

NYHOLM, E., Illustrated Moss Flora of Fennoscandia. II. Musci, fasc. 1, 1—87, 1954. Price Sw. cr. 15.—; fasc. 2, 85(1)—189, 1956. CWK Gleerup, Lund. Price Sw. cr. 15.—.

These fascicles, the first part of a moss flora of Fennoscandia, comprise five (acrocarpus) orders of the Eubryales. All species and a number of forms and varieties have been included. There are clear dichotomous keys to genera and species. Of each species the original literature, the most familiar synonyms, an excellent description with critical remarks on the differences between allied species and original drawings have been given. Ecology and general distribution have been indicated, with special reference to Scandinavia. In addition there is a glossary of technical terms, which is nearly identical to that in Dixon's famous Student's Handbook of British Mosses, though less extensive.

Nevertheless it may be doubted whether this book actually fills a need in Scandinavian bryology. It is not suited for "workers in all fields of botany, forestry, limnology, etc.," as the author suggests, since keys to the families are lacking. Besides, there is the excellent moss flora of Brotherus, *Die Laubmoose Fennoscandias*, not mentioned in this connection in the preface.

It is true that Brotherus does not illustrate all species and that his keys are not always dichotomous and often make unnecessary use of difficult or uncontrollable anatomical, sexual and sporophyte characters. But, although being somewhat better in this respect, the keys in Nyholm's flora are by far surpassed by those in Dixon's Student's Handbook, which in this respect fully supplements the work of Brotherus. Moreover, the drawings both in Brotherus and in Dixon are generally better than those of Nyholm's, which, by the way, lack any indication of the scale of magnification used.

Literature, synonyms and detailed distribution in Scandinavia are also to be found in Brotherus.

J. J. BARKMAN.

ARNELL, S., Illustrated Moss Flora of Fennoscandia. I. Hepaticae, 1—314, 98 figs. — CWK Gleerup, Lund, 1956. Price Sw. cr. 35.—.

After some fascicles on mosses had appeared (cf. the above review), a volume dealing with hepatics has now been published. The main differences from the previous fascicles are the following. This volume is partly a translation from Buch's liverwort flora of Finland, written in Finnish (*Suomen Maksasammalet*, 1936) and a synthesis of that work and the Swedish flora by Arnell (1928). The drawings have for the greater part been borrowed from these and other floras; as a rule, they are excellent and of a higher quality than those in the moss fascicles. Unfortunately, unlike the British flora of MacVicar, Arnell's book only gives illustrations of leaf cells for a restricted number of species, and a scale of magnification is not always indicated. The addition of a key for the families means a great improvement. The glossary is also much more extensive than in the moss fascicles, even more so than in MacVicar's Handbook. Explanations are in Swedish, but in many (not all) cases the Latin or Greek roots have been added. This book seems most useful indeed and actually fills a long-felt need.

J. J. BARKMAN.