

## HÜBNERIAN!

BY JOHN B. SMITH.

Hübnerian and anti-Hübnerian! These terms express the feelings of two camps into which Lepidopterists have long been divided, and most of them adhere to one or the other of these views, without having had an opportunity to fairly examine and judge. Between unqualified blame, and unqualified praise, students have been at a loss; and with a feeling of uncertainty one student writes *Agrotis*, Hb., while another writes *Agrotis*, Tr. Hübner's *Coiti* have become a bye-word, and his "genera" have been abused up hill and down dale. But does Hübner deserve such treatment?

Hübner when he started, found the LEPIDOPTERA in a decidedly mixed condition, and being of a systematic turn he began arranging matters, and did a perfectly astounding amount of work in the way of describing and figuring species, arranging them according to his own views on the subject. In the "Verzeichniss bekannter Schmetterlinge" Augsburg, 1816, there is perhaps as good an opportunity of learning what Hübner's ideas on classification were, as in all his other works combined. An abstract of some portions I give here.

Primarily he divides the LEPIDOPTERA into nine PHALANGES which he defines as follows, though in a different form :

Antennæ obviously clavate at tip; tongue spiral; body short, wings large.

I. PAPILIONES.

Antennæ not clavate; with leaf-like appendages to the joints; mouth and tongue prolonged, the latter spiral; primaries long, narrow; secondaries short, broad; body long and thick . . . . .

II. SPHINGIDES.

Antennæ setaceous, but feathered; head small; tongue short and weak, palpi sub-obsolete; legs small; body hairy . . . . .

III. PHALÆNÆ.

Antennæ setaceous.

Tongue moderate, strong; palpi projecting into a blunt snout; collar and pategiæ large; thorax basally clothed with dense scaly hairs; wings fringed; legs spurred . . . . .

IV. NOCTUÆ.

Tongue moderate but soft; antennæ delicate; palpi short; body smoothly scaled; wings large; legs rather weak, but with long spurs; abdomen slender . . . . .

V. GEOMETRÆ.

Tongue moderate; eyes large; palpi long; wings large, but the primaries longer than secondaries; legs, but especially the tarsi, very long; abdomen elongate, slender . . . . .

VI. PYRALIDES.

Palpi short and broad; primaries short, narrow, obtuse; secondaries rather short; legs and abdomen short . . . . .

VII. TORTRICES.

Palpi prominent; head tufted; wings peculiar in various ways.

VIII. TINEÆ.

Wings divided; legs long; abdomen long and slender . . . . .

X. ALUCITÆ.



Compared with our later-day classifications Phalanx I equals our *Rhopalocera*. Phalanx II equals the *Sphinges* of Staudinger, including *Sesia* and *Zygæna* with their near allies. Phalanx III nearly equals the mass classed as *Bombycidae*, including however, a few now referred to the *Noctuidæ*. IV contains the larger part of what are now classed as *Noctuidæ* with an occasional Bombycid intermixed. V very nearly equals the *Geometridæ* of to-day. VI includes the Deltoids, many of the lower *Noctuidæ*, and the true *Pyrallidæ*. This phalanx was to Hübner what the *Mollusca* were to Linné; everything not otherwise referable found a place here; and this is the most mixed of all the phalanges. Not that he deserves blame for considering the Deltoids as *Pyrallides*, for Guenée does the same thing, and some authors, among them Dr. Packard, still join them. VII nearly equals the present idea of the *Tortricidæ*, while phalanx VIII, despite its peculiar definition, still nearly corresponds to our *Tineidæ* or *Tineinæ*, as some prefer. Phalanx IX includes our *Petrophoridæ* and *Alucitæ*.

It will be seen from the table that Hübner used only the most superficial characters to define his principal divisions, being in that respect no better, and certainly no worse than his predecessors, and indeed to this point there is little original except the term for the divisions.

Each phalanx is divided into *Tribes*, which nearly equals the term sub-family as used to-day. The tribes are divided into *Stirpes*; these are divided into *Familie* which are finally divided into *Coiti*. Each division is defined, the definition of the most superficial description, of course.

Some excerpts from the classification of phalanx IV may serve as an illustration.

This phalanx is divided into three tribes as follows:

Body, head, abdomen and legs coarsely clothed, wings gray, primaries with scarcely distinct orbicular, reniform and wavy transverse lines.

I. BOMBYCOIDES.

Collar and pategiæ evident; primaries very variously colored and marked, secondaries uniform, generally pale . . . . . 2. GENUINÆ.

Palpi ascending and pointed; both wings ample, very variously colored and marked . . . . . 3. SEMIGEOMETRÆ.

Despite the curious definitions the essential meaning or intent is sound, for the Noctuids divide into just such groups—Deltoids of course excluded.

The *Bombycoides* embrace but a very small number of species and are divided into three stirpes.

Palpi short, black marked; primaries rather narrow, pale in color, with grayish transverse shades and lines; secondaries almost without maculation.

I. APATELÆ.

Head, thorax, wings and legs distinctly marked, and handsomely variegated.

2. DIPHTHERÆ.



Thorax humped, the vestiture tufted; primaries dentate, with a widely curved black t. p. line; else blotchy (scheckig bezeichnet) . . . 3. JASPIDIÆ.

Hübner was thus the first to associate these forms, and so they remain to this day, all the names being in use.

The *Apatelæ* are divided into three families: A, *Miræ* with narrow primaries, very short secondaries, and long abdomen; B, *Perconformes* with somewhat broader primaries, maculate with sagittate marks; and C, *Consimiles*, with distinct ordinary spots and lines, gray.

To the *Miræ* he refers a single Coitus; *Exæreta* for *Acronycta ulmi*. To the *Perconformes* he refers four Coiti, *Hyboma* for *A. strigosa* (body slender, primaries pale spotted, with darker ground); *Triæna* (pale species with *psi* mark and sagittate dashes) for *tritona* and allies; *Jochæra* (with sagittate marks, rather distinct stigmata and variegated marking) for *alni*; and *Acronicta* (white with only interrupted black marks) for *leporina* and *bradyporina*. All these species are to-day classed as either *Apatela* or *Acronycta*, though Mr. Grote not long since revived some of the coiti names to designate divisions of the genus.

The *Consimiles* contain three coiti; *Calocasia* for *Demas coryli*, and another; *Pharetra* for *auricoma* and *menyanthidis*, and *Arctomyscis* for *aceris* and allies.

This illustrates the character of Hübner's work. His idea plainly was to form assemblages of related forms, and in a very large proportion of cases he was remarkably successful.

Except for the genus *Calocasia* (*Demas* St.) the entire stirps *Apatelæ* is now referred to *Acronycta*. They form an assemblage somewhat variable in color and habitus, and these differences are seized on to mark families, to which he gives names expressive of some attractive or marked feature, such as *Miræ*, *Maculatæ*, *Clarocoloratæ*, *Nubilæ*, etc.

Finally come his coiti, which correspond to our genera. Rarely has he a coitus name like that of the stirps. Thus he says stirps *Apatelæ*, but nowhere does he have a coitus *Apatela*; while he has a coitus *Acronictæ*, and writes *Acronicta leporina*. The coiti rarely contain heterogeneous material, though not rarely a family corresponds to a genus of to-day. In descriptive work Hübner uses terms like the following: say for *Drasteria cuspidæa* "A noctua semigeometra and Euclidia maculata;" giving the phalanx, tribe, stirps and family as descriptive terms; *Drasteria* being the coitus. Carefully examining Hübner's works it will be found that he had for *coitus* the idea we have for *genus*. *Familia* represents a simple group of allied coiti or genera, and family terms are used over and over again. A *Stirps* represents to him an association of similar families, while a *Tribe* represents our present idea of sub-family.

The term "stirps" did not have for Hübner that meaning that the term genus has with the latter-day Entomologists, and his terms for stirpes should not be used for genera; his coiti, where used, should be



credited to him, for the names were first proposed by him, and the coiti such as they are, are as well defined as genera usually were in those days. Hübner's language was peculiar, and his classification was based on superficial characters—but he was in advance of his contemporaries in his arrangement and classification, which is fully equal if not superior to that of Entomologists of greater repute. Why, for instance, should Hübner's genera be rejected or credited to others, while Guenée's genera, in the *Tortricidæ* for instance, not sanctioned by a word of description are adopted without question and credited to him?

I do not desire to convey the impression that I advocate the adoption of Hübner's genera—not so. I believe that where an author has subsequently correctly limited and accurately defined a genus his name should be adopted and Hübner's coiti cited as synonyms. What is objectionable is, that coiti names are used in the same sense that Hübner used them and credited to others. It is allowable, where one of Hübner's stirps names is used for a genus, that it be credited to the one that first used the name in a generic sense—thus *Apatelæ* is a stirps name, and the genus *Apatela* is not Hübner's. *Agrotes* is used for a stirps, and *Agrotis* as a genus is properly credited to Treitschke. This leads to a consideration of the Tentamen, and this is entitled only to consideration as what it purports to be—a proposed classification. None of the divisions are defined, and only stirpes are proposed, which should never be used as genera for the reasons above stated. Verzeichniss names, where they refer to good genera ought in justice to be adopted as far as possible.

A settled nomenclature is desirable and necessary, and in the course of the work on the monograph of the American Noctuidæ at which Prof. C. V. Riley and myself are engaged, the consideration to be given to Hübner's works will be carefully discussed.

The above represents extracts and notes made, but not conclusions reached.





Smith, John Bernhard. 1884. "Hübnerian." *Papilio* 4(9-10), 183–186.

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