

BOOK REVIEWS

LOCAL LISTS OF LEPIDOPTERA; OR, A BIBLIOGRAPHICAL CATALOGUE OF LOCAL LISTS AND REGIONAL ACCOUNTS OF THE BUTTERFLIES AND MOTHS OF THE BRITISH ISLES, by J. M. Chalmers-Hunt. 1989. Hedera Press, Uffington, Oxfordshire, U.K. iii + 247 pp. Hard cover, 22 × 14 cm, ISBN-0-86096-023-4, Pounds Sterling 22 (about \$48).

In the early 1970's, I compiled a detailed list of the butterflies I had encountered along the High Line Canal in Colorado over the previous fifteen years of studying its fauna. Much inspired by the local lists and associated commentaries published by other lepidopterists in the 1950's and 1960's, I was eager to add my own experience to the genre. But when it came time to seek publication, I was nonplussed; it seemed that the local list had gone out of style. Having come to be considered merely anecdotal and seldom rigorous enough to justify serious attention, such local and regional tabulations went largely into eclipse.

About the same time, as a student of John Heath's in England, I was exposed to many of the active British lepidopterists and their list-making, in conjunction with the mapping activities of the Biological Records Centre. One field trip found us on the Essex marshes, seeking to confirm the recent first British record of *Gortyna borrellii* (Noctuidae). John Heath had arrayed his Heath Trap near the mercury vapor light belonging to Michael Chalmers-Hunt, then at work on supplements to his great work on the butterflies and moths of Kent. I remember the keen excitement of both men when the beautiful orange noctuid appeared in the ultraviolet field, insuring a new dot on John's maps and a new entry for the most intensely scrutinized local list of all, the British.

Mr. Chalmers-Hunt's enthusiasm for faunistic inventory has now been translated into a monumental compilation of all known lists of British Lepidoptera. To my knowledge, this kind of fastidious bibliography of local studies is extremely rare. The only other work that approaches its scale, on a national level, is the wonderfully useful catalog of American sources prepared by William D. Field, Cyril F. Dos Passos, and John H. Masters (*A Bibliography of the Catalogs, Lists, Faunal and Other Papers on the Butterflies of North America North of Mexico Arranged by State and Province (Lepidoptera: Rhopalocera)*). Smithsonian Contributions to Zoology Number 157, Washington, 1974. 104 pp.).

With admirable brevity, Chalmers-Hunt introduces the catalog with a single page of text. The thirty years of reference-collecting that went into the task resulted in 3161 entries. They include "all county and regional lists and local accounts of British Isles' lepidoptera known to me," omitting only "lists with relatively few species." Chalmers-Hunt defines "local lists" circularly but effectively as "covering all the items in this work." He justifies the effort by explaining that such items "often contain information of considerable interest to be found nowhere else, particularly in regard to distribution." He goes on to note that, while such lists are often rare and difficult to find, this book should render their location relatively simple. That it will.

The book is sturdy and functional, with no frills. It may seem costly for an unillustrated book of modest proportions, but the profit margin cannot have been high. Eric Classey, the dean of British Lepidoptera booksellers and publisher in his own right, deserves our gratitude for bringing such a book to print. The new imprint, Hedera Press, was erected to honor the publisher's late wife, Ivy Classey. A well-designed volume, the book does her memory justice. I found no typos, and if the author hadn't pointed out that several serial numbers were deleted from the sequence, I would have noticed no errors at all.

Chalmers-Hunt combed many sources, beginning with "that great treasure house of knowledge, The General Library, British Museum (Natural History);" running through many other libraries, private and public; and finishing with his own extensive files. He checked all the usual journals as well as a fascinating array of lesser known serials, from the august to the arcane, from *Science Gossip* and *Journal of the Manx Museum* to proceedings of the natural history societies of Eton and Rugby Schools. He has brought together not only published and easily accessible references, but also typescripts, private unpublished lists, and real rarities such as John Heath's "The Lepidoptera of Devon"

from 1946, only two copies of which exist. Wherever possible, he indicates the present location of all lists not generally available and of obvious provenance. He examined the great majority of the sources personally.

The catalog entries are arranged alphabetically by author. Each entry consists of a four-digit serial number; the name of the author(s); date of publication or compilation; title or description; journal or other source of publication, if published, and date of serial if different from actual publication date; abbreviated notation of county or counties covered or referred to; occasional notes specifying vicinity, quoting reviews, annotating contents, or drawing attention to items of special significance; and location of manuscripts or rare published items. Little more could be desired, short of full annotations, which would have made the product unwieldy and the task unmanageable.

The lists themselves vary from the quaint through the highly personal and anecdotal to the strictly scientific: "Entomological scraps from a lepidopterist's notebook during a month's sojourn in the north of Scotland in the summer of 1905," "Captures in Epping Forest," "An entomological ramble among the rocks of Chudleigh, Devon," and "A survey of the lepidoptera of a small oak-beech wood on the midland kuyper marl with ecological notes on the species and two appendices." The lists include the truly local ("The lepidoptera of a Birmingham garden"), the rather local ("The macro-lepidoptera of Sherwood Forest"), and the more broadly regional ("The lepidoptera of Jersey"). Some cover the whole order, others treat either butterflies or moths, still others list families or genera. They range from brief ("The moths of Widdop, 1896") to long (Christ's Hospital School's lists for 1903 to 1927). This great range underscores the enormous array of origins of our basic zoological knowledge.

While "A day's collecting near Dorking" may be less meaningful than "An ecological survey of the insects of the Farne Islands," all of the lists add up to a picture of the British fauna. Collectively, they reveal the astonishing effort that has gone into documenting this small insular fauna that yet yields surprises.

The book concludes with a cross-referenced tabulation of entries-per-county, by serial number. This useful feature reveals the disproportionate attention given populous counties at the expense of the hinterlands. Kent, the author's own bailiwick, scores 200 lists; Peeblesshire, Scotland, has only one. This fact alone should inspire young collectors to redress the balance over the next century. In doing so, they are bound to make valuable contributions, as every record of a species' occurrence is a fresh quantum of knowledge.

In the end, one must ask whether listing is just a trivial game, or whether Chalmers-Hunt is merely engaging in compulsive list-listing, having run out of leps to list in Kent. I think not; not, at least, for anyone concerned with building a detailed picture of our fauna, and of how it changes over time. My list of "The Butterflies of the High Line Canal of Colorado" was published (in 1971) by John Masters in his *Mid-Continent Series on the Lepidoptera* (Volume 2, Number 24; 19 pp.). Since then, I have been able to document that some forty per cent of the species listed have become locally extinct or seriously reduced. This knowledge, combined with updates from the ongoing Xerces Society Fourth of July Butterfly Counts, has influenced management policy for the remaining habitats along the canal.

So the importance of local lists is to be found in their usefulness to efforts to conserve biological diversity, in filling out our understanding of biogeographical patterns and processes, and in providing stimuli for future studies. In addition, the compilation and refinement of local lists, intelligently approached, is an immensely enjoyable enterprise for many naturalists.

For the past ten years I have been rambling in the ravaged land of the Willapa Hills of Washington State, and listing the local butterfly fauna as I go. From an initial impression that very few species occupy the region, my list has now grown to forty-some species. This modest fauna is beginning to tell us things about forestry, climate, and ourselves that we might otherwise miss.

Field et al. wrote that bibliography is the handmaiden of all research. It may be added that the local list is the midwife of faunistic and ecological understanding. How can one hope to decipher a system without knowing its components? Those of us who engage in making local lists, and who know it for more than the pleasant game it no doubt is, can

appreciate the great effort and service rendered by Michael Chalmers-Hunt in preparing this simple but remarkable list of lists. It should inspire interest in making more lists, and help bring them back into fashion, from Fourth of July counts to full faunal inventories. One hopes that future list-makers will apply modern tools to make their lists more analytical than merely rambling, although there should always be room for rambles as well. At least, if lists must pass, this comprehensive work will keep us from forgetting the important contribution they have made to the literature.

ROBERT MICHAEL PYLE, 369 Loop Road, Gray's River, Washington 98621.

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THE CHARAXINAE BUTTERFLIES OF AFRICA, by Stephen Frank Henning (foreward by C. G. C. Dickson). 1989. Aloe Books, Johannesburg. Distributed by Aloe Book Agency, P.O. Box 4349, Johannesburg, South Africa 2000 and Bioquip, Inc., 17083 LaSalle Avenue, Gardena, CA 90248. 457 pp., over 750 color illustrations, 114 text figs. Hard cover, 25 × 34 cm, ISBN 0-620-12811-9 (Standard Edition), \$240.00; 0-620-12812-9 (Collectors' Edition), \$500.00.

First of all, it must be said that this is a monumental work, one that covers a significant part of Africa's lepidopteran fauna. The author is to be congratulated on compiling such a significant book, and the publishers for having published it. This is not a field guide, measuring more than 9½ by 13 inches and printed on heavy coated paper. It is beautifully presented enough to stand on its own as a "coffee table" book, even if it did not possess its obvious scientific merit.

There are seven introductory sections. In the first two, the author characterizes the subfamily and gives succinct discussions of morphology and terminology employed, including those of the early stages. The section on behavior discusses the effects of temperature on flight, feeding, foodplant preference, hilltopping, and mating behavior. The discussion of evolution, including speciation, species concepts, cladistics, mimicry, and polymorphism, is well done. The zoogeography section only concerns distribution within Africa and perhaps should have been labelled "geographic distribution": it is by no means theoretical but clearly delineates major habitat types and subregions. Concluding the introductory material are short sections on collecting methods and conservation, the latter stressing the degradation of the environment and its effects on charaxine populations.

In the taxonomic section (most of the book), each tribe and genus is carefully described. The individual species are covered in much detail, with descriptions of adults, geographical distribution, and the locations of types (where known to Henning) provided for all taxa. Additionally, where known, immature stages, life histories, larval foodplants, habits, and the degree of polymorphism of each species are described. Two keys to species groups, one based on adult characters and one on final instar larval characters, precede the species accounts, which are arranged by species group. Color illustrations are given of all 162 species and most subspecies, as well as of their larvae and pupae, when available, and of many habitats. Henning has had the cooperation of most of the active workers on African Charaxinae, and descriptions of 19 new taxa (3 species and 16 subspecies) by a number of these workers are included, often in French (in the case of Plantrou), more frequently in English (Henning, Canu, Collins), but occasionally interspersed French and English (Turlin).

The illustrations of individual insects are true to color and accurately represent the distinguishing features of the taxa. They should prove very useful to those who wish to identify their African charaxines without resorting to genitalic dissections. In those cases where the genitalia are the only means of certain identification, line drawings of the salient features are presented. Illustrations of eggs, larvae, and pupae are likewise very