REVIEWS

R. W. RAYNER, *A mycological colour chart* (Commonwealth Mycological Institute, Kew, Surrey & British Mycological Society, 1970). Pp. 34, Chart I (9 sheets), II (8 sheets). Price £ 2.

Good colour naming and colour coding are essential and also a good colour system. Once such a system has been adopted by an International Botanical Congress it is highly desirable that it be employed universally.

To my way of thinking the author of this work is correct in assuming that the system most suitable for this purpose is the Munsell system. I myself used it in describing the colours of *Taraxacum* achenes. Its three "co-ordinates", hue, value and chroma, are in agreement with psychological experience and can be translated in physical unities, as is done by the I.S.C.C. (Inter Society Color Counsel) and the N.B.S. (National Bureau of Standards) (America). This is a requisite of normalization.

In order to achieve as precise a perception of the differences in colours as possible the general Munsell charts are very extensive and they should be available in every botanical institute. Unfortunately they are too costly for the average private person. This is probably the reason why the Mycological Colour Chart has been published.

The author of the present chart has selected 128 colours, giving them the names introduced by Dade (1949). Unfortunately Dade defined his terms according to Ridgway's colour system while for several reasons this could better be dropped. The author's presentation according to the Ridgway system seems to me a pity. This, however, is not an essential point. Rayner has given each of the colours a number. In Table I he compares the colour names, with their numbers and their Latin equivalents, with the I.S.C.C.–N.B.S. names (not practical for the botanist) and the Munsell "mid-point". Table 2 gives the Latin names and their English equivalents. Table 3 gives the list of Ridgway names. The introduction of numbers for the 128 colours is practical for use with the chart but should not lead to some sort of "code" in itself. In my opinion use of the Munsell notation is necessary for the sake of uniformity.

The author and his wife have unquestionably done an immense amount of work but most of it is suitable only for documentation. For anyone wishing merely to compare colours it is sufficient to recognize a given colour of Chart I. After that he can find the English or Latin name and then the Munsell notation. Vice versa, he can find out what a colour mentioned in literature looks like on the chart. For those who desire to dig through the older literature and systems use of Chart II is recommended.

Since inevitably users of the chart will find the disparity between certain colours too great they will have to fill the gap with the general Munsell charts or else turn to the Commonwealth Mycological Institute for further advice.

A set of loose colour chips would provide the most practical way of comparing colours. If the appropriate chip is laid on the object to be compared the colour could be determined free of disturbance from any surrounding colour whatsoever.

J. L. VAN SOEST

D. M. HENDERSON, P. D. ORTON & R. WATLING, *Introduction. In* British Fungus Flora. Agarics and Boleti. (Her Majesty's Stationery Office, Edinburgh, 1969). Pp. 1–58, 50 figs., 1 colour identification chart. Price 12 s.

R. WATLING, *Boletaceae*: *Gomphidiaceae*: *Paxillaceae. In* British Fungus Flora. Agarics and Boleti. 1 (Her Majesty's Stationery Office, Edinburgh, 1970). Pp. 1–125, 108 figs. Price £ 2 10s. (= £ 2.50).

Mycology these days is receiving its full share of interest—introductions, text-books, illustrated works, monographs, or their reprint editions being published in an ever growing stream. But floras for some reason are slower in coming. 1953 was the year when mycologists looked incredulously and admiringly at Kühner & Romagnesi's masterpiece. In 1967 Moser obliged (at least a part of) the mycological world by the publication of the third and greatly enlarged edition of his "Röhrlinge und Blätterpilze." Now it is gratifying to see that work is under way for a British flora, indeed, the Introduction and the first instalment have been distributed.

The running title of the Introduction reads "Introduction and Keys," and it is obvious that these keys constitute the most important part.

Assuming that a perfect ignoramus got interested in fungi and brought a bolete home for closer inspection, he would very naturally try his skill with the first key he came across, the key on p. 9. There he would read couplet 1, proceed to couplets 2 and 30 respectively, feel somewhat puzzled about the indication "(29)", then decide his specimen [*Boletus rubinus*] did not belong in Pleurotaceae because of the soft flesh and the ellipsoid spores, and finally conclude he had collected some Tricholomataceae.

Of course, all beginnings are difficult, and there is no doubt that much later and after a great deal of practical experience the same student will readily agree that the "Artificial key to genera" (pp. 17–38) works smoothly, although he may admit that he was at first at a loss as to how to visualize colours like grey-clay or ochre-buff, not matched in the colour chart.

Part 1 requires some more comments, but it may be pointed out that these should merely be seen as an attempt to brush off specks of dust. These specks do not affect the value of Part 1 as a flora.

Microscopic elements, still measured in μ in the Introduction, are indicated as μm in Part 1. The spores of *Boletus pinicola* (p. 30) are 13–17 × 4.0–5.0 μm, those of *B. piperatus* (p. 31) 8–11/3–4 μm.

In *Aureoboletus* (p. 5) the Imler reaction is negative. Imler's reaction is mentioned on p. 1, but not explained.

In most species the basionym, if any, is duly cited, but it is omitted in *Gomphidius glutinosus* (p. 83), *G. roseus* (p. 85), *Paxillus atrotomentosus* (p. 89), *P. involutus* (p. 90), and *P. panuoides* (p. 91).

The gender of *Leccinum* is neuter; this is important to remember when correctly spelling *L. roseofracta* (p. 53) and *L. roseotinctus* (p. 53).

The iconography of *Boletus appendiculatus* (p. 16) should have come after the synonymy.

Instead of "uniform colour" (p. 17, line 17 from below), "homogeneous colour" is suggested.

In Enchiridion Fungorum I: 162, 1886 (p. 75) the "I:" is superfluous.

Opatowski's work was published in Wiegmann's Archiv für Naturgeschichte; this was variously abbreviated as "Weigmann's Arch". (p.7), "Weigm. Arch. f. Nat." (p. 50), "Archiv für Naturgeschichte" (p. 34).

The author of *Boletus grevillei* (p. 68) is Klotzsch, not Klotsch. The authors Haas and Hvass are frequently misspelled Hass and Hvaas (pp. 17, 19, 80, 89, 90). Svreck (p. 65) and Sverck (p. 91) refer to the same mycologist Svrček by name.

The valid publication of *Xerocomus porosporus* Imler, basionym of *Boletus porosporus* (p. 32), is not in Bull. Soc. mycol. Fr. 71: 21. 1955. *Gomphidius gracilis* (p. 85) was published in vol. 13 of the second series of Ann. Mag. nat. Hist. *Boletus edulis* subsp. *reticulatus* (p. 14) is a recombination published by Konrad & Maublanc on 23 March 1926, not 1937. The recombination *Boletus edulis* subsp. *pinicola* (Vitt.) Konr. & Maubl., according to a note in their "Icones", was printed in December 1936, but the pages were not released for distribution before April 1937. This is the date to be taken as the effective date of publication, not 1935 (p. 30). *Xerocomus boudieri* Sing. (p. 27) was published in 1942, not 1943. *Boletus pseudosulphureus* (p. 33) was published in Z. Pilzk. 2: 225 (not 255). 1923. Miller's monograph of *Chroogomphus* (p. 79) was published in the 56th (not 54th) volume of Mycologia. The generic name *Chroogomphus* was proposed on p. 529, not 526. *Gomphidius helveticus* (p. 79) was published in the 28th (not 21st) volume of the Schweiz. Z. Pilzk. "*Flammula aldrigei*" (p. 94) was published in 1891, not 1892, and it did not appear under that name, being published as *Agaricus (Flammula) aldridgei.*

The alphabetical arrangement of Part 1 makes it an easy matter to find the name of a species, but an index for the synonyms would have its merits.

The habit sketches of the species are downright disappointing.

The specific descriptions are adequate and the comments accompanying them indicate that the author is intimately acquainted with his species.

R. A. Maas Geesteranus

John Webster, *Introduction to fungi* (Cambridge University Press, 1970). Pp. viii + 424, 244 figures. Price £ 3; $ 10.50.

The author, seeking to justify the publication of yet another text-book, pointed out the desirability of "an introduction to fungi which are easily available in the living state" and of "original illustrations of the kind that a student could make for himself."

There is a third justification. Leafing through the chapters one soon realizes that

an author, whether or not he is aware of it, creates an atmosphere of his own. It is in the way he approaches his subject and manipulates his idiom that he greatly influences the reader's attention. The reader may be profoundly impressed by the book of one author, and yet prefer using another author's book, because the latter appeals to him, coincides with his own mental disposition. This being so, there is no doubt but that Webster's book will collect its own circle of readers.

This text-book is in marked contrast to many others in that it presents only a restricted number of examples, but gives ample compensation for this economy by furnishing a wealth of information on biology, cultural characteristics, pathogeneity, reproduction, and genetics.

It is not the reviewer's intention to discuss the various groups treated, but he may be allowed to make one or two comparisons, even if the author has warned that "no attempt will be made to treat each group in equal detail" (p. 4). It would seem, however, that some genera do get rather less than their share, see e.g. *Peziza* (p. 267) as against *Pleospora* (p. 278), or *Lepiota* (p. 310) and *Cortinarius* (p. 312) as against *Lycoperdon* (p. 345).

As an introduction the book is well balanced and sufficiently detailed. For students who desire further information there is an ample list of references.

The drawings are good to excellent, but Fig. 207 looks decidedly unconvincing. Unfortunately many of the photographs cannot win the reviewer's admiration.

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