

BOOK REVIEWS

PORTRAITS OF SOUTH AUSTRALIAN GEOMETRID MOTHS, by Noel McFarland. 1988. Published and distributed by the author, P.O. Box 1404, Sierra Vista, Arizona, 85636 U.S.A. 408 pp., over 1400 B + W photographs. Soft cover, Quarto (26 × 35 mm), ISBN 0-935868-32-1, \$80.00 (postpaid in USA).

This is a remarkable book. Never before, and probably never again, has so much information and so many photographs been assembled in one book on the metamorphosis of 72 species of moths. In a sense, this book is an autobiography of Noel McFarland, showing by example the kind of detailed, accurate and innovative scientific work he has done all his life.

The life history work upon which the book is based was performed by McFarland in 1965-69 while he was assistant curator at the South Australian Museum in Adelaide. The specimens remained there, but notes and photographs were retained by the author, allowing publication almost 20 years later. Private publication has permitted the author to include as much data on whatever topics he wished, limited only by the practicalities of publishing. This has resulted in the inclusion of many topics rarely seen in ordinary moth books. Nomenclature systems are proposed for adult and larval resting positions, which are diverse and complex in the Geometridae. Categories of larval crypsis are established, and each of the 72 species discussed is assigned to a category for the final instar. Items of "quoted wisdom" are interspersed throughout the book: this is an enjoyable touch not seen since the writings of W. J. Holland.

Rearing techniques not already published in articles in the *Journal of the Lepidopterists' Society* are given, including pupal handling and larval storage vial technology. Several sections encourage amateur entomologists to pursue independent studies and document their efforts in a complete and accurate manner, concluding with a philosophy of life for a true scientist.

The organization of the book is somewhat unusual, starting with the fact that the indices are up front. This is not chance; the author gives his reasons for every arrangement and inclusion. Other introductory material includes complete descriptions of localities, habitats and foodplants, with maps and photos. On page 45, the first of 46 life history chapters begins for *Ennominae* and *Oenochrominae*. A middle section, perhaps better put at the end, contains appendices, generalizations, and a Topic Index. While this is mostly valid material (e.g., the resting position nomenclature), its appearance in the middle of the life histories does seem disjointed. After 32 pages, the remaining 26 life histories are given, for all other Geometrid subfamilies. The volume concludes with a glossary, lists of references sorted three ways, and more explanatory material.

The life history chapters have been prepared according to a standard format that includes a place for every conceivable detail. There is information on the species name (original description reference, type locality, etc.), habitat, foodplant, adult, egg, larva, and pupa. There are photographs of each stage from various angles, with an average of 20 per chapter. There are cross references to the general sections of the book (which in turn are referenced to the chapters). Almost any detail that you can think of has been described in these truly complete portraits.

The photographs themselves deserve special attention. All are crystal clear and properly lighted to bring out every detail. The larvae display a variety of shapes, colors and resting positions—all perfectly matched to blend in with their respective foodplants. There is a cumulative effect in seeing so many diverse and clever adaptations in one book: it starts one pondering on the mysteries of nature. Then there are the adults. Many are pinned, spread specimens that adequately show the maculation. But an equal number of photos are of live adults, resting in a natural settled position on a glass plate. This shows an element of beauty not found in museum specimens. With just a bit of imagination, these moths can be seen as aerodynamic works of art. *Monoctenia falernaria*, viewed head on, is a Stealth Bomber with legs. *Oenochroma vinaria* is an amphibious high wing Patrol Plane. *Phallaria ophusaria* has a most pleasing shape even without an airplane counterpart.

Every book with broad scope is bound to have a weakness, and this one is no exception. Taxonomy is one area in which McFarland has little interest, and thus it receives little attention in this book. Every attempt has been made to use the correct names for the 72 moths portrayed. One new combination has been published, where larval information made the previous generic assignment obviously wrong. Despite the desire for correct names, and the existence of life history data for almost 20 years, there are three (possibly four) un-named new species among the 72 in this book. This is certainly ironic; never has an un-named species been described in such detail in a publication. But Noel McFarland is not interested in creating zoological nomenclature, and apparently no one else is either, so that is the way it stands. E. Strand, who named all of Sir George Hampson's un-named aberrations, would have seized this opportunity with relish.

In closing, McFarland states that the primary purpose of the book was to "communicate my pleasure in the thrill of discovery, while undertaking the documentation of these 72 life history investigations." This goal has been admirably achieved. For the future, I hope that a companion volume will some day document the many life histories he has detailed subsequently in over 20 years of observations in Ash Canyon, Cochise Co., Arizona.

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MOTHS OF THAILAND, Vol. 1: SATURNIIDAE, by Amnuay Pinratana and Rudolf E. J. Lampe. 1990. Brothers of St. Gabriel in Thailand, St. Gabriel's College, Bangkok 10300, Thailand. v + 47 pp., 44 color plates. Hard cover, 19 × 26.5 cm, no ISBN, \$22.00 U.S. (postpaid).

After producing a six-volume set on butterflies of Thailand (1977-88) of over 1000 pages of text, Brother Pinratana has now embarked on a treatment of Thai moths beginning with saturniids. The junior author is already a well-known saturniid specialist in Germany, having established his reputation with about 20 brief papers on life-histories of various species plus a lengthy paper on Saturniidae of West Malaysia. Their joint effort in the present volume is a fine success.

The book is attractive and well made, having been produced with sturdy binding and glossy pages, with gold lettering on the spine and front cover. The latter may be seen only rarely as it is covered by a beautiful dust jacket depicting on the back cover a life-sized male of *Actias rhodopneuma*, arguably among the most beautiful lepidopterans in the world with its long tails and pink and yellow coloration, and on the front cover, perhaps appropriately, a female of *Saturnia pinratanai* Lampe, described in 1989. The color plates are excellent, depicting the large moths life size (consequently only one or two specimens appear on most plates). Color reproduction ranges from good to perfect, except for a couple of the blue-green *Actias*, which are too yellow, and the pair of *Saturnia zuleika* (Plate 40), which are definitely too brown and yellow. The first seven plates depict mature larvae, several of which have never been illustrated or described. Also illustrated for the first time is the bizarre-looking female of *Salassa lemaiti*, a species very rare in collections.

The authors indicate that their book is based on material collected mainly in northern Thailand, and that further collecting in southern Thailand would certainly increase the number of species above the 29 currently known for the country. They also state at the onset that no taxonomic changes are proposed in this book, a wise decision in my judgment, considering that most genera of Indo-Australian Saturniidae still need revision. I agree with their identifications, notably that *Samia canningii* is indeed the correct name for