

## REVIEWS

URSULA K. DUNCAN, *A guide to the study of lichens*. (T. Buncle & Co. Ltd. Arbroath. 1959). Pp. xxvii + 164, 19 plates; price: 25 s.

Lichenology in Great Britain nowadays rejoices in increased activity and interest. This is evidenced by the foundation of the British Lichen Society which came into being some time ago, and now runs its own journal, *The Lichenologist*. The present book is another example, and it certainly appears at an appropriate time.

The book which is written in clear and simple language contains a few introductory chapters (on the structure of lichens, the use of reagents and apparatus, and on the ecology), keys to orders and families, a descriptive part, a bibliography, a glossary, and an index, followed by the plates.

The most important part, of course, is formed by the descriptions. As stated by the author, the classification and nomenclature are based on the views expressed by W. Watson in his works. This certainly reduces the possibility for students to become confused by a multiplicity of synonyms already at the outset. The author very wisely restricted herself to exemplifying each genus by one species only, leaving it to the perseverance of the reader to try to identify his collection on hand—in case of disagreement with that first example—out of a number of specific descriptions printed in small type. As soon as the beginner feels dissatisfied with the results and reaches for a more detailed work, he should realize that he has been guided to a higher level, which is exactly what this Guide is intended for.

There are a few items which are recommended for improvement in the next edition. Instead of adhering to a natural key, an artificial one should be tried based on the characters of the thallus. Considering the fact that so many lichens (the majority of the foliose and fruticose species, and quite a number of the crustaceous species) are found without apothecia, it is an unfortunate choice to base the key to the orders on the apothecial characters.

As far as the illustrations are concerned, a number of them would have gained in distinctiveness if the photographs had been taken at much closer quarters.

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*Flora ČSR. B 1. Gasteromycetes. Houby břichatky*. Edited by A. PILÁT, with the collaboration of K. CEJČ, Z. MORAVEC, Z. POUZAR, V. J. STANEK, M. SVRČEK, S. ŠEBEK, and F. ŠMARD. (Nakladatelství Československé Akademie Věd. Praha. 1958.) Pp. 862, 257 text-figures; price: 87.50 Czech crowns, \$ 12.22.

Many mycologists will envy Czecho-Slovakia's amazing wealth of Gasteromycetes to which the present volume bears testimony. But, however rich the fungous flora of a country, rather than its riches which in itself is of comparative value to non-residents, it is the way the constituent elements are treated taxonomically which makes it interesting. An even more important feature is the close collaboration of Czecho-Slovakia's foremost mycologists resulting in this impressive book which is an achievement worthy of admiration.

Taken in alphabetical order, the authors wrote the following contributions: K. Cejč—Nidulariales; Z. Moravec—Lycoperdales (*Arachniaceae*, *Disciseda*); Sclerodermatales (*Tulostomataceae* except *Tulostoma*); A. Pilát—general introduction; Phallales; Gautieriales; Gastrosporiales; Sclerodermatales (*Pisolithaceae*, *Glischro-*

dermataceae, Calostomataceae); index to authors in mycological taxonomy; index to general works on Gasteromycetes; index to Czech names; index to Latin names; Z. Pouzar—Sclerodermatales (*Tulostoma*); V. J. Staněk—Lycoperdales (Geastraceae); Sclerodermatales (Astraeaceae); M. Svrček—Hysterangiales; Hymenogastrales; Melanogastrales; S. Šebek—Podaxales; Lycoperdales (Mycenastraceae); Sclerodermatales (Sclerodermataceae); F. Šmarda—Lycoperdales (Lycoperdaceae).

Most families include or are preceded by a pertinent bibliography which no student can afford to overlook.

The greater part of the book (up to p. 702) is in the Czech language, followed by a part in Latin (pp. 703–827), presumably appended for the benefit of the foreign readers. The last named part is an unfortunate attempt to combine keys with specific descriptions, which nearly destroys the purpose of the keys. This part, being in Latin, also serves as a means of validating the publication of the numerous new taxa described in the Czech text. In some cases, however, no indication can be found in either text whether the taxon concerned is proposed as new, or has already been described on an earlier occasion (*Hymenogaster* sections *Lutei* and *Vulgares*; *Melanogaster* section *Microspori*).

Usually, recombinations have their new status indicated in both Czech and Latin texts (e.g. *Calvatia caelata* var. *hungarica* and *Lycoperdon perlatum* var. *excoriatum*), sometimes in the Czech text only (e.g. *Lasiosphaera gigantea* and *Lycoperdon perlatum* var. *albidum*) more rarely in neither (e.g. *Melanogaster* section *Ambigui*).

As a rule, the types of new taxa are clearly indicated, sometimes in the Czech as well as in the Latin part, where one expects to find this kind of information. In some cases, however, it is found to constitute a part of the explanatory text to a photograph (without further specification as to which of the specimens depicted is to be considered the actual type; Fig. 160 and Fig. 164), or it is omitted altogether (*Astraeus hygrometricus* f. *ferrugineus*).

The genus *Geastrum* is subdivided in a number of sections and subsections. The latter are composed not, as might be expected, of series but of stirpes, which term has no nomenclatural standing.

The above observations are mostly technicalities which, of course, do not detract from the utility of the work as a Flora, but considering the fact that the importance of this volume reaches far beyond the limits of a simple book for identification, a closer observance of the Rules would have been justifiable.

One of the important features is that the species described by Beck, Schwalb, and especially Velenovský are accounted for. It would also have been instructive to learn what was meant by *Bovista ochracea* Wettst., *Geaster stellatus* var. *paucilobatus* Wettst., or *Scleroderma chryso sporum* Opiz.

Another laudable feature is the great number of illustrations, which, for the rest, is characteristic of all Czech mycological publications. Yet, one would have welcomed in other genera as well such figures as are shown on p. 357, illustrating by comparison various species of the same genus. In some cases, one wonders whether quantity (Fig. 171) really contributes to a better recognizability of a species than does quality (Fig. 188). Recognition of species of the hypogeous genera would certainly have been facilitated by the inclusion of anatomical drawings.

As shown on more than one occasion in mycological literature, Gasteromycetes have a habit of suddenly cropping up in regions far from their native country. This may explain—there may actually be an explanation to this effect in the Czech text—why so many species and even genera never yet found in Czecho-Slovakia are included, especially among the Phallales.

Instead of maintaining the one genus *Calvatia* in the generally accepted, broad sense, it seems a wise solution to distinguish three genera, viz. *Calvatia* s. str.,

*Vascellum*, and *Lasiosphaera*. Of these, the second is a new genus, consisting of a single species, the correct name of which should be based on *Lycoperdon pratense* Pers. As far as *Lasiosphaera* is concerned, it is open to serious doubt whether this is the correct genus to accommodate what was previously known under *Calvatia gigantea*. *Lasiosphaera* is based on a single tropical species, *L. fenzlii*, which is characterized by the tenacity of the capillitium which persists long after the peridium has disappeared. Surely, this characteristic cannot be said to be applicable to *Calvatia gigantea*. The only genus to be used in this case is *Bovistaria* (Fr.) P. Karst.

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A. PILÁT, *Naše Houby. II. Kritické druhy našich hub.* (Nakladatelství Československé Akademie Véd. Praha. 1959.) Pp. 345, 160 coloured plates (by O. UŠÁK); price: 100 Czech crowns, \$ 13.89.

This is the companion volume of a work of which the first was published seven years ago. Unfortunately, it is also the last one to appear. Illustrated works of such quality are regrettably rare, and further volumes would have eagerly been awaited.

The artist, O. Ušák, who died in 1957, had a good command of the difficult technique of painting fungi in watercolour, although his liking for a speckled rendering may be found to reach an excessive degree in some cases (Pl. 133).

The outstanding features of the book as an 'Iconographia' are the freshness and vividness of the colours, and the number of specimens of each species shown. The inclusion, however, of the spores does not seem very felicitous. They probably had better been removed to the opposite page, and augmented with such useful details as basidia, cystidia, and hyphae of pileus or velum.

As regards the species, it should be pointed out that they represent a random choice of the higher Basidiomycetes and Ascomycetes, with a marked preponderance of the Agaricales, but even in this group the number of illustrations bears no relation to the number of species of each genus concerned. Taking a group of closely related genera as an example, there is a striking lack of balance between the number of species depicted in *Cortinarius* (46) and that in the other genera such as *Inocybe* (3), *Hebeloma* (1), *Gymnopilus* (1, as *Pholiota spectabilis*), *Galerina* (0), and *Naucoria* (0).

It is to be regretted that a book of this kind has been chosen as a means of publishing taxonomical novelties. Surely, one would expect Česká Mykologie to be the appropriate place for the publication of a new species (*Cortinarius undulato-fibrillosus* Pilát, Pl. 101 fig. b; no type indicated), a new name (*Tricholoma radotinense* Pilát & Charvát, Pl. 64), a new variety (*Boletus purpureus* var. *le-galiae* Pilát, Pl. 4), or a new combination [*Tricholoma virgatum* var. *sciodes* (Secr.) Pilát, Pl. 69]. Whether *Agaricus squamuliferus* var. *caroli* (Pilát) Pilát is a new transfer I have not been able to find out. If it is, it is not validly published as it lacks any reference to its basynym. It would have been more correct if, in the case of *Clavulina cinerea*, Corner had been cited as the second author of var. *odorata*, var. *gracilis*, f. *subcristata*, and f. *sublilascens* (Pl. 154 fig. a). Important information is to be gained by consulting the synonyms, as in a number of cases Velenovský's species are involved. The index of Latin names at the end of the book (pp. 336-345) is well thought out, facilitating the orientation in both volumes. There is no doubt that the translated edition of this second volume will also be looked forward to by anyone interested in the higher Fungi.

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