Book reviews — Buchbesprechungen — Analyses

Noctuidae Europaeae Volume 2. Noctuinae II. Michael Fibiger. 230 pp., 11 col.pls., 22.2 × 29.2 cm, hardback. Entomological Press. Sorφ (Denmark), 1993. ISBN 87-89430-02-6. Sold and distributed by Apollo Books, Kirkeby Sand, 19, DK-5771 Stenstrup, Denmark, DKK 680 excl. postage (10% less to subscribers to the whole series, Vol. 1-12).

This excellent and long awaited bilingual volume (in English and French) is the second of the series Noctuidae Europaeae, the first volume of which was issued in 1990. It deals with the genera and species within the subfamily Noctuinae which were not included in Volume 1. In total, 27 genera and 116 species are treated in this volume.

The book follows the same layout used in volume 1, i.e. an Introduction, followed by a very useful taxonomic and nomenclatural summary. Then follows the systematic part, representing by far the bulk of the book, where all genera and species are thoroughly treated. For each genus and species, the taxonomy, diagnosis, bionomy (if known) and distribution are presented. Distribution maps (incorporating all recent political boundaries in Europe) have been prepared from the precise maps developed through the "Faunistica Lepidopterorum Europaeorum" (FLE) project (Svendsen & Fibiger, 1992). When a particular species also occurs beyond the borders of Europe, supplementary information is provided on its entire distribution. Eleven magnificent colour plates by David Wilson depict all species and subspecies occurring in Europe, most of them including many different forms and both sexes. Many of the photographed specimens are the only ones available of that particular species or subspecies.

Finally, the inclusion of a very useful and necessary Corrigenda to Volume 1 is highly welcome. The book closes with a list of references and an index to species.

The nomenclature follows that of the "Systematic List of the Noctuidae in Europe" (Fibiger & Hacker, 1991), though with some revision. Also, comments made on the occurrence of doubtful taxa in Europe are now referred to this list instead of that of Hartig & Heinike (1973) as done in volume 1.

With respect to taxonomy and nomenclature, this book includes three neotype and seven lectotype designations. One newly described genus, *Divaena* (for *haywardi* (Tams, 1926)), separated from *Noctua*, and six newly described subspecies. Also, 54 taxa are newly synonymised. Finally, the author presents 13 taxa with revised status and 13 new combinations. There is no doubt that this work contributes enormously to bringing more order within this subfamily.

The brief diagnostic descriptions given in the text, in combination with the excellent colour plates will enable most lepidopterists to identify their European Noctuinae material.

It must be mentioned that genitalia illustrations are missing in this volume, but both the male and female genitalia for all of the species of Noctuinae treated in volumes 1 and 2 will be published as volume 3, still in preparation. The book contains a few inaccuracies which in no way affect the general excellency of the work. The question marks appearing in Spain and Portugal on the distribution map for *Diarsia dahlii* (Hübner) should be eliminated. The five records of this species for the Iberian Peninsula are considered to be misidentifications of other Iberian *Diarsia* and/or *Xestia xanthographa* or *X. baja* (Yela & Sarto i Monteys, 1990).

The taxon *pulverea* (Hampson), formerly considered a subspecies of *Xestia cohaesa* has proved to be a synonym of *X. cohaesa cohaesa* (Herrich-Schäffer). The two specimens depicted on Plate 11, Figs 28 and 29 in fact belong to an undescribed subspecies of *X. cohaesa* occurring in the Ukraine (Crimea), the Caucasus and the Transcaspian area (Fibiger, in prep. and pers. comm.).

To avoid confusion, some remarks should be made on the systematic position of the genus *Mesogona* Boisduval, 1840. This genus seems to be better placed along with genera included within the lpimorphinae and was placed there by Fibiger & Hacker (1991). However, in the present work, the genus is again placed at the end of the Noctuinae. As explained by the author on p. 188, this is due to the fact that the plates were photographed before the change was made in 1991.

A final reflection of the reviewer touches the meaning of the genus in Zoology, exemplified by the Noctuinae genus Noctua. As most moth students know, Hartig & Heinicke (1973) recognised 9 european species of the genus Noctua. Since then another 5 species have been added. However, one of these, Nochardinyi, was recently removed from Noctua and placed into the Nearctic genus Cryptocala by Behounek, Rietz & Ahola (1990) following a careful examination of this and related taxa, including their larval stages. In the work under review, Fibiger separates haywardi from Noctua and places it into a new genus, Divaena, based on its remarkable wing pattern and differences in the male and female genitalia. Very recently, Beck, Kobes & Ahola (1993) created two more genera and revived three others, based mostly on differences detected in the larval stages, to accomodate the remaining "Noctua" species. The outcome being that in the last four years the genus "Noctua" has been split into eight genera: Noctua, Paranoctua, Latanoctua, Lampra, Euschesis, Internoctua, Divaena and Cryptocala.

It seems that in the world of noctuid systematics, there are two schools with different approaches to finding a natural classification of the Noctuidae, and these are competing to impose their points of view. One bases its arguments on adult morphological characters, mostly genitalic, while the other does so on the immature stages. At the present time, noctuid systematics is under

fire and no doubt new combinations and species placements will be proposed in the near future. A mess may result from this contest. My opinion is that both schools should work together, electrophoretical and DNA studies incorporated into the analysis and that, while this is in progress, splitting at the generic level should be avoided as much as possible (instead, genus groups could be used provisionally). Also, more objective rules for the creation of new genera should be established by the entomological community.

Apart from all these considerations, the book by Michael Fibiger is a very good and necessary tool for anyone interested in this evolutionarily young and complex family of moths, whose phylogeny and systematics raise both controversy and passion.

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Noctuidae Europaeae Volume 2. Noctuinae II. Michael Fibiger. 274-276