcutta and Fiji, it may well be useful to residents of many other countries as well.

H. J. LAM.

**E. H. BENEDIX**, *Indomalayische Cololejeuneen*, Inaugural-Dissertation 1953, 88 p. and 31 plates (Fedde's Rep. Beih. 134). Akademie-Verlag Berlin. Price DM 25.—

*Cololejeunea* is a tropical genus of minute, delicate and graceful leafy hepatics. Most of them are found growing on the leaves of ferns and palms. The above-mentioned thesis, based upon copious material, represents an excellent monograph of the genus in the Indo-Malayan region, i. e. Malaya and all islands of Malaysia, including the Andamans, the Philippines and New Guinea. Several specimens from India and S. China have been included, as well as some Japanese species, described by Horikawa. Forty-one species are distinguished, of which fifteen are new to science. Most of the others represent new combinations. Five formerly described species were excluded from the genus.

The most important taxonomical changes are the following: two genera (*Hemilejeunea* Schiffner and *Leptocolea* Evans) were united with *Cololejeunea*. The genus *Leptocolea* is not even allowed the rank of subgenus or section, nor has its name been used for one of the author's subgenera, although *Leptocolea* had also been published as a subgenus before. This is nomenclatorally incorrect. Similarly, the fact that the name *Cololejeunea* has not been used for one of the subgenera is not permissible (Stockholm code, art. 32).

Once again this study proves that, generally speaking, the classical opinion concerning the taxonomical value of sexual characters in bryophytes, is not tenable. Not the generative, but the vegetative characters are important for the classification, especially with regard to the subgenera and sections. The author describes six subgenera (five are new; one had already been described as a genus) and nine sections (new; no author's names are added; if new, their names are not valid, since Latin diagnoses are lacking).

An important morphological discovery is that of the swelling cells at the base of the perianth in most species. In the author's opinion they play an important role in the dissemination of the spores.

A strictly dichotomous key for the identification of the species is added; the alternative characters are sharply contrasting. The Latin diagnoses of the new subgenera and species are very detailed and well-balanced, the drawings are quite excellent.

It is regrettable that many species are not accompanied by a complete description. The altitude above sea level is sometimes given in meters, sometimes in feet.

J. J. BARKMAN.

**A. ENGLER's** *Syllabus der Pflanzenfamilien*, etc. 12te Aufl. von Prof. Dr Hans Melchior und Prof. Dr Erich Werdermann I. 1954. Gebr. Borntraeger, Berlin. DM 40.— It is a pleasure to welcome the re-appearance of this book which, before the war, used to be a popular handbook to all who had to deal with plant taxonomy. The last pre-war edition, the 11th one (1936), consisted of one volume of 453 pages and 476 figures. The present edition is planned in two volumes, the first of which (Bacteria to Gymnosperms incl.) comprises almost as many pages (376) and 140 figures. The increasing differentiation of science generally has also found its expression in this work, in as much as no less than 9 authors have dealt with the matter which was formerly treated by one or two, though admittedly with the help of some more. Engler's "Prinzipien der systematischen Anordnung", which bore a very personal impress indeed, have been replaced by the chapter "Grundlagen und Methoden der Systematik". This chapter as well as those regarding the 16 phyla is thoroughly modernised and in spite of the editors' modest remark that on account of insufficient access to foreign literature the present edition is to be considered a mere attempt ("nur einen Versuch"), the general impression is that the result is very satisfactory. Valuable additions are "Keys" to groups inside the phyla, and bibliographies to the various chapters. All figures were newly chosen. Much attention has been given to fossil plants. Modern views regarding classification, terminology and nomenclature have been cautiously introduced. Generally speaking, the "Syllabus" has — admittedly — developed into a kind of textbook. This seems justified as long as textbooks of the calibre of Wettstein's "Handbuch" are not yet available in the German language, but it cannot be denied that this development gives the book a somewhat ambiguous character. The print is very clear, the paper is of good quality and the cloth binding attractive, and of a more gay though more easily soiling colour than the earlier editions.

H. J. LAM.

WIMMER, F. E., *Campanulaceae-Lobelioideae*, II. Teil. Das Pflanzenreich, Regni vegetabilis conspectus. Im Auftrage der Deutschen Akademie der Wissenschaften zu Berlin herausgegeben von A. Engler (†) und L. Diels (†), fortgesetzt von H. Stubbe und K. Noack. Redakteur R. Mansfeld. IV. 276b (107. Heft). VIII + 554 pages, 57 fig. — Akademie Verlag, Berlin, 1953.

Between 1900 and 1943 the editors of "Das Pflanzenreich" succeeded in publishing a number of 106 instalments of various size, together containing monographs of 74 families of flowering plants, 10 of which being still incomplete.

This series will now be continued by the German Academy of Sciences and the first volume published after the war is that by Dr Wimmer, Vienna, containing the second part of his extensive monograph of the *Campanulaceae-Lobelioideae* (the first part was published in 1943). It deals with the genera of Lobelioideae with capsules (Lobeliaceae), whereas the first part contains those with berrylike fruits (Delisseae). It supplies us with keys, detailed descriptions, lists of synonyms, literature and specimens, so well known from earlier volumes of the series.

The fact that Dr Wimmer has spent 25 years of his life on the elaboration of this monograph may be a guarantee for its thoroughness and completeness. It is regrettable that the rather coarse drawings are contrasting unfavourably with the otherwise well got-up book.

S. J. VAN OOSTSTROOM.

E. M. MARSDEN—JONES and W. B. TURRILL. *British Knapweeds*. A study in synthetic taxonomy. Ray Society London 1954. 201 pp. 27 plates and 3 fig. — Price 27/6.

The authors have examined the British forms of *Centaurea*, especially those in the group of *C. nigra*, *C. nemoralis* and *C. jacea*; minor attention is paid to *C. scabiosa* and *C. aspera*. This group is stated to be very complicated in Britain owing to a high fertility in crossing; perhaps, however, the situation is still somewhat less complicated than in the Netherlands and other parts of western Europe. In the British Isles *C. nigra* and *C. nemoralis* are far more common than *C. jacea*; the intermediate forms are indicated as *C. jacea* × *nigra* a.s.o., no special names being given to these forms.

The authors have done a great deal of important work on the problem as a whole, considering it not only from floristical, geographical and strictly taxonomic points of view, but also from genetical, cytological and more general ones. Their conclusions are important too for taxonomic studies in other fields of botany.

It is interesting to learn that *C. nigra* and *C. nemoralis* are considered two distinct species (with which I agree); I was, however, surprised to find that only *C. jacea* has been mentioned and no related species from the continent of western Europe; I wonder whether the latter are really no natives of the British Isles. It is one of the facts that make the situation on the continent so complicated, that nearly 95 % of all the plants have to be labeled with x-indications! It is therefore possible that the taxonomic conclusion of this work, however reasonable for the British Isles according to the authors' results, and in agreement with my own little experience there, may not satisfactorily hold on the continent, *in casu* the Netherlands. However, this does not apply, of course, to the very important scientific and synthetic considerations, expounded in this book.

J. L. VAN SOEST.