

CLASSIFICATION OF THE ICHNEUMON FLIES, OR THE  
SUPERFAMILY ICHNEUMONOIDEA.

---

By WILLIAM H. ASHMEAD,  
*Assistant Curator, Division of Insects.*

---

*The characters common to genera give those of the higher groups; the orders and their common characters combine to form those of the classes. It depends, therefore, upon every classifier how far he will proceed in separation and subdivision. Indeed, much difference of opinion exists upon the determination of the groups between the species and the order, whence have arisen the several definitions of subgenus, genus, and tribe. In fact, opinions will never harmonize upon the claims of genera, because no universal principle for the structure of genera in any artificial subdivision can be given. This principle is in itself exceedingly capricious, and if one maintains thus far a genus extends, and another thus far, both are certainly right, if only every group, which they distinguish as genera, is distinguished by similar and exclusive characters. Burmeister.*

The pertinency of this quotation from one of the great masters of the science of entomology will be better understood and appreciated when the body of this work is examined and it is found that no less than *eleven hundred and forty genera*, or more, have been recognized and tabulated, although when Burmeister penned the above lines, in 1835, the Ichneumonoidea contained only about *one hundred and nine genera*. If we go back to the early days of Burmeister, we find, too, that authorities differed as to the value and utility of some of these genera, just as they differ to-day. In my tables, therefore, there will be found many genera which by some eminent living hymenopterologists are thought to be of no value, but which the writer, on the contrary, holds to be good and distinct—a difference of opinion that time alone can settle.

Very few persons have given any attention to these insects, and the necessity for these fine subgeneric and tribal divisions is evidently apparent to only a few active workers. The great majority of the workers in other groups seem totally ignorant of this vast complex, or at least have no conception of its immensity or the difficulties encountered in studying and identifying material belonging to it derived from different parts of the world.

The writer has now been studying the Hymenoptera for twenty-five years, and much of this time has been devoted specially to studies in

Male genital organs not retractile, rarely very large, except in *Liomelopium*; workers and females with a rudimentary sting; orifice of cloaca slit or cleft; pupæ without cocoons.

Family XLVIII. DOLICHODERIDÆ.

Male genital organs most frequently exerted, the hypopygium obtusely triangular or rounded at apex; workers and females without a sting; orifice of cloaca round, terminal, surrounded with a fringe of hairs; pupæ usually covered with a cocoon... Family XLIX. FORMICIDÆ.

Superfamily V. PROCTOTRYXPOIDÆA.

TABLE OF FAMILIES.

Trochanters distinctly 2-jointed.....	2
Trochanters 1-jointed.	
Antennæ 14-jointed, inserted on the middle of the face; front wings with a lanceolate stigma, the marginal cell long, open at apex; maxillary palpi 5-, labial palpi 3-jointed; female abdomen very greatly lengthened, slender and cylindrical, about five times the length of the head and thorax united, composed of 6 segments; male abdomen clavate.....	Family L. PELEGINIDÆ.
2. Antennæ inserted at the clypeus.....	5
Antennæ inserted on the middle of the face, often on a frontal prominence.	
Wingless forms.....	4
Winged.	
Front wings with the marginal vein linear, never stigmated.....	3
Front wings with the marginal vein stigmated, or with a distinct stigma.	
Mandibles dentate; antennæ 14-15-jointed; claws simple or pectinate; hind wings <i>with</i> a more or less distinct venation.	
Family LI. HELORIDÆ.	
Mandibles edentate; antennæ 13-jointed, with a ring joint; claws simple; hind wings <i>without</i> a distinct venation.	
Family LII. PROCTOTRYPIDÆ.	
3. Front wings with a distinct basal cell and usually with a marginal cell often closed, never entirely wanting, although often incomplete; hind wings always with a basal cell; antennæ 14-15-jointed; labial palpi 3-jointed.....	Family LIII. BELYTIDÆ.
Front wings rarely with a distinct basal cell, the median vein most frequently obsolete or subsobsolete, the marginal cell never complete, usually entirely wanting; hind wings always <i>without</i> a basal cell; antennæ 12, 13, or 14-jointed; labial palpi 2-jointed.	
Family LIV. DIAPRIDÆ.	
4. Mandibles edentate.....	Family LII. PROCTOTRYPIDÆ.
Mandibles dentate.	
Labial palpi 3-jointed.....	Family LIII. BELYTIDÆ.
Labial palpi 2-jointed.....	Family LIV. DIAPRIDÆ.
5. Wingless forms.....	7
Winged.	
Abdomen acute or margined along the sides, sessile or subsessile.....	6
Abdomen rounded at sides, never acute or margined, sessile or subsessile; front tibiae with the apical spur strongly forked; antennæ in female 10-11-jointed, in male 11-jointed; front wings always without a post-marginal vein, the stigmal vein or radius usually long, the marginal vein either linear or stigmated.....	Family LV. CERAPHRONIDÆ.

6. Front wings most frequently with marginal and stigmal veins; antenna usually 12-jointed in both sexes, but sometimes in female 11-jointed, or 7-jointed when the club joints coalesce. . . . . Family LVI. SCELIONIDÆ.  
 Front wings always *without* marginal and stigmal veins, and most frequently veinless, at the most with only the submarginal or subcostal vein present, which is sometimes clavate or stigmated at apex; antenna never more than 10-jointed, usually with the same number of joints in both sexes (rarely only 8 or 9-jointed).  
 . . . . . Family LVII. PLATYGASTERIDÆ.
7. Abdomen never acute or margined along the sides; anterior tibiæ with the apical spur strongly forked. . . . . Family LV. CERAPHRONIDÆ.  
 Abdomen with the sides acute or margined; anterior tibiæ with one apical spur. Antennæ 12-jointed or if with a solid club, 7-jointed; labial palpi 2-jointed. . . . . Family LVI. SCELIONIDÆ.  
 Antennæ 10-jointed (rarely less); labial palpi 1-jointed. . . . . Family LVII. PLATYGASTERIDÆ.

Supertfamily VI. CYNIPOIDÆA.

TABLE OF FAMILIES.

- Abdominal tergites meeting along the venter and entirely inclosing or concealing the sternites, at most with only a part of the hypopygium exposed. . . . . Family LVIII. FIGITIDÆ.  
 Abdominal tergites *not* meeting along the venter; all or nearly all the sternites visible. . . . . Family LIX. CYNIPIDÆ.

Family LVIII. FIGITIDÆ.

TABLE OF SUBFAMILIES.

- Abdomen short, globose or subglobose, the second segment the longest. . . . . 3  
 Abdomen ovate, compressed or subcompressed, often longly petiolated, the apex usually pointed.  
 Scutellum cupuliform, i. e., with a cup-like elevation on its disk. . . . . 2  
 Scutellum *not* cupuliform, of ordinary shape or grooved, spined, or cone-shaped, and usually foveate at base.  
 Abdomen sessile or subsessile or with a short petiole, the second segment shorter than the third.  
 Second abdominal segment *not* prolonged dorsally, as seen from the side, not tongue-shaped. . . . . Subfamily I. FIGITINÆ.  
 Second abdominal segment prolonged dorsally, as seen from the side, tongue-shaped. . . . . Subfamily II. OXYCHININÆ.  
 Abdomen longly petiolated, the second segment usually somewhat longer than the third.  
 Petiole attached to the metathorax normally, between the hind coxæ; fourth segment not longer than either the second or the third. . . . . Subfamily III. ANACHARINÆ.  
 Petiole attached to the metathorax far above the hind coxæ; fourth segment much longer than either the second or the third. . . . . Subfamily IV. LIPTERINÆ.  
 2. Second abdominal segment always the longest and usually occupying most of the surface of abdomen; hind tibiæ with *two* apical spurs. . . . . Subfamily V. EUCCELINÆ.  
 3. Scutellum rounded, smooth, convex; hind tibiæ with only *one* apical spur. . . . . Subfamily VI. ALLOTRINÆ.