Leraut, P. 2006. Moths of Europe. Volume I. Saturnids, Lasiocampids, Hawkmoths, Tiger Moths... – N.A.P. Editions, Verrières le Buisson. 395 pp., 78 colour plates depicting 1'098 specimens. ISBN 2-913688-07-1. English version 59 € [A French version is available at the same price]. More information on the publishers' website: www.napeditions.com

This is a well illustrated field guide in the style of the butterfly books by Higgins & Riley and Tolman & Lewington. Indeed, the scope and size of the work immediately invite comparison with Rougeot & Viette's 1978 book «*Guide des Papillons Nocturnes d'Europe et d'Afrique du Nord.*" While the Rougeot & Viette guide treated only eight families of the heterogenous assemblage traditionally termed "Bombyces" the Leraut guide includes the following nineteen families: Saturniidae: 10 species (+ 1 extra-European species figured); Lemoniidae: 4 (+ 3); Brahmaeidae: 1; Bombycidae: 1; Endromidae: 1; Notodontidae: 47 (+ 8); Lasiocampidae: 38 (+ 19); Drepanidae: 20 (+ 1); Lymantriidae: 28 (+ 6); Axiidae: 3 (+ 2); Limacodidae: 4 (+ 1); Somabrachyidae: 1 (+ 5); Heterogynidae: 7 (+ 2); Thyrididae: 1; Castniidae: 1 (the recently introduced *Paysandisia archon*); Cossidae: 17 (+ 29); Sphingidae: 33 (+ 3); Hepialidae: 15 (+ 6); and Arctiidae: 88 (+ 28). In total some 320 European species are treated in detail and another 114 North African, Middle Eastern, and Central Asian species are figured "for complementary information and for their beauty".

The area covered by the book is Europe, but as there is no discussion of the geography in the introductory chapters the eastern delimitation of what the author considers "Europe" is not quite clear. Strangely, the map projection chosen for the distribution maps is one which does not allow to include the southeastern parts of Europe (Greece, Macedonia, Bulgaria, Romania, Moldova, Ukraine, Belarus, and most parts of European Russia), which is all the more inexplicable as the maps are set in frames that show a considerable expanse of empty Atlantic Ocean on the left. Many southeastern species like *Axia nesiota*, *Hyles zygophylli*, *Stygia mosulensis*, *Dyspessa salicicola*, and others do not have a distribution map at all while other species like *Lemonia balcanica*, *Peridea korbi*, or *Dolbina elegans* show only small distribution dots at the extreme right-hand border of the map. Apart from this, the use of maps with modern political borders would have improved the book: Lithuania, Latvia, and Estonia are still shown as parts of Russia; the Czech Republic and Slovakia are shown as one country, as are Slovenia, Croatia, Serbia, Bosnia-Herzegowina, Montenegro, and Macedonia..

The text for each species contains brief descriptions of male and female imago, variation, closely related species, biology (with host plants, habitat, and altitude range), flight-time, distribution, status (abundance), comments, and Englisch and French vernacular names. The text part also includes numerous line drawings by well-known scientific illustrator Gilbert Hodebert, showing genitalia, wing marking features, and venation.

A rather unusual feature for a field guide is the inclusion of a number of new taxa descriptions which might have been better placed in journals where more detailed descriptions and figures could have been given. The three new species and five new subspecies are: *Cilix algirica* n. sp. from North Africa and (somewhat doubtfully) Portugal, *Heterogynis valdeblorensis* n. sp. and *Heterogynis pravieli* n. sp., both from France, *Paidia rica lusitanica* n. ssp. from Portugal, *Eilema lutarella luqueti* n. ssp. from France, *Notodonta dromedarius cleui* n. ssp. from the French Alps, *Orgyia aurolimbata catalonica* n. ssp. from the Pyrenees, *Somabrachys codeti rungsi* n. ssp. from Morocco; and five new forms. A significant number

of status changes, new combinations and synonymies are noted. In particular, there is a revised nomenclature of the genus *Somabrachys* which Leraut divides into six species while de Freina & Witt (1990) had united all *Somabrachys* taxa into one species. In *Setina* only three European species are recognized: *irrorella*, *ramosa* (= *aurita* nom. praeocc.) and *roscida*; all other taxa are downgraded to subspecies or synonymized. In addition to the European *Holcocerus aries* no less than 13 additional palearctic *Holcocerus* species are figured (Pls 42–43), some of them transferred to *Holcocerus* from other genera.

There are a few inconsistencies in the treatment: some northern European species (*Holoarctia fridolini, Acerbia alpina*, and the rare *Borearctia menetriesi*) are not figured and only briefly mentioned in the comments section of related species. In *Eilema lurideola* a specimen with an atypically shortened costal streak is figured both on the plate and in the text. The female of *Pharmacis claudiae* is no longer unknown; it has been described and figured a decade ago (Bertaccini et al. 1997; Pro Natura – Schweizerischer Bund für Naturschutz 2000).

The colour plates are of good quality. The specimens are shown against a white background with an electronically produced grey shadow – a feature provided by most imaging software nowadays – which can be helpful when white moths or specimens with pale or contrasting fringe scales are figured, but in greyish specimens this tends to obscure wing shape and in others antennal structure. From the users' point of view it is a great pity that so many plates show the specimens in reduced size. In a few families like Saturniidae and Sphingidae this hardly affects identification. However, as the reduction is not noted on the plates inexperienced readers may be confused, especially as the rate of reduction varies not only from plate to plate but also within the plates; e.g. some *Hepialus humuli* are the same size as *Gazoryctra ganna*. On at least one plate (Heterogynidae and Thyrididae) the specimens are enlarged. Although each species' wingspan is stated in the legends to the plates (e.g. "28–50 mm") this is not really helpful as it requires either a familiarity with the group in question or the application of a ruler. For future editions the use of the same rate of reduction for all specimens on a plate and the inclusion of a scale bar should be considered.

Specimens are photographed with the light-source situated in front and above the moths, but so low that wing structures (veins, folds) become apparent, which can be helpful in some groups but rather inconvenient in others, e.g. in *Eilema* where the shadows on the wings tend to obscure the finer details of colour.

In some instances the figured moths are the same individuals as in the Rougeot & Viette guide and make for an interesting comparison of 28 years' progress in photography and printing technology (see for example RV plate 22 and Leraut plate 19). The Leraut plates show a better gradation in the light tones.

Looking at all the Middle Eastern and Central Asian species figured in this book – interesting and beautiful though they are – some readers might ask if they could not have been left out in favour of natural-size figures of the European species? Or, alternatively, could not at least the North African fauna – which is quite comprehensively figured in this book – also be treated in detail in the text in one of the next editions?

As a whole the book is well produced, with robust, laminated covers and it is astonishingly compact (20 x 13 cm) and lightweight considering the large number of species treated. It will be especially useful as a field companion and may be a good alternative for those who look for a comprehensive yet affordable and portable book.

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References

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de Freina, J. J. & T. Witt 1990. Die Bombyces und Sphinges der Westpalaearktis (Insecta, Lepidoptera). Band 2. – Edition Forschung und Wissenschaft, München. 140 pp., 10 col. pls.

Pro Natura – Schweizerischer Bund für Naturschutz 2000. Schmetterlinge und ihre Lebensräume. Arten, Gefährdung, Schutz. Band 3. – Fotorotar AG, Egg. XII, 914 pp., 34 col. pls.

Marianne Horak 2006. Olethreutine moths of Australia (Lepidoptera: Tortricidae), with contributions by Furumi Komai. – Monographs on Australian Lepidoptera **10**. – CSIRO Publishing, Collingwood, Australia. 528 pp. Hardback (ISBN 0 643 09093 2). 160.00 AU$.

With just over 9,000 described species the Tortricidae form the second largest lineage within Microlepidoptera after the Gelechioidea, but they are more important economically. The majority of tortricid larvae are leafrollers, but internal feeders are present in all three subgroups: the Tortricinae, Chlidanotinae, and Olethreutinae. The magnificent new monograph here reviewed contains much information of importance on Olethreutinae of Australia and elsewhere. *Olethreutine moths of Australia* starts with a full page abstract, an informative introduction, a material and methods chapter, and acknowledgments. The main chapters treat the phylogeny, morphology, life history, diversity and distribution, and the Australian genera of Olethreutinae. The book is completed with a list of references, a character matrix for the cladistic analysis, a list of host plants of oletreuthine genera, and finally an index.

A detailed description of the subfamily is given in chapters *Phylogeny*, *Morphology*, *Biology*, and *Diversity and distribution*. A cladistic analysis based on 126 morphological characters for 73 olethreutine genera plus two outgroup taxa is provided; it was made with WinClada and NONA. In chapter *Morphology*, a detailed description is given for the structures of the head, thorax (incl. wings and legs), pregenital abdomen, as well as male and female genitalia. The text is illustrated with numerous photographs of the structures described in the text, and the variation of olethreutine wing venation is shown by images of wing preparations of representatives of more than 50 genera. A general idea of the life history of olethreutines is given in chapter *Biology*. Here, Marianne Horak links life history information with morphology and phylogeny, e.g. the egg-laying mode is correlated with ovipositor morphology, and the ancestral tortricid larvae where external feeders. Host-plant records are available for at least one species of 75% of the Australian genera, but still there are often too few records to provide information about food spectrum. Nevertheless, first generalisations are justified to characterise certain genera by their larval host plants. In the chapter *Diversity and distribution* Marianne Horak shows that the majority of Australian olethreutine genera occur in the northeastern part of the continent and is related to the Oriental fauna. There are relatively few endemics, but diversity is regarded as high with 249 described species and an estimated 200 undescribed.

The main part of the book, headed *Australian olethreutine genera*, starts with a key and reviews the 90 genera occurring in Australia, which are classified into six tribes and several genus groups. For each genus the author gives full synonymy, a diagnosis,

a morphological description (head, thorax, wings, pregenital abdomen, male and female genitalia), distribution, life history, remarks, and a list of the constituent species in Australia (containing references of original descriptions, original generic combinations, and type locality). Numerous nomenclatural innovations are provided. For Australia, 12 new genera and 16 new species are described; and one revised and 41 new generic combinations are proposed. For taxa occuring outside Australia, one more genus is revised as valid, and 80 new generic combinations are provided. In addition, several names are proposed for synonymy and *Argyroploce* Hübner remains as an unplaced taxon. The treatment of the genera is well illustrated by photographs of the head, scaled wings, as well as male and female genitalia.

The detailed descriptions and illustrations perfectly enable the identification of all Australian and some Oriental olethreutine genera, as well as a number of species. Moreover, it is a comprehensive treatment of these animals from Australia, which significantly improves our understanding of the phylogenetic relationships of Olethreutinae, their life history, and diversity. Without any doubt, it will have a crucial impact on our understanding of olethreutine evolution worldwide. It can be recommended to anybody interested in the systematics, ecology, applied entomology, or evolutionary biology of Olethreutinae. Anyone who will check this book will recognise the immense and careful work, and will want to congratulate Marianne Horak and her collaborator, Furumi Komai.

Matthias Nuss