body length, as well as cross-references again to the illustrations in the main text. The book closes with a brief but very adequate discussion on how to collect, prepare and preserve butterflies and moths. An excellent glossary and selected bibliography, as well as a comprehensive index, close the book.

Jean-Paul Laplante has produced an excellent book on the butterflies and many of the interesting larger moths found in Quebec and the other areas of eastern Canada. The wonderful color illustrations of the larvae of virtually all the species of butterflies and major moth groups in Quebec would make this book a sound investment on that basis alone. The extraordinarily low cost of this beautiful book and its ready intelligibility even to readers lacking a good reading knowledge of French should prompt many lepidopterists to purchase it for their personal libraries.

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SLUG AND NETTLE CATERPILLARS: THE BIOLOGY, TAXONOMY AND CONTROL OF THE LIMACODIDAE OF ECONOMIC IMPORTANCE ON PALMS IN SOUTH-EAST ASIA, edited by M. J. W. Cock, H. C. J. Godfray, and J. D. Holloway. 1987. 270 pp., 18 color plates. CAB International, Wallingford, Oxon, UK. Hardcover. \$99.00.

This book is an invaluable tool for tropical biologists in the coconut and oil palm industries of South-east Asia. It also is important in a broader geographic and economic sense because the larvae of Limacodidae, which are highly polyphagous, are pests of palms and other tropical plantation crops worldwide. Although less than comprehensive, the work presents a review of recent literature on natural enemies of New World limacodid palm pests along with a wealth of information on Limacodidae in general.

The organization of the book is as follows: chapters 1 and 2 present introductory information on Limacodidae; chapter 3 provides systematic accounts of palm pests of South-east Asia; and chapter 4 is a short, preliminary account of tropical Australasia pests. Chapters 5–17 deal with aspects of pest management and include systematic accounts of parasitoids and predators, and fungal, viral, and chemical control. Most of these final 13 chapters are brief, encompassing about half of the total text.

The book includes 36 plates comprising genitalic preparations, color photographs of spread specimens (with useful, identified black and white duplicates on facing pages), and striking photographs of live larvae, cocoons, natural enemies, and adults in natural postures.

As one who has reared limacodids for several years, I can appreciate the amount of intensive labor that the book represents. I found the information on rearing methods (chapter 2) particularly enlightening. A minor shortcoming, however, is a sense that larvae were reared by someone other than the authors. The statement that larvae appear "remarkably stupid" because they must be manually transferred to new host material is absurd, as this is a manifestation of rearing these specialized larvae in captivity. Slug caterpillars, especially in early instars, have a difficult time moving from one leaf to another because of the small thoracic legs and absence of abdominal prolegs. Difficulties in rearing slug caterpillars that the authors fail to mention include: 1) their tendency to become immobilized with frass due to the sticky nature of their ventral surface; and 2) their movement off the host material and onto the container, perhaps a preference for the smoothest available substrate (most limacodids are found on hosts with smooth leaves).

Chapter 3 on systematics of the South-east Asian pest species considerably expands our knowledge of the region's fauna, with 35 new species and four new genera described by Holloway, and 28 new synonyms, new combinations, and other nomenclatural changes. Relationships among genera are proposed on the basis of the signum type of the female genitalia as in Holloway (1986, The moths of Borneo: Key to families; Cossidae, Metarbelidae, Ratardidae, Dudgeoneidae, Epipyropidae and Limacodidae, Malay. Nat. J. 40: 1-166). While the family represents a well defined monophyletic group, there is no widely accepted supergeneric classification for the world fauna. Use of the signum in relating genera may have merit, but caution should be exercised since the congruence of this character with other morphological and/or behavioral characters has not been examined in a phylogenetic (cladistic) context.

Chapters 5–9 deal with parasitic Hymenoptera associated with South-east Asian Limacodidae. The chapters on Ichneumonidae, Braconidae, and Chalcidoidea, constituting nearly a fourth of the book, have keys to the parasitoids, with scanning electron micrographs and line drawings of the former two families. I found chapter 5 very informative in its division of the life styles of ichneumonid wasps by taxonomic groups. Chapters 10 and 11 summarize dipteran parasitoids in the Tachinidae, Sarcophagidae, and Bombyliidae, and chapter 12 reviews hemipteran predators. Chapter 13, a half page description of a pyralid cocoon predator, *Ectomyelois ceratoniae* (Zeller), would have been better summarized in the introductory matter or mentioned with other predators. Reviews of classical biological control, fungal pathogens, viruses, and chemical control of limacodids are presented in the final four chapters.

Although the book is full of important life history information and literature citations, several important references on limacodid life histories are not included. In the 60th anniversary since the passing of Harrison G. Dyar (1866–1929), it seems appropriate to mention his contribution to this subject. Even though Dyar described the early stages of primarily Nearctic species, many of these taxa have obvious phylogenetic connections with the Asian fauna. Reference to Dyar's work would have added support to statements on the origin of non-stinging, smooth ("gelatine") types of caterpillars from those with stinging scoli. Dyar recognized the ancestral plan of Limacodidae as possessing two rows of scoli, and hypothesized two independently derived lineages of smooth larvae (Dyar, H. G. 1899, The life-histories of the New York slug caterpillars, J. N.Y. Entomol. Soc. 7: 234–253, pls. 6–8). Each of these lineages possess rows or rudiments of scoli in the first instar that are lost in later instars.

While I applaud the information on rearing methods, there is no mention of obtaining life-history data by capturing adult females and inducing oviposition. This is a viable alternative, particularly since most if not all limacodids can be reared on palm without previous knowledge of the host owing to their polyphagous nature. This procedure, used by Dyar, is practical for associating adults with larvae and obtaining good series of both.

Appendix 1 is a list of host plants of South-east Asian limacodids mentioned in the text. Unfortunately, this information is not indexed, making it difficult to find the species of limacodids associated with each plant.

The price of this book may be prohibitive to those with only a casual interest in Limacodidae or without an economic stake in the subject. However, since the work represents a significant contribution to our knowledge of the early stages, behavior, and systematics of Limacodidae, it is indispensible for the serious student.

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THE GUILD HANDBOOK OF SCIENTIFIC ILLUSTRATION, edited by Elaine R. S. Hodges, 1989. xv + 575 pp. Van Nostrand Reinhold, 115 Fifth Avenue, New York, New York 10003. 22×29 cm, hardcover. \$79.95.

In 1968 U.S. natural science illustrators organized themselves professionally; since then, the Guild has brought to a formerly disconnected occupation a unity of strength and purpose. The *Guild Handbook of Scientific Illustration* is one very tangible result of this union, its high-tone pages bringing together in one volume the wide variety of principles