

## Review

A. Maitland Emmet (ed.) 1996: *The moths and butterflies of Great Britain and Ireland. Volume 3. Yponomeutidae–Elachistidae.* — Harley Books, Martins, Great Horkesley, Colchester, Essex C06 4AH, England. 452 pp. (11 colour plates, 8 duotone plates of larval cases, several hundred text figures and 240 maps). ISBN 0-946589-56-9 £75.00 net; P/B ISBN 0 946589 56 9 £37.50 net.

This book has been edited by A. Maitland Emmet, with the assistance of Associate Editors D. S. Fletcher, B. H. Harley, J. R. Langmaid, G. S. Robinson, B. Skinner, P. A. Sokoloff and W. G. Tremewan. In addition, two artists, Richard Lewington and Timothy Freed, have helped in the compilation of this excellent book. The chief editor has also written several chapters either alone or together with well-known specialists, i.e. D. J. L. Agassiz, H. C. J. Godfray, P. H. Sterling, J. R. Langmaid, K. P. Bland, M. V. F. Corley and J. Razowski. In the inside frontcover, there is mention of all those involved.

In the preface, the readers are familiarized with the background of the huge project, *The Moths and Butterflies of Great Britain and Ireland*, which started with the publication of Volume I already in 1976. All those working with invertebrates are well aware of the irritating fact that nomenclature and also the systematic position of species change. The editor writes "If MGBGI attempted to follow the latest systematic arrangement in entirety, the result would be chaos" and later "Our policy, therefore, is to describe all species in the volume to which they were originally assigned but to rearrange them within each volume in the light of current doctrine". It was also stated in the preface that especially Coleophoridae and Elachistidae are so difficult to determine without genitalia that figures would be given of all species in these families. I think it would have increased the book's value even more if the genitalia of all other families could have been illustrated here, between the same covers. For instance, when going through material collected with light traps, the moths — as is well known — are not always in the best condition. On the contrary, they are often so worn that one must ensure the identification by genitalia. Although, of course, illustrating the genitalia of all species would be rather laborious, but I feel it would have been energy well spent!

Before the section on systematics, there is a rather long and interesting survey of the invasion of Lepidoptera into the British Isles. It includes data on the rate and pattern of encroachment, a list of species that have been established in the British Isles, and characteristics of the invading species. The reasons for the invasion are thoroughly discussed. The list of food plants and the ecology of these newcomers is interesting; in several cases, it shows the trends of horticulture. The distribution patterns are presented in a collection of maps that clearly demonstrate the different ways of spreading in the British Isles.

At the beginning of the systematic section, the scheme of classification detailed by Kloet and Hincks (1972) is given. Here, the families represented in the present volume are listed, i.e. Roeslerstammidae, Yponomeutidae, Glyphi-

pterygidae, Orthoteliinae, Epermeniidae, Schreckensteiniidae, Coleophoridae and Elachistidae. The status and possible subfamilies are presented and discussed at the beginning of each family. The most important references are cited here. This is followed by a check-list of the British and Irish species of the family in question. Older synonyms are listed, too, and most thoroughly, which I especially liked. Although this kind of huge compilation work diminishes the need to look at older articles, now and then there can still be some reason for taking even these under consideration, and it is especially important to know what the name of a certain species is today!

Keys have been given at a varying level — some lead the reader to families and subfamilies, and others to species. Anyway, keys have been presented for the groups in which they are needed most. The key to Coleophoridae has been based upon larval cases. This is quite understandable, because the identification of many adults based solely on imago is almost impossible, but if one knows the case and foodplant, it makes identification easier. Coleophorids represent a group for which it is possible, from fresh samples, to press especially the male genitalia slightly open with forceps and in this way facilitate recognition. It renders the troublesome slide-making process unnecessary. Genitalia figures are, therefore, most important. In fact, the procedure can be used with many groups, and, if done carefully, does not harm the appearance of the individual in the least. Elachistidae is a family in which the pressing method is void. Here, genitalia are in many cases the only method for making a positive identification, even in the case of fresh specimens. The male genitalia are figured in an unorthodox way — they have been cut to pieces! I don't consider it a poor solution, quite the contrary, I think it shows the real differences in the best possible way. Those dealing with these tiny moths know that the differentiating characters are not always so remarkable.

Each species is presented according to the same, detailed scheme, with the following subtitles: Description of imago, Similar species (where needed), Life history and Distribution. The Description of imago section is sometimes perhaps too long. It might have proved better to concentrate upon the features separating it from a possible relative or similar species. On the other hand, this kind of book will be used as a basis for future research, so if the publisher can afford it, it's fine. There is no need to read sections you find unnecessary. Perhaps the shortening of this chapter wouldn't even have influenced the price of the book enough to make much of a difference. In cases where the earlier descriptions have been inadequate, the long and detailed descriptions of imago are essential. The thorough descriptions of

life histories on the other hand are really good because, in many cases, they help locate certain species. This holds especially true for coleophorids. The Life history title has further subtitles like Ovum, Larva, Pupation and Imago, which helps and also shows at one glance where there are blanks in the general knowledge. In fact, within coleophorids, there are many species where the life history is described for the first time, which increases the value of the book. Maps on the distribution in the British Isles and Ireland are included in each species.

At the end, there are excellent black-and-white figures of the cases of Coleophoridae and colour tables on the imagos. They have all been drawn, mind, but still manage to look authentic. One exception caught my eye — *Elachista eskoi* looked odd to me. I have been under the impression that it has black wings, but in the table it is figured as light grey, which is also confirmed in the text, so I must accept that it is indeed different on the British Isles, and hasn't just been coloured in incorrectly!

As a Finnish reader and biologist, I, as always where Middle European or British books are in question, turn green with envy (although, I'll accede Fauna Entomologica Scandinavica has helped relieve my suffering). Still, I wonder that the writers don't study more species from their neighbourhood, if only to be presented briefly. This would widen the readership enormously. I do not doubt that the readership of *The Moths and Butterflies of Great Britain and Ireland* is already extensive, but it would still better serve many more lepidopterologists with this addition.

Anyway, it is fantastic that even in these days of dominating hypothetical ecology, with its thousands of zero hypotheses, someone can do this kind of research and publication. The authors and publishers must be heartily congratulated and thanked for this excellent and beautiful book — I can most sincerely recommend it to all lepidopterologists dealing with so called "micros".

Juhani Itämies