

southern Australia—loss of species, loss of ecological communities, fragmentation of populations, disruption of healthy ecosystem function and so on—all of which will diminish the value of the natural heritage of the region before it is fully understood and appreciated. Written by several experts in the field, the main purpose of this atlas is to compile a comprehensive inventory of the butterflies and diurnal moths of northern Australia to form the scientific baseline against which the extent and direction of change can be assessed in the future. Such information will also assist in identifying the region's biological assets, to inform policy and management agencies and to set priorities for biodiversity conservation.

You can download the whole Northern Australian Atlas or individual chapters free of charge at this link: <http://doi.org/10.22459/ABDM.12.2018>. 612

Ctenuchina de Guyane française, Lepidoptera, Erebidae, Arctiinae, Arctiini (partie 1)
by Jean-Aimé Cerda. In French and English.



\$90.00 softcover. 2017. 181 p., 20 full-page color plates with 149 photos of adult moths & 1 map of collecting zones; 115 figs. in text (photos of male genitalia). [Mémor. No. 7, Société Linnéenne de Lyon] Treats 119 species currently known from French Guiana: 43 species added & 15 species removed from the fauna of French Guiana. Describes 2 new genera & 18 new species; 16 new combinations, 10 species with revised status,

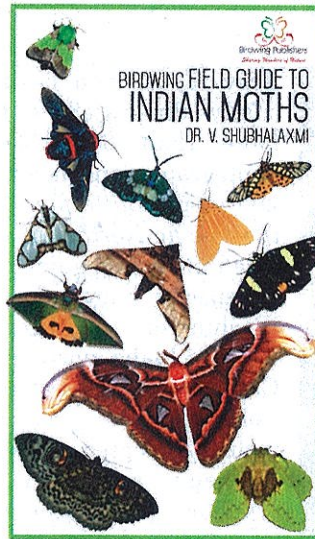
11 new synonyms. Companion volume (Euchromiini de Guyane Française, 2008, softcover with 2 CDs of photos of adults & male genitalia) also available for \$105.95. Entomological Reprint Specialists, 2985 E. Manzanita Ridge Pl., Tucson, AZ 85718-7342. Free U.S. shipping if you order direct (bugbooks@aol.com), or order online (no free shipping) at <https://tinyurl.com/yaeoey84> or on Amazon.com. 613

Seeking OOP Books: If you or someone you know has copies no longer being referenced, or you know of a source for **The Butterflies of Colorado, Part 1** (Satyriinae) and/or **Part 2** (Heliconiinae and Danainae) and/or **Part 3** (Nymphalinae), by Michael S. Fisher (C. P. Gillette Museum series), please contact Parker Backstrom at dppbackstrom@embarqmail.com.

Marketplace continued on pg. 99

Book Reviews

Birdwing Field Guide to Indian Moths (2018). By Vaylure Shubhalaxmi; vi + 461 pp., 11.5 cm × 18 cm, soft laminate cover; ISBN 978-81-931736-0-2; Birdwing Publishers, Mumbai; available directly from the publisher (team@birdwingpublishers.com) for ₹3,500 (~US\$50) and from Pemberley Books, UK.



We are delighted to review this excellent book, which fills a large void in the literature on the moths of India. Finally, there is now a nice field guide that covers hundreds of macro moth species, and a few micros. The format closely agrees with the recent field guide on North American moths (Leckie & Beadle 2018) that was reviewed by Adams et al. (2018). As in the American book, the moths are shown mostly life-size (larger ones reduced, tiny ones magnified) in color photos, resting in a natural

position with wings partially or completely folded, like we see them at rest in nature. As in the American book, most text is on the left pages with figures on the facing pages, but the distributions are stated in words giving the Indian states and neighboring countries, instead of as range maps. The Indian book goes farther by giving the authorship and year for each species name, although the parentheses are sometimes missing when needed or there when not needed. Misspellings are virtually absent. The families are arranged alphabetically which makes it easy to find everything, but this may be a bit uncomfortable for those of us who are used to seeing families arranged phylogenetically.

Dr. Shubhalaxmi has spent many years traveling all over India to collect moths. She wisely sought records and photos from regional collectors and advice from experts, resulting in a field guide with all the families, subfamilies, and tribes arranged according to current classifications. Roger Kendrick in Hong Kong, one of the foremost experts on East Asian moths, has written a Foreword, thus putting his stamp of approval on the book. Isaac Kehimkar of Mumbai is also a well-known entomologist in India (Kehimkar 1997) and was the author's mentor during her undergraduate and graduate studies. Introductory chapters discuss morphology, food and diet, rearing, adult behavior, photography, how to identify moths, importance of moths in the environment, and educating the public about moths. Although collecting is not given a section, there are plenty of comments and photographs pertaining to collecting.

It is intriguing to compare the Indian moth fauna to those of Europe and North America, when flipping through this field guide. Although much of India belongs to the tropical Oriental faunal zone, many Himalayan moths have obvious affinities to ones in the Nearctic and western Holarctic regions. The Indian geometrid *Amblychia pardicelata* (pages 201-202) is an exact match for *Epimecis hortaria* from eastern USA, and there are many more examples of such matches in the larger families. Many genera such as *Catocala*, *Biston*, and *Agrius* have species in India, Europe and North America. In this book we see Indian species of *Paectes*, *Mocis*, *Scopula*, *Timandra*, *Dolbina*, *Atteva*, and *Oreta*, to name only a few, that closely resemble North American species in those same genera. Apparently, farmers in India also must contend with *Agrotis ipsilon*. *Helicoverpa armigera* is called the cotton bollworm in India, whereas *Helicoverpa zea* is called the cotton bollworm in the USA. The unidentified thyridid on page 376 is a close match for *Meskea dyspteraria*, which Peigler has collected (yes, *collected*) in his yard in San Antonio.

Since we both work primarily on Saturniidae, we will offer some comments on the treatment of that family. Most species are shown correctly, but the correct name of the tasar silkmoth is *Antheraea paphia*, not *A. mylitta*, as was explained in a detailed study that looked at original type specimens, many larvae, genitalia, and moths from various populations (Naumann & Peigler 2016). Shubhalaxmi treated *Attacus taprobanis* from western India and Sri Lanka as a species distinct from *A. atlas* from northern and eastern India, in agreement with Peigler (1989). She also treats *Saturnia cidosa* correctly (Naumann & Löffler 2005), still called *Eriogyna pyretorum* by many authors, but unfortunately still places *S. thibeta* in the invalid genus *Caligula*. For sure the male specimen figured as *Cricula trifenestrata* is a misidentified *C. andrei* specimen, although all information on biology of this taxon is given correctly. The specimen of *Samia* on page 336 identified as *S. cynthia* is certainly not that species because the crescents are too narrow, and *S. cynthia* only occurs in northeastern China and Korea. The figured specimen most closely resembles the Japanese *S. pryeri*, but it is more likely *S. kohlli*, which is recorded from nearby China and Myanmar. The author incorrectly uses the name *S. cynthia* for the eri silkmoth on page 335, but on page 337 cites its correct name *Samia ricini* (Peigler & Naumann 2003). Of course, some rarer species such as *Sinobirma bouyeri* and the fauna from the Andaman Islands are missing.

Among other Bombycoidea the author also covers Brahmaeidae and Eupterotidae. In Brahmaeidae Dr. Shubhalaxmi shows the two known Indian species plus larvae of *Brahmaea hearseyi* and gives a short introduction into the

family. Although the stated number of members (65 taxa) is somewhat overestimated, even with all synonyms included, it is obvious that the author knows the recent phylogenetic papers and accepts the inclusion of Lemoniidae in the family. The given distribution range is sometimes a little unfortunate, as these taxa do not occur only on the Indian subcontinent and the cited neighboring countries, but mostly all over Asia. The chapter on Eupterotidae is short, corresponding with the limited published knowledge on this family, so is therefore adequate. Due to the limited information available, there are a few minor mistakes: The family also occurs in Central America, and the male figured as *Ganisa plana* should be the corresponding male to the female specimen figured as male of *Tagora patula* which is probably determined correctly. Nevertheless, the figured specimens and information given make identification of specimens in the field very reliable, and thereby the aim of the book is completely fulfilled. We are not qualified to spot any misidentifications in other families, but we hope these are few, since the primary purpose of a field guide is to enable correct identifications.

Copies of the Birdwing Field Guide to Indian Moths should be in libraries of every natural history museum and many universities. For entomologists in South Asia, it would be an indispensable reference. To anyone broadly interested in moths, we highly recommend this book.

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