

Literature

Emmet, A. M. & Heath, J. (eds.): *The Moths and Butterflies of Great Britain and Ireland, Vol. 7(1): Hesperiiidae – Nymphalidae. The Butterflies.* 380 pp. Harley Books, Colchester. ISBN 0 946589 25 9. Price GBP 49.50.

The butterflies form a most conspicuous and colourful assembly of insects, and as, in addition, they fly freely in daylight and are generally fairly large for insects, it is natural that they had attracted attention long before modern entomology existed. There can hardly be any doubt that they still are the insects best known among the general public. They have also been studied quite intensively by scientific entomologists, and at least within Europe there is a fairly good knowledge of this group. Therefore the first question that arises when a new book has been published is "What new things does it offer?"

The current series of books on British Lepidoptera, of which this is one, has since beginning in 1976 already covered quite a number of families. In some families, particularly those of small moths, the books have primarily offered a way to identify insects previously poorly known. In the new volume this function is of less importance. There are, of course, keys to the species, and numerous colour plates by Richard Levington, but those aspects have been covered by many other books, as well. In this book the ecological information is quite thorough, having been collected from a large number of widely dispersed papers, as well as from the authors' experience, and I have no doubt that it will for a long time remain one of the major sources to knowledge on butterfly life. The text itself is written by thirty different authors, sometimes singly, sometimes a few in collaboration.

The ecological information covers such aspects as life history of the early stages, the flight period and occasionally the behaviour of the imagines, and distribution of the species in the area covered. Information on larval food plants seems to be based almost exclusively on British observations, so for species not native to Britain there is very little ecological information. The distribution is given on maps with 10 × 10 km squares, so that older records are differently marked. There is generally also a discussion on past and present occurrence, often with hypotheses as to the reasons for the observed changes.

Altogether 112 species are included in the volume. Of these 54 are listed as native, continuously occurring species;

additionally three common migrants have from time to time established breeding populations. At least five, maybe even nine species have become extinct in recent times, and for two of them successful re-introductions are described. Then there are some infrequent or rare immigrants, and finally a rather large group of 21 species which are considered to have been brought to Britain by trade. Most of these species live in Central or Southern Europe, but the list also includes some American and Indian species.

The nomenclature of butterflies is still far from stable. Nowadays we do no longer expect much alteration in the specific names, but the assignment of species to genera is quite fluid, we hardly find two books with exactly the same arrangements. In this one some sections seem to have been treated by different methods than have others. So we find for instance, in Argynnini the genus *Boloria* taken in a wide sense, with *Clossiana* included, and similarly *Argynnis* including *Fabriciana*, *Speyeria*, *Issoria* etc.; on the other hand we have in Melitaeini *Eurodryas* and *Mellicta* listed as good genera. Again *Lycaeninae* seems to have been lumped, and *Polyommata* split.

The butterflies have, more than any other insect group, received vernacular names in a great many languages. In English such names are known already from the late 17th century. In a separate chapter A. M. Emmet discusses these names, their changes during time, and the how and why of their adoption. The systematic section also includes discussion on vernacular names, and we find here a considerable amount of information on early English naturalists.

As already noted, some British butterflies have disappeared in recent times, and a few have been re-introduced from elsewhere. The severe strain on the environment that nowadays can be observed in wide areas may lead to the necessity for similar action elsewhere. A separate chapter, written by M. G. Morris and J. A. Thomas, discusses the aims and means of such introductions, and may give important information to those contemplating whether or not to employ similar methods in their areas.

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