REVIEWS

BRITISH PYRALID AND PLUME MOTHS. By Bryan P. Beirne. 208 pp. 16 col. pls., 189 figs. London, 15 Sept. 1952. Publisher: Frederick Warne & Co., Ltd., London, and 79 Madison Ave., New York, N. Y. Price $5.00.

The British Pyralidoidea include 174 species of Pyralididae, 35 Pterophoridae, and 1 Orneodidae (no longer considered a pyralidoid by contemporary workers). Dr. Beirne has given keys to the families, subfamilies, genera, and species. For many species there are further comments on color in the text. The habits and habitats, British distribution, and seasonal characteristics are described in some detail. It is remarkable that something is known of the life-history of all 36 of the plume-moths and of 143 of the 161 regularly occurring British pyralids. Where possible, descriptions of all stages are included, with foodplant notes.

The identifying characters used in the keys are clearly illustrated with line drawings and defined in the glossary. Genitalia are not usually figured, because these have been recently illustrated for both sexes (Pierce & Metcalf, *The genitalia of the pyrales, deltoids,* and *plumes*; 1938); similarly the larvae are not figured, since colored figures of most larvae were given by Buckler (*Larvae of British butterflies and moths;* 1899). The colored plates of the Beirne book show nearly every established British species, but most of them leave much to be desired in the reproduction.

This new addition to Warne's fine "Wayside and Woodland Series" should be an essential reference volume for any European lepidopterist interested in the pyralidoids and of special value for the non-European fauna for comparisons.

C. L. REMINGTON, Osborn Zoological Lab., Yale University, New Haven 11, Conn., U.S.A.

BUTTERFLY FARMER. By L. Hugh Newman. 208 pp., 67 plates and frontspiece. Publisher: Phoenix House Ltd., London, England. 1953.

A butterfly farmer must be a rather rare individual, but a second generation butterfly farmer must be almost unique. More than fifty years ago, L. W. NEWMAN, then a tobacco brokers apprentice, gave his employer a case of butterflies he had bred. These attracted the attention of a wealthy collector who was so impressed that he urged NEWMAN to make a career of raising butterflies. Relying on the collector's guarantee to purchase £100 worth of butterflies a year for five years, NEWMAN forsook his apprenticeship and embarked upon raising butterflies as a full time occupation. The business prospered and now his son writes a history of the Butterfly Farm at Bexley, Kent. There are also chapters on other butterfly topics such as migration, introduction of new species, origins of popular names, butterfly auctions, and several chapters relating anecdotes of collectors and collecting.

Although the book is written for the general reader, it is filled with all sorts of practical hints for anyone interested in collecting or raising butterflies. Even the seasoned lepidopterist must lend an ear to the secrets of a commercial breeder. For example, there are observations on the care of hibernating caterpillars and notes on how to raise ant-eating lycænids. Such fascinating suggestions are casually dropped as the forced feeding of valuable hawk moths kept for brood stock. There are reflections on such diverse topics as breeding aberrations, flower preferences, forcing early emergence from pupation, and the length of time pairs remain coupled.

Between World Wars the popularity of butterfly collecting in England was such that the facilities of a small resort town, Royston in Hertfordshire, were filled with collectors awaiting the emergence of the Chalk-hill Blue. There are accounts of as many as a score of collectors on a single acre, some of them in frock coat and striped trousers. Americans may well speculate on the reason for the greater popularity of collecting in England. Did any American collector ever have difficulty with reservations because of the seasonal influx of other collectors into some favored spot?

Mr. NEWMAN, who has had much experience in the auction room (he first acted as a commissioned bidder while a school boy) relates that auction sales of butterflies have been regularly held for more than a hundred years. During World

War II the butterfly auction rooms received a direct hit, but there was such a demand for sales that other premises had to be found. Some individual butterflies, usually striking aberrations, have extended histories at auction. For example, an entirely white Marbled White was caught in 1843 sold the next year for £20, in 1925 for £35, in 1943 for £49, and in 1946 was paired with a melanic specimen and both insects sold as a single item for £110.

Sir WINSTON CHURCHILL is revealed as interested in butterflies to the extent of building a summer house in which to watch the emergence of chrysalides supplied by Mr. NEWMAN and in commissioning the stocking of his estate at Chartwell with butterflies. Besides schools and other educational institutions the Butterfly Farm supplies living specimens for the insect houses of the London and Bristol Zoos. Once the farm filled an order from the New Zealand government for 60,000 pupæ of a moth to be used in weed control.

Perhaps the most fascinating story of the book is the account of the efforts to establish a Dutch race of the Large Copper in lieu of the native British race which had been exterminated by over-collecting and reclamation. A reserve was endowed by the Hon. CHARLES ROTHSCHILD; the area was planted with the food plant; wardens were posted; and the stock secured. After twenty years the colony survives.

JAMES R. MERRITT, School of Law, University of Louisville, Louisville 8, Ky., U. S. A.

MICROLEPIDOPTERA OF NEW GUINEA. Results of the Third Archbold Expedition (American-Netherlands Indian Expedition 1938-1939). Part II. By A. Diakonoff. *Verhandelingen der Koninklijke Nederlandse Akademie van Wetenschappen, Afd. Natuurkunde,* 2nd ser., vol. 49, No. 3: pp. (1) — 166, figs. 209-372. Amsterdam, 1953.

The present paper is the second part of the distinguished work on the Microlepidoptera of New Guinea of which Part I was recently reviewed in *The Lepidopterists' News* (vol. 7: p. 128; 1953).

This paper brings descriptions and records of Tortricidæ, subfamilies Tortricinæ (conclusion) and Eucosminæ. Thirteen genera and 106 species are described as new. This high number of new species is the more remarkable in view of the fact that the records of the Archbold Expedition reported in the second part of the work include in all only seven of the already known species.

As in Part I, keys to Papuan species are given us. The preliminary key to the Tortricinæ genera is replaced by a definitive one. The illustrations (164 figures) are very accurate. The paper concludes with addenda and corrigenda to its preceding part; seventeen New Guinean species and two genera described by the author in the *Proceedings of the Koninklijke Nederlandse Akademie van Wetenschappen,* ser. C, vol. 55, 1952, are listed.

The most amazing of the new genera are undoubtedly *Arctephora* (Generotype: *A. iubata* spec. nova) and *Nikolaia* (Generotype: *N. melanopsygma* spec. nova) both monobasic and ranked by the author in the subfamily Tortricinæ. These genera having a haired cubitus of the hind wing, a feature very unusual among the Tortricinæ, can provide a basis for radical changes in modern views on the classification of the family Tortricidæ in general. It would therefore be advisable for the author to publish enlarged photographs or drawings of species, generotypes of both the new genera, and a detailed morphological comparison of their haired cubitus with the cubital pecten of Sparganothinæ and Olethreutinæ (=Eucosminæ in the paper under review).

As for the new taxonomic views of the author, a consideration of the genus *Cryptophlebia* Wlsm. being a synonym for *Pseudogalleria* Rag. is especially interesting. The referring of the new species *myodes* to the Nearctic genus *Sereda* Heinr. is in the mind of the reviewer very problematic because the genitalia of the new species were not studied by the author. (The abdomen of the unique male type was missing.)

In a letter to the reviewer, the author wrote about that publication of Part III of his work is expected this year, and that Part IV had been submitted to the editor for printing. It is hoped that the author may soon complete the whole work, whose successive parts will be reviewed as they appear.

NICHOLAS S. OBRAZTOV, 11 Cromwell Place, Sea Cliff, Long Island, N.Y., U.S.A.