

## Book reviews — Buchbesprechungen — Analyses

*Fauna of Saudi Arabia* vol. 11. W. Büttiker & F. Krupp (Eds). 381 pp., 28.7 × 22 cm, hardback. National Commission for Wildlife Conservation and Development (NCWCD), Riyadh, Saudi Arabia, and Pro Entomologia, c/o Natural History Museum, Basle, Switzerland, 1990. ISBN 3-7234 0010 8. Price : SFr. 159.

WILTSHIRE, E. P., 1990. An Illustrated, Annotated Catalogue of the Macro-Heterocera of Saudi Arabia. *Fauna of Saudi Arabia* 11 : 93-250, 558 figs on 13 coloured and 7 black & white plates.

The 'Fauna of Saudi Arabia' series was initiated in 1979 under the editorship of two Swiss entomologists, Dr.h.c. W. Wittmer and Prof.Dr. W. Büttiker. The vast majority of the material treated in the first and much of that in subsequent volumes was collected by Prof. Büttiker from 1975 onwards and is deposited in the Basle Natural History Museum. The initial idea was that four or five volumes would be published over about ten years. However, over this time period there was sufficient material and financial support, not to mention the tremendous enthusiasm of the editors, to enable the publication of 10 volumes. Many of the articles are accompanied by good quality coloured plates. From vol. 5 onwards, all articles have been published in English. In 1984 (for vol. 6), Dr. F. Krupp, Frankfurt, took over from Dr. Wittmer as co-editor. 'Fauna of Saudi Arabia' has become a well respected and very important series covering all aspects of the fauna of Saudi Arabia and neighbouring states.

The volumes are not cheaply produced, and this is reflected in the prices. It is a pity therefore, that individual articles are not sold separately, as many people would think twice before buying a volume, if their particular subject is only covered by one or two articles.

The 11th volume of the series includes 17 scientific articles on mammals, birds, reptiles, molluscs and insects. Two papers are devoted to the Lepidoptera. The Coleophoridae are treated in a short article by Dr. Baldizzone. Twenty species of Coleophoridae are listed as having been found in Saudi Arabia, 4 of which are described in this paper as new.

The contribution by Mr. Wiltshire to our knowledge of the macrolepidoptera of Saudi Arabia, and indeed of the whole of the Middle East, must rank as one of the most outstanding achievements by an amateur lepidopterist this century. He is the author of the second article on the Lepidoptera, which is the main subject of this review : 'An illustrated, annotated catalogue of

the Macro- Heterocera of Saudi Arabia'. This is a comprehensive systematic treatment of all the macrolepidoptera, excluding the butterflies, to have been recorded from the country, with comments to each species. The approx. 465 species that had not previously been figured in the Fauna of Saudi Arabia series are figured in this work, most in colour. A total of 625 species are known from Saudi Arabia. An additional 15 species, which have been recorded from other parts of the Arabian Peninsula, are also treated. Ten new species and six new subspecies are described.

With its excellent colour plates of moths photographed by B. D'Abrera, and mention of all species known to occur in Saudi Arabia, this work will be invaluable to students of the Lepidoptera of the Arabian Peninsula and beyond. However, for a number of reasons, it is not easy to use. Firstly, although all species are treated, there is no check list of the species occurring in the country. There is also no species index, although the families are in the list of contents. It therefore takes some time to check whether a species is treated or not. The same problem is found in the plates, where there are no page references to the species figured. This is not intended to be an identification work and no keys are provided, but due to the dearth of literature on the subject, it will undoubtedly be used as such. However, the species are not always figured systematically, and the plates are unnumbered and interspersed throughout the text, so if one wishes to identify a particular specimen from the region, all the plates of this work and those of previous publications of the author in the series must be scanned. If an identification is not certain, there is an extensive bibliography for the larger moths of the region, where one will find references to most of the original descriptions.

A number of errors have been noted in this work, and I understand that additions and corrections will be published in a future volume of the series.

### **List of Lepidoptera articles published in the series 'Fauna of Saudi Arabia'**

There have been 24 papers published in this series covering the Lepidoptera of Saudi Arabia. For the convenience of students of the Lepidoptera of that region I list these below. Nearly all have a strong taxonomical bias, with a total of 174 (!) new species described. It would be nice to see more papers covering biology and ecology in the future.

- ARENBERGER, E., 1985. Contribution to the distribution of the Pterophoridae in Saudi Arabia. 7 : 165-171. [13 spp. treated, 3 sp.n., 7 spp. illustrated in colour]
- BALDIZZONE, G., 1984. Insects of Saudi Arabia. Lepidoptera : Fam. Coleophoridae. 6 : 376-387. [14 spp., 3 sp.n., 3 adults figured]
- BALDIZZONE, G., 1990. Lepidoptera : Fam. Coleophoridae of Saudi Arabia. 11 : 82-90. [9 spp., 4 sp.n., none figured]
- BOURGOGNE, J., 1986. Lepidoptera : Fam. Psychidae from Saudi Arabia and Africa. 8 : 246-248. [3 spp., 1 figured]

- BÜTTIKER, W., 1979. Insects of Saudi Arabia. First records of eye-frequenting and anthropophilic Lepidoptera from Saudi Arabia. 1 : 345-351. [2 spp. of Noctuidae and 1 sp. of Geometridae mentioned]
- DIAKONOFF, A., 1983. Insects of Saudi Arabia. Lepidoptera : Fam. Tortricidae, Choreutidae, Brachodidae and Carposinidae. 5 : 240-287. [32 spp., 19 sp.n., 2 ssp.n., 33 spp. figured in colour]
- GOZMÁNY, L., 1982. Insects of Saudi Arabia. Lepidoptera : Fam. Symmocidae. 4 : 347-349. [1 new sp. described and figured]
- HANNEMANN, H.J., 1982. Insects of Saudi Arabia. Lepidoptera : Fam. Oecophoridae. 4 : 350-352. [5 spp., none figured]
- LARSEN, T.B., 1979. Insects of Saudi Arabia. Lepidoptera : Fam. Papilionidae, Pieridae, Danaidae, Nymphalidae, Lycaenidae. 1 : 342-344. [15 spp., 4 spp. figured in colour]
- LARSEN, T.B., 1983. Insects of Saudi Arabia. Lepidoptera ; Rhopalocera (A monograph of the butterflies of the Arabian Peninsula). 5 : 333-478. [151 spp., 3 sp.n., 2 ssp.n., 14 spp. figured in colour]
- PASSERIN D'ENTRÈVES P., 1986. Lepidoptera : Fam. Scythrididae of Saudi Arabia (Part 1). 8 : 256-261. [3 spp., 1 sp.n., 1 ssp.n., none figured]
- PITTAWAY, A.R., 1985. Lepidoptera : Rhopalocera of western Saudi Arabia. 7 : 172-197. [88 spp., 1 ssp.n., 6 spp., including early stages, figured in colour]
- POVOLNÝ, D., 1980. Insects of Saudi Arabia. Lepidoptera : Fam. Gelechiidae, Tribus Gnorimoschemini. 2 : 241-251 [in German]. [16 spp., 2 sp.n., 2 spp. figured]
- POVOLNÝ, D., 1981. Insects of Saudi Arabia. Lepidoptera : Fam. Gelechiidae (Part 2). 3 : 417-424 [in German]. [2 new spp. described and figured]
- POVOLNÝ, D., 1983. Insects of Saudi Arabia. Lepidoptera : Fam. Oecophoridae. 5 : 288-292. [1 new sp. described and figured in colour]
- POVOLNÝ, D., 1986. Lepidoptera : Fam. Gelechiidae of Saudi Arabia (Part 3). 8 : 249-255. [11 spp., 1 sp.n., 1 figured]
- PETERSEN, G. & GAEDIKE, R., 1982. Insects of Saudi Arabia. Lepidoptera : Fam. Tineidae. 4 : 333-346. [14 spp., 6 sp.n., none figured]
- WILTSHIRE, E.P., 1980. Insects of Saudi Arabia. Lepidoptera : Fam. Cossidae, Limacodidae, Sesiidae, Lasiocampidae, Sphingidae, Notodontidae, Geometridae, Lymantriidae, Nolidae, Arctiidae, Agaristidae, Noctuidae, Ctenuchidae. 2 : 179-240. [321 spp., 16 sp.n., 6 ssp.n., 47 spp. figured, 18 in colour]
- WILTSHIRE, E.P., 1982. Insects of Saudi Arabia. Lepidoptera : Fam. Cossidae, Zygaenidae, Sesiidae, Lasiocampidae, Bombycidae, Sphingidae, Thaumetopoeidae, Thyretidae, Notodontidae, Geometridae, Lymantriidae, Noctuidae, Ctenuchidae (Part 2). 4 : 271-332. [118 spp., 28 sp.n., 3 ssp.n., 54 spp. figured, 46 in colour]
- WILTSHIRE, E.P., 1983. Insects of Saudi Arabia. Lepidoptera : Fam. Cossidae, Sphingidae, Thyretidae, Geometridae, Lymantriidae, Arctiidae, Agaristidae, Noctuidae, Ctenuchidae (Part 3). 5 : 293-332. [64 spp., 19 sp.n., 4 ssp.n., 31 spp. figured in colour]

- WILTSHIRE, E.P., 1984. Insects of Saudi Arabia. Lepidoptera : Fam. Noctuidae. 6 : 388-412. [58 spp., 9 sp.n., 14 spp. figured, 10 in colour]
- WILTSHIRE, E.P., 1986. Lepidoptera of Saudi Arabia : Fam. Cossidae, Sesiiidae, Metarbelidae, Lasiocampidae, Sphingidae, Geometridae, Lymantriidae, Arctiidae, Nolidae, Noctuidae (Heterocera) ; Fam. Satyridae (Rhopalocera) (Part 5). 8 : 262-323. [102 spp. 28 sp.n., 8 ssp.n. 49 spp. figured, 48 in colour]
- WILTSHIRE, E.P., 1988. Lepidoptera of Saudi Arabia : Fam. Metarbelidae, Geometridae, Arctiidae, Agaristidae, Noctuidae (Part 6). 9 : 68-82. [16 spp., 6 sp.n., 4 ssp.n., 12 spp. figured in colour]
- WILTSHIRE, E.P., 1990. An Illustrated, Annotated Catalogue of the Macro-Heterocera of Saudi Arabia. 11 : 93-250. [640 spp., 10 sp.n., 6 ssp.n., ca. 465 spp. figured, ca. 458 in colour]

Vol. 12 of Fauna of Saudi Arabia has also now been published, but it contains no Lepidoptera contributions. Also, a comprehensive index to vols 1-10 is available for SFr. 97 in hardback form or on diskette in ASCII format.

Steven WHITEBREAD

*The ecology of butterflies in Britain.* R.L.H. Dennis (Ed.). ix + 354 pp., numerous text figures, 25.3 × 19.8 cm., hardback. Oxford University Press, Oxford, England, 1992. ISBN 0 19 854025 6. Price : £ 50.

This textbook provides an excellent introduction into the field of butterfly ecology. However, it does not provide detailed ecological requirements for individual British species for use in conservation work and there are no colour photographs of butterflies or their habitats. The book is therefore primarily aimed at students requiring a good knowledge of butterfly ecology before planning their own research studies. Nevertheless, keen amateur lepidopterists will also find much to fascinate them.

The authors are all acknowledged experts in their field : P.M. Brakefield, R.L.H. Dennis, K. Porter, T.G. Shreeve, C.A. Steel, J.A. Thomas and M.S. Warren ; the figures were prepared by D. Whiteley.

The themes of the eleven chapters have been chosen well, to cover nearly all aspects that are relevant to butterfly ecology : 1. Islands, regions, ranges, and gradients ; 2. Adult behaviour ; 3. Eggs and egg-laying ; 4. Butterfly populations ; 5. Avoidance, concealment, and defence ; 6. Monitoring butterfly movements ; 7. Butterflies and communities ; 8. Diversity within populations ; 9. Case studies in evolution ; 10. An evolutionary history of British butterflies ; 11. The conservation of British butterflies. There are four appendices : 1. A check list of British butterflies and their hostplants ; 2. Traditional classification of butterfly breeding biotopes ; 3. Codes on insect collecting and insect introductions ; 4. Useful addresses. These are followed by a glossary, bibliography and index.

The book is professionally produced and clearly written, although the publishers seem to have had some problems fitting the larger tables to the page size. Most of the data has been published previously, although much has been updated and presented differently. Of course, the main aim of understanding the ecology of butterfly species is to plan conservation strategies. Examples of the use of ecology in conservation are given in the last chapter. Britain is fortunate in that for most species of butterfly, distribution and abundance data is documented back to the middle of the last century and sometimes even earlier. This long term monitoring has been useful in demonstrating how quickly some butterflies have declined. Unfortunately, for the large blue, *Maculinea arion*, its drastic decline was noted too late, but this lesson was learnt very quickly and studies of the ecology of other endangered butterfly species soon followed. The main reason for the decline of butterfly species in Britain (given in Table 11.2) has been changes in land management, although climate is considered to have been instrumental in the extinction of *Aporia crataegi* and the fluctuations in *Ladoga camilla* and *Polygonia c-album*.

Obviously, the more one knows of the ecological requirements, the easier it is to reinforce or reintroduce the species. Table 11.8 summarises the outcome of such attempts that have been recorded for 37 species. Most early attempts were unsuccessful, although a population of *Satyrrium pruni* has so far survived for 88 years. Successful establishments of 18 species were recorded 1985-88.

Although concentrating on British butterflies, the continental lepidopterist will find much to interest him. There are many more butterfly species on the continent and there has still been very little ecological work done. This is perhaps reflected in the fact that only about 40 of the almost 1000 references are in French, German or Spanish.

Steven WHITEBREAD

*The butterflies of Kenya and their natural history.* Torben B. Larsen. xxii + 490 pp., 64 col.pls., 25 × 17.7 cm, hardback. Oxford University Press, Oxford, England, 1991. ISBN 0-19-854011-6. Price : £ 85.

Those of us who are used to seeing painted ladies accompanying red admirals would probably not be very impressed to hear of playboys darting around in the company of a white lady, with the lady's maid nearby, while judies flit around in the depths of a dark forest with some monks. At least, not until we are told that these are some of the 870 species of butterfly occurring in Kenya. If you decide there and then to visit the country, you will also have the chance to see wandering donkeys, water flats, woolly legs and sapphires !

But first, you will have to buy this book. You will then be able to read in advance which species you are likely to find in the different parts of the country and from the excellent colour plates you will subsequently be able to identify about 95% of the species seen. If you make interesting or new observations, you are urged by the author to publish your findings, as in the past, comparatively little has been published on Kenyan butterflies.

The book begins with a 93 page general introduction to Kenyan butterflies, covering such topics as the life cycle, behaviour, biogeography, migration and pests. These chapters are very readable and informative. The systematic part starts with some notes, including a glossary of technical terms and a gazetteer. The treatment of each species follows the same format : identification, subspecies (if more than one), habits, early stages and distribution. There is no identification key. It is intended that the reader, when confronted with an unknown species, will first turn to the plates. Having found a figure corresponding closely to the specimen, he should check the identification against the notes in the text to the species, where specific characters are pointed out. The section heading 'early stages' is misleading, as no descriptions of the early stages are given, only larval food plants.

It is nice to see that the descriptions of new taxa are placed separately in an appendix, and not lost in the main body of the text. These are two new genera, five new species and five new subspecies. One new subspecies is mistakenly quoted as a new species. Steve Collins is included as the first author of these new taxa.

A check list of species would have been very useful, and photographs of the various landscape types mentioned in the text would have been a bonus. Otherwise, there is little to criticise and the author and all those involved in producing this splendid book are to be congratulated. The rather high cost is understandable considering the quality of the coloured plates, and if you can afford a trip to Kenya, you can also afford to buy this book !

Steven WHITEBREAD

## Corrigendum

WILTSHIRE, E.P., Middle East Lepidoptera 50 : Notes on some hitherto misunderstood forms near *Polymixis bischoffi* (Herrich-Schäffer, 1850). *Nota lepid.* 15 (3/4) : 257-267.

Page 266, lines 11,12 : For 'Figs 7 & 8', read 'Figs 11 & 12'.

# ZOBODAT - [www.zobodat.at](http://www.zobodat.at)

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Nota lepidopterologica](#)

Jahr/Year: 1993

Band/Volume: [16](#)

Autor(en)/Author(s): Whitebread Steven

Artikel/Article: [Book reviews — Buchbesprechungen — Analyses  
Fauna of Saudi Arabia vol. 1 1. W. Büttiker & F. Krupp \(Eds\). 71-76](#)