REVIEW

THE LEPIDOPTERA OF NEW YORK AND NEIGHBORING STATES. PART IV. [Agaristidae, Arctiidae, Lithosiidae (*Cisthene* by C. B. Knowlton), Nolidae (by J. G. Franclemont), Euchromiidae and the Rhopalocera (including Hesperiidae)]. By William T. M. Forbes. September 1960. 188 pages, 188 figures. Published as Memoir 371 by the Cornell University Agricultural Experiment Station of the New York State College of Agriculture, Ithaca, New York. [Price $1.75, paper covers; available from: Mailing Room, Stone Hall, Cornell University, Ithaca, N. Y., U. S. A.]

The first third of this publication, dealing with the several families of moths mentioned above, will be welcomed by eastern lepidopterists. It continues the improved style of approach evidenced in Parts II and III of this monumental work, with liberal use and illustration of genital characters, and with its careful keys and characterizations should make the task of identification in these families much easier and surer than was possible before. There are some surprises, such as: *Isia* (Arctiidae) changed to *Pyrrharctia;* the Great Leopard Moth (*Ecpantheria*) species name changed from *deflorata* to *scribonia; Lycomorpha* removed from the Euchromiidae (Amatidae, Ctenuchidae, Syntomidae) to the Lithosiidae; *Nigetia* removed from the Nolidae to the Noctuidae (Acontiinae). I am not familiar enough with the nomenclatorial background of the name changes to make intelligent comment on them, but the transfers are obviously well grounded and represent real improvement. As in earlier parts, it is a pity that illustrations could not have been provided. Colored figures, of course, would have been ideal (especially so for these aglaochromatic groups), but good half-tones would have been valuable.

The remaining two-thirds of the publication is devoted to the suborder Rhopalocera, under which are included the superfamilies Hesperioidea and Papilionoidea. This portion cannot be dismissed so easily or so favorably. In the first place, the butterflies and skippers, from the standpoint of readily available, competent and up-to-date literature, are far better off than the moths. KLOTS' *Field Guide,* in particular, covers the same area that FORBES does and more, provides more information — though FORBES gives more on genital characters and probably more on early stages — and an abundance of colored and half-tone illustrations. It would seem that, consistency notwithstanding, an alteration of treatment could have been made here with profit. A second point is the virtual absence of particular information on New York state. FORBES covers in this work an area extending roughly from the Carolinas north to the pole, from the Atlantic to the eastern foothills of the Rockies, yet the title specifically refers to New York. He treats, in other words, a

large number of species in addition to those definitely known from the state, yet the latter are not even specifically indicated and aside from a few rare, local or unusual species no New York localities are cited.

A third point, one I find particularly hard to understand, since Professor FORBES has always been an exponent of "the larger view" – is the inordinate space devoted to aberrations, named seasonal forms, etc.

The most striking and controversial parts of the work, however, are none of the foregoing. The chief bones of contention here are, first, FORBES' long outmoded generic conservatism and, second, his private code of nomenclature, which rejects the principle of priority in favor of the "principles" of familiarity and no ambiguity. In practice these result in such classificatory and nomenclatorial upsets as: all the hairstreaks being placed in *Thecla,* all the blues in *Plebeius,* most of the smaller skippers (*e.g., Hesperia, Poanes, Atrytone, Polites*) in *Pamphila, Chrysophanus* used for the coppers, *Satyrus* for *Cercyonis, Thanaos* for *Erynnis;* and many others, too numerous to list in detail.

It is not these practical effects which are the most worrisome, however, for after all it is doubtful that this work will exert much influence on the future course of butterfly nomenclature. Of far more concern are the theses under which they have been produced. By its very nature taxonomy is one of the freest of the sciences, with more room for personal opinion and individual judgment than most. Freedom, however, must not be mistaken for license and FORBES' treatment is perilously close to that. Especially is this true of his rejection of the International Rules. Imperfect as they are – bungling, vacillating, exasperating as they are – they still represent a collective and largely successful effort of taxonomists to prevent nomenclatorial chaos. To reject them, even with the best of intentions, is to invite anarchy.

His ultraconservatism must be disputed on other grounds. And let it be said forthwith that the fault is not by any means all with FORBES. It is a defect at least as much of taxonomy as of taxonomists that permits NABOKOV and others on one hand to divide the blues into a series of subfamilies and FORBES on the other to encompass them all in one genus. NABOKOV's system as far as it goes is self-consistent and so is FORBES'; and either would be quite acceptable were it universally applied. Both, however, are quite incompatible with current thinking and current classifications and therein lies their most serious fault; for current concepts *are* universally applied (or are striving towards that goal), and are at least as self-consistent. We shall always have our splitters and our lumpers—a division of attitude that serves nicely as an internal self-regulatory device in taxonomy—but megasplitting and megalumping are both to be eschewed as against the best interests of the science.

It would be possible to continue in this critical vein with comments on numerous specific points. Suffice it, however, to mention merely that distribution descriptions are too brief and often incomplete; that brood information in several instances inaccurate. There are a number of slips: *Trigrioides* (p.45) for *Tigrioides; Calycopis* (P.133) credited to FABRICIUS instead of to SCUDDER; *lanoraiensis* (p.132) instead of *lanoraieensis; "franklinii* Freeman" (p.129) instead of *lacustris* Freeman. The casual introduction (p.104) of the previously unpublished name *"luxuriosus* Reiff ms." under *cresphontes* (presumably equivalent to *pennsylvanicus* Cherm.) is really inexcusable.

Though I consider the Rhopalocera portion of this work to be in sum an unfortunate effort, this does not imply that it is without value. The larval and pupal keys will surely be of great use, and the genitalic key to *"Thanaos"* likewise. The liberal illustration of genitalic characters where they are most needed is another important and useful feature. Among these especially to be mentioned is the genitalic separation of *"Plebeius" melissa* and *scudderi* succinctly and neatly, something one must dig hard, deep and long to extract from the mass of detail in NABOKOV's revision of these two!

There are, further, many fascinating suggestions and hints which specialists will want to follow up: a race of *"Pamphila" peckius* in Arizona; specific distinctness of *"Pamphila" otho* and *egeremet;* a spotty and rare second brood of *Pieris virginiensis; Eurema lisa* breeding so far north as Woods Hole, Massachusetts (but does it overwinter?); the possibility that *dospassosi* is a species distinct from *"Chrysophanus" dorcas* and in the same group that *claytoni* may be a representative of *helloides* (both of which seem quite unlikely to me); the possibility that the late spring "form" of *"Plebeius" pseudargiolus* is actually a distinct and single brooded species (a definite possibility, though I believe FORBES has confused this and some other forms in his discussion, and from EDWARDS' account the putative species should be at least partially two-brooded); a curious population of *"Argynnis" cybele* on Crotch Id., Maine; the specific distinctness of *"Argynnis" lais* and *atlantis;* the almost specific distinctness of *Lethe portlandia andromacha;* the use of several unconventional characters in the subdivision of several genera. The strange bedfellows thus resulting in the hairstreaks, however, indicate that, unsupported by other data, they can sometimes lead one astray!

In resumé, the moth families form a worthy continuation of the earlier parts of this work; the portion devoted to the butterflies is largely redundant and a nomenclatorial atavism, but with some nuggets if you look for them.

HARRY K. CLENCH, Carnegie Museum, Pittsburgh 13, Pa., U. S. A.