

Saturniidae of the World... Pfauenspinner Der Welt: Their Life Stages From The Eggs to the Adults... Ihre Entwicklungsstadien Vom Ei Zum Falter

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SATURNIIDAE OF THE WORLD... PFAUENSPINNER DER WELT: THEIR LIFE STAGES FROM THE EGGS TO THE ADULTS... IHRE ENTWICKLUNGSSTADIEN VOM EI ZUM FALTER, by Rudolf E. J. Lampe. 368 pages, including 336 color plates; bilingual text in English and German; 8.5 × 12 inches, hardbound; ISBN 13: 978-3-89937-084-3; 68 euros (about US\$91.00); Verlag Dr. Friedrich Pfeil, München; Publication date: March 2010.

Rudolf Lampe has produced an excellent contribution that will be scientifically useful and aesthetically enjoyable for those who rear and study Saturniidae. For more than 30 years, Lampe has reared and photographed saturniids, and this book is a wonderful culmination of his efforts. More than 300 species of Saturniidae are depicted on 336 plates of 2948 illustrations. Each species is documented in an appendix giving the locality data, dates of the rearing, and the hostplant. Additional notes are given for some species. The quality of the photographs ranges from good to excellent, and includes close-up views of eggs, all larval stages, pupae, cocoons (for those species that make cocoons), pinned adults (usually of both sexes), and sometimes live adults in natural repose. One hybrid is included: Gonimbrasia tyrrhea $\circ \times G$. *hoehnelii* \circ , and since the parental species are also shown, direct comparisons are easy to make. It is a joy to turn the pages and see plate after plate of the Saturniidae, and much praise must go to the person who designed the book at the publishing house in Munich.

No books in or out of print offer so many illustrations of the rich saturniid fauna of Africa. All of the saturniids that fly in Japan and Europe are included, as are many from India, China, Indonesia, Australia, and the Philippines. About 90 species from sub-Saharan Africa are covered, and dozens more from Mexico and countries of Central and South America. Most of the large Saturniinae in North America are treated as well. Lampe obviously became skilled at rearing saturniids at his home in Nuremberg, even ones from deserts and rainforests. His text is brief, but he gives rearing tips regarding care of eggs, larvae, and pupae. Lampe must also have become an accomplished botanist and horticulturist to successfully rear so many moth species in Germany.

Lampe published a large number of short papers on the species he reared in *Entomologische Zeitschrift* (from Essen, formerly from Stuttgart) in the 1980s and 1990s, with black & white photos. He published a

faunal survey of Saturniidae of West Malaysia in 1984 in German, expanded and in English in 1985. He coauthored the volumes on Saturniidae of Moths of Thailand in 1990 and Heterocera Sumatrana in 1996, but he had been off the radar screen, so to speak, for many recent years, and now we see why. I have had only occasional correspondence with him over the years, but he always responded generously to my requests for information and photographs. I was delighted to see that two of the rearings in his book resulted from eggs I sent him, namely Citheronia sepulcralis from a female I collected on a road trip through Florida in 1997, and Hemileuca oliviae of which I collected the egg rings on a plateau in New Mexico above 8000 feet on a day in 1988 that was brutally cold and windy. Lampe developed a successful network of contacts all over the world to send him eggs over the last 30 years, and now all of those people can be proud that they contributed to this marvelous book.

Shortcomings and errors in the book are few. Usage of the subfamily-group name Ludiinae is not correct, because that name is preoccupied by a group of click beetles (Elateridae). The so-called Ludiinae of the saturniids is now combined with Micragone in the tribe Micragoniini within the Saturniinae. Therefore the name Ludiinae should not be used for nomenclatural and phylogenetic reasons in Saturniidae, but most users of this book will not care about such taxonomic matters. The insect he calls Caligula boisduvalii from Vietnam is not the same as the one he shows from eastern Russia, and although the larvae and adults look much alike, the tropical one is actually Caligula naumanni. The Samia reared from Japan is S. cynthia (introduced there in 1870 from China) not Samia pryeri, which is indigenous to Japan. The taxon he calls Antheraea castanea youngi is actually the muga silkmoth, Antheraea assamensis, and the names castanea and youngi refer to different species. Some species listed under Gonimbrasia and Imbrasia belong in other genera, but most African saturniids and the genus Antheraea are in need of modern revisions, so Lampe cannot be assigned much blame here. Attacus lorquinii is consistently misspelled as Attacus lorguinii and does not occur on Palawan, so Lampe's supplier of eggs mislabeled that batch. Amusingly, the "locality" on Sulawesi cited for two species as Telur Kupu Malam actually means "eggs of moth" in Bahasa Indonesia. Lampe places the species that are traditionally called Neoris into Perisomena. The two groups are closely allied, and Perisomena is the older name, so that

arrangement has both phylogenetic and nomenclatural support. I disagree with his treatment of the Mexican *Actias truncatipennis* as a subspecies of *A. luna*, but was glad to learn that *Actias luna azteca* from Nicaragua really does exist, rather than being based on a mislabeled specimen, as many of us had supposed.

It is nice to see larval photos of so many species that have never been published, or published in works that are not easily accessible. Some users will be pleased to see the life cycles of charismatic species like Archaeoattacus staudingeri, Actias rhodopneuma, Actias isis, Copiopteryx semiramis banghaasi, Eochroa trimenii, and Attacus caesar, all depicted in colorful detail. I did not expect to see the immature stages of rare species like Epiphora lugardi, Ubaena fuelleborniana, Rothschildia schreiteriana, and two species of Salassa. The mature larva of Automeris janus from Venezuela is extraordinarily beautiful. It is ironic that Lampe himself has exposed the synonymy of Automeris naranja Schaus 1898 and Automeris umbrosa lampei Lemaire 2002 by showing on facing pages that the larvae and adults of these two names are identical! For workers who want to check or tabulate certain morphological characters of larvae or pupae to use in phylogenetic analyses, the clear and detailed photographs provide a huge database.

I highly recommend that museum curators and university faculty persuade their librarians to add this important book to their holdings. This is a book that once you see a copy, you will have to have it. Books like this go a long way to encourage young naturalists to become entomologists. As a professor, I know that many young people do not collect books, thinking that they can get everything they need on the internet. This book is not expensive considering its attributes, so I hope that every admirer of Saturniidae will acquire it. When your computer crashes or the power goes out, you can immerse yourself in Lampe's beautiful book using natural daylight or candlelight until those things get fixed. I thank Stefan Naumann in Berlin for pointing out some of the book's errors to me.

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