

BOOK REVIEWS

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DIE NOCTUIDEN RUMANIENS, by L. Rakosy. 1996. Published by Staphia 46. 648 pp., 30 color plates, 11 habitat photographs, 68 text figures, 821 line drawings of genitalia, 651 distribution maps. Hardback, 28/21 cm. Available from Apollo Books Aps., Kirkeby Sand 19, DK-5771, Stenstrup, Denmark, Tel. 45-62-26-3737, FAX: 45-62-26-3780. Price DK 560.00 (approximately U.S. \$90.00).

Here is a remarkably fine work focusing on the rich noctuid fauna of a large eastern European area between the Carpathian Mountains, the lower Danube with its delta, and the Black Sea. The author, who is one of Romania's leading experts on the Noctuidae, has done many years of research in the field and museum collections. This book is the pinnacle of all those years of work.

It starts with an introductory section, written in cooperation with Dr. Eckbert Schneider, which presents a history of noctuid studies performed in the territory of present-day Romania since as early as the 18th century. In the following sections, Romania's geography and landscape are presented and the country's climate and vegetation are discussed. Several beautiful, colored illustrations complement the text, showing images of various biotopes from the high peaks of the Carpathian Mountains to the sand dunes on the Black Sea coast.

Next, a brief section discusses the biogeography of the Romanian noctuid fauna. It has been discovered, among other things, that about 5% of Romania's noctuids are holarctic in distribution, and so Romania shares over 30 noctuid species with North America (e.g., *Scoliopteryx libatrix* (L., 1758); *Acronicta auricoma* (F., 1787); *Plusia putnami* Grt., 1873; *Calophasia lunula* (Hufn., 1766); *Xanthia togata* (Esp., 1788); *Agroperina lateritia* (Hufn., 1766); *Hydraecia micacea* (Esp., 1789); *Cerapteryx graminis* (L., 1758); the recently introduced *Noctua pronuba* (L., 1758)). The anatomy of the imago, egg, larva, and pupa is described in a concise and clear manner with very good illustrations. The author highlights the important features of the adult exoskeleton, genital structures, egg morphology, and larval chaetotaxy.

The systematic part forms the bulk of the work. Each of the 670 species ever to be recorded on Romanian territory is discussed in detail. The author follows the systematic list of the European Noctuidae published by Fibiger and Hacker (1991). He gives a brief structural and genital description for each genus and treats each species by giving a list of selected synonyms with authors and years, biological data for the adult and the larva, general distribution and distribution within Romania. For many species there are very interesting parasitologic mentions. It is worth mentioning here that the author is describing two new subgenera (*Synapamea* for *Apamea Ochsenheimer*, 1816 and *Denticucullus* for *Chortodes* Tutt, 1897) and seven new subspecies of local/regional importance from endemisms in Carpathian Mountains.

The illustrations of the male genitalia for each species and the female genitalia for many species are grouped together after the systematic section. The author has made a tremendous effort in personally drawing a total of 821 excellent illustrations of these important diagnostic tools. The distribution within the country is illustrated with the record/dot system and there is a map for each species with valid Romanian records.

Bound together at the end of the text are 30 colored plates that show 882 excellent quality photographs of adults of each species discussed in the work. The impeccable quality of these plates as well as of the photographed specimens make identification by superficial habitus possible even for the most difficult groups (e.g., *Oligia* Hbn., 1821; *Cucullia* Schran, 1802; *Orthosia* Ochs., 1816, etc.). The plates are followed by 3 more beautiful, folding plates that show 40 stunning photographs of live larvae.

This work contains an extensive list of literature with 549 references on Romanian and general European papers and books discussing noctuid related topics. The book ends with an Index that lists all genera, species, and synonyms with their authors and years of description. Unfortunately, the book lacks a species checklist,

making the overall faunistic appreciation of the area and the comparison with other areas somewhat difficult and time consuming.

Because it covers 670 species of Noctuidae from Europe (over 50% of the whole continental fauna), this book is a landmark work. It is the first one to treat exhaustively a moth family (and of the magnitude of the Noctuidae!) in an eastern European country and with color photographs and genitalic illustrations for all listed species. Hacker did something similar when he published his book about the noctuids of Greece (1989, *Die Noctuidae Griechenlands, Mit einer Übersicht über die Fauna des Balkanraumes (Lepidoptera: Noctuidae)*, *Herbipoliana* 2:1–589) but he only illustrated a selected number of adults and not all of them in color, with selective genitalic drawings. These two books, Hacker's and Rakosy's complement each other very well by giving a very good idea of the composition of the noctuid fauna of Eastern Europe from the Mediterranean Sea to the Ukrainian Steppe.

Although written in German, the text can be understood with basic linguistic skills, making it an important source of information on the noctuids in general and a very good identification tool for the over 30 noctuid species shared by Romania and the U.S.A.

Mr. Rakosy and his publisher, the Austrian house Staphia 46, are to be very highly praised for producing a book of the highest informative and graphic standards, making of it a most valuable tool for the serious student of this large and heteromorphous family.

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CONTRIBUTIONS TO THE KNOWLEDGE OF THE INSECTS OF THE PHILIPPINES, III. [Beiträge zur Kenntnis der Insekten der Philippinen, III], edited by Wolfgang A. Nässig, Colin G. Treadaway and Josef Settele. 1998. *Nachrichten des Entomologischen Vereins Apollo* e. V. Frankfurt am Main, Supplement 17, July 1998. Senckenberganlage 25 D-60325 Frankfurt am Main. 576 pp., 48 color plates, text figures. ISSN 0723-9920.

The Philippines is an archipelago of 7107 islands, many are very small in area with only about 500 islands with an area over one Km². Only 2100 islands are actually inhabited by 65 million people composed of 60 ethnic groups. Not surprisingly, about one third of the islands are not listed by name in most reference books or maps. The Philippine Islands, with the highest mountain reaching 2954 m and with 17 active volcanoes, is geologically very complex. The zoogeographical relationships to other areas of southeast Asia are manifold and complicated.

Historically, the Philippines was noted for its extensive forest coverage. However, this has changed considerably over the past 30 years and now less than 10% remains of the original forest coverage present 50 years ago. Although there are 61 national parks and protected areas, there will be no true forests shortly after the turn of the century if the current rate of deforestation continues. This will have a very strong impact on all forms of life in Philippine forests including insects.

Human pressure on the global environment makes it critical that we acquire knowledge about biological diversity as fast as possible. An essential contribution to managing the biosphere intelligently is to discover, describe, and inventory its species. Southeast Asia is by no means an exception to these guidelines and several contributions in the form of national or regional faunal treatments of some groups of Lepidoptera have been published recently for example of Peninsular Malaysia, Borneo, Thailand, Sulawesi, Sumatra, and Vietnam. On the same token, this volume is the third contribution to the knowledge of the insects of the Philippines with special emphasis on Lepidoptera within the Supplement series of "Nachrichten des Entomologischen Vereins Apollo", and it is an important addition to the taxonomy, nomenclature, and biogeography of the Lepidoptera.

This 576 page special issue is composed of 12 papers in English ranging from the physical description of the Philippines to annotated checklists of several lepidopteran groups and one of Trichoptera and descriptions of several new taxa. Ten of the 12 papers are devoted to Lepidoptera, therefore this issue is of special interest to the lepidopterist.

The following papers comprised the volume: "Short introduction to Philippine natural and geological history and its relevance for Lepidoptera" by C. G. Treadaway; "The Sphingidae (Lepidoptera) of the Philippines" by W. Hogenes and C. G. Treadaway; The Lasiocampidae (Lepidoptera) of the Philippines by V. V. Zohouhin, C. G. Treadaway and T. Witt; "The Saturniidae (Lepidoptera) of the Philippines" by W. A. Nässig and C. G. Treadaway; "The Brahmaeidae (Lepidoptera) of the Philippines" by W. A. Nässig and C. G. Treadaway; "*Arguda sandrae* n. sp., a new lasiocampid (Lepidoptera: Lasiocampidae) moth from Palawan, Philippines" by A. Zwick; "*Samia treadawayi* (Lepidoptera: Saturniidae), a new species from Palawan Island, Philippines" by S. Naumann; "Two new species of the genus *Cyanosestia* Gorbunov & Arita, 1995 (Lepidoptera: Sesidae) from the Oriental Region" by O. G. Gorbunov and A. Kallies; "The genus *Eoophyla* Swinhoe, 1900 (Lepidoptera: Crambidae: Acentropinae) from the Philippine Islands" by W. Speidel; The Scopariinae and Heliothelinae stat. rev. (Lepidoptera: Pyraloidea: Crambidae) of the Oriental Region—a revisional synopsis with descriptions of new species from the Philippines and Sumatra" by M. Nuss; "New records of *Cosmopterix* Hübner, [1825] (Lepidoptera: Cosmopterigidae) from the Philippines by W. Mey; "Contribution to the knowledge of the caddisflies (Insecta: Trichoptera) of the Philippines. 2. The species of the Mt. Agtugananon Range on Mindanao" by W. Mey.

The issue starts with a brief, yet useful summary about the people, climate, forests, biogeography, and geological history of the archipelago. This general, introductory paper makes it easier to understand the rest of the papers, specifically the biogeographic and faunistic sections.

Four Lepidoptera families are thoroughly reviewed for the archipelago for the first time: Sphingidae, Lasiocampidae, Brahmaeidae, and Saturniidae; as well as the genus *Eoophyla* (Crambidae). The first of these papers is an annotated checklist of the Sphingidae known from the Philippines; 116 out of 117 species are illustrated in 18 color plates, including two new species and one subspecies. There is an analysis of the number of species and endemic taxa for each subfamily, tribe, and genus of Philippine Sphingidae; an evaluation of the richness and endemism for the nine largest islands; and an evaluation of Sphingidae endemism for each of Vane-Wright's faunal regions (R. I. Vane-Wright, 1990, *The Philippines—key to the biogeography of Wallacea?* Pp. 19–34. In Knight, W. J. and J. D. Holloway (eds.), *Insects and the rain forests of South East Asia (Wallacea)*, London, Royal Entomological Society, iv+343 pp.) The distribution of taxa is summarized in 23 maps. The next paper is an annotated checklist of the Lasiocampidae. Sixty-one species are noted from the Philippines, including one new genus, 18 new species and 6 subspecies; all illustrated in 12 color plates. The distribution of the species is figured in 34 maps, and the genitalia of most are illustrated in 13 black and white plates. In another contribution, 23 species of Saturniidae reported from the Philippine Islands (including 2 new species and 4 subspecies) are described, discussed, and illustrated in 13 color plates. In addition, pre-imaginal instars are depicted in 6 color plates. The male and female genitalia of most taxa are illustrated in 20 black and white plates; the known distribution of Philippine Saturniidae is presented in 16 maps. The degree of endemism for each island and zoogeographical region is discussed. For the Brahmaeidae, the imaginal morphology, phenology, distribution, and variation of the only species present in the Philippines is thoroughly discussed. These papers will certainly be most often consulted by most lepidopterists, but the remaining six lepidopteran papers are providing important advances to our knowledge on Oriental Lepidoptera.

In three brief papers, a new lasiocampid, a new saturniid, and two new sesiids are described from the Philippines, respectively. The genus *Eoophyla* (Crambidae) from the Philippines is reviewed,

and two new species are described. Similarly, in the Cosmopterigidae two new species are described and two new records are reported for the country. On a more ample basis, the Scopariinae and Heliothelinae (Crambidae) of the Oriental region are reviewed; 11 genera and 63 species (including 6 new species) are recognized. This paper includes diagnoses and phylogenetic remarks for the higher taxa. In the last paper, a checklist of the fauna of caddisflies of the Mt. Agtugananon Range on Mindanao is presented. An amazing number of 63 species out of the 102 listed are described and male genitalia illustrated for the first time.

It is important to note that special care was taken in order to insure accuracy in the localities used in the distribution discussions or maps. This is significant because specimens from commercial traders were usually collected or reared by local people on several islands, stored in the house of a Filipino trader with little or no data associated, imported to Europe, and then sold to customers. Thus, label data and the origin of most Philippine specimens in private collections (and probably in many museums) have been dubious as a result of the trade practices common in the area.

Very few criticisms can be made to this series of papers which are apparently free of misspellings and typographical errors. Although the maps are small, they are very clear, but the font size used for the species names make the legends almost illegible. In some cases the color photographs are too small and some have shadows that may hamper character observation.

This volume stresses the faunistics and taxonomy of Lepidoptera and contributes considerably to improve our knowledge of the Philippine insect fauna. This book is a must in the library of any individual interested in Sphingidae, Saturniidae, and Lasiocampidae in particular, or Oriental Lepidoptera in general. It should be present in all libraries that maintain coverage in entomology worldwide.

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THE AFROTROPICAL TIGER-MOTHS, by D. T. Goodger and A. Watson. 1995. Published by The Natural History Museum, London, and Apollo Books. 65 pp., 4 color plates of adults, 109 black-and-white photographs of genitalia. Softcover, 29.6 × 21.0 cm, ISBN 87-88757-32-3. Available from Apollo Books Aps., Kirkeby Sand 19, DK-5771, Stenstrup, Denmark, Tel. 45-62-26-3737 FAX: 45-62-26-3780. Price DDK 200.00 (approximately U.S. \$32.00).

The purpose of this book, in the authors' words, is to serve as an illustrated catalogue, with generic diagnoses and species distribution of the currently recognized and described afrotropical Arctiinae. The layout of the work is straightforward and easy to follow. There is a brief synopsis, introduction, comments on the structure of the catalogue entries, as well as a list of genera and species removed from the Arctiinae, followed by the main body of the catalogue, which occupies some 20 pages.

In the catalogue, generic entries are kept short and concise, and generally follow the pattern established in the well-known series *Generic Names of Moths of the World*. Information provided includes the name, author, date of publication and pagination, followed by a similar statement on the type species. Also listed are junior synonyms and homonyms.

The entries on species include, again, the name, author, date of publication and pagination, and a statement (in parentheses) of the genus in which the taxon was originally published. Oddly, in the many cases where species were subsequently transferred to another genus, the authors do not indicate this by placing author and year in parentheses. The only explanation I can think of is that this was done in order not to interrupt the flow of text as the pagination is given immediately after the year (e.g., in an entry under *Alpenus* Walker: