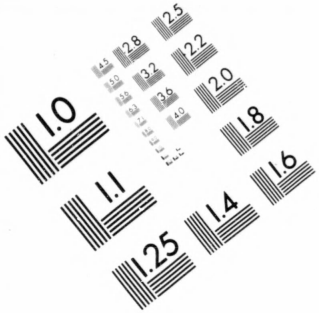

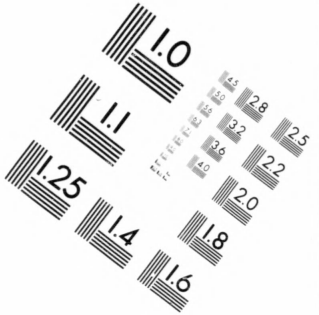

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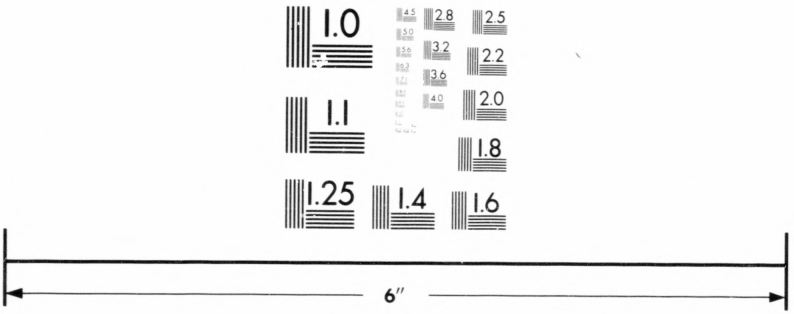

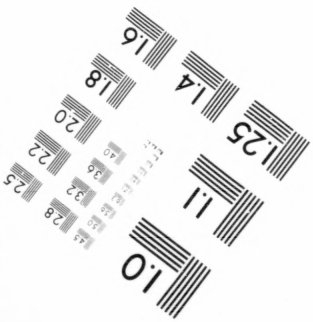

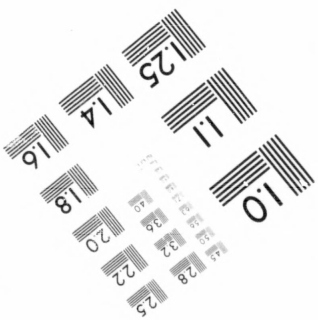

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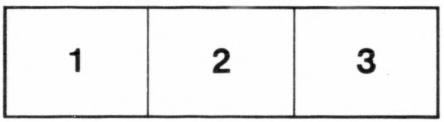

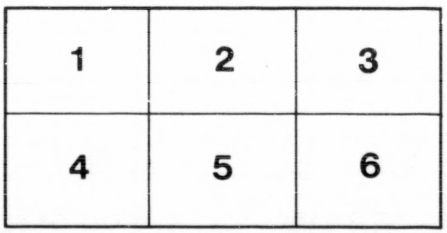

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38987

SYNOPSIS

OF THE

FAMILIES AND GENERA

OF THE

HYMENOPTERA

OF

AMERICA, NORTH OF MEXICO,

TOGETHER WITH A CATALOGUE OF THE

DESCRIBED SPECIES, AND

BIBLIOGRAPHY.

COMPILED BY E. T. CRESSON.

TRANSACTIONS
AMERICAN ENTOMOLOGICAL SOCIETY.
SUPPLEMENTARY VOLUME,
1887.

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PREFACE.

The study of the Hymenoptera of our country has not kept pace with some of the other orders from the want of an introductory work in our own language. Westwood's invaluable "Introduction to the Modern Classification of Insects," while partly supplying the want, is insufficient, and at the present expensive and difficult to obtain. The want is especially felt by those who have not access to large scientific libraries, and many are discouraged from attempting the study by the difficulties and expense of acquiring the necessary literature, with the added difficulties of the foreign languages.

The writer has been frequently appealed to and requested to indicate such books as will enable a beginner to separate even the families and genera. The impossibility of obtaining any works in the English language, and the almost equally hopeless chance of determining the species, have doubtless deterred many from aiding in the development of the study of probably the most interesting order of insects.

Other extensive orders, as the Coleoptera and Lepidoptera, have numerous votaries from the aids furnished by elementary works on classification, and until similar assistance is given, very little progress can be expected in the study of the Hymenoptera, notwithstanding the fact that there is no order of insects more extensive and varied in structure, and certainly none more interesting in the habits of its members. Students are so few, in fact, that the greater part of the material collected together in the larger families has been very imperfectly studied, and our knowledge of the characters is very incomplete, so that years of careful study will be necessary before a classification can be produced that will be approximately complete.

As a step in that direction, however, it has been suggested that the publication of a series of synoptic tables giving the leading characters, as far as known, of the families and genera, would prove a great aid to the student and possibly induce many to collect and study these interesting creatures.

With the hope that such may prove to be the case, the following tables have been compiled from the writings of Wesmael, Holmgren, Westwood, Thomson, Taschenberg, Norton, Marshall, André, Mayr, Saunders, Howard, Cameron, Ashmead and others. Little or nothing original in the arrangement is claimed by the compiler. The characters given in many cases, especially in the Ichneumonidæ, are very unsatisfactory, often difficult to describe intelligibly, and yet they are about the best that can be offered with our present incomplete knowledge. Doubtless, after more careful study has been made, new and more reliable characters will be discovered, that will make the divisions more easy, simple and correct.

As a rule, only such genera as have been found to occur within our faunal limits are characterized in the synoptic tables given herein, but in some families, e. g. Ichneumonidæ, Braconidæ, Chalcididæ and Proctotrupidæ (our material of which has been so little studied), some of the European genera, not yet recognized with us, but probably will be, are added, and are indicated by an asterisk preceding the name.

As an aid to the student, the synopsis is followed by an approximately complete catalogue of the species that have been described as inhabiting our fauna, closing with a list of works and papers having reference to our Hymenoptera.

In conclusion, the compiler desires to express his thanks to the Rev. T. A. Marshall and Messrs. L. O. Howard, W. H. Ashmead and George B. Cresson, who have most kindly aided in the preparation of this paper; and especially does he feel grateful for the kindness and friendship of Dr. George H. Horn, who has most cheerfully and willingly given largely of his valuable time and much needed information and advice.

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ERRATA.

Page 5, lines 7–8, after Proctotrupidæ *read* Mutillidæ and the Heterogyna.
" 13, line 33, for Xyeliinæ *read* Xyelinæ.
" 13, line 34, for Lydiinæ *read* Lydinæ.
" 14, line 12, for **Zarea** *read* **Zaræa.**
" 15, line 13, for Leach *read* Klug.
" 16, line 20, for LYDIINÆ *read* LYDINÆ.
" 16, line 25, for XYELIINÆ *read* XYELINÆ.
" 27, last line, for Dalm. *read* Hal.
" 41, line 4, for Pimpliinæ *read* Pimplinæ.
" 41, line 29, for **Gnathoryx** *read* **Gnathoxys.**
" 43, line 13, for **Ischnocerus** *read* **Ischnoceros.**
" 59, line 21, for **Acœlius** *read* **Acælius.**
" 61, line 17, for **Gymnoscelis** *read* **Gymnoscelus.**
" 61, line 30, for Hal. *read* Westw.
" 67, line 25, for **Orasama** *read* **Orasema.**
" 70, line 9, for **Erycidnus** *read* **Ericydnus.**
" 73, line 8, for Mischogastrides *read* Miscogastrides.
" 73, line 25, for *Mischogastrides* read *Miscogastrides.*
" 73, line 41, for **Mischogaster** *read* **Miscogaster.**
" 75, line 39, for Bœotomus *read* Bæotomus.
" 76, line 24, for **Ætroxys** *read* **Hetroxys.**
" 76, line 42, for Ætroxys *read* Hetroxys.
" 79, line 10, for Dalm. *read* Dahlb.
" 84, line 19, for **Iphetrachelus** *read* **Iphitrachelus.**
" 85, line 22, for **Camptotera** *read* **Camptoptera.**
" 85, last line, for **Stictothrix** *read* **Stichothrix.**
" 89, line 29, after tibiæ *add* ♀.
" 91, line 41, for Jur. *read* Panz.
" 97, line 12, for **Dolicoderus** *read* **Dolichoderus.**
" 110, line 38, for submarginal *read* discoidal.
" 110, line 39, for second *read* third.
" 110, last two lines, transpose first letters.
" 112, line 13, for Latr. *read* Fabr.
" 124, lines 23–24, for intelligently *read* intelligibly.
" 133, line 23, for list *read* catalogue of species.
" 140 and 141 should be transposed.
" 148, line 42, for Nat. *read* Cat.
" 150, line 18, for xv *read* Ins. ii.
" 176, line 21, dele *chinquapin.*
" 176, line 22, for *Holcaspis* read *Andricus chinquapin.*
" 235, line 13, after Ann. *add* Mag.
" 242, line 16, for 1855 *read* 1885.
" 242, line 18, for **BŒOTOMUS** *read* **BÆOTOMUS.**
" 243, line 29, after 4th. *add* Rep.
" 313, line 5, for **ADRITOMUS** *read* **ATRITOMUS.**
" 322, line 11, for Spinning *read* Shining.
" 328, line 1, for (C. W.) *read* (C. M.)

PART 1.

FAMILIES AND GENERA.

SYNOPSIS

OF THE

FAMILIES AND GENERA.

Order HYMENOPTERA.

General Characters.

WINGS four, membranous, the posterior pair almost always smaller than the anterior, with comparatively few nervures.

MOUTH mandibulate, and with a lower lip or tongue, sheathed by the maxillæ.

TARSI generally 5-jointed, rarely 3- or 4-jointed, very rarely heteromerous.

ABDOMEN of the female furnished with a multivalve saw ovipositor, a borer, or a sting.

LARVA vermiform and footless, except in the Phyllophaga and Xylophaga.

PUPA incomplete and inactive.

Before proceeding with the consideration of the different divisions into which the order is separable, it will be well to explain briefly the position of the various parts referred to in the tables characterizing the families and genera. To those who are familiar with the technical terms used in the description of characters no explanation is necessary, but to the beginner the following diagrams and descriptions will be found useful; in the preparation of these the compiler has consulted and freely used Westwood's "Introduction to the Modern Classification of Insects," so replete with interesting and valuable information.

The HEAD (fig. 1, front view) is generally transverse and narrower, rarely wider, than the thorax, and varies greatly in form, being sometimes globose, quadrate or elongate, with all the gradations from one to the other; it is frequently more or less extended behind the eyes; the vertex or crown is the highest part, on which the simple eyes or ocelli (e) are placed, back of it is the occiput; anterior to the ocelli is the front or face upon which the antennæ are inserted, while back of the eyes are the cheeks which are sometimes more or less inflated, and very rarely dentate. The *eyes* (a) are generally large and lateral, naked, rarely pilose, occasionally occupying in the males of certain groups, the greatest portion of the head; they vary much in form and size, being sometimes reniform, ovate or circular, sometimes small or even minute and very rarely wanting; they are accompanied by three small simple *ocelli* (e) placed either in a triangle or in a straight or curved line upon the vertex, but in the apterous females of certain genera of Heterogyna and Mutillidæ these ocelli are entirely wanting, while in some of the Larridæ and Sapygidæ, the posterior pair is distorted and subobsolete; occasionally, as in *Ophion*, they are unusually large and prominent. The *clypeus* (b) is placed on the front, beneath the insertion of the antennæ (f) and is variously formed, usually shield-like, but often narrow and transverse, and sometimes produced into various curious shapes, the apical margin being often denticulate; in the Dorylidæ it is very minute or obsolete. The *mandibles* or jaws (d) are inserted beneath the eyes and on each side of the mouth opening, rarely contiguous at their base; they vary much in form and size, and are simple or more or less dentate on their inner margin and apex, sometimes they are long and sickle-shaped. The *labrum*, or roof of the mouth (c), is variously shaped, transverse, ovate, cuneiform, or rostriform, and is situate in front of the clypeus and between the mandibles, and is often concealed by them. The inner parts of the mouth, which reach the fullest development in the Bees, are, in short, composed of a pair of long membranous or coriaceous maxillæ, each provided with a palpus varying in the number of joints from 1–6, and a lower lip or tongue, having a basal mentum from which proceeds the labium and its

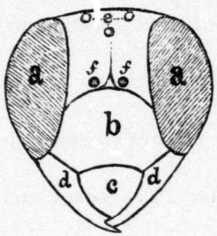

Fig. 1.

a, eyes; **b**, clypeus; **c**, labrum; **d**, mandibles; **e**, ocelli; **f**, insertion of antennæ.

palpi with from 1–4 joints, and occasionally with slender filaments or paraglossæ, which vary in length according to the size of the maxillæ.

The ANTENNÆ (fig. 2) vary greatly in structure in the various groups, those of the males are generally longer and more developed than in the females, and often curiously formed; they are inserted (fig. 1, f) usually on the middle of the face, sometimes much lower down close to the clypeus, and rarely far apart. In most of the groups having one-jointed trochanters, these organs are usually filiform and simple, and almost uniformly composed of 13 joints in the males and 12 in the females; while in the ditrocha groups they vary greatly in the number of joints, from 3 to 60, and also in form, being setaceous, filiform, moniliform, clavate, fusiform, furcate, pectinate and flabellate, rarely ciliate with long hairs; they are sometimes elbowed, the *scape* (a) sometimes very long, usually short, ovate or oblong-ovate, rarely strongly dilated and shield-like, the *flagellum* (b) being generally much longer than the scape, from which it is usually separated by a ring-joint or pedicel, which in the Chalcididæ and Proctotrupidæ is often composed of two or three minute joints.

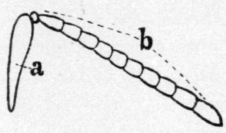

Fig. 2.
a, scape; b, flagellum.

The THORAX (fig. 3, upper portion) generally forms a compact, oval, agglutinate mass, sometimes elongate and subcompressed, higher than wide, as a rule broader than high; in some of the apterous forms of Mutillidæ the segments are soldered together, and in most of the female and worker ants it is elongated and often more or less strangulated and nodose, and sometimes spinose. It is composed of many pieces, but for the purposes of this synopsis the divisions shown in the cut will suffice. The *prothorax* (a), to which the anterior legs are attached, is generally of small size and the portion visible from above is usually termed the collar; the posterior margin is often arched, occasionally angular and sometimes extending back to the *tegulæ* (f) as represented in the figure, thus forming the front of the upper portion of the thorax; it is sometimes elongated into a neck as in some of the Uroceridæ, Stephanidæ, etc., while in certain genera of the Pompilidæ it is almost quadrate and as large or larger than the mesothorax. The *mesothorax* (b) is usually larger and more extensively developed than either the prothorax or metathorax, and is either flattened or more or less convex, sometimes trilobed in front,

the impressed lines between the lobes, termed *parapsidal grooves* or *furrows* (g), are frequently used in characterizing certain genera among the smaller Parasitica. The *scutellum* (c) is generally flat, or simply convex, sometimes square, or scutatiform, or bituberculate, and occasionally armed with spines or teeth; in the Ichneumonidæ it is sometimes pyramidal and often of different color from the rest of the thorax. The *postscutellum* (d) is almost always narrow and inconspicuous, rarely armed with a spine as in *Oxybelus*. The *metathorax* (e) is variously formed, generally short and rounded posteriorly, sometimes elongate and truncate behind, and occasionally bituberculate or bispinose; on each side towards the base is placed a small spiracle, which is either round, oval or linear; the Tenthredinidæ often exhibit two very small white spots (cenchri) at the sides of the extreme basal portion; in the Ichneumonidæ the metathorax is often more or less distinctly areolated. The *pleura* or breast is the lateral portion of the thorax beneath the wings, and is very seldom referred to in characterizing genera.

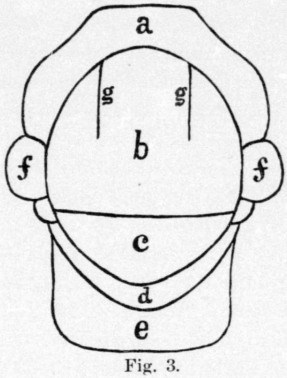

Fig. 3.

a, prothorax; b, mesothorax; c, scutellum; d, postscutellum; e, metathorax; f, tegulæ; g, parapsidal grooves.

The Wings (fig. 4, anterior; fig. 5, posterior) are four in number, naked, membranous and horizontal; the anterior pair generally much larger than the posterior, the extreme base of the former being protected by a scaly plate, called the *tegula* (fig. 3, f); they are furnished with veins or nervures, for the most part arranged longitudinally and transversely (but never forming a close net-work as in the Neuroptera), the spaces enclosed between the nervures are of various sizes and shapes and are termed *cells* and are fully illustrated and explained in the diagrams given below. In some families, e.g. Chalcididæ and Proctotrupidæ, the number of these veins or nervures is, however, liable to considerable reduction, the wings being almost, or even entirely destitute of them and are often more or less pubescent. In a genus of the last-named family the anterior wings are very long, consisting of a linear branch, dilated and spatulate at tip and ciliate with long hairs; in another genus they are notched at the extremity.

During flight, the anterior and posterior wings are connected by means of a series of minute hooks, or spinulæ (fig. 5, m), along the anterior margin of the posterior pair, which catch the hinder margin of the anterior pair and thus produce one continuous surface on each side. Occasionally the wings are more or less abbreviated, or entirely wanting; apterous forms are found in the families Ichneumonidæ, Braconidæ, Cynipidæ, Chalcididæ, Proctotrupidæ, Formicidæ, and Mutillidæ.

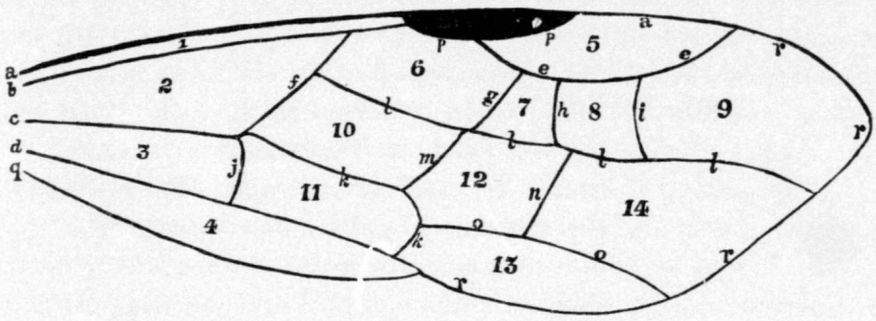

Fig. 4.—Anterior wing of *Mellinus*.

1, costal cell; 2, median or externo-medial cell; 3, submedian or interno-medial cell; 4, anal cell; 5, marginal or radial cell; 6, first submarginal or cubital cell; 7, second submarginal or cubital cell; 8, third submarginal or cubital cell; 9, fourth submarginal or cubital cell; 10, first discoidal cell; 11, second discoidal cell; 12, third discoidal cell; 13, first apical cell; 14, second apical cell; a, costal nervure; b, subcostal nervure; c, externo-medial nervure; d, anal nervure; e, marginal or radial nervure; f, basal nervure; g, first transverso-cubital nervure; h, second transverso-cubital nervure; i, third transverso-cubital nervure; j, transverso-medial nervure; k, discoidal nervure; l, cubital nervure; m, first recurrent nervure; n, second recurrent nervure; o, subdiscoidal nervure; p, stigma; q, posterior margin; r, apical margin.

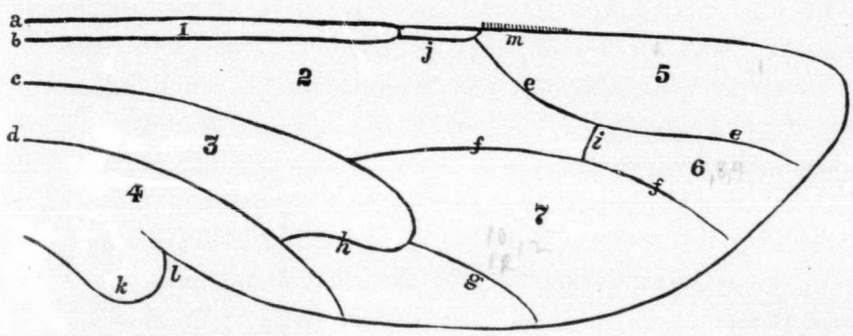

Fig. 5.—Posterior wing.

1, costal cell; 2, median cell; 3, submedian cell; 4, anal cell; 5, marginal or radial cell; 6, submarginal or cubital cell; 7, discoidal cell; a, costal nervure; b, subcostal nervure; c, externo-medial nervure; d, anal nervure; e, marginal or radial nervure; f, cubital nervure; g, discoidal nervure; h, transverso-medial nervure; i, transverso-cubital nervure; j, stigmal region; k, basal lobe; l, sinus; m, spinulæ.

The LEGS (fig. 6) are generally long and slender, often short and robust, pubescent, bristled or spined, sometimes more or less deformed. The first joint, or that by which they are attached to the body, is called the *coxa* (a) and is variously shaped and rarely spined; at the extremity of the coxa and between it and the femur is a small piece, often two-jointed, called the *trochanter* (b), this is usually short and small, although in the ditrocha groups it varies considerably in form and length. The first long piece of the legs is called the thigh or *femur* (c), and following it is the *tibia* (d); at the extremity of the latter are one or two movable spines called *tibial spurs* (e), which are, however, sometimes absent. Following the tibia is a series of joints, generally five in number, constituting the foot or *tarsus* (f), the last joint usually bears two *claws* (g), either simple, toothed or cleft, and often furnished at their base within with a membranous or cushion-like appendage called *pulvillus*, which is occasionally much enlarged and sometimes wanting. These parts of the legs vary greatly in the different families, being fitted either for walking, digging or collecting pollen; in the latter form they are furnished with more or less dense hairs, the tibia and base of tarsus being flattened and dilated; those formed for digging are robust and bristly or spinose. The femur is often robust, and sometimes spined beneath, and in some Chalcids the posterior pair is enormously developed and denticulate beneath; the tibia and tarsus also vary much in structure; in some genera of Proctotrupidæ, the anterior tarsus is terminated by curious large reflexed claws which open and shut somewhat like those of a lobster, while in some of the males of the leaf-cutting bee, *Megachile*, it is broadly dilated and fringed with long hairs; these and other modifications of form are consequent upon diversity of economy.

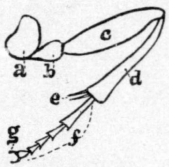

Fig. 6.

a, coxa; **b**, trochanter; **c**, femur; **d**, tibia; **e**, tibial spurs; **f**, tarsus; **g**, tarsal claws.

The ABDOMEN (figs. 7 and 8) is exceedingly variable in the number of its segments, especially in the ditrocha groups, while in the Ants, Wasps and Bees, it is composed of seven segments in the males and six in the females. In form it varies greatly, being ovate, globose, clavate, cylindrical, fusiform, sickle-shaped, knife-shaped, etc., and in some species it is sessile (fig. 7), i.e. connected with the thorax by quite or nearly its entire breadth, and in others petiolate (fig. 8),

i.e. connected with the thorax by a more or less slender petiole or footstalk. The terms "subsessile" and "subpetiolate" are modifications of the sessile and petiolate forms and are characters not only difficult to describe by word or figure, but unsatisfactory and perplexing. In the Heterogyna the petiole is either scale-like or nodose, often binodose, and in the Tubulifera the number of visible abdominal segments is usually reduced to three, the remainder being modified into a slender retractile tube, which is generally concealed. The place of insertion of the abdomen is at the apex of the metathorax, except in the anomalous family Evaniidæ, where it is inserted on the disk or very near the base of that segment. In the Ichneumonidæ the situation of the spiracles on each side of the first segment is frequently used as a character for separating some of the subfamilies. In the females of Hymenoptera the abdomen is furnished with an instrument applied in the different groups as a saw, borer or sting, protected by sheaths and called the ovipositor, which is often more or less exserted, sometimes to a great length in certain genera of Ichneumonidæ.

Fig 7.

Fig. 8.

Professor Westwood, in his "Introduction," etc., vol. ii, following chiefly the views of Latreille, divides the Order into two Sections, viz.: TEREBRANTIA and ACULEATA, the former having the abdomen of the females furnished with an instrument employed as a saw or borer for depositing the eggs; and the latter having the abdomen of the females (and workers) armed with a sting connected with a poison reservoir, the antennæ of the males 13-jointed, and of the females 12-jointed.

The TEREBRANTIA is then divided into two subsections, the first, termed the Phytiphaga, having the abdomen sessile, hiding the base of the posterior legs, the larvæ with a well developed mandibulated mouth, feeding upon vegetable matter, and containing the families *Tenthredinidæ* and *Uroceridæ*. The second subsection, the Entomophaga (Pupivora *Latr.*), having the abdomen attached to the thorax by a portion only of its transverse diameter, the larvæ with slightly developed mandibulated trophi, and for the most part feeding

parasitically upon other living insects; this subsection is subdivided into two divisions, the first of which, the Spiculifera, having the abdomen furnished with a plurivalve oviduct and containing the families *Cynipidæ*, *Evaniidæ*, *Ichneumonidæ*, *Braconidæ*, *Chalcididæ* and *Proctotrupidæ*. The second division, termed the Tubulifera, having the extremity of the abdomen tubular and retractile, and furnished with a minute sting, the larvæ feeding upon the larvæ of other hymenoptera, or upon dead or paralized insects deposited by the parents of such larvæ for the support of the latter, and containing the single family *Chrysididæ*.

The second Section—ACULEATA—is divided into two subsections, viz.: Prædones (including the Heterogyna, Fossores and Diplopteryga) having the basal joint of the posterior tarsi cylindrical, not dilated, nor formed for collecting pollen, the larvæ feeding upon other insects stored up, or upon animal or vegetable fluids provided by workers, and containing the families *Crabronidæ*, *Larridæ*, *Bembecidæ*, *Sphecidæ*, *Scoliidæ*, *Mutillidæ*, *Formicidæ* and *Vespidæ*. The second subsection, the Mellifera (Anthophila *Latr.*), having the basal joint of the posterior tarsi dilated and pollinigerous, the larvæ feeding upon honey or pollen paste deposited by the parent, or collected by workers, and containing the families *Andrenidæ* and *Apidæ*.

The arrangement followed in this Synopsis is similar to that proposed by Dr. Hartig (in Wiegmann's Archiv. 1837, No. 2), and agrees somewhat with the above, except that the two principal divisions are founded upon the structure of the trochanters.

The following table will serve to distinguish the different series:

Table of Series.

Trochanters two-jointed.—**Hym. ditrocha.**

Abdomen connate with the thorax.

Anterior tibiæ with two apical spurs..... **PHYLLOPHAGA.**

Anterior tibiæ with one apical spur..... **XYLOPHAGA.**

Abdomen sessile or petiolate..... **PARASITICA.**

Trochanters one-jointed.—**Hym. monotrocha.**

Basal joint of posterior tarsi cylindrical.

Apical segments of abdomen tubular, retractile, telescope-like.. **TUBULIFERA.**

Apical segments of abdomen not so formed.

Petiole of abdomen with one or more scales or nodes; sexes three ♂ ♀ ☿. **HETEROGYNA.**

Petiole of abdomen simple, without scales or nodes; sexes two, ♂ and ♀.

Wings not folded longitudinally..... **FOSSORES.**

Wings folded longitudinally in repose..... **DIPLOPTERYGA.**

Basal joint of posterior tarsi almost always more or less dilated and densely pubescent..... **ANTHOPHILA.**

The PHYLLOPHAGA contains the family *Tenthredinidæ*, which comprises the insects ordinarily termed Saw-flies, from the construction of the ovipositor, which consists of two saws which are alternately protruded and employed in preparing a place for the reception of the eggs as well as in conducting them to their destination.

The XYLOPHAGA contains the family *Uroceridæ*, distinguished from the prec ding by the one-spurred anterior tibiæ, and by the borer-like ovipositor constructed for boring into timber in which the eggs are deposited.

The PARASITICA comprises the families *Cynipidæ*, *Evaniidæ*, *Ichneumonidæ*, *Braconidæ*, *Chalcididæ* and *Proctotrupidæ*, and named on account of the habits of the majority of the species, the larvæ of which are parasitic upon or within the bodies of other insects.

The TUBULIFERA contains the family *Chrysididæ*, distinguished by having the abdomen composed of only three, four or five visible segments, the remainder being transformed into a tubular, retractile, telescopic-formed apparatus which is furnished at the extremity with a minute sting or ovipositor.

The HETEROGYNA comprises the *Formicidæ* and the closely allied families *Poneridæ*, *Dorylidæ* and *Myrmicidæ*, composing the well known and singularly interesting tribe of Ants.

The FOSSORES contains the families *Mutillidæ*, *Scoliidæ*, *Sapygidæ*, *Pompilidæ*, *Sphecidæ*, *Larridæ*, *Nyssonidæ*, *Bembecidæ*, *Philanthidæ*, *Pemphredonidæ* and *Crabronidæ*, comprising the sand and wood wasps.

The DIPLOPTERYGA contains the families *Masaridæ*, *Eumenidæ* and *Vespidæ*, the first two comprising the solitary wasps, composed of males and females only, and the last the social wasps consisting of males, females and workers.

The ANTHOPHILA contains the *Andrenidæ* and *Apidæ*, comprising the extensive and interesting family of Bees.

Table of Families.

Posterior trochanters 2-jointed*..... 2.
Posterior trochanters 1-jointed.....11.
2.—Abdomen connate, united to the thorax by the entire diameter of the basal part, the articulation not movable .....3.
Abdomen sessile or petiolate, united to the thorax by a portion only of its transverse diameter, the articulation movable.—**Parasitica**.....4.
3.—Anterior tibiæ with two apical spurs; abdomen of ♀ furnished at tip with a pair of saws.—**Phyllophaga**.....TENTHREDINIDÆ.
Anterior tibiæ with one apical spur; abdomen of ♀ furnished at tip with a borer.—**Xylophaga**.....UROCERIDÆ.
4.—Anterior wings with several closed cells, or at least a closed or nearly closed marginal or submarginal cell, very rarely without, as in some Evaniidæ and Braconidæ.....5.
Anterior wings almost veinless, without closed or perfect cells; very rarely with a closed marginal or submarginal cell, as in some genera of Proctotrupidæ.....10.
5.—Anterior wings with a costal nervure and a more or less developed stigma..6.
Anterior wings without a costal nervure and stigma; abdomen generally ovate and more or less compressed.....CYNIPIDÆ.
6.—Abdomen inserted upon the dorsum or near the base of the metathorax. EVANIIDÆ.
Abdomen attached to the extremity of the metathorax.....7.
7.—Anterior wings with two recurrent nervures, very rarely with but one.. ..8.
Anterior wings with but one recurrent nervure, very rarely without.....9.
8.—Costal and subcostal nervures separate and distinct, the costal cell therefore present; first submarginal and first discoidal cells separate and distinct. TRIGONALIDÆ.
Costal and subcostal nervures confluent, the costal cell therefore absent; first submarginal and first discoidal cells always confluent. ICHNEUMONIDÆ.
9.—Costal and subcostal nervures separate and distinct, the costal cell therefore present; head globose, vertex tuberculate and rugose.....STEPHANIDÆ.
Costal and subcostal nervures confluent, the costal cell therefore absent. BRACONIDÆ.
10.—Posterior margin of prothorax not reaching the tegulæ; ovipositor issuing before the apex of the abdomen.....CHALCIDIDÆ.
Posterior margin of prothorax reaching the tegulæ; ovipositor issuing from the apex of the abdomen..... PROCTOTRUPIDÆ.

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* In adopting this character (which is not altogether a satisfactory one, being often difficult to distinguish) the compiler has followed after Hartig, Taschenberg, André, etc., without making an examination of the Cynipidæ, Chalcididæ and Proctotrupidæ, in which families exceptions will doubtless be found to occur; these families, however, are readily distinguished from those placed in the next division, by their generally very small size and the fewness of the wing nervures; the Pelecinidæ and Chrysididæ, which also have imperfect neuration, are so well characterized that they cannot be confounded with anything else. In the other families of this division the posterior trochanters are distinctly 2-jointed.

11.—Anterior wings without complete or closed submarginal cells.....12.
Anterior wings with at least one closed and complete submarginal cell...13.

12.—Abdomen petiolate, of ♀ very long and slender, cylindrical, at least five times longer than the head and thorax, much shorter and clavate in ♂; antennæ long, not elbowed, thread-like; body smooth and polished, black. **PELECINIDÆ.**

Abdomen sessile, a little longer than the head and thorax, composed apparently of only 3–5 segments, the remainder modified into a slender, cylindrical, retractile, telescopic-formed apparatus, generally not exserted; antennæ elbowed, short; body adorned with metallic colors, and often coarsely and deeply sculptured.—**Tubulifera**.....**CHRYSIDIDÆ.**

13.—Posterior tarsi with the basal joint more or less cylindrical, never much widened or densely pubescent.....14.
Posterior tarsi with the basal joint more or less compressed and dilated and densely pubescent beneath, rarely subcylindrical.—**Anthophila**.....32.

14.—Petiole of abdomen with one or more scales or nodes; three sexes, ♂ ♀ and ☿.—**Heterogyna**.....15.
Petiole of abdomen simple, without scales or nodes; two sexes, ♂ and ♀...18.

15.—Petiole composed of a single joint.....16.
Petiole composed of two joints.....**MYRMICIDÆ.**

16.—Abdomen proper constricted between segments 1 and 2.....**PONERIDÆ.**
Abdomen proper not constricted between segments 1 and 2.....17.

17.—Insertion of mandibles distant.
Clypeus always distinct and often very large; petiole of abdomen almost always surmounted by an erect scale.....**FORMICIDÆ.**
Clypeus very small or indistinct; ♂ abdomen long subcylindrical, petiole depressed, nodiform; (♀ and ☿ not positively known)...**DORYLIDÆ.**
Insertion of mandibles contiguous (☿ ♀).....**ODONTOMACHIDÆ.**

18.—Wings not folded longitudinally.—**Fossores**.....19.
Wings more or less folded longitudinally in repose.—**Diplopteryga**.....30.

19.—Prothorax considerably produced posteriorly, the hinder angles reaching the tegulæ; ♀ sometimes apterous.....20.
Prothorax usually consisting of little more than a narrow collar, the posterior angles not reaching the tegulæ; ♀ never apterous.....23.

20.—Abdomen with the first ventral segment distinctly separated from the second by a more or less deep constriction or furrow.....21.
Abdomen with the first ventral segment not separated from the second by a furrow or constriction of the joint.....22.

21.—Intermediate tibiæ with two apical spurs, their coxæ contiguous or but little separated; ♀ apterous.....**MUTILLIDÆ.**
Intermediate tibiæ with a single apical spur, very rarely with two, their coxæ, as a rule, widely separated; ♀ winged.....**SCOLIIDÆ.**

22.—Posterior legs short, not reaching to the apex of the abdomen; eyes emarginate within.....**SAPYGIDÆ.**
Posterior legs long, reaching beyond the apex of the abdomen; eyes not emarginate within.....**POMPILIDÆ.**

23.—Anterior wings with three complete submarginal cells.....24.
Anterior wings with two complete submarginal cells.....29.
Anterior wings with only one complete and distinct submarginal cell. **CRABRONIDÆ.**

24.—Abdomen petiolate ..... 25.
Abdomen sessile or subsessile, very rarely subpetiolate..... 27.
25.—First submarginal cell not receiving a recurrent nervure..... 26.
First submarginal cell receiving a recurrent nervure.....MELLINIDÆ.
26.—Petiole of abdomen cylindrical, smooth; flagellum slender at apex; intermediate tibiæ with two apical spurs.....SPHECIDÆ.
Petiole of abdomen depressed and generally furrowed above; flagellum thickened at apex; middle tibiæ with one apical spur.....MIMESIDÆ.
27.—Second submarginal cell receiving both recurrent nervures, the first recurrent rarely uniting with the first transverse cubital nervure..... 28.
Second and third submarginal cells each receiving a recurrent nervure.
PHILANTHIDÆ.
28.—Marginal cell appendiculate; mandibles more or less deeply emarginate on exterior margin, scarcely so in *Astata* and *Liris*, in which the marginal cell is obliquely truncate at tip and the labrum not exserted.....LARRIDÆ.
Marginal cell not appendiculate; mandibles with exterior margin entire.
Labrum short, not or scarcely exserted.....NYSSONIDÆ.
Labrum distinctly exserted, sometimes rostriform.....BEMBECIDÆ.
29.—Prothorax long and narrow, produced anteriorly into a neck; metathorax elongate, truncate posteriorly; clypeus carinate, rostriform.
AMPULICIDÆ.*
Prothorax short, transverse; metathorax short, rounded posteriorly; clypeus not carinate or rostriform.....PEMPHREDONIDÆ.
30.—Antennæ clavate or knobbed at apex, the joints of the club generally soldered together; scutellum large, narrowed and rounded posteriorly, superposed upon the postscutellum; anterior wings indistinctly folded in repose.....MASARIDÆ.
Antennæ filiform or subfiliform; scutellum transverse, truncate posteriorly, not overhanging the postscutellum; anterior wings distinctly folded in repose..... 31.
31.—Intermediate tibiæ with one apical spur.....EUMENIDÆ.
Intermediate tibiæ with two apical spurs.....VESPIDÆ.
32.—Labium flattened, shorter than the mentum; basal joints of labial palpi not unlike the following joints.....ANDRENIDÆ.
Labium slender, not flattened, longer than the mentum; basal joints of labial palpi elongate.....APIDÆ.

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* The typical number of submarginal cells in this family is three; but the only representative we have in our fauna has but two. Smith, however, states that the neuration is very inconstant, and that the first transverse cubital nervure is frequently obsolete, or partly so, in specimens of the same species.

PHYLLOPHAGA.

This extensive series is composed of a single family, comprising those insects popularly known as Saw-flies, which have the abdomen attached by its entire width to the extended portion of the metathorax, which resembles a segment and has often been described as the first. The anterior tibiæ have two apical spurs, and the ovipositor consists of two compressed saw-like plates applied against each other, and enclosed in a pair of outer sheaths. In the larva state these insects are the most injurious of all hymenoptera, feeding upon the leaves of trees and various plants, and often completely destroying the foliage. The characteristics of the series are given at length by Mr. Norton in his admirable work mentioned below, and which is easily obtainable by all who may wish to make a study of these insects.

Family TENTHREDINIDÆ.

The synopsis given below of this and the following family, is taken in great part from Mr. Norton's exhaustive monograph entitled, "Catalogue of the described Tenthredinidæ and Uroceridæ of North America." (Trans. Am. Ent. Soc. vol. i, June, 1867.) In that valuable paper all the genera and species known at that time to occur in our fauna, as well as the family characters, etc., are described at length. Later, in 1880, the writer published, also in these Transactions, descriptions of many species then considered to be new, adding also a copy of the original descriptions (scattered through various publications), of the species described in the interim; this was followed by a list of the genera and species with references and habitat.*

Table of Subfamilies.

Antennæ 5–8 jointed, short, clavate (except in *Acordulecera*).....Cimbicinæ.
Antennæ 3-jointed, third joint long and often furcate in ♂.....Hylotominæ.
Antennæ 9-jointed, very rarely 8-jointed (as in *Labidia*); anterior wings with one or two marginal cells.....Tenthredininæ.
Antennæ 9-13-jointed, irregular, third joint very long; anterior wings with three marginal and four submarginal cells; ovipositor long.....Xyeliinæ.
Antennæ multiarticulate, with more than 13 joints.....Lydiinæ.

* Separata of these publications, under one cover, can be obtained from the American Entomological Society, as well as many of the papers referred to in the following pages.

Table of Genera.

Subfamily CIMBICINÆ.

Anterior wings with two marginal and three submarginal cells, the first submarginal receiving both recurrent nervures; antennæ clavate. .....2.

Anterior wings with one marginal cell and three submarginal cells, the first and second submarginals each receiving a recurrent nervure; antennæ 6-jointed, not clavate..... **Acordulecera** Say.

2.—Lanceolate cell with straight cross-nervure.

Antennæ 7-jointed..... **Cimbex** Oliv.

Antennæ 8-jointed..... **Trichiosoma** Leach.

Lanceolate cell contracted in the middle.

Antennæ 6-jointed..... **Zarea** Leach.

Antennæ 7-jointed..... **Abia** Leach.

Subfamily HYLOTOMINÆ.

Anterior wings with one marginal, not appendiculate, cell.....2.

Anterior wings with one marginal, appendiculate, cell and four submarginal cells .....3.

2.—Four submarginal cells, the second and third each receiving a recurrent nervure.

Antennæ furcate in ♂..... **Schizocerus** Latr.

Antennæ simple in ♂..... **Atomacera** Say.

Three submarginal cells, the first receiving both recurrent nervures.

Themos Norton.

3.—Second and third submarginal cells each receiving a recurrent nervure.

Hylotoma Latr.

Second submarginal cell receiving both recurrent nervures... **Ptenus** Nort.

Subfamily TENTHREDININÆ.

Anterior wings with one marginal cell.....2.

Anterior wings with two marginal cells.....5.

2.—Three submarginal cells.....3.

Four submarginal cells.....4.

3.—First and second submarginal cells each receiving a recurrent nervure.

Antennæ ♂ with basal joints of flagellum produced or branched beneath; inner lobe of maxillæ sharp, not membranous..... **Cladius** Illig.

Antennæ ♂ with third joint simple, without process beneath; inner lobe of maxillæ blunt..... **Priophorus** Dahlb.

First submarginal cell receiving both recurrent nervures.

Pristiphora Latr.

Second submarginal cell receiving both recurrent nervures.. **Euura** Newm.

4.—Second submarginal cell receiving both recurrent nervures.

Posterior tibiæ and basal joint of tarsi much flattened and dilated.

Cræsus Leach.

Posterior tibiæ and base of tarsi not unusually dilated.

Abdomen short; second submarginal cell much longer than the third.

Nematus Jur.

Abdomen long; second and third submarginal cells subequal.

Hypolæpus Kirby.

Second submarginal cell receiving the first recurrent nervure, the second received at the intersection of the second and third submarginal cells ..... **Messa** Leach.

Second and third submarginal cells each receiving a recurrent nervure. **Aulacomerus** Spin.

5.—Three submarginal cells.....6.

Four submarginal cells.....7.

6.—First and second submarginal cells each receiving a recurrent nervure.

Antennæ short, subclavate, third joint longest; lanceolate cell petiolate. **Fenusa** Leach.

Antennæ long, filiform, slender, third and fourth joints nearly equal in length; lanceolate cell with oblique cross-nervure.

Posterior wings without middle cell..... **Emphytus** Leach.

Posterior wings with one middle cell..... **Harpiphorus** Hartig.

Second submarginal cell receiving both recurrent nervures; lanceolate cell with oblique cross-nervure..... **Dolerus** Jur.

7.—Second submarginal cell receiving both recurrent nervures.

Lanceolate cell petiolate..... **Dineura** Dahlb.

Lanceolate cell contracted in the middle..... **Hemichroa** Steph.

Second submarginal cell receiving the first recurrent nervure, the second received at the intersection of the second and third submarginal cells ..... **Mesoneura** Hartig.

Second and third submarginal cells each receiving a recurrent nervure.

Antennæ 9-jointed.....8.

Antennæ 8-jointed, short, clavate..... **Labidia** Prov.

8.—Abdomen short, oviform; antennæ rarely longer than head and thorax....9.

Abdomen lengthened, cylindrical.....10.

9.—Lanceolate cell petiolate.

Posterior wings without middle cell..... **Blennocampa** Hartig.

Posterior wings with one middle cell.

Antennæ filiform, short, not pilose, third joint longer than the fourth. **Monophadnus** Hartig.

Antennæ bristle-shaped, long, pilose, third joint shorter than the fourth. **Phymatocera** Dahlb.

Lanceolate cell contracted in the middle; posterior wings with two middle cells..... **Hoplocampa** Hartig.

Lanceolate cell with oblique cross-nervure.

Posterior wings without middle cell..... **Caliroa** Costa.

Posterior wings with one middle cell..... **Monostegia** Costa.

Posterior wings with two middle cells..... **Eriocampa** Hartig.

Lanceolate cell open at the shoulder, without cross-nervure; posterior wing with two middle cells..... **Selandria** Leach.

10.—Posterior coxæ large, long, reaching to fourth abdominal segment, tips of their femora reaching to apex of abdomen.....11.

Posterior coxæ as usual, tips of their femora not reaching to apex of abdomen.....12.

11.—Antennæ scarcely longer than to base of abdomen, thickened in the middle.

Lanceolate cell with oblique cross-nervure..... **Siobla** Cam.

Lanceolate cell with short straight cross-nervure or subcontracted in the middle..... **Macrophya** Dahlb.

Antennæ longer than to base of abdomen, setaceous; lanceolate cell with short straight cross-nervure, or subcontracted in the middle.
Pachyprotasis Hartig.

12.—Antennæ short, more or less thickened towards tip.
Eyes reaching almost to base of mandibles; labrum rounded at apex.
Allantus Jur.
Eyes remote from base of mandibles; labrum emarginate at apex.
Sciapteryx Steph.
Antennæ long, setaceous.....13.

13.—Lanceolate cell open or with oblique cross-nervure.
Posterior wings with two middle cells; head not unusually extended behind the eyes .....**Taxonus** Hartig.
Posterior wings with two middle cells or none; head usually dilated behind the eyes.....**Strongylogaster** Dahlb.
Posterior wings with only one middle cell.....**Pœcilostoma** Dahlb.
Lanceolate cell with straight cross-nervure.
Third joint of antennæ much longer than fourth.....**Tenthredo** Linn.
Third and fourth joints of antennæ subequal...**Tenthredopsis** Costa.
Lanceolate cell contracted in the middle.....**Synairema** Hartig.

Subfamily Lydiinæ.

One marginal cell; antennæ ♂ pectinate, ♀ serrate.
Lanceolate cell with straight or oblique cross-line.....**Lophyrus** Latr.
Lanceolate cell without cross-line, contracted in middle..**Monoctenus** Dahlb.
Two marginal cells; antennæ long, setaceous in both sexes.....**Lyda*** Fab.

Subfamily Xyeliinæ.

Fourth and following joints of antennæ short, together not longer than the scape.....**Macroxyela** Kirby.
Fourth and following joints of antennæ long, slender, thread-like, together nearly as long as joints 1–3 combined .....**Xyela** Dalm.

Mr. Peter Cameron, in his elaborate "Monograph of the British Phytophagous Hymenoptera," (of which two volumes have been published, 1882–1884) suggests an arrangement so different from that given above, that it has been thought well to reproduce it here, as far as it goes, as a possible aid to the student who has not access to that valuable work.

In the first place, he divides what he terms the "Phytophagous Hymenoptera (variously called *Phytiphaga* in allusion to their habits,

* This name will have to give place to *Pamphilius* Latr., which was described in 1802, and therefore has priority.

Sessiliventris in allusion to the form of the abdomen, and *Securifera* or *Serrifera* after the form of the ovipositor)," into four "families":

Metathorax (fourth body segment) fissured in the middle at its apex, antennæ placed above the clypeus, and above the lower part of the eyes; anterior wings with at least three cubital cells.

Anterior tibiæ with two spines at the apex; prothorax small..TENTHREDINIDÆ.

Anterior tibiæ with one spine at the apex; prothorax large.

Antennæ subclavate; abdomen compressed; middle lobe of mesothorax not reaching to the scutellum; tibiæ spined; ovipositor short.....CEPHIDÆ.

Antennæ of uniform thickness; middle lobe of mesothorax reaching to the scutellum and separated from it by a transverse line; ovipositor long. SIRICIDÆ.

Metathorax not fissured; antennæ inserted below the clypeus and the eyes; anterior wings with two cubital cells; ovipositor semi-spiral....ORYSSIDÆ.

The first "family," *Tenthredinidæ*, is then taken up and divided into the following "tribes (or subfamilies):"

Prothorax emarginate behind; middle lobe of mesothorax much longer than broad, not separated from scutellum by a deep fovea; basal nervure not received in first cubital cell. Larvæ with ventral legs.....2.

Prothorax subtruncate behind; middle lobe of mesothorax not much longer than broad, and separated from scutellum by a deep fovea; basal nervure received in first cubital cell; tibiæ spined. Larvæ without ventral legs.....5.

2.—Anterior lobes of metathorax well developed, so that the cenchri are separated from the scutellum by a comparatively wide space.....3.

Anterior lobes of metathorax not well developed, cenchri almost touching the scutellum.....4.

3.—Anterior wings with two radial cells; second and third cubital cells receiving each a recurrent nervure; lanceolate cell rarely petiolate; antennæ usually 9-jointed, rarely 7–15 jointed. Larvæ with twenty-two legs. **Tenthredina.**

Anterior wings with one, rarely with two radial cells; second (or first when there are only three) cubital cell receiving both recurrent nervures; lanceolate cell petiolate, rarely constricted; antennæ 9-jointed. Larvæ with twenty legs.....**Nematina.**

4.—Antennæ clavate; sides of abdomen acute. Larvæ with twenty-two legs, ejecting an acid liquid from lateral pores.....**Cimbicina.**

Antennæ 3-jointed; anterior wings with one radial cell, usually appendiculate; tibiæ spined. Larvæ with eighteen or twenty legs..**Hylotomina.**

(Antennæ 4-jointed, the third joint the largest; basal nervure received in the first cubital cell; ovipositor exserted.....**Blasticotomina.**)

Antennæ multiarticulate, serrate in ♀, flabellate in ♂. Larvæ with twenty-two legs.....**Lophyrina.**

5.—Antennæ setaceous, multiarticulate; abdomen depressed; ovipositor not exserted.....**Lydina**

Antennæ 12-jointed, the third very much larger than any of the others; ovipositor exserted.....**Pinicolina.** (=*Xyeliina.*)

The genera belonging to these tribes are tabulated as follows:

Anterior wings with one radial cell.....2.
Anterior wings with two radial cells.....9.
2.—Antennæ with only three joints.....3.
Antennæ 9-jointed.....5.
Antennæ serrate, with more than nine joints, flabellate in ♂.....8.
3.—Anterior wings with an appendicular cell; posterior tibiæ with a spine; ♂ antennæ simple.....**Hylotoma** Latr.
Anterior wings without appendicular cell; posterior tibiæ without spine; ♂ antennæ cleft.....4.
4.—Lanceolate cell petiolate.....**Schizocera** Latr.
Lanceolate cell contracted.....***Cyphona** Dahlb.
5.—Lanceolate cell contracted.....6.
Lanceolate cell petiolate.....7.
6.—Third cubital cell receiving the second recurrent nervure.....**Cladius** Illig.
Second cubital cell receiving the second (and first) recurrent nervure.
***Camponiscus** Newm.
7.—Posterior tibiæ at apex and base of tarsi broadly expanded and flattened.
Crœsus Leach.
Posterior tibiæ and tarsi simple, not compressed or dilated.
Three or four cubital cells, if three the first receiving both recurrent nervures.....**Nematus** Panz.
Three cubital cells, the second receiving both recurrent nervures.
Euura Newm.
8.—Lanceolate cell divided by an oblique cross-nervure.....**Lophyrus** Latr.
Lanceolate cell contracted in the middle.....**Monoctenus** Dahlb.
9.—Three cubital cells.....10.
Four cubital cells.....18.
Three cubital cells; antennæ 12-jointed, the third joint very long.
Pinicola Bréb. (=*Xyela.*)
10.—(Antennæ 4-jointed.....***Blasticotoma** Klug.)
Antennæ 5–6 jointed, clavate.....11.
Antennæ 7–8 jointed, not clavate.....***Cœnoneura** Thoms.
Antennæ 9-jointed.....14.
Antennæ 10–16 jointed.....17.
11.—Antennæ 5-jointed.
Posterior coxæ toothed; blotch† absent, body hairy..**Trichiosoma** Leach.
Posterior coxæ not toothed, blotch present, body not hairy..**Cimbex** Oliv.
Antennæ 6-jointed.....12.
12.—Lanceolate cell with a straight cross-nervure.....***Clavellaria** Oliv.
Lanceolate cell contracted.....13.

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* Genera prefixed by an asterisk are as yet without any described representatives in our fauna.

† "The separation of the abdomen from the fourth thoracic segment (metathorax) is usually marked by a transverse incision, covered with a white membrane, which, with *Cimbex* and many other genera, is very conspicuous, and is called the *blotch* (*nuditas*)."

13.—First cubital cell receiving two recurrent nervures; eyes diverging beneath.
Abdomen with a white band at the base.....**Zaræa** Leach.
Abdomen without a white band.....**Abia** Leach.
First cubital cell receiving only one recurrent nervure; eyes converging.
*__Amasis__ Leach.

14.—Three cubital cells, the first receiving a recurrent nervure.....15.
Three cubital cells, the first not receiving a recurrent nervure; posterior wings with two middle cells.....16.

15.—Lanceolate cell petiolate.....**Fenusa** Leach.
Lanceolate cell with oblique cross-nervure.
Posterior wings without middle cell.....**Emphytus** Klug.
Posterior wings with one middle cell.
Antennæ with third and fourth joints subequal; costa and stigma white.....**Harpiphorus** Hartig.
Antennæ with third joint distinctly longer than fourth; costa and stigma black or fuscous.....**Pœcilosoma** (in part).

16.—Lanceolate cell with oblique cross-nervure.....**Dolerus** Jur.
Lanceolate cell petiolate.....**Dineura** (in part).

17.—Lanceolate cell petiolate.....*__Fenella__ Westw.
Lanceolate cell with an oblique cross-nervure.....*__Phyllotoma__ Fallen.

18.—Second cubital cell receiving both recurrent nervures.....19.
Second cubital cell receiving only one recurrent nervure.....20.

19.—Lanceolate cell petiolate.....**Dineura** Dahlb.
Lanceolate cell contracted.....**Hemichroa** Steph.

20.—Antennæ 10-jointed, subclavate.....*__Athalia__ Leach.
Antennæ 9-jointed, mostly filiform.....21.
Antennæ multiarticulate; posterior tibiæ spined.....32.

21.—Lanceolate cell petiolate.....**Blennocampa**† Hartig.
Lanceolate cell contracted.....22.
Lanceolate cell open, without cross-nervure.....23.
Lanceolate cell with an oblique cross-nervure.....24.
Lanceolate cell with a short perpendicular nerve, or shortly contracted...27.

22.—Antennæ short, thick; mesothorax not marked with white.
Hoplocampa Hartig.
Antennæ long, filiform; mesothorax and metathorax with white marks.
Synærema Hartig.

23.—Body short, thick; costa thick, dilated before stigma.....**Selandria** Leach.
Body rather long, cylindrical; costa not dilated...**Strongylogaster** Dahlb.

24.—Posterior wing without middle cell.....**Taxonus** Hartig.
Posterior wing with one middle cell.....25.
Posterior wing with two middle cells.....26.

25.—Eyes reaching to base of mandibles; abdomen black....**Eriocampa** Hartig.
Eyes not reaching to base of mandibles; abdomen spotted with white.
Pœcilosoma Dahlb.

26.—Eyes reaching to base of mandibles.....**Eriocampa** (in part)
Eyes not reaching to base of mandibles.....**Strongylogaster** (in part)

27.—Posterior coxæ large, reaching to fourth abdominal segment.....28.
Coxæ of normal size, not reaching to fourth abdominal segment.....29.

† Including *Monophadnus* Hartig, and *Phymatocera* Dahlb.

28.—Antennæ setaceous, longer than abdomen; pleuræ broadly marked with white.....**Pachyprotasis** Hartig.

Antennæ short, thick; pleuræ seldom maculate.....**Macrophya** Dahlb.

29.—Antennæ shorter than the head and thorax, thickened at the apex, never filiform or setaceous..... 30.

Antennæ longer than the head and thorax, filiform or setaceous, seldom fusiform.....31

30.—Eyes converging, reaching to the base of the mandibles; labrum rounded at apex.....**Allantus** Panz.

Eyes not converging, not reaching to the base of the mandibles; labrum incised at apex.....**Sciopteryx** Steph.

31.—Blotch absent; third and fourth joints of antennæ subequal; stigma white and fuscous or entirely white; scutellum and postscutellum white. **Tenthredopsis** Costa.

Blotch distinct; third joint of antennæ considerably longer than fourth; stigma black or green; postscutellum not white ..**Tenthredo** Leach.

32.—Antennæ with not more than eighteen joints, dentate; posterior tibiæ with three spines.....*Tarpa Fabr.

Antennæ with more than eighteen joints, filiform; posterior tibiæ with three spines.....**Lyda** Fabr.

The tribe (subfamily) TENTHREDINA is then divided into the following subtribes:

Antennæ 9-jointed; basal nervure received at a distance from the cubital; posterior wings with two middle cells.

Anterior wings with two radial and four cubital cells, the second and third receiving each a recurrent nervure; lanceolate cell subcontracted, or with a perpendicular and more rarely with an oblique cross-nervure. **Tenthredinides.**

Anterior wings with two radial and three cubital cells, the second cubital the largest and receiving two recurrent nervures; lanceolate cell with an oblique cross-nervure.....**Dolerides.**

Antennæ 7–15-jointed; anterior wings with two radial and three or four cubital cells; lanceolate cell petiolate or open, with an oblique cross-nervure or contracted; basal nervure joined to the cubital; posterior wings rarely with two middle cells, often with one or none..**Selandriades.**

The Tenthredinides contains the genera *Tenthredo, Tenthredopsis, Synærema, Allantus, Sciopteryx, Pachyprotasis* and *Macrophya.*

The Dolerides contains only the genus *Dolerus.*

The Selandriades include *Strongylogaster, Selandria, Taxonus, Pœcilostoma, Eriocampa, Blennocampa* (= *Monophadnus* and *Phymatocera*), *Hoplocampa, Harpiphorus, Emphytus, Phyllotoma, Fenella, Fenusa, Heptamelus* (= *Cœnoneura*) and *Athalia* in the order given.

The second volume is devoted entirely to the Nematina, and contains the genera *Hemichroa, Dineura* (= *Mesoneura*), *Cladius* (= *Priophorus*), *Camponiscus, Crœsus, Nematus* (= *Messa*), and *Euura* (= *Cryptocampus*).

XYLOPHAGA.

This series contains only one family of rather small extent, having the abdomen attached to the thorax as in the Phyllophaga, and differing from that series by the anterior tibiæ having but one apical spur, and the borer-like ovipositor fitted for boring into solid wood.

In the larva state these insects live in the interior of trees, boring large holes and often causing great destruction, especially to pine timber.

Family UROCERIDÆ.

Table of Genera.

Abdomen more or less compressed, generally long and sometimes subclavate; the ovipositor not or but slightly exserted; anterior wing with two marginal and four submarginal cells.

Antennæ thickened toward apex, subclavate.....**Cephus** Latr.

Antennæ filiform, not thickened toward apex.....**Janus** Steph.

Abdomen cylindrical or depressed.

Ovipositor not or but slightly exserted, apex of the abdomen smooth and rounded; anterior wing with one marginal and two submarginal cells, the nervures not distinctly defined; antennæ irregular; vertex tuberculate.....**Oryssus** Latr.

Ovipositor considerably exserted.

Neck elongate; anterior wing with two complete marginal and four complete submarginal cells, the first and second submarginal cells each receiving a recurrent nervure.....**Xiphydria** Latr.

Neck not elongate; anterior angles of prothorax strongly produced; apex of ♀ abdomen depressed and terminating in a point or horn-like process.

Two marginal cells, the second very long and indistinctly defined at tip; three submarginal cells, the first very small, the second and third each receiving a recurrent nervure.....**Urocerus*** Geoff.

One complete marginal, and two complete submarginal cells, the first small and narrow, the second very long, extending beyond the marginal and receiving both recurrent nervures.....**Tremex** Jur.

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* European writers, with few exceptions, appear to have adopted *Sirex* Linn. in preference to *Urocerus*, which was well described by Geoffroy four years anterior to the publication of the twelfth edition of the "Systema Naturæ," in which Linnaeus first described *Sirex*, although the name had been suggested by him as early as 1761. Westwood, in his "Introduction," etc., gave, apparently, valid reasons for the adoption of *Urocerus* in preference to *Sirex*, but in later years has described a number of species under the Linnaean name. Our species, however, are so well known under the family name Uroceridæ, and the generic name *Urocerus*, that we prefer to avoid confusion and make no change for the present.

PARASITICA.

This very extensive series comprises some of the largest families of the Order, the members of which in their larva state, excepting the gall-feeding Cynipidæ, are parasitic upon or within the bodies of other insects, and, using the words of Westwood, "are of vast importance in the economy of nature by preventing the too great increase of different species of insects, especially of the caterpillars and moths, of which they destroy a great number." The series is characterized chiefly by having the abdomen attached to the apex of the thorax by a portion only, generally a very small portion, of its transverse diameter, the first segment being often very slender at base, i.e. petiolate, and by the ovipositor being elongate and plurivalve, somewhat similar in form to that of the preceding series. Apterous forms occur rarely in all the large families, but their characters are not sufficiently well known to tabulate satisfactorily.

The distinguishing characters of the eight families into which the series is divided are repeated here for convenience:

Table of Families.

Anterior wings with several closed cells, or at least a closed or nearly closed marginal or submarginal cell, very rarely without either as in *Hyptia* in Evaniidæ and a few genera of Braconidæ*.....2.

Anterior wings almost veinless and without cells, rarely with a closed marginal or submarginal cell, as in some genera of Proctotrupidæ†.....7.

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* In a few Proctotrupid genera (e.g. *Chelogynus*, *Embolemus*, etc.) the anterior wings exhibit a closed marginal or submarginal cell or both, and closely resemble the Braconidæ in having a distinct recurrent nervure; they may, however, be distinguished from the families in this category as follows: from the Cynipidæ by the distinct costal nervure and stigma; from the Evaniidæ by the mode of the insertion of the abdomen; from the Trigonalidæ and Ichneumonidæ by the antennæ having less than 16 joints and the absence of the second recurrent nervure, and from the Stephanidæ and Braconidæ by the posterior wings being distinctly lobed at base, except the genus *Helorus*, which, however, is readily distinguished by the curious neuration as described in its place in the Proctotrupidæ.

† In *Hyptia*, in Evaniidæ, and some of the genera of Aphidiinæ, in Braconidæ, the anterior wings are without closed marginal, submarginal or discoidal cells; but in the former the abdomen is inserted on the disk of the metathorax, and in the latter the stigma is lanceolate or triangular and well developed, the posterior wings not lobed at base, the median and sometimes the submedian cell is closed, and the abdominal segments are loosely articulated and capable of being bent beneath the thorax. In some genera of Cynipidæ the anterior wings are also

2.—Anterior wings with a distinct and complete costal nervure and a more or less developed stigma; abdomen very rarely ovate or compressed ovate, generally much longer than thorax.....3.

Anterior wings without a complete costal nervure and stigma, except in *Ibalia* which, however, has the abdomen knife-shaped; abdomen generally ovate or compressed-ovate, rarely cultriform; ovipositor subspiral; very rarely apterous; chiefly gall-feeding insects.....CYNIPIDÆ.

3.—Abdomen inserted upon the dorsum or near base of metathorax. EVANIIDÆ.

Abdomen attached to the extremity of the metathorax.....4.

4.—Anterior wings with two recurrent nervures, very rarely with but one, as in *Pharsalia* in Ichneumonidæ, which, however, has the abdomen long and sickle-shaped.....5.

Anterior wings with but one recurrent nervure, very rarely without, as in a few genera of Aphidiinæ in Braconidæ.....6.

5.—Costal and subcostal nervures separate and distinct, the costal cell therefore present; first submarginal and first discoidal cells separate and distinct; three completely enclosed submarginal cells.....TRIGONALIDÆ.

Costal and subcostal nervures confluent, the costal cell therefore absent; first submarginal and first discoidal cells always confluent; never more than two completely enclosed submarginal cells; rarely apterous.

ICHNEUMONIDÆ.

6.—Costal and subcostal nervures separate and distinct, the costal cell therefore present; head globose, vertex tuberculate and rugose; abdomen elongate, slender, much longer than head and thorax; ovipositor longer than the body; posterior femora swollen and toothed beneath.....STEPHANIDÆ.

Costal and subcostal nervures confluent, the costal cell therefore absent; first submarginal and first discoidal cells sometimes confluent; posterior femora rarely toothed beneath; rarely apterous.....BRACONIDÆ.

7.—Posterior margin of prothorax not reaching the tegulæ; antennæ always elbowed and nearly always with one or two, very rarely three ring-joints between pedicel and funicle; ovipositor issuing before apex of abdomen; rarely apterous.....CHALCIDIDÆ.

Posterior margin of prothorax reaching the tegulæ; antennæ elbowed or not elbowed, usually without ring-joints between pedicel and funicle, seldom with one small ring-joint, in which case the antennæ are not elbowed; ovipositor issuing from apex of abdomen; rarely apterous.

PROCTOTRUPIDÆ.

The anomalous family Pelecinidæ, containing the very curious genus *Pelecinus*, which is doubtless also parasitic in its habits, may be, for the present, included in this series, although the trochanters have apparently but one joint; its characters are given at length further on.

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without closed middle cells, but then the stigma and costal nervure are wanting, the antennæ are not elbowed and the ovipositor issues before the apex of the abdomen.

Family CYNIPIDÆ.

The species of this interesting family are all of small size, the head generally small and transverse, with slender, straight, 12–16-jointed antennæ; thorax usually robust, oval, the scutellum large, of variable form and sometimes spined; wings (sometimes wanting) without a complete costal nervure and stigma (except in the anomalous genus *Ibalia*, which has an elongate cultriform abdomen), and with few nervures; abdomen generally oval, and more or less compressed, rarely knife-shaped, the second or third segment largest, the ovipositor spiral and concealed within two sheaths or plates.

In giving a synopsis of this family (which the compiler has never studied, and has therefore very little personal knowledge of the characters) it has been thought well to give two methods of classification; first, that adopted in the more recent tables by Mr. W. H. Ashmead (Trans. Am. Ent. Soc. xiii, pp. 59–64, 1886), which characterize all the genera so far indicated as occurring in this country; and second, a translation of the tables given by Dr. Mayr, in his "Die Genera der gallenbewohnenden Cynipiden," published in 1881, and based on a careful study of the European species and also many belonging to our fauna, but which do not include all the North American genera, and omit entirely the Figitides. It is probable, however, that when the relationship of our many dimorphic forms has been carefully studied, as has been done for the European species, the classification suggested by Mr. Ashmead will require a thorough revision.

According to the latter the family is divisible into two sections, the majority of the species of the first section being true gall-makers, producing galls or abdominal deformations or excrescences on various trees and plants, while some are termed guest-flies, living in the galls made by the former, from which they are said to be scarcely distinguishable. The species of the second section are all parasitic in their habits.

The family is divided in the following manner:

Marginal cell of anterior wings long and narrow; venter visible, or visible for more than half its length.....Section GYMNOGASTRI.

Marginal cell an equilateral triangle; venter not visible, or with the tip alone occasionally exposed.....Section CRYPTOGASTRI.

The first section contains the true gall-makers (Psenides), the guest-flies (Inquilines), and the peculiar genus *Ibalia;* while the second section includes the Figitides, which are parasitic.

Table of Subfamilies.

Section GYMNOGASTRI.

Marginal cell closed; abdomen cultriform, the segments about equal, venter visible.....**Ibaliinæ.**

Marginal cell seldom closed; second abdominal segment occupying half, or but little more than half of the whole surface of the abdomen; venter visible. **Cynipinæ.**

Marginal cell seldom open; second abdominal segment occupying the whole or nearly the whole surface; venter not visible its whole length....**Inquilinæ.**

Section CRYPTOGASTRI.

Abdomen short, globose, or semi-globose; second abdominal segment longer than the others; scutellum round, convex.....**Allotriinæ.**

Abdomen elongate ovate, compressed, with the apex more or less pointed; third abdominal segment the largest; scutellum quadrate, cupuliform or spined. **Figitinæ.**

Table of Genera.

Subfamily IBALIINÆ.

Abdomen cultriform, with all the segments about equal, fifth segment in ♀ being much larger than in ♂; wings with the veins more strongly developed than in any other of the Cynipidous groups; marginal cell very long, narrow and closed; antennæ filiform, ♀ 13, ♂ 15-jointed.....**Ibalia** Latr.

Subfamily CYNIPINÆ.

Marginal cell open.....2.

Marginal cell closed; scutellum bifoveate; ventral valve of ♀ greatly elongated, pointed and shining; antennæ ♀ 14, ♂ 15-jointed..**Rhodites** Hartig.

2.—Parapsidal grooves distinct, extending the whole length of mesothorax.....3.

Parapsidal grooves wanting or very indistinct, not extending the whole length of mesothorax; thorax not very robust.....7.

3.—Species naked, or not very hairy.....4.

Species very hairy.

Scutellum rounded, as broad as long, depressed at base with two small approximate foveæ; wings long, marginal nervure reaching costal edge; antennæ short, third joint but slightly longer than fourth, eighth and beyond cylindrical oval, ♀ 13–14-jointed.....**Cynips** Linn.

Scutellum rounded, without foveæ, or with a poorly defined one; head very narrow back of eyes; marginal nervure barely reaches costal edge, tip obtuse; eyes small; legs very hairy; third parapsidal groove wanting; antennæ long, slender, third joint but slightly longer than fourth, others long, subequal to seventh, following short, ♀ 13–14-jointed. **Holcaspis** Mayr.

4.—Species shining.....5.

Species punctate.....6.

5.—Scutellum with one large fovea across base, marginal nervure strongly curved and incrassated at tip; antennæ longer than body, filiform; third joint

one-third longer than fourth, in ♂ excised, joints long, cylindrical, small at base, gradually thickened and truncate at tip; ♀ 13, ♂ 15-jointed.....**Belonocnema** Mayr.

Scutellum bifoveate; marginal nervure almost straight, ending some distance from costal edge; third abdominal segment but slightly shorter than second; antennæ reaching base of abdomen, flagellar joints cylindrical oval, ♀ 13–14, ♂ 14 jointed.....**Diastrophus** Hartig.

Scutellum with two shallow transverse foveæ; wings long, marginal nervure reaching costal edge, tip slightly bent and obtusely thickened, (agamic form with long hairs on antennæ, legs and thorax); petiole in ♂ long; antennæ subfiliform, long, third joint but slightly longer than fourth, ♀ 13–14, ♂ 15-jointed.....**Dryophanta** Förster.

Scutellum with a deep transverse suture, no foveæ; abdomen greatly compressed. knife-edged below; ventral valve long; antennæ ♀ 14-jointed. **Tribalia** Walsh.

Scutellum inflated, foveæ shallow and almost confluent; antennæ, third joint shorter than fourth, ♂ 13-jointed.....**Antistrophus** Walsh.

6.—Scutellum with two foveæ; marginal nervure reaching, or not quite reaching costal edge, tip thickened, obtuse; antennæ: third joint in ♀ twice or one-third longer than fourth, joints beyond eighth oval, cylindrical, or beyond fourth very short; in ♂ long, cylindrical, or oval cylindrical, ♀ 12–15, ♂ 14–16-jointed.....**Andricus** Hartig.

Claws with one tooth; antennæ, third joint in ♂ twice or one-third longer than fourth, others long, subequal; in ♂ third joint excised, beyond fourth very short.....Subgenus **Callirhytis** Först.

Claws with two teeth; antennæ: third joint one-third longer than fourth, joints to eighth long, cylindrical, subequal, following joints short. Subgenus **Andricus** Hartig.

Scutellum (apterous form) with one fovea; head much broader than thorax, wide back of eyes; abdomen large and long, with third. fourth, fifth and sixth segments subequal; antennæ with joints beyond third short, cylindrical, small at base, truncate at tip. somewhat serrate; (winged form) marginal cell quite narrow. with the marginal nervure barely reaching costal edge; antennæ longer and much more slender than in the wingless form, third joint in ♂ greatly excised, following joints short, ♀ 14, ♂ 15-jointed.....**Biorhiza** Westw.

7.—Thorax narrow, head full behind the eyes. Species smooth.

Scutellum without foveæ and ending in a blunt horn; forms apterous, or with rudimentary wings; antennæ ♀ 14-jointed.....**Acraspis** Mayr.

Scutellum with a transverse curved groove at base, no foveæ; face full, cheeks with a distinct groove; antennæ: third joint in ♀ long, slender, cylindrical, others long, cylindrical oval, subequal; in ♂ third joint thickened, excised, following joints short, ♀ 13, ♂ 15-jointed. **Loxaulus** Mayr.

Thorax robust, bulging. Species rugose, not very hairy.

Scutellum quadrate, elevated posteriorly, bifoveate; abdomen globose; marginal nervure acuminate, ending some distance from costal edge; wings black, or with a large blotch at base of marginal cell; antennæ short. third joint nearly twice as long as fourth, others short, cylindrical, ♀ 13–14, ♂ 15-jointed.....**Amphibolips** Reinh.

Thorax not robust. Species polished.

Scutellum bifoveate; marginal nervure reaching costal edge; areolet and cubital vein very faint, and occasionally obsolete; marginal cell occasionally obsolete, sometimes entirely closed; antennæ and legs finely pubescent, the former long, subfiliform, ♀ 13–15, ♂ 15–16-jointed.

Neuroterus Hartig.

Subfamily Inquilinæ.

Marginal cell closed, scutellum bifoveate.

Face coarsely striate.

Thorax with distinct, almost parallel parapsidal grooves; second abdominal segment occupying nearly the whole of abdomen, divided apparently by a very delicate, connate suture; ovipositor sheaths projecting above upper surface of abdomen; antennæ in ♀ 12, ♂ 15-jointed...**Ceroptres** Hartig.

Thorax with parapsidal grooves converging behind; second abdominal segment occupying the whole surface of abdomen; petiole striate, ovipositor sheaths not projecting; antennæ in ♀ 14, ♂ 15-jointed, second joint in ♂ excised.....**Synergus** Hartig.

Face not coarsely striate; thorax with parapsidal grooves delicate, converging behind; second abdominal segment in ♀ occupying nearly the whole surface of abdomen, in ♂ subequal with third; ventral valve greatly projecting; ovipositor sheaths projecting; antennæ ♀ 12, ♂ 14-jointed.

Periclistus Först.

Marginal cell open, scutellum broad, not foveate; thorax smooth, without parapsidal grooves; second abdominal segment occupying the whole surface of abdomen; ovipositor sheaths not projecting; antennæ with first joint very short, ♀ 13, ♂ 14–15-jointed.....**Sapholytus** Först.

Subfamily Allotriinæ.

Scutellum rounded, smooth, convex, separated from mesothorax by a transverse groove; no foveæ; head wider than thorax; thorax ovoid, stout, without parapsidal grooves; antennæ longer than the body, filiform, ♀ 13, ♂ 14-jointed.....**Allotria** Westw.

Scutellum rugose, not separated from the mesothorax by a transverse groove, bifoveate; head wider than thorax; parapsidal grooves almost parallel; antennæ filiform, not longer than body, ♀ 13, ♂ 14-jointed.

Ægilips Hal.

Subfamily Figitinæ.

Scutellum ordinary, bifoveate.

Abdomen elongate, with second and third segments almost equal; petiole long or short, smooth; parapsidal grooves wanting; antennæ filiform, slender, ♀ 13, ♂ 14-jointed.....**Anacharis** Dalm.

Abdomen with third segment longest; thorax smooth, striate at sides and very slightly on disc, parapsidal grooves distinct; petiole short, fluted; antennæ moniliform, in ♀ 13, ♂ 14-jointed.....**Figites** Latr.

Scutellum armed with a blunt tooth or spined, bifoveate; abdomen with the third segment the longest; petiole short, striate; thorax rugose or carinate; parapsidal grooves distinct; antennæ moniliform or filiform, ♀ 13, ♂ 14-jointed.....**Onychia** Dalm.

Scutellum cupuliform, bifoveate; thorax without parapsidal grooves.
Abdomen with the third segment occupying nearly the entire surface; base of abdomen with a hairy girdle; wings pubescent, often ciliate.
Antennæ moniliform, gradually incrassated; ♀ 13, ♂ 15-jointed.
Eucoila Westw.
Antennæ filiform, in ♀ joints 3–7 suddenly narrowed, 4–7 being very short, ♀ 13, ♂ 15-jointed..... **Hexaplasta** Först.
Abdomen without hairy girdle at base; scutellum unifoveate; antennæ as in *Eucoila*, but with the three terminal joints suddenly thickened.
Kleidotoma Westw.

The following is the classification of the Cynipidæ proposed by Dr. Mayr referred to above:

Females.

Wings rudimentary or wanting..... .....2.
Wings fully developed.....4.
2.—Scutellum terminating in an obtuse thorn; (in American Oak-galls).
20. **Acraspis** Mayr.
Scutellum obtuse posteriorly.....3.
3.—Parapsidal grooves entire; antennæ distinctly 14-jointed; from the front extends an obtuse carina between the antennal insertions; head broader behind the eyes; ventral thorn only 1–1½ times as long as thick; wingless, or with rudimentary wings; (in Oak-galls)....22. **Biorhiza** Westw.
Parapsidal grooves not entire; antennæ 13–14-jointed; no carinæ between the antennal insertions; head not wider behind the eyes; ventral thorn 2–2½ times as long as thick; wingless; (in Oak-galls;) agamous form.
21. ***Trigonaspis** Hartig.
4.—Base of scutellum, behind anterior margin, without trace of fovea or transverse groove.....5.
Base of scutellum with two foveæ, or a transverse groove.....6.
5.—Disc of scutellum not higher than mesothorax and without roundish impression in the middle; between the very highly inserted antennæ and ocelli are two short, deep antennal grooves, which are separated by a carina; basal and cubital veins united by a single vein which lies between two elongate quadrangular callosities; hypopygium (ventral plate of last abdominal segment) plough-share shaped, without prominent ventral thorn; (in *Acacia*-galls).....1. ***Eschatocerus** Mayr.
Disc of scutellum higher than mesothorax, either entirely flat, very deeply wrinkled and with polished elevated margin (agamous form), or only the middle with a round, deeply wrinkled depression; (in Maple-galls;) sexual form.....2. ***Pediaspis** Tischb.
6.—The annular first abdominal segment (not to be confounded with the short handle-shaped prolongation of metathorax) deeply longitudinally furrowed, second and third segments united without suture; the entire face with sharp radiating furrows, frontal groove distinct, short or reaching to the lateral ocelli.....7.
First abdominal segment smooth; frontal groove entirely absent..... .....8.

7.—Marginal cell fully closed; antennæ with 14 free joints; frontal groove usually extending to the lateral ocelli or very near them, rarely short; (in Oak-galls).....12. **Synergus** Hartig.

Marginal cell open at the margin of the wing, the marginal nervure not reaching to the wing margin; antennæ with 13 free joints; frontal groove very short; (in Oak-galls).....13. **Sapholytus** Först.

8.—Face with two distinct parallel carinæ, extending from antennal insertion to clypeus; antennæ with 12 free joints, third joint as long as fourth; base of scutellum with two shallow foveæ; metathorax with two parallel grooves; third abdominal segment larger than second, the two connate, but with a fine suture between them, these forming the greatest part of the abdomen; marginal cell entirely closed; (in Oak-galls).

11. **Ceroptres** Hartig.

Face without such carinæ.....9.

9.—Hypopygium plough-share shaped, gradually narrowed to a fine point, without prominent ventral spine; mesopleuræ on lower half with a strong, often wrinkled or deeply punctured, longitudinal groove (except in the American species *R. dicuiocerus*); marginal cell very evidently completely closed; claws of posterior tarsi entire; (in Rose-galls).

4. **Rhodites** Hartig.

Hypopygium not prolonged in a fine point, usually emarginate beneath, and often with a very short ventral spine.....10.

10.—Anterior tibiæ, on outer side at apex, prolonged in a spine, which is as long as the adjacent spur; cheeks about two-thirds as long as the eyes, with a furrow; antennæ with 14 free joints and thickened from middle to apex; mesothorax with two sharp entire parapsidal furrows, and with straight transverse posterior margin; base of scutellum with a very broad transverse furrow, disc rectangular; second abdominal segment above posteriorly widened and tongue-shaped; marginal cell short, open at margin of the wing, the surrounding vein thick and stained with brown; claws of posterior tarsi entire; (in American Oak root-galls).

3. **Belonocnema** Mayr.

Anterior tibiæ with a spine small or almost wanting.....11.

11.—The apparent second abdominal segment (the second and third being connate without trace of suture,) forms the entire abdomen, and overhangs the last segment; clypeus usually not distinctly separated (except often in small individuals); from the middle of the front margin of the face are many sharp radiating furrows; mesothorax very concave, transversely wrinkled, anteriorly without parapsidal grooves; claws of posterior tarsi bidentate; (in galls of *Quercus cerris*).

14. ***Synophrus** Hartig.

Otherwise formed; clypeus present, at least defined at the sides.....12.

12.—A suture between mesothorax and scutellum; anterior margin of scutellum, in front of the transverse groove, not thickened and carinate, or very rarely feebly so; posterior margin of mesothorax medially arcuately emarginate and laterally more or less arcuately prolonged or rounded out, each pronounced emargination has also an interrupted transverse furrow, arcuately curved; parapsidal grooves wanting or not distinctly marked; antennæ and tibiæ without long hairs; (in Oak-galls).

29. **Neuroterus** Hartig.

A suture between mesothorax and scutellum, the latter with a distinct, more or less elevated carinate anterior margin.....13.

13.—Abdomen, especially from third to last segments, entirely or at least on lower two-thirds, covered with a rich silky pubescence, also head, thorax and legs; head much widened behind the eyes; mesothoracic ridges parallel or nearly so; agamous form.....14.

Abdomen without silky pubescence, almost or entirely without hairs.....15.

14.—Claws of posterior tarsi entire; antennæ long and slender, last joint somewhat thicker than second, distinctly thicker than long; parapsidal grooves not impressed anteriorly; scutellum as long as wide, its base with an entire transverse furrow formed by a fine carina and open at each end; (in galls of *Quercus cerris*).....19. *Aphelonyx Mayr.

Claws of posterior tarsi bidentate; antennæ thicker and shorter, second joint as long or longer than thick; parapsidal grooves entire; scutellum somewhat broader than long, the base with two transverse furrows, each closed externally by a carina; (in Oak-galls).....18. **Cynips** Linn.

15.—Cheeks with a sharp furrow; antennæ distinctly 14-jointed, flagellum moderately slender, more so at tip than at middle, the joints at least $1\frac{2}{3}$ as long as thick; parapsidal grooves sharp and entire; mesothorax polished; the two depressions at base of scutellum separated from each other by a sharp carina; metathorax above with two parallel ridges, the disc strongly arcuate; second joint of posterior tarsi as long as apical joint, claws indistinctly bidentate; head and thorax black, abdomen yellowish red; sexual form; (in Oak-galls)...21. *Trigonaspis Hartig.

Otherwise formed; apical third of antennæ not thinner than at the middle, (except in one species of *Timaspis*).....16.

16.—Entire body nearly everywhere polished and very shining, of a reddish yellow color; cheeks shorter than half of the eyes; antennæ with 13 free joints, those of apical half distinctly thicker than joints 3–5; parapsidal grooves sharp and entire; base of scutellum with a transverse groove, which is divided in two by a sharp median carina, disc of scutellum laterally and behind with a very distinct marginal ridge; metathorax with two angularly curved ridges, divergent medially; abdomen strongly compressed, lenticular, acute above and below; marginal cell long and open at the margin of the wing; claws of posterior tarsi entire; (in leaf-galls of *Quercus cerris*).....23. *Chilaspis Mayr.

Body not at all yellow, polished, also scutellum, the disc of which is margined.....17.

17.—Face, occiput, mesothorax and mesopleuræ polished, not hairy, black; antennæ with 13–14 distinct joints; prothorax with two foveæ near the middle, immediately behind anterior margin; base of scutellum with two well-defined foveæ; metathorax with two parallel ridges; second and third segments of abdomen united, with or without furrow; claws of posterior tarsi entire; (in Potentilla-galls)..8. *Xestophanes Först.

Otherwise formed.....18.

18.—Abdomen with second and third segments united, without or rarely with a trace of a separating suture, so that only six free segments appear, segments 2–3 forming almost the entire abdomen; cheeks without furrow; the front laterally striped; head not wider behind the eyes; prothorax not narrowed medially; base of scutellum with two sharply marked

foveæ; metathorax with two straight, parallel, longitudinal ridges; ventral spine, at most, scarcely twice as long as thick; marginal cell closed; claws of posterior tarsi distinctly or indistinctly bidentate...19.

Abdomen with the second and third segments not united..... ....20.

19.—Antennæ with 12 free joints, the third shorter, or at most as long as fourth, flagellum filiform; prothorax with two more or less distinct carinulæ, converging above (backwards); mesothorax finely alutaceous punctate and hairy, or (as in *P. sylvestris* O. S.) very finely and feebly alutaceous; claws of posterior tatsi bidentate; (in galls of *Rubus* and *Rosa*).

9. **Periclistus** Först.

Antennæ 13-jointed, the third very distinct, longer than fourth, apical joint thicker than the middle of the antennæ; prothorax without trace of a ridge extending upward; mesothorax sharply transversely wrinkled; claws of posierior tarsi bidentate; (in African *Rhus*-galls).

10. ***Rhoophilus** Mayr.

20.—Base of scutellum with an uninterrupted groove not externally closed; marginal cell short and completely closed; cheeks more than half as long as the eyes; antennæ with 13 free joints; prothorax not narrowed medially; parapsidal grooves absent on anterior third of mesothorax, which is sharply alutaceous punctate and opaque; claws of posterior tarsi entire; (in *Centaurea* stalks).....6. ***Phanacis** Först.

Base of scutellum either with an externally closed transverse groove or with two foveæ..... .....21.

21.—Scutellum with a very distinct, excavated, longitudinal, wrinkled furrow; cheeks at least half as long as the eyes; apical third of the 13- (or 14?) jointed antennæ not thicker than the middle; head and thorax (especially the mesothorax) and scutellum, very deeply wrinkled and hairy; mesothorax with two distinct or indistinct, not polished. parapsidal grooves; base of scutellum with moderately deep subquadrate foveæ, the disc somewhat broader than long, obtusely rounded posteriorly and in middle an entire longitudinal groove; marginal cell entirely open at the wing margin, very brown or pale brown at base; claws of posterior tarsi bidentate; (in N. Am. Oak-galls).....16. **Amphibolips** Reinh.

Otherwise formed; scutellum without a distinct longitudinal groove (except in a species of *Aulax*, in which the claws are entire).....22.

22.—Cheeks more than half as long as the eyes and without furrow; flagellum filiform, the apical third not thicker than joints 5–6; head not or scarcely wider behind the eyes; prothorax not narrowed medially, or at least not strongly constricted; parapsidal grooves entire; base of scutellum with two sharply impressed foveæ; ventral spine, at most, a little longer than thick.....23.

Cheeks, at most, half as long as the eyes; antennæ with apical third thicker than joints 5–6; prothorax small, or very small; marginal cell elongate and open at the wing margin ....25.

23.—Claws of posterior tarsi bidentate; mesothorax polished, in *D. potentillæ* Bass., nearly polished; (in galls of *Rubus* and *Potentilla*).

15. **Diastrophus** Hartig.

Claws of posterior tarsi entire; mesothorax with distinct sculpture, except in *Aulax*, where it is often more or less polished ....24.

24.—Base of scutellum, immediately at the thickened interior margin, with two small transverse foveæ, or better with a small and short transverse groove, feebly interrupted medially, and separated externally by a longitudinal carina from the very variable triangular lateral fovea, these two longitudinal ridges are not, as usual, parallel, but diverge posteriorly; antennæ 14-jointed, long and slender, third joint twice, or nearly twice, as long as fourth; (in *Compositæ* galls).....5. *Timaspis Mayr.

Base of scutellum with two very sharply separated foveæ, which are more or less triangular or quadrangular, and often very large; the large triangular lateral fovea not extending upwards and inwards, but lies on the free side of scutellum; antennæ 13–14-jointed, third joint shorter, or a little longer, than fourth; marginal cell short, or moderately long, in the last case the third antennal joint is no longer than fourth; (in galls of various herbs and bush-like plants).....7. *Aulax Hartig.

25.—Base of scutellum with two sharply separated foveæ; metathorax with straight, parallel ridges, rarely distinctly, but not sharply serrulate, or inferiorly somewhat divergent (as in many European agamous forms); parapsidal grooves sharp and entire, often indistinctly defined anteriorly, mesothorax rarely transversely wrinkled; antennæ and tibiæ not fimbriate; third joint of antennæ longer than fourth; these joints are equal in the American *A. tubicola;* (in Oak-galls).....17. **Andricus** Hartig.

Otherwise formed; metathoracic ridges (except in *Loxaulus*) not straight and parallel; base of scutellum with a transverse furrow, or with two sharply limited foveæ; in the last case the metathoracic ridges in the middle elevation of metathorax are strongly arcuate or angularly separated.....26.

26.—Claws of posterior tarsi entire; antennæ and tibiæ not fimbriate; mesothorax glabrous.....27.

Claws of posterior tarsi bidentate; mesothorax often abundantly hairy; scutellum usually with an uninterrupted transverse groove.....30.

27.—Parapsidal grooves of the polished or moderately deeply wrinkled mesothorax very sharply defined; antennæ with 14–15 free joints, the third as long, or longer than fourth.....28.

Parapsidal grooves of the alutaceous mesothorax shallow, feebly or not at all impressed anteriorly; antennæ with 13–14 free joints, third and fourth equal; middle area of metathorax with a more or less distinct median longitudinal carina.....29.

28.—Base of scutellum with two distinctly separated foveæ; the moderately thick antennæ with 14 free joints; mesothorax polished; body yellow or reddish yellow; (in Oak-galls).....22. **Biorhiza** Westw.

Base of scutellum with a broad transverse groove; the not thick antennæ 14–15-jointed; (in Oak-galls).....26. *Dryocosmus Gir.

29.—Cheeks without any, or only a feeble groove; antennæ 14-jointed; head not broader behind the eyes; scutellum at base with two foveæ; metathorax with two median, angular, divergent ridges; (in Oak-galls).

24. *Plagiotrochus Mayr.

Cheeks with a sharp furrow; antennæ with 13 sharply defined joints; head distinctly broader behind the eyes; base of scutellum with an arcuate transverse groove; metathoracic ridges almost straight and parallel; (in N. Am. Oak-galls).....25. **Loxaulus** Mayr.

30.—Parapsidal grooves on anterior third wanting; second abdominal segment with perpendicularly declivous posterior margin; the entire body, with the exception of the larger part of abdomen, abundantly hairy; antennæ and tibiæ not fimbriate; (in N. Am. Oak-galls).

27. **Holcaspis** Mayr.

Parapsidal grooves entire; second abdominal segment above large, posteriorly prolonged, tongue-shaped (seen laterally triangular); the agamous form is abundantly hairy, the antennæ and tibiæ fimbriate; the sexual form is in great part naked, the mesothorax polished, or nearly so, and very shining; (in Oak-galls).....28. **Dryophanta** Först.

Males.

Base of scutellum, behind anterior margin, without trace of the usual foveæ or transverse furrow.....2.

Base of scutellum with two foveæ, or a transverse furrow.....3.

2.—Disc of scutellum not higher than mesothorax and without a round medial impression, between the very high inserted antennæ and ocelli are two short, deep antennal grooves, which are separated by a longitudinal carina; basal and cubital veins joined by a single vein which lies between two elongate quadrate callosities; (in *Acacia* galls).

1. ***Eschatocerus** Mayr.

Disc of scutellum higher than mesothorax, glabrous and with a medial, round, wrinkled fovea; no antennal grooves; wings without callosities; (in Maple-galls).....2. ***Pediaspis** Tischb.

3.—First annular abdominal segment longitudinally sulcate; the entire face with radiating grooves; frontal carina present, often very distinct and long, sometimes short and not distinct.....4.

First abdominal segment annular or handle-shaped, not grooved; frontal carina wanting.....5.

4.—Marginal cell fully closed; antennæ with 15 free joints; frontal carina reaching usually to the lateral ocelli, rarely short; (Inquiline in Oak-galls).....12. **Synergus** Hartig.

Marginal cell open at the wing margin, marginal nervure not extending to margin of wing; antennæ with 14–15 free joints; frontal carina very short; (Inquiline in Oak-galls).....13. **Sapholytus** Först.

5.—Face with two parallel carinæ from antennal insertion to clypeus; antennæ 15-jointed, the third joint as long as fourth, it is emarginate and not thickened; base of scutellum with two faint furrows; metathorax with two parallel ridges; marginal cell entirely closed; (Inquiline in Oak-galls).....11. **Ceroptres** Hartig.

Face without such carinæ.....6.

6.—Mesopleuræ, at lower half, with a strong longitudinal groove, often wrinkled or coarsely punctured (apparently excepting *R. dichlocerus*, whose ♂ is unknown to me); cheeks longer than half of the eyes; third joint of antennæ longest; marginal cell entirely closed; claws of posterior tarsi entire; (in Rose-galls).....4. **Rhodites** Hartig.

Mesopleuræ without such groove.....7.

7.—Second abdominal segment (really the second and third, which are united without suture) exceeding and overhanging all the other segments; face with very sharp radiating striæ; clypeus usually not apparent; meso-

thorax very coarsely transversely wrinkled; parapsidal grooves in front wanting; (in galls of *Quercus cerris*).....14. *Synophrus Hartig.

Second abdominal segment not overhanging all the others; face with radiating striæ; mesothorax transversely wrinkled anteriorly; clypeus, at least laterally, well developed.....8.

8.—A suture between mesothorax and scutellum; anterior margin of scutellum, in front of the transverse groove, not thickened and carinate, or very rarely feebly so: posterior margin of mesothorax medially arcuately emarginate, and laterally more or less arcuately prolonged or rounded out, each pronounced emargination has also an interrupted transverse furrow, arcuately curved; parapsidal grooves wanting or not distinctly marked; abdomen petiolate; (in Oak-galls)...29. **Neuroterus** Hartig.

A more or less distinct ridge on middle of anterior margin of scutellum.. 9.

9.—Cheeks with a sharp furrow; antennæ distinctly 15-jointed, flagellum rather slender, all the joints at least three times as long as thick; mesothorax polished, with sharply defined, entire parapsidal grooves; the two foveæ at base of scutellum separated by a carina; metathorax with two superior parallel ridges, which at the middle of the disc are strongly divergent, then angularly bent and converging to the thoracic peduncular articulation; (in Oak-galls).....21. *Trigonaspis Hartig.

Otherwise formed.....10.

10.—Antennæ with 14 free joints; mesothorax finely wrinkled, punctured and hairy (in *P. sylvestris* O. S. finely alutaceous and shining); base of scutellum with two sharply marked foveæ; metathorax with two parallel ridges; abdomen sessile, segments 2–3 connate, with a more or less distinct suture; marginal cell entirely closed; claws of posterior tarsi bidentate; (Inquiline in Rose and Rubus galls).....9. **Periclistus** Först.

Otherwise formed.....11.

11.—Face, occiput, mesothorax and mesopleuræ polished, naked and black; cheeks about half as long as the eyes; antennæ 14-jointed; prothorax, near middle of anterior margin, with two foveæ, the space between these foveæ polished and bare; base of scutellum with two sharply defined furrows; metathorax with two parallel, longitudinal ridges; marginal cell not very elongate; claws of posterior tarsi entire; (in *Potentilla* galls).....8. *Xestophanes Först.

Otherwise formed.....12.

12.—Cheeks half as long as the eyes; base of scutellum with two sharply marked foveæ (except in *Timaspis*); abdomen sessile.....13.

Cheeks less than half as long as the eyes; marginal cell open and unusually elongate.....16.

13.—Claws of posterior tarsi distinctly or indistinctly bidentate, in the latter case the mesothorax sharply, transversely wrinkled and the marginal cell entirely closed and short; antennæ with 14 free joints.....14.

Claws of posterior tarsi entire.....15.

14.—Mesothorax polished or nearly so, with sharply defined parapsidal grooves; foveæ at base of scutellum deep or moderately deep and not transverse; marginal cell open at wing-margin, sometimes closed in *D. radicum*; claws of posterior tarsi bidentate; (in galls of *Rubus* and *Potentilla*).

15. **Diastrophus** Hartig.

Mesothorax sharply, transversely wrinkled, parapsidal grooves feeble and indistinct anteriorly; foveæ at base of scutellum feeble and transverse; marginal cell entirely closed; claws of posterior tarsi with a small, obtuse basal tooth; (in African *Rhus*-galls).....10. *Rhoophilus Mayr.

15.—Antennæ 14–15-jointed, third joint shorter, equal to or a little longer than fourth; base of scutellum with two very large or moderate foveæ, the lateral foveæ lie in the appendicular side of scutellum; (in galls on various herbaceous and bushy plants).....7. *Aulax Hartig.

Antennæ 14-jointed, longer and more slender than in *Aulax*, third joint twice, or almost twice as long as fourth; mesothorax shorter than usual; base of scutellum, immediately behind posterior margin, with a small, short groove, which is more or less interrupted medially by a small carina, the lateral foveæ high up and inwardly reflexed; (in *Compositæ*-galls).....5. *Timaspis Mayr.

16.—Metathoracic ridges straight and parallel, or very slightly curved; antennæ 14–16-jointed, third joint longer than fourth; mesothorax with two sharply defined, entire parapsidal grooves; base of scutellum with two very distinct foveæ; abdomen usually not pedunculate, rarely slightly so; (in Oak-galls).....17. Andricus Hartig.

Metathoracic carinæ strongly curved, rarely indistinctly so, in *Loxaulus* almost straight, in which case the scutellum has a transverse groove; antennæ 15-jointed.....17.

17.—Parapsidal grooves feebly defined or wanting; mesothorax finely alutaceous; claws of posterior tarsi entire.....18.

Parapsidal grooves sharply excavated and entire; mesothorax polished, or moderately coarsely wrinkled.....19.

18.—Cheeks without or with only a feeble furrow; head not broader behind the eyes; base of scutellum with two transverse foveæ, usually not sharply defined; metathorax medially with two distant carinæ; abdomen with a distinct short petiole; (in Oak-galls).....24. *Plagiotrochus Mayr.

Cheeks with a sharply defined furrow; head broader behind the eyes; base of scutellum with an arcuate transverse furrow; metathoracic ridges almost straight and parallel; abdomen not petiolate; (in N. American Oak-galls).....25. Loxaulus Mayr.

19.—Reddish yellow; third joint of the moderately thick antennæ longer than fourth, externally strongly emarginate and near the notch abruptly thickened; mesothorax polished; base of scutellum with two sharply defined foveæ; abdomen not petiolate: (in Oak galls).

22. Biorhiza Westw.

Antennæ thinner; mesothorax not reddish yellow and at the same time polished; abdomen distinctly petiolate.....20.

20.—Claws of posterior tarsi entire; posterior margin of second abdominal segment vertically declivous; (in Oak-galls).....26. *Dryocosmus Gir.

Claws of posterior tarsi bidentate; posterior margin of the upper side of second abdominal segment prolonged obliquely in a tongue-like process; head, thorax and abdomen black; mesothorax polished or nearly so; (in Oak-galls).....28. Dryophanta Först.

Concerning our genera and species of this interesting family, considerable has been written by Osten Sacken, Walsh, Bassett and Ashmead, a list of whose publications will be given, in the Bibliographical List, further on.

Family **EVANIIDÆ.**

This family is easily distinguished by the abdomen being attached to the disk or near the base of the metathorax, and not at the apex as is the case in the other families. The genera are readily separated by the characters given in the following table. The abdomen is petiolate and more or less compressed in all the genera; it is long, sickle-shaped in *Fœnus*, subelliptic, when viewed laterally, in *Aulacus*, short, hatchet-shaped in *Evania*, and small, ovate in *Hyptia*, much compressed and attached to the thorax by a rather long slender petiole in the last two genera.

The genus *Pammegischia* Prov. (which the writer has not seen) seems to differ from *Aulacus* chiefly in the formation of the posterior coxæ.

Table of Genera.

Anterior wings with two recurrent nervures; abdomen attached to the pyramidially elevated middle of metathorax, almost elliptical in shape, subcompressed, about as long as head and thorax, ovipositor long; three submarginal cells, the dividing nervure between the second and third sometimes more or less incomplete, three complete discoidal cells; mesothorax much elevated anteriorly, coarsely transversely rugose and usually prominently trilobed; head not narrowed behind the eyes which do not attain base of mandibles; antennæ inserted low down near base of clypeus, about on a line with lower margin of the rounded eyes, scape short, dilated; posterior legs long and slender,—**Aulacinæ.**

Posterior coxæ as usual; first submarginal cell receiving the first recurrent nervure at or near the tip.....**Aulacus** Jur.

Posterior coxæ swollen, much elongated and prolonged within beyond insertion of the trochanters; first submarginal cell receiving the first recurrent nervure towards the middle.....**Pammegischia** Prov.

Anterior wings with only one recurrent nervure or none; antennæ inserted high up about opposite the middle of the oblong eyes,—**Evaniinæ.**

Abdomen attached to base of metathorax close to scutellum, long, sickle-shaped, much longer than head and thorax, subclavate, gradually increasing in width from its insertion, ovipositor long; anterior wings with a long marginal cell which almost reaches the apex of the wing, two submarginal cells, first unusually large, second open to apical margin, first discoidal cell very small and narrow, second discoidal open beneath by a deflection of the anal nervure, third discoidal open to apical margin of the wing; head elongate, depressed, extended and more or less narrowed behind the eyes which attain the base of mandibles; scape short; mesothorax convex,

abrupt anteriorly, prothorax prolonged into a neck; metathorax gradually sloping behind; posterior tibiæ strongly clavate, being slender at base and much thickened toward the tip..... **Fœnus** Fabr.

Abdomen attached to the dorsum of metathorax remote from scutellum, by means of a slender abrupt petiole which is about as long as the remaining segments together, which form a strongly compressed, broad ovate or hatchet-shaped body, the entire abdomen shorter than head and thorax; ovipositor not exserted; head not prolonged behind the eyes which are unusually remote from base of mandibles; scape long; mesothorax small, depressed, prothorax not elongate; metathorax rather abruptly declivous behind; posterior legs unusually long, slender.

Anterior wings with a complete marginal cell, broad and truncate at apex, and one complete rhomboidal submarginal cell, third discoidal cell not enclosed..... **Evania** Fabr.

Anterior wings without marginal, submarginal and discoidal cells, only the costal cell and a basal nervure distinct..... **Hyptia** Illig.

The genus *Aulacus* is at present represented by seventeen species from different parts of the country; of *Fœnus* eight species have been described, all but one from Colorado and British America; *Pammegischia* has one species from Canada; *Evania* two and *Hyptia* two. The species of *Evania* are parasites upon the cockroach (Blattæ). The habits of the other genera have not been observed, although *Fœnus* is said to be parasitic upon certain Bees.

Family **TRIGONALIDÆ.**

This family contains only the genus TRIGONALYS Westw., which has the head large, subquadrate, much extended behind the eyes, face short and broad; clypeus emarginate anteriorly; labrum very small; mandibles large, robust, apex with three or four teeth; maxillary palpi 6-jointed, labial palpi 3-jointed; antennæ inserted near the base of the clypeus, remote, about as long as the head and thorax, about 25-jointed, the first joint short, subglobose; eyes relatively small, reaching the base of the mandibles; ocelli placed in a triangle on the broad vertex; prothorax not seen from above; mesothorax abruptly truncate in front, fitting tolerably close to the broad head; scutellum subbituberculate, excavated on the posterior middle; metathorax short and obliquely declivous posteriorly; wings moderately narrow, stigma well developed, elongate, costal cell distinct; marginal cell broad, lanceolate, reaching nearly to the apex of the wing; four submarginal cells, the second and third small, the former subtriangular and the latter subquadrate, the fourth extending to the tip of the wing, the second receiving the first recurrent nervure near the

base, and the third receiving the second recurrent, which is straight, a little in front of middle; posterior wings well veined; legs moderately short, slender, the four posterior tibiæ each with two apical spurs, all the tarsi 5-jointed, their claws bifid; abdomen attached to the apex of the metathorax, subsessile, short, ovate, convex, narrowed and suddenly depressed at base, the apex deflexed, especially in ♂, the second segment much the largest; beneath, the large second segment of the ♂ is more or less strongly produced at the apical middle.

Of this anomalous genus four species have been described as occurring in our fauna. They are widely distributed and rare, the localities being Massachusetts, West Virginia, North Carolina and Nevada.

Lycogaster Shuck., appears to be nothing more than the ♂ of *Trigonalys*.

Family ICHNEUMONIDÆ.

This very extensive family (the Ichneumones genuini *Grav.*) is distinguished by the well-veined anterior wings (fig. 9, which are rarely rudimentary or wanting as in *Pezomachus* and allied genera) having the nervure separating the first submarginal cell from the first discoidal cell either entirely obliterated or else reduced to a mere stump of a vein (i), whereby the two cells, termed the cubito-discoidal cell (5), become confluent; moreover, the second submarginal cell, or areolet (6), is greatly reduced in size, sometimes petiolate and often entirely obsolete; the third discoidal cell (9) is always complete

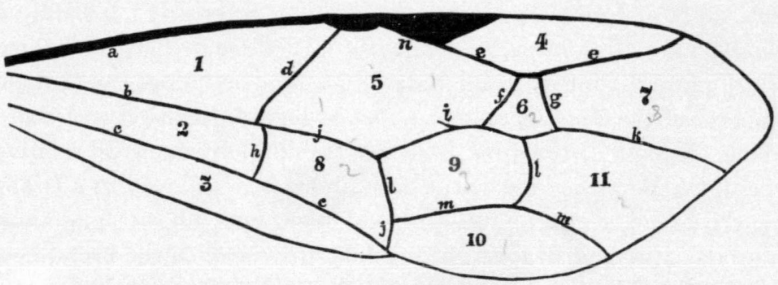


Fig. 9.—Anterior wing of *Ichneumon*.

1, median or externo-medial cell; 2, submedian or interno-medial cell; 3, anal cell; 4, marginal or radial cell; 5, cubito-discoidal cell; 6, areolet or second submarginal cell; 7, third submarginal cell; 8, second discoidal cell; 9, third discoidal cell; 10, first apical cell; 11, second apical cell; a, costal and subcostal nervures blended; b, externo-medial nervure; c, anal nervure; d, basal nervure; e, marginal or radial nervure; f, first transverse cubital nervure; g, second transverse cubital nervure; h, transverse medial nervure; i, abbreviated cubital nervure or "stump of a vein"; j, discoidal nervure; k, cubital nervure; l, recurrent nervures; m, subdiscoidal nervure; n, stigma.

(excepting in the genus *Pharsalia* of the Ophioninæ) and therefore there are two recurrent nervures, the first of which is received by the cubito-discoidal cell, which rarely receives both as in *Ophion*, *Thyreodon*, *Nototrachys* and *Arotes;* the costal cell is absent by reason of the confluence of the costal and subcostal nervures (a); the stigma (n) is usually well developed, sometimes very large, rarely subobsolete.

The head is generally transverse, scarcely wider than the thorax, sometimes subquadrate when the cheeks are inflated, rarely globose; the face is usually flat or feebly convex, sometimes prominently convex as in *Orthocentrus*, *Exochus*, etc., very rarely scutatiform as in *Metopius;* clypeus depressed or convex, seldom nasutiform as in *Grypocentrus*, often without line of separation from the face as is frequently the case in the Ophioninæ; the eyes are more or less prominent and lateral, sometimes subemarginate within opposite the insertion of the antennæ; ocelli generally small and arranged in a curve or triangle, rarely large and prominent as in *Ophion*, *Epimecis*, etc.; the antennæ seldom exceed the body in length, usually slender and filiform, rarely dilated as in *Joppidium* and *Euceros*, or some of the joints emarginate as in *Cylloceria;* they are never elbowed, the basal joint mostly short, ovate or globose, and the second joint small and annular.

The prothorax, or collar, is generally short and inconspicuous when viewed from above, but laterally extending to the tegulæ; mesothorax smooth or punctured, rarely transversely ridged as in *Rhyssa*, etc.; scutellum usually flattened or convex, rarely pyramidal as in *Trogus*, or spined as in *Banchus*, and often of a different color from the rest of the thorax; metathorax generally areolated, rarely bispinose as in *Hoplismenus*, *Hemiteles*, *Mesostenus*, etc.

The legs are usually long and slender, the posterior femora seldom toothed beneath as in *Odontomerus*, *Pristomerus* and *Eiphosoma;* sometimes the tibiæ are inflated or twisted as in *Xylonomus* and allied genera.

The abdomen is generally elongate-ovate, or cylindrical or subfusiform, pedunculate and often sessile, or compressed and sickle-shaped as in the Ophioninæ, and always attached to the apex of the metathorax; the ovipositor varies much in length, often short, or not exserted, or very long as in *Rhyssa* and many of the Pimplinæ, the ventral valve rarely large, long and lanceolate as in *Coleocentrus* and allied genera.

This is one of the most difficult and unsatisfactory families to tabulate, because the characters that have been made known are, in many cases, so prone to vary and become intermediate. For instance: in the long established genera *Mesoleptus* and *Tryphon*, the former is characterized chiefly by the petiolate abdomen, and the latter by the sessile abdomen, while *Mesoleius*, an intermediate genus, is distinguished by the subpetiolate or subsessile abdomen, the difficulty being to determine where one ends and the other begins. Of course, there are other differential characters, such as the transverse or buccate head, carinate or smooth petiole, slender or robust legs, etc., but these also show the same disposition to vary, so that there are frequent cases where, with our present imperfect knowledge of characters, we are at a loss to say in what genus the species should be placed. This difficulty, however, can be overcome by a careful study of a large amount of material.

Table of Subfamilies.

First segment of the depressed abdomen, which is pedunculate, bent or curved towards its apex.....2.

First segment of the abdomen, as a rule, straight, its spiracles placed at the middle, or before the middle, rarely behind the middle, in which case the abdomen is compressed.....3.

2.—Ovipositor hidden, or only slightly exserted; basal half or two-thirds of first abdominal segment slender, the apex generally much expanded, its spiracles not as closely approximate to each other as to the apex of the segment; base of second segment almost always with lateral pits or depressions (gastrocoeli); areolet pentangular; mesothorax generally without longitudinally impressed lines (parapsidal grooves).

Ichneumoninæ.

Ovipositor distinctly exserted, rarely short as in *Stilpnus;* spiracles of first abdominal segment more approximate to each other, as a rule, than to the apex of the segment, which is sometimes scarcely expanded; areolet pentangular, quadrate or incomplete; sometimes wingless or nearly so as in *Pezomachus* and allied genera; mesothorax generally with distinct parapsidal grooves; gastrocoeli subobsolete or wanting.....**Cryptinæ.**

3.—Ovipositor short or not exserted, rarely long, as in some genera of Ophioninæ.

Abdomen compressed throughout or only the posterior half, petiolate, rarely sessile or subsessile as in *Banchus;* areolet triangular, rhomboido-triangular, or wanting; face generally clothed with a short, dense, sericeous pubescence.....**Ophioninæ.**

Abdomen sometimes completely depressed and sessile as in *Metopius*, *Bassus*, etc., generally not entirely depressed, largest towards the apex which is often subcompressed in ♀, elongate, fusiform, sessile or petiolate, in the latter case never with the areolet pentangular; areolet irregular, triangular or wanting, rarely pentangular.....**Tryphoninæ.**

Ovipositor exserted at least nearly half the length of the abdomen, which is sessile and depressed; or, if somewhat pedunculate, the head is spherical or cubical as in *Xorides* and allied genera; areolet triangular or wanting, rarely pentangular as in *Echthrus*.....Pimpliinæ.

Subfamily Ichneumoninæ.

Table of Genera.

Metathoracic spiracles linear or oval.....2.
Metathoracic spiracles circular.—**Pneustici**.....5.
2.—Petiole of abdomen not depressed, not broader than high.....3.
Petiole of abdomen depressed, broader than high.—**Platyuri**.....4.
3.—Abdomen ♀ acute at tip, the last ventral segment retracted; ♂ ventral segments 2–4 with a longitudinal fold.—**Oxypygi**.
Scutellum more or less flat, or simply convex, and then gradually sloping to the apex; metathorax rarely bispinose.....**Ichneumon** Linn.
Scutellum strongly elevated or gibbous, abruptly declivous behind; metathorax always bispinose.....**Hoplismenus** Grav.
Abdomen ♀ obtuse at tip, the last ventral segment slightly or not at all retracted; ♂ ventral segments 3–8 or 4–8 flat, smooth, without longitudinal fold.—**Amblypygi**.
Scutellum flat, or simply convex.....**Amblyteles** Wesm.
Scutellum strongly elevated, generally subpyramidal.....**Trogus** Grav.
4.—Scutellum carinate laterally.....**Platylabus** Wesm.
Scutellum not carinate laterally.....**Eurylabus** Wesm.
5.—Scutellum scarcely or not at all elevated.....6.
Scutellum very convex and prominent.....***Ischnus** Grav.
6.—Metathorax narrowed and produced posteriorly beyond the insertion of the posterior legs.....***Oronotus** Wesm.
Metathorax not produced posteriorly.....7.
7.—Mandibles ending in a single tooth at apex.....***Gnathoryx** Wesm.
Mandibles bidentate, the teeth unequal, the lower one very short.
Herpestomus Wesm.
Mandibles bidentate, the teeth equal or subequal in length.....8.
8.—Second abdominal segment without depressions above.
Mandibles of ♀ emarginate on their inferior margin; flagellum of ♂ filiform.....**Colpognathus** Wesm.
Mandibles not emarginate on their inferior margin.
Postscutellum with two depressions.....***Dicœlotus** Wesm.
Postscutellum without depressions; flagellum of ♂ slender at base.
Centeterus Wesm.
Second abdominal segment with more or less distinct depressions at base above.....**Phæogenes** Wesm.

Our species of this group have already been noticed and tabulated in a paper entitled: "Notes on the species belonging to the subfamily Ichneumonides found in America north of Mexico (Trans. Am. Ent. Soc. vol. vi, July, 1877). At that time the material at hand belonging to the last division (*pneustici*) was so limited, that all the species

were provisionally referred to the genus *Phœogenes;* but as some of the other genera indicated by Wesmael will doubtless be found to occur in our fauna, they are added to the table given above.

Subfamily Cryptinæ.

Table of Genera.

Wings normally developed.. .....2.
Wings rudimentary or wanting.....10.
2.—Ovipositor not or scarcely exserted, abdomen smooth and polished.
Abdomen ovate or almost spherical, depressed, first segment much widened behind, usually carinate and longitudinally furrowed..**Stilpnus** Grav.
Abdomen elongate, more or less compressed at apex in ♀, subcylindrical in ♂, first segment slender, scarcely widened behind, longer than the posterior coxæ and trochanters combined.....**Exolytus** Först.
Ovipositor distinctly exserted.....3.
3.—Areolet completely enclosed..... 4.
Areolet pentangular in position, but incomplete, the outer nervure hyaline or wanting; antennæ and legs generally slender...**Hemiteles** Grav.
Areolet wanting, or when present not in a pentangular form.....9.
4.—Areolet pentangular, sometimes subquadrate.....5.
Areolet rectangular, generally very small, receiving the second recurrent nervure at or near the tip.....8.
5.—Antennæ ♀ with the joints of the flagellum thickened in a nodose manner at their tip .....6.
Antennæ with the joints of the flagellum not thickened at their tip, cylindrical throughout.....7.
6.—Antennæ ♀ shortened, filiform, usually involute, the third joint at most twice longer than thick, or the whole antenna thickened between the middle and apex, sometimes also expanded (if more slender, then the metathorax areolated); apex of first abdominal segment ♂ broader than the petiole and bent towards the latter in a geniculate manner; legs generally robust.....**Phygadeuon** Grav.
Antennæ ♀ elongate, filiform, third joint usually three or more times longer than thick (if shorter, then the metathorax not areolated), never thickened or expanded towards the middle; apex of first abdominal segment not much broader than the petiole and but slightly bent; legs generally slender.....**Cryptus** Fabr.
7.—First abdominal segment much elongated and slender, only slightly expanded posteriorly, polished; metathorax with elongate or linear spiracles; areolet large, subquadrate.
Third discoidal cell arched above and much narrowed at base, the outer nervure bent beneath the areolet; eyes remote from base of mandibles; antennæ ♀ dilated near apex; wings fuscous....**Joppidium** Walsh.
Third discoidal cell elongate and but slightly narrowed at base, the upper and lower nervures straight and parallel with each other, the outer nervure straight beneath the areolet; eyes large, almost touching base of mandibles; antennæ filiform in both sexes; wings hyaline.
Linoceras Tasch.

First abdominal segment ♀ with very short petiole, almost sessile; metathorax with small, circular spiracles; areolet very small.
*__Cyrtocryptus__ Marsh.

8.—Metathorax rough, with two transverse carinæ, and elongate or linear spiracles.....__Mesostenus__ Grav.
Metathorax polished, with only the anterior transverse carina and small round or oval spiracles.....*__Nematopodius__ Grav.

9.—First abdominal segment linear, longitudinally furrowed, its spiracles placed before the middle.....*__Orthopelma__ Tasch.
First abdominal segment expanded posteriorly, its spiracles placed behind the middle.
Metathorax with two transverse carinæ; abdomen not broader than the thorax.....*__Ischnocerus__ Grav.
Metathorax, at most, with the posterior carina; abdomen broader than the thorax.....*__Catalytus__ Först.

10.—Ovipositor much abbreviated, either scarcely exserted, or so short that it does not attain half the length of the first abdominal segment.....11.
Ovipositor elongate, usually longer than half of first abdominal segment..12.

11.—First abdominal segment much expanded behind the spiracles.
__Pterocormus__ Först.
First abdominal segment very slender to the tip.....*__Cremnodes__ Först.

12.—Metathorax completely and regularly areolated.....*__Stibeutes__ Först.
Metathorax not, or imperfectly, areolated.
Scutellum distinctly separated.
Posterior tarsi with the penultimate joint deeply notched or bilobed.
*__Agrothereutes__ Först.
Posterior tarsi with the penultimate joint not bilobed.
The rudimentary wings extending beyond the base of the metathorax; first abdominal segment punctured, not longitudinally wrinkled.....__Aptesis__ Först.
The rudimentary wings not extending to base of metathorax; first abdominal segment more or less longitudinally wrinkled.
*__Theroscopus__ Först.
Scutellum not distinctly separated.
Face much abbreviated.....*__Pezolochus__ Först.
Face of the usual length.....__Pezomachus__ Grav.

Subfamily Ophioninæ.

Table of Genera.

Cubito-discoidal cell receiving both recurrent nervures.....2.
Cubito-discoidal cell receiving but one recurrent nervure.....3.

2.—Intermediate tibiæ with two apical spurs; metathorax smooth or punctured.
Wings hyaline, stigma distinct, well developed; clypeus truncate at apex; ocelli large, prominent; thorax and legs glabrous; metathorax rounded behind, not rugose.....__Ophion__ Fabr.
Wings fuscous, stigma obsolete; clypeus obtusely pointed at apex; ocelli small; thorax and legs with short, rather dense pubescence; metathorax truncate behind, coarsely rugose.....__Thyreodon__ Brullé.

Intermediate tibiæ with only one apical spur; mesothorax rugose.
Nototrachys Marsh.

3.—Abdomen petiolate, very rarely sessile or subsessile (as in *Plectiscus*).....4.
Abdomen sessile or subsessile, or if subpetiolate, the petiole depressed; areolet rhomboidal .....24.

4.—Posterior femora unarmed.....5.
Posterior femora armed with a tooth beneath.....23.

5.—Marginal cell lanceolate.....6.
Marginal cell short, subtriangular or almost trapezoidal.....22.

6.—Median and submedian cells of anterior wings not confluent; third discoidal cell present, therefore two recurrent nervures.....7.
Median and submedian cells confluent by the absence of the externo-medial nervure; second discoidal cell small, quadrangular, much narrowed beneath, third discoidal absent, therefore *only one recurrent nervure;* areolet wanting; marginal cell small, sublanceolate; the stigma very slender, scarcely thicker than the costal nervure; wings short, narrow; thorax rugose, metathorax and pleura silvery-sericeous; antennæ short, about as long as head and thorax; legs slender, femora unarmed; abdomen long, slender, sickle-shaped, nearly three times longer than head and thorax.....**Pharsalia** Cress.

7.—Spiracles of metathorax oval or elongate, rarely round (as in *Absyrtus*).....8.
Spiracles of metathorax round.....14.

8.—Tarsal claws not pectinate.....9.
Tarsal claws pectinate.....10.

9.—Cubito-discoidal cell receiving the recurrent nervure in the middle, the third discoidal cell not narrowed at base.
Posterior tarsi with the first joint about twice as long as the second.
Apical margin of clypeus broadly reflexed or bilobed.
*__Schizoloma__ Wesm.
Apical margin of clypeus truncate.....**Exochilum** Wesm.
Posterior tarsi with the first joint about four times as long as the second; apical margin of clypeus broadly rounded...**Heteropelma** Wesm.
Cubito-discoidal cell receiving the recurrent nervure before the middle, the third discoidal cell narrowed at base; apical margin of clypeus acutely angled or pointed.
Eyes not hairy.....**Anomalon** Grav.
Eyes hairy.....*__Trichomma__ Wesm.

10.—Scutellum convex, apex rounded; areolet present.....11.
Scutellum depressed, subquadrate; areolet wanting; eyes deeply emarginate; antennæ scarcely longer than half the body...**Charops** Holmgr.

11.—Spiracles of first abdominal segment placed in middle or before the middle..12.
Spiracles of first abdominal segment placed behind the middle; head not extended behind the eyes; clypeus not separated; teeth of mandibles subequal; scape feebly emarginate at tip above...**Campoplex** Grav.

12.—Spiracles of metathorax oblong.....13.
Spiracles of metathorax round.....*__Absyrtus__ Holmgr.

13.—Head much swollen behind the eyes, the latter not touching base of mandibles, which are tolerably broad, with two equal teeth at apex; metathorax carinate and tuberculate; spiracles of first abdominal segment placed in the middle.....**Opheltes** Holmgr.

Head not inflated behind the eyes, which touch the base of mandibles, the latter slender, with two very unequal teeth at ape[illegible] metathorax without carinæ or tubercles; spiracles of first abdo[illegible]l segment placed before the middle..... .... **Paniscus** Grav.

14.—Areolet small, subtriangular, or subpentangular, or wa[illegible]ng.....15.

Areolet large, rhomboidal; ovipositor ♀, and anal styl[illegible] ♂, exserted. **Mesochorus** Grav.

15.—Clypeus not or imperfectly separated; abdomen moderately compressed or almost cylindrical, rarely strongly compressed or depressed; stigma moderate.....16.

Clypeus separated; stigma large.....21.

16.—Eyes moderately prominent, covered with fine pubescence; face narrowed towards the mouth..... ....***Cymodusa** Holmgr.

Eyes without pubescence.....17.

17.—Clypeus distinctly elevated into a ridge, or produced and toothed in the middle ....***Sagaritis** Holmgr.

Clypeus normal, not carinate or denticulate.....18.

18.—Eyes distinctly emarginate; metathorax incompletely or obsoletely areolated; abdomen clavate, often not compressed.....***Casinaria** Holmgr.

Eyes not or indistinctly emarginate; metathorax distinctly areolated; abdomen more or less compressed towards the apex..... ....19.

19.—Abdomen moderately or slightly compressed, the incisures between the segments very distinct; metathorax not produced at apex.....20.

Abdomen strongly compressed, very smooth, the incisures between the segments ♀ scarcely perceptible; metathorax somewhat produced at apex. ***Angitia** Holmgr.

20.—Head moderately large; abdomen moderately broad.

Thorax longer than high.

Head transverse, not inflated.

Abdominal petiole slender, longer than the convex post-petiole. **Limneria** Holmgr.

Abdominal petiole short and thick, a little longer than the post-petiole. ***Meloboris** Holmgr.

Head inflated, the eyes relatively small; first abdominal segment large, its petiole wider than high, the post-petiole nearly twice as long as wide, the seventh segment exserted.....**Pyracmon** Holmgr.

Thorax not longer than high; a wide space between the eyes and base of mandibles; antennæ robust; clypeus with a deep fovea on each side; second segment of abdomen wider than long. ***Canidia** Holmgr.

Head much broader than the thorax, from a front view almost round; abdomen slender, clavate, second segment longer than wide, alutaceous, ovipositor long.....***Nemeritis** Holmgr.

21.—Abdomen petiolate.

Abdomen ♂ ♀ compressed throughout, ovipositor long, straight; areolet wanting.....**Cremastus** Grav.

Abdomen ♀, as a rule, compressed, ♂ cylindrical or depressed, ovipositor very short; areolet almost pentangular, or triangular or incomplete.

Abdomen ♀ cuneiform, strongly narrowed and compressed towards apex, the segments long, with indistinct incisures.....***Seleucus** Holmgr.

Abdomen depressed, more or less compressed towards apex in ♀, the segments moderately long, the first segment shorter than posterior femora and trochanters combined..... **Atractodes** Grav.

Abdomen sessile or subsessile, more or less depressed; areolet small, oblique or wanting; ovipositor sometimes long ..... **Plectiscus** Grav.

22.—Antennæ moderately separated from each other at their insertion; pectus longer than broad; metathorax scarcely or a little longer than high; third discoidal cell more or less narrowed at base, the upper nervure arched above..... **Porizon** Grav.

Antennæ remote from each other at their insertion; pectus wider than long; metathorax shorter than high; third discoidal cell rectangular, scarcely narrowed at base, the upper nervure straight.

Thersilochus Holmgr.

23.—Abdomen long, slender, sickle-shaped, twice as long as the head and thorax; posterior femora slender, with a short tooth beneath near apex, their trochanters longer than their coxæ; stigma moderate, marginal cell lanceolate, areolet small, oblique, petiolate..... **Eiphosoma** Cress.

Abdomen strongly compressed towards apex, when viewed laterally, clavate, a little longer than the head and thorax; posterior femora robust, with a stout acute tooth, directed backwards, beneath at about the middle, their trochanters shorter than their coxæ; stigma large and broad, marginal cell broad, subtrianguiar, areolet wanting.. **Pristomerus** Curt.

24.—Tarsi slender..... .....25.

Posterior tarsi thickened, claws closely pectinate; head spherical, with emarginate vertex, clypeus armed at the tip; metathorax without areolæ, the spiracles oval; first abdominal segment uniformly wide; areolet wanting..... .....***Scolobates** Grav.

25.—Tarsal claws not pectinate; abdomen subpetiolate; spiracles of metathorax oval; eyes entire; third discoidal cell much narrowed at base, the upper nervure much curved upwards and generally with a stump of a vein before the middle..... .....**Exetastes** Grav.

Tarsal claws pectinate in one or both sexes; abdomen subsessile; spiracles of metathorax linear; third discoidal cell not or but slightly narrowed at base, the upper nervure straight and without the usual stump of a vein.

Abdomen depressed in ♂, acuminate and acutely pointed at tip in ♀, with oblique impressed line on each side of segments 2–4 above; scutellum unarmed; body smooth and polished; posterior femora short and robust; tarsal claws in ♂ pectinate, in ♀ toothed near tip; second joint of posterior trochanters swollen at tip beneath; eyes entire.

Ceratosoma Cress.

Abdomen more or less compressed and thickened at apex in both sexes, without oblique impressed lines; scutellum often armed with a spine; posterior femora long and slender; tarsal claws pectinate in both sexes; second joint of posterior trochanters not swollen at tip beneath; eyes feebly emarginate..... **Banchus** Fabr.

Subfamily TRYPHONINÆ.

Table of Genera.

Scutellum more or less elevated, narrowed posteriorly, apex rounded.....2.

Scutellum quadrangular, with prominent posterior angles and carinate lateral margins; face scutatiform, subconcave, with elevated margins; areolet large, rhomboidal; posterior femora robust, their tibiæ with a single spur at tip; abdomen sessile, almost uniform in width and generally roughly sculptured.....**Metopius** Grav.

2.—Upper tooth of the mandibles entire.....3.

Upper tooth of the mandibles bifid, the apical margin therefore tridentate; abdomen sessile, first segment quadrate or subquadrate; areolet wanting or triangular, the first recurrent nervure usually angularly bent.

Bassus Grav.

3.—Clypeus separated or nearly so; face but slightly prominent; first joint of flagellum longer than the second; spiracles of metathorax circular; femora, especially the anterior pair, slender.....4.

Clypeus not distinctly separated; face almost always considerably swollen; joints 1 and 2 of the flagellum subequal in length; spiracles of metathorax oval, rarely round; femora, especially the posterior pair, much swollen.....18.

4.—Posterior and intermediate tibiæ with two apical spurs.....5.

Posterior tibiæ without apical spurs, rarely with one very short one; intermediate tibiæ with one apical spur.....17.

5.—Abdomen petiolate.....6.

Abdomen sessile or subsessile, first segment more or less grooved or carinate.....12.

6.—Clypeus generally transverse, not or scarcely protruberant, scape of antennæ oval or elongate.....7.

Clypeus narrow, protuberant; scape large, almost spherical: form very slender.....**Megastylus** Schiödte.

7.—Tarsal claws not pectinate.....8.

Tarsal claws pectinate.....11.

8.—Head transverse, not elevated above, the cheeks not or but slightly swollen, vertex emarginate.....9.

Head more or less elevated or swollen, with feebly emarginate vertex, cheeks swollen, first abdominal segment smooth.....10.

9.—First abdominal segment straight, linear, or gradually expanded posteriorly.

Mesoleptus Grav.

First abdominal segment bent, its posterior portion gradually expanded.

Teeth of mandibles unequal, the lower longest; clypeus with two lateral depressions; areolet usually wanting; ovipositor bent downwards.

***Catoglyptus** Först.

Teeth of the mandibles equal or nearly so.

Ovipositor straight; areolet usually present; the middle tibiæ somewhat bent.....***Euryproctus** Holmgr.

Ovipositor bent upwards, the last segment therefore subemarginate above; areolet triangular or wanting; femora, especially the posterior pair robust, as well as the filiform antennæ...***Notopygus** Holmgr.

10.—Teeth of mandibles unequal; first abdominal segment somewhat constricted in front of the spiracles which are placed a little before the middle; areolet almost always present.....*__Perilissus__ Först.

Teeth of mandibles equal; head spherical; antennæ and femora very slender; first abdominal segment slender, its spiracles placed in the middle; areolet wanting.....__Eclytus__ Holmgr.

11.—Tarsal claws stout, with long and closely set teeth; head scarcely elevated or swollen; first abdominal segment elevated, generally with a distinct median furrow.....__Ctenopelma__ Holmgr.

Tarsal claws with short separated teeth; head elevated or swollen, its clypeus scarcely separated; first abdominal segment depressed, with a feeble, or without, median furrow.....*__Prionopoda__ Holmgr.

12.—Tarsal claws not pectinate.....13.

Tarsal claws more or less distinctly pectinate.....16.

13.—Clypeus not or scarcely protuberant .....14.

Clypeus strongly elevated; antennæ short; metathorax imperfectly areolated; first abdominal segment not furrowed above; areolet when present usually pentangular; legs slender, posterior femora thickened, narrowed at base.....__Grypocentrus__ Ruthe.

14.—Labrum scarcely exserted.....15.

Labrum much exserted; antennæ shorter than the body; areolet when present subpentangular; stigma tolerably large; posterior tibiæ robust, with short apical spurs.....*__Adelognathus__ Holmgr.

15.—Areolet usually wanting.

Head not dilated behind the eyes; metathorax imperfectly or obsoletely areolated; first segment of the subsessile abdomen not or indistinctly grooved above, gradually narrowed to base; legs slender, posterior femora elongate, scarcely robust; ovipositor straight.

__Mesoleius__ Holmgr.

Head dilated behind the eyes; metathorax distinctly areolated; first segment of the subsessile abdomen with tolerably distinct groove; legs moderate; ovipositor somewhat bent.....*__Trematopygus__ Holmgr.

Areolet usually present; clypeus somewhat elevated medially; metathorax distinctly areolated; first segment of the sessile abdomen not or but slightly narrowed to base, distinctly furrowed and carinate; areolet when present small, usually irregularly oblique and petiolate; legs thickened, posterior femora short, robust; ovipositor straight.

__Tryphon__ Grav.

16.—Antennæ of ♂ dilated and flattened in the middle; abdomen sessile, first segment subquadrate, the following segments short, transverse; cheeks swollen, a broad space between the eyes and base of mandibles; areolet wanting; ovipositor not exserted.....__Euceros__ Grav.

Antennæ filiform in both sexes.

Abdominal segments 2-4 constricted at base above, the apical margins prominent, first segment quadrate and but slightly narrowed at base; legs short and rather slender, posterior tarsi shorter than their tibiæ; antennæ shorter than the body; areolet triangular, subpetiolate; ovipositor very short.....__Catocentrus__ Walsh.

Abdominal segments not constricted.

Legs moderately long and slender.....__Polyblastus__ Hartig.

Legs short, thickened, with robust femora.....__Erromenus__ Holmgr.

17.—Teeth of the mandibles unequal, the lower longest; clypeus truncate at the anterior margin.....*Acrotomus Holmgr.

Teeth of the mandibles nearly alike; clypeus broadly rounded anteriorly.

Abdomen sessile or subsessile; tarsal claws almost always pectinate.

Cteniscus Hal.

Abdomen subpetiolate; tarsal claws simple.....**Exyston** Schiödte.

18.—Eyes subemarginate; scape of antennæ thickened, ovate or oblong-ovate; metathorax with oval spiracles; areolet wanting, rarely present; second recurrent nervure generally more or less bent.....19.

Eyes entire; scape of antennæ long, cylindrical; metathorax with circular spiracles; areolet pentangular, triangular or wanting; second recurrent nervure straight.....**Orthocentrus** Grav.

19.—Abdomen petiolate, spiracles of first segment placed behind the middle; areolet present.

Posterior tibiæ with but one apical spur .....*Monoplectron Holmgr.

Posterior tibiæ with two apical spurs.....*Ischyrocnemis Holmgr.

Abdomen sessile or subsessile, rarely subpetiolate, spiracles of first segment placed before the middle, rarely in the middle; areolet rarely present.

Metathorax not areolated above.....**Exochoides** Cress.

Metathorax areolated above.

First joint of flagellum usually more than twice longer than wide.

Second and following abdominal segments above smooth and polished, never carinate.....**Exochus** Grav.

Second and sometimes the third abdominal segments above longitudinally carinate.....**Chorinæus** Holmgr.

First joint of flagellum very short, usually broader than long.

***Hyperacmus** Holmgr.

Subfamily Pimplinæ.

Table of Genera.

Head transverse, cheeks usually not much swollen; abdomen sessile or subsessile.2.

Head more or less cubical, spherical or subquadrate, more or less extended behind the eyes, the mandibles generally protruding and forming, with the depressed clypeus, a sort of mouth-opening; abdomen subsessile or subpetiolate, rarely petiolate.....17.

2.—Abdomen subcompressed (but never so that its dorsum becomes carinate), and always depressed at base; the ovipositor arising from the apex of the abdomen, the last ventral segment long, lanceolate.....3.

Abdomen distinctly depressed, sometimes subcompressed towards apex in ♀.4.

3.—Areolet triangular, petiolate, receiving the second recurrent nervure at or near its tip; legs and antennæ slender; clypeus separated.

Coleocentrus Grav.

Areolet wanting.

Posterior tibiæ and tarsi long and slender, the tibiæ almost twice the length of the femora which are somewhat thickened; antennæ slender, much longer than the head and thorax; first submarginal cell either receiving both recurrent nervures, or the second recurrent uniting with the transverse cubital nervure.....**Arotes** Grav.

Posterior tibiæ and tarsi robust, the tibiæ scarcely longer than the femora; antennæ robust, about as long as head and thorax; first submarginal cell receiving only one recurrent nervure..... .....**Acænitus** Latr.

4.—Mesothorax transversely rugose; anterior tarsi more than twice longer than their tibiæ .....5.

Mesothorax not transversely rugose; anterior tarsi not twice as long as their tibiæ.....6.

5.—Posterior coxæ as usual, robust, swollen towards base; abdomen minutely transversely aciculate, that of ♂ convex above, with subquadrate segments, not emarginate at apex or channeled.....**Rhyssa** Grav.

Posterior coxæ long, cylindrical; abdomen smooth and shining, that of ♂ long, narrow and flat above, the segments very much longer than wide, with 3-7 above more or less grooved longitudinally and emarginate at apex .....**Thalessa** Holmgr.

6.—Abdominal segments 2 and following with the surface above uneven, due to tubercles or depressions or both (except in *Theronia* where the surface is almost even and the body yellow).....7.

Abdominal segments 2 and following smooth and even. .....14.

7.—Intermediate segments of the abdomen (at least of ♂) longer t broad, rarely quadrate.....8.

Intermediate segments of the abdomen broader than long..... 9.

8.—Areolet triangular; ovipositor as long or longer than the abdomen.

Tarsi with the last joint not more than twice longer than the penultimate; upper nervure of third discoidal cell not at all or but slightly arched, so that the cell receives the externo-medial nervure at its upper basal angle. **Ephialtes** Grav.

Tarsi with the last joint three or more times longer than the penultimate; upper nervure of third discoidal cell abruptly bent near the base, so that the cell receives the externo-medial nervure at its basal middle. **Perithous** Holmgr.

Areolet wanting; ovipositor about half the length of the abdomen; eyes and ocelli very large and prominent, the former occupying the entire sides of the head; face narrow and depressed; prothorax much narrowed in front in the form of a neck; tarsal claws deeply cleft, the pulvillus very large .....**Epimecis** Brullé.

9.—Anterior femora entire beneath .....10.

Anterior femora beneath distinctly emarginate in ♀, slightly so in ♂, their tibiæ subarcuate or curved .....***Colpomeria** Holmgr.

10.—Ovipositor arising from a ventral cleft.....11.

Ovipositor arising from the apex of the abdomen, the lest ventral segment reaching that far..... 12.

11.—Areolet triangular.

Abdomen smooth and shining, impunctured; posterior femora robust; color of body yellow .....**Theronia** Holmgr.

Abdomen more or less punctured; color of body black, generally with pale markings.....**Pimpla** Fabr.

Areolet incomplete or wanting.

Femora slender, not thickened; clypeus separated. **Polysphincta** Grav.

Femora thickened; clypeus not separated. .....**Schizopyga** Grav.

12.—Scutellum rounded at tip .....13.
Scutellum elevated, quadrangular, apex truncate.....*__Lycorina__ Holmgr.
13.—Abdomen as in *Pimpla;* tarsal claws not pectinate; ovipositor less than half the length of the abdomen; areolet wanting.....__Clistopyga__ Grav.
Abdomen above with segments 2–4 each with two oblique linear depressions; tarsal claws pectinate; ovipositor at least as long as the abdomen; areolet generally wanting.....__Glypta__ Grav.
14.—Ovipositor arising from the apex of the abdomen; areolet triangular, rarely incomplete .....15.
Ovipositor arising from a ventral cleft.....16.
15.—Tarsal claws not pectinate, bristly only at base.
Head and thorax pilose.....__Arenetra__ Holmgr.
Head and thorax not pilose.....__Lampronota__ Curtis.
Tarsal claws pectinate.....__Meniscus__ Schiödte.
16.—Tarsal claws pectinate; areolet triangular; flagellum entire.
__Phytodietus__ Grav.
Tarsal claws not pectinate; areolet wanting; flagellum of ♂ with joints 3 and 4 erose or emarginate.....__Cylloceria__ Schiödte.
17.—Posterior femora unarmed.....18.
Posterior femora short, swollen, armed beneath with a short tooth directed backwards; middle tibiæ of ♀ twisted; head nearly spherical.
__Odontomerus__ Grav.
18.—Frontal region of the head not horned.....19.
Frontal region of the head with a broad process forward of the anterior ocellus; areolet wanting.....*__Mitroboris__ Holmgr.
19.—Areolet wanting.....20.
Areolet complete.....21.
20.—Face narrowed beneath, the cheeks tuberculate behind the flattened and depressed posterior orbits; tibiæ slender, not inflated; tarsal joints long and slender; metathorax not areolated.....__Xorides__ Grav.
Face not narrowed beneath and the cheeks not tuberculate.
Legs long, femora slender; four anterior tibiæ ♀ cylindrical, narrowed and constricted at base, intermediate tibiæ not twisted; head transversely subquadrate; joints of flagellum long and cylindrical; body not flattened; marginal cell extending nearly to the apex of the wing.
__Xylonomus__ Grav.
Legs short, femora robust, swollen; intermediate tibiæ ♀ twisted; head almost spherical; joints of flagellum short and robust; prothorax produced anteriorly in the form of a neck; body very much depressed, flattened; marginal cell remote from the apex of the wing.
__Aplomerus__ ‖ Prov.
21.—Eyes entire; posterior coxæ swollen, shorter than their femora.....22.
Eyes subemarginate; posterior coxæ cylindrical, as long or nearly as long as their femora.....23.
22.—Areolet pentagonal; anterior tibiæ ♀ inflated and pinched at base, slightly so in ♂; metathorax more or less areolated.....__Echthrus__ Grav.
Areolet small, triangular, subpetiolate; tibiæ not inflated; metathorax not areolated, but with a shallow longitudinal groove on the disk.
__Euxorides__ Cress.

23.—Face narrow, roughened; cheeks simple and entire beneath; metathorax areolated; four anterior tibiæ ♀ dilated, narrowed and twisted towards the base; abdomen subpetiolate, clavate, basal segment straight, gradually widened towards the apex.....**Labena** Cress.

Face broad, smooth and polished; cheeks with a large tooth-like process beneath; thorax flattened, much elongated in front of wings; metathorax not areolated, smooth and polished; wings long and narrow, the stigma and areolet nearer than usual to the apex of the wing; tibiæ simple; abdomen much elongated, slender, petiolate, the basal segment very long and curved upwards towards the apex, which is slightly dilated; ovipositor as long as first abdominal segment.....**Grotea** Cress.

Family **STEPHANIDÆ.**

In this family the head is globose, rugose, the vertex tuberculate, cheeks smooth and swollen; eyes ovate, relatively small and distant from the base of the mandibles which are triangular and protruding; antennæ long, setaceous, multiarticulate (with from thirty to forty joints), inserted low down near the clypeus and well separated, the scape subglobose; prothorax more or less narrowed anteriorly into a neck; metathorax quadrate or subquadrate, with protuberant flanks; wings narrow, stigma well developed, costal cell distinct, marginal cell long, narrow, lanceolate, extending almost to the apex of the wing, one complete submarginal and two discoidal (first and second) cells; four anterior legs slender with short coxæ, anterior tarsi longer than their tibiæ; posterior legs robust, the rugose coxæ nearly as long as their femora which are incrassated and more or less toothed beneath, their tibiæ longer than their femora, clavate, compressed and narrowed towards the base and sometimes pinched, their tarsi about half the length of their tibiæ; tibial spurs very short; tarsal claws entire; abdomen long, enlarged and subcompressed at the apex in ♀, attached to the apex of the metathorax, petiolate or subsessile; ovipositor longer than the body.

Our species may be separated into two genera, distinguished by the following characters:

Posterior tarsi 5-jointed in ♀ (and presumably so in ♂); neck comparatively short; abdomen subsessile, the first segment not longer than the second.
Stephanus Jurine.

Posterior tarsi 3-jointed in ♀, 5-jointed in ♂; neck long; abdomen petiolate, the first segment long, slender, cylindrical, fully twice the length of the second.....**Megischus** Brullé.

The characteristics given above of *Stephanus* are those of a species (*cinctipes*) from Washington Territory, the only one yet described as occurring in our fauna and of which only the ♀ is known; the form

of the neck and abdomen differs considerably from that given by authors of *Stephanus*, and it is probable that our species is referable to a new genus.

Of *Megischus*, three species have been described from Pennsylvania, Georgia and Texas.

The species of this family appear to be rare in collections.

Family **BRACONIDÆ.**

This family (the *Ichneumones adsciti* Nees) is closely related to the Ichneumonidæ, and is distinguished by the absence of the second recurrent nervure in the anterior wings, and by having the first submarginal cell generally, though not always, separated from the first discoidal cell, and with the exception of one subfamily, the Aphidiinæ, by the non-existence of a real articulation between the second and third abdominal segments. Sometimes these two segments are soldered together, without a trace of a suture between them; when the junction is visible, it is called the *suturiform articulation*. In the Aphidiinæ, all the segments are loosely articulated and flexible, and consequently capable of being bent forward beneath the thorax.

The following diagram of the neuration of the anterior wing of a Braconid, from which the majority of the characters for the separation of the genera are taken, will serve to aid the student in locating the various cells and nervures.

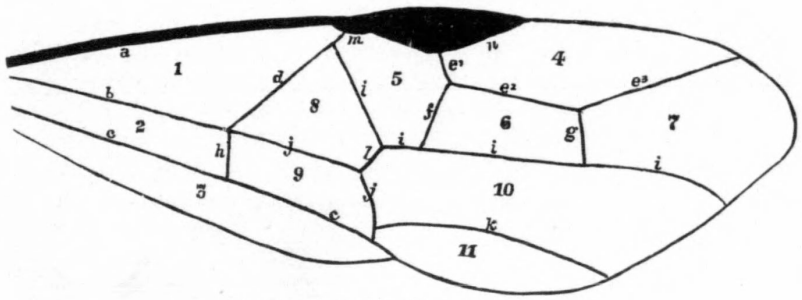


Fig. 10.—Anterior wing of a *Braconid*.

1, median cell; 2, submedian cell; 3, anal cell; 4, marginal or radial cell; 5, first submarginal or cubital cell; 6, second submarginal or cubital cell; 7, third submarginal or cubital cell; 8, first discoidal cell; 9, second discoidal cell; 10, third discoidal cell; 11, apical cell; a, costal nervure (costal and subcostal united); b, externo-mediai nervure; c, anal nervure; d, basal nervure; e, marginal nervure or radius; e1, first branch of marginal nervure or radius; e2, second branch of marginal nervure or radius; e3, third branch of marginal nervure or radius; f, first transverse cubital nervure; g, second transverse cubital nervure; h, transverse medial nervure; i, cubital nervure or cubitus; j, discoidal nervure; k, subdiscoidal nervure; l, recurrent nervure; m, parastigma; n, stigma.

The arrangement given below is that proposed by the Rev. T. A. Marshall in his admirable and exhaustive "Monograph of British Braconidæ," the first part of which has been published in the "Transactions of the Entomological Society of London" for 1885, and includes the first three divisions. For a summary of the distinguishing characters of the genera belonging to the remaining divisions, the compiler is indebted to the courtesy of Mr. Marshall, who very kindly contributed an abstract from his unpublished MS.

Our species of this interesting family have been very little studied, as will be seen by the small number of unstarred genera in the following tables. The undescribed material in the collection of the American Entomological Society is large, and contains representatives of many genera characterized below, and of which no species have yet been described as occurring within our fauna.

The family is divided into six divisions in the following manner:

Table of Divisions.

Articulation between second and third abdominal segments (suturiform articulation) rigid, connate.
Mandibles in the usual position, touching or crossing at the tips.
Clypeus emarginate, forming with the mandibles a semicircular opening.
CYCLOSTOMI.
Clypeus not so emarginate, fitting closely to the mandibles.
Abdomen above without sutures, segments 1–3 forming a solid shield, or with two superficial sutures at most, but still exarticulate.
CRYPTOGASTRES.
Abdomen showing the usual sutures.
Second submarginal cell minute, often imperfect.....AREOLARII.
Second submarginal cell large, 4-angular or wanting.....POLYMORPHI.
Mandibles with their tips turned outwards, not in contact.....EXODONTES.
Articulation between second and third abdominal segments, as well as the others, flexible, allowing the abdomen to be curved under the thorax.
FLEXILIVENTRES.

Table of Subfamilies.

Div. I.—CYCLOSTOMI.

Occiput not margined, or only faintly so at the sides.....2.
Occiput margined, distinct from the vertex.....3.
2.—Transverse medial nervure uniting or interstitial with the basal nervure, the median and submedian cells therefore of same length on the externo-medial nervure.....Braconinæ.
Transverse medial nervure received by the first discoidal cell, the median cell therefore shorter than the submedian cell on the externo-medial nervure.....Exothecinæ.
3.—Abdomen petiolate.....Spathiinæ.
Abdomen sessile or subsessile.....4.

4.—Anterior wings with two submarginal cells, or the ♀ apterous.
Head cubical; sutures between abdominal segments above distinct; ♀ winged; posterior wings of ♂ with a stigma.....**Hecabolinæ.**
Head transverse; abdominal segments after the first connate; ♀ often apterous; posterior wings of ♂ without a stigma.....**Pambolinæ.**
Anterior wings with three submarginal cells .....5.
5.—Head cubical, not narrowed behind the eyes .....**Doryctinæ.**
Head transverse, more or less narrowed behind the eyes.....6.
6.—Subdiscoidal nervure uniting or interstitial with anal nervure....**Hormiinæ.**
Subdiscoidal nervure not interstitial.
Abdomen subpetiolate, nearly smooth, thyridia (small, smooth impressions) of segments 2 and 3 invisible, ovipositor elongate; small gnat-like species .....**Rhyssalinæ.**
Abdomen sessile, almost always rugose, except the apex, thyridia of segments 2 and 3 visible, ovipositor short or concealed; generally large robust species.....**Rhogadinæ.**

Div. II.—CRYPTOGASTRES.

Anterior wings with two submarginal cells; venter concave from end to end, with sharply defined edges.....**Sigalphinæ.**
Anterior wings with three submarginal cells; venter concave, edges reflexed; body rugose.....**Cheloninæ.**

Div. III.—AREOLARII.

Mesothoracic sutures invisible; marginal cell large, reaching the apex of the wing .....**Microgasterinæ.**
Mesothoracic sutures distinct; marginal cell minute, remote from the apex of the wing.....**Agathidinæ.**

Div. IV.—POLYMORPHI.

Abdomen petiolate.....2.
Abdomen sessile or subsessile .....3.
2.—Anterior wings with two submarginal cells.....**Euphorinæ.**
Anterior wings with three submarginal cells.....**Meteorinæ.**
3.—Anterior wings with two submarginal cells.....4.
Anterior wings with three submarginal cells.....5.
4.—Anal cell of anterior wings closed at apex.....**Calyptinæ.**
Anal cell of anterior wings open at apex.
Marginal nervure straight, its first branch long, distinct; ovipositor straight.....**Blacinæ.**
Marginal nervure curved, its first branch short, subobsolete; ovipositor decurved.....**Liophroninæ.**
5.—Marginal cell very short, its anterior margin not longer than the stigma.
Ichneutinæ.
Marginal cell elongate, its anterior margin longer than the stigma.....6.
6.—Marginal, and second and third submarginal cells distinctly defined.....7.
Marginal, and second and third submarginal cells indistinctly defined.
Toxoneurinæ.
7.—Posterior femora incrassate, sometimes toothed; head subquadrate, vertex excavate, the fovea containing the middle ocellus.....**Helconinæ.**

Posterior femora simple; head transverse, vertex not or scarcely excavate, the middle ocellus not placed in a fovea.
Abdomen linear, longer than the thorax..... .....Macrocentrinæ.
Abdomen ovate, not longer than the thorax.
Occiput margined, distinct from the vertex; anal cell of anterior wings with an incomplete transverse nervure.....Diospilinæ.
Occiput not margined; anal cell of anterior wings without transverse nervure..... .....Opiinæ.

Div. V.—EXODONTES.

Anterior wings with three submarginal cells, rarely apterous or subapterous. Alysiinæ.
Anterior wings with two submarginal cells.....Dacnusinæ.

Div. VI.—FLEXILIVENTRES.

Posterior wings with only two longitudinal nervures; the median cell often incomplete, the submedian cell wanting.....Aphidiinæ.

Table of Genera.

Division I.—CYCLOSTOMI.

Subfamily Braconinæ.

Abdomen with numerous broad strongly serrate transverse impressions. *Iphiaulax Först.
Abdomen without or with only one serrate transverse impression.
Clypeus with two tufts of hair at base; mouth elongate, beak-like; abdominal segments 1–2 straight, not rectangularly articulated.....*Vipio Latr.
Clypeus without hair-tufts at base; mouth not prolonged; abdominal segments 1–2 rectangularly articulated.....Bracon Fabr.

Subfamily Exothecinæ.

Suturiform articulation distinct, sometimes crenate.....*Phanomeris Först.
Suturiform articulation obsolete.
Marginal nervure originating beyond the middle of stigma. *Xenarcha Först.
Marginal nervure originating much before the middle of stigma. Exothecus Wesm.
Marginal nervure originating from the middle of stigma.
Second submarginal cell receiving the recurrent nervure. *Bathystomus Först.
First submarginal cell receiving the recurrent nervure. *Rhysipolis Först.

Subfamily Rhyssalinæ.

Posterior tarsi shorter than their tibiæ, the latter incrassate in ♂; metathorax areolated; marginal nervure originating somewhat beyond the middle of stigma; recurrent nervure interstitial.....*Rhyssalus Hal.

Posterior tarsi not shorter than their tibiæ, the latter simple in both sexes.

Metathorax not areolated; abdomen subpetiolate, ovate, depressed; marginal nervure originating before middle of stigma; recurrent nervure received by the first submarginal cell or interstitial.....*__Colastes__ Hal.

Metathorax areolated; abdomen subsessile, ovate; marginal nervure originating rather beyond middle of stigma which is angulate, not rounded, at the point of origin; recurrent nervure interstitial..*__Oncophanes__ Först.

Subfamily Spathiinæ.

Head cubical, occiput margined; antennæ long and slender; abdomen depressed, ovate, with a long petiole, segment 1 nearly as long as the rest combined, 2–3 connate, forming about one-sixth of the remainder of the abdomen, suturiform articulation obsolete; ovipositor long; wings with three submarginal cells, the second subpentagonal, its interior posterior angle much produced, receiving the recurrent nervure.....__Spathius__ Nees.

Subfamily Hecabolinæ.

First and second submarginal cells confluent.....2.

First and second submarginal cells distinct.....3.

2.—Abdomen above with three distinct segments.....*__Lysitermus__ Först.

Abdomen above with more than three segments.....*__Cænophanes__ Först.

3.—Marginal cell open; ♂ posterior legs thick.....*__Acrisis__ Först.

Marginal cell closed; head cubical; abdomen subsessile; ovipositor elongate; two submarginal cells, recurrent nervure interstitial..__Hecabolus__ Curt.

Subfamily Pambolinæ.

Abdomen petiolate; metathorax ♂ armed with two long spines.

*__Arrhaphis__ Ruthe.

Abdomen sessile.

Antennæ ♂ 23-jointed, joints of flagellum cylindrical; third joint of maxillary palpi about equal to the two preceding joints together; scutellum bounded at base by a double crenate fovea.....*__Pambolus__ Hal.

Antennæ 16–20-jointed, joints of flagellum submoniliform; second joint of maxillary palpi elongate, joints 3–5 not so stout, subequal; metathorax bidentate; first abdominal segment divided from the second by a deep suture, suturiform articulation effaced; ♂ with two submarginal cells; ♀ apterous.....*__Dimeris__ Ruthe.

Subfamily Doryctinæ.

Antennæ filiform, more than 20-jointed, nearly as long as, or longer than, the body.

Suturiform articulation distinct; median and submedian cells of anterior wings of same length on the externo-medial nervure; front excavated between antennæ and ocelli; third joint of antennæ not longer than the second.

*__Cœloides__ Wesm.

Suturiform articulation obsolete or subobsolete; median cell of anterior wings usually shorter than the submedian on the externo-medial nervure; head much produced behind eyes; thorax narrowed before and behind,

metathorax elongate, areolated; posterior coxæ angularly produced in front; abdomen ♀ obovate, convex, ♂ narrower, elongate, depressed.
Doryctes Hal.

Antennæ submoniliform, 18–20-jointed, shorter than head and thorax; suturiform articulation obsolete; four anterior legs very short, the clavate tibiæ shorter than tarsi; posterior tibiæ and tarsi of equal length, first joint of the latter twice as long as the three following joints combined.
***Histeromerus** Wesm.

Subfamily Hormiinæ.

Median cell of anterior wings shorter than the submedian on the externo-medial nervure; antennæ as long as head and thorax, ♂ 11-, ♀ 12-jointed; suturiform articulation effaced; recurrent nervure interstitial, second submarginal cell scarcely narrowed at base.....***Chremylus** Hal.

Median and submedian cells of equal length; antennæ much longer than head and thorax, with more than 12 joints; suturiform articulation superficial; recurrent nervure received by the second submarginal cell, which is much narrowed at base..... **Hormius** Nees.

Subfamily Rhogadinæ.

Suturiform articulation obsolete.

Second submarginal cell trapezoidal; abdomen not longer than head and thorax, that of ♀ subcompressed at apex, ovipositor considerably exserted.
***Clinocentrus** Hal.

Second submarginal cell rectangular; abdomen longer than head and thorax, that of ♀ strongly compressed from second segment, ovipositor subexserted .....***Petalodes** Wesm.

Suturiform articulation distinct, crenulate.

Third joint of maxillary palpi dilated within, securiform; second submarginal cell elongate, recurrent nervure interstitial; ovipositor exserted.
***Pelecystoma** Wesm.

Third joint of maxillary palpi simple; recurrent nervure received by the first submarginal cell.

First branch of marginal nervure longer than the second; second submarginal cell short, not half the length of first; ♀ abdominal segments 4 and following retracted and concealed beneath the third.
***Heterogamus** Wesm.

First branch of marginal nervure shorter than the second; second submarginal cell elongate, more than half the length of first; ♀ abdominal segments 4 and following not retracted and concealed beneath the third.
Rhogas Nees.

Division II.—CRYPTOGASTRES.

Subfamily Sigalphinæ.

Abdominal segments 4–5 not entirely concealed under the carapace, the second longer than third, the first longer than broad, narrowed at base; marginal cell long, extending almost to apex of wing, anal cell divided before apex by a transverse nervure.....***Allodorus** Först.

Abdominal segments 4–5 entirely concealed, the second shorter than third, the first transverse; marginal cell not longer than stigma, remote from apex of wing, anal cell not divided..... .....**Sigalphus** Latr.

Subfamily Cheloninæ.

Abdomen above showing three segments, lateral margins not reflexed beneath; first submarginal and first discoidal cells distinct.

Abdomen beneath simple, edentate; recurrent nervure subobsolete, second submarginal cell much narrowed at base; intermediate tibiæ externally gibbous..... .....**Phanerotoma** Wesm.

Abdomen beneath with two teeth, pointing backwards; recurrent nervure received by first submarginal cell, second submarginal cell not narrowed at base; intermediate tibiæ simple.....**Sphæropyx** Hal.

Abdomen above not divided into segments, lateral margins reflexed beneath.

Eyes hairy; first submarginal confluent with first discoidal...**Chelonus** Jur.

Eyes naked; first submarginal and first discoidal cells distinct.

Ascogaster Wesm.

Division III.—AREOLARII.

Subfamily Microgasterinæ.

Antennæ 20-jointed; median and submedian cells of anterior wings of equal length on the externo-medial nervure; tibiæ subclavate, rounded at apex.....***Acœlius** Hal.

Antennæ with less than 20 joints; median cell shorter than the submedian.

Antennæ 14-jointed.....***Mirax** Hal.

Antennæ 18-jointed.

Wings with two submarginal cells, the second confused with the third, the marginal nervure obsolete or subobsolete..... .....**Apanteles** Först.

Wings with three submarginal cells, the second more or less complete.

Spurs of posterior tibiæ less than half the length of the first joint of their tarsi; suturiform articulation obsolete; second submarginal cell triangular, complete, minute.....**Microplitis** Först.

Spurs of posterior tibiæ more than half the length of first joint of their tarsi; suturiform articulation distinct; second submarginal cell often incomplete.....**Microgaster** Latr.

Subfamily Agathidinæ.

Anterior wings with three submarginal cells.

Face triangularly produced, rostriform; first submarginal and first discoidal cells more or less confluent.....**Agathis** Latr.

Face of the usual form, not elongate triangular.

First submarginal cell separated from the first discoidal; pleura without a furrow; wings hyaline..... .....**Earinus** Wesm.

First submarginal and first discoidal cells more or less confluent; pleura with a rugulose furrow; wings generally infumated.....**Microdus** Nees.

Anterior wings with two submarginal cells, first submarginal cell separated from the first discoidal; mesopleura with a crenulate furrow; face not produced or rostiform.....**Orgilus** Hal.

Division IV.—POLYMORPHI.

Subfamily Euphorinæ.

First submarginal cell confluent with the first discoidal.
Marginal cell cultrate, nearly reaching apex of the wing.
Microctonus Wesm.
Marginal cell semicordate, ending about half way between the stigma and apex of the wing, or nearer to the stigma.
Antennæ ♂ ♀ geniculate in two places, the first and third joints in ♂ and the first in ♀ elongate.....***Streblocera** Westw.
Antennæ simple in both sexes.....**Perilitus** Nees.
First submarginal and first discoidal cells separated.
Antennæ ♀ once geniculate, clavate (♂ unknown) ..**Eustalocerus** Först.
Antennæ ♂ ♀ simple, not clavate.
First abdominal segment linear, slender, longer than the remainder of the strongly compressed abdomen; head ♀ as large as the mesothorax (♂ unknown).....***Wesmaelia** Först.
First abdominal segment wider behind, not longer than the rest of abdomen; head much smaller than mesothorax.
Marginal cell sublanceolate, ending about half way between stigma and apex of the wing, broader than stigma, marginal nervure straight near the end, two distinct submarginal cells; metathorax vertically truncate behind; ovipositor exserted.....***Dinocamptus** Först.
Marginal cell semicordate, ending nearer to the stigma than to apex of the wing, narrower than stigma, marginal nervure equally curved throughout; sometimes no submarginal cells; metathorax more or less sloping behind; ovipositor concealed.....**Eup[illegible]rus** Nees.

Subfamily Meteorinæ.

Abdomen petiolate; anterior wings with three submarginal cells.
Meteorus Hal.

Subfamily Calyptinæ.

Abdomen elongate, sides parallel, showing eight segments above, the first much longer than broad.....**Eubadizon** Nees.
Abdomen short, sides rounded, showing three or four segments above at most, the rest retracted, the first segment not or scarcely longer than its apical breadth.....**Calyptus** Hal.

Subfamily Blacinæ.

First discoidal cell sessile, touching the parastigma, the cubital nervure arising from the base of the stigma.
Antennæ ♀ not more than 17-jointed, of ♂ not more than 19-jointed.
Blacus Nees.
Antennæ ♀ more than 17-jointed, of ♂ more than 19-jointed.
***Ganychorus** Hal.
First discoidal cell petiolate, remote from parastigma, the cubital nervure arising from the basal nervure. .....***Pygostolus** Hal.

Subfamily LIOPHRONINÆ.

Mesothoracic sutures distinct.....**Liophron** Nees.
Mesothoracic sutures effaced.....***Centistes** Hal.

Subfamily ICHNEUTINÆ.

First branch of the marginal nervure shorter than the second; second submarginal cell longer than the first.....**Ichneutes** Nees.
First branch of the marginal nervure longer than the second; second submarginal cell shorter than the first.....**Proterops** Wesm.

Subfamily TOXONEURINÆ.

Marginal, and second and third submarginal cells indistinctly defined, the former reaching to apex of wing, the marginal nervure reclivate, indistinct beyond apex of second submarginal cell, which is much longer than broad, the recurrent nervure received by the first submarginal cell.
Toxoneura Say.

Subfamily HELCONINÆ.

Posterior femora armed with a tooth beneath.....**Helcon** Nees.
Posterior femora unarmed.....**Gymnoscelis** Först.

Subfamily MACROCENTRINÆ.

Abdomen inserted above the posterior coxæ.....**Macrocentrus** Curtis.
Abdomen inserted between the posterior coxæ.....**Zele** Hal.

Subfamily DIOSPILINÆ.

First discoidal cell not petiolate, touching the stigma; head subcubical.
***Diospilus** Hal.
First discoidal cell petiolate, remote from the stigma; head contracted behind the eyes.
Submedian cell of posterior wings divided by a transverse nervure; metathorax areolated; first abdominal segment striolate..***Promachus** Marsh.
Submedian cell of posterior wings not divided by a transverse nervure; metathorax not areolated; first abdominal segment smooth.
***Dyscoletes** Hal.

Subfamily OPIINÆ.

Marginal cell open at apex.....***Ademon** Hal.
Marginal cell completely closed.
Second branch of marginal nervure not or scarcely longer than the first, whence the second submarginal cell is very narrow.
Second abdominal segment with an arcuate transverse impression at base and another at apex.....***Gnamptodon** Hal.
Second abdominal segment with no such impressions.....***Hedylus** Marsh.
Second branch of marginal nervure much longer than the first, whereby the second submarginal cell is wider, often very wide.
Marginal nervure springing from extreme base of stigma.
***Eurytenes** Först.

Marginal nervure springing from any other point of the stigma.
Second and third abdominal sutures marked by wide, shallow, transverse depressions, not reaching the lateral margins..*Phædrotoma Först.
Second and third abdominal sutures inconspicuous.....Opius Wesm.

Division V.—EXODONTES.

Subfamily Alysiinæ.

Apterous in both sexes.....*Chasmodon Hal.
Winged; the wings generally ample, rarely abbreviated.....2.
2.—Wings ♀ rudimentary, without neuration (♂ unknown).
*Panerema Först.
Wings ♂ ♀ ample, very rarely abbreviated and then with distinct neuration.....3.
3.—First submarginal cell separated from the second.....4.
First submarginal cell confluent with the second.....*Synaldis Först.
4.—First transverse cubital nervure as long as the second branch of the marginal nervure or longer.....5.
First transverse cubital nervure shorter than the second branch of the marginal nervure.....6.
5.—First submarginal cell confluent with the first discoidal..*Syncrasis Först.
First submarginal cell separated from the first discoidal.
Fourth joint of antennæ longer than the third.....*Idiasta Först.
Fourth joint of antennæ not longer than the third.
Second abdominal segment roughly punctured and nearly bisected by an impressed transverse line.....*Trachyusa Ruthe.
Second abdominal segment smooth and without any transverse line.
Metathorax carinate; wings occasionally abbreviated, but still with distinct neuration, ♂ ♀.....*Diaspasta Först.
Metathorax not carinate; wings always complete.
Furrow of mesopleuræ obsolete or smooth..*Pentapleura Först.
Furrow of mesopleuræ distinct, rugose or crenate.
Subdiscoidal nervure interstitial.....*Cratospila Först.
Subdiscoidal nervure arising from middle of second discoidal cell.
Stigma short, oblong, emitting the marginal nervure beyond the middle.....Alysia Latr.
Stigma elongate, lineari-lanceolate, emitting the marginal nervure before the middle.....*Tanycarpa Först.
6.—First submarginal cell confluent with first discoidal.....Aphæreta Först.
First submarginal cell separated from first discoidal.....7.
7.—Fourth joint of antennæ longer than third; submedian cell of posterior wings less than half as long as the median.
Marginal cell not reaching apex of the wing.....*Homophyla Först.
Marginal cell reaching apex of the wing.....*Phænocarpa Först.
Fourth joint of antennæ not longer than third; submedian cell of posterior wings half as long as the median.....8.
8.—Stigma elongate, attenuate, but still somewhat thicker than metacarpus†...9.
Stigma wanting, i.e., not thicker than the metacarpus.....*Aspilota Först.

† The costal margin from stigma to apex of marginal cell.

9.—Marginal vein springing from extreme base of stigma...***Anisocyrta** Först.
Marginal nervure springing from any other point of the stigma.
Stigma linear.
Subdiscoidal nervure interstitial, or nearly so.....***Adelura** Först.
Subdiscoidal nervure springing from middle of second discoidal cell.
***Ischnocarpa** Först.
Stigma cuneiform .....***Prosapha** Först.

Subfamily Dacnusinæ.

Abdominal segments 1–3 forming a rugose carapace (as in *Sigalphus*), the remainder concealed or very short: postscutellum with a dentiform elevation.....***Œnone** Hal.
Abdominal segment 3, and generally 2, smooth, not forming a carapace, the rest not concealed or remarkably short, postscutellum unarmed.....2.
2.—Eyes naked.....3.
Eyes hairy.....4.
3.—First abdominal segment broader than long.....***Epimicta** Först.
First abdominal segment longer than broad.
First branch of marginal nervure obsolete, so that the second submarginal cell touches the stigma.....***Agonia** Först.
First branch of marginal nervure distinct, second submarginal cell remote from the stigma.
Abdomen oblong or ovate, not longer than head and thorax.
Dacnusa Hal.
Abdomen linear, longer than head and thorax.
Marginal nervure subsinuate near apex; abdomen ♀ strongly compressed, cultrate.....***Copidura** Schiödte.
Marginal nervure forming a regular curve; abdomen ♀ slightly compressed at apex only.....**Cœlinius** Nees.
4.—Stigma ovate, stout, half as long as marginal cell, emitting the marginal nervure from the middle.....***Chænusa** Hal.
Stigma linear, attenuate, much longer than half of the marginal cell, emitting the marginal nervure before the middle.....***Chorebus** Hal.

Division VI.—FLEXILIVENTRES.

Subfamily Aphidiinæ.

First discoidal cell complete.
The transverse cubital nervures obsolete, therefore only one submarginal cell.
Praon Hal.
The transverse cubital nervures distinct, therefore three submarginal cells.
Abdomen lanceolate, subsessile; antennæ 11-jointed.....**Ephedrus** Hal.
Abdomen orbiculate, petiolate; antennæ with more than 11 joints.
Toxares Westw.
First discoidal cell incomplete.
Abdomen orbiculate.....***Monoctonus** Hal.
Abdomen lanceolate.
Antennæ 10–13-jointed; ventral valves ♀ armed with two apical processes longer than the ovipositor.....**Trioxys** Hal.
Antennæ with more than 13 joints; ventral valves ♀ simple.
Aphidius Nees.

Family CHALCIDIDÆ.

This family is composed of a large number of insects generally of exceedingly small size, many of the species having brilliant metallic colors. They are all parasitic, many of them being parasites upon other parasites, and some depositing their eggs in various galls where the larvæ feed upon and destroy the legitimate inhabitants.

The anterior wings* (fig. 11) rarely rudimentary or wanting, are nearly veinless; usually a strong submarginal vein (a) runs parallel with the anterior margin for a distance (generally more than is shown in the cut) where it unites with the costa, along which it continues for a distance as a marginal vein (b), and then bifurcates, the upper branch being the postmarginal (c), and the lower branch the stigmal (d), which usually descends in an oblique direction, and is often thickened or clubbed. The posterior wings have, at most, only a short submarginal vein. In the genus *Leucospis* the anterior wings are folded longitudinally in repose, similar to those of the Vespidæ. The antennæ (fig. 12) are exceedingly variable in form in this family, and are often curiously developed in the males of some of the genera, being sometimes short and clubbed, or the joints nodose and ciliated with long hairs, sometimes they are beautifully branched, the number of joints varying from six to fourteen. The posterior femora are sometimes enormously swollen and toothed beneath, and in some genera the intermediate legs are very long and saltatorial, the tibial

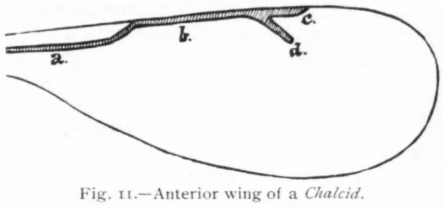


Fig. 11.—Anterior wing of a *Chalcid*.

a, submarginal vein; **b**, marginal vein; **c**, postmarginal vein; **d**, stigmal vein.

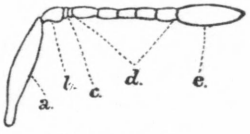


Fig. 12.—Antenna.

a, scape; **b**, pedicel; **c**, ring-joints; **d**, funicle; **e**, club.

* The terminology of the neuration of this family and the Proctotrupidæ, as used by authors, is quite different from that adopted elsewhere in this Synopsis, as will be seen by the accompanying diagram (fig. 11). To conform with that of the other families, *a* would be the subcostal vein, *b* and *c* the costal, and *d* the marginal vein or radius. To make any change at this time would only cause confusion, and therefore the terms given above, in the explanation of fig. 11, will be used in these two families only.

spurs being unusually developed; the tarsi although generally 5-jointed, have sometimes only 3 or 4 joints. The abdomen is of varied shape, both in the different species and in the sexes of the same species; sometimes it is petiolate, but usually sessile or subsessile, or rather connected to the thorax by a very short narrowed portion of its base; the ovipositor is generally concealed, although occasionally it is exserted and longer than the body.

Mr. L. O. Howard, who has made the study of this interesting family a specialty, has published a "Synopsis" of the subfamilies and genera in the *Entomologica Americana* for 1886, from which the following tables are copied almost *verbatim*.

The family is divisible into two Sections, as follows:

Tarsi 5-jointed; anterior tibiæ armed with a large curved spur; antennæ usually many jointed ..... MACROCENTRI.

Tarsi usually 4-jointed, rarely 3-jointed; very rarely heteromerous; anterior tibiæ with a delicate, short, straight spur; antennæ usually with few joints. MICROCENTRI.

Table of Subfamilies.

Section MACROCENTRI.

Posterior femora much swollen ..... 2.
Posterior femora not greatly enlarged ..... 3.
2.—Anterior wings folded; ovipositor curved over dorsum of the abdomen. **Leucospidinæ.**
Anterior wings not folded; ovipositor not curved over dorsum of the abdomen ..... **Chalcidinæ.**
3.—Thorax strongly developed, much arched and deeply punctate ..... 4.
Thorax not greatly developed ..... 5.
4.—Stigmal vein not developed; second abdominal segment inclosing the rest. **Eucharinæ.**
Stigmal vein developed; abdominal segments plainly seen..... **Perilampinæ.**
5.—Collar large; antennæ many jointed; parapsidal sutures of mesothorax complete ..... 6.
Collar small, frequently not visible in the middle; antennæ usually with few joints ..... 7.
6.—Body not metallic; sides of scutellum almost straight..... **Eurytominæ.**
Body metallic; sides of scutellum both curved..... **Toryminæ.**
7.—Mesosternal pleura not discernible; middle legs long, saltatorial, with very long tibial spur ..... 8.
Mesosternal pleura usually well marked; middle legs not saltatorial; first tarsal joint not swollen and incrassate ..... 9.
8.—Marginal vein long; occipital margin of vertex rounded; antennæ 13-jointed. **Eupelminæ.**
Marginal vein usually very short; antennæ generally 11-jointed; occipital margin of vertex usually acute; parapsidal sutures of mesothorax obliterated ..... **Encyrtinæ.**

9.—Antennæ 8-jointed; parapsidal sutures plain; middle tibial spur moderately long.....**Aphelininæ.**

Antennæ 10–13-jointed.

Antennæ 10-jointed, inserted just above the mouth, rounded and produced at apex; abdomen almost sessile.....**Pireninæ.**

Antennæ 12–13-jointed.

Antennæ 12-jointed, funicle 5-jointed; prothorax very short, scarcely visible in the middle; submarginal vein subangulate, stigmal club often large; abdomen almost sessile; parapsides of mesothorax distinct.....**Tridyminæ.**

Antennæ 12-jointed; abdomen distinctly petiolate; occipital line complete .....**Spalanginæ.**

Antennæ 13-jointed, club 3-jointed, ring joints 2; occipital line not complete.....**Pteromalinæ.**

Section MICROCENTRI.

Antennæ at most 9-jointed; tarsi 4- or 3-jointed.....2.

Antennæ many jointed, funicle 6-jointed; tarsi ♀ 5-jointed....**Tetracampinæ.**

2.—Tarsi 4-jointed.....3.

Tarsi 3-jointed; pubescence of wings arranged in lines..**Trichogramminæ.**

3.—Submarginal vein not broken, postmarginal distinct, submarginal furnished with many bristles; posterior tibiæ sometimes with two spurs; prothorax large.....4.

Submarginal vein broken, costal cellule narrow, postmarginal and stigmal short, the postmarginal sometimes wanting; posterior tibiæ with a single spur; antennæ ♂ simple.....5.

4.—Abdomen usually with a distinct petiole; mesothoracic parapsides very distinct; antennæ inserted below the middle of the face, simple in ♂. **Elachistinæ.**

Abdomen with a transverse, smooth and conspicuous petiole; mesothoracic parapsides not defined, or indicated only by very slight grooves.

Posterior coxæ very large and strongly compressed; head semiglobose, front deeply, sparsely punctate; antennæ ♂ flabellate..**Elasminæ.**

Posterior coxæ normal; postmarginal and stigmal veins rather long; antennæ ♂ often flabellate.....**Eulophinæ.**

5.—Submarginal vein with two bristles or it is ornate; metapleura very small; scutellum with two bristles near the middle.....**Entedoninæ.**

Submarginal vein with from 1 to 5 bristles; metapleura triangular, not small; postmarginal vein usually absent; scutellum with four bristles, all behind the middle, often with two longitudinal impressed lines; abdomen sessile.....**Tetrastichinæ.**

Table of Genera.

Section MACROCENTRI.

Subfamily LEUCOSPIDINÆ.

Ovipositor curved over the dorsum of the abdomen; anterior wings folded; tarsi 5-jointed; posterior femora much swollen; anterior tibiæ armed with a large curved spur.....**Leucospis** Fabr.

Subfamily CHALCIDINÆ.

Abdomen with a long petiole; postmarginal vein long; posterior tibiæ not spurred, produced at tip into a spine.....2.
Abdomen almost sessile; middle tibiæ spurred.....3.
2.—Ovipositor not exserted.
Thorax immaculate; middle tibiæ not spurred at apex.....**Smicra** Spin.
Thorax maculate; middle tibiæ with spurs.....**Spilochalcis** Thoms.
Ovipositor exserted, longer than the body.....**Podagrion** Spin.
3.—Antennæ inserted in the middle of the face.
Abdomen much produced.....**Phasgonophora** Westw.
Abdomen subglobose.....**Chalcis** Fabr.
Antennæ inserted near or not far from the mouth.
Ovipositor exserted, as long as the abdomen....***Acanthochalcis** Cam.
Ovipositor short, usually hidden; posterior tibiæ 2-spurred; posterior femora normal.....**Haltichella** Spin.
Ovipositor short; posterior femora with a single large tooth.
***Notaspis** Walk.

Subfamily EUCHARINÆ.

Mr. Howard states that the genera of this subfamily are in such confusion that a good synopsis cannot be given until they have been thoroughly reviewed, therefore the genera of which species have been described as occurring in our fauna—*Eucharis* and *Thoracantha*—are not characterized in the following table:

Scutellum simple at apex; antennæ 13-jointed, simple in both sexes.
***Orasama** Cam.
Scutellum ending in two short blunt teeth which are not much longer than broad; sides of metathorax with leaf-like expansions at apex; antennæ serrate in ♀, simple in ♂.....***Lophyrocera** Cam.
Scutellum ending in processes which are as long as the abdomen; antennæ ♂ flabellate.
Antennæ with third joint as long as all the succeeding joints together.
***Lirata** Cam.
Antennæ with third joint not much longer than fourth.....***Kapala** Cam.

Subfamily PERILAMPINÆ.

Abdomen not petiolate.
Flagellum compacted into a short club.....***Philomides** Hal.
Flagellum long and only slightly clavate.....**Perilampus** Latr.
Abdomen petiolate.
Mesothorax thickly and deeply punctate.....***Lamprostylus** Först.
Mesothorax not so punctured.....***Elatus** Walk.

Subfamily EURYTOMINÆ.

Marginal vein thick, quadrate, postmarginal and stigmal very short, a lunate or transverse submarginal dusky shade; antennæ ♂ similar to ♀, funicle 4-jointed.....**Decatoma** Spin.

Marginal vein linear, no submarginal fascia; antennæ ♂ verticillate-pilose.
Cheeks usually a ·te; mesothorax umbilicate-punctate.
Scape much longer than first funicle joint ..... **Eurytoma** Illig.
Scape equal in length to first funicle joint ..... ***Bephrata** Cam.
Cheeks usually rounded; mesothorax with more obsolete punctures, not umbilicate-punctate.
Body short; metathorax almost vertical; marginal vein not longer than stigmal ..... **Systole** Walk.
Body long; metathorax sloping gradually; marginal vein longer than stigmal ..... **Isosoma** Walk.

Subfamily Toryminæ.

Ovipositor exserted ..... 2.
Ovipositor not exserted ..... **Ormyrus** Westw.
2.—Antennæ with one ring-joint, flagellum thence 8-jointed ..... 3.
Antennæ with two ring-joints, flagellum thence 7-jointed. ***Lochites** Först.
3.—Stigmal vein with a very large knob; abdomen ♂ much narrowed at base. **Megastigmus** Dalm.
Stigmal vein with no such knob, or with a small knob; abdomen ♂ not narrowed ..... 4.
4.—Posterior femora smooth beneath, with a single tooth at some distance from the knee ..... 5.
Posterior femora finely dentate beneath and usually with a single larger tooth at some distance from the knee ..... 6.
Posterior femora not finely dentate below and with no larger tooth ..... 7.
5.—Scutellum with a cross-furrow behind the middle.
Posterior margin of first abdominal segment straight in both sexes. **Monodontomerus** Westw.
Posterior margin of first abdominal segment incised in the middle in ♀, straight or incised in ♂ ..... **Diomorus** Walk.
Scutellum without a cross-furrow ..... ***Holaspis** Mayr.
6.—Posterior margin of first abdominal segment not incised; tooth of posterior femora often wanting ..... ***Oligosthenus** Först.
Posterior margin of first abdominal segment acutely incised in ♀, straight in ♂; femoral tooth always present ..... ***Cryptopristus** Först.
7.—Scutellum with a clear sharp cross-furrow; posterior margin of first abdominal segment of ♂ entire or incised ..... **Syntomaspis** Först.
Scutellum without trace of a cross-furrow; posterior margin of first abdominal segment of ♂ incised ..... **Torymus** Dalm.

Subfamily Eupelminæ.

Eyes hairy ..... 2.
Eyes not hairy ..... 3.
2.—Second abdominal segment short, not incised ..... ***Brasema** Cam.
Second abdominal segment as long as all the others combined, deeply incised at apex ..... ***Lutnes** Cam.
Second abdominal segment very large, slightly rounded at tip. ***Aseirba** Cam.
3.—Posterior tibiæ and first tarsal joint compressed, broad ..... ***Halidea** Först.
Posterior tibiæ and first tarsal joint neither compressed or broad ..... 4.

4.—Front indented below the antennal grooves; middle ocellus in the antennal groove ..... 5.
Front not indented below the antennal grooves; middle ocellus not situate in the antennal groove..... 6.
5.—Middle tibiæ very long.
Antennæ arising near the border of the mouth.....***Stenocera** Walk.
Antennæ arising far above the mouth-border.....***Polymoria** Först.
Middle tibiæ not very long.....***Ratzeburgia** Först.
6.—Scutellum with a broad base against the mesothorax.....***Calosoter** Walk.
Scutellum with a narrow base.
First tarsal joint of middle legs with strong spines beneath.
Eupelmus Dalm.
First tarsal joint of middle legs without strong spines beneath.
***Charitopus** Först.

Subfamily Encyrtinæ.

Females.

Funicle 4-jointed.....***Cercobelus** Walk.
Funicle 5-jointed.....**Rhopus** Först.
Funicle 6-jointed, except sometimes in *Holcothorax*.....2.
2.—Head with a sharp angle between the face and vertex.***Habrolepis** Först.
Face not angled..... 3.
3.—Scape, funicle and club broadly flattened.....4.
Scape, funicle and club not at all flattened.....5.
4.—Wings developed and colored with brown.....***Cerapterocerus** Westw.
Wings almost always rudimentary; when developed they are hyaline.
Head narrow, facial impression not extending up between the eyes.
***Anusia** Först.
Head thick, facial impression extending between the eyes.***Mira** Schell.
5.—Scutellum with two deep depressions at base; wings rudimentary.
***Ectroma** Westw.
Scutellum without grooves..... 6.
6.—Scutellum crescent-shaped; wings rudimentary.....***Bæocharis** Mayr.
Scutellum 3-cornered, with rounded or not rounded tip..... 7.
7.—Scutellum with a large bunch of hair at tip..... 8.
Scutellum without a large bunch of hair..... 9.
8.—Pedicel shorter than the first funicle joint; mesothorax without silver-white hairs; marginal vein shorter than stigmal.....**Comys** Först.
Pedicel longer than the first funicle joint; mesothorax with silver-white hairs; marginal vein at least as long as stigmal.
Chiloneurus Westw.
9.—Head with very large thimble-like punctures.....10.
Head not with very large punctures; antennal club obliquely truncate...11.
Antennal club not obliquely truncate..... 12.
10.—Wings clear; marginal vein wanting or very short.**Bothriothorax** Ratz.
Wings entirely or somewhat fuscous; marginal vein never very short.
***Phænodiscus** Först.
11.—Facial groove very pronounced.....**Copidosoma** Ratz.
Facial groove slight.....**Homalotylus** Mayr.

12.—Wings rudimentary, or if developed the scutellum is flat or its tip is light colored.....13.

Wings developed: the scutellum arched and with smooth tip.....14.

13.—Scape strongly broadened below..... **Dinocarsis** Först.

Scape not broadened below.

First funicle joint only as long as thick, the scape reaching only to the upper border of the facial impression.....***Choreia** Westw.

First funicle joint longer than thick, the scape reaching beyond the facial impression.....***Erycidnus** Walk.

14.—Mesothorax lustreless.....15.

Mesothorax more or less lustrous.....16.

15.—Mesothorax with fine, sharp, longitudinal striæ; body short; scape very slightly, if at all, broadened; funicle 5- or 6-jointed.

***Holcothorax** Mayr.

Mesothorax with thick, sharp and fine thimble-like punctures; funicle 6-jointed.

Funicle joints thicker than long; marginal vein wanting.

Aphycus Mayr.

Funicle with first five joints longer than thick; marginal vein present, although short.....**Blastothrix** Mayr.

16.—Anterior wings not ciliate; antennæ very long and thin, sixth funicle joint shortest, but five times as long as wide.....**Psilophrys** Mayr.

Anterior wings ciliate; the last funicle joint not so long.

Marginal vein one-half as long again as the stigmal; scapulæ meet in a short carina; antennæ longer than the body..**Leptomastix** Först.

Marginal vein much shorter; scapulæ make no median carina.

Antennæ very thin, the pedicel three times as long as thick, club almost as thin as the funicle joints.....***Liothorax** Mayr.

Antennæ thicker, the pedicel shorter, club stouter than the funicle.

Encyrtus Dalm.

Males.

Funicle with only two short joints, the club unusually long and cylindrical.

Habrolepis Först.

Funicle 6-jointed.....2.

2.—Mesothorax with a deep impression before tegulæ; second and fifth funicle joints 3-cornered when seen from the side..***Prionomitus** Mayr.

Mesothorax without impression; funicle joints not triangular.....3.

3.—Funicle joints each with two half whorls of long hairs.....4.

Funicle joints equally clothed with long or short hairs, no half whorls....5.

4.—Marginal vein longer than stigmal.

Mesothorax with close flat silver-white hairs; scutellum usually with a bunch of upright spiny hairs at tip.....**Chiloneurus** Westw.

Mesothorax with brownish yellow hairs; scutellum with no erect bunch of hairs.....***Cerapterocerus** Westw.

Marginal vein shorter than stigmal.

Head and upper side of thorax thickly covered with very large round punctures.....**Bothriothorax** Ratz.

Head and thorax not so sculptured.
Wings with long cilia; head and thorax very finely shaggreened and lustrous; body small and flat.....**Rhopus** Först.
Wings with short cilia; body finely punctured, lustreless.
Blastothrix Mayr.

5.—Scutellum with a bunch of erect black hairs before its tip....**Comys** Först.
Scutellum with no bunch of hairs.....6.
6.—Funicle strongly compressed.....7.
Funicle not or but slightly compressed.....8.
7.—Scape quite strongly broadened below; scutellum flat; wings rudimentary.
Dinocarsis Först.
Scape not compressed; scutellum strongly transversely arched; wings developed.....*Prionomastix Mayr.
8.—Head and mesothorax with thick and sharp round punctures; marginal vein wanting or very short.....**Copidosoma** Ratz.
Head and mesothorax not so sculptured.....9.
9.—Mesothorax lustreless, no sculpture perceptible with a low power.....10.
Mesothorax moderately or strongly lustrous and usually with easily perceptible sculpture.....11.
10.—Middle of face transversely strongly arched; mesothorax, under a high power, with close longitudinal line or impressions; pedicel shorter than first funicle joint.....*Holcothorax Mayr.
Face delicately arched; pedicel longer than first funicle joint.
Aphycus Mayr.
11.—Marginal vein evidently longer than the stigmal.....*Ericydnus Walk.
Marginal vein usually shorter than the stigmal, seldom as long, or the wings are rudimentary.....12.
12.—Wings rudimentary.....13.
Wings developed.....14.
13.—Scutellum large, very flat, reaching to the base of the first abdominal segment.....*Choreia Westw.
Scutellum small, arched, not reaching to the abdomen.
***Bæocharis** Mayr.
14.—Head covered with large shallow impressions, over these thickly and finely punctured.....*Phænodiscus Först.
Head not much punctured, usually with only a few scattered impressions near the eyes.
Head lengthened below the eyes, trapezoidal when seen from before.
Psilophrys Mayr.
Head not lengthened below the eyes, round or oval when seen from before.
Encyrtus Dalm.

Subfamily Aphelininæ.

Anterior wings with a hairless line, extending from the stigma transversely towards base of the wing; antennæ apparently 6-jointed.....2.
Anterior wings with no hairless line; antennæ plainly 8-jointed.....3.
2.—Anterior wings dusky on basal half and furnished with cilia towards the tip.....*Plastocharis Först.
Anterior wings not dusky, and not with especially long cilia.
Three antennal joints before the club of equal length..*Mesidia Först.

Three antennal joints before the club of unequal length.
Ovipositor exserted to more than one-third the length of the abdomen.
***Centrodora** Först.
Ovipositor not at all, or but slightly exserted.....**Aphelinus** Dalm.
3.—Antennal club only 2-jointed; hind margin of posterior wings with very long cilia..... ***Encarsia** Först.
Antennal club 3-jointed; hind margin of posterior wings without very long cilia.....**Coccophagus** Westw.

Subfamily Pireninæ.

Wings with postmarginal and stigmal very short; ventral valvules not reaching to anus; antennæ short, clavate, at least the first two funicle joints annuliform.
Antennæ with two ring-joints; eyes of ♂ strongly converging above.
Macroglenes Westw.
Antennæ with at least three ring-joints; scutellar frenum horizontal.
***Pirene** Hal.
Wings with postmarginal and stigmal veins long; ventral valvules reaching to anus; antennæ with one or no ring-joints; ovipositor exserted.
***Henicetrus** Thom.
Wings with postmarginal and stigmal veins moderately long; ventral valvules not reaching to anus; antennæ without ring-joints; ovipositor not exserted; abdomen with a large tuft of hair on each side of petiole.
Dilophogaster Howard.

Subfamily Tridyminæ.

Antennæ inserted slightly above the clypeus, which is rounded and produced at apex; parapsides distinct.....***Tridymus** Ratz.
Antennæ inserted at the middle of the front; clypeus not produced; antennæ with both ring-joints visible.
Parapsides plain; front impressed with many dots.
Wings ciliate at apex.....**Semiotellus** Westw.
Wings not ciliate; thorax slightly rugoso-punctate..... ***Systasis** Walk.
Parapsides not plain.....***Metastenus** Walk.

Subfamily Spalanginæ.

Body æneous; wings with a short marginal vein.....***Isocratus** Först.
Body wingless, or with a long marginal vein.
Body not at all or very slightly metallic; frenum not discernible.
Body not metallic; mesothorax opaque, punctate; abdomen conico-subulate.
***Tricoryphus** Först.
Mesothorax submetallic, polished.
Body winged; metathorax strongly punctate....***Cerocephala** Westw.
Body winged or wingless; metathorax smooth; mandibles of usual size.
Theocolax Westw.
Body winged; mandibles very large, three times the length of the head.
***Paralæsthia** Cam.
Body metallic; antennæ inserted in the anterior margin of the oblong head; frenum large, distinct.....**Spalangia** Latr.

Subfamily PTEROMALINÆ.

Table of Tribes.

Posterior tibiæ 2-spurred.....2.
Posterior tibiæ 1-spurred, except sometimes in the *Chiropachides* and *Pteromalides* (vide table of genera).....3.
2.—Parapsides of mesothorax discernible, or indicated anteriorly.
Abdomen with a more or less distinct petiole, usually long; parapsides discernible anteriorly or complete.....**Mischogastrides.**
Abdomen almost sessile; parapsides complete.....**Cleonymides.**
Parapsides of mesothorax not at all discernible.....**Colotrechnides.**
3.—Anterior femora enlarged.....**Chiropachides.**
Anterior femora not enlarged.
Head very large, broad, excavated in front, with two acute tubercles on each side.....**Caratomides.**
Head not especially large.
Clypeus in the middle at apex acutely bidentate; marginal vein of anterior wings often thickened.....**Sphegigastrides.**
Clypeus not bidentate; marginal vein not at all or very slightly thickened.
Wings with a long marginal vein, short stigmal and almost no club.
Diparides.
Wings with the stigmal club always quite pronounced.
Pteromalides.

Table of Genera.

Tribe *Mischogastrides.*

Mesothoracic parapsides plainly discernible.....2.
Mesothoracic parapsides not plainly separated; antennæ with a long scape.....6.
2.—Collar not separated.....3.
Collar separated; parapsides not convex, petiole short..***Toxeuma** Walk.
3.—Dorsum of mesothorax and parapsides convex.....4.
Dorsum of mesothorax much flatter; parapsidal sutures not deep, posteriorly delicate but complete.....5.
4.—Petiole short or moderately so; left mandible 3-dentate.
Petiole rugose or smooth; ♂ trophi normal.....**Lamprotatus** Westw.
Petiole punctate, subdepressed; wings with a very large stigmal club.
Dorsum sericeo-punctate; trophi normal.....***Gitognathus** Thom.
Dorsum squamo-punctate; ♂ trophi normal....***Stictomischus** Th.
Petiole very short; both mandibles 3-dentate; stigmal club small.
***Scladerma** Walk.
Petiole long; both mandibles 4-dentate; stigmal club large.
***Mischogaster** Walk.
5.—Metathorax rugose; ♂ antennæ subclavate.....***Megorismus** Walk.
Thorax short; scutellar furrows almost straight.....***Ormocerus** Walk.
6.—Marginal and postmarginal veins long; ♂ trophi abnormal.
***Halticoptera** Spin.
Marginal and submarginal veins not long; ♂ trophi normal.
***Dicyclus** Walk.

Tribe *Cleonymides.*

Eyes hairy; labrum conspicuous; mandibles rather weak; ring-joints of antennæ large.

Body metallic.....**Cleonymus* Latr.

Body scarcely metallic; abdomen subrotund; antennæ clavate.

**Micradelus* Walk.

Eyes smooth; labrum hidden; mandibles strong, the left 3- and the right 4-dentate.

Scutellar frenum with transverse impressions; head with rounded convex cheeks.....**Trigonoderus* Westw.

Scutellar frenum without transverse impressions; head triangular, narrow anteriorly.

Abdomen sessile.....**Platygerrhus* Thom.

Abdomen with a distinct petiole.....**Photismus* Thom.

Tribe *Colotrechnides.*

Posterior tibiæ 2-spurred; parapsides of mesothorax not at all discernible.

**Colotrechnus* Thom.

Tribe *Chiropachides.*

Posterior tibiæ with two spurs; wings banded; marginal vein not thickened...2.

Posterior tibiæ with one spur.....3.

2.—Anterior femora exciso-dentate; posterior tibial spurs arcuate; wings with two transverse bands.....*Chiropachys* Westw.

Anterior femora simple; wings with but one band, stigmal club large, horizontal.....**Acrocormus* Först.

3.—Marginal vein of anterior wings thickened.

Antennæ with the ring-joints large, not transverse; anterior coxæ subcylindrical; stigmal club obsolete.....**Pandelus* Först.

Antennæ with transverse ring-joints; cyaneous.

Stigmal and postmarginal veins short.....**Metacolus* Först.

Stigmal vein longer than marginal; ♀ with antennal club stylate at apex.....**Raphitelus* Walk.

Marginal vein of anterior wings not thickened.

Stigmal club very large; anterior margin of prothorax sharp.

**Dinotus* Först.

Stigmal club small or moderately so; anterior margin of prothorax rounded.....**Rhopalicus* Först.

Tribe *Caratomides.*

Posterior tibiæ 1-spurred; anterior femora not enlarged; head very large, broad, excavated in front, with two acute tubercles on each side.

**Caratomus* Dalm.

Tribe *Sphegigastrides.*

Anterior wings with a delicate marginal vein; petiole punctate above, longer than broad.....2.

Anterior wings with a thick marginal vein; petiole shorter than the posterior coxæ.....5.

2.—Petiole longer than posterior coxæ; ♂ palpi normal.....3.
Petiole not longer than posterior coxæ; second segment of abdomen deeply emarginate and the third very large; ♂ palpi abnormal.....4.
3.—Head with compressed cheeks, vertex not very narrow.
Parapsides discernible.....*__Merismus__ Walk.
Parapsides not plainly discernible.
Abdominal segments 2 and 3 very large.....*__Sphegigaster__ Spin.
Abdominal segment 2 very large, the others short, often retracted.
*__Cryptoprymnus__ Först.
Head with rounded cheeks, sublenticular, vertex narrow; postpetiole very large; collar broad.....*__Syntomopus__ Walk.
4.—Vertex acute in the middle; parapsides indistinct....*__Cyrtogaster__ Walk.
Vertex not acute medially; parapsides plainly discernible.
*__Polycystus__ Westw.
5.—Parapsides plainly separated; stigmal club large.....*__Pachycrepis__ Först.
Parapsides not plainly distinguished.....__Pachyneuron__ Walk.

Tribe *Diparides.*

Petiole shorter than posterior coxæ; ♂ antennæ not verticillate-pilose.
*__Panstenon__ Walk.
Petiole linear, longer than coxæ; postpetiole very large; ♂ antennæ with well separated joints, sparsely verticillate.....*__Dipara__ Walk.

Tribe *Pteromalides.*

Posterior tibiæ 2-spurred.....*__Dimachus__ Thom.
Collar not separated; funicle filiform, joint 1 large.
Marginal vein thickened, stigmal nearly same length or a little longer; body short.....Subgen. *__Cænocrepis__ Thom.
Marginal vein delicate, longer than stigmal.
Abdomen with a basal yellow band.....Subgen. *__Dimachus__ Thom.
Abdomen without band.....Subgen. *__Hemitrichus__ Thom.
Collar separated.
First funicle joint short.
Antennæ short, clavate.....Subgen. *__Habritus__ Thom.
Antennæ filiform.....Subgen. *__Dinarmus__ Thom.
First funicle joint cylindrical; antennæ filiform...Subgen. *__Picroscytus__ Th.
Posterior tibiæ 1-spurred.....2.
2.—Antennal club subulate ♀, or conico-acuminate ♂; metathorax punctate, no fold and no spiracular sulcus.....__Merisus__ Walk.
First funicle joint short; rim of the metathorax with large punctures; coxæ all rufous.....Subgen. __Bœotomus__ Först.
First funicle joint as long as the following.
Abdomen subcylindrical, joint 3 short.....Subgen. __Merisus__ Walk.
Abdomen subovate, dorsum often flattened..Subgen. *__Homoporus__ Thom.
Antennal club not subulate.....3.
3.—Antennæ inserted below the middle of the face; stigmal club scarcely discernible; vertex not medially acute; cheeks round; abdomen not rotund; left mandible 3-, right 4-dentate; joint 1 of funicle equal to the others in size, rarely abruptly smaller.....__Eutelus__ Walk.

Marginal vein one and a half times as long as the stigmal; metathorax with distinct lateral folds; club of ♂ antennæ blackish.

Head with narrow vertex; ♀ ocelli placed in a very slightly curved line; thorax short..... .....Subgen. **Eutelus** Walk.

Head with broad vertex; clypeus incised or truncate at apex; ocelli large, placed in a triangle; thorax long, margin of collar sharp; abdomen elongate, triangular.....Subgen. ***Platytermus** Thom.

Marginal vein not at all or but slightly longer than stigmal; metathorax without lateral fold; first funicle joint very small; vertex and collar narrow.

Antennæ inserted a little below the middle of the face.

Subgen. ***Amblymerus** Thom.

Antennæ inserted slightly above the clypeus; metathorax very short.

Subgen. ***Psilonotus** Thom.

Terebra exserted; funicle of antennæ thick, joint 1 in ♀ abruptly smaller; thorax above smooth; metathorax very short.

***Roptrocerus** Ratz.

Antennæ inserted almost in the middle of the face which is impressed with large punctures.....Subgen. ***Roptrocerus** Ratz.

Antennæ inserted scarcely above the clypeus.....Subgen. ***Anogmus** Först.

Joint 1 of antennal funicle most usually large, very rarely abruptly smaller than the others; posterior coxæ not pubescent on the hind margin at base; left mandible usually 3-dentate, the dentations broad at base.

***Ætroxys** Westw.

Clypeus armed apically in the middle with a tooth; thorax long, collar acutely margined and dilated laterally; metathorax with short folds or none at all.....Subgen. ***Stenomalus** Thom.

Clypeus without apical tooth, but with a sinuate or truncate apex.

Wings with a large stigmal club; head with the cheeks often rounded; collar separated, acute and not narrow medially.

Metathorax short; clypeus incised in apical middle; mesothoracic episterna reaching to coxæ.....Subgen. ***Cecidos iba** Thom.

Metathorax not short, often with a fold and often also with a slight transverse carina; head and thorax usually rigido-pubescent.

Subgen. ***Cænacis** Först.

Wings with a small or medium sized stigmal club; head often triangular and with prominent eyes; collar often not at all or slightly separated.

Head triangular, narrowed towards mouth, face not rigido-pubescent; eyes large, convex, round; præsternum large; mesosternal groove distinct; the round spiracles remote from postscutellum.

Collar acute.

Vertex acute in the middle .....Subgen. ***Ætroxys** Westw.

Vertex not acute in the middle.

First funicle joint small.....Subgen. ***Cricellius** Thom.

First funicle joint large.....Subgen. ***Holcæus** Thom.

Collar not separated..... Subgen. ***Stinoplus** Thom.

Head usually with bulging cheeks; eyes not prominent; sternal groove obsolete; vertex not acute medially; metathoracic spiracles usually large, oval; collar not at all or slightly acute; first funicle joint longer than pedicel.

Collar broad; head with bulging cheeks; left mandible 3-dentate. Subgen. *Habrocytus Thom.

Collar narrow medially; head narrowing towards mouth; both mandibles 3-dentate. ..... Subgen. *Spintherus Thom.

Anterior margin of collar sharp, acutely reflected; mandibles acutely 4-dentate. ***Isocyrtus** Walk.

Eyes hairy; metathorax long, its apical border with large punctures; abdomen with its second segment smooth at base, the third not small. Subgen. *Isocyrtus Walk.

Eyes smooth; second abdominal segment with a dense fringe on sides, not large, the third small.

Vertex broad; head short, thick, eyes round and prominent; funicle of ♂ antennæ alternately white..... Subgen. *Polycelis Thom.

Vertex not broad, eyes subovate..... Subgen. *Trichomalus Thom.

Head with the vertex sometimes medially acute; eyes occasionally hairy; mandibles usually 4-dentate; antennæ often inserted below the middle of the face; ring-joint plainly discernible; metathorax usually punctulate and furnished with a carina; abdomen often rotund, never produced at apex in ♀ ....**Pteromalus** Swed.

Eyes hairy; antennæ incrassate; vertex sharp in the middle.

Wings maculate; ♀ abdomen short, ovate; tibiæ with rigid bristles. Subgen. *Halizous Thom.

Wings immaculate; abdomen rotund..... .....Subgen. *Trichoglenus Thom.

Eyes smooth.

First funicle joint small..... Subgen. *Meraporus Walk.

First funicle joint large.

Metathorax with a large subglobose neck; flagellum of antennæ filiform; ♀ abdomen ovate-acute; postmarginal vein longer than stigmal.

Wings entirely pubescent; head with concave cheeks; neck of metathorax smooth..... Subgen. *Catolaccus Thom.

Wings with a large clear spot; neck of metathorax punctate. Subgen. Pteromalus Swed.

Metathorax usually with a very small neck; postmarginal vein often shorter than stigmal, very rarely longer; ♀ abdomen usually rotund.

Postmarginal longer than stigmal; neck of metathorax short; abdomen oval-rotund; vertex broad..... Subgen. *Diglochis Thom.

Postmarginal shorter than stigmal or equal to it.

Abdomen oblong.

Vertex rounded medially; ♀ abdomen ovate, convex below; ♀ wings often marked with large smoky discs; club of ♀ antennæ small, shorter than pedicel..... Subgen. *Arthrolytus Thom.

Vertex acute medially..... Subgen. *Dibrachys Thom.

Abdomen rotund; cheeks compressed, acute; wings hyaline, postmarginal shorter than stigmal... Subgen. *Cœlopisthus Thom.

Mandibles with three acute strong teeth; collar narrow, scarcely discernible. **Metopon** Walk.

Antennæ ♀ strongly incrassate, subclavate; ♂ antennæ verticillate-pilose. Subgen. Metopon Walk.

Antennæ ♀ with the flagellum of equal width throughout; ♂ antennæ pubescent or densely clothed with short hairs; ♀ abdomen rotund.
Subgen. ***Dirhicnus** Thom.

Section MICROCENTRI.

Subfamily TETRACAMPINÆ.

Mesopleura not divided; ♂ tarsi 4-jointed; marginal vein long, narrow.
***Tetracampe** Först.

Mesopleura divided; ♂ tarsi 5-jointed; marginal vein large, black, oblong-ovate.
***Platynochilus** Westw.

Subfamily ELACHISTINÆ.

Abdomen with a more or less distinct petiole.....2.
Abdomen subsessile; scutellum with two dorsal impressed lines; posterior tibiæ with one spur.....3.

2.—Posterior tibiæ with very long spurs; vertex medially and collar acute.
Euplectrus Westw.

Posterior tibiæ with one or two short spurs; prothorax subconical.

Posterior tibiæ with one spur; scutellum with two dorsal lines.

Thorax ornamented with light colors; scutellar sutures straight.
Stenomesius Westw.

Thorax not ornamented with lighter colors; body, or at least the head, metallic.....**Elachistus** Spin.

Posterior tibiæ with two spurs; body not metallic; scutellum without dorsal lines.....**Miotropis** Thom.

3. Body winged, metallic, often ornate.....**Cirrospilus** Westw.
Body not metallic; wings short or wanting.....**Melittobia** Westw.

Subfamily ELASMINÆ.

Tarsi 4-jointed; posterior coxæ very large and strongly compressed; head semiglobose, front deeply but sparsely punctured; antennæ ♂ flabellate: submarginal vein not broken, furnished with many bristles, postmarginal distinct; prothorax large; mesothoracic parapsides not defined or indicated only by very slight grooves; abdomen with a transverse smooth and conspicuous petiole.....**Elasmus** Westw.

Subfamily EULOPHINÆ.

Scutellum without dorsal lines.....2.
Scutellum with dorsal lines; funicle and club of ♀ 3-jointed.....9.

2.—Antennæ inserted in middle of the face; scape reaching far above the ocelli; ♂ antennæ with three branches; posterior tibiæ with one spur.
***Hemiptarsenus** Westw.

Antennæ inserted far below the middle of the face; scape reaching no higher than the ocelli; posterior tibiæ usually with two spurs.....3.

3.—Parapsidal sutures complete, but delicate.....4.
Parapsidal sutures not discernible.....5.

4.—Antennæ of ♂ 3-branched; abdomen elongate.....***Teleogmus** Thom.
Antennæ of ♂ simple.....***Olinx** Först.

5.—Posterior tibiæ evidently with two spurs. ....6.
Posterior tibiæ with one spur..... ....*__Necremnus__ Thom.
6.—Marginal vein at least three times as long as stigmal; ♂ antennæ simple, the funicle 5-jointed..... ....__Sympiesis__ Först.
Marginal vein not thrice as long as stigmal; ♂ antennæ 3-branched, very rarely simple.....7.
7.—Thorax very robust..... ....*__Cratotechus__ Thom.
Thorax not robust..... ....8.
8.—Flagellum of ♀ antennæ compressed, fusiform, that of ♂ with very short branches; wings of ♀ dusky.....*__Microplectron__ Dalm.
Flagellum of ♀ antennæ not compressed-fusiform.
Funicle of ♀ antennæ white, of ♂ with short branches.
*__Microlycus__ Thom.
Funicle of ♀ black, of ♂ with long branches.....__Eulophus__ Geoff.
9.—Posterior tibiæ with two spurs.....*__Diglyphus__ Thom.
Posterior tibiæ with one spur..... ....*__Solenotus__ Först.

Subfamily ENTEDONINÆ.

Funicle of ♂ antennæ strongly toothed and furnished with whorls of hair.
__Astichus__ Först.
Funicle of ♂ antennæ not toothed.....2.
2.—Scutellum with a median furrow..... ....*__Holcopelte__ Först.
Scutellum without a median furrow..... ....3.
3.—Wings with a seeming marginal cell formed by the hairs...*__Secodes__ Först.
Wings without such a cell.....4.
4.—Postmarginal vein broken just distad of the stigmal. 5
Postmarginal vein not broken after the stigmal.....6.
5.—Submarginal vein strongly thickened... ....*__Pleuropachys__ Westw.
Submarginal vein not thickened.
Metathorax with lateral carinæ..... ....__Pleurotropis__ Först.
Metathorax without carinæ.
Scutellum scaley.. ....__Entedon__ Dalm.
Scutellum smooth ....*__Asecodes__ Först.
6.—Abdomen elongate, pointed..... ....*__Omphale__ Hal.
Abdomen not especially elongate.
Antennæ 8-jointed..... ....*__Chrysocharis__ Först.
Antennæ 9-jointed..... ....__Derostenus__ Westw.

Subfamily TETRASTICHINÆ.

Scutellum without furrows..... ....2.
Scutellum with two furrows..... ....3.
2.—Wings without a stigmal vein..... ....*__Anozus__ Först.
Wings with a stigmal vein.
Entire margin of the wings with very long hairs. .....__Gyrolasia__ Först.
Cilia of anterior wings not long; thorax strongly punctate.
*__Euderus__ Hal.
3.—Scape greatly thickened..... ....4.
Scape not especially thickened... .... 5.
4.—Anterior wings with long cilia around the entire margin.
*__Ceranisus__ Walk.

Anterior wings without cilia on anterior margin.....***Baryscapus** Först.
5.—Antennæ 10-jointed, without ring-joint.....**Oxymorpha** Först.
Antennæ ♂ 9-jointed, without ring-joints, in ♀ 10-jointed with two ring-joints and a 3-jointed club.....**Tetrastichus** Hal.

Subfamily TRICHOGRAMMINÆ.

Anterior wings with regular rows of hairs .....2.
Anterior wings without regular rows of hairs .....4.
2.—Submarginal vein not reaching the costa .....***Ophioneurus** Ratz.
Submarginal vein reaching the costa.....3.
3.—Antennæ 8-jointed; submarginal, marginal and stigmal veins forming a regular arch.....**Trichogramma** Westw.
Antennæ with less than 8 joints; submarginal, marginal and stigmal veins not forming a regular arch.
Wings with very long cilia on their margin.....***Chætosticha** Walk.
Wings with only short cilia from marginal vein to apex.
Antennæ 7-jointed, with one ring-joint and a 4-jointed club.
***Lathromeris** Först.
Antennæ 6-jointed, without ring-joint, and with a 3-jointed club.
***Centrobia** Först.
4.—Antennæ 7-jointed .....***Asynacta** Först.
Antennæ 6-jointed.
Anterior wings broad, with short cilia around the margin.
***Brachysticha** Först.
Anterior wings narrow, with long cilia.....***Oligosita** Hal.

As will be seen by the large number of starred genera in the above tables, our species of this family have been very little studied, and on this account a tolerably full synopsis is given. Of the 175 genera characterized, only 59 appear in the List of described species given further on. Many of the genera have been recognized in collections, but descriptions of the species have not yet been published, e. g. *Notaspis*, *Halidea*, *Phænodiscus*, *Centrodora*, *Mischogaster*, *Rhopalicus*, *Caratomus*, *Roptrocerus*, *Bephrata*, *Pirene*, *Ophioneurus*, etc.

The genera *Metapelma* Westw., *Paphagus* Walk., *Glyphe* Walk., *Epistenia* Westw., *Norbanus* Walk., *Tetracnemus* Westw., and *Aerias* Walk., of which species have been described as occurring in our fauna, are so insufficiently characterized, that Mr. Howard has been obliged to omit them in the synoptic tables.

Before leaving this subject, the compiler desires to gratefully acknowledge his thanks to Mr. Howard for the valuable information and aid he has most kindly given him, especially in preparing the list of our genera and species that have been described of this family, and also of the Proctotrupidæ, in which groups he is the only recognized authority in this country.

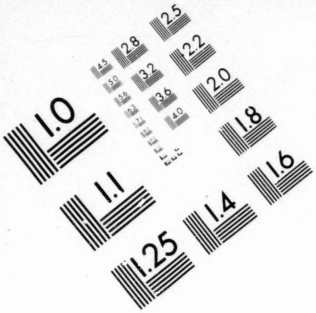
Family PROCTOTRUPIDÆ.

This family is closely allied in many respects to the Chalcididæ, but is readily distinguished by the posterior margin or angles of the prothorax extending to the tegulæ, and the ovipositor issuing from the apex of the abdomen. The species are generally very small and are usually shining black or brown in color and have some very curious forms, exhibiting a singular diversity of structure. The wings are generally almost veinless, but in some of the subfamilies, e. g. Dryininæ, Emboleminæ and Helorinæ, the marginal, submarginal or discoidal cells are often completely closed, and in this respect closely resemble the neuration of certain Braconidæ; the posterior wings are almost always destitute of veins and are distinctly lobed near the base in the Dryininæ, Emboleminæ and most, if not all, of the Bethylinæ. The species have been but little studied in this country and consequently only a few have been described. The following tables have been copied from those of Mr. Howard, published in the thirteenth volume of these Transactions:

Table of Subfamilies.*

Posterior wings with a distinct lobe near base, or, where the wings of the ♀ are wanting, the anterior feet are fitted for grasping.....2.
Posterior wings not lobed.....3.
2.—Antennæ ♂ and ♀ with same number of joints.....Dryininæ.
Antennæ ♂ 10-jointed, ♀ 13-jointed.....Emboleminæ.
3.—Anterior tibiæ with two spurs.....Ceraphroninæ.
Anterior tibiæ with one spur.....4.
4.—Mandibles not toothed.....Proctotrupinæ.
Mandibles toothed.....5.
5.—Abdomen acutely margined on the sides; antennæ arising near the border of the mouth.....6.
Abdomen not acutely margined; antennæ arising far above the border of the mouth.....7.
6.—Anterior wings with a marginal vein and occasionally also a stigmal; the unwinged genera without ocelli.....Scelioninæ.
Anterior wings without marginal and stigmal veins; all the genera with ocelli.....Platygasterinæ.
7.—Posterior wings without trace of a median vein.....8.
Posterior wings with a median vein.....9.
8.—Posterior wings very small, almost linear.....Mymarinæ.
Posterior wings broader, not linear.....Diaprinæ.

* The absence of the subfamily Bethylinæ in this table is explained by Mr. Howard, on page 169 of his "Synopsis" referred to above; since then strenuous efforts have been made to obtain a copy of Haliday's work, from correspondents in Europe, but without success. The genera belonging to this subfamily, however, are characterized below.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9.—Anterior wings with or without a regular basal vein; flagellum without a ring-joint..... **Belytinæ.**

Anterior wings with an abruptly broken basal vein, from one end of which arises a cubital vein distinguished by its irregular course; both together these form an irregular discoidal cell; flagellum with one ring-joint..... **Helorinæ.**

Table of Genera.

Subfamily Dryininæ.

Vertex deeply impressed..... 2.
Vertex convex, not impressed..... 3.
2.—With wings..... **Dryinus** Latr.
Without wings..... **Gonatopus** Ljungh.
3.—Occiput deeply concave; vertex and neck separated by a sharp angle.
***Labeo** Hal.
Occiput feebly concave; vertex and neck not so distinctly separated..... 4.
4.—Anterior tarsi ♀ with scissor-like or pincer-like claws; ♂ prothorax visible above, but not longer than mesothorax..... 5.
Anterior tarsi ♀ not scissor- or pincer-like; ♂ prothorax above not visible, or longer than mesothorax..... 6.
5.—Fourth joint of anterior tarsi ♀ much longer than third; prothorax ♂ ♀ as long as, or nearly as long as mesothorax..... **Chelogynus** Hal.
Fourth tarsal joint ♀ as long as, or scarcely longer than third; prothorax ♂ ♀ much shorter than mesothorax..... **Anteon** Jur.
6.—Prothorax much longer than mesothorax, the latter without a trace of a furrow; wings short, spoon-shaped..... ***Mystrophorus** Först.
Prothorax above not, or very slightly visible; mesothorax very strongly developed, with distinct furrows; wings ♂ ♀ fully developed.
***Aphelopus** Dalm.

Subfamily Embolemin æ.

Eyes arched, ocelli large; scape shorter than the first funicle joint.
***Embolemus** Westw.
Eyes flat, ocelli very small; scape much longer than first funicle joint; wings rudimentary..... ***Pedinomma** Först.

Subfamily Bethylinæ.

Head without ocelli..... **Sclerochroa** Först.
Head with ocelli..... 2.
2.—Anterior wings with a complete marginal cell..... ***Sierola** Cam.
Anterior wings with a nearly complete marginal cell..... 3.
Anterior wings without a marginal cell..... 4.
3.—Basal vein with a branch directed backwards.
Antennæ 12-jointed ♂ ♀..... ***Perisemus** Först.
Antennæ 13-jointed..... **Goniozus** Först.
Basal vein without a branch.
Parapsidal furrows plain; abdominal segments of almost equal length.
Epyris Westw.
Parapsidal furrows wanting; abdominal segments of unequal length.
***Isobrachium** Först.

4.—Anterior wings with a marginal and a stigmal vein.....**Bethylus** Latr.
Anterior wings without marginal and stigmal veins.
Antennæ 13-jointed.....*Ateleopterus Först.
Antennæ 12-jointed.....*Holopedina Först.

Subfamily Ceraphroninæ.

Head flat, perfectly horizontal; vertex with a median furrow.*Synarsis Först.
Head more rounded, not perfectly horizontal; vertex without a median furrow.2.
2.—No ocelli.....*Lagynodes Först. ♀.
With evident ocelli.....3.
3.—Wings without a plain marginal cell, or narrow with a linear marginal cell.4.
Wings with a broad marginal cell.....5.
4.—Head with a sharp tooth between the bases of the antennæ.
*Lagynodes Först. ♂.
Head without such a tooth.....Ceraphron Jurine.
5.—Wings perfectly hairless.....*Trichosteresis Först.
Wings hairy.
Antennæ ♂ toothed or branched; eyes ♀ smooth, not hairy.
Mesothorax with furrows.....*Lygocerus Först.
Mesothorax without furrows.....*Atritomus Först.
Antennæ ♂ filiform; eyes ♀ hairy.....Megaspilus Westw.

Subfamily Proctotrupinæ.

Mandibles not toothed; posterior wings not lobed; anterior tibiæ with one spur.
Proctotrupes Latr.

Subfamily Scelioninæ.

Antennal club not jointed.....2.
Antennal club jointed.....3.
2.—Winged.....*Thoron Hal. ♀.
Not winged or with short wing-pads.
Without scutellum.....*Bæus Hal.
With an evident scutellum.....*Acolus Först.
3.—Submarginal vein shortened, not reaching the costa....*Bæoneura Först.
Submarginal vein not shortened, reaching the costa.....4.
4.—Marginal vein very long, at least four or five times as long as stigmal.....5.
Marginal vein short, usually shorter than stigmal.....6.
5.—Mesothorax with two sharp, distinct, complete furrows; antennæ of ♂ long, with whorled hairs (of ♀ club-shaped).....*Xenomerus Walk.
Mesothorax not furrowed; antennæ of ♂ without whorled hairs.
Posterior tarsi thickened; intermediate tibiæ with weak spurs.
*Teleas Latr.
Posterior tarsi not thickened, intermediate tibiæ without spurs.
*Prosacantha Nees.
6.—First segment small, the abdomen not broadening from it.....7.
First segment broad, the abdomen broadening from it.....8.
7.—Second abdominal segment largest.....Telenomus Hal.
Third abdominal segment largest.
Stigmal vein thickened at base.....*Anteris Först.
Stigmal vein not thickened at base.....*Baryconus Först.

8.—Face with a sharp spur ..... ***Sparasion** Latr.
Face without a spur ..... 9.
9.—Postmarginal vein strongly lengthened, longer than stigmal ..... 10.
Postmarginal vein wanting, or shorter than stigmal ..... 11.
10.—Postscutellum with a spur ..... ***Trimorus** Först.
Postscutellum without a spur.
Antennæ ♀ filiform ..... ***Apegus** Först
Antennæ ♀ club-shaped, or ♂ filiform.
Marginal vein punctiform; last joint of antennal club twice as long as the preceding joint. ..... ***Gryon** Hal.
Marginal vein half as long as the shaft of the stigmal: last joint of antennal club scarcely longer than the preceding.
Hadronotus Först.
11.—Postmarginal vein wanting ..... **Scelio** Latr.
Postmarginal vein present, but much shorter than stigmal.... ***Idris** Först.

Subfamily PLATYGASTERINÆ.

Submarginal vein with a knob at tip ..... 2.
Submarginal vein without a knob at tip ..... 7.
2.—Tarsi 4-jointed ..... ***Iphetrachelus** Hal.
Tarsi 5-jointed ..... 3.
3.—Antennæ 9-jointed, dentate in ♂ ..... ***Allotropa** Först.
Antennæ 10-jointed, not dentate in ♂ ..... 4.
4.—Wings with a basal and a median vein ..... 5.
Wings without basal and median veins ..... 6.
5.—Last three funicle joints much larger than the rest, forming a club.
***Metaclisis** Först.
Last funicle joint alone longer than the preceding.... ***Monocrita** Först.
6.—Basal ocelli nearer the apical than to the inner margin of the eye.
Isostasius Först.
Basal ocelli nearer the inner margin of the eye than to the apical ocellus.
First abdominal segment ♀ with a horn ..... **Inostemma** Hal.
First abdominal segment ♀ without a horn. ..... ***Acerota** Först.
7.—Scutellum more or less lengthened, never semicircular, or when shortened it is compressed at the sides and furnished with an awl-shaped or warty tip ..... 8.
Scutellum not lengthened, semicircular, either flat or convex ..... 14.
8.—Thorax strongly compressed from the sides ..... ***Catillus** Först.
Thorax not compressed ..... 9.
9.—Scutellum lengthened, without thorn-, awl-, or wart-shaped tip ..... 10.
Scutellum lengthened, with a thorn-, awl- or wart-shaped tip ..... 11.
10.—Parapsidal furrows deep, parallel posteriorly ..... ***Xestonotus** Först.
Parapsidal furrows very feebly impressed or absent. ***Amblyaspis** Först.
11.—Scutellum extended in a more or less strong thorn ..... 12.
Scutellum extended in an awl- or wart-shaped tip, somewhat shortened and compressed laterally ..... 13.
12.—Basal ocelli nearer the eyes than to the apical ocellus; club of ♀ antennæ 4-jointed ..... ***Leptacis** Först.
Basal ocelli not nearer the eyes; club of ♀ antennæ 3-jointed.
***Isorhombus** Först.

13.—Abdomen very much lengthened.....*Ectadius* Först.
Abdomen not especially lengthened.
Second ventral segment ♀ strongly compressed....*Sactogaster* Först.
Second ventral segment not compressed.....*Synopeas* Först.
14.—Scutellum quite flat.....*Anopedias* Först.
Scutellum not flat.....15.
15.—Head cubical.....*Isocybus* Först.
Head not cubical.....16.
16.—Scutellum with a tuft of hair at tip.....*Trichacis* Först.
Scutellum without a tuft of hair at tip.
Margin of abdomen very broadly turned over..*Hypocampsis* Först.
Margin of abdomen not very broadly turned over.
Scutellum pillow-shaped, separated from mesothorax by a deep furrow; scapulæ very broad.....*Polygnotus* Först.
Scutellum not separated from mesothorax by a deep furrow; scapulæ not very broad.....*Platygaster* Latr.

Subfamily Mymarinæ.

Tarsi 5-jointed.....2.
Tarsi 4-jointed.....7.
2.—Abdomen distinctly petiolate.....3.
Abdomen sessile or nearly so.....4.
3.—Antennæ ♂ 10-jointed, ♀ 9-jointed.....*Camptotera* Först.
Antennæ ♂ 13-jointed, ♀ 11-jointed.....*Ooctonus* Hal.
4.—Male.....5.
Female.....6.
5.—Marginal vein reaching to middle of costa.....*Limacis* Först. ♂.
Marginal vein not reaching to middle of costa.
Antennæ 13-jointed.....*Gonatocerus* Nees ♂.
Antennæ 10-jointed.....*Alaptus* Walk. ♂.
6.—Antennæ 11-jointed.....*Gonatocerus* Nees ♀.
Antennæ 9-jointed.....*Litus* Hal. ♀.
Antennæ 8-jointed.
Marginal vein reaching to middle of costa.....*Limacis* Först. ♀.
Marginal vein not reaching to middle of costa.....*Alaptus* Walk. ♀.
7.—Antennal club with two rings.....8.
Antennal club not ringed.....9.
8.—Marginal vein very long; the four posterior tarsi shorter than their tibiæ.
Eustochus Hal.
Marginal vein very short; the four posterior tarsi longer than their tibiæ.
Doriclytus Först.
9.—Abdomen distinctly petiolate.....10.
Abdomen sessile or nearly so.....11.
10.—Anterior wings widened only at tip.....*Mymar* Hal.
Anterior wings not widened only at tip.
Marginal vein punctiform.....*Cosmocoma* Först.
Marginal vein lengthened.
Metathorax with two carinæ; ♀ antennæ 9-jointed (♂ unknown).
Caraphractus Walk.
Methathorax not carinate; ♂ antennæ 10-jointed, ♀ 9-jointed.
Stictothrix Först.

11.—Antennæ ♂ 12-jointed (♀ 9-jointed); marginal vein lengthened and somewhat thickened towards tip. .... **Anaphes** Hal.
Antennæ ♂ 13-jointed (♀ 9-jointed); marginal vein linear, not thickened towards tip. .... ***Anagrus** Hal.

Subfamily Diaprinæ.

Wings with a heart-shaped piece cut out from tip. .... ***Entomacis** Först.
Wings entire. .... 2.
2.—Scape greatly developed (mesothorax without furrows).
***Platymischus** Westw.
Scape not especially developed. .... 3.
3.—Scape with a knot at middle; face greatly lengthened. .... **Galesus** Curtis.
Scape without a median knot; face not greatly lengthened. .... 4.
4.—Submarginal vein not reaching costa. .... 5.
Submarginal vein reaching costa. .... 6.
5.—Submarginal vein with a stigmal at tip. .... **Aneurhynchus** Westw.
Submarginal vein simple, without stigmal ♀. .... ***Labolips** Hal.
6.—Male. .... 7.
Female. .... 10.
7.—Antennæ 12-jointed .... ***Cephalonomia** Westw. ♂.
Antennæ 13-jointed. .... 8.
Antennæ 14-jointed. .... 9.
8.—First funicle joint not half as long as second... ***Paramesius** Westw. ♂.
First funicle joint as long as, or longer than second.
Second abdominal segment with one or more pits at base.
Marginal vein present. .... ***Idiotypa** Först. ♂.
Marginal vein absent. .... ***Hemilexis** Först. ♂.
Second segment without pits at base. .... **Spilomicrus** Westw. ♂.
9.—Wings without a basal vein. .... **Diapria** Latr. ♂.
Wings with a basal vein.
First funicle joint shorter than second. .... **Basalys** Westw. ♂.
First funicle joint not shorter than second. .... ***Loxotropa** Först. ♂.
10.—Antennæ 12-jointed. .... 11.
Antennæ 13-jointed. .... 13.
Antennæ 14-jointed (mesothorax with furrows). .... ***Polypeza** Först. ♀.
11.—Head large and flat. .... ***Cephalonomia** Westw. ♀.
Head not large and flat. .... 12.
12.—Wings without a basal vein.
Mesothorax with distinct furrows. .... ***Glyptonota** Först. ♀.
Mesothorax without furrows. .... **Diapria** Latr. ♀.
Wings with a basal vein.
Mesothorax with furrows; club 5-jointed. .... ***Idiotypa** Först. ♀.
Mesothorax without furrows; club at most 4-jointed.
***Loxotropa** Först. ♀.
13.—Club with only one joint. .... ***Monelata** Först. ♀.
Club with more than one joint.
Abdomen conically pointed. .... ***Paramesius** Westw. ♀.
Abdomen truncate at tip.
Marginal vein absent. .... ***Hemilexis** Först. ♀.
Marginal vein present. .... **Spilomicrus** Westw. ♀.

Subfamily BELYTINÆ.

Male.....2.
Female.....11.
2.—Eyes naked.....3.
Eyes hairy.....4.
3.—Mesothorax without furrows.....*Ismarus Hal. ♂.
Mesothorax with furrows.....*Psilomma Först. ♂.
4.—Postscutellum with a strong thorn.....*Oxylabis Först. ♂.
Postscutellum without a thorn.....5.
5.—Middle carina of metathorax divided before its end and enclosing a central space (marginal cell open or closed).....*Belyta Jur. ♂.
Middle carina of metathorax not divided.....6.
6.—Marginal cell open or wanting.....7.
Marginal cell closed.....8.
7.—Stigmal and postmarginal so much shortened that the marginal cell can scarcely be seen.
Basal vein not visible.....*Synacra Först. ♂.
Basal vein distinctly visible.....*Pantolyta Först. ♂.
Marginal cell more or less distinctly present.
Anterior tibiæ strongly bent outwards, with a blunt or sharp tooth, or a sharp thorn.....*Zygota Först. ♂.
Anterior tibiæ not so bent.....*Aclista Först. ♂.
8.—Petiole of abdomen not longer, or scarcely longer than metathorax.....9.
Petiole of abdomen almost twice as long as metathorax.....10.
9.—Scape with apical margin produced on one side in'o a tooth.
*Acropiesta Först. ♂.
Scape with apical margin not produced.
Last ventral segment very straight and punctured.*Anectata Först. ♂.
Last ventral segment somewhat bent, not punctured.
*Pantoclis Först. ♂.
10.—Marginal vein twice as long as marginal cell...*Macrohynnis Först. ♂.
Marginal vein as long as, or a little longer than stigmal, but much shorter than the marginal cell.....*Xenotoma Först. ♂.
Marginal vein much longer than stigmal and about as long as the marginal cell.
Second abdominal segment compressed laterally, pear-shaped; petiole smooth above; scape as long as the first funicle joint.
*Leptorhaptus Först. ♂.
Second abdominal segment not compressed laterally, the abdomen becoming more flattened behind this segment; petiole above more or less furrowed; scape longer than first funicle joint...Cinetus Jur. ♂.
11.—Eyes naked.....12.
Eyes hairy.....13.
12.—Mesothorax without furrows.....*Ismarus Hal. ♀.
Mesothorax with furrows.....*Psilomma Först. ♀.
13.—Antennæ 12-jointed.....*Synacra Först. ♀.
Antennæ 14-jointed.....14.
Antennæ 15-jointed.....15.

14.—Ocelli wanting.....*Anommatium* Först. ♀.
Ocelli present.
Marginal cell scarcely visible.....*Pantolyta* Först. ♀.
Marginal cell distinct.....*Anectata* Först. ♀.
15.—Postscutellum with a strong thorn.....*Oxylabis* Först. ♀.
Postscutellum without a thorn.....16.
16.—First funicle joint almost as long as all the rest together.
Diphora Först. ♀.
First funicle joint much shorter than all the rest together.....17.
17.—Middle carina of metathorax divided (marginal cell open or closed).
Belyta Jur. ♀.
Middle carina of metathorax not divided.....18.
18.—Third dorsal segment of abdomen much longer than fourth.....19.
Third dorsal segment of abdomen not or very little longer than fourth...20.
19.—Marginal vein as long as marginal cell; last funicle joint more than double as long as broad.....*Cinetus* Jur. ♀.
Marginal vein much shorter than marginal cell; last funicle joint not more than double as long as broad.....*Xenotoma* Först. ♀.
20.—Abdomen with eight dorsal segments.....21.
Abdomen with seven dorsal segments.....*Acropiesta* Först. ♀.
Abdomen with less than seven dorsal segments.....22.
21.—Marginal cell closed.
Funicle joints only slightly shortened towards the tip.
Zelotypa Först. ♀.
Funicle joints strongly shortened towards tip.....*Pantoclis* Först. ♀.
Marginal cell open.
Stigmal and postmarginal veins much shortened, the stigmal given off at almost a right angle.....*Zygota* Först. ♀.
Stigmal and postmarginal veins not much shortened, the stigmal given off at a very oblique angle.....*Aclista* Först. ♀.
22.—Marginal vein more than twice as long as marginal cell.
Macrorhynnis Först. ♀.
Marginal vein shorter, as long as or scarcely longer than marginal cell.
Abdomen with three dorsal segments, the second very much lengthened, almost reaching the tip of the abdomen, the third issuing from the second like a short style; marginal vein distinctly shorter than marginal cell.....*Miota* Först. ♀.
Abdomen with three, very seldom with four dorsal segments, the second not greatly lengthened, the third equally large and strongly compressed laterally; marginal vein not shorter than marginal cell.
Leptorhaptus Först. ♀.

Subfamily Helorinæ.

Anterior wings with an abruptly broken basal vein, from one end of which arises a cubital vein distinguished by its irregular course, both together these form an irregular discoidal cell; posterior wings not lobed, with a median vein; anterior tibiæ with one spur; flagellum with one ring-joint.....*Helorus* Latr.

Family **PELECINIDÆ.**

This remarkable family contains only the genus *Pelecinus* represented by a single species (*polyturator* Drury) which is black, shining; head transverse, viewed in front quadrate, the ovate eyes occupying the upper lateral portion and distant from the base of the mandibles; face rugose and rather prominent medially; ocelli small and arranged in a triangle; cheeks and back part of the head smooth and polished; antennæ long, thread-like, 14-jointed, basal joint short, thick, second small, spherical, the remaining joints very long and slender, the 9th and 10th whitish; maxillary palpi 5-jointed, labial palpi 3-jointed; thorax narrowed anteriorly, the prothorax reaching the tegulæ, the upper lateral angles sometimes prominently dentate; mesothorax triangular, trilobed, parapsidal grooves crenulate, confluent and broad behind; scutellum convex, rather prominent; metathorax longer than broad, gradually narrowed and sloping posteriorly, rugulose above, the spiracles linear; anterior wings with the neuration imperfectly and indistinctly defined, stigma linear, posterior wings without nervures; legs long, especially the posterior pair, slender; trochanters one-jointed; anterior tibiæ with a curved spur at apex, their tarsi curved at base, with a broad tooth beneath; intermediate and posterior tibiæ with two spurs at apex; posterior tibiæ much dilated, cylindrical, suddenly constricted and slender at base; basal joint of posterior tarsi very short, the second and third joints very long and slender, the two apical joints short; claws simple; abdomen attached to the apex of the somewhat prolonged metathorax, that of the ♀ greatly elongated, about five times the length of the head and thorax, slender, cylindrical, basal joint thickest, spindle-shaped, ovipositor not exserted; abdomen of the ♂ strongly clavate, about twice the length of the head and thorax, the basal segment very long, three times as long as the remaining segments

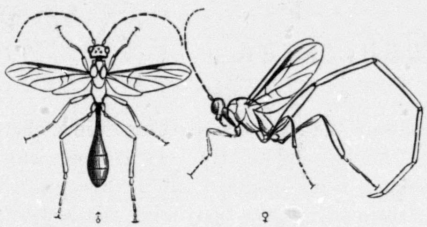

Fig. 13.*

* For the use of this cut of *Pelecinus polyturator* ♂ ♀, the compiler is indebted to the kindness of Dr. A. S. Packard, Jr.

combined, slender, cylindrical at base, gradually widened towards the apex, the second and following segments becoming gradually shorter to apex.

The females are common where they occur, while the males are exceedingly rare. Their habits are unknown, but are doubtless parasitic.

TUBULIFERA.

This group of insects contains the single family Chrysididæ, characterized by the abdomen having apparently very few segments, from three to five, the remainder being modified into a telescopic and retractile tube, which is drawn within the body when not required for its legitimate purpose; it is furnished at the extremity in the males with the organs of generation and in the females with a minute sting-like ovipositor.

These insects, although of moderate size, are among the most beautiful of our hymenoptera, being adorned with brilliant metallic blue, green and ruby. The body is often deeply punctured, the abdomen in some genera being almost rounded or semicircular and entire at apex, while in other genera, e. g. *Chrysis*, it is usually terminated by a series of teeth, varying in number from two to six, the apical margin being preceded by a transverse row of deep pits.

In their economy the Chrysididæ are said to differ from the preceding tribe in that the females do not deposit their eggs in the bodies of other insects, but cuckoo-like, place them in the already provisioned nests of other hymenoptera, chiefly those of solitary wasps and bees, and being first hatched, these larvæ feed upon and devour the supply of food stored up for the support of the others, which are thus starved and destroyed.

Family CHRYSIDIDÆ.

The following synoptic table is compiled from an excellent monograph of the family by Mr. S. F. Aaron, published in the 12th volume of these Transactions and illustrated by several plates of well drawn figures, leaving the compiler little or nothing to do but to copy the characters given of the subfamilies and genera.

The family is divisible into four subfamilies, as follows:

Table of Subfamilies.

Face entirely convex; prothorax as long, or longer than wide, and longer than the mesothorax, with a distinct arched suture crossing its anterior portion; metathorax almost equally elevated with the other portions, giving the dorsum of the thorax the appearance from above of four distinct parts except the prothorax; abdomen convex beneath, the lateral margins not extending beyond the surface of the venter; segments of the tergum 4 and 5.....**Cleptinæ.**

Face more or less concave (a receptacle for the scape or long basal joint of the antennæ); prothorax much wider than long, suboblong, always shorter than the mesothorax; metathorax beneath the postscutellum at an angle of 90°, giving the dorsum of the thorax the appearance from above of 3 distinct parts, excepting the prothorax; abdomen concave beneath, caused by the lateral margins extending beyond the surface of the venter; segments of the tergum 3, except in the ♂ of *Parnopes*, which has 4.

Maxillæ and labium ordinary, ligula subconical (not produced), exterior process of maxillæ rounded, obtuse.

Third abdominal segment without submarginal groove, declivity, or series of pits interrupting the evenness of its entire surface; discoidal cell wanting, or formed only by dark colored indications of the nervures.....**Elampinæ.**

Third abdominal segment with a submarginal series of more or less deep and rounded pits or areolæ, contained in a groove or declivity, which causes the surface of the marginal area to be uneven with and below the general surface of the segment; discoidal cell generally formed by the absolute nervures and entirely closed..**Chrysidinæ.**

Maxillæ and labium abnormal, ligula and process of maxillæ very long, extended into a slender filiform beak, resembling the proboscis of Bees, bent back under the thorax in repose; discoidal cell formed only by indications of the nervures, a broad deep submarginal groove on each side of the apical half of the last segment of the tergum, without pits; segments of abdomen, ♂ 4, ♀ 3.....**Parnopinæ.**

Table of Genera.

Subfamily Cleptinæ.

Consisting of a single genus having the characters of the subfamily given above.

Cleptes Latr.

Subfamily Elampinæ.

Tarsal claws with 2–6 distinct teeth between the base and apex.

Apical margin of the third abdominal segment simply notched, rounded, not produced as seen laterally.....**Omalus** Jur.

Apical margin of the third abdominal segment pinched on each side of the notch or emargination, forming, as viewed laterally, a snout-like projection that appears truncate.

Emargination or notch of the apex open, not filled up with a membrane.

Surface of the third segment above the apical snout-like projection even, not produced.....**Elampus** Spin.

Surface of the third segment just above the snout-like projection produced into a cone shaped piece forming the direct apex of a fold which extends on each side just above the apical and lateral margins.
Diplorrhos Aaron.

Emargination or notch of the apex closed, or partly filled up by a membrane, which is excised beneath ..... **Notozus** Först.

Apical margin of the third abdominal segment entire or broadly sinuate.
Holopyga Dahlb.

Tarsal claw with one small perpendicular tooth in the middle.
Hedychridium Perrin.

Tarsal claws bifid at the apex, without inner teeth..... **Hedychrum** Latr.

Subfamily CHRYSIDINÆ.

Head as broad, or broader than the postscutellum; space between the eyes on the face as wide as the distance between the base of antennæ and the vertex; the carina transverse, not forming a basin on the vertex; postscutellum rounded posteriorly; first abdominal segment rounded, not carinated on the sides; second segment about twice as long on the dorsum as on the sides, its posterior margin about straight in the middle, convex laterally... **Chrysis** Linn.

Head small, much narrower than the postscutellum; space between the eyes, on the face, narrow, not half as wide as the distance between the base of antennæ and the vertex; the carina extended upward, surrounding the anterior ocellus, forming the margins of a distinct basin, much in shape of a horse-shoe; postscutellum partly hidden, projecting into a subconical piece, which is strongly excavated; first abdominal segment flattened on the sides, causing a short, oblique carina above; second segment more than three times as long on the dorsum as on the sides, its posterior margin equally and very convex..... **Stilbum** Spin.

Subfamily PARNOPINÆ.

Comprising a single genus whose characters are those of the subfamily, and at once recognized by the lengthened bee-like proboscis..... **Parnopes** Fabr.

HETEROGYNA.

This series is composed of a large number of insects familiarly known as Ants (but not including the "white ants," or Termites, which belong to the Neuroptera), "and which are known by their habit of residing in more or less numerous societies under ground; whence arises the necessity for a great number of individuals (workers or neuters) having the sexual organs and instincts rendered abortive, whereby, being freed from the latter, they are the better fitted to perform the labors of the community, for which purpose they are moreover destitute of wings; whilst the males and females are much

less numerous, possessing wings and are produced only for the propagation of their species. * * * These insects have attracted the attention of the observers of Nature from the earliest time; and their untiring exertions for the welfare of the community, their devotion to the young and their carefulness in the collection and storing up of various materials, have led to their being regarded as examples of surprising instinctive foresight." (Westwood).

While considerable has been published concerning the habits of certain of our species, the scientific study of these most interesting creatures has been sadly neglected, owing doubtless to the want of a knowledge of generic characters, which have nowhere, until now, been tabulated in the English language; these tables, however, in consequence of the neglect of the study and the ignorance existing concerning our species, must necessarily be very incomplete. The collection of the American Entomological Society, so rich in most of the other series, is exceedingly meagre in this, and it is notorious that in the many collections sent in, from time to time, for determination, very few ants are represented and then only the most common, which may be partly accounted for by the fact that as a majority of the species are subterranean in their habits and of small size, they are apt to escape the notice of collectors.

The series is characterized by the petiole of the abdomen having one or more scales, or nodes, and the societies consisting of three sexes, males, females and workers. It is divisable into five families, in the following manner:

Table of Families.

Petiole with a single joint.

Abdomen proper (not including petiole) not constricted between segments 1 and 2.

Insertion of the mandibles distant.

Clypeus always distinct and often very large; frontal crest more or less long, not surrounding the insertion of the antennæ; petiole almost always surmounted by an erect scale.....FORMICIDÆ.

Clypeus very small or even indistinct; frontal crest very short, surrounding the insertion of the antennæ in front; petiole depressed, nodiform; ♂ large, with the abdomen long and cylindrical; ♀ and ☿ not positively known, the former probably larviform.DORYLIDÆ.

Insertion of the mandibles contiguous or nearly so (☿ ♀).
ODONTOMACHIDÆ.

Abdomen proper constricted between segments 1 and 2. .....PONERIDÆ.

Petiole composed of two joints.....MYRMICIDÆ.

Nearly 200 species have thus far been described as inhabiting our fauna, about 30 of which are said to be identical with European forms. Since the publication of Mr. Buckley's descriptive papers in 1866, only a few isolated species have been described as indigenous to our country.

For exceedingly interesting accounts of the habits of some of our species, we are indebted to the observations of our esteemed friend and co-laborer, the Rev. Dr. H. C. McCook, a list of whose published writings will be given further on.

The characters given in the following tables are compiled chiefly from the second volume of André's admirable "Species des Hyménoptères d' Europe," published in 1882–83.

Family **FORMICIDÆ.**

Table of Genera.

Workers and Females.

Frontal carinæ arising more or less near the posterior edge of the clypeus, which does not extend back between insertion of antennæ; abdomen seen from above shows five segments of which the last is conical and terminal, orifice of anus small, circular, ciliated; wings ♀ with one complete submarginal cell.....2.

Frontal carinæ arising at the angles or lateral edges of the clypeus, which is triangular, usually rounded, extending more or less backward between insertion of antennæ; abdomen, viewed from above, shows only the first four segments, the fifth being concealed under the preceding; anus large, transverse, not ciliated.....9.

2.—Antennæ 12-jointed, inserted as near, or even nearer, to middle of frontal carinæ than to their anterior extremity, and distant from posterior edge of clypeus; clypeal foveæ separated from antennal foveæ; ☿ without ocelli.....3.

Antennæ inserted near the anterior extremity of the frontal carinæ and very near the posterior edge of clypeus.....4.

3.—Clypeus trapezoidal, the sides diverging more or less anteriorly; frontal carinæ s[illegible]ous in form of an S; head not obtuse or truncate in front; scale of petiole oval, vertical, usually feebly and equally convex on its two faces.....**Camponotus** Mayr.

Clypeus with parallel sides, only slightly diverging at anterior angles; anterior part of head forming an obtuse angle with the remainder of its surface, or even sharply truncate; scale square, thick, convex in front, flat behind and more or less emarginate above.....**Colobopsis** Mayr.

4.—Mandibles broad flat, triangular, apical margin dentate.....5.

Mandibles almost cylindrical, curved, very narrow, acute at tip, without apical margin or trace of teeth; frontal area well defined; ocelli present; metathorax gibbous; scale thick, oval, vertical; wings ♀ with one discoidal cell.....**Polyergus** Latr.

5.—Antennæ 9-jointed, scape long, first joint of funicle longer than the two following united, apical joint large, fusiform; head emarginate posteriorly; clypeal and antennal foveæ confluent; clypeus very convex, hood-like, partly hiding the mandibles; frontal carinæ short; frontal area triangular; thorax small, short; metathorax broader than long; petiole of abdomen slender at tip and strongly inclined forward; wings ♀ without discoidal cell.....**Brachymyrmex** Mayr.

Antennæ 12-jointed.....6.

6.—Basal joints of the funicle, except the first, shorter than the others; ocelli indistinct or wanting in ☿; frontal area superficially impressed, almost twice broader than high.....7.

Basal joints of funicle as long or longer than the others (the last excepted); ocelli very distinct; frontal area sharply defined.....8.

7.—Clypeal foveæ not confluent with antennal foveæ; scale quadrangular or cuneiform, oblique, directed upwards and forwards; abdomen tapering to a point, enlarged and strongly convex above at base, touching upper posterior part of scale; ocelli wanting in ☿.....**Prenolepis** Mayr.

Clypeal foveæ confluent with antennal foveæ; scale vertical or nearly so, quadrangular and straight; abdomen not prolonged anteriorly; ocelli very small, indistinct or wanting in ☿.....**Lasius** Fabr.

8.—Frontal carinæ diverging posteriorly, the external margin slightly convex; fourth joint of maxillary palpi slightly longer than the fifth; scale large, vertical; wings ♀ extending beyond apex of abdomen, with one large discoidal cell, rarely wanting.....**Formica** Linn.

Frontal carina nearly parallel, the external margin concave; fourth joint of maxillary palpi almost twice as long as fifth; petiole with a node or thick scale; wings ♀ with the discoidal cell very small or wanting.

Myrmecocystus Wesm.

9.—Metathorax cubical, the horizontal face nearly flat or slightly convex, the vertical face concave, their point of union forming a crest terminated on each side by a tooth; clypeus impressed on middle of anterior margin; scale thick, cuneiform, strongly inclined forwards; wings ♀ with two complete submarginal cells.....**Dolichoderus** Lund.

Metathorax not cubical, convex, unarmed, the declivous face flat.....10.

10.—Clypeus with anterior margin entire; ocelli distinct in both sexes; abdomen not prolonged in front, the petiole with an oval, erect scale, rounded above, where it is often emarginate in ♀; wings ♀ with two submarginal cells.....**Liometopum** Mayr.

Clypeus rather deeply notched on middle of anterior margin; ocelli absent in ☿, distinct in ♀; abdomen enlarged anteriorly, covering the petiole by a prolongation of its basal part, petiole quadrangular, flat, without apparent scale, terminated in front by a transverse thickened edge; wings ♀ with but one complete submarginal cell.....**Tapinoma** Först.

Males.

Clypeus not prolonged backwards between insertion of antennæ; tibial spurs simple; wings with only one submarginal cell, with or without discoidal cell.....2.

Clypeus extending more or less between insertion of antennæ; tibial spurs pectinate.....8.

2.—Antennæ inserted as near, or even nearer, to middle of frontal carinæ than to their anterior extremity, and distant from posterior edge of clypeus; clypeal foveæ separated from antennal foveæ; frontal area indistinctly defined, much broader than long; scale thick; wings without discoidal cell.....3.

Antennæ inserted toward anterior extremity of frontal carinæ, at or very near posterior edge of clypeus; wings with or without discoidal cell...4.

3.—Clypeus trapezoidal, its lateral margin diverging in front where they reach the lateral angles of the head; antennæ long, with first joint of funicle scarcely larger than the second; frontal carinæ sinuate, scarcely divergent.....**Camponotus** Mayr.

Clypeus almost square, only slightly broader at the anterior angles, which do not reach lateral margin of the head; antennæ short, first joint of funicle thickened at apex, twice as long and as thick as the following joints; frontal carinæ sinuous, strongly diverging behind.

Colobopsis Mayr.

4.—Antennæ 10-jointed; mandibles not dentate, acute at tip; mesothorax gibbous, prolonged anteriorly; scale of petiole small; external genital valves triangular, broad, short, rounded at tip; wings without complete submarginal cells..... **Brachymyrmex** Mayr.

Antennæ 13-jointed .....5.

5.—Clypeal foveæ not united to antennal foveæ; antennæ inserted very near the clypeus, but not touching its posterior margin; scale thick; mandibles not toothed; external genital valves very narrow.

Prenolepis Mayr.

Clypeal foveæ united to antennal foveæ; antennæ inserted on posterior margin of clypeus.....6.

6.—Mandibles broad, flat, with apical margin dentate or simple; anterior margin of clypeus convex, prolonged .....7.

Mandibles cylindrical, short, narrow, acute at tip, without apical margin and without teeth; clypeus triangular, rounded at base, convex, its anterior margin straight and not prolonged: scale vertical, thick, quadrangular, emarginate above: wings with one discoidal cell.

Polyergus Latr.

7.—Frontal area indistinct; external genital organs very small; first joint of funicle thicker than second; size small, much inferior to that of ♀.

Lasius Fabr.

Frontal area sharply defined; external genital organs large; first joint of funicle usually not thicker than second; size large, very little less than that of ♀.

Abdomen rather depressed above; wings extending beyond apex of abdomen; discoidal cell large, rarely wanting; first joint of funicle one-third shorter than second; thorax slightly enlarged laterally at middle; prothorax somewhat transversely convex.....**Formica** Linn.

Abdomen cylindrical, not depressed; wings short, not exceeding the abdomen; discoidal cell small or wanting; first joint of funicle as long as second; thorax compressed laterally and of a moderately uniform size; prothorax slightly concave, transverse medially.

Myrmecocystus Wesm.

8.—Wings with two submarginal cells; clypeusd istinctly prolonged backward between frontal carinæ; scape short, not longer than the first two or three joints of funicle ..... 9.

Wings with only one submarginal cell; clypeus scarcely prolonged between frontal carinæ; scape almost as long as the first five joints of funicle; petiole of abdomen thick, obliquely compressed, rounded above, without scale ..... **Tapinoma** Först.

9.—Petiole of abdomen with an erect scale; external genital organs very large, occupying posterior third of abdomen, external genital valves broad at base, narrowed at tip which is rounded..... **Liometopum** Mayr.

Petiole of abdomen nodiform, without scale; external genital organs small, external genital valves almost semicircular..... **Dolicoderus** Lund.

Family **ODONTOMACHIDÆ.**

Mandibles inserted very close to each other, opposite the insertion of antennæ, and on the middle of anterior margin of the head which is hexagonal and strongly narrowed in front; mandibles long, protuberant and suddenly recurved within at tip which is tridentate; eyes rather large; antennæ 12-jointed; petiole of abdomen surmounted by a free, oval, rather thick scale. **Odontomachus** Latr.

Family **DORYLIDÆ.**

♂.—Body elongate, cylindrical, subcompressed; head small, transverse, and when the insect is viewed from above, almost or quite concealed by the large gibbous mesothorax; eyes and ocelli large and very prominent; antennæ usually setaceous; mandibles edentate, forcipate, acute; maxillary and labial palpi 2-jointed; thorax ovate, gibbous; metathorax abruptly truncate behind; anterior wings extending beyond apex of abdomen, with one marginal and three submarginal cells, and one recurrent nervure, the third discoidal cell being open at apex; tibiæ with a single apical spur; abdomen cylindrical, often slightly compressed, the basal segment or node smaller than the following segment, quadrate or subquadrate and separated from the remainder of the abdomen by a deep constriction; apex of venter with a more or less deeply emarginate plate, the apical angles of which are usually acute and dentiform and slightly recurved; ☿ and ♀ unknown..... **Labidus** Jur.

Of this peculiar genus, we have five described species, all from Utah and Texas, and of which only the males are known; they seem to be common where they occur.

This is supposed to be the ♂ of *Eciton*, which, however, is placed in the Myrmicidæ, the abdominal petiole being composed of two nodes.

Family **PONERIDÆ.**

Table of Genera.

Mandibles long, narrow, acute at tip, without apical margin, and denticulate along inner margin; clypeus toothed on anterior margin; petiole almost cylindrical, attached to the abdomen by the whole of its posterior face (☿ ♀)..... **Amblyopone** Erichs.

Mandibles flat, triangular, the broad terminal margin simple or toothed; petiole free, cubical and surmounted by a thick scale.

Antennæ 12–13-jointed.

Last joint of funicle not as long as the four preceding joints combined; eyes ☿ ♀ placed near the anterior lateral margin of head; metathorax unarmed; wings ♂ ♀ with the two complete submarginal cells and the discoidal cells joining each other, marginal cell complete; antennæ ☿ ♀ 12-jointed, ♂ 13-jointed.....**Ponera*** Latr.

Last joint of funicle fully as long as the four preceding joints combined; eyes placed on the lateral middle of head; metathorax with a short broad triangular tooth on each side; antennæ 12-jointed; tibial spurs pectinate (☿).....**Proceratium** Roger.

Antennæ 9-jointed, last joint very large, oval, nearly as long as all the preceding funicle joints united; apical margin of clypeus projecting over the mandibles, which are without teeth (☿ ♀)...**Discothyrea** Roger.

Family MYRMICIDÆ.

Table of Genera.

Workers.

Antennal fovea terminated outwardly by a carina; clypeus interposed between insertion of antennæ; frontal carinæ placed in middle of anterior part of the head.....2.

Antennal fovea without external carina.....3.

2.—Antennæ 11-jointed; eyes tolerably large, reticulated; maxillary palpi 4-jointed, labial palpi 2-jointed; head more or less cordate, with a tooth on each side posteriorly; thorax above armed with several spines or tubercles.....**Atta** Fabr.

Antennæ 12-jointed; eyes very minute and simple or wanting; frontal area not impressed; maxillary palpi 2-jointed, labial palpi 3-jointed (two kinds of workers, the major having the mandibles very long, narrow, and curved at tip, somewhat sickle-shaped, but not flattened, the head very large).....**Eciton** Latr.

3.—Clypeus interposed between insertion of antennæ; frontal carinæ placed in middle of anterior part of head; antennæ 10–12-jointed.....4.

Clypeus not interposed between insertion of antennæ.

Frontal carinæ placed close together on middle of anterior part of head; eyes large, elongate-oval, occupying more than half of lateral margin of head; frontal area wanting; antennæ 12-jointed; mandibles trigonate; first joint of petiole slender at base and rather suddenly nodose at tip.
Pseudomyrma Guér.

Frontal carinæ placed on lateral margin of the head, which is cordiform; antennæ 6-jointed, second and third joints of funicle short; metathorax unarmed.....**Strumigenys** Smith.

4.—Antennæ 10-jointed, the club very large, 2-jointed; clypeus with two lateral carinæ which are terminated in front by two teeth; eyes very small;

* *Arotropus* Prov., which is placed by the describer in the Braconidæ, appears to be identical with this genus.

maxillary and labial palpi 2-jointed; metathorax unarmed; head very large, subquadrate, emarginate posteriorly and divided above by a longitudinal impressed line.....**Solenopsis** Westw.

Antennæ 11–12-jointed.....5.

5.—Petiole attached to upper basal surface of abdomen, which is cordate, depressed above, convex beneath, acuminate posteriorly; antennæ 11-jointed; metathorax usually armed with two spines or teeth, rarely unarmed.....**Cremastogaster** Lund.

Petiole attached to basal middle of the abdomen.....6.

6.—First joint of petiole nearly cubical, not or scarcely narrowed anteriorly; apical margin of mandibles confusedly dentate, angular, so that when they are closed there is a triangular space between them and the clypeus; the latter short, with two longitudinal crests which are terminated in front by two obtuse teeth; antennæ 12-jointed, the club 3-jointed; thorax not strangulated above; metathorax with two strong spines behind and two very small teeth in front towards anterior margin; maxillary palpi 4-jointed, labial palpi 3-jointed.....**Myrmecina** Curt.

First joint of petiole narrow and cylindrical at base, nodose and elevated at apex.....7.

7.—Last three joints of funicle taken together distinctly shorter than the preceding joints combined.....8.

Last three joints of funicle taken together as long or longer than the preceding joints combined.....9.

8.—Frontal area deep, obtusely rounded behind; maxillary palpi 4–5-jointed, labial palpi 3-jointed.

Thorax strangulated between meso- and metathorax, the pro- and mesothorax together more or less hemispherical...**Aphænogaster** Mayr.

Thorax not constricted between meso- and metathorax, the sutures indistinct, prothorax much broader than the rest of the thorax.

Pogonomyrmex Mayr.

Frontal area acute behind; maxillary palpi 6-jointed, labial palpi 4-jointed; metathorax rather flattened above: femora claviform, tibial spurs pectinate.....**Myrmica** Latr.

9.—Metathorax entirely unarmed; thorax strongly constricted above between meso- and metathorax, pro- and mesothorax without trace of suture between them; clypeus longitudinally furrowed medially, its anterior margin protuberant and produced beyond the mandibles, which are rather narrow; antennæ 11–12-jointed, the club 3-jointed, of which the last joint is as long or longer than the two preceding joints united.

Monomorium Mayr.

Metathorax armed with two teeth or spines.....10.

10.—Funicle of antennæ, which are 12-jointed, without distinct club, gradually thickening from base to apex, first joint as long as broad, the others beginning very short are gradually lengthened; eyes very small; mandibles broad, dentate; frontal area narrow and deep; thorax slightly constricted between meso- and metathorax, the teeth of the latter triangular, acute; first joint of petiole narrow and cylindrical at base, nodiform at apex; maxillary palpi 4-jointed, labial palpi 3-jointed.

Stenamma Westw.

Funicle with a distinct club of 3 joints; eyes moderately large.....11.

11.—Thorax strongly constricted between meso- and metathorax; mandibles very broad; frontal area small, clearly defined; antennæ 12-jointed (the major worker has the head enormously developed, short, more than twice as broad as the thorax, the frontal groove very deep, traversing the vertex and dividing the back of the head into two convex lobes). **Pheidole** Westw.

Thorax slightly or not at all strangulated between the meso- and metathorax.

Lateral basal margin of clypeus distorted or elevated between frontal carinæ and insertion of mandibles, forming a projecting ridge; thorax short, erect, slightly impressed between meso- and metathorax, prothorax with the shoulders angular, metathorax with two spines; tibial spurs simple; antennæ 12-jointed; maxillary palpi 6-jointed, labial palpi 3-jointed. **Tetramorium** Mayr.

Lateral basal margin of clypeus not elevated; thorax elongate, more than twice as long as high, little or not impressed between meso- and metathorax, prothorax with shoulders rounded, metathorax with two spines; no tibial spurs; antennæ 11-12-jointed; frontal area not clearly defined; maxillary palpi 5-jointed, labial palpi 3-jointed. **Leptothorax** Mayr.

Females.

Antennal foveæ terminated outwardly by a carina; clypeus interposed between insertion of antennæ; frontal carinæ placed in middle of anterior part of the head; antennæ 11-jointed; head triangular, with a small tooth on each side behind; thorax viewed from above large, ovate; metathorax with two small teeth; abdomen subglobose, second joint of petiole short and broad; wings with one submarginal cell, which like the marginal is long and narrow, no discoidal cell. **Atta** Fabr.

Antennal foveæ without external carina. 2.

2.—Clypeus not interposed between insertion of antennæ. 3.

Clypeus interposed between insertion of antennæ; frontal carinæ placed in middle of anterior part of the head. 4.

3.—Frontal carinæ placed in middle of anterior part of the head; eyes large, elongate-ovate, occupying a large portion of lateral margin of the head; antennæ inserted close together near anterior margin; first joint of petiole pedunculate, nodose at tip, second joint globose; antennæ 12 (or 13?) jointed. **Pseudomyrma** Guér.

Frontal carinæ placed on lateral margin of the head, defining large, elongate antennal foveæ, the concavity of which is not visible from above; antennæ 6-jointed. **Strumigenys** Smith.

4.—Petiole attached to upper basal surface of abdomen, which is cordiform, depressed above, convex beneath, acuminate at tip; metathorax rarely unarmed; antennæ 11-jointed; wings with one complete submarginal and one discoidal cell. **Cremastogaster** Lund.

Petiole attached to the basal middle of abdomen, which is oval. 5.

5.—First joint of petiole nearly cubical; clypeus short, with two longitudinal crests which are terminated in front by two obtuse teeth; antennæ 12-jointed; metathorax with two spines posteriorly; wings dark colored, hairy, margins ciliated, one complete submarginal cell, no discoidal, marginal cell short, closed, appendiculate. **Myrmecina** Curtis.

First joint of petiole not cubical, narrowed and cylindrical at base, nodiform at apex.....6.

6.—Antennæ 11-jointed, club very large, 2-jointed; clypeus with two longitudinal carinæ; metathorax unarmed; one complete submarginal and one discoidal cells, marginal cell open at apex.....**Solenopsis** Westw.

Antennæ 11-12-jointed, with the club more than 2-jointed, or without distinct club.....7.

7.—First submarginal cell divided by an abbreviated longitudinal nervure; frontal area acute at base; tibial spurs pectinate; wings with one complete submarginal cell.....**Myrmica** Latr.

First submarginal cell not divided.....8.

8.—Mandibles broad, their apical margin acute, without teeth, or with only two teeth anteriorly; frontal groove extending as far as the occiput; antennæ 12-jointed, with the 3-jointed club longer than half of funicle; thorax broad, depressed above; metathorax bidentate; second joint of petiole transverse, subtuberculate laterally; maxillary and labial palpi 2-jointed.....**Pheidole** Westw.

Mandibles broad, triangular, their anterior margin pluridentate.....9.

9.—Last three joints of funicle together distinctly shorter than the preceding joints combined.....10.

Last three joints of funicle together as long or longer than the preceding joints combined.....11.

10.—Frontal area distinctly impressed, obtusely rounded above; antennæ 12-jointed, without distinct club; maxillary palpi 4-jointed, labial palpi 3-jointed.

Marginal cell incomplete, two complete submarginal cells.

Aphænogaster Mayr.

Marginal cell complete, one (or two?) complete submarginal cells.

Pogonomyrmex Mayr.

Frontal area indistinct or wanting; antennæ 11–12-jointed, with a distinct 3-jointed club; maxillary palpi 5-jointed, labial palpi 3-jointed; one complete submarginal and one discoidal cells, marginal cell very short, rounded apically.....**Leptothorax** Mayr.

11.—Lateral basal margin of clypeus distorted or elevated between frontal carinæ and insertion of mandibles, forming a projecting ridge; second node of petiole strongly transverse, almost twice as broad as long; metathorax bidentate; antennæ 12-jointed, club distinct, apical joint as long as the two preceding united; maxillary palpi 6-jointed, labial palpi 3-jointed.

Tetramorium Mayr.

Lateral basal margin of clypeus not distorted or elevated; second joint of petiole not twice as long as broad.

Metathorax entirely unarmed; antennæ 11–12-jointed, with a distinct 3-jointed club; clypeus viewed laterally protuberant, overhanging the base of mandibles; thorax narrow, elongate, rather higher than broad; one complete submarginal cell, no discoidal; maxillary and labial palpi 2-jointed.....**Monomorium** Mayr.

Metathorax armed with two short, triangular, acute teeth; antennæ 12-jointed, funicle gradually thickened from base to apex, not forming a distinct club; frontal area narrow, elongate, forming an obtuse angle with clypeus, which has two longitudinal median carinæ; one long com-

plete submarginal and one small discoidal cells; maxillary palpi 4-jointed, labial palpi 3-jointed.....**Stenamma** Westw.

Males.

Anterior wings without a stigma, with one long narrow submarginal cell, the marginal cell also unusually narrow, no complete discoidal cell; antennæ 13-jointed; head small, eyes and ocelli prominent; thorax with short dense pubescence, mesothorax with well impressed longitudinal lines.....**Atta** Fabr.

Anterior wings with a distinct stigma.....2.

2.—Antennæ 10-jointed, second joint of funicle as long or longer than the two following joints united; mesothorax above with two convergent grooves, which are confluent towards the middle and then continued in a straight line to scutellum; one complete submarginal and one discoidal cells; mandibles flat, triangular, toothed on apical margin.

Tetramorium Mayr.

Antennæ with more than 10 joints.....3.

3.—Petiole attached to upper basal surface of abdomen, which is cordiform, more convex beneath than above and acuminate behind; antennæ 11–12-jointed, scape very short, only a little longer than first joint of funicle, which is spherical; mesothorax without distinctly impressed converging lines; metathorax unarmed.....**Cremastogaster** Lund.

Petiole attached to the basal middle of the abdomen.....4.

4.—First submarginal cell partially divided medially by a longitudinal nervure, discoidal cell present; antennæ 13-jointed; mesothorax with two convergent grooves; tibial spurs pectinate.....**Myrmica** Latr.

First submarginal cell not divided.....5.

5.—Anterior wings with one complete discoidal cell.....6.

Anterior wings without discoidal cell, one complete submarginal cell.....7.

6.—Two complete submarginal cells (except perhaps in *Pogonomyrmex*).

Second submarginal and discoidal cells contiguous; antennæ 13-jointed, first joint of funicle short, about one-third the length of second, which is much longer than third.

Eyes large, oblong, head elongate, considerably extended behind the eyes; discoidal cell much larger than the second submarginal; abdomen elongate; body slender, glabrous.....**Pseudomyrma** Guér.

Eyes round, prominent, head subtransverse, not much extended behind the eyes; discoidal cell not larger than second submarginal cell; abdomen subglobose, shining; body pilose..**Pogonomyrmex** Mayr.

Second submarginal and discoidal cells remote, marginal cell open at apex; antennæ 13-jointed.

First joint of funicle spherical, the others cylindrical; apex of second submarginal cell not appendiculate.....**Pheidole** Westw.

First joint of funicle cylindrical like the others; apex of second submarginal cell appendiculate.....**Aphænogaster** Mayr.

One complete submarginal cell.

Marginal cell elongate.

Antennæ 12-jointed, first joint of funicle globose, scape short, ovate; marginal cell open at apex; mesothorax without converging impressed lines.....**Solenopsis** Westw.

Antennæ 13-jointed, first joint of funicle not globose, scape elongate clavate; marginal cell closed at apex; mesothorax with converging impressed lines. ..... **Stenamma** Westw.

Marginal cell remarkably short, broadly rounded apically, stigma large, thick, short; antennæ 12–13-jointed, scape elongate, about as long as the first three joints of funicle united; mesothorax with converging impressed lines. ..... **Leptothorax** Mayr.

7.—Wings dark colored, pilose, ciliated, marginal cell short, obtuse at tip, appendiculate; antennæ 13-jointed, first joint of funicle cylindrical; mandibles rather narrow, tridentate, concealed beneath the labrum; mesothorax with two convergent grooves; metathorax bidentate. **Myrmecina** Curtis.

Wings hyaline, not pilose or ciliated, marginal cell long, pointed at tip; antennæ 12–13-jointed, usually attenuate; mesothorax without convergent grooves; metathorax usually unarmed. ..... **Monomorium** Mayr.

NOTE.—Since the above was in type, the compiler has seen a copy of Dr. Mayr's recent paper, entitled "Die Formiciden der Vereinigten Staaten von Nordamerika (Verh. zool.-bot. Ges. Wien, Dec. 1886), in which the following genera, not characterized in the foregoing tables, are mentioned as occurring in our fauna.

Dr. Mayr appears also to have confirmed his former opinion that *Labidus* is the ♂ of *Eciton*.

Iridomyrmex Mayr.—☿. Head, together with the mandibles, triangular, being narrowed toward the cheeks; mandibles very broad, the apical (or biting) margin only slightly shorter than the exterior margin, more or less distinctly toothed; maxillary palpi 6-jointed, short; middle lobe of labrum broadly triangular, deeply emarginate medially, lateral lobes pointed; clypeus triangular, the posterior angles strongly rounded, not carinate, only moderately convex; clypeal foveæ uniting with the antennal foveæ; frontal carina arising at the lateral margin of the clypeus near to the posterior end, and extending straight and parallel backward, ending in the elevation between the eyes; antennæ 12-jointed, inserted on the anterior margin of the frontal carinæ at the edge of the clypeus, the scape tolerably long, extending beyond the posterior margin of the head, flagellum nearly setaceous, only feebly thicker at apex than at base, the first joint longest, the next following until the penultimate gradually longer, the spindle-shaped apical joint also longer; frontal area triangular, somewhat longer than broad and very indistinct; frontal groove always indistinct; ocelli absent; eyes tolerably small, oval, placed almost in the middle of the upper side of the head, between the cheeks and the hind angles; occiput emarginate posteriorly; prothorax above hemispherically convex, sloping gradually to the mesothorax at the end of which it is most deeply impressed; metathorax abruptly elevated, strongly gibbous, slightly longer than broad; abdomen moderately small, the petiole with an erect, tolerably short and thick scale; posterior femora somewhat longer than their tibiæ, spurs pectinate, claws simple.

This genus seems closely allied to the next, differing chiefly in the form of the antennæ and in the absence of the ocelli.

Dorymyrmex Mayr.—☿. Mandibles triangular, external margin broadly curved, apical (or biting) margin dentate, with a large tooth in front; maxillary palpi 6-jointed, joints 1–2 very short, 3 very long, curved, thickened toward apex; labial palpi 4-jointed; clypeus triangular, slightly projecting between insertion of antennæ, not carinate, posterior angles rounded; clypeal and antennal foveæ confluent; frontal carinæ short, linear, parallel, slightly diverging behind; antennæ 12-jointed, inserted at the margin of the clypeus, scape long, slender, funicle filiform, the joints from base to apex of the latter gradually shorter, basal joint very long, the penultimate very short; frontal area subtriangular; eyes ovate, placed in the superior part of the head nearly equidistant from the anterior and posterior margins; ocelli distinct; occiput deeply arcuately excavate, the lateral margins slightly curved, the head beneath with a circle of long hairs; thorax constricted between meso- and metathorax, the latter arched above, armed with a tooth or obtuse horn; abdomen, seen from above, with four segments, anus inferior, the petiole either with a node or scale; legs slender, spurs of posterior tibiæ with long pectinations.

♀.—Head oval, convex above, excavated beneath, very broad behind the middle; clypeus transversely triangular, projecting between insertion of antennæ, convex medially; frontal area acutely triangular; frontal groove short and distinct; antennæ 12-jointed; thorax compressed; metathorax unarmed; abdomen elongate oval, the scale of the one-jointed petiole erect, ovate, obtusely toothed above; wings with two submarginal cells; tibial spurs pectinate.

♂.—Mandibles moderately long, apical (or biting) margin multidentate, the apex very acute; clypeus transversely triangular, projecting slightly between the insertion of antennæ; moderately convex; antennæ 13-jointed, the two basal joints of funicle longer than the remainder; mesothorax produced above the prothorax; metathorax unarmed; abdomen oval, the petiole above subnodose; legs very slender, tibial spurs pectinate; external genital valves compressed, sublinear, rounded at tip.

This genus, and also the preceding, belong to the Formicidæ, and are placed by Dr. Mayr between *Prenolepis* and *Liometopum*.

Lobopelta Mayr.—☿. Mandibles flat, depressed, slender, triangular or parallel-margined, obliquely truncate at tip so that the truncation is the "biting edge," which is toothed; clypeus elevated medially, kite-shaped and carinate, the carina extending posteriorly between the closely placed frontal ridges; the anterior middle of the clypeus is obtuse or sharply prolonged and fills up the triangular space left by the mandibles; antennæ 12-jointed, the scape long, reaching beyond the occiput, first joint of flagellum as long or longer than the second; eyes moderately large and rounded; thorax feebly convex above, subcompressed laterally, prothorax much narrowed anteriorly, mesothorax very short, only one-third as long as the prothorax and indistinctly separated from the metathorax, the face of which is more or less abruptly declivous; abdomen long, cylindrical, scale of the petiole sometimes compressed laterally, longer than broad, or the length and breadth are subequal, or it is very strongly compressed from before and behind and transverse; tarsal claws pectinate.

This genus belongs to the Poneridæ, and is represented in our fauna by one species (*septentrionalis* Mayr), found near Washington, D. C.

FOSSORES.

This series, which comprises the different families of sand and wood wasps, is distinguished from the preceding by the form of the abdomen, the petiole being simple, i. e. not formed into scales or nodes, and the sexes consisting of males and females only. The wings are never folded and are present in both sexes, except in the females of the Mutillidæ which are always apterous. The legs of the females are formed for burrowing, and not fitted for collecting pollen, the basal joint of the posterior tarsi being subcylindrical, and not dilated, flattened and densely hairy as in most of the Bees.

The families composing this large series may be separated in the following manner:

Table of Families.

Prothorax considerably produced posteriorly, the hinder angles reaching the tegulæ; ♀ sometimes apterous, in which case the segments of the thorax are almost always soldered together ..... 2.

Prothorax usually consisting of little more than a narrow collar, the posterior angles often lobately produced, but never reaching the tegulæ; ♀ never apterous ..... 3.

2.—Abdomen with the first ventral segment distinctly separated from the second by a more or less deep constriction or furrow.

Intermediate tibiæ with two apical spurs,* their coxæ contiguous or nearly so; ♀ apterous ..... MUTILLIDÆ.

Intermediate tibiæ with but one apical spur (except in *Myzine* ♀), their coxæ widely separated (less so in *Tiphia* ♂ and *Myzine* ♂); ♀ always winged ..... SCOLIIDÆ.

Abdomen with the first ventral segment not separated from the second by a furrow or constriction of the joint.

Posterior legs short, not reaching to the apex of the abdomen; eyes emarginate within ..... SAPYGIDÆ.

Posterior legs long, reaching beyond the apex of the abdomen; eyes not emarginate within ..... POMPILIDÆ.

3.—Anterior wings with three complete submarginal cells ..... 4.

Anterior wings with two complete submarginal cells ..... 5.

Anterior wings with but one complete and distinct submarginal cell (in *Trypoxylon* the second submarginal and third discoidal cells are indistinctly defined) ..... CRABRONIDÆ.

* In the ♀ of *Myzine* in the Scoliidæ, the intermediate tibiæ have apparently two apical spurs, but then the marginal cell is long and narrow, and distinctly separated from the anterior margin of the wing, and the third submarginal cell extends far beyond the apex of the marginal, which is never the case in the Mutillidæ. In species with spinose legs it is difficult to distinguish the apical spurs from the spines, the former, however, are generally colored differently from the latter.

4.—Abdomen petiolate.
First submarginal cell not receiving a recurrent nervure.
Petiole of abdomen slender, cylindrical, smooth; flagellum slender at apex; intermediate tibiæ with two apical spurs.....SPHECIDÆ.
Petiole depressed and generally furrowed above; flagellum thickened at apex; intermediate tibiæ with but one apical spur..MIMESIDÆ.
First submarginal cell receiving a recurrent nervure.....MELLINIDÆ.
Abdomen sessile or subsessile, rarely subpetiolate.
Second submarginal cell receiving both recurrent nervures, the first recurrent rarely uniting with the first transverse cubital nervure.
Marginal cell appendiculate; mandibles more or less deeply emarginate on their exterior margin (except in *Astata* and *Liris*, which, however, have the marginal cell truncate at apex and the labrum concealed)..... .....LARRIDÆ.
Marginal cell not appendiculate; mandibles entire on exterior margin.
Labrum short, not or scarcely exserted..... .....NYSSONIDÆ.
Labrum distinctly exserted, sometimes rostriform.....BEMBECIDÆ.
Second and third submarginal cells each receiving a recurrent nervure.
PHILANTHIDÆ.
5.—Prothorax long and narrow, produced anteriorly into a neck; metathorax elongate, truncate posteriorly; clypeus carinate, rostriform.
AMPULICIDÆ.
Prothorax short, transverse; metathorax short, rounded posteriorly; clypeus not carinate or rostriform..... .....PEMPHREDONIDÆ.

Family **MUTILLIDÆ.**

Mr. C. A. Blake, who has made the study of this extensive family a specialty, has published in the third volume of these Transactions (1871), an exhaustive "Synopsis" of the genera and species found in North America, and subsequently a bibliographical catalogue of the same. After a space of fifteen years the accumulation of material has made a revision of the family desirable, and which has just been published, by the same author, under the title of "A Monograph of the Mutillidæ of North America" (Trans. Am. Ent. Soc. xiii, 1886).

The family may be divided into seven genera by the following characters:

Table of Genera.

Marginal cell of anterior wings ♂ short, the apex generally truncate and remote from the tip of the wing; ♀ (as far as known) without ocelli.....2.
Marginal cell of anterior wings ♂ long and pointed at apex and extending almost to the tip of the wing; ♀ with distinct ocelli .....3.
2.—Anterior wings without stigma, at least not well developed; body opaque and often densely pilose and roughly punctured; ♀ without ocelli.
Antennæ of ♂ flabellate. .... **Psammotherma** Latr.

Antennæ simple in both sexes.
Eyes ovate, more or less acutely emarginate in the ♂....**Mutilla** Linn.
Eyes small, round, smooth and polished.
Prothorax ♀ not separated from remainder of thorax; abdomen with a very short petiole.....**Sphærophthalma** Blake.
Prothorax ♀ distinctly separated from remainder of thorax; abdomen with an elongate petiole (♂ *unknown*).....**Chyphotes** Blake*
Anterior wings with distinct, well developed stigma; body unicolorous, smooth and polished, rarely with sparse long hair, or deeply punctured (♀ unknown).....**Photopsis** Blake.
3.—Three submarginal cells, the second and third each receiving a recurrent nervure; apex of ♂ abdomen unarmed; thorax of ♀ divided by a transverse groove; body rugose.....**Myrmosa** Latr.
Two submarginal cells, each receiving a recurrent nervure; apex of ♂ abdomen armed with a long recurved spine; thorax of ♀ trinodose; body smooth and shining.....**Methoca** Latr.

Psammotherma is represented by a single species found in Florida, an exceedingly rare insect, the only specimen known being in the Harris collection.

Of *Mutilla*, *Sphærophthalma* and *Photopsis* (= *Agama* || Blake), there are numerous species; the females of the latter genus are still not known as such, and are probably larviform and subterranean in their habit, while the males are abundant wherever they occur, chiefly in the far Western and Southwestern States.

Chyphotes, which is readily recognized by the form of the thorax and the elongate petiole of the abdomen, is represented by a single species from Arizona and Southern California; the males are not known.

Myrmosa contains only two species, the females of which are unknown, and of *Methoca* four species have been described as inhabiting our fauna; of the latter genus, *stygia* Say ♂ and *bicolor* Say ♀, are probably sexes of the same species; the sexes are very dissimilar in shape, size and color, the ♂ having the appearance of a good sized *Ichneumon*, while the ♀ at first sight resembles an ant. The ♀ of *Myrmosa*, which is also very different from the ♂, is said to have much the same shape as that of *Mutilla*, but is at once distinguished by the presence of ocelli. In some specimens of *Myrmosa unicolor* ♂ the dividing nervure between the first and second submarginal cells is abbreviated, the posterior coxa has a short flattened tubercle or spine above, and the basal segment of the abdomen a tubercle or hooked spine beneath near the base.

* This genus is placed here provisionally, the ♂ being unknown.

The genus *Ischioceras* Prov. (Faun. Ent. Can. ii, 609), described as belonging to the Scoliidæ, appears to be composed of the males of *Myrmosa* and *Methoca*, the "♀" being ♂ *Myrmosa unicolor* Say, and the ♂ *Methoca stygia* Say.

The habits of the Mutillidæ are believed to be parasitic, or at least those of the genus *Mutilla*, and carnivorous in the larva state. The late Frederick Smith states that from a nest of a certain species of *Bombus*, only two worker bees were obtained, but as many as seventy-six specimens of a *Mutilla*, the larvæ of which were also found in the cells closed in as usual by the full-fed grub of the bee. Their attacks cannot, however, be confined to humble-bees, as the latter have not been found either in Australia or tropical Africa, and yet the Mutillidæ are common in both countries; likewise in Mexico, the species of *Mutilla* are plentiful, while those of *Bombus* are very scarce.

Family **SCOLIIDÆ.**

Table of Genera.

Eyes entire (except in *Myzine* ♂).....2.
Eyes emarginate within (subreniform) in both sexes.....3.

2.—Marginal cell of ♀ open at apex, of ♂ closed.

Basal segment of abdomen rounded at base, not carinate; first transverse-cubital nervure obliterated or nearly so, therefore only two submarginal cells; metathorax subquadrate, finely sculptured above, the enclosed space oblong, slightly narrowed posteriorly; second submarginal cell of ♂ not narrowed towards the marginal, being truncate and broadest at tip; clypeus black in both sexes.....**Tiphia** Fabr.

Basal segment of abdomen truncate at base, the truncation bounded by a carina; first transverse cubital nervure present, but abbreviated, not quite reaching the cubital nervure, therefore three submarginal cells; metathorax short, transverse, coarsely sculptured in ♂, the enclosed space triangular; ♂ clypeus white and the third submarginal cell narrowed towards the marginal and pointed at apex; second and third submarginal cells sometimes confluent or nearly so, by the absence or abbreviation of the second transverse cubital nervure.
Paratiphia Sichel.

Marginal cell closed at apex in both sexes, that of the ♀ not touching the anterior margin of the wing, except at the extreme base; three complete submarginal cells, the neuration of the anterior wings very different in the sexes; eyes of ♂ subemarginate within.....**Myzine** Latr.

3.—Anterior wings with only one recurrent nervure.....**Scolia** Fabr.
Three submarginal cells.....Subgen. **Triscolia** Sauss.
Two submarginal cells.....Subgen. **Discolia** Sauss.

Anterior wings with two recurrent nervures ..... **Elis** Fabr.
Three submarginal cells ..... Subgen. **Trielis** Sauss.
Two submarginal cells..... Subgen. **Dielis** Sauss.

Our species of this family have not yet been monographed, and there exists much confusion among the species of *Myzine*, which appear to be quite variable. In the study of the genera *Scolia* and *Elis*, the admirable work of Messrs. Saussure and Sichel, entitled "Catalogus Specierum Generis Scolia" 1864, will be found to be indispensible.

Family **SAPYGIDÆ.**

This small family comprises some pretty species of moderate size, mostly black in color, spotted and banded with yellow, rarely entirely black. Westwood considered it as a subfamily of the Scoliidæ, but it is readily distinguished from that family by the absence of the constriction or furrow between the first and second ventral segments, by the subclavate antennæ, by the smooth subcylindrical abdomen, and by the different neuration of the anterior wings which have four submarginal cells, i. e. the cubital nervure extends to the apical margin of the wing; moreover, the legs are slender, smooth and free from spines and coarse hairs. Sometimes the aculeus is considerably exserted. The species are probably parasitic, cuckoo-like, in their habits, the ♀ entering the burrows of certain Bees and depositing its eggs in the cells of the latter.

Table of Genera.

Vertex with smooth raised spots; ocelli small, indistinct; pale line on inner orbits more or less raised or blistered; apex of antennæ similar in the sexes.
Eusapyga Cress.

Vertex without smooth raised spots; ocelli distinct; pale line on inner orbits not raised; apex of antennæ dissimilar in the sexes, that of ♂ more or less thickened, with the terminal joint much smaller than the penultimate.
Sapyga Latr.

The species belonging to the genera characterized above, have been tabulated in a short paper read before the Entomological Section of the Academy of Natural Sciences of Philadelphia, November, 1880, but detailed descriptions of the new species indicated therein have not yet been published.

Family **POMPILIDÆ.**

Table of Genera.

Prothorax as long or longer than the metathorax; head broad and transversely compressed; antennæ inserted low down and close to the base of the clypeus, generally in more or less deep foveæ, the vertex usually long, broad and flat.....2.

Prothorax shorter than the metathorax, rarely as long as the mesothorax; head orbicular, as usual; antennæ inserted higher up on the face.....3.

2.—Three submarginal cells.....**Parapompilus** Smith.

Two submarginal cells.....**Planiceps** Latr.

3.—Two submarginal cells.....**Aporus** Spinola.

Three submarginal cells.....4.

4.—Marginal cell lanceolate, pointed, rarely rounded at tip.....5.

Marginal cell long, narrow, of nearly uniform width, obliquely truncate, or obtusely rounded at tip.....6.

5.—First discoidal cell longer than the first submarginal cell.

Legs strongly spinose; submedian cell of anterior wings of the same length as the median cell on the externo-medial nervure, rarely longer.

Pompilus* Fabr.

Legs serrate-spinose; submedian cell longer than the median cell on the externo-medial nervure, rarely of the same length.

Priocnemis Schiödte.

Legs not, or but feebly spinose.

Submedian cell longer than the median on the externo-medial nervure, the second discoidal cell shorter and smaller than the third; inner spur of posterior tibiæ more than half the length of the basal joint of their tarsi; antennæ ♀ more or less convolute, slender at tip.

Agenia Schiödte.

Submedian cell of same length as the median on the externo-medial nervure, the second discoidal cell almost as long as the third; inner spur of the posterior tibiæ scarcely one-third as long as the basal joint of their tarsi, rarely half as long; posterior legs unusually long, especially their tarsi; antennæ of both sexes porrect and thickened.

Ceropales Latr.

First discoidal cell rather shorter than the first submarginal, the second submarginal cell receiving the first recurrent nervure in the middle; submedian cell longer than the median on the externo-medial nervure, the second ~~submarginal~~ discoidal cell small and not half the length of the ~~second~~ third discoidal; body subcompressed; head long and narrower than usual, the labrum exserted rather longer than the clypeus; legs not spinose, tarsal claws deeply cleft.....**Notocyphus** Smith.

6.—Second submarginal cell smaller than the third, receiving the first recurrent nervure very near the tip, the first discoidal cell as long as the first

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* Mr. E. Saunders, in his "Synopsis of British Fossorial Hymenoptera" (Trans. Ent. Soc. Lond. 1880, p. 231) calls attention to a character, pointed out by Thomson, for the separation of the closely allied genera *Pompilus* and *Priocnemis*, the former having the vertex impunctured, and that of the latter distinctly punctured in both sexes; this character, however, does not seem to apply to our species.

and second submarginal cells combined; marginal cell obliquely truncate at tip ..... **Mygnimia** Smith.

Second submarginal cell much larger than the third, receiving the first recurrent nervure near the base; marginal cell obtusely pointed at tip. **Pepsis** Fabr.

This large and interesting family has been monographed in a paper entitled "Notes on the Pompilidæ of North America" published in the first volume of these Transactions, 1867, wherein the genera and species then known are described at length. Since then quite a number of species have been added to our fauna, as will be seen in the list given further on.

The species of this family generally burrow in sand banks, provisioning their cells mostly with spiders, which they first paralyze. Some species, e. g. of *Agenia*, the legs of which are not fitted for burrowing, construct mud-cells, placed irregularly side by side upon walls similar to those made by *Pelopœus*, a genus of the Sphecidæ. The species of *Pepsis*, which are among the largest of our hymenoptera, prey upon the Tarantula, an interesting account of which has been published by Mr. Buckley in the first volume of the Proceedings of the Entomological Society of Philadelphia. For an exceedingly interesting account of the habits of these insects, the reader is referred to an article published by the late Benj. D. Walsh, in the first volume of the "American Entomologist," pp. 122-143.

Mr. Westwood (Introd. Mod. Class. Ins. ii, 203) includes the Pompilidæ as a subfamily of Sphecidæ, which he, curiously enough, characterizes as "having the collar laterally dilated and extending as far as the base of the wings," which is certainly not the case in *Ammophila*, *Sphex*, *Pelopœus* or any of the genera of his first subfamily.

Family SPHECIDÆ.

This family has the prothorax narrowed anteriorly and forming a sort of neck, but the posterior angles are not prolonged to the base of the wings, as is the case in the preceding families of the Fossores; the basal segment of the abdomen is narrowed generally into a long, smooth, round petiole, and the head and thorax are usually clothed with long, thin pubescence.

The species mostly burrow into sand-banks, and provision their cells with caterpillars and spiders.

The following table will assist in separating the genera:

Table of Genera.

Petiole of abdomen biarticulate; second submarginal cell receiving both recurrent nervures.....**Ammophila** Kirby.

Petiole of abdomen uniarticulate.....2.

2.—Second submarginal cell receiving both recurrent nervures, or the first recurrent nervure received at the intersection of the first and second submarginal cells.....3.

Second and third submarginal cells each receiving a recurrent nervure.....4.

3.—Prothorax narrowed anteriorly into a neck and longitudinally impressed laterally; antennæ inserted low down on the face at the base of the short transverse clypeus; head subtriangular when viewed from above; apex of third submarginal cell extending beyond the tip of the marginal cell.....**Podium** Latr.

Prothorax scarcely narrowed anteriorly; antennæ inserted on the middle of the face, the clypeus being almost or quite as long as wide; apex of third submarginal cell not extending beyond the tip of the marginal cell.

Black, with yellow markings; clypeus bilobed at apex, less distinctly so in the ♂; petiole of abdomen as long as the entire thorax.
Pelopœus Latr.

Blue or violet, without pale markings; clypeus tridentate at apex, that of ♀ sometimes with a small additional tooth on each side; petiole of abdomen not as long as the metathorax.....**Chalybion** Dahlb.

4.—Tarsal claws unidentate beneath; anterior margin of clypeus with three teeth in ♂, and five in ♀; petiole of abdomen a little longer than posterior coxæ; marginal cell extending a little beyond the third submarginal cell, the second submarginal narrow, twice higher than wide; color blue, green or violet.....**Chlorion** Latr.

Tarsal claws bidentate beneath.

Petiole of abdomen more than twice the length of posterior coxæ; marginal cell not extending beyond the third submarginal cell; clypeus of ♀ with a notch in the middle of the elevated anterior margin, and a short tooth on each side of the notch; clypeus of ♂ simple, or with a slight crenulation.....**Isodontia** Patton.

Petiole of abdomen as long, or only a little longer than the posterior coxæ.

Marginal cell extending beyond the third submarginal cell; clypeus of ♀ crenate on anterior margin, or with short broad teeth; clypeus of ♂ truncate, the margins crenulate.....**Sphex** Linn.

Marginal cell not extending beyond the third submarginal cell; clypeus ♂ ♀ with a broad sinus on each side anteriorly, the central portion broadly produced and truncate.....**Harpactopus** Smith.

Tarsal claws with five teeth beneath, the basal one very small; petiole of abdomen no longer than the posterior coxæ; marginal cell not extending beyond the third submarginal cell; clypeus of ♀ produced in its whole width, a deep notch in the middle, above which is an elongated depression; clypeus of ♂ not so broadly produced, slightly sinuate anteriorly.....**Priononyx** Dahlb.

The genus *Ammophila* is represented by about thirty species from

all parts of the country; it differs from the other genera chiefly by the two-jointed petiole of the abdomen.

Pelopœus and *Chalybion* are closely allied; the species of the former are black with yellow markings, while those of *Chalybion* are blue or violet in color, and with the petiole of the abdomen much shorter. They construct their nests of mud in the corners of rooms, under the roofs of outbuildings and other sheltered situations.

The species of *Chlorion* are large insects, and are among the most beautiful of our hymenoptera, being of a brilliant blue, green or violet color; the genus is distinguished by the unidentate tarsal claws; only two species have been described as inhabiting our fauna.

Podium is represented by two species, both very rare, from the Southern States; in this genus the form is long and slender, the prothorax elongate and narrowed into a neck.

Isodontia has three species, all originally described as belonging to *Sphex*, which, however, differs by the much shorter abdominal petiole, and different form of the anterior margin of the clypeus.

Sphex contains twelve species of wide distribution, most of them being large, handsome insects, of strong, vigorous habit.

Of the other genera, *Harpactopus* is represented by three species from Colorado and Texas, and of *Prionotyx*, which has 5-toothed tarsal claws, three species have been described, two of which are of common occurrence.

Family **AMPULICIDÆ.**

Form long and slender; head large, flattened, subtriangular; clypeus rostrate, the mandibles large, free, acute at tip; antennæ slender; prothorax elongate, produced anteriorly into a rather slender neck; metathorax subquadrate, truncate posteriorly, the upper surface depressed, longitudinally carinate and reticulate; wings narrow, rather short, anterior pair banded with fuliginous, two submarginal cells, the first twice as long as the second, and receiving the first recurrent nervure in the middle; legs long and slender, femora swollen in the middle; abdomen elongate-ovate, acute at apex, smooth and polished, attached to the thorax by a slender petiole, which is shorter than the posterior coxæ..... **Rhinopsis** Westw.

This curious genus is represented by a single species, CANALICULATA Say (Ampulex), West. Quar. Rep. ii, 1823, p. 76 (= *pensylvanicus* Hald., Proc. Acad. Nat. Sci. Phil. 1849, p. 203; = *Abbottii* Westw., Arcana Ent. ii, p. 68, pl. 65, fig. 5), described from Pennsylvania, Georgia and Missouri, while the ♀ specimen in the collection of the American Entomological Society is from Canada. It appears to be of very rare occurrence.

Family LARRIDÆ.

The following synopsis of the genera is by Mr. W. H. Patton, who has made a study of the family, and published an interesting paper on the subject in the Proceedings of the Boston Society of Natural History for 1880.

Table of Genera.

Eyes emarginate within; second submarginal cell petiolate..... **Pison** Spin.
Eyes entire; second submarginal cell not petiolate.
Exterior margin of mandibles scarcely emarginate.
First submarginal cell shorter than the second and third combined, and divided by a spurious nervure; eyes of ♂ meeting on the vertex: intermediate tibiæ with two spurs..... **Astata** Latr.
First submarginal cell longer than the second and third combined, not divided; eyes not meeting on the vertex; mandibles not dentate within. **Liris** Fabr.
Exterior margin of mandibles with a broad, deep emargination near the base.
Three distinct ocelli..... **Lyroda** Say.
Posterior ocelli distorted or obsolete.
Metathorax as long as mesothorax, truncate behind; marginal cell truncate at tip..... **Larra** Latr.
Metathorax shorter than mesothorax, rounded behind; marginal cell narrow and rounded at tip; mandibles dentate within. **Tachytes** Panz.

Of the genera characterized above, *Pison* is represented by one species from Georgia, and *Astata* by twelve, mostly found in the far Western States, while to *Liris* has been referred a single species from Colorado, whose characters do not altogether accord with those of that genus. *Lyroda*, which is distinguished from the remaining genera by having three distinct ocelli, is represented by two species. Most of the species referred to *Larra*, about twenty in number, were originally described as belonging to *Larrada*, which, according to Patton, is not generically distinct.

Of *Tachytes*, sixteen species have been described. Referring to the species of this genus, Mr. Patton says: "So quick are these insects in their motions, and so watchful are they, that their capture is difficult; however stealthily they are approached while resting on the flowers, their green eyes are sure to face the intruder, and the least suspicious act sends them circling in the air, or off in an exceedingly rapid flight."

The species of this family are ordinarily found in sandy situations, where the females burrow, provisioning their cells chiefly with Orthopterous insects. The species of *Tachytes* are said to be very partial to the flowers of Asclepias.

Family **BEMBECIDÆ.**

This family is characterized chiefly by the distinctly exserted labrum, which in some genera is long and rostriform, and contains some of the largest and finest species of the Order. The genera belonging to the Stizini have been admirably treated in a paper by Mr. Patton (Bull. v. U. S. Geo. Surv. 1879), in which the characters are given in detail.

The following table will assist in separating the genera:

Table of Genera.

Intermediate tibiæ armed with two spurs at apex; submedian cell of posterior wings extending far beyond the median cell on the externo-medial nervure; labrum exserted, shorter than the clypeus; ocelli perfect. —**Stizini** ..... 2.

Intermediate tibiæ armed with but one spur at apex; submedian cell of posterior wings not extending beyond the median cell on the externo-medial nervure; labrum exserted, longer than the clypeus; ocelli more or less imperfect.—**Bembecini** ..... 3.

2.—Marginal cell lanceolate, extending beyond the tip of the third submarginal cell; the submarginal nervure beneath the second submarginal cell flexed to meet the first recurrent nervure, the latter inserted nearly in a line with a portion of the submarginal nervure beyond; spurs of hind tibiæ ♀ much enlarged.—**Sphecii** ..... **Sphecius** Dahlb.

Marginal cell ovate-lanceolate, not extending as far as the third submarginal cell; submarginal nervure not flexed to meet the first recurrent nervure, the latter convex at apex and inserted at an angle.—**Stizi.**

Large; legs robust, intermediate tarsi not longer than their tibiæ, joints 2–4 short, not longer than broad, spurs of their tibiæ short, pulvillus large; submedian cell of posterior wings extending no more than its own breadth beyond the median cell on the externo-medial nervure ..... **Megastizus** Patton.

Medium; legs more slender, intermediate tarsi much longer than their tibiæ.

Submedian cell of posterior wings extending no more than its breadth beyond the median cell on the externo-medial nervure; pulvillus large; joints 2–4 of intermediate tarsi short, not longer than broad; two apical joints of ♂ antennæ armed with a spine beneath. **Bembecinus** Costa.

Submedian cell of posterior wings extending much more than its own breadth beyond the median cell on the externo-medial nervure; pulvillus small; joints 2–4 of intermediate tarsi elongate; ♂ antennæ unarmed ..... **Stizus** Latr.

3.—Maxillary palpi short, generally concealed.

Anterior wings without a sinus between the marginal and third submarginal cells, the latter rounded at tip and scarcely narrowed towards the marginal, which is obtusely truncate at tip; inner side of second submarginal cell bent inwardly beneath ..... **Bembex** Fabr.

Anterior wings with a distinct sinus between the marginal and third submarginal cells.

Second submarginal cell subtriangular, much narrowed towards the marginal; labrum twice as long as broad, not swollen at base; mandibles slender, unarmed; maxillæ, when folded, concealed by the labrum.....**Microbembex** Patton.

Second submarginal cell subquadrate, not or very slightly narrowed towards the marginal; labrum not twice as long as broad, swollen at base; mandibles armed with a tooth; maxillæ, when folded, extending beyond the mesothorax.....**Steniolia** Say.

Maxillary palpi long, slender; anterior wings with a distinct sinus between the marginal and third submarginal cells.....**Monedula** Latr.

To the genus *Sphecius* belong two large species, which have been generally referred to *Stizus;* one of them, *speciosus,*—an exceedingly variable species found all over the United States—preys upon the Cicada, with which it provisions its nest; an interesting account of the habits of this species is given by Fuller in the "American Entomologist," vol. iii, p. 167. *Megastizus* has one species from the Western States and Texas, and *Bembecinus* two from Florida and Texas. To *Stizus* two species are referred, one of which, *Servillei* St. Farg., has not yet been identified, while the other, *unicinctus* Say, is very common in the far West and Southwest; it is black with a broad reddish band on the abdomen, and the wings broad, violaceous-black, with the extreme tips subhyaline.

The Bembecini have not yet been monographed, and considerable confusion exists in the species belonging to the genera *Bembex* and *Monedula,* of which seven are referred to the former and nine to the latter, while *Microbembex* and *Steniolia* have each one species.

Family **NYSSONIDÆ.**

Since the publication of Dr. Packard's "Revision of the Fossorial Hymenoptera" (Proc. Ent. Soc. Phil. vi, 1866–67), in which this family was reviewed, nothing has been done in the study of our species, except those belonging to *Nysson* and allied genera, which have been noticed in a paper published in the ninth volume of these Transactions, 1882.

The genera are readily separated by the characters given below.

Table of Genera.

Second submarginal cell not petiolate.....2.

Second submarginal cell petiolate.....3.

2.—Second submarginal cell receiving the first recurrent nervure at about the middle, and the second between the middle and apex; first discoidal cell very long and narrow, much longer than the first submarginal cell; submedian cell of posterior wings oblique or sinuate at tip.

Submedian cell of posterior wings as long or nearly as long as the median cell on the externo-medial nervure; face generally broad, not narrowed towards the clypeus, which is transverse; antennæ inserted near the base of the clypeus..... .....**Gorytes** Latr.

Submedian cell of posterior wings longer than the median cell on the externo-medial nervure; face narrowed towards the clypeus, which is generally subtriangular; antennæ inserted higher up above the clypeus..... .....**Hoplisus** St. Farg.

Second submarginal cell broad, receiving the second recurrent nervure very near the tip, the first recurrent nervure uniting with the first transverse cubital nervure; first discoidal cell diamond shaped, broad in the middle and not longer than the first submarginal cell on the dividing nervure; submedian cell of posterior wings much shorter than median cell on the externo-medial nervure, truncate at tip; *abdomen subpetiolate, first segment nodose*.....**Euspongus** St. Farg.

3.—Abdomen subsessile; prothorax subquadrate, narrower than the mesothorax; posterior femora with a stout tooth near the tip; apical joint of ♂ antennæ crescent-shaped.....**Alyson** Jur.

Abdomen sessile; prothorax transverse, as broad as the mesothorax.

Three submarginal cells.

Posterior tibiæ serrate; lateral margin of scutellums strongly reflexed, postscutellum bilobed; apex of ♂ abdomen generally with four teeth .....**Paranysson** Guér.

Posterior tibiæ not serrate; lateral margin of scutellums not reflexed, postscutellum narrow, not bilobed; apex of ♂ abdomen with not more than two teeth..... .....**Nysson** Latr.

Two submarginal cells..... .....**Hyponysson** Cress.

The genera *Gorytes* and *Hoplisus* are closely allied, differing principally in the neuration of the posterior wings; of the twenty-five species which have been described under the former genus, fourteen are known to belong to *Hoplisus*.

Euspongus, a very distinct genus, is represented by a single species, *bipunctatus* Say, a small insect of uncommon occurrence.

The genus *Alyson*, characterized by the subquadrate prothorax, petiolate second submarginal cell and toothed posterior femora, contains three species, generally rare in collections.

Of the remaining genera, *Paranysson*, which has two species from Texas and the far Western States, differs chiefly by the serrate posterior tibiæ and form of the scutellum; while *Hyponysson*, which closely resembles *Nysson*, differing only by having two submarginal cells instead of three, is represented by a single species of small size

from Washington Territory. Of *Nysson* seventeen species have been described, from all parts of the country, but nowhere common.

Family **PHILANTHIDÆ.**

This interesting family contains some of the most beautiful species in the whole tribe of fossorial hymenoptera, and is easily distinguished by the following characters: prothorax very short, transverse, not extending back to the tegulæ; anterior wings with three complete submarginal cells, of which the second and third each receive a recurrent nervure; abdomen sessile or subsessile.

Our genera may be separated in the following manner:

Table of Genera.

Third submarginal cell much narrowed towards the marginal, leaving a broad deep sinus between them, the former never extending beyond the latter; neuration of anterior wings always alike in both sexes.

Second submarginal cell not petiolate; marginal cell generally narrowed and pointed at apex, and extending beyond the third submarginal cell; basal segment of abdomen nearly or quite as broad at apex as the base of second segment, and rarely constricted.

Eyes subemarginate within; antennæ inserted on the middle of the face not far above the clypeus, not approximate; submedian cell of posterior wings as long or longer than the median cell on the externo-medial nervure; ♀ without an enclosure on the sixth dorsal segment. **Philanthus** Fabr.

Eyes entire; antennæ inserted above the middle of the face and distant from the clypeus, approximate; submedian cell of posterior wings falling far short of the median cell on the externo-medial nervure; ♀ with a broad flattened enclosure on the sixth dorsal segment. **Aphilanthops** Patton.

Second submarginal cell petiolate; marginal cell more or less obtuse at apex and rarely extending beyond the third submarginal cell; basal segment of abdomen always narrower than the second; all the segments more or less constricted. **Cerceris** Latr.

Third submarginal cell very large, subquadrate, scarcely narrowed towards the marginal cell and extending beyond it, and without a sinus between them; second submarginal cell triangular, sometimes petiolate in ♀; marginal cell obtusely truncate at apex; first abdominal segment narrowed as in *Cerceris;* neuration of anterior wings generally dissimilar in the sexes **Eucerceris** Cress.

A monograph of this family was published in 1865 (Proc. Ent. Soc. Phil. v, pp. 85–132) and full descriptions given of the genera and species then known to occur in our fauna. Mr. Patton has also published interesting and valuable notes on some of the genera and species, describing a new genus and several species (Proc. Bost. Soc.

Nat. Hist. 1880, and Bull. U. S. Geol. Survey, 1879). Dr. Packard, in his "Revision" treats this family as a subfamily, giving the characters in detail, tabulating the species and describing one as new.

The genera are easily separated, the characters being well marked and constant. All have numerous species, except *Aphilanthops*, which has but two. In *Cerceris* the clypeus of the ♀ is often produced into various curious shapes, which serve as convenient characters for separating the species, while in the ♂ it is never more than convex, but with the lateral apical margin furnished (as in the other genera), with a "moustache" or fringe of hairs, which sometimes has a waxed appearance.

The species of *Philanthus* are said to prey upon certain bees, especially the hive-bee, while *Cerceris* seems partial to different species of Curculionidæ.

Family **MIMESIDÆ.**

Table of Genera.

Second submarginal cell usually receiving both recurrent nervures, the submedian cell of posterior wings longer than the median cell on the externo-medial nervure; stigma slender; inner spur of posterior tibiæ broadly flattened.
Mimesa Shuck.

Second and third submarginal cells each receiving a recurrent nervure, submedian cell of posterior wings shorter than the median cell on the externo-medial nervure; stigma broad; both spurs of posterior tibiæ much alike.
Psen Latr.

These characters are those given by European authors, and are based principally on neuration, which Dr. Packard, in his "Revision," declares to be unreliable and to vary greatly in both genera; he says: "*Mimesa* differs from *Psen* by its broader and shorter head, longer body, much more clavate antennæ, the much longer propodeum and abdomen, and the ♀ tip is broad and flattened, where in *Psen* there is a linear, narrow groove." He gives the differential characters at length, but they merge so imperceptibly that it is almost impossible to tabulate them. The two genera are, however, very closely allied and the species look much alike.

Family **MELLINIDÆ.**

Body smooth and shining; abdomen petiolate; anterior wings with three submarginal cells, the first recurrent nervure received near the apex of the first submarginal cell, and the second at the base of the third submarginal cell.
Mellinus Fabr.

The peculiar neuration of this beautiful genus will readily distinguish it from all others in the Division. Of the three species that have been described as occurring in our fauna, *abdominalis* and *rufinodus* appear to be common where they occur and are handsome insects; the former has the abdomen entirely red, the first segment not nodose at apex, while in the latter species the first segment only is red, distinctly nodose at apex and the remaining segments ornamented with white; *bimaculatus* appears to be exceedingly rare, and has not yet been seen by the writer.

Family **PEMPHREDONIDÆ.**

Table of Genera.

Anterior wings without a third discoidal cell and therefore only one recurrent nervure; stigma unusually large.

Abdomen subsessile; recurrent nervure joining the first transverse cubital nervure..... **Spilomena** Shuck.

Abdomen petiolate; recurrent nervure received in middle of first submarginal cell..... **Stigmus** Jur.

Anterior wings with three complete discoidal cells and therefore with two recurrent nervures.

Abdomen distinctly petiolate; head and thorax more or less hairy.

First submarginal cell receiving both recurrent nervures, sometimes the second recurrent nervure is almost interstitial..... **Cemonus** Jur.

First and second submarginal cells each receiving a recurrent nervure. **Pemphredon** Latr.

Abdomen subsessile or with very short petiole; head and thorax not hairy; first and second submarginal cells each receiving a recurrent nervure.

Posterior tibiæ unarmed; labrum pointed at tip,..... **Passaloecus** Shuck.

Posterior tibiæ spinose or subserrate; labrum emarginate at tip. **Diodontus** Curtis.

This family is composed of slender, shining black species, mostly small in size, the anterior wings with two submarginal cells, the first being two or three times longer than the second, which is rectangular.

Spilomena and *Stigmus* are remarkable for the unusually large stigma and the absence of the third discoidal cell; the marginal cell is much narrowed to the apex, which is acutely pointed; the abdomen has a long slender petiole in *Stigmus* and subsessile in *Spilomena*. The species are quite small, and only three have been described.

Cemonus and *Pemphredon* are very closely allied to each other, and have been united by some authors. They differ chiefly in the neuration of the anterior wings as indicated in the above table. The abdomen has a long, flattened petiole. Only one species in each genus has been described.

Passaloecus has the labrum subtriangular and obtusely pointed; the mandibles large, robust and broader towards apex; the abdomen has a very short, flattened petiole, and the apical segment ♀ is convex above, subcompressed and acute at apex. Two species of small size are known.

Diodontus has the labrum deeply emarginate, the mandibles long and slender, not broader at apex; the abdomen is subsessile, with the apical dorsal segment ♀ rather broad, flattened and triangular. The single species is quite small in size.

Family **CRABRONIDÆ.**

This family may be at once distinguished by the neuration of the anterior wings, which have only *one* submarginal and two discoidal cells (except in *Oxybelus*, where the submarginal and first discoidal cells are confluent); this easily recognized character varies but slightly in the genera, and is different from any other family of this series. The head is generally large, and nearly square when viewed from above, and sometimes broader than the thorax; the clypeus is short and broad, narrowed to a point at the sides, the eyes large and prominent, and the antennæ inserted close to the base of the clypeus; the abdomen varies much in form, from petiolate to sessile.

The following table will assist in separating the genera:

Table of Genera.

Eyes deeply emarginate within; abdomen long, clavate; marginal cell long, pointed at apex, not appendiculate; a second submarginal and a third discoidal cells indistinctly defined; neuration of posterior wings complete..... .... **Trypoxylon** Latr.

Eyes not emarginate; marginal cell obtuse or truncate at apex, appendiculate: neuration of posterior wings incomplete.

Submarginal cell not confluent with the first discoidal cell; postscutellum and metathorax unarmed.

Eyes not hairy; mandibles entire.

Abdomen distinctly petiolate, the first segment terminating in a node. **Rhopalum** Kirby.

Abdomen subpetiolate or subsessile, the first segment not terminating in a node.

Second discoidal cell broadest at apex, shorter than the first discoidal cell, which is elongate diamond shaped.

Last dorsal segment of abdomen ♀ acutely produced, narrowed, compressed and grooved towards apex; ♂ antennæ and anterior tibiæ not expanded..... **Crabro** Fabr.

Last dorsal segment of abdomen ♀ broad, flat, triangular, the sides straight, not recurved; ♂ antennæ with middle joints often more or less dilated, the anterior tibiæ with a shield-like expansion. **Thyreopus** St. Farg.

Second discoidal cell long, narrow, obtusely pointed at apex, longer than the first discoidal cell, which is irregular in shape, receiving the discoidal nervure about one-third from the base, the submarginal cell receiving the recurrent nervure at about the middle; abdomen sessile, venter flat; form short, robust..... **Anacrabro** Pack.

Eyes hairy; mandibles emarginate exteriorly.. **Entomognathus** Dahlb.

Submarginal cell confluent with the first discoidal cell, only separated from it by a very indistinct nervure; postscutellum with a membranous wing-like appendage on each side; metathorax with a curved spine near the base..... **Oxybelus** Latr.

The genus *Trypoxylon* is readily recognized by the reniform eyes and long clavate abdomen, and is the only genus in the family where the neuration of the posterior wings is complete. The number of described species is few, and not uncommon.

Rhopalum has the abdomen petiolate, with the apex of the first segment nodiform; the species are of small size, and only two have been described.

Crabro has numerous species, varying in size from moderately large to quite small, and which have been divided into many subgenera, the characters founded chiefly on the armature of the legs; among these is *Blepharipus*, to which several North American species have been referred; these are all of small size, with subpetiolate abdomen, and with a single exception, have the abdomen entirely black. *Thyreopus* has generally been ranked among the subgenera, and doubtless properly so, but it is placed in the table given above because of easily recognized and tolerably constant characters.

Anacrabro is represented by a single small, robust species, having somewhat the appearance of *Oxybelus*, and at once distinguished by the linear form of the second discoidal cell.

Entomognathus, distinguished by the hairy eyes, has, as far as known, but a single representative in our fauna, and which occurs in Texas.

Oxybelus is remarkable for the armature of the metathorax and confluence of the submarginal and first discoidal cells.

The genera and species are described at length by Packard in his "Revision" previously referred to.

DIPLOPTERYGA.

This series consists of the true wasps, and is characterized chiefly by the wings being folded longitudinally in repose (more or less indistinctly so in the Masaridæ), in which respect it differs from all the other series, except in the Chalcid genus *Leucospis*. The prothorax is prolonged backwards to the base of the wings, the eyes are reniform and the legs are not formed for burrowing in the ground, being free from spines and bristles. The solitary species consist of two sexes, ♂ and ♀, and somewhat resemble the Fossores in their habits, constructing their nests in sandy banks, in crevices of stone-walls, in holes bored by other insects in wood, etc., using their powerful mandibles in excavating; some genera, e. g. *Eumenes*, construct mud-nests, in the open air, on stems of weeds, or under leaves, or loose bark of trees. On the other hand the social species consist of three sexes, ♂, ♀ and ☿, and are natural paper makers, constructing their nests on trees, or in corners of building, or under the roofs of outbuildings, although some species, e. g. *Vespa vulgaris* and *germanica*, commonly known as "yellow-jackets," build their nests underground, as most country boys know by painful experience. A very interesting article on the habits of these insects, by the late B. D. Walsh, will be found in the first volume of the "American Entomologist," pp. 138–143.

The series is divisible into three families, in the following manner:

Table of Families.

Antennæ clavate or knobbed at tip, the joints of the club generally soldered together; scutellum large, narrowed and rounded posteriorly, superposed upon the postscutellum; anterior wings indistinctly folded in repose; solitary, sexes ♂ ♀.....MASARIDÆ.

Antennæ filiform or subfiliform; scutellum transverse, truncate posteriorly, not superposed upon the postscutellum; anterior wings distinctly folded in repose.

Intermediate tibiæ with one spur at apex; tarsal claws unidentate; solitary, sexes ♂ ♀.....EUMENIDÆ.

Intermediate tibiæ with two spurs at apex; tarsal claws simple; social, sexes ♂ ♀ ☿.....VESPIDÆ.

Family MASARIDÆ.

This small, but beautiful family is at once recognized by the clavate or knobbed antennæ, long in the males of *Masaris*, and short in the females and in both sexes of *Euparagia*; the single species of the

latter genus, found in Nevada and California, is quite small in comparison with the generally large, fine species of *Masaris*, of which seven have been described from Texas, Colorado and California. The geographical distribution of the species of this genus is remarkable, the only other two representatives known being found in North Africa. Nothing is as yet known regarding their habits.

The following characters will sufficiently separate the genera:

Table of Genera.

Anterior wings with two complete submarginal cells, the second submarginal receiving both recurrent nervures; antennæ of ♂ long and knobbed at tip, that of ♀ short and clavate ..... **Masaris** Fabr.

Anterior wings with three complete submarginal cells, the second and third submarginals each receiving a recurrent nervure; antennæ rather short and clavate in both sexes..... **Euparagia** Cress.

Family **EUMENIDÆ.**

In this family, comprising the Solitary Wasps, the antennæ are filiform or nearly so, and often terminated by a hook in the ♂; the intermediate tibiæ have but one apical spur and the tarsal claws are unidentate. The genera with sessile or subsessile abdomen are closely allied, the only characters, so far discovered, by which they can be separated, are those found in the structure of the mouth-parts, which unfortunately are often concealed; there are, however, certain superficial differences of form and facies, impossible to describe intelligently, but which enable a practiced eye to distinguish the genera without recourse to an examination of the trophi.

The genera and species of this family, including also the Masaridæ, have been elaborately monographed by Dr. de Saussure, in his admirable "Synopsis of American Wasps," published in 1875 by the Smithsonian Institution, and which will be found to be indispensible to those desiring to study this interesting and beautiful group of insects.

The following table is about the best that can be offered at present for the separation of the genera:

Table of Genera.

Abdomen petiolate.

Head large, quadrate, much expanded behind the eyes, making the cheeks broad; clypeus broader than long..... **Zethus** Fabr.

Head transverse, not expanded behind the eyes, which almost entirely cover the cheeks; clypeus longer than broad..... **Eumenes** Latr.

Abdomen sessile or subsessile.
First segment of the abdomen funnel-shaped or subcampanulate, subbidentate in the middle; maxillary palpi 6-jointed, labial palpi 4-jointed. **Nortonia** Sauss.
First segment of the abdomen not funnel-shaped, gradually rounded or truncate at base.
Maxillary palpi 5-jointed; labial palpi 3-jointed ..... **Monobia** Sauss.
Maxillary palpi 6-jointed.
Labial palpi 4-jointed, simple ..... **Odynerus** Latr.
First abdominal segment above with a transverse carina near the base.
First abdominal segment somewhat funnel-shaped, divided above by a deep longitudinal groove; antennæ of ♂ simple. Subgen. **Symmorphus** Wesm.
First abdominal segment truncate at base, not divided by a longitudinal groove; antennæ of ♂ terminated by a hook. Subgen. **Ancistrocerus** Wesm.
First abdominal segment above without a transverse carina near the base ..... Subgen. **Odynerus** Sauss.
Labial palpi long and slender, 3-jointed, the second and third joints strongly compressed and bipectinate, fringed with long hairs. **Pterochilus** Klug.

Of the above genera *Zethus* and *Eumenes*, which have petiolate abdomen, are easily separated by the form of the head. The former genus, so abundant in species in tropical and subtropical America, has but one representative in our fauna. In the list six species are referred to *Eumenes*, one of which, *fraterna*, is widely distributed and common; it constructs a spherical nest of fine yellowish clay, which may often be found adhering to leaves, small twigs, or fastened against walls; within this little sphere, the insect places an egg together with a provision of caterpillars for the nourishment of the larva, and then seals it up.

Of *Monobia* we have two species, one of which, *quadridens*, is common in most of the States east of the Mississippi. *Nortonia* is represented by one species, of rather rare occurrence, and found in the Atlantic States from Connecticut to Florida.

Odynerus has numerous species, widely distributed over the country; they are divisible into several subgenera, the characters of which are given in the above table; many of the species are ornate with gay colors, and make a very pretty collection.

Pterochilus, which is characterized by the long, slender labial palpi fringed with long hairs, is represented by ten species, all from the far Western States; they are gaily colored, handsome insects, of medium to large size, and generally rare.

Family VESPIDÆ.

This family comprise the Social Wasps, commonly known as "Hornets" and "Yellow-jackets," and is easily separated from the preceding by the two-spurred intermediate tibiæ, and simple tarsal claws. They are all paper-makers, not out of rags, but out of wood, and according to Walsh, "alighting upon some wooden surface exposed to the weather, they gnaw off with their strong jaws the minute filaments of wood, which have become partly detached by the action of the elements, and chew them up into a fine pulp, which they afterwards spread out into thin sheets of strong, gray, weather-proof paper that form the material of their nests," which are found generally suspended from the branches of trees, and sometimes in the corners of outbuildings. Some species, e. g. the "Yellow-jackets," as previously noticed, build their nests underground and presumably much on the same principle as those built above ground. The species of *Polistes*, which differ by the more slender form, longer metathorax and subsessile or subpetiolate abdomen, build combs or a series of paper cells in various sheltered places, principally on the roof-timbers of barns and other outbuildings, but always without an envelope or covering, as is used by most of the species of *Vespa*. There do not appear to be any well-marked distinguishing characters between the females and workers of *Polistes*, and probably also of *Polybia*, which differs only in the form of the abdomen.

The characteristics of the genera belonging to this family are as follows:

Table of Genera.

Abdomen sessile, broad and truncate at base; metathorax very short and truncate; the basal nervure joins the subcostal nervure some distance before the stigma..... **Vespa** Linn.

Abdomen subsessile or subpetiolate, long, fusiform; metathorax as long as broad, oblique above: the basal nervure joins the subcostal nervure at base of the stigma..... **Polistes** Latr.

Abdomen petiolate, short and ovate beyond the first segment; metathorax and neuration much as in *Polistes*..... **Polybia** St. Farg.

Our species of this family are in much confusion, and need a thorough revision. The species of *Polistes* are exceedingly variable, and there is no doubt that a careful study of a large collection of specimens will result in a marked reduction of the number of species.

Polybia has but a single representative in our fauna, *flavitarsis* Sauss., quite a common insect in California.

Of *Vespa*, the black and white species, *maculata*, is the most common, building large nests on trees, etc., while *germanica* and *vulgaris*, black and yellow species, also abundant, build underground.

ANTHOPHILA.

This extensive series, containing the interesting family of Bees, is characterized chiefly by having the basal joint of the posterior tarsi more or less dilated, flattened, generally hirsute and furnished with apparatus for collecting and conveying pollen, except in the parasitic species, in which this joint is narrower, simple and destitute of polliniferous organs.

Mr. E. Saunders, in his Synopsis of the British Bees (Trans. Ent. Soc. London, 1883–84 has), found the only satisfactory structural character primarily dividing the Anthophila from the rest of the Aculeata, to be the form of the hairs of the body, which he says are always more or less branched or plumose, at least those of the thorax, while in the other series the hairs are simple or at most twisted, never branched or plumose. This character, which may be a very excellent one, has not been adopted in this synopsis because it is in many cases microscopic, and hence difficult to observe.

The classification of the Anthophila depends considerably upon the variations in the structure of the mouth-parts, which are highly organized (and are admirably described and figured by Prof. Westwood in his "Modern Classification," vol. ii, pp. 256–57), hence the characters adopted for the separation of the two families, into which the series is divisible, are in the comparative length of the labium and mentum, as given in the table of families, and for convenience repeated here:

Labium flattened, shorter than the mentum; basal joints of the labial palpi not unlike the following joints..... ANDRENIDÆ.
Labium slender, not flattened, longer than the mentum; basal joints of the labial palpi elongate..... APIDÆ.

In the Andrenidæ the species are all solitary, each consisting only of males and females; while in the Apidæ, the species belonging to the genera *Bombus* and *Apis* are social, and consist of males, females and

workers. By some systematists the latter family is restricted to the social species only.

In the larva state all the species feed on pollen or honey stored up by the parent, the parasitic species, cuckoo-like, consuming the food provided for the legitimate inhabitant of the nest.

In tabulating the genera belonging to this series use has been made of external characters when possible, simply because they are more easily seen, and although the arrangement is far from being a natural one, as will be observed by the way in which the genera of the two families are intermixed in the tables, yet it will be found a much easier mode of identification than if the more natural, though often invisible characters, founded upon the modification of the mouth parts, were used. These latter are generally retracted and hidden in cabinet specimens, and unless drawn out and arranged before becoming dried, are troublesome to get at, and moreover cannot be distinctly seen without the aid of a lens of more than ordinary power.

From the fact that the characters separating the two families of this series are taken from the form of the tongue, and that no external characters have been found that will distinguish them, the genera belonging to both must necessarily intermix in the following table:

Table of Genera.

Anterior wings with *three* submarginal cells.....2.

Anterior wings with *two* submarginal cells.....19.

2.—Posterior tibiæ without apical spurs; eyes hai , approximate above in ♂; marginal cell very long, almost reaching the apex of the wing; maxillary palpi 1-jointed; sexes ♂ ♀ ☿ .....**Apis** Linn.

Posterior tibiæ with apical spurs; tip of marginal cell remote from the apex of the wing.....3.

3.—First recurrent nervure quite or nearly uniting with the first transverse-cubital nervure.....**Megacilissa** Smith.

First recurrent nervure received by the second submarginal cell near its middle or beyond the middle, rarely uniting with the second transverse cubital nervure.....4.

4.—First discoidal cell much longer than the marginal cell.....5.

First discoidal cell not as long or scarcely longer than the marginal cell..8.

5.—Marginal cell short, not half the length of the first discoidal, and not or scarcely extending beyond the apex of the third submarginal cell.

Scutellum bituberculate; maxillary palpi 5-jointed; claws of the four posterior tarsi dilated; abdomen generally with spots or interrupted bands of pale, depressed, scale-like pubescence .....**Melecta** Latr.

Scutellum bispinose; maxillary palpi 6-jointed; tarsal claws not dilated; abdomen without pale spots.....**Bombomelecta** Patton.

Marginal cell at least half the length of the first discoidal, and extending more or less beyond the third submarginal cell.....6.

6.—Third submarginal cell subquadrate, not narrower above than beneath; marginal cell obtuse at tip, extending beyond the apex of the third submarginal cell not more than its widest part; maxillary palpi 6-jointed.

Knee plate of posterior tibiæ ♀ large and rounded; mandibles simple or bidentate at apex in both sexes.....**Anthophora** Latr.

Knee plate ♀ sharply defined, its tip narrow and elongate; mandibles tridentate in both sexes.....**Clisodon** Patton

Third submarginal cell narrower above than beneath; marginal cell extending far beyond the apex of the third submarginal cell.....7.

7.—Apex of marginal cell obtuse, not attaining the costal margin; second submarginal cell nearly triangular, being much narrowed towards the marginal and smaller than the third submarginal; scutellum with a more or less distinct lateral tooth; abdomen with short, dense, scale-like pubescence; maxillary palpi 1-jointed...**Epeolus** Latr.

Apex of marginal cell attaining the costal margin of the wing; maxillary palpi 6-jointed.

Body almost entirely naked, of graceful form and more or less ornamented with pale markings; abdomen subsessile; legs without or with very sparse pubescence; scutellum often obtusely bituberculate, but without lateral teeth; stigma well developed, lanceolate, second submarginal cell receiving the first recurrent nervure in the middle or between the middle and apex.....**Nomada** Fabr.

Body, except most of abdomen, clothed with dense pubescence; form broad and robust, abdomen sessile; legs densely hairy, especially in ♀; stigma not well developed, second submarginal cell receiving the first recurrent nervure at apex; ♂ antennæ longer than in ♀.
Habropoda Smith.

8.—Stigma well developed, lanceolate.....9.

Stigma not well developed, short and often subobsolete.....14.

9.—Second recurrent nervure strongly sinuose, the lower half bulging outwardly towards the apex of the wing; posterior tibiæ without knee plate; maxillary palpi 6-jointed.....**Colletes** Latr.

Second recurrent nervure either straight or obliquely inclined inwardly; maxillary palpi 6-jointed.....10.

10.—First submarginal cell conspicuously longer than the third, and generally as long as the second and third combined.....11.

First submarginal cell about as long as the third.....13.

11.—Basal nervure of anterior wings obtusely bent or rounded posteriorly.....12.

Basal nervure straight or nearly so; clypeus of ♂ not prominent or prolonged, the face generally with long dense pubescence.

Apical joint of antennæ obliquely truncate; ocelli placed in a curve.
Cilissa Leach.

Apical joint of antennæ not obliquely truncate; ocelli placed in a triangle.
Andrena Fabr.

12.—Body, or at least the thorax, metallic green or blue.

First recurrent nervure received at the extreme base of the third submarginal cell, or uniting with the second transverse cubital nervure, rarely received at the extreme base of the second submarginal cell; clypeus ♂ not prominent or prolonged; body entirely metallic blue or green.....**Augochlora** Smith.

First recurrent nervure received by the second submarginal cell near its middle, or between the middle and apex; clypeus ♂ prominent and prolonged; fifth abdominal segment ♀ with a median longitudinal furrow or rima; generally only the head and thorax metallic colored.....**Agapostemon** Smith.

Body without metallic colors.

Abdomen smooth, shining, naked, generally red, or red and black, rarely entirely black.

Fifth abdominal segment ♀ without a median longitudinal furrow or rima; face short and broad, subrugose; ocelli not unusually large. **Sphecodes** Latr.

Fifth abdominal segment ♀ with a median longitudinal furrow or rima; face elongate, narrow, shining; ocelli unusually large and prominent.....**Parasphecodes** Smith.

Abdomen generally opaque, segments 1–4 or 5 almost always fringed at apex with pale pubescence; fifth abdominal segment ♀ with a median longitudinal furrow or rima; clypeus ♂ prominent, often prolonged; face without long pubescence.....**Halictus** Latr.

13.—Second submarginal cell much narrowed towards the marginal; body blue-green, of small size; legs and antennæ simple in both sexes. **Ceratina** Latr.

Second submarginal cell quadrate or nearly so, not narrowed towards the marginal; body large; posterior legs ♂ more or less deformed.

Apical joint of ♂ antennæ elongate, not dilated; apical margin of the abdominal segments sometimes green.....**Nomia** Latr.

Apical joint of ♂ antennæ short, dilated, excavated, spoon shaped. **Eunomia** Cress.

14.—Third submarginal cell almost as long as the first and second combined, the second elongate, cuneiform, narrowed and pointed at base, the first recurrent nervure uniting with the second transverse cubital nervure; third submarginal cell scarcely narrowed towards the marginal, which is long and narrow.....**Xylocopa** Latr.

Second submarginal cell rather longer than either the first or third.

Marginal cell rather short, obtuse at tip, not extending more than its width beyond the apex of the third submarginal cell, which is very much narrowed towards the marginal; second submarginal cell quadrate, not narrowed above; posterior legs ♀ with long, dense pubescence.....**Centris** Fabr.

Marginal cell long, pointed at tip, extending far beyond the apex of the third submarginal cell; second submarginal cell strongly produced at base beneath; maxillary palpi 2-jointed.

Posterior tibiæ ♀ flattened, dilated and more or less concave, polished and fringed with long hair (this arrangement is called the "corbicula"); sexes three, ♂ ♀ ☿.....**Bombus** Latr.

Posterior tibiæ ♂ ♀ outwardly convex, dull and covered with short, dense pubescence; sexes two, ♂ ♀.....**Apathus** Newm.

Second submarginal cell smaller than either the first or third.....15.

15.—Antennæ ♂ conspicuously longer than in ♀; clypeus ♂ more or less yellowish.....16.

Antennæ ♂ only slightly, or not at all, longer than in ♀; clypeus not pale colored.....17.

16.—Scopa of posterior legs ♀ short, dense, not conspicuously plumose; antennæ ♂ greatly lengthened; maxillary palpi 6-jointed.

Synhalonia Patton.

Scopa of posterior legs ♀ long, dense, plumose or matted; antennæ ♂ as long as the thorax or longer; maxillary palpi 4-jointed.

Melissodes Latr.

Scopa of posterior legs ♀ long, thin, finely plumose; antennæ ♂ reaching to base of abdomen; maxillary palpi 5-jointed.

Xenoglossa Smith.

17.—Posterior legs more or less thickly pubescent; maxillary palpi 6-jointed..18.

Posterior legs without long pubescence; body short, broad, robust, ornamented with patches of depressed, pale, scale-like pubescence, as in *Epeolus;* second submarginal cell conspicuously shorter than the third, receiving the first recurrent nervure at or near the tip, the third submarginal cell narrowed towards the marginal and receiving the second recurrent nervure at about the middle; marginal cell long, lanceolate, obtuse at tip; thorax short, broad, convex, longitudinally impressed above; scutellum subbituberculate, without lateral teeth; legs not unusually robust, basal joint of the tarsi long and narrow, the spur at the apex of the intermediate tibiæ long, robust and obtusely bidentate at tip; abdomen short, broadly ovate, convex above, apex of sixth segment bidentate; head narrower than the thorax, and placed low down, formed much as in *Epeolus*.....**Ericrocis** Cress.

18.—First submarginal cell longer than the third, which is narrowed towards the marginal; abdomen with short velvety pubescence; legs ♂ unusually long, the femora swollen, the pubescence short, the scopa on posterior legs ♀ long and thin.....**Emphor** Patton.

First and third submarginal cells of about equal length, the second smallest.

Proboscis when folded extending beneath the thorax as far as to the base of the abdomen; posterior legs ♀ with a long loose scopa, and venter with long loose pubescence; maxillary palpi with joints 1 and 2 equal, joint 1 of labial palpi ciliate, not half the length of 2.

Entechnia Patton.

Proboscis not elongate; posterior legs ♀ with a long dense scopa, and venter with long dense pubescence; maxillary palpi with joints 2 and 3 nearly twice as long as 1, joint 1 of labial palpi longer than 2.....**Diadasia** Patton.

19.—Marginal cell short, broadly truncate at tip.....**Perdita** Smith.

Marginal cell elongate, lanceolate, acuminate at tip, rarely truncate.....20.

20.—Antennæ ♂ very much longer than in ♀; body, at least the thorax, thickly pubescent; first and second submarginal cells subequal in length, the second rather the longest; maxillary palpi 6-jointed.

Eucera Scop.

Antennæ subequal in length in both sexes, rarely a little longer in ♂.....21.

21.—Second submarginal cell subquadrate, but slightly if any longer than high, and conspicuously smaller than the first; first recurrent nervure often uniting with the first transverse cubital nervure; body naked; maxillary palpi 6-jointed.....**Prosopis** Fabr.

Second submarginal cell always much longer than high, and almost equal in length with the first, rarely conspicuously shorter .....22.

22.—Eyes hairy; abdomen conical, acuminate in ♀, apex armed with teeth or spines in ♂; scutellum generally dentate laterally; anterior coxæ ♂ often armed with a spine; maxillary palpi 3-jointed.

Cœlioxys Latr.

Eyes not hairy.....23.

23.—Third discoidal cell contracted above, the recurrent nervures approximating each other toward the middle of the second submarginal cell; in appearance closely resembling a very small *Epeolus*.

Phileremus Latr.

Third discoidal cell not contracted above, the recurrent nervures remote from each other.....24.

24.—Marginal cell narrowly truncate at tip.

Ocelli in a triangle; tongue long, slender, tufted at tip (Smith's figure); first joint of labial palpi longer than the three following combined.

Calliopsis Smith.

Ocelli in a line or slight curve; tongue rather short, lanceolate, acute at tip; first joint of labial palpi not longer than the three following joints combined.....**Scrapter** St. Farg.

Marginal cell pointed at tip.....25.

25.—Second recurrent nervure received beyond the tip of the second submarginal cell, or uniting with the third transverse cubital nervure; maxillary palpi 2-jointed.

Abdomen ♀ with a dense ventral scopa; pulvillus wanting; abdomen ♂ toothed or lobed at apex.....**Anthidium** Fabr.

Abdomen ♀ without ventral scopa; pulvillus present, small in ♀, large in ♂; abdomen ♂ not toothed or lobed at apex.....**Stelis** Panz.

Second recurrent nervure received by the second submarginal cell before its apex.....26.

26.—Stigma lanceolate, well developed.....27.

Stigma short, not well developed, or obsolete.....28.

27.—Head transverse, not much extended behind the eyes; maxillary palpi 6-jointed.

Face thinly pubescent; posterior legs ♀ with a dense scopa, posterior femora ♂ short and swollen.....**Macropis** Panz.

Face thickly pubescent; posterior legs ♀ with a thin scopa, posterior femora ♂ slender, not swollen.....**Panurgus** Panz.

Head quadrate, considerably extended behind the eyes; maxillary palpi 3-jointed; third and fourth joints of labial palpi minute, subequal in length.....**Heriades** Spin.

28.—Marginal cell at apex reaching the costal margin of the wing; second submarginal cell narrowed at least two-thirds towards the marginal; maxillary palpi 3-jointed; fourth joint of labial palpi minute, much shorter than the third.....**Chelostoma** Latr.

Marginal cell at apex more or less distinctly separated from the costal margin of the wing; second submarginal cell narrowed not more than one-half towards the marginal.....29.

29.—Pulvillus wanting in ♀.....30.

Pulvillus present in both sexes.....31.

30.—Basal joint of four posterior tarsi long, slender, subcylindrical, the tibiæ usually tuberculate, pulvillus present in ♂; face of ♀ with a roof-like or bituberculate projection beneath the insertion of the antennæ; maxillary palpi 4-jointed.....**Lithurgus** Latr.

Basal joint of four posterior tarsi more or less dilated, rarely subcylindrical, anterior tarsi ♂ often broadly dilated, rarely subcylindrical, their coxæ often armed with a spine; tibiæ very rarely tuberculate, pulvillus wanting in both sexes; maxillary palpi 2-jointed.

Megachile Latr.

31.—Antennæ similar in both sexes, simple.

Maxillary palpi 4-jointed; abdomen globose or subglobose..**Osmia** Panz.

Maxillary palpi 5-jointed; abdomen oblong.....**Monumetha** Cress.

Antennæ dissimilar in the sexes, deformed in ♂, filiform and simple in ♀; maxillary palpi 4-jointed.

Flagellum ♂ unequal, joints 2–5 dilated, joint 6 suddenly narrower and the following joints gradually attenuated to apex, which is simple; scape rather long and robust, most slender at base.

Andronicus Cress.

Flagellum ♂ with compressed, submoniliform joints of nearly equal length, slightly attenuated toward tip, the apical joint suddenly constricted into a slender curved spine; scape rather long and very robust.....**Alcidamea** Cress.

The genera characterized above may be arranged as in the list given further on.

Both families need a thorough revision; the Andrenidæ are in utter confusion, a large majority of the species being undescribed.

Prof. Westwood divides the Andrenidæ into two divisions, based on the structure of the labium, viz.: the *obtusilingues*, in which the central portion of the labium is obtuse, being either transverse or cordate and very short, containing the genera *Colletes* and *Prosopis;* and the *acutilingues*, in which the central portion of the labium is acute or lance-shaped, and containing the remaining genera of the family.

The species of *Colletes* have hairy, often fasciate bodies, and are easily distinguished from all other bees by the second recurrent nervure being strongly curved *outwardly* towards the apex of the wing; while in *Prosopis* the body is coal-black and naked, and consequently destitute of apparatus for collecting and carrying pollen; in some of the species of this genus the scape or the basal joint of the ♂ antennæ is broadly dilated or shield-like.

In *Halictus* and *Andrena* the species are very numerous, some of those of the former genus being among the smallest of our bees. Unfortunately they have not been studied, and are therefore mostly unnamed. The species of both genera, like those of *Polistes*, etc.,

are subject to the attacks of *Stylops*, a curious little coleopterous parasite, the females of which are apterous, grub-like insects which never leave the bodies of the bees, and whose presence is known by the protrusion of her head between the upper segments of the abdomen.

Sphecodes is easily recognized by the smooth, polished abdomen, which is generally of a red color. Some authors have placed this genus among the parasites, but the late Frederick Smith, who made the study of the Anthophila a specialty, says that the result of his observations has led to the conclusion that no species of the Andrenidæ is parasitic.

The species of *Augochlora* and *Agapostemon* are the most brilliant of our bees, being colored with metallic blue and green.

The genera *Nomia* and *Eunomia* are very closely allied, and are remarkable for the curious manner in which the legs of the males are dilated, curved and spined.

The species belonging to the Apidæ have been recently catalogued in a paper on that family published in the seventh volume of these Transactions, but with the study of a large amount of material, the number of species will doubtless be much reduced, and some be more properly referred to genera not yet characterized or recognized as inhabiting our fauna.

The genera *Panurgus*, *Calliopsis* and *Perdita*, have been made the receptacle for a number of species which do not properly belong to either of those genera, and have been placed there provisionally until more abundant material can be obtained, when a more careful study may be made of their characters.

The species belonging to *Nomada* have been called "Wasp-bees" on account of their close resemblance in their gay coloring to the smaller wasps. The genus is represented in our fauna by a large number of species, over sixty, which, however, show great variation in coloring and markings; the apex of the abdomen is truncate in the ♀ and acute in the ♂. They are parasitic on the species of *Halictus* and *Andrena*.

The genus *Epeolus* is easily recognized by the cinereous or yellowish bands of depressed pubescence on the abdomen, the apex of which is acute in the ♂ and obtuse in the ♀; they are said to be parasitic on the species of *Colletes*.

Ericrocis is a new genus formed for the reception of *Crocisa? lata* Cress., a short, broad, *Epeolus*-like species from Texas.

Melecta is said to be the parasite of *Anthophora*, and is allied to *Epeolus*, which our species resemble in general form and in the ornamentation of the abdomen, but the maxillary palpi have five joints.

Some of the species of *Stelis* closely resemble those of *Anthidium*; the ♀, however, is without a ventral scopa.

The genus *Cœlioxys* is the parasite of *Megachile*, and is readily known by the conical abdomen, which is pointed at tip in the ♀ and more or less spined in the ♂. The females have good specific characters, while the males are difficult to separate.

The species of *Osmia* are generally of a bluish or greenish color, having a short robust form, which is more or less hairy, the abdomen subglobose, that of the ♀ having a ventral scopa. In their economy the species of this genus are said to be very diverse, some burrow in earth, some in wood, while others nidificate in the shell of snails, etc.

The genus *Anthidium* contains some very handsome insects, and about thirty-five species are given in the list; the ♂ abdomen is incurved at apex, which is often spined, and that of the ♀ is furnished with a ventral brush.

The bees included in the genus *Megachile* are popularly known as "Leaf-cutters," from their habit of cutting off pieces of leaves for the purpose of forming cells in which to store up food for their larvæ. The males present broad distinctive specific differences, chiefly in the form of the antennæ and anterior legs, while those of the females are difficult to detect. The number of our described species is great, which, however, will doubtless be largely reduced when more carefully studied with abundant material at hand.

Ceratina contains some pretty little blue-green naked species, whose habit is to excavate the pith from brambles, briars, etc., and supply their larvæ with a deposit of semi-fluid honey, they being destitute of pollinigerous appendages. We have four described species, one of which, *dupla* Say, is of common occurrence, and is said to excavate the pith of the Mullein.

Of *Eucera* only one species has been described as inhabiting our fauna, and which has not yet been identified by the compiler. The anterior wings have but two submarginal cells, and the ♂ antennæ are as long as the entire body, filiform, with the joints arcuate and reticulate.

The genera *Melissodes*, *Xenoglossa* and *Synhalonia* are closely allied, having the ♂ antennæ conspicuously longer than that of the ♀, but differing in the number of the joints of the maxillary palpi. These

genera, together with *Emphor*, *Entechnia*, *Habropoda*, *Anthophora* and *Clisodon*, have been made the subject of an interesting paper by Mr. Patton, entitled, "Generic Arrangement of the Bees allied to *Melissodes* and *Anthophora* (Bull. v. U. S. Geo. Surv. 1879)," in which the characters are given at length.

The genus *Xylocopa*, commonly known as "Carpenter Bees," from their habit of boring tunnels in posts, rails, etc., in which to nidificate, contain some of the largest species of the family.

The genera *Bombus* and *Apis* are too well known to need any reference here to their structural characters. They differ from all other bees in their social habits, being composed of males, females and workers. The species of *Bombus*, or "humble-bees" construct their nests generally under ground in meadows, pastures, etc., and form societies of more or less extent; their union, however, lasts only until the cold weather destroys all but a few impregnated females, who survive to found fresh colonies the following spring.

Apathus is a parasitic genus of bees which inhabit the nests of the Bombi. "What office," says Smith, "these bees perform in the economy of the nest has not been discovered; they live on the most friendly terms with the industrious part of the community, and it is probable that upon them devolves some important office, the nature of which it would be very interesting to discover." The genus differs from *Bombus* principally in the absence of the corbicula on the posterior legs of the ♀, the tibiæ in both sexes being outwardly convex and densely clothed with short hairs.

The genus *Apis* contains the common "Hive-Bee," *mellifica*, which is cosmopolitan, and upon which volumes have been written, yet many interesting points in their economy still remain undetermined. "We can scarcely estimate," says Smith "the value the products of the hive must have been to man in ancient times; but when we remember that honey must have formed the staple commodity which our forefathers applied to all the uses for which sugar is now substituted, and at the same time recollect even the present value of the wax, we shall arrive at a considerable estimate of the benefits derived from these industrious insects."

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* An explanation of the abbreviations will be given at the end of the volume, after the catalogue of the species and the bibliography. Upon verifying the references in this list, several errors in the spelling of the generic names given in the foregoing synoptic tables were discovered, and will be noticed in the errata.

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sertion in its proper place in the Synopsis. It belongs to the Subfamily Encyrtinæ, and is closely allied to *Homalotylus* (p. 69), but differs chiefly as follows: The pedicel of the antennæ is much longer than the first funicle joint; the inner margins of the eyes are nearly parallel; the stigmal vein of anterior wings bends abruptly downward, forming at first a right angle with the submarginal and afterwards curving slightly outwards; the postmarginal vein is absent, and the large mesopleura is covered with a number of longitudinal ridges. Male not known.

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Xenomerus Walker, Ent. Mag. iii, 355 (1836)..... 83
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Xestophanes Förster, Verh. zool.-bot. Ges. Wien, xix, 337 (1869).....30, 34
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PART 2.

CATALOGUE OF SPECIES

AND

BIBLIOGRAPHY.

CATALOGUE

OF THE

DESCRIBED HYMENOPTERA

OF

AMERICA NORTH OF MEXICO.*

Family **TENTHREDINIDÆ.**

Subfamily CIMBICINÆ.

CIMBEX Oliv.

alba Norton, Trans. Am. Ent. Soc. i, 42, ♀ (= var. *americana*).
americana Leach; Norton, ibid. 40, ♂ ♀. Brit.Am. U.S.
Dahlbomii Guér.; Norton, ibid. 42, ♀ (= var. *americana*).
decemmaculata Leach; Norton, ibid. 42 ♀ (= var. *americana*).
femorata Kirby, Faun. Bor.-Am. iv, 254, ♂ (= var. *americana*).
fuscipennis Leach; Kirby, List Hym. Brit. Mus. i, 6. N.Am.?
hudsonica Kirby, ibid. 8, pl. 1, fig. 4, ♀. Brit.Am.
Kirbyi Brullé, Hym. 672, pl. 48, fig. 6, ♂ (= var. *americana*).
LaPortei St. Farg.; Norton, Trans. Am. Ent. Soc. i, 41, ♂ (= var. *americana*).
luctifera Klug; Norton, ibid. 41, ♂ ♀ (= var. *americana*).
pacifica Cress., ibid. viii, 51, ♀. Wash.Terr.
rubida Cress., ibid. 1, ♂ ♀. Nev. Cala.
semidea Cress., ibid. 1, ♀. N.H.
ulmi Peck; Norton, ibid. i, 41, ♂ ♀ (= var. *americana*).
Viardi St. Farg., Ann. Soc. Ent. Fr. ii, 454, ♀ (= var. *americana*).
violacea St. Farg.: Kirby, List Hym. Brit. Mus. i, 6, ♂ ♀. Brit.Am.

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* The correctness of the generic determinations, and the validity of the species themselves, contained in this list, are not vouched for by the compiler, the species being, with very few exceptions, placed in the genera in which they were originally described, and where known not to be properly placed, are referred to the genera to which they belong, or to the species with which they are synonymous. At the conclusion of the catalogue a list of such papers as have been published on the subject will be given, together with an explanation of the abbreviations used in the references.

TRICHIOSOMA Leach.

aleutiana Cress., Trans. Am. Ent. Soc. viii, 1, ♀ (= var. *triangulum*).
arcticum Kby, List Hym. B. Mus. i, 10, pl. 1, fig. 7, ♂. Arc.Am. (= *lucorum?*).
bicolor Harris; Norton, Proc. Bost. Soc. viii, 150, ♂ (= var. *triangulum*).
crassum Kirby, List. Hym. Brit. Mus. i, 11, pl. 1, fig. 5, ♀. Newfoundland.
lucorum Kirby, Faun. Bor.-Am. iv, 255 (= var. *triangulum*).
lanuginosa Norton, Trans. Am. Ent. Soc. i, 44, ♀. Nev. Cala.
Taylori Prov., Add. Faun. Hym. 20, ♂ ♀. Vanc.
triangulum Kirby; Norton, Trans. Am. Ent. Soc. i, 43, ♂ ♀. Brit.Am. U.S.

ZARÆA Leach.

americana Cress., Trans. Am. Ent. Soc. viii, 1, ♀. N.H. Mo. Cala.
inflata Norton, ibid. i, 45, ♀. Ct. Ill.

ABIA Leach.

caprifolium Norton, Trans. Am. Ent. Soc. i, 46 (= *Zaræa inflata*).
cerasi Fitch; Norton, ibid. 47. N.Y.
Kennicotti Norton, ibid. 46; iv, 77, ♂ ♀. Can.

ACORDULECERA Say.

dorsalis Say; Norton, Trans. Am. Ent. Soc. i, 49, ♂ ♀. U.S.
saginata Prov., Faun. Ent. Can. ii, 739, ♀. Can.

Subfamily HYLOTOMINÆ.

SCHIZOCERUS Latr.

abdominalis Cress.; Norton, Trans, Am. Ent. Soc. i, 55, ♂. Col.
brunniventris Cress., ibid. viii, 2, ♂ ♀. Nev.
ebenus Norton, ibid. i, 55, ♂. N.Y.
?invitus Cress., ibid. viii, 3, ♀. Nev.
Klugii Leach (*Cryptus*), Zool. Misc. iii, 125, ♂ ♀ (= *plumiger*).
maurus Cress., Trans. Am. Ent. Soc. viii, 3, ♂. Nev.
plumiger Klug (*Hylotoma*); Norton, ibid. i, 54, ♂ ♀. U.S.
privatus Norton, ibid. 56, ♀. La.
sericeus Norton, ibid. 55, ♀. Can. Me. Ill.
tristis Cress., ibid. viii, 52, ♂ ♀. Wash.Terr.

ATOMACERA Say.

cellularis Say; Norton, Trans. Am. Ent. Soc. i, 57, ♀. Ind.
debilis Say; Norton, ibid. 57, ♂. Ind.
ruficollis Norton, ibid. 57, ♀. U.S.

THEMOS Norton.

hyaline Norton, Trans. Am. Ent. Soc. i, 58, ♂. Pa (?).

PTENUS Norton.

niger Norton, Trans. Am. Ent. Soc. iv, 77; viii, 36, ♂. Tex.
nigropectus Norton, ibid. 77; viii, 36, ♂. Tex.
texanus Norton (*Ptilia*), ibid. ii, 367; iv, 77, ♂ ♀. Tex.

HYLOTOMA Latr.

abdominalis Leach ; Norton, Trans. Am. Ent. Soc. i, 66, ♀. U.S.
analis Leach ; Norton, ibid. 65 (= *clavicornis*).
borealis Kirby, List Hym. Brit. Mus. i, 66, pl. 5, fig. 16, ♀. Brit.Am.
calcanea Say, Bost. Jour. i, 211 ; Lec. Edit. ii, 673 (= *scapularis*).
clavicornis Fabr. (*Tenthredo*) ; Norton, Trans. Am. Ent. Soc. i, 66, ♂ ♀. B.Am.
coccinea Fabr. ; Nort., ib. i, 71 ; ? Walsh, Tr. St. Louis Acad. iii, 66, ♂ ♀. Car. Ill.
cœrulea Norton, Trans. Am. Ent. Soc. i, 65, ♀. U.S.
cyra Kirby, List Hym. Brit. Mus. i, 66, pl. 5, fig. 18, ♀. Ga ?
dulciaria Say, Lec. Edit. i, 210 ; Walsh, Tr. St. Louis Acad. iii, 67 (= *pectoralis*).
erythrosoma Leach, Zool. Misc. iii, 124, ♀ (= *rubiginosa*).
humeralis Beauv. ; Norton, Trans. Am. Ent. Soc. i, 68, ♂ ♀. U.S.
McLeayi Leach ; Norton, ibid. 64 ; iv, 78, ♂ ♀. Can. U.S.
mellina Cress., ibid. viii, 3, ♀. Nev.
miniata Klug ; Norton, ibid. i, 70, ♂. Ga.
pectoralis Leach ; Norton, ibid. 70, ♀. Brit.Am. U.S.
plumigera Klug, Berl. Mag. vi, 1814, 306 (= *Schizocerus*).
rubiginosa Beauv. (*Tenthredo*) ; Norton, Trans. Am. Ent. Soc. i, 72, ♀. N.Y. Ga.
rubra Klug ; Norton, ibid. 71, ♀. N.Y.
sanguinea Klug, Berl. Mag. vi, 299, ♀ (= *humeralis*).
scapularis Klug ; Norton, Trans. Am. Ent. Soc. i, 67, ♂ ♀. Brit.Am. U.S.
scutellata Say, Bost. Jour. i, 211 ; Lec. Edit. ii, 673 (= *humeralis*).
sphinx Kirby, List Hym. Brit. Mus. i, 68, pl. 5, fig. 20, ♂. N.Am ?
virescens Klug ; Norton, Trans. Am. Ent. Soc. i, 65 (= *clavicornis*).

Subfamily TENTHREDININÆ.

CLADIUS Illig.

æqualis Norton, Trans. Am. Ent. Soc. iv, 78 ; viii, 37, ♂ (= *Priophorus*).
isomera Harris ; Norton, ibid. i, 74, ♂ ♀. Can. U.S.
simplicicornis Norton, ibid. ii, 367, ♂ (= *Priophorus*).

PRIOPHORUS Dahlb.

æqualis Norton (*Cladius*), Trans. Am. Ent. Soc. iv, 78 ; viii, 37, ♂. Ct.
simplicicornis Norton (*Cladius*), ibid. ii, 367, ♂. Me.

PRISTIPHORA Latr.

grossulariæ Walsh ; Norton, Trans. Am. Ent. Soc. i, 77, ♂ ♀. Can. U.S.
identidem Norton, ibid. 77 ; iv, 79, ♀. Can. U.S.
idiota Norton, ibid. i, 77, ♂ (= *identidem*).
jocularis Cress., ibid. viii, 3, ♂ ♀. Nev.
relativa Norton, ibid. i, 77, ♀. Brit.Am.
sycophanta Walsh ; Norton, ibid. 76, ♂. Can. Ill.
tibialis Norton, ibid. 76, ♂ ♀. Can. U.S.

EUURA Newm.

albiricta Cress., Trans. Am. Ent. Soc. viii, 4, ♀. Nev.
gemma Walsh, Proc. Ent. Soc. Phil. vi, 250, ♂ ♀ (= *orbitalis*).
nigra Norton, Trans. Am. Ent. Soc. i. 79, ♀ (= var. *orbitalis*).

orbitalis Norton, ibid. 79, ♂ ♀. Brit.Am. U.S.
perturbans Walsh; Norton, ibid. 83, ♂ ♀. Ill.
salicicola Smith, N. Am. Ent. i, 41; Cress., Trans. viii, 37, ♂ ♀. Ill.
s. nodus Walsh; Norton, Trans. Am. Ent. Soc. i, 82; ii, 368, ♂ ♀. U.S.
s. ovum Walsh; Norton, ibid. 80, ♂ ♀. Ill.

CRÆSUS Leach.

laticulus Norton, Trans. Am. Ent. Soc. ii, 368, ♀. Mass.
latitarsus Norton, ibid. i, 84, ♀. Can. U.S.

NEMATUS Jur.

agilis Cress., Trans. Am. Ent. Soc. viii, 9, ♂. Nev.
aureopectus Norton, ibid. i, 219, ♀. U.S.
bivittatus Norton, ibid. 219, ♀. Can. U.S.
brunneus Norton, ibid. 205, ♀. Col.
calais Kirby, List Hym. Brit. Mus. i, 144, pl. 7, fig. 11, ♀. Arc.Am.
castaneus Kirby, ibid. 147, pl. 7, fig. 16, ♀. Brit.Am.
chloreus Norton, Trans. Am. Ent. Soc. i, 221; iv, 80, ♀. Brit.Am. U.S.
concolor Norton, ibid. 196, ♂ ♀. Can. U.S.
corniger Norton, ibid. 199, ♂ ♀. Can. U.S.
corylus Cress., ibid. viii, 8, ♀. Pa.
crassus Esch.; Norton, ibid. i, 213. Alaska.
desmodioides Walsh; Norton, ibid. 211, ♂ ♀. Ill.
Dimmockii Cress., ibid. viii, 6, ♀. N.H.
discolor Cress., ibid. 8, ♀. Col.
dorsivittatus Cress., ibid. 10, ♀. Nev.
Edwardsii Cress., ibid. 7, ♀. Cala.
Erichsonii Hartig; Prov. Add. Faun. Hym. 5, ♀ (fig.); Pack. Ann. Rep. Ent. Dept. Agric. 1883, pl. iii. Can. U.S.
erythrogaster Norton, Trans. Am. Ent. Soc. i, 205, ♀. Can. U.S.
extensicornis Norton, ibid. 197, ♂ ♀. Can. N.H.
extraneus Kirby, List Hym. Brit. Mus. i, 142, pl. 7, fig. 14, ♀. Brit.Am.
fallax Norton, Trans. Am. Ent. Soc. i, 198, ♂. Labr.
fulvicrus Prov. Faun. Ent. Can. ii, 740, ♀. Can.
fulvipes Norton, Trans. Am. Ent. Soc. i, 212, ♂ ♀. Labr. U.S.
fur Walsh; Norton, ibid. 206, ♂. Ill.
hospes Walsh; Norton, ibid. 218, ♂ ♀. Ill.
hudsonicus Norton, ibid. 207, ♀. Brit.Am.
inconspicuus Kirby, List, Hym. Brit. Mus. i, 141, pl. 7, fig. 12, ♀. N.Y.
inquilinus Walsh; Norton, Trans. Am. Ent. Soc. i, 213, ♂ ♀. Can. Ill.
integer Say; Norton, ibid. 216, ♀. U.S.
iridescens Cress., ibid. viii, 5, ♂. Nev. (= ♂ of *latus?*).
labradoris Norton, ibid. i, 196, ♂ ♀. Labr. Can.
lateralis Norton, ibid. 211, ♀. Me. N.Y.
latifasciatus Cress., ibid. viii, 7, ♀. N.H.
latus Cress., ibid. 4, ♀. Nev.
limbatus Cress., ibid. 8, ♀. Ill.
longicornis Esch.; Norton, ibid. i, 202. Alaska.
longicornis Say (*nec* Esch.), Bost. Jour. i, 219; Lec. Edit. ii, 679 (= *longulicornis*).

longulicornis Norton, Trans. Am. Ent. Soc. i, 214, ♂ ♀. Can. U.S.
luteipes Cress., ibid. viii, 6, ♀. Nev.
luteolus Norton, ibid. i, 200, ♂. Brit.Am. U.S.
luteotergum Norton, ibid. 206, ♂ ♀. Can. U.S.
malacus Norton, ibid. 196, ♀. Labr.
marylandicus Norton, ibid. 197, ♂. Mass. Md.
mellinus Cress., ibid. viii, 10, ♀. Nev.
mendicus Walsh; Norton, ibid. i, 220, ♂ ♀. Can. Ill.
militaris Cress., ibid. viii, 7, ♀. Can. N.H.
monela Norton, ibid. i, 198, ♂. Labr. Can.
monochroma Norton, ibid. 221, ♀. Mass.
neglectus Kirby, List, Hym. Brit. Mus. i, 147, pl. 7, fig. 15, ♂ ♀. Brit.Am.
nevadensis Cress., Trans. Am. Ent. Soc. viii, 9, ♂ ♀. Nev.
nigritus Norton, ibid. i, 201, ♂. Ct.
nigrofemoratus Cress., ibid. viii, 4, ♀. Nev.
nigropectus Cress., ibid. 6, ♀. Nev.
notabilis Cress., ibid. 7, ♀. Mass.
obscurus Norton, ibid. i, 203, ♀. Mass.
pallicornis Norton, ibid. 203, ♂ ♀. U.S.
pallifrons Cress., ibid. viii, 6, ♂. Tex.
palliventris Cress., ibid. 5, ♀. Nev.
parvus Cress., ibid. 5, ♀. Nev.
pectoralis Cress., ibid. 9, ♀. Col. Nev.
placentus Norton, ibid. i, 213, ♂ ♀. Brit. Am. Me.
pleuricus Norton, ibid. 208, ♀. Brit.Am.
proximatus Norton, ibid. 202, ♂ ♀. Can. U.S.
rapax Cress., ibid. viii, 4, ♂. Nev.
Ribesii Scop.; Cam. Mon. Brit. Phy. Hym. ii, 168. U.S. (Eur.)
robiniæ Forbes, 14th Ill. Rep. 1884, 116, pl. xii, fig. 5, ♀. Ill.
rufofasciatus Norton, Trans. Am. Ent. Soc. i, 205, ♀. Brit.Am.
ruralis Cress., ibid. viii, 5, ♀. Nev.
s. pisum Walsh; Norton, ibid. i, 204, ♂ ♀. Ct. Ill.
s. pomum Walsh; Norton, ibid. 216, ♂ ♀. Can. Ill.
satkatchewan Norton, ibid. 200, ♀. Brit.Am.
similaris Norton, Rep. Ent. Dept. Agric. 1879, 224, pl. iv, fig. 1, ♀. Can. D.C.
stigmatus Norton, Trans. Am. Ent. Soc. i, 221, ♀. Mass.
suadus Cress., ibid. viii, 10, ♀. Can. N.H.
subalbatus Norton, ibid. i, 199, ♀. Can. U.S.
sumptus Norton, ibid. 207, ♂. Me.
suratus Fitch; Norton, ibid. 198. N.Y.
trifurcatus Kirby, List Hym. Brit. Mus. i, 148, pl. 7, fig. 17, ♀. Brit.Am.
trilineatus Norton, Trans. Am. Ent. Soc. i, 215; iv, 79, ♂ ♀. Can. U.S.
trivittatus Norton, ibid. 218, ♀. Brit.Am. U.S.
ventralis Say; Norton, ibid. 201, ♂ ♀. U.S.
ventricosus Hartig; Norton, ibid. 208 (= *Ribesii*).
vertebratus Say; Norton, ibid. 215, ♀. U.S.
vicinalis Cress., ibid. viii, 4, ♀. Cala.
violaceipennis Norton, ibid. i, 201, ♂ ♀. Mass. Ct.
winnipeg Norton, ibid. 198, ♀. Brit.Am.

HYPOLÆPUS Kirby.

Abbotii Kirby, List Hym. Brit. Mus. i, 325, pl. 13, fig. 2, ♀. Ga.

MESSA Leach.

hyalina Norton, Trans. Am. Ent. Soc. i, 222, ♀. Can. U.S.

AULACOMERUS Spin.

?ebenus Cress., Trans. Am. Ent. Soc. viii, 10, ♀. Col.

FENUSA Leach.

ambigua Norton, Trans. Am. Ent. Soc. i, 225, ♂. Pa. Ill.
curta Norton, ibid. 225, ♀. Pa.
rubi Forbes (*Metallus*) 14th Ill. Rep. 1884, 87. Ill. (= var. *curta?*).

EMPHYTUS Klug.

apertus Norton, Trans. Am. Ent. Soc. i, 228, ♂ ♀. Can. U.S.
articulatus Klug, Berl. Mag. viii, 284 (= *Harpiphorus*).
Bollii Norton, Trans. Am. Ent. Soc. iv, 80 (= *Harpiphorus*).
canadensis Kirby, List Hym. Brit. Mus. i, 204, ♀. Can.
cinctipes Norton, Trans. Am. Ent. Soc. i, 229, ♂ ♀. Can. U.S.
hullensis Prov., Add. Faun. Hym. 25, ♂ ♀. Can.
improbus Cress., Trans. Am. Ent. Soc. viii, 11 (= *Harpiphorus*).
inornatus Say (*Dolerus*); Norton ibid. i, 227 ♂ ♀. Can. U.S.
maculatus Norton, Bost. Soc. Nat. Hist. viii, 157 (= *Harpiphorus*).
mellipes Norton, Trans. Am. Ent. Soc. i, 228, ♂ ♀. Can. U.S.
pallipes Prov. (*nec* Spin.), Nat. Can. x, 66; Faun. Ent. Can. ii, 192 (= *canadensis*).
platycerus Say, Bost. Jour. Nat. Hist. i, 220 (= *Harpiphorus*).
recens Say, ibid. 221 (= *Harpiphorus*).
stramineipes Cress., Trans. Am. Ent. Soc. viii, 52, ♀. Can. Wash.Terr.
semicornis Say, Bost. Jour. Nat. Hist. i, 220 (= *Harpiphorus*).
tarsatus Say, ibid. 219 (= *Harpiphorus*).
testaceus Norton, Proc. Bost. Soc. Nat. Hist. viii, 156 (= *Harpiphorus*).
varianus Norton, ibid. 156 (= *Harpiphorus*).
versicolor Norton, Trans. Am. Ent. Soc. i, 230 (= *Harpiphorus*).

HARPIPHORUS Hartig.

articulatus Klug. (*Emphytus*); Norton, Trans. Am. Ent. Soc. i, 233, ♂. Md.
Bollii Norton (*Emphytus*), ibid. iv, 80; viii, 38, ♀. Tex.
improbus Cress. (*Emphytus*), ibid. viii, 11, ♂ ♀. Nev.
maculatus Norton (*Emphytus*), ibid. i, 232; iv, 80, ♂ ♀. Can. U.S.
platycerus Say (*Emphytus*); Norton, ibid. 232, ♂. Ind.
recens Say (*Emphytus*); Norton, ibid. 232, ♂. Ind.
semicornis Say (*Emphytus*); Norton, ibid. 231, ♀. Can. U.S.
tarsatus Say (*Emphytus*); Norton, ibid. 231, ♂ ♀. Can. U.S.
testaceus Norton (*Emphytus*), ibid. 230, ♀. U.S.
varianus Norton (*Emphytus*), ibid. 229, ♂ ♀. Can. U.S.
versicolor Norton (*Emphytus*), ibid. 230, ♀. Can. U.S.

DOLERUS Jur.

abdominalis Norton, Trans. Am. Ent. Soc. i, 237, ♂ ♀. Can. U.S.
albifrons Norton, ibid. 237, ♂ ♀. Can. U.S.
apricus Norton, ibid. 236, ♂ ♀. Brit.Am. U.S.
aprilis Norton, ibid. 236, ♂ ♀. Brit.Am. U.S.
arvensis Say; Norton, ibid. 235, ♀. Can. U.S.
bicolor Beauv. (*Tenthredo*); Norton, ibid. 238, ♂ ♀. Can. U.S.
coccinifera Norton, ibid. iv, 82; viii, 39, ♀. Cala.
collaris Say; Norton, ibid. 236, ♀. Can. U.S.
coloradensis Cress., ibid. viii, 11, ♀. Col.
distinctus Norton, ibid. iv, 82; viii, 39, ♀. Cala.
inornatus Say, Lec. Edit. i, 213 (= *Emphytus*).
maculicollis Norton, Trans. Am. Ent. Soc. i, 238, ♀. U.S.
sericeus Say; Norton, ibid. 235, ♂ ♀. Can. U.S.
similis Norton, ibid. 238, ♀. Can. U.S.
tejoniensis Norton, ibid. 239, ♀. Nev. Cala.
tibialis Cress., ibid. viii, 52, ♂. Wash.Terr.
unicolor Beauv. (*Tenthredo*); Norton, ibid. i, 234, ♂ ♀. Can. U.S.
versa Norton, ibid. 239, ♀. Mass. Md.
yukonensis Norton, ibid. iv, 82 (= var. *similis*).

DINEURA Dahlb.

americana Prov., Faun. Ent. Can. ii, 741, ♀. Can.
lateralis Norton, Trans. Am. Ent. Soc. i, 240, ♀. Me.
linita Norton, ibid. 240, ♀. Me.
litura Klug (*Tenthredo*); Norton, ibid. 240. Ga.
luteipes Cress., ibid. viii, 11, ♂. Can. Me.
parva Norton, ibid. i, 241 (= *Mesoneura*).

HEMICHROA Steph.

albidovariata Norton, Trans. Am. Ent. Soc. iv, 81; viii, 39, ♀. Fla. Tex.
fraternalis Norton, ibid. 81; viii, 39, ♂. Tex.

MESONEURA Hartig.

albipes Cress., Trans. Am, Ent. Soc. viii, 11, ♀. Nev.
obtusa Klug (*Tenthredo*); Norton (*Selandria*), ibid. i, 259. Ga.
parva Norton (*Dineura*), ibid. 1, 241, ♂. Ct.

BLENNOCAMPA Hartig.

bipartita Cress., Trans. Am. Ent. Soc. viii, 12, ♂. Tex.
capitalis Norton (*Selandria*), ibid. i, 247, ♀. N.Y.
carbonaria Cress., ibid. viii, 12, ♀. Ga. Mo.
floridana Cress., ibid. 12, ♂. Fla.
inhabilis Norton (*Selandria*), ibid. i, 246, ♂ ♀. Can. N.H. Mass.
parva Cress., ibid. viii, 12, ♂. Col.
paupera Prov. (*Selandria*), Faun. Ent. Can. ii, 742, ♀. Can.
pygmæa Say (*Tenthredo*), Lec. Edit. i, 213, ♂ ♀. Can. U.S.
vitis Harris (*Selandria*); Norton, Trans. Am. Ent. Soc. i, 245 (= *pygmæa*).

MONOPHADNUS Hartig.

bardus Say (*Allantus*); Norton, Trans. Am. Ent. Soc. i, 247, ♂ ♀. Can. U.S.
caryæ Norton (*Selandria*), ibid. iv, 83; viii, 40, ♂ ♀. Ct.
dilutus Cress., ibid. viii, 12, ♀. Can. Mo.
hudsonicus Kirby, List. Hym. Brit. Mus. i, 176, pl. 8, fig. 7. Brit.Am.
inæquidens Norton (*Selandria*), Tr. Am. Ent. Soc. iv, 84; viii, 41, ♀ Fla. Tex.
irrogatus Cress., ibid. viii, 13, ♀. Col.
lineatus Kirby, List. Hym. Brit. Mus. i, 177, pl. 8, fig. 9. Brit.Am.
marginicollis Norton (*Selandria*), Trans. Am. Ent. Soc. i, 249, ♀. Mass. N.Y.
medius Norton (*Selandria*), ibid. i, 250, ♂ ♀. Can. N.J.
nigellus Cress., ibid. viii, 12, ♀. Nev.
parcus Cress., ibid. 13, ♂. Tex.
Rileyi Cress., ibid. 13, ♀. Mo.
rubi Harris; Norton, ibid. i, 249, ♀. Can. U.S.
scelestus Cress., ibid. viii, 14, ♂. Col. Nev.
tiliæ Norton (*Selandria*), ibid. i, 250, ♂ ♀. Can. U.S.

PHYMATOCERA Dahlb.

albicollis Norton (*Selandria*), Trans. Am. Ent. Soc. iv, 85; viii, 42, ♂. Tex.
fumipennis Norton (*Selandria*), ibid. i, 252, ♂ ♀. Can. U.S.
montivaga Cress. (*Selandria*), ibid. viii, 13, ♀. Can. Nev.
nevadensis Cress. (*Selandria*), ibid. 13, ♂ ♀. Nev.
nubilipennis Norton (*Selandria*), ibid. i, 252, ♂ ♀. Can. U.S.
rudis Norton (*Selandria*), ibid. 251, ♂ ♀. U.S.
rufula Norton (*Selandria*), ibid. 251, ♂. Ct.

HOPLOCAMPA Hartig.

?atriceps Kirby, List. Hym. Brit. Mus. i, 168, pl. 8, fig. 18. Ga.
canadensis Prov. (*Selandria*), Add. Faun. Hym. 7, ♀. Can.
gentilis Cress., Trans. Am. Ent. Soc. viii, 14, ♂. Col.
halcyon Norton (*Selandria*), ibid. i, 252, ♂ ♀. Brit.Am. U.S.
lenis Cress., ibid. viii, 14, ♂. Col.
montana Cress. (*Selandria*); Norton, ibid. i, 253, ♀. Col.
spissipes Cress., ibid. viii, 14, ♀. Col.

CALIROA Costa.

obsoleta Norton (*Selandria*), Trans. Am. Ent. Soc. i, 254, ♂ ♀. Can. U.S.

MONOSTEGIA Costa.

Belfragei Cress. (*Selandria*), Trans. Am. Ent. Soc. viii, 15, ♀. Tex.
ignota Norton (*Selandria*), ibid. i, 257, ♀. Can. U.S.
obscurata Cress. (*Selandria*), ibid. viii, 15, ♂ ♀. Col.
quercus-alba Norton (*Selandria*), ibid. i, 258; iv, 85, ♂ ♀. U.S.
rosæ Harris (*Selandria*); Norton, ibid. 256, ♂ ♀. Can. U.S.

ERIOCAMPA Hartig.

cerasi Peck (*Selandria*); Norton, Trans. Am. Ent. Soc. i, 254, ♀. U.S.
fasciata Norton (*Selandria*), ibid. 256, ♂ ♀. U.S.
marginata Prov. (*Selandria*), Add. Faun. Hym. 8, ♀. Vanc.

SELANDRIA Leach.

albicollis Norton, Trans. Am. Ent. Soc. iv, 85; viii, 42 (= *Phymatocera*).
Belfragei Cress., ibid. viii, 15 (= *Monostegia*).
bipartita Cress., ibid. 12 (= *Blennocampa*).
canadensis Prov., Add. Faun. Hym. 7 (= *Hoplocampa*).
capitalis Norton, Trans. Am. Ent. Soc. i, 247 (= *Blennocampa*).
carbonaria Cress., ibid. viii, 12 (= *Blennocampa*).
caryæ Norton, ibid. iv, 83; viii, 40 (= *Monophadnus*).
cerasi Peck, Nat. Hist. Slug-Worm, 1799 (= *Eriocampa*).
decolorata Cress., Trans. Am. Ent. Soc. viii, 15, ♂. Col.
diluta Cress., ibid. 12 (= *Monophadnus*).
dubia Cress., Proc. Ent. Soc. Phil. iv, 244 (= *Monophadnus bardus*).
fasciatus Norton, ibid. iii, 9 (= *Eriocampa*).
flavicornis Prov., Nat. Can. x, 100; Faun. Ent. ii, 201, ♂ (= *Hoplocampa halcyon*).
flavipes Norton, Trans. Am. Ent. Soc. i, 258; iv, 85, ♂ ♀. Can. U.S.
floridana Cress., ibid. viii, 12 (= *Blennocampa*).
fumipennis Norton, Proc. Bost. Soc. Nat. Hist. viii, 222 (= *Phymatocera*).
gentilis Cress., Trans. Am. Ent. Soc. viii, 14 (= *Hoplocampa*).
halcyon Norton, Proc. Bost. Soc. Nat. Hist. viii, 222 (= *Hoplocampa*).
ignotus Norton, Trans. Am. Ent. Soc. i, 257 (= *Monostegia*).
inæquidens Norton, ibid. iv, 84; viii, 41 (= *Monophadnus*).
inhabilis Norton, Proc. Bost. Soc. Nat. Hist. viii, 220 (= *Blennocampa*).
irrogata Cress., Trans. Am. Ent. Soc. viii, 13 (= *Monophadnus*).
?**juglandis** Fitch, Third N. Y. Rep. 149 (larva). N.Y.
lenis Cress., Trans. Am. Ent. Soc. viii, 14 (= *Hoplocampa*).
marginata Prov., Add. Faun. Hym. 8 (= *Eriocampa*).
marginicollis Norton, Proc. Bost. Soc. Nat. Hist. viii, 220 (= *Monophadnus*).
medius Norton, Proc. Ent. Soc. Phil. iii, 9 (= *Monophadnus*).
montana Cress., ibid. v, 244 (= *Hoplocampa*).
montivaga Cress., Trans. Am. Ent. Soc. viii, 13 (= *Phymatocera*).
nevadensis Cress., ibid. 13 (= *Phymatocera*).
nigella Cress., ibid. 12 (= *Monophadnus*).
nova Norton, ibid. i, 254, ♀. Me.
nubilipennis Norton, ibid. 252 (= *Phymatocera*).
obscurata Cress., ibid. viii, 15 (= *Monostegia*).
obsoletum Norton, ibid. i, 254 (= *Caliroa*).
parca Cress., ibid. viii, 13 (= *Monophadnus*).
parva Cress. ibid. 12 (= *Blennocampa*).
paupera Prov., Faun. Ent. Can. ii, 742 (= *Blennocampa*).
quercus-alba Norton, Trans. Am. Ent. Soc. i, 258; iv, 85 (= *Monostegia*).
Rileyi Cress., ibid. viii, 13 (= *Monophadnus*).
rosæ Harris; Norton, ibid. i, 256 (= *Monostegia*).
rubi Harris; Norton, Proc. Bost. Soc. Nat. Hist. viii, 221 (= *Monophadnus*).
rudis Norton, ibid. 221 (= *Phymatocera*).
rufula Norton, ibid. 221 (= *Phymatocera*).
scelesta Cress., Trans. Am. Ent. Soc. viii, 14 (= *Monophadnus*).
sodalis Cress., ibid. 14, ♀. Col.
spissipes Cress., ibid. 14 (*Hoplocampa*).
tiliæ Norton, Proc. Bost. Soc. Nat. Hist. viii, 221 (= *Monophadnus*).
vitis Harris, Treat. Ins. 2d ed. 413 (= *Blennocampa pygmæa*).

SCIAPTERYX Steph.

obesus Say (*Allantus*); Norton, Trans. Am. Ent. Soc. i, 264, ♂. Mass.
punctum Prov., Nat. Can. x, 72; Faun. Ent. Can. ii, 198, ♀. Can.
rotundus Norton, Trans. Am. Ent. Soc, i, 242, ♀. Can. Ct.

ALLANTUS Jur.

abdominalis Norton, Bost. Jour. Nat. Hist. vii, 238 (= *Strongylogaster apicalis*).
afflictus Cress., Trans. Am. Ent. Soc. viii, 17, ♂ ♀. Nev.
albomaculatus Norton, Bost. Jour. Nat. Hist. vii, 256 (= *Macrophya*).
angulifer Norton, ibid. 252 (= *Tenthredo*).
annularis Norton, Trans. Am. Ent. Soc. i, 262, ♂ ♀. Can. Cala.
apicalis Say, Bost. Jour. i, 216; Lec. Edit. ii, 676 (= *Strongylogaster*).
atroviolaceus Norton, ibid. vii, 255 (= *Tenthredopsis*).
bardus Say, ibid. i, 218; Lec. Edit. ii, 678 (= *Monophadnus*).
basilaris Say (*Tenthredo*); Nort., Trans. i, 261; Patt., Can. Ent. xi, 13. Can. U.S.
bicinctus Norton, Bost. Jour. Nat. Hist. vii, 241 (= *Macrophya formosa*).
bifasciatus Say, Lec. Edit. i, 162 (= *Macrophya*).
cestus Say, Bost. Jour. Nat. Hist. i, 216; Lec. Edit. ii, 677 (= *Macrophya*).
cogitans Prov., Nat. Can. x, 163; Faun. Ent. Can. ii, 212 (= *Tenthredo*).
dejectus Norton, Bost. Jour. Nat. Hist. vii, 249 (= *Macrophya*).
dissimilis Norton, ibid. 250 (= *Tenthredo*).
dubius Norton, Trans. Am. Ent. Soc. i, 262, ♂ ♀. Can. Mass. Ct.
elegantulus Cress., ibid. viii, 17, ♂ ♀. Nev.
epicera Say, Bost. Jour. i, 216; Lec. Edit. ii, 677 (= *Strongylogaster*).
epinotus Say, ibid. 215; Lec. Edit. ii, 676 (= *Macrophya*).
excavatus Norton, Proc. Ent. Soc. Phil. i, 143 (= *Siobla*).
externus Say, Lec. Edit. i, 162 (= *Macrophya*).
flavicoxæ Norton, Bost. Jour. Nat. Hist. vii, 258 (= *Macrophya*).
flavolineatus Norton, ibid. 259 (= *Macrophya pulchella*).
flavomarginis Norton, ibid. 254 (= *Tenthredo*).
formosus Klug, Berl. Mag. viii, 115 (= *Macrophya*).
goniphorus Say, Bost. Jour. i, 215; Lec. Edit. ii, 676 (= *Macrophya*).
grandis Norton, ibid. vii, 239 (= *Tenthredo*).
incertus Norton, ibid. 258 (= *Macrophya*).
intermedius Norton, ibid. 242 (= *Macrophya*).
interruptus Norton, ibid. i, 263, ♀. Cala.
leucostoma Kirby, Faun. Bor. Am. iv, 256 (= *Tenthredo rufipes*).
limbatus Cress., Trans. Am. Ent. Soc. viii, 17, ♀. Cala.
lobatus Norton, Bost. Jour. Nat. Hist. vii, 253 (= *Tenthredo*).
maximus Norton, Trans. Am. Ent. Soc. i, 263, ♀. Wash.Terr.
mellinus Norton, Bost. Jour. Nat. Hist. vii, 248 (= *Tenthredo*).
mellosus Norton, ibid. 237 (= *Strongylogaster*).
nevadensis Cress., Trans. Am. Ent. Soc. viii, 17, ♀. Nev.
niger Norton, Bost. Jour. Nat. Hist. vii, 239 (= *Macrophya*).
nigriceps Cress., Trans. Am. Ent Soc. viii, 16, ♂ ♀. Nev.
obesus Norton, Bost. Jour. Nat. Hist. vii, 260 (= *Sciapteryx*).
occidaneus Cress., Trans. Am. Ent. Soc. viii, 18, ♀. Col. N.Mex.
opimus Cress., ibid. 15 (= *Labidia*).
originalis Norton, ibid. i, 261 (= *Labidia*).

ornaticeps Cress., ibid. viii, 16, ♂ ♀. Nev.
pallipes Say, Lec. Edit. i, 162 (= *Strongylogaster*).
pannosus Say, Bost. Jour. i, 217; Lec. Edit. ii, 678 (= *Macrophya*).
piceocinctus Norton, ibid. vii, 249 (= *Tenthredo*).
pinguis Norton, ibid. 244 (= *Strongylogaster*).
robustus Prov., Add. Faun. Hym. 8, ♀. Can.
rubricus Prov., ibid. 9, ♀. Vanc.
rufescens Norton, Bost. Jour. Nat. Hist. vii, 245 (= *Strongylogaster*).
rufocinctus Norton, ibid. 248 (= *Strongylogaster*).
rufopectus Norton, ibid. 255 (= *Tenthredo*).
signatus Norton, ibid. 247 (= *Tenthredo*).
tacitus Norton, ibid. 246 (= *Strongylogaster*).
tricolor Norton, ibid. 247 (= *Tenthredo*).
trisyllabus Norton, ibid. 238 (= *Macrophya*).
trosulus Norton, ibid. 244 (= *Macrophya*).
unicinctus Norton, Trans. Am. Ent. Soc. i, 264, ♂ ♀. Col.
varius Norton, Bost. Jour. Nat. Hist. vii, 240 (= *Macrophya*).
ventralis Say, Lec. Edit. i, 162 (= *Tenthredo*).

LABIDIA Prov.

columbiana Prov., Add. Faun. Hym. 21, ♂ (= *opimus*).
opimus Cress. (*Allantus*), Trans. viii, 15, ♂ ♀. Vanc. (= var. *originalis*?).
originalis Norton (*Allantus*), ibid. i, 261, ♀. Labr. U.S.

SIOBLA Cam.

excavata Norton (*Allantus*), Trans. Am. Ent. Soc. i, 266; iv, 86, ♂ ♀. U.S.
robusta Kirby, List Hym. Brit. Mus. i, 253, pl. 9, fig. 21, ♀. Ga.

MACROPHYA Dahlb.

Abbotii Kirby, List Hym. Brit. Mus. i, 269, pl. 10, fig. 14, ♂ ♀. Ga.
albifacies Kirby, ibid. 271, pl. 10, fig. 18, ♀. N.Y.
albomaculata Norton (*Allantus*), Trans. Am. Ent. Soc. i, 272, ♂ ♀. Can. U.S.
annulipes Cress., ibid. viii, 18, ♀. Nev.
bicolorata Cress., ibid. 19, ♀. Cala.
bifasciata Say (*Allantus*); Norton, ibid. i, 277. Ark.
cassandra Kirby, List Hym. Brit. Mus. i, 273, pl. 10, fig. 13, ♀. N.Y.
cesta Say (*Allantus*); Norton, Trans. Am. Ent. Soc. i, 277, ♂ ♀. Me.
contaminata Prov., Nat. Can. x, 105; Faun. Ent. Can. ii, 207, ♀. Can.
dejecta Norton (*Allantus*), Trans. Am. Ent. Soc. i, 273, ♂. N.Y.
epinota Say (*Allantus*); Norton, ibid. 268, ♂ ♀. Can. U.S.
eurythmia Norton, ibid. 276, ♂ ♀. Brit.Am.
externa Say (*Allantus*); Norton, ibid. 271, ♀. Can. U.S.
fascialis Norton, ibid. 276, ♀. Ct. Mass.
flavicoxæ Norton (*Allantus*), ibid. 269, ♂ ♀. Can. U.S.
formosa Klug (*Allantus*); Norton, ibid. 277, ♂ ♀. U.S.
fuliginea Norton, ibid. 273, ♀. U.S.
fumator Norton, ibid. 279, ♀. Cala.
goniphora Say (*Allantus*); Norton, ibid. 279, ♂ ♀. U.S.
incerta Norton (*Allantus*), ibid. 269, ♂ ♀. Can. U.S.

intermedia Norton (*Allantus*), ibid. 278, ♂ ♀. Can. U.S.
jugosa Cress., ibid. viii, 18, ♂. Cala.
lineata Norton, ibid. i, 269, ♀. Can. Ct.
maura Cress., ibid. viii, 18, ♀. Nev.
nigra Norton (*Allantus*), Trans. Am. Ent. Soc. i, 273, ♀. Can. U.S.
oregona Cress., ibid. viii, 19, ♀. Or.
pannosa Say (*Allantus*); Norton, ibid. i, 270, ♂ ♀. Can. U.S.
pluricincta Norton, ibid. 267, ♂ ♀. Cala.
proximata Norton, ibid. 270, ♀. Can. Ct.
pulchella Klug (*Tenthredo*); Norton, ibid. 268, ♂ ♀. Can. U.S.
pulcherrima Kirby, List Hym. Brit. Mus. i, 275, pl. 10, fig. 19, ♂. Fla.
pumila Norton, Trans. Am. Ent. Soc. i, 272, ♂. Cala.
subviolacea Cress., ibid. viii, 18, ♀. Cala.
succincta Cress., ibid. 19, ♀. Ga. Tex.
texana Cress., ibid. 52, ♂ ♀. Tex.
tibiator Norton, ibid. i, 271, ♂ ♀. Can. U.S.
trisyllaba Norton (*Allantus*), ibid. 274, ♂ ♀. Can. U.S.
trosula Norton (*Allantus*), ibid. 279, ♀. U.S.
varia Norton (*Allantus*), ibid. 275, ♀. Can. U.S.
zoe Kirby, List Hym. Brit. Mus. i, 270, pl. 10, fig. 15, ♀. Brit.Am.
zonalis Norton, Trans. Am. Ent. Soc. i, 274, ♂. Can. Mass.

PACHYPROTASIS Hartig.

delta Prov., Nat. Can. x, 108; Faun. Ent. Can. ii, 210 (= *Tenthredopsis*).
omega Norton, Trans. Am. Ent. Soc. i, 280, ♂ ♀. Can. U.S.

TAXONUS Hartig.

albidopictus Norton, Trans. Am. Ent. Soc. ii, 213. Can. U.S.
amicus Norton, ibid. 213, ♂ ♀. Can. N.H.
dubitatus Norton, ibid. 212, ♂ ♀. Can. U.S.
multicolor Norton (*Strongylogaster*), ibid. 212, ♂ ♀. Can. U.S.
nigrisoma Norton, ibid. 211, ♀. Can. U.S.
parens Prov., Add. Faun. Hym. 9, ♀. Vanc.
robustus Prov., Faun. Ent. Can. ii, 743, ♀. Can.
unicinctus Norton, Trans. Am. Ent. Soc. ii, 211, ♂ ♀. Can. Ct. Pa.

STRONGYLOGASTER Dahlb.

abnormis Prov., Add. Faun. Hym. 10, ♂ ♀. Can.
albosectus Prov., Nat. Can. x, 168; Faun. Ent. Can. ii, 217 (= *Pœcilostoma*).
annulosus Norton, Trans. Am. Ent. Soc. ii, 221, ♀. Can. Me. Mass.
apicalis Say (*Allantus*); Norton, ibid. 216, ♂ ♀. Can. U.S.
distans Norton, ibid. 220, ♀. Nev. Cala.
epicera Say (*Allantus*); Norton, ibid. 217, ♂ ♀. Can. U.S.
fidus Cress., ibid. viii, 19, ♀. Col. Nev. Cala.
impressatus Prov., Nat. Can. x, 170; Faun. Ent. Can. ii, 219, ♀. Can.
labiata Klug (*Tenthredo*); Norton (*Selandria*), Trans. i, 260. Ga.
longulus Norton, Trans. Am. Ent. Soc. ii, 220, ♀. Can. Me. Mass.
luctuosus Prov., Add. Faun. Hym. 12, ♀. Can.
mellosus Norton (*Allantus*), Trans. Am. Ent. Soc. ii, 215, ♂ ♀. U.S.

multicinctus Norton, ibid. 221, ♀. Va.
multicolor Norton, Proc. Bost. Soc. Nat. Hist. ix, 120 (= *Taxonus*).
pallicoxus Prov., Add. Faun. Hym. 11, ♂ ♀. Can.
pallidicornis Norton, Trans. Am. Ent. Soc. ii, 216, ♀. Can. U.S.
pallipes Say (*Allantus*); Norton, ibid. 218. U.S.
pinguis Norton (*Allantus*), ibid. 218, ♂ ♀. Can. U.S.
politus Prov., Faun. Ent. Can. ii, 743; Cress., Trans. viii, 20, ♀. Can.
proximus Prov., Add. Faun. Hym. 12, ♀. Can.
rubripes Cress., Trans. Am. Ent. Soc. viii, 20, ♀. Col.
rufescens Norton (*Allantus*), ibid. ii, 220, ♀. Me.
rufocinctus Norton (*Allantus*), ibid. 217, ♂ ♀. Can. U.S.
soriculatipes Prov.; Cress., ibid. viii, 20, ♀. Can. Ill.
soriculatus Prov., Faun. Ent. Can. ii, 745, ♀. Can.
tacitus Say (*Allantus*); Norton, Trans. Am. Ent. Soc. ii, 219, ♂ ♀. Can. U.S.
terminalis Say (*Tenthredo*); Norton, ibid. 215, ♀. Can. U.S.
tibialis Cress., ibid. viii, 19, ♀. Nev.
unicus Norton, ibid. ii, 221, ♀. N.Y.

PŒCILOSTOMA Dahlb.

albosecta Prov. (*Strongylogaster*), Nat. Can. x, 168; Faun. Ent. ii, 217, ♀. Can.
inferentia Norton, Trans. Am. Ent. Soc. ii, 224, ♂. Ct.

TENTHREDO Linn.

addenda Cress., Trans. Am. Ent. Soc. viii, 23, ♀. Col. Nev. Cala.
angulata Norton, ibid. ii, 230, ♂. U.S.
angulifera Norton (*Allantus*), ibid. 229, ♂ ♀. Can. U.S.
antennata Kirby, List Hym. Brit. Mus. i, 308, pl. 12, fig. 1, ♀. N.Scotia.
atrocærulea Prov., Add. Faun. Hym. 13, ♀. Can.
attracta Norton, Trans. Am. Ent. Soc. ii, 240 (= *Tenthredopsis*).
Barnstonii Kirby, List Hym. Brit. Mus. i, 314, pl. 12, fig. 9–10, ♂ ♀. Brit.Am.
basilaris Say, Lec. Edit. i, 211 (= *Allantus*).
basilaris Prov., Nat. Can. x, 196; Faun. Ent. Can. ii, 222 (= *signata*).
bella Cress., Trans. Am. Ent. Soc. viii, 21, ♀. Col.
bicolor Beauv., Ins. Afr. et Am. 96, pl. 9, fig. 1 (= *Dolerus*).
borealis Kirby, List Hym. Brit. Mus. i, 318, pl. 12, fig. 13, ♀. Brit.Am.
californica Norton (*Macrophya*). Tr. Am. Ent. Soc. i, 275, ♂ ♀. Brit.Am. U.S.
castanea Kirby, List Hym. Brit. Mus. i, 319, pl. 12, fig. 17, ♀. Brit.Am.
cinctitibiis Norton, Trans. Am. Ent. Soc. ii, 239, ♀. Brit.Am. N.H.
cinctulus Norton, ibid. 240 (= var. *Tenthredopsis atroviolacea*).
cingulata Prov., Nat. Can. x, 196; Faun. Ent. Can. ii, 222 (= *verticalis*).
clavicornis Fabr., Ent. Syst. ii, 108 (= *Hylotoma*).
cogitans Prov. (*Allantus*), Nat. Can. x, 163; Faun. Ent. Can, ii, 212, ♀. Can.
concessa Norton, Trans. Am. Ent. Soc. ii, 238, ♀. Brit.Am.
confusus Norton, ibid. 241 (= *Tenthredopsis*).
Cressonii Kirby, List Hym. Brit. Mus. i, 315, pl. 12, fig. 12, ♀. Brit.Am.
decorata Prov., Nat. Can. x, 200; Faun. Ent. Can. ii, 226, ♀. Can.
diluta Cress., Trans. Am. Ent. Soc. viii, 24, ♀. Cala.
discrepans Norton, ibid. ii, 235, ♂. Brit.Am.
dissimilis Norton (*Allantus*), ibid. 231, ♀. Ill.

Edwardsii Cress., ibid. viii, 24, ♀. Nev. Cala.
erythromera Prov., Add. Faun. Hym. 13, ♀. Vanc.
eximia Norton, Trans. Am. Ent. Soc. ii, 231, ♂ ♀. Can. U.S.
ferrugineipes Cress., ibid. viii, 22, ♀. Col.
flavomarginis Norton (*Allantus*), ibid. ii, 238, ♀. U.S.
formosa Norton, ibid. 231, ♂ ♀. Me. Mass.
fumipennis Norton, ibid. 239, ♂. Col. Cala.
grandis Norton (*Allantus*), ibid. 227, ♂ ♀. Can. U.S.
hudsoni Kirby, List Hym. Brit. Mus. i, 318, pl. 12, fig. 15, ♀. Brit.Am.
jocosa Prov., Faun. Ent. Can. ii, 747, ♀. Can.
labiata Klug., Berl. Mag. viii, 73 (= *Strongylogaster*).
lacticincta Cress., Trans. Am. Ent. Soc. viii, 21, ♂ ♀. Nev.
lateraria Cress., ibid. 23, ♀. Cala.
lineata Prov., Nat. Can. x, 198; Faun. Ent. Can. ii, 224, ♀. Can. U.S.
litura Klug., Berl. Mag. viii, 83 (= *Dineura*).
lobata Norton (*Allantus*), Trans. Am. Ent. Soc. ii, 229, ♀. Can. U.S.
luteipes Cress., ibid. viii, 21, ♀. Nev.
mellicoxa Prov., Nat. Can. x, 198; Faun. Ent. Can. ii, 224 (= *rufopectus*).
mellina Norton (*Allantus*), Trans. Am. Ent. Soc. ii, 227, ♂ ♀. Brit.Am. U.S.
mimula Cress., ibid. viii, 23, ♂. Col.
montana Prov., Add. Faun. Hym. 12, ♀. Can.
morosa Cress., Trans. Am. Ent. Soc. viii, 23, ♂. Col.
mutans Norton, ibid. ii, 236, ♂. Can. N.H.
nigricollis Kirby, List Hym. Brit. Mus. i, 308, pl. 12, fig. 3, ♀. Newfoundland.
nigricostata Prov. Add. Faun. Hym. 14, ♀. Vanc.
nigrofasciata Esch.; Norton, Trans. Am. Ent. Soc. ii, 241. Alaska.
nimbipennis Norton, ibid. iv, 155; viii, 44, ♀. Tex.
nupera Cress., ibid. viii, 22, ♂. Nev.
obscuripennis Cress., ibid. 20, ♀. Nev. Cala.
obtusa Klug, Berl. Mag. viii, 55 (= *Mesoneura*).
occidentalis Cress., Trans. Am. Ent. Soc. viii, 23, ♀. Col.
pallicoxa Prov., Nat. Can. x, 201; Faun. Ent. Can. ii, 227, ♀. Can.
parvula Cress., Trans. Am. Ent. Soc. viii, 22, ♂. Cala.
pectoralis Norton, ibid, ii, 237, ♂. Col.
piceocincta Norton (*Allantus*), ibid. 236, ♀. N.Y.
pleuralis Cress.; Norton, ibid. 233, ♂ ♀. Brit.Am. Col.
pulchella Klug, Berl. Mag. viii, 121 (= *Macrophya*).
pygmæa Say, Lec. Edit. i, 213 (= *Blennocampa*).
14-*punctatus* Norton, Trans. Am. Ent. Soc. ii, 241 (= *Tenthredopsis*).
rubella Cress., ibid. viii, 22, ♂. Nev.
rubens Cress., ibid. 24, ♂. Nev.
rubeola Cress., ibid. 23, ♂. Nev.
rubiginosa Beauv., Ins. Afr. et Am. 98, pl. 9, fig. 5 (= *Hylotoma*).
ruficolor Norton, Trans. Am. Ent. Soc. ii, 228, ♀. Can. U.S.
ruficoxa Prov., Add. Faun. Hym. 14, ♀. Vanc.
rufipes Say; Norton, Trans. Am. Ent. Soc. ii. 237, ♀. Brit.Am. U.S.
rufopectus Norton (*Allantus*), ibid. 237, ♂ ♀. Can. U.S.
rufopediba Norton, ibid. 234, ♂. Can. U.S.
scævola Cress., ibid. viii, 20, ♀. Nev.
sectilis Cress., ibid. 22, ♀. Col. Nev.

semiluteus Norton, Trans. Am. Ent. Soc. ii, 240 (= *Tenthredopsis*).
semirubra Norton, ibid. 236, ♂ ♀. Can. Mass.
semirufa Norton, ibid. 235, ♀. Col.
signata Norton (*Allantus*), ibid. 232, ♂ ♀. Can. U.S.
suavis Cress., ibid. viii, 21, ♂. Nev.
subrufescens Kirby, List Hym. Brit. Mus. i, 311, pl. 12, fig. 4, ♀. Brit.Am.
subcœrulea Esch.; Norton, Trans. Am. Ent. Soc. ii, 242. Alaska.
tardus Norton, ibid. 240 (= var. *Tenthredopsis atroviolacea*).
terminalis Prov., Add. Faun. Hym. 14, ♂. Vanc.
terminalis Say, Lec. Edit. i, 213 (= *Strongylogaster*).
thora Kirby, Hym. Brit. Mus. i, 310, pl. 12, fig. 2, ♂ ♀. Brit.Am.
tricolor Norton (*Allantus*), Trans. Am. Ent. Soc. ii, 236, ♀. Can. U.S.
unicolor Beauv., Ins. Afr. et Am. 97, pl. 9, fig. 2 (= *Dolerus*).
uniformis Kirby, List Hym. Brit. Mus. i, 317, pl. 11, fig. 14, ♀. Brit.Am.
vapida Kirby, ibid. 315, pl. 12, fig. 7, ♂ ♀. Brit.Am.
varians Norton, Trans. Am. Ent. Soc. ii, 235, ♂. Can. N.H.
variata Norton, ibid. 232, ♂ ♀. Col. Nev. Cala.
variegata Norton, ibid. 233, ♂. Col. N.Mex. Nev.
varipicta Norton, ibid. 234, ♀. Nev. Cala. Vanc.
ventralis Say (*Allantus*); Norton, ibid. 230. Ark.
verticalis Say; Norton, Trans. Am. Ent. Soc. ii, 228, ♂ ♀. Can. U.S.
vittata Kirby, List Hym. Brit. Mus. i, 319, pl. 12, fig. 14, ♀. Brit.Am.
vittatipes Cress., Trans. Am. Ent. Soc. viii, 24, ♂. Nev. (= ♂ of *addenda?*).
xanthus Norton, ibid. ii, 228, ♀. Col.
zetes Kirby, List Hym. Brit. Mus. i, 312, pl. 12, fig. 6, ♂. Brit.Am.

TENTHREDOPSIS Costa.

atroviolacea Norton (*Allantus*), Trans. Am. Ent. Soc. ii, 239, ♂ ♀. Can. U.S.
attracta Norton (*Tenthredo*), ibid. 240, ♀. Brit.Am.
confusa Norton (*Tenthredo*), ibid. 241, ♂. Can. U.S.
delta Prov. (*Pachyprotasis*), Nat. Can. x, 108; Faun. Ent. Can. ii 210, ♀. Can.
14-punctata Nort. (*Tenthredo*), Trans. Am. Ent. Soc. ii, 241, ♂ ♀. Can. N.H. Va.
semilutea Norton (*Tenthredo*), ibid. 240, ♂ ♀. U.S.

SYNAIREMA Hartig.

americana Prov., Add. Faun. Hym. 15, ♀. Can.
pacifica Prov., ibid. 15, ♀. Vanc.

Subfamily LYDINÆ.

LOPHYRUS Latr.

Abbotii Leach; Norton, Trans. Am. Ent. Soc. ii, 324, ♂ ♀. Can. U.S.
abdominalis Say; Norton, ibid. 328, ♀. N.Y. N.W.Terr.
abietis Harris; Norton, ibid. 325, ♂ ♀. Can. Mass. Ct.
Akhursti Norton, ibid. 324, ♀. N.J.
americanus Leach; Norton, ibid. 329, ♀. Ga.
compar Leach; Norton, ibid. 323, ♂ ♀. Ga.
Edwardsi Norton, ibid. 330, ♂. Cala.
Fabricii Leach; Norton, ibid. 323, ♀. Ga.

fulviceps Cress., ibid. viii, 25, ♀. Nev.
fulvus Norton, ibid. iv, 86; viii, 45 (= *Monoctenus*).
lateralis Cress., ibid. viii, 25, ♀. Ga.
Lecontei Fitch; Norton, ibid. ii, 329, ♂ ♀. U.S.
melliceps Cress., ibid. viii, 26 (= *Monoctenus*).
pinetum Norton, ibid. ii, 328, ♂ ♀. Ohio.
pinus-rigida Norton, ibid. 323, ♂ ♀. Mass.
Rileyi Cress., ibid. viii, 25, ♀. Fla.
suffusus Cress., ibid. 26 (= *Monoctenus*).

MONOCTENUS Dahlb.

fulvus Norton (*Lophyrus*), Trans. Am. Ent. Soc. iv, 86; viii, 45, ♀. Can. Tex.
melliceps Cress. (*Lophyrus*), ibid. viii, 26, ♀. Mass.
suffusus Cress. (*Lophyrus*), ibid. 26, ♀. Mass.

LYDA Fabr.

abdominalis Norton, Proc. Ent. Soc. Phil. i, 199 (= *tesselata*).
albomarginata Cress., Trans. Am. Ent. Soc. viii, 30 ♀. Col.
amplecta Fabr.; Norton, ibid. ii, 342. Carolina.
apicalis Westw., Thes. Ent. Oxon. 111, pl. 20, fig. 8; Trans. viii, 45, ♂. N.Am.
atrata Cress., Trans. Am. Ent. Soc. viii, 30, ♂. Nev.
atripes Cress., ibid. 27, ♀. N.Car.
bicolorata Norton, ibid. ii, 334, ♀. N.Y.
brunnicans Norton, ibid. 333, ♀. Col. Nev.
brunniceps Cress., ibid. viii, 29, ♀. N.H.
bucephala Cress., ibid. 29, ♂. Cala.
Burquei Prov., Nat. Can. x, 204; Faun. Ent. Can. ii, 230, ♀. Can.
canadensis Norton, Trans. Am. Ent. Soc. ii, 336, ♂. Can.
cavifrons Cress.; Norton, ibid. 341, ♀. Col.
chicoutimiensis Huart, Nat. Can. xi, 149; Trans. viii, 45, ♀. Can.
circumcincta Klug; Norton, Trans. Am. Ent. Soc. ii, 342. Ga.
discolor Cress., ibid. viii. 26, ♀. Can. Pa. Nev.
excavata Norton, ibid. ii, 337, ♂. Can. Me. N.Y.
fasciata Norton, ibid. 335, ♂ ♀. Ct. N.Y. Pa.
fascipennis Cress., ibid. viii, 31, ♀. N.H.
frontalis Westw., Thes. Ent. Oxon. 110, ♂, pl. 20, fig. 7; Tr. viii, 46, ♀. Mass.
Harringtonii Prov., Add. Faun. Hym. 17, ♀. Can.
inconspicua Norton, Trans. Am. Ent. Soc. ii, 341, ♀. Can. Pa. N.Y.
insignis Br. and Zadd.; Cress., ibid. viii, 46, ♂. Ga.
luteicornis Norton, ibid. ii, 339, ♀. Can. U.S.
luteomaculata Cress., ibid. viii, 28, ♀. Can. N.H.
maculiventris Norton, ibid. ii, 333, ♂. Can. U.S.
marginiventris Cress., ibid. viii, 29, ♀. N.Y.
mathematicus Kirby (*Pamphilius*), List Hym. Brit. Mus. i, 348, fig. ♂. N.Sco.
melliventris Cress., Trans. Am. Ent. Soc. viii, 32, ♂. Nev.
montivaga Cress., ibid. 28, ♂. Nev.
Morrisoni Cress., ibid. 27, ♀. Nev.
multisignata Norton, ibid. ii, 340, ♀. Col. Nev.
nevadensis Cress., ibid. viii, 28, ♂. Nev. (= ♂ of *Morrisoni?*).

nigripes Cress., ibid. 28, ♂. Nev.
nigrita Cress., ibid. 30, ♂. Nev.
nigropectus Cress., ibid. 32, ♀. Nev.
ochreipes Cress., ibid. 30, ♀. N.H.
ochrocera Norton, ibid. ii, 332, ♂. Can. N.H. Mass.
ocreata Say; Norton, ibid. 338, ♀. Can. U.S.
pacifica Norton, ibid. 338, ♀. Cala.
pallimacula Norton, ibid. 337, ♀. Brit.Am. U.S.
perplexa Cress., ibid. viii, 31, ♀. Can. Mass.
plagiata Klug; Norton, ibid. ii, 336, ♂ ♀. U.S.
Poppigii Br. and Zadd.; Cress., ibid. viii, 45, ♀. Ga. N.C.
Provancheri Huart, Nat. Can. xi, 148; Trans. viii, 46, ♀. Can.
pullata Cress., Trans. Am. Ent. Soc. viii, 31, ♀. Mo.
quebecensis Prov., Nat. Can. x, 205; Faun. Ent. Can. ii, 231, ♀. Can. N.Y.
Rileyi Cress., Trans. Am. Ent. Soc. viii, 32, ♀. Mo.
rufiventris Cress., ibid. 29, ♂. Nev.
rufocincta Cress., ibid. 32, ♂. Col.
rufofasciata Norton, ibid. ii, 340, ♀. N.H. Ct.
scripta Say (*Tarpa*); Norton, ibid. 339. N.H. Ark.
semicincta Norton, ibid. 341, ♀. Me. Va.
semidea Cress., ibid. viii, 31, ♀. N.H.
similaris Cress., ibid. 27, ♀. Nev. (= var. *verticalis?*).
terminalis Cress., ibid. 29, ♀. Nev.
tesselata Klug; Norton, ibid. ii, 334, ♀. Mass. Pa.
verticalis Cress., ibid. viii, 26, ♀. Cala.

Subfamily XYELINÆ.

MACROXYELA Kirby.

ænea Norton (*Xyela*), Trans. Am. Ent. Soc. iv, 86; viii, 48, ♂. Tex.
ferruginea Say (*Xyela*); Norton, ibid. ii, 348, ♀. Mass. Ark.
infuscata Norton (*Xyela*), ibid. 349, ♂. Mass.
major Cress. (*Xyela*), ibid. viii, 34, ♂ ♀. Tex.
tricolor Norton (*Xyela*), ibid. ii, 348, ♂. Ks.

XYELA Dalm.

ænea Norton, Trans. Am. Ent. Soc. iv, 86 (= *Macroxyela*).
ferruginea Say, Lec. Edit. i, 207 (= *Macroxyela*).
infuscata Norton, Trans. Am. Ent. Soc. ii, 349 (= *Macroxyela*).
major Cress., ibid. viii, 34 (= *Macroxyela*).
minor Norton, ibid. ii, 349, ♀. Can. U.S.
tricolor Norton, ibid. 348 (= *Macroxyela*).

Family UROCERIDÆ.

CEPHUS Latr.

abbreviatus Say; Norton, Trans. Am. Ent. Soc. ii, 343, ♀. Pa.
abdominalis Cress. (*nec.* Latr.), ibid. viii, 33 (= *Cressoni*).
bicinctus Prov. (*Phyllœcus*), Nat. Can. vii, 375; x, 207; Trans. viii, 47, ♀. Can.
bifasciatus Cress., Trans. Am. Ent. Soc. viii, 33, ♀. Col.
bimaculatus Norton (*Phyllœcus*), ibid. ii, 346, ♂ ♀. Can. Ct.
cinctus Norton, ibid. iv, 86; viii, 48, ♂. Col.
clavatus Norton (*Phyllœcus*), ibid. ii, 345, ♀. Nev. Cala.
Cressoni Kirby, List Hym. Brit. Mus. i, 403, ♀. Nev.
fasciatus Cress., Trans. Am. Ent. Soc. viii, 33, ♀. Col.
heteropterus Norton, ibid. ii, 343, ♂. N.H. Mass.
integer Nort., Proc. Bost. Soc. viii, 224; (*Phyllœcus*) Tr. ii, 346. Can. Mass. N.Y.
4-guttatus Westw., Thes. Ent. Oxon. 111, pl. 20, fig. 11; Trans. viii, 47. Mass.
rufiventris Cress., Trans. Am. Ent. Soc. viii, 33, ♀. Cala.
trimaculatus Say; Norton (*Phyllœcus*), ibid. ii, 345, ♂ ♀. U.S.

JANUS Steph.

flaviventris Fitch; Norton, Trans. Am. Ent. Soc. ii, 344. N.Y.

ORYSSUS Latr.

affinis Harris; Norton, Trans. Am. Ent. Soc. ii, 351, ♂. Can. Mass.
hæmorrhoidalis Harris; Norton, ibid, 350 (= *terminalis*).
maurus Harris; Norton, ibid. 351 (= *Sayi*).
occidentalis Cress., Proc. Ent. Sec. A. N. S. 1879, ix; Tr. viii, 48. Can. Col. Nev.
Sayi Westw., Zool. Jour. v, 440; Thes. Ent. Oxon. pl. 22, fig. 7. Brit.Am. U.S.
terminalis Newm., Ent. Mag. v, 486; Trans. ii, 350, ♀. Can. Mass. N.Y. Pa.

XIPHYDRIA Latr.

abdominalis Say; Norton, Trans. Am. Ent. Soc. ii, 354. Pa.
albicornis Harris; Norton, ibid. 352, ♀. Can. U.S.
attenuata Norton, ibid. 354; Patton, Can. Ent. xi, 14, ♀. Can. U.S.
basalis Say; Norton, ibid. 354, ♀. Ind.
canadensis Prov., Nat. Can. vii, 373; x, 233; Trans. viii, 49, ♀. Can.
canadense Prov. (*Xiphidion*), ibid. 374; x, 233 (= *Provancheri*).
maculata Say; Norton, Trans. Am. Ent. Soc. ii, 353, ♂. Can.
mellipes Harris, Treat. Ins. 2d Edit. 429 (= *tibialis*).
Provancheri Cress., Trans. Am. Ent. Soc. viii, 49, ♂ ♀. Can. N.H. Mass.
rufiventris Cress., ibid. 34, ♀. N.Y.
tibialis Say; Norton, ibid. ii, 353. Pa.
Walshii Westw., Thes. Ent. Oxon. 113; Trans. viii, 50, ♂. N.Y.

UROCERUS Geoff.

abaddon Westw. (*Sirex*), Thes. Ent. Oxon. 115, pl. 21, fig. 7 (= *Edwardsii*).
Abbotii Kirby (*Sirex*), List Hym. Brit. Mus. i, 378, pl. 15, fig. 8, ♂. Ga.
abdominalis Harris; Norton, Trans. Am. Ent. Soc. ii, 361, ♂. U.S.
albicornis Fabr. (*Sirex*); Norton, ibid. 360, ♀. Brit.Am. U.S.
apicalis Kirby (*Sirex*), List Hym. Brit. Mus. i, 377, pl. 15, fig. 11, ♂. Vanc.

areolatus Cress., Tr. Am. Ent. Soc. i, 375; Norton, ibid. ii, 358, ♀. Col. N.Mex.
Behrensii Cress., ibid. viii, 35, ♀. Cala.
*bizonatus** Steph. (*Sirex*), Ill. Brit. Ent. Mand. vii, 114, pl. 36, fig. 2 (= *flavicornis*).
cæruleus Cress., Trans. Am. Ent. Soc. viii, 34, ♀. Vanc.
californicus Norton, ibid. ii, 360, ♀ (= var. *albicornis*).
caudatus Cress.; Norton, ibid. 363, ♂ ♀. Can. Col. Cala.
cinctus Drury (*Sirex*), Exot. Ins. ii, 72, pl. 38, fig. 2 (= *Tremex columba*).
columba Linn. (*Sirex*), Syst. Nat. i, 929; Fabr., Syst. Ent. 325 (= *Tremex*).
Cressoni Norton, Trans. Am. Ent. Soc. ii, 361, ♀. U.S.
cyaneus Fabr. (*Sirex*); Norton, ibid. 357, ♂ ♀. Can. U.S.
dimidiatus Westw. (*Sirex*), Thes. Ent. Oxon. 115, pl. 21, fig. 5 (= *Cressoni*).
duplex Shuck. (*Sirex*), Loud. Mag. Nat. Hist. n. ser. i, 631 (= *cyaneus*).
Edwardsii Brullé (*Sirex*); Norton, Trans. Am. Ent. Soc. ii, 356, ♀. U.S.
flavicornis Fabr. (*Sirex*); Norton, ibid. 362, ♀. Brit.Am. U.S.
flavipennis Kirby (*Sirex*), List. Hym. Brit. Mus. i, 380, pl. 15, fig. 10, ♀. Vanc.
fulvocinctus Westw. (*Sirex*), Thes. Ent. Oxon. 114, pl. 21, fig. 1 (= *zonatus*).
fulvus Cress., Trans. Am. Ent. Soc. viii, 35, ♂. Col. Utah. Wash.Terr.
gracilis Westw. (*Sirex*), Thes. Ent. Oxon. 114, pl. 21, fig. 4; Tr. viii, 51. N.Am.
hirsutus Kirby (*Sirex*), List Hym. Brit. Mus. i, 380, pl. 15, fig. 6, ♂. Ga.?
juvencus Klug (*Sirex*); Kirby, Faun. Bor.-Am. iv, 257 (= *cyaneus*).
latifasciatus Westw. (*Sirex*), Thes. Ent. Oxon. 114, pl. 21, fig. 2; Tr. viii, 50. N.Am.
melancholicus Westw. (*Sirex*), ibid. 116, pl. 21, fig. 8 (= *caudatus*).
morio Westw. (*Sirex*), ibid. 115, pl. 21, fig. 6, ♀. N.Am.
Morrisoni Cress., Trans. Am. Ent. Soc. viii, 35, ♂ ♀. Col. Utah. Wash.Terr.
nigricornis Fabr. (*Sirex*); Norton, ibid. ii, 359, ♂ ♀. N.Y. Cala.
nitidus Harris, Treat. Ins. 2d ed. 427 (= *cyaneus*).
pensylvanicus DeGeer (*Sirex*), Mém. Ins. iii, 593, pl. 30, fig. 13 (= *Tremex columba*).
tarsalis Cress., Trans. Am. Ent. Soc. viii, 52, ♀. Wash.Terr.
tricolor Prov.; Norton, ibid. ii, 362; viii, 51, ♂ ♀. Can. (= var. *Cressoni?*).
varipes Smith (*Sirex*), Lord's Nat. Vanc. Is. ii, 342, 1866, ♀. Brit.Col.
zonatus Norton, Trans. Am. Ent. Soc. ii, 357, ♂. N.Y. Md.

TREMEX Jur.

columba Linn. (*Sirex*); Norton, Trans. Am. Ent. Soc. ii, 364, ♂ ♀. Can. U.S.
maurus Westw., Thes. Ent. Oxon. 116, pl. 21, fig. 3 (= *columba*).
obsoletus Say, Lec. Edit. i, 74, pl. 32 (= *columba*).
sericeus Say, ibid. 73, pl. 32; Norton, Trans. ii, 366 (= var *columba*).
Servillei Brullé, Hym. 645, pl. 45, fig. 2 (= var *columba*).

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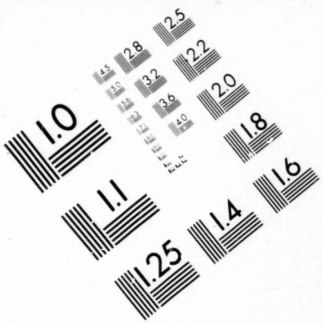
* Kirby (List. Hym. Brit. Mus. i, 381) seems to think that this is a distinct species, being uniformly smaller than *flavicornis*.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Family CYNIPIDÆ.

Subfamily IBALIINÆ.

IBALIA Latr.

anceps Say, Lec. Edit. i, 218. Ark.
ensiger Norton, Proc. Ent. Soc. Phil. i, 200, ♀. Can. Pa.
maculipennis Hald., Proc. Acad. Nat. Sci. Phil. iii, 127, ♀. Can. Pa.
montana Cress., Proc. Ent. Sec. A. N. S. 1879, xvii, ♀. Col.
rufipes Cress., ibid. xvii, ♀. Nev.
scalpellator Westw., Guér. Mag. Zool. 1837, Class ix, pl. 179, 2, ♂. Ga.

Subfamily CYNIPINÆ.

BELONOCNEMA Mayr.

floridanus Ashm. (*Dryorhizoxenus*), Proc. Ent. Sec. A. N. S. 1881, xxv, ♂ ♀. Fla.
Treatæ Mayr, Die Gen. Gallenbw. Cynip. 17, ♀. Fla.

RHODITES Hartig.

bicolor Harris (*Cynips*); O. S., Proc. Ent. Soc. Phil. i, 48, ♂ ♀. Can. U.S.
dichlocerus Harris (*Cynips*); O. S., ibid. 42, ♂ ♀. U.S.
ignota O. S., ibid. 49, ♂ ♀. U.S.
radicum O. S., ibid. 46, ♂ ♀. U.S.
rosæ Linn. (*Cynips*); O. S., ibid. 47, ♂ ♀. Can. U.S.
verna O. S., ibid. 47, ♂ ♀. U.S.

DIASTROPHUS Hartig.

cuscutæformis O. S., Proc. Ent. Soc. Phil. ii, 39. ♂ ♀. Md.
nebulosus O. S., ibid. 36, ♂ ♀. Can. D.C. Fla.
piceus Prov., Add. Faun. Hym. 161, ♂ ♀. Can.
potentillæ Bass., Proc. Ent. Soc. Phil. iii, 689, ♂ ♀. Mass. Ct.
5-costatus Prov., Nat. Can. xii, 238; Faun. Ent. Can. ii, 807, ♂ ♀. Can.
radicum Bass., Can. Ent. ii, 98. Ct. Fla.
similis Bass., ibid. xiii, 95, ♀. Ct. N.Y.
turgidus Bass., ibid. ii, 99, ♀. Ct.

ANTISTROPHUS Walsh.

1. pisum Walsh, Am. Ent. ii, 74, ♂ ♀. Neb.

TRIBALIA Walsh.

batatorum Walsh, Proc. Ent. Soc. Phil. ii, 471, ♀. Can. Ill.

AMPHIBOLIPS Reinh.

cinerea Ashm. (*Cynips*), Proc. Ent. Sec. A. N. S. 1881, xix, ♀. Fla.
citriformis Ashm. (*Cynips*), ibid. xxviii, ♀. Fla.
coccineæ O. S. (*Cynips*), Proc. Ent. Soc. Phil. i, 243, ♀. D.C.
cœlebs O. S. (*Cynips*), ibid. 61, ♂. D.C.
confluens Harris (*Cynips*), Treat. Ins. 2d ed. 433. Mass.
fuliginosa Ashm. (*Cynips*), Proc. Ent. Sec. A. N. S. 1885, vii, ♀. Fla.

ilicifoliæ Bass. (*Cynips*), Proc. Ent. Soc. Phil. iii, 682, ♂ ♀. Ct. Pa.
inanis O. S. (*Cynips*), ibid. ii, 242, ♀. N.Y. D.C.
melanocera Ashm., Trans. Am. Ent. Soc. xii, 299, ♂. Fla.
nubilipennis Harris (*Cynips*), Treat. Ins. 2d ed. 434. Mass.
prunus Walsh (*Cynips*), Am. Ent. i, 104, ♀. Ill.
racemaria Ashm. (*Cynips*), Proc. Ent. Sec. A. N. S. 1881, xxvi, ♀. Fla.
sculpta Bass. (*Cynips*), Proc. Ent. Soc. Phil. ii, 324, ♂ ♀. Ct.
spongifica O. S. (*Cynips*), ibid. i, 244, ♀. Can. D.C.

ANDRICUS Hartig.

(Subgen. CALLIRHYTIS Först.)

agrifoliæ Bass. (*Cynips*), Can. Ent. xiii, 53, ♀. Cala.
californicus Bass. (*Cynips*), ibid. 51, ♀. Cala.
clavula Bass. (*Cynips*). Proc. Ent. Soc. Phil. iv, 351. U.S.
cornigera O. S. (*Cynips*), ibid. v, 358, ♀. U.S.
futilis O. S. (*Cynips*), ibid. i, 64, ♂. D.C.
modestus O. S. (*Cynips*), ibid. 66, ♀. D.C.
nigræ O. S. (*Cynips*), ibid. 66, ♂ ♀. D.C.
operator O. S. (*Cynips*), ibid. 257, ♂ ♀. D.C.
papillatus O. S. (*Cynips*), ibid. 64, ♂. D.C.
podagræ Walsh (*Cynips*), ibid. ii, 492, ♀. Ill.
punctatus Bass. (*Cynips*), ibid. 324, ♀. Ct.
quercifoliæ Ashm., Trans. Am. Ent. Soc. xii, 299 (= *Dryophanta*).
scitulus Bass. (*Cynips*), Proc. Ent. Soc. Phil. iii, 683, ♂ ♀. Ct.
seminator Harris (*Cynips*), Treat. Ins. 2d ed. 434. Mass. Fla.
similis Bass. (*Cynips*), Proc. Ent. Phil. iii, 685, ♂ ♀. Ct.
Suttonii Bass. (*Cynips*), Can. Ent. xiii, 54, ♀. Cala.
tumifica O. S. (*Cynips*), Proc. Ent. Soc. Phil. iv, 356, ♂ ♀. N.Y.

(Subgen. ANDRICUS Hartig.)

batatoides Ashm. (*Cynips*), Proc. Ent. Sec. A. N. S. 1881, xi, ♀. Fla.
capsualus Ashm. (*Cynips*), Proc. Ent. Sec. A. N. S. 1885, ix, ♀. Fla.
chinquapin Fitch (*Figites*), Fifth N. Y. Rep. 40, No. 320. U.S.
cinerosus Bass. (*Cynips*), Can. Ent. xiii, 110, ♀. Tex.
clavigera Ashm. (*Cynips*), Proc. Ent. Sec. A. N. S. 1881, xxvii, ♀. Fla.
conifera Ashm. (*Cynips*), ibid. xxvii, ♀. Fla.
Coxii Bass. (*Cynips*), Can. Ent. xiii, 112, ♀. Ariz.
flocci Walsh (*Cynips*), Proc. Ent. Soc. Phil. ii, 482, ♀. Ill.
foliatus Ashm. (*Cynips*), Proc. Ent. Sec. A. N. S. 1881, xiii, ♀. Fla.
formosus Bass. (*Cynips*), Proc. Ent. Soc. Phil. iii, 679, ♀. Ct.
fusiformis O. S. (*Cynips*), ibid. i, 61, ♀. Can. D.C.
gemmarius Ashm. (*Cynips*), Proc. Ent. Sec. A. N. S. 1885, ix, ♀. Fla.
gibbosus Prov. (*Cynips*), Nat. Can. xii, 232; Faun. Ent. Can. ii, 547, ♂ ♀. Can.
lanigera Ashm. (*Cynips*), Proc. Ent. Sec. A. N. S. 1881, xiii, ♀. Fla.
medullæ Ashm. (*Cynips*), ibid. 1885, viii, ♀. Fla.
Osten Sackenii Bass. (*Cynips*), Proc. Ent. Soc. Phil. ii, 327, ♂ ♀. Ct.
Pattoni Bass. (*Cynips*), Can. Ent. xiii, 98, ♀. Ct. Fla.
petiolicola Bass. (*Cynips*), Proc. Ent. Soc. Phil. ii, 325, ♂ ♀. Ct.
piger Bass. (*Cynips*), Can. Ent. xiii, 105, ♀. Ct.
pompiformis Bass. (*Cynips*), ibid. 74, ♀. Cala.

quinqueseptum Ashm., Trans. Am. Ent. Soc. xii, 299, ♂. Fla.
rugosus Ashm. (*Cynips*), Proc. Ent. Sec. A. N. S. 1881, xviii, ♂ ♀. Fla.
singularis Bass. (*Cynips*), Proc. Ent. Soc. Phil. ii, 326, ♂ ♀. Ct.
tubicola O. S. (*Cynips*), ibid. i, 60, ♀. U.S.
Turnerii Ashm. (*Cynips*), Proc. Ent. Sec. A. N. S. 1881, xvi, ♀. Fla.
utriculus Bass. (*Cynips*), Can. Ent. xiii, 78, ♂ ♀. Ct.
ventricosus Bass. (*Cynips*), Proc. Ent. Soc. Phil. iii, 681, ♀. Ct.
virens Ashm. (*Cynips*), Proc. Ent. Sec. A. N. S. 1881, x, ♀. Fla.

CYNIPS Linn.*

aciculata O. S. Proc. Ent. Soc. Phil. i, 56, 245, ♀ (= *Amphibolips spongifica*).
affinis Bass., Can. Ent. xiii, 103 (= *Neuroterus*).
agrifoliæ Bass., ibid. 53 (= *Callirhytis*).
aquaticæ Ashm., Proc. Ent. Sec. A. N. S. 1881, xvi (= *Dryophanta*).
arbos Fitch, Fifth N. Y. Rep. 29, No. 310 (= *Ceroptres*).
batatoïdes Ashm., Proc. Ent. Sec. A. N. S. 1881, xi (= *Andricus*).
batatus Bass., *non* Fitch, Proc. Ent. Soc. Phil. iii, 684 (= *Neuroterus*).
batatus Fitch, Fifth N. Y. Rep. 30, No. 311. N.Y.
bella Bass., Can. Ent. xiii, 93 (= *Dryophanta*).
bicolor Harris, Treat. Ins. 2d ed. 435 (= *Rhodites*).
californica Bass., Can. Ent. xiii, 51 (= *Callirhytis*).
capsuala Ashm. Proc. Ent. Sec. A. N. S. 1885, ix (= *Andricus chinquapin*).
capsula Bass., Can. Ent. xiii, 101 (= *Holcaspis*).
Catesbæi Ashm., Proc. Ent. Sec. A. N. S. 1881, xv (= *Neuroterus*).
centricola O. S., Proc. Ent. Soc. Phil. i, 58 (= *Holcaspis*).
? **cicatricula** Bass., Can. Ent. xiii, 101 (gall only). Ct.
cinerea Ashm., Proc. Ent. Sec. A. N. S. 1881, xix (= *Amphibolips*).
cinerosa Bass., Can. Ent. xiii, 110 (= *Andricus*).
citriformis Ashm., Proc. Ent. Sec. A. N. S. 1881, xxviii (= *Amphibolips*).
clavigera Ashm., ibid. xxvii (= *Andricus*).
clavula Bass., Proc. Ent. Soc. Phil. iii, 685 (= *Callirhytis*).
coccineæ O. S., ibid. i, 243 (= *Amphibolips*).
cœlebs O. S., ibid. 61 (= *Amphibolips*).
confluens Harris, Treat. Ins. 2d ed. 423 (= *Amphibolips*).
confusa Ashm., Proc. Ent. Sec. A. N. S. 1881, xviii (= *Dryophanta*).
conifera Ashm., ibid. xxvii (= *Andricus*).
cornigera O. S., Proc. Ent. Soc. Phil. i, 251 (gall); v, 358 (= *Callirhytis*).
corrugis Bass., Can. Ent. xiii, 109 (= *Holcaspis*).
Coxii Bass., ibid. 112 (= *Andricus*).
crassitelus Prov., Nat. Can. xii, 233; Faun. Ent. Can. ii, 548 (= *Neuroterus*).
? **decidua** Bass., Proc. Ent. Soc. Phil. iii, 689 (gall). Ct.
dichlocerus Harris, Treat. Ins. 2d ed. 435 (= *Rhodites*).
echinus O. S., Trans. Am. Ent. Soc. iii, 56, ♀. Cala.
erinacei Walsh, Proc. Ent. Soc. Phil. ii, 483, gall (= *Acraspis*).
ficigera Ashm., Proc. Ent. Sec. A. N. S. 1885, vi (= *Holcaspis*).

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* In conformity with usage, the prefix *quercus*, which forms a part of the original name of most of the species described as belonging to this genus, is omitted in this list.

ficula Bass., Can. Ent. xiii, 75 (= *Holcaspis*).
ficus Fitch, Fifth N. Y. Rep. 32, No. 314 (= *Ceroptres*).
flocci Walsh, Proc. Ent. Soc. Phil. ii, 482 (= *Andricus*).
floccosa Bass., Can. Ent. xiii, 111 (= *Neuroterus*).
foliata Ashm., Proc. Ent. Sec. A. N. S. 1881, xiii (= *Andricus*).
formosa Bass., Proc. Ent. Soc. Phil. iii, 679 (= *Andricus*).
forticornis Walsh, ibid. ii, 490 (= *Biorhiza*).
? **frondosa** Bass., ibid. iii, 688 (gall); Walsh, Am. Ent. ii, 72, fig. Ct.
fuliginosa Ashm., Proc. Ent. Sec. A. N. S. 1885, vii (= *Amphibolips*).
fusiformis O. S., Proc. Ent. Soc. Phil. i, 61 (= *Andricus*).
futilis O. S., ibid. i, 64 (= *Callirhytis*).
gemmaria Ashm., Proc. Ent. Sec. A. N. S. 1885, ix (= *Andricus*).
gemula Bass., Can. Ent. xiii, 104 (= *Dryophanta*).
gibbosa Prov., Nat. Can. xii, 232 (= *Andricus*).
? **glandulosus** Riley, Trans. St. Louis Acad. iii, 578 (gall). Pa.
globulus Fitch (*Callaspidia*), Fifth N. Y. Rep. 30, No. 312 (= *Holcaspis*).
hirta Bass., Proc. Ent. Soc. Phil. iii, 688 (= *Biorhiza*).
ignota Bass., Can. Ent. xiii, 106 (= *Dryophanta*).
ilicifoliæ Bass., Proc. Ent. Soc. Phil. iii, 682 (= *Amphibolips*).
inanis O. S., ibid. i, 58, 242 (= *Amphibolips*).
irregularis O. S., ibid. 65 (= *Neuroterus*).
? **juglans** O. S., ibid. i, 255 (gall). D.C.
lana Fitch, Fifth N. Y. Rep. 34, No. 316 (= *Synergus*).
lanigera Ashm., Proc. Ent. Sec. A. N. S. 1881, xiii (= *Andricus*).
lignicola O. S., Proc. Ent. Soc. Phil. i, 252 (= *Synergus*).
majalis Bass., ibid. iii, 683 (= *Neuroterus*).
mamma Walsh, Am. Ent. i, 102 (= *Holcaspis*).
mammula Bass., Can. Ent. xiii, 76 (= *Loxaulis*).
medullæ Ashm., Proc. Ent. Sec. A. N. S. 1885, viii (= *Andricus*).
mellaria Riley, Am. Ent. iii, 298 (gall). Col.
minuta Bass., Can. Ent. xiii, 96 (= *Neuroterus*).
minutissima Ashm., Proc. Ent. Sec. A. N. S. 1885, vii (= *Neuroterus*).
modesta O. S., Proc. Ent. Soc. Phil. i, 66 (= *Callirhytis*).
nigræ O. S., ibid. 66 (= *Callirhytis*).
notha O. S., Trans. Am. Ent. Soc. iii, 55 (= *Dryophanta*).
noxiosa Bass., Can. Ent. xiii, 108 (= *Neuroterus*).
nubila Bass., ibid. 56 (= *Dryophanta*).
nubilipennis Harris, Treat. Ins. 2d ed. 434 (= *Amphibolips*).
omnivora Ashm., Proc. Ent. Sec. A. N. S. 1885, vi (= *Holcaspis*).
oneratus Harris, Treat. Ins. 2d ed. 434 (= *Synergus*).
operator O. S., Proc. Ent. Soc. Phil. i, 257 (= *Callirhytis*).
Osten Sackenii Bass., ibid. ii, 327 (= *Andricus*).
palustris O. S., ibid. i, 63 (= *Dryophanta*).
papillata O. S., ibid. 64 (= *Callirhytis*).
papula Bass., Can. Ent. xiii, 107 (= *Dryophanta*).
Pattoni Bass., ibid. 98 (= *Andricus*).
petiolicola Bass., Proc. Ent. Soc. Phil. ii, 325 (= *Andricus*).
pezomachoides O. S., ibid. i, 250; ii, 483 (= *Acraspis*).
phellos O. S., ibid. i, 70 (= *Neuroterus*).

pigra Bass., Can. Ent. xiii, 105 (= *Andricus*).
? **pilulæ** O. S., Proc. Ent. Soc. Phil. ii, 481 (gall). Ill.
? **pisum** Fitch, Fifth N. Y. Rep. 38, No. 319. N.Y.
podagræ Walsh, Proc. Ent. Soc. Phil. ii, 492 (= *Callirhytis*).
polita Bass., Can. Ent. xiii, 99 (=*Dryophanta*).
pompiformis Bass., ibid. 74 (= *Andricus*).
prunus Walsh, Am. Ent. i, 104 (=*Amphibolips*).
punctata Bass., Proc. Ent. Soc. Phil. ii, 324 (= *Callirhytis*).
racemaria Ashm., Proc. Ent. Sec. A. N. S. 1881, xxvi (= *Amphibolips*).
Rileyi Bass., Am. Nat. xv, 1881, 149 (= *Neuroterus*).
rosæ Linn., Syst. Nat. i, 917 (= *Rhodites*).
rugosa Bass., Can. Ent. xiii, 100 (= *Holcaspis*).
rugosa Ashm., Proc. Ent. Sec. A. N. S. 1881, xviii (= *Andricus*).
? saltatorius H. Edwards, Scientific and Rural Press, July 14, 1876 (= *Neuroterus*).
scitula Bass., Proc. Ent. Soc. Phil. iii, 683 (= *Callirhytis*).
sculptus Bass., ibid. ii, 324 (= *Amphibolips*).
seminator Harris, Treat. Ins. 2d ed. 434 (= *Callirhytis*).
semipiceus Harris, ibid. 436 (= *Periclistus*).
similis Bass., Proc. Ent. Soc. Phil. iii, 685 (= *Callirhytis*).
singularis Bass., ibid. ii, 326 (= *Andricus*).
spongifica O. S., ibid. i, 244 (= *Amphibolips*).
strobilana O. S., ibid. i, 254 (gall); iii, 690, ♀. D.C.
succinipes Ashm., Proc. Ent. Sec. A. N. S. 1881, xi (= *Holcaspis*).
Suttonii Bass., Can. Ent. xiii, 54 (*Callirhytis*).
? **tenuicornis** Bass., ibid. 92, ♀. Ariz.
tuber Fitch, Fifth N. Y. Rep. 26, No. 309 (= *Ceroptres*).
tubicola O. S., Proc. Ent. Soc. Phil. i, 60 (= *Andricus*).
tumifica O. S., ibid. iv, 356 (= *Callirhytis*).
Turnerii Ashm., Proc. Ent. Sec. A. N. S. 1881, xvi (= *Andricus*).
utricula Bass., Can. Ent. xiii, 78 (= *Andricus*).
ventricosa Bass., Proc. Ent. Soc. Phil. iii, 681 (= *Andricus*).
verrucarum O. S., ibid. i, 62 (= *Neuroterus*).
vesicula Bass., Can. Ent. xiii, 97 (= *Neuroterus*).
virens Ashm., Proc. Ent. Sec. A. N. S. 1881. x (= *Andricus*).

ACRASPIS Mayr.

erinacei Walsh (*Cynips*), Proc. Ent. Soc. Phil. ii, 483 (gall only). Ill.
pezomachoides O. S. (*Cynips*), ibid. i, 250, ♀. Md.

BIORHIZA Westw.

forticornis Walsh (*Cynips*), Proc. Ent. Soc. Phil. ii, 490, ♀. Ill.
fulvicollis Fitch, (*Philonix*), Fifth N. Y. Rep. 3, No. 291. N.Y.
hirta Bass. (*Cynips*), Proc. Ent. Soc. Phil. iii, 688, ♀. Ct.
nigra Fitch, Fifth N. Y. Rep. 2, No. 290. N.Y.
nigricollis Fitch (*Philonix*), ibid. 3, No. 292. N.Y.

LOXAULUS Mayr.

mammula Bass. (*Cynips*), Can. Ent. xiii, 76, ♂ ♀. Ct. Fla.

HOLCASPIS Mayr.

centricola O. S. (*Cynips*), Proc. Ent. Soc. Phil. i, 58, ♀. D.C.
? corrugis Bass. (*Cynips*), Can. Ent. xiii, 109, ♀. Ct.
ficigera Ashm. (*Cynips*), Proc. Ent. Sec. A. N. S. 1885, vi, ♀. Fla.
ficula Bass. (*Cynips*), Can. Ent. xiii, 75, ♀. Ga. Fla.
globulus Fitch (*Cynips*); Bass., Proc. Ent. Soc. Phil. ii, 328, ♀. Ct. N.Y.
? mamma Walsh (*Cynips*), Am. Ent. i, 102, note. Ill.
omnivora Ashm. (*Cynips*), Proc. Ent. Sec. A. N. S. 1885, vi, ♀. Fla.
rugosa Bass. (*Cynips*), Can. Ent. xiii, 100, ♀. Ct. Fla.
succinipes Ashm. (*Cynips*), Proc. Ent. Sec. A. N. S. 1881, xi, ♀. Fla.

DRYOPHANTA Först.

aquaticæ Ashm. (*Cynips*). Proc. Ent. Sec. A. N. S. 1881, xvi, ♂ ♀. Fla.
bella Bass. (*Cynips*); Mayr, Verh. z.-b. Ges. Wien, 1886, 371, ♀. Ariz.
confusa Ashm. (*Cynips*), Proc. Ent. Sec. A. N. S. 1881, xviii, ♀. Fla.
gemmula Bass. (*Cynips*); Mayr, Verh. z.-b. Ges. Wien, 1886, 371, ♂ ♀. Ct.
ignota Bass. (*Cynips*), Can. Ent. xiii, 106, ♀. Mass. Ct.
laurifoliæ Ashm. (*Spathegaster*), Proc. Ent. Sec. A. N. S. 1881, xvii, ♂ ♀. Fla.
notha O. S. (*Cynips*), Trans. Am. Ent. Soc. iii, 55. N.Y.
nubila Bass. (*Cynips*); Mayr, Verh. z.-b. Ges. Wien, 1886, 371, ♀. Ariz.
palustris O. S. (*Cynips*), Proc. Ent. Soc. Phil. i, 63, ♂ ♀. D.C.
papula Bass. (*Cynips*), Can. Ent. xiii, 107, ♀. Mass. Ct.
polita Bass. (*Cynips*), ibid. 99, ♀. Pa. N.J. Md. Fla.
quercifoliæ Ashm. (*Andricus*), Trans. Am. Ent. Soc. xii, 299, ♂. Fla.

NEUROTERUS Hartig.

affinis Bass. (*Cynips*), Can. Ent. xiii, 103, ♂ ♀. Ct.
batatus Bass. *non* Fitch (*Cynips*), Proc. Ent. Soc. Phil. iii, 684, ♂ ♀. Ct.
Catesbæi Ashm. (*Cynips*), Proc. Ent. Sec. A. N. S. 1881, xv, ♂ ♀. Fla.
crassitelus Prov. (*Cynips*), Nat. Can. xii, 233; Faun. Ent. Can. ii, 548, ♀. Can.
floccosus Bass. (*Cynips*), Can. Ent. xiii, 111, ♀. Ohio.
irregularis O. S. (*Cynips*), Proc. Ent. Soc. Phil. i, 65. D.C.
majalis Bass. (*Cynips*), ibid. iii, 683, ♂ ♀. Ct. Fla.
minutissimus Ashm. (*Cynips*), Proc. Ent. Sec. A. N. S. 1885, vii, ♀. Fla.
minutus Bass. (*Cynips*), Can. Ent. xiii, 96, ♂ ♀. Ct.
noxiosus Bass. (*Cynips*), ibid. 108, ♂ ♀. Ct.
phellos O. S. (*Cynips*), Proc. Ent. Soc. Phil. i, 70, ♀. D.C.
Rileyi Bass. (*Cynips*), Am. Nat. xv, 1881, 149, ♀. Ohio.
saltatorius H. Edw. (*Cynips*); Riley, Am. Nat. x, 218. U.S.
verrucarum O. S. (*Cynips*), Proc. Ent. Soc. Phil. i, 62. D.C. Fla.
vesicula Bass. (*Cynips*), Can. Ent. xiii, 97, ♂ ♀. Ct.

Subfamily INQUILINÆ.

PERICLISTUS Först.

futilis O. S. (*Aylax?*), Proc. Ent. Soc. Phil. i, 64, ♂. D.C.
pirata O. S. (*Aulax*), ibid. ii, 42, ♂ ♀. Ct.
semipiceus Harris (*Cynips*), Treat. Ins. 2d ed. 436. Can. Mass.
sylvestris O. S. (*Aulax*), Proc. Ent. Soc. Phil. ii, 37, ♂ ♀. Can. D.C.

CEROPTRES Hartig.

arbos Fitch (*Cynips*), Fifth N. Y. Rep. 29, No. 310. N.Y.
Catesbæi Ashm., Trans. Am. Ent. Soc. xii, 301. Fla.
citriformis Ashm., ibid. 300, ♂ ♀. Fla.
ensiger Walsh (*Amblynotus*), Proc. Ent. Soc. Phil. ii, 496 (= *petiolicola*).
ficus Fitch (*Cynips*), Fifth N. Y. Rep. 32, No. 314; O. S., Proc. Ent. Soc. iv, 368. N.Y.
inermis Walsh (*Amblynotus*), Proc. Ent. Soc. Phil. ii, 498, ♂ ♀. Ill.
lanigeræ Ashm., Trans. Am. Ent. Soc. xii, 301. Fla.
minutissimi Ashm., ibid. 301, ♂ ♀. Fla.
obtusilobæ Ashm., ibid. 300, ♂. Fla.
petiolicola O. S. (*Amblynotus?*), Proc. Ent. Soc. Phil. i, 67; iv, 369. Can. D.C.
pisum O. S. (*Sarothrus?*), ibid. 59; iv, 369, ♀. D.C.
pompiformis Ashm., Trans. Am. Ent. Soc. xii, 300, ♂. Cala.
succinipedis Ashm., ibid. 300, ♀. Fla.
tuber Fitch(*Cynips*), 5th N. Y. Rep. 26, No. 309; O. S., Proc. Ent. Soc. iv, 370. N.Y.
virentis Ashm., Trans. Am. Ent. Soc. xii, 300, ♀. Fla.

SYNERGUS Hartig.

albipes Walsh (*Synophrus*), Proc. Ent. Soc. Phil. ii, 496; iv, 377 (= *lana*).
batatoides Ashm., Trans. Am. Ent. Soc. xii, 301, ♂ ♀. Fla.
bicolor Ashm., ibid. 302, ♂ ♀. Fla.
campanula O. S., Proc. Ent. Soc. Phil. iv, 376, ♀. U.S.
coniferæ Ashm., Trans. Am. Ent. Soc. xii, 301. Fla.
dimorphus O. S., Proc. Ent. Soc. Phil. iv, 376, ♂ ♀. U.S.
ficigeræ Ashm., Trans. Am. Ent. Soc. xii, 301, ♂ ♀. Fla.
læviventris O. S. (*Synophrus?*), Proc. Ent. Soc. Phil. i, 57; iv, 375, ♂ ♀. U.S.
lana Fitch (*Cynips*), Fifth N. Y. Rep. 34, No. 316. U.S.
lignicola O. S. (*Cynips*), Proc. Ent. Soc. Phil. i, 252; v, 374, ♂ ♀. Can. U.S.
medullæ Ashm., Trans. Am. Ent. Soc. xii, 302, ♂ ♀. Fla.
mendax Walsh, Proc. Ent. Soc. Phil. ii, 498; iv, 378, ♀. Ill.
oneratus Harris (*Cynips*); O. S., Proc. Ent. Soc. Phil. iv, 373, ♂ ♀. U.S.
rhoditiformis Walsh, ibid. ii, 499 (= *lignicola*).

SAPHOLYTUS Först.

gemmariæ Ashm., Trans. Am. Ent. Soc. xii, 302, ♂. Fla.

Subfamily ALLOTRIINÆ.

ALLOTRIA Westw.

avenæ Fitch, Sixth N. Y. Rep. 100. Can. N.Y.
lachni Ashm., Trans. Am. Ent. Soc. xii, 302, ♂ ♀. Fla.
tritici Fitch, Sixth N. Y. Rep. 99. Can. N.Y.

ÆGILIPS Hal.

aciculatus Prov., Nat. Can. xii, 239; Faun. Ent. Can. ii, 554, ♂ ♀. Can.
? obtusilobæ O. S., Proc. Ent. Soc. Phil. i, 68, ♀. D.C.

Subfamily FIGITINÆ.

ANACHARIS Dalm.

marginata Prov., Add. Faun. Hym. 168, ♂. Can.
pediculata Prov., ibid. 169, ♂. Can.
subcompressa Prov. (*Eucoila*), Nat. Can. x , 237; Faun. Ent. Can. ii, 552. Can.

ONYCHIA Hal.

armata Say (*Diplolepis*), Lec. Edit. ii, 716; Prov. (*Figites*), Faun. ii, 556. Can.
inermis Prov., Add. Faun. Hym. 171, ♂ ♀. Can.
5-lineata Say (*Diplolepis*), Lec. Edit. ii, 716; Prov. (*Figites*), Faun. ii, 556. Can.

EUCOILA Westw.

impatiens Say (*Diplolepis*), Bost. Jour. i, 267; Lec. Edit. ii, 717. Ind.
mellipes Say (*Figites*), ibid. i, 269; Lec. Edit. ii, 718, ♀. Ind.
pedata Say (*Diplolepis*), ibid. i, 267; Lec. Edit. ii, 717, ♂. Can. Ind.
stigmata Say (*Diplolepis*), ibid. i, 268; Lec. Edit. ii, 717. Ind.
subcompressa Prov., Nat. Can. xii, 237 (= *Anacharis*).

HEXAPLASTA Först.

zigzag Riley (*Didictyum*), Am. Ent. iii, 52; 4th Rep. U. S. Ent. Com. 115, fig. 43–44.

KLEIDOTOMA Westw.

cupulifera Prov., Nat. Can. xii, 238; Faun. Ent. Can. ii, 553 (= *Eucoila impatiens*).
maculipennis Prov., ibid. 237; Faun. Ent. Can. ii, 552 (= *Eucoila stigmata*).
minima Prov., Faun. Ent. Can. ii, 808 (= *Eucoila mellipes*).
vagabunda Ashm., Trans. Am. Ent. Soc. xii, 302. Fla.

FIGITES Latr.

chinquapin Fitch, Fifth N. Y. Rep. 40, No. 320 (=*Andricus*).
impatiens Say, Bost. Jour. i, 268; Lec. Edit. ii, 718, ♀. Can. Ind.
læviscutum Prov., Add. Faun. Hym. 170, ♂ ♀. Can.
mellipes Say, Bost. Jour. i, 269; Lec. Edit. ii, 718 (= *Eucoila*).

CALLASPIDIA Dahlb.

Dahlbom, Onychia och Callaspidia, 10 (1842).
Provancheri Ashm.; Prov., Add. Faun. Hym. 167, ♀. Can,

LONCHIDIA Thoms.

Thomson, Ofv. 1861, 413.
hirta Prov., Add. Faun. Hym. 170, ♀. Can.

DIMICROSTROPHIS Ashm.

ruficornis Ashm.; Prov., Add. Faun. Hym. 173, ♀. Can.

Family **EVANIIDÆ.**

AULACUS Jur.

Abbottii Westw., Trans. Ent. Soc. Lond. iii, 266, ♀. Ga.
abdominalis Cress., Proc. Ent. Sec. A. N. S. 1880, v, ♀. Ga.
ater Westw., Trans. Ent. Soc. Lond. iii, 265, ♀ (= *niger*).
bilobatus Prov., Nat. Can. x, 237; Faun. Ent. Can. ii, 247, ♂. Can.
consors Cress., Trans. Am. Ent. Soc. vii, 255, ♂. Nev.
editus Cress., Proc. Ent. Sec. A. N. S. 1880, v, ♀. Nev. Cala.
fasciatus Say, Lec. Edit. i, 373, ♀. Pa. Ohio.
firmus Cress., Trans. Am. Ent. Soc. vii, 256, ♀. Col.
melleus Cress., ibid. 255, ♀. Nev.
minor Cress., Proc. Ent. Sec. A. N. S. 1880, vi, ♂ ♀. Nev.
montanus Cress., Trans. Am. Ent. Soc. vii, 256, ♀. Nev.
niger Shuck., Entom. 124. Nova Scotia.
occidentalis Cress., Trans. Am. Ent. Soc. vii, 255, ♀. Col. Nev.
pacificus Cress., ibid. 256, ♀. Vanc.
pallipes Cress., Proc. Ent. Sec. A. N. S. 1879, xvii, ♂. Mass.
resutorivorus Westw., Trans. Ent. Soc. Lond. n. ser. i, 224, ♀. Brit.Am.
rufitarsis Cress., Proc. Ent. Soc. Phil. iii, 134, ♀. Can. Col.
stigmaterus Cress., ibid. 134, ♀. Can. N.J.

PAMMEGISCHIA Prov.

Burquei Prov., Faun. Ent. Can. 752, ii, ♀. Can.

AULACODES Cr[illegible]

Cresson, Proc. Ent. Soc. Phil. i [illegible] (1865).
rubriceps Prov. (*Capitonius*), Add. Faun. Hym. 135, ♀. Can.

FŒNUS Fabr.

arca Couper, Can. Ent. ii, 110, ♀. Can.
Barnstoni Westw., Trans. Am. Ent. Soc. Lond. new ser. i, 220, ♀. Brit.Am.
incertus Cress., Proc. Ent. Soc. Phil. iii, 133, ♂ ♀. Can. Col.
Kirbii Westw., Trans. Am. Ent. Soc. Lond. new ser. i, 219. Brit.Am.
montanus Cress., Proc. Ent. Soc. Phil. iii, 132, ♀. Col.
occidentalis Cress., ibid. 131, ♀. Col.
perplexus Cress., ibid. 131, ♀. Col.
tarsatorius Say; Cress., ibid. 132, ♀. Can. Mass. Pa.

EVANIA Fabr.

appendigaster Linn. (*Sphex*), Syst. Nat. i, 943. N.Am.
dorsalis Westw., Trans. Ent. Soc. Lond. n. ser. i, 214 (= *Hyptia*).
lævigata Oliv., Enc. Méth. vi, 453 (= *appendigaster*).
thoracica Blanch. Hist. Nat. Ins. iv, 299 (= *Hyptia dorsalis*).
unicolor Say, Lec. Edit. i, 214 (= *appendigaster*).

HYPTIA Illig.

dorsalis Westw. (*Evania*), Trans. Am. Ent. Soc. Lond. n. ser. i, 214. Carolina.
reticulata Say (*Brachygaster*), Bost. Jour. i, 223; Lec. Edit. ii, 682. Ind.
thoracica Shuck., Entom. 120. N.Car.

Family TRIGONALIDÆ.

TRIGONALYS Westw.

costalis Cress. (*Lycogaster*), Proc. Ent. Soc. Phil. vi, 352, ♂. Mass.
nevadensis Cress., Proc. Ent. Sec. A. N. S. 1879, vii, ♂ ♀. Nev.
pulchellus Cress., Proc. Ent. Soc. Phil. vi, 351, ♂. W.Va.
pullatus Shuck. (*Lycogaster*), Entom. 124, ♂. N.Car.

Family ICHNEUMONIDÆ.

Subfamily ICHNEUMONINÆ.

ICHNEUMON Linn.

absconditus Prov., Add. Faun. Hym. 31, ♂. Can.
acerbus Cress., Trans. Am. Ent. Soc. i, 293; vi, 146, ♂. Can. U.S.
adjunctus Prov., Add. Faun. Hym. 29, ♀. Can.
æqualis Prov., Nat. Can. vii, 76 (= *Amblyteles nubivagus*).
afer Cress., Proc. Ent. Soc. Phil. iii, 138, ♀ (= *malacus*).
agnitus Cress., ibid. 151; Trans. vi, 148, ♀. U.S.
albomarginatus Cress., Trans. Am. Ent. Soc. i, 297; vi, 160, ♂. Can. Miss.
allapsus Cress., Proc. Ent. Soc. Phil. iv, 256; Trans. vi, 176, ♂. Col.
ambiguus Cress., ibid. iii, 161 (= *grandis*).
anceps Cress., Trans. Am. Ent. Soc. i, 309 (= *Amblyteles*).
animosus Cress., Proc. Ent. Soc. Phil. iii, 164; Trans. vi, 176, ♂. Col. N.Mex.
annulatus Prov. (*Mesostenus*), Nat. Can. vii, 265; Trans. vi, 180, Can. Mass.
annulipes Cress., Proc. Ent. Soc. Phil. iii, 170; Trans. vi, 180, ♀. Can. U.S.
apertus Cress., Trans. Am. Ent. Soc. i, 293; vi, 146, ♀. Can. U.S.
apicalis Cress., Proc. Ent. Soc. Phil. iii, 152; Trans. vi, 157, ♂. Col.
approximans Prov., Add. Faun. Hym. 32, ♂. Can.
astutus Holmg.; Cress., Trans. Am. Ent. Soc. vi, 208, ♂. Cala.
ater Cress., Proc. Ent. Soc. Phil. iii, 138; Trans. vi, 146, ♀. N.Y.
aterrimus Prov., Add. Faun. Hym. 30, ♀. Can.
atratus Fabr., Ent. Syst. ii, 179 (= *Thalessa*).
atrifrons Cress., Proc. Ent. Soc. iii, 157; Tr. i, 298; vi, 165. Pa. Ill. (= *comptus?*).
atrox Cress., Trans. Am. Ent. Soc. vi, 151, ♀. Can.
audax Cress., Proc. Ent. Soc. Phil. iii, 143; Trans. vi, 156, ♂. Col.
azotus Cress., ibid. 150; Trans. vi, 154, ♂. Mass. Del. Va.
Belfragei Cress., Trans. Am. Ent. Soc. iv, 156; vi, 170, ♂. Tex.
bifasciatus Say, Lec. Edit. i, 377; Cress., Trans. vi, 209. Ind. (= *Cryptus?*).
bifasciatus Prov., Nat. Can. vii, 75 (= *Amblyteles*).
bimembris Prov., ibid. ix, 8; Cress., Trans. vi, 150, ♀. Can.
bioculatus Cress., Trans. Am. Ent. Soc. vi, 158, ♂ ♀. Can. N.H.
bipunctatus Cress., Proc. Ent. Soc. Phil. iv, 253; Trans. vi, 161, ♂. Col.
bizonatus Cress., ibid. iii, 160; Trans. vi, 159, ♀. Col.
Blakei Cress., ibid. iii, 139 (= *Cryptus*).
Blandii Cress. (*Ischnus*), ibid. 188; Trans. vi, 160, ♂. Pa.
brevicinctor Say, Lec. Edit. i, 49, pl. 22; Cress., Trans. vi, 150. Can. U.S.
brevipennis Cress., Proc. Ent. Soc. Phil. iii, 174; Trans. vi, 182, ♀. Can. U.S.
bronteus Cress., ibid. 144; Trans. vi, 156, ♂. Can. U.S.
cæruleus Cress., ibid. iii, 149; Trans. vi, 146, ♀. Can. U.S.

calcaratus Prov., Nat. Can. vii, 49 (= *Hoplismenus morulus*).
californicus Cress., Proc. Ent. Soc. Phil. iii, 180 (= var. *rufiventris*).
caliginosus Cress., ibid. 144; Trans. vi, 147, ♀. Can. Col. Ill.
calitergus Cress., Trans. Am. Ent. Soc. i, 299; vi, 160, ♀. Me.
canadensis Cress., ibid. 308; vi, 177, ♀. Can.
caudatus Prov., Nat. Can. vii, 82; Cress., Trans. vi, 173, ♀. Can. Mass.
centrator Say, Lec. Edit. i, 49, pl. 22; Cress., Trans. vi, 144, ♀. Can. U.S.
cervulus Prov., Nat. Can. vii, 83; Cress., Trans. vi, 171, ♂. Can.
cestus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 353; Trans. vi, 182, ♀. Vanc.
chalybeus Cress., Trans. Am. Ent. Soc. vi, 146, ♀. Mass.
cincticornis Cress., Proc. Ent. Soc. Phil. iii, 139; Trans. vi, 143, ♀. Can. U.S.
cinctipes Prov., Nat. Can. vii, 51, ♀ (= *navus*).
cinctitarsis Prov., ibid. ix, 7; Cress., Trans. vi, 156, ♂. Can.
citatus Prov., ibid. ix, 8; Cress., Trans. vi, 148, ♂. Can. N.H.
citimus Cress., Trans. Am. Ent. Soc. vi, 144, ♂. N.H.
citrifrons Cress., ibid. i, 307; vi, 171, ♂. Ct. Pa.
citrinus Prov., Add. Faun. Hym. 31, ♂. Can.
clarus Cress., Trans. Am. Ent. Soc. i, 297 (= *Platylabus*).
Clopini Prov., Nat. Can. vii, 250 (= *milvus*).
comes Cress., Proc. Ent. Soc. Phil. iii, 158; Trans. i, 301; vi, 162, ♂. Can. U.S.
compar Cress., Proc. Acad. Nat. Sci. Phil. 1878, 351; Trans. vi, 175, ♂. Vanc.
comptus Say, Bost. Jour. i, 229; Lec. Edit. ii, 686; Trans. vi, 165, ♂. Can. U.S.
concinnus Say, Lec. Edit. i, 374 (= *Amblyteles*).
confirmatus Cress., Trans. Am. Ent. Soc. vi, 178, ♀. Can. U.S.
consignatus Cress., ibid. i, 298; vi, 160, ♂. Mass. Va.
consimilis Cress. (*nec* Wesm.), Proc. Ent. Soc. Phil. iii, 163 (= *Amblyteles nubivagus*).
cordatus Cress., ibid. 146; Trans. vi, 153, ♂. Col.
corvinus Cress., Trans. Am. Ent. Soc. vi, 145, ♀. Can. N.H.
creperus Cress., ibid. i, 298; Trans. vi, 167, ♂. Can. W.Va.
crudosus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 351; Trans. vi, 175, ♂. Cala.
cupitus Cress., ibid. 350; Trans. vi, 175, ♂. Cala.
dakota Cress., Trans. Am. Ent. Soc. i, 302; vi, 161, ♂. Dak.Terr.
decoratus Prov., Nat. Can. vii, 83; Cress., Trans. vi, 171, ♂. Can. Mass.
delicatus Cress., Proc. Ent. Soc. Phil. iv, 253; Trans. vi, 167, ♂. Col.
detritus Brullé, Hym. 302 (= *Amblyteles*).
devinctor Say, Lec. Edit. i, 48, pl. 22; Cress., Trans. vi, 174, ♂ ♀. Can. U.S.
dictiosus Cress., Trans. Am. Ent. Soc. vi, 164, ♂. Ks.
difficilis Cress., Proc. Acad. Nat. Sci. Phil. 1878, 351; Trans. vi, 176. Cala. Vanc.
discus Cress., Proc. Ent. Soc. Phil. iii, 168; Trans. vi, 176, ♂. Col.
disparilis Cress., Trans. Am. Ent. Soc. i, 307; vi, 183, ♀. Ct.
dorsalis Cress., Proc. Ent. Soc. Phil. iii, 177; Trans. vi, 175, ♀. Col.
duplicatus Say, Lec. Edit. ii, 688; Cress., Trans. i, 309; vi, 180, ♂. Can. U.S.
electus Cress., Trans. Am. Ent. Soc. i, 304 (= *Amblyteles*).
erythropygus Prov., Nat. Can. vii, 79 (= var. *Platylabus thoracicus*).
excultus Cress., Trans. Am. Ent. Soc. i, 293 (= *Amblyteles*).
exiguus Cress., Proc. Ent. Soc. Phil. iii, 182 (= *Phæogenes*).
expunctus Cress., Trans. Am. Ent. Soc. i, 290 (= *Amblyteles*).
extrematatis Cress., Proc. Ent. Soc. Phil. iii, 149; Trans. vi, 150, ♂ ♀. Can. U.S.
facetus Cress., Trans. Am. Ent. Soc. i, 311; vi, 184, ♂. W.Va. Ill.
feralis Cress., ibid. i, 301; vi, 159, ♀. Can. U.S.

ferrugator Fabr.; Cress., ibid. vi, 208, ♂ ♀. Pa. Car. (= *irogiformis ?*).
ferrugator Kirby; Cress., ibid. 207. Arc.Am. (= *rufiventris ?*).
festus Cress., Proc. Ent. Soc. Phil. iv, 257 (= var. *bipunctatus*).
finitimus Cress., Trans. Am. Ent. Soc. i, 304; vi, 170, ♂. Can. U.S.
flavicornis Cr., Proc. Ent. Soc. iii, 140; Tr. vi, 144, ♂. Can. U.S. (= *centrator ?*)
flavizonatus Cress., ibid. iii, 156; Trans. vi, 164, ♂. Can. U.S. (= *jucundus ?*).
flebilis Cress., Trans. Am. Ent. Soc. vi, 181, ♀. Can.
fortis Prov., Nat. Can. vii, 79 (= *centrator*).
funestus Cress., Proc. Ent. Soc. Phil. iii, 166; Trans. vi, 179, ♀. Can. U.S.
fungor Norton, Trans. Am. Ent. Soc. i, 306 (= *Phæogenes*).
fuscifrons Cress., Proc. Ent. Soc. Phil. iii, 166; Trans. i, 307; vi, 177, ♀. U.S.
galenus Cress., Tr. Am. Ent. Soc. i, 292; vi, 143, ♂. Can. U.S. (= *cincticornis ?*)
germanus Cress., ibid. vi, 143, ♀. Mass. W.Va.
gestuosus Cress., ibid. 156, ♀. Brit.Col. N.H.
grandis Brullé, Hym. 300; Cress., Trans. vi, 173, ♂ ♀. Can. U.S.
Grotei Cress., Proc. Ent. Soc. Phil. iii, 154; Trans. vi, 167, ♂. Col. Ill.
hæstans Prov. Nat. Can. vii, 80 (= *funestus*).
hariolus Cress., Trans. Am. Ent. Soc. i, 305 (= *Phæogenes*).
hebe Cress., ibid. 306 (= *Phæogenes*).
hebrus Cress., ibid 305 (= *Phæogenes*).
Heiligbrodtii Cress., ibid. vi, 168, ♂. Tex.
helvipes Cress., ibid. i, 297; vi, 158, ♂ ♀. Can. U.S.
helvolus Cress., ibid. i, 312 (= *Phæogenes*).
helvus Cress., ibid. 312 (= *Colpognathus*).
hiemalus Cress., Proc. Acad. Nat. Sci, Phil. 1878, 352; Trans. vi, 181. Aleut.Is.
hilaris Say, Lec. Edit. i, 376, ♂. Ind. (= *Pimplinæ ?*).
histricus Cress., Trans. Am. Ent. Soc. i, 294; vi, 147, ♂. W.Va.
honestus Cress., ibid. 310; vi, 169, ♂. W.Va. Ga.
hospitus Cress., ibid. 306; vi, 171, ♂ ♀. Can. Ill.
humilis Prov., Nat. Can. vii, 82; Cress., Trans. vi, 172 ♂. Can.
hunteræ Pack., Proc. Bost. Soc. Nat. Hist. xxi, 22, ♂ ♀. Va.
improvisus Cress., Trans. Am. Ent. Soc. i, 296 (= *Amblyteles*).
incertus Cress., Proc. Ent. Soc. Phil. iii, 186 (= var. *rufiventris*).
inconstans Cress., ibid. 153; Trans. vi, 165, ♂. Can. Col.
indemnis Cress., Proc. Acad. Nat. Sci. Phil. 1878, 349; Trans. vi, 172. Brit.Col.
indistinctus Prov., Nat. Can. vii, 75 (= *Amblyteles*).
infidelis Cress., Trans. Am. Ent. Soc. i, 296; vi, 155, ♂. Mass. Ct.
inflatus Prov., Nat. Can. vii, 83, ♂. (= *Phygadeuon.*)
infucatus Cress., Proc. Ent. Soc. Phil. iv, 252; Trans. vi, 166. Col. Cala. Vanc.
inquisitor Say, Lec. Edit. i, 375 (= *Pimpla*).
insolens Cr., Trans. Am. Ent. Soc. i, 302; vi, 174. Can. U.S. (= *Joppa maurator ?*)
instabilis Cress., ibid. 303; vi, 177, ♂ ♀. Can. U.S.
inurbanus Cress., ibid. 302; vi, 173, ♀. W.Va. Col.
involutus Cress., Proc. Ent. Soc. Phil. iii, 183; Trans. vi, 169, ♀. Col.
irritator Fabr., Ent. Syst. ii, 164 (= *Ephialtes*).
jejunus Cress. (*Ischnus*), Proc. Ent. Soc. Phil. iii, 186; Trans. vi, 154, ♂. U.S.
jucundus Brullé, Hym. 305; Cress., Trans. vi, 166, ♀. Can. U.S.
juxta Cress., Proc. Ent. Soc. Phil. iii, 163 (= var. *Amblyteles nubivagus*).
lachrymans Prov.. Nat. Can. vii, 78; Cress., Trans. vi, 171, ♂. Can. N.H.
lætus Brullé, Hym. 303; Cress., Trans. i, 300; vi, 163, ♂. Can. U.S.

lævigatus Cress., Proc. Ent. Soc. Phil. iii, 176 (= *Phæogenes*).
lariæ Curtis; Cress., Trans. Am. Ent. Soc. Phil. vi, 207. Arc.Am.
lascivus Cress., ibid. i, 309; vi, 179, ♂. Ill.
leucaniæ Fitch, Sixth N. Y. Rep. 126. N.Y.
leviculus Cress., Trans. Am. Ent. Soc. vi, 170, ♂. N.Y. Va.
Lewisii Cress., Proc. Ent. Soc. Phil. iii, 177; Trans. i, 307; vi, 175, ♀. U.S.
libens Cress., Trans. Am. Ent. Soc. vi, 181, ♂. U.S.
limbifrons Cress., Proc. Ent. Soc. Phil. iii, 182; Trans. vi, 171, ♂. Col.
lineolatus Prov., Nat. Can. vii, 82 (= *Platylabus*).
lividulus Prov., ibid. ix, 10; Cress., Trans. vi, 174. ♀. Can.
lobatus Prov., ibid. vii, 77 (= *duplicatus*).
longulus Cress., Proc. Ent. Soc. Phil. iii, 171; Trans. vi, 182, ♂. Can. U.S.
luctus Cress., ibid. iv, 250 (= *Amblyteles*).
lunator Fabr., Ent. Syst. ii, 162 (= *Pimpla*).
macilentus Cress., Proc. Ent. Soc. Phil. iv, 249; Trans. vi, 145, ♂. Col.
macrurus Linn. Mant. 540 (= *Ophion*).
magnus Cress., Proc. Ent. Soc. Phil. iii, 258 (= *Amblyteles*).
maius Cress., Trans. Am. Ent. Soc. i, 307; vi, 179, ♀. Mass. N.C.
malacus Say, Lec. Edit. i, 376; Cress., Trans. vi, 143, ♀. Can. U.S.
marianapolitanensis Prov., Nat. Can. vii, 81 (= *Amblyteles rufizonatus*).
maurus Cress., Proc. Ent. Soc. Phil. iii, 135; Trans. vi, 142, ♀. Va. N.C. Ga.
mellicoxus Prov., Nat. Can. vii, 48 (= *puerilis*).
mellipes Cress., Trans. Am. Ent. Soc. i, 295 (= *Amblyteles luctus*).
mendax Cress., ibid. vi, 149, ♀. Can. Mass.
merus Cress., ibid. 148, ♂. Mass. Va.
milvus Cress., ibid. i, 305; vi, 169, ♂. Can. U.S.
mimicus Cress., ibid. 300; vi, 163, ♂. Can. U.S.
moderator Linn., Syst. Nat. i, 935; Fabr., Faun. Grœnd. 198. Greenland (Eur.).
montanus Cress., Proc. Ent. Soc. Phil. iii, 141 (= *Amblyteles*).
montivagus Cress., ibid. iv, 255 (= *devinctor*).
morio Fabr., Ent. Syst. ii, 180 (= *Thyreodon*).
morulus Say, Lec. Edit. i, 377 (= *Hoplismenus*).
mucronatus Prov., Nat. Can. vii, 81; Cress., Trans. vi, 183, ♂. Can. Va.
multor Cress., Trans. Am. Ent. Soc. i, 299 (= *flavizonatus*).
munificus Cress., ibid. vi, 162, ♂. Can. N.Y. Ill.
nanus Cress., ibid. 184, ♀. Can. U.S.
navus Say, Bost. Jour. i, 229; Lec. Edit. ii, 687; Cress., Trans. vi, 147. Can. U.S.
neutralis Cress., Proc. Acad. Nat. Sci. Phil. 1878, 349; Trans. vi, 149, ♂. Cala.
niger Brullé, Hym. 302 (= *unifasciatorius*).
nigratorius Fabr., Syst. Piez. 55; Cress., Trans. vi, 206, ♀. N.Am.
nigripes Prov., Faun. Ent. Can. ii, 764, ♂. Can.
nigrovariegatus Prov. (*Phygadeuon*), Nat. Can. vii, 182; Cress., Tr. vi, 172. Can.
nitidus Prov., ibid. 79 (= *Amblyteles electus*).
nobilis Cress. (*nec* Wesm.), Proc. Ent. Soc. Phil. iii, 155 (= *munificus*).
Nortoni Cress., Trans. Am. Ent. Soc. i, 304 (= *Amblyteles*).
nuncius Cress., Proc. Acad. Nat. Sci. Phil. 1878, 352; Trans. vi, 176, ♂. Cala.
obliteratus Cr. (*nec* Wesm.), Proc. Ent. Soc. Phil. iii, 147 (= *Amblyteles expunctus*).
obsoletus Riley, Ninth Mo. Rep. 55, note (= var. *brevipennis*).
odiosus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 348; Trans. vi, 145, ♂. Cala.
ontariensis Prov., Add. Faun. Hym. 30, ♀. Can.

ormenus Cress., Proc. Ent. Soc. Phil. iii, 141 (= *Amblyteles*).
ornatipes Cress., Trans. Am. Ent. Soc. i, 294; vi, 156, ♂. W.Va.
orpheus Cress., Proc. Ent. Soc. Phil. iii, 136; Trans. vi, 142, ♀. Mass. Pa.
otiosus Say, Lec. Edit. i, 374; Cress., Trans. vi, 155, ♀. Can. U.S.
paradoxus Prov., Faun. Ent. Can. ii, 764, ♀. Can.
parata Say, Bost. Jour. Nat. Hist. i, 228; Lec. Edit. ii, 686 (= *lætus*).
paratus Say, Lec. Edit. i, 373; Cress., Trans. vi, 168, ♂. Can. U.S.
parvus Cress., Proc. Ent. Soc. Phil. iii, 159; Trans. vi, 163, ♂. U.S.
pectoralis Say, Lec. Edit. i, 376; Cress., Trans. vi, 208. Ind.
pedalis Cress., Proc. Ent. Soc. Phil. iii, 141; iv, 249, Trans. vi, 158, ♂ ♀. Col.
pennator Fabr.; Cress., Trans. Am. Ent. Soc. vi, 209. Ga. (= *Trogus exesorius?*).
pepticus Cress., Trans. Am. Ent. Soc. vi, 148, ♂. Can. N.J. Ill.
persuasorius Linn., Faun. Suec. n. 1593 (= *Rhyssa*).
pervagus Cress., Trans. Am. Ent. Soc. vi, 148, ♂. Can.
petulcus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 354; Trans. vi, 185, ♀. Cala.
pictifrons Cress., Proc. Ent. Soc. Phil. iii, 160; Trans. vi, 161, ♂. Col.
pilosulus Prov., Can. Nat. vii, 25; Cress., Trans. vi, 151, ♀. Can. Mass.
placidus Prov., ibid. vii, 76; Cress., Trans. vi, 174, ♂. Can.
polycerator Fabr., Mant. Ins. i, 265 (= *Pelecinus polyturator*).
polyturator Drury, Ins. ii, pl. 40, fig. 4 (= *Pelecinus*).
pomilius Prov., Nat. Can. ix, 9; Cress., Trans. vi, 164, ♂. Can. U.S.
pravus Cress., Trans. Am. Ent. Soc. vi, 151, ♀. Can. Mass.
procax Cress., ibid. 170, ♂. Can.
promptus Cress., ibid. 152, ♂ ♀. N.H. Mass.
propinquus Cress., Proc. Ent. Soc. Phil. iii, 172 (= *Amblyteles suturalis*).
propitius Cress., Trans. Am. Ent. Soc. iv, 156; vi, 182, ♂. Tex.
proximus Prov. (*Phygadeuon*), Nat. Can. vi, 283; Trans. vi, 184, ♀. Can. N.H.
pterelas Say, Lec. Edit. i, 376 (= *Pimpla*).
puerilis Cress., Trans. Am. Ent. Soc. i, 296; vi, 158, ♂. Can. Mass.
pulcher Brullé, Hym. 304; Cress., Trans. vi, 147, ♂ ♀. Can. U.S.
pullatus Cress., Proc. Ent. Soc. Phil. iii, 146, ♂ (= *subcyaneus*).
purpuripennis Cress., Proc. Acad. Nat. Sci. Phil. 1878, 350; Trans. vi, 175. Cala.
pusillus Cress., Proc. Ent. Soc. Phil. iii, 171 (= *annulipes*).
putus Cress., Trans. Am. Ent. Soc. vi, 173, ♀. Ct.
quadriceps Cress., ibid. i, 312 (= *Phæogenes*).
quadripunctatus Prov., Add. Faun. Hym. 33, ♂. Can.
quebecensis Prov., Nat. Can. vii, 77 (= *Amblyteles*).
recens Cress., Trans. Am. Ent. Soc. vi, 153, ♂. W.Va.
regnatrix Cress., Proc. Ent. Soc. Phil. iii, 178 (= *grandis*).
residuus Say, Lec. Edit. i, 377; Cress., Trans. vi, 184, ♀. U.S.
restrictus Cress., Trans. Am. Ent. Soc. vi, 169, ♂. N.Y.
robustus Cress., ibid. i, 298 (= *Amblyteles*).
rogalis Cress., ibid. 295 (= var. *Amblyteles ultus*).
rubellus Cress., Proc. Ent. Soc. Phil. iv, 254 (= var. *animosus*).
rubicundus Cress., ibid. iii, 176; Trans. vi, 134, ♂ ♀. Can. U.S.
rufiventris Brullé, Hym. 301; Cress., Trans. vi, 173, ♂ ♀. Can. U.S.
rufizonatus Cress., Proc. Ent. Soc. Phil. iii, 183 (= *Amblyteles*).
russatus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 353; Trans. vi, 183, ♀. Vanc.
? rutilus Cress., Proc. Ent. Soc. Phil. iii, 169; Trans. vi, 185, ♀. Va.
sævus Cress., Trans. Am. Ent. Soc. i, 296; vi, 145, ♀. Ill.

sagus Cress., ibid. i, 294; vi, 152, ♂ ♀. Ill.
salvus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 349; Trans. vi, 166, ♂. Vanc.
sandix Cress., Proc. Ent. Soc. Phil. iii, 174 (= *Lewisii*).
saucius Cress., Proc. Ent. Soc. Phil. iii, 137; Trans. vi, 142, ♀. Can. Pa. N.C.
Saundersii Cress., Trans. Am. Ent. Soc. vi, 177, ♂. Can.
scelestus Cress., Proc. Ent. Soc. Phil. iii, 148; Trans. vi, 147, ♀. Ill.
scibilis Cress., Trans. Am. Ent. Soc. vi, 183, ♂. Ill.
scitulus Cress. (*Ischnus*), Proc. Ent. Soc. iii, 193; Trans. i, 310; vi, 180. Can. U.S.
scriptifrons Cress., Trans. Am. Ent. Soc. vi, 144, ♂. Can.
scutellatus Prov., Nat. Can. vii, 78 (= *Hoplismenus*).
seditiosus Cress., Trans. Am. Ent. Soc. vi, 172, ♀. Col.
semicæruleus Cress., ibid. i, 302 (= *Amblyteles*).
semicoccineus Cress., Proc. Ent. Soc. Phil. iii, 179 (= *rufiventris*).
semilævis Cress., ibid. 142; Trans. vi, 157, ♀. Col.
seminiger Cress., ibid 167; Trans. vi, 181, ♀. Can. U.S.
semissus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 354; Trans. vi, 183, ♀. Cala.
sequax Cress., ibid. 352; Trans. vi, 181, ♀. Vanc.
signatipes Cress., Trans. Am. Ent. Soc. i, 308; vi, 180, ♀. Can. U.S.
similaris Prov., Nat. Can. vii, 26; Cress., Trans. vi, 157, ♂. Can.
solitus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 348; Trans. vi, 144. Col. Brit.Col.
soror Cress., Proc. Ent. Soc. Phil. iii, 185; Trans. vi, 185, ♀. Can. U.S.
stadaconensis Prov., Nat. Can. vii, 50 (= *Amblyteles*).
stygicus Cress., Trans. Am. Ent. Soc. vi, 151, ♀. Can. Mass.
suadus Cress., ibid. 160, ♂. Can.
subcyaneus Cress., Proc. Ent. Soc. Phil. iii, 148; Trans. vi, 149, ♂ ♀. Can. U.S.
subdolus Cress., Trans. Am. Ent. Soc. i, 298; vi, 166, ♀. Can. U.S.
subfulvus Cress., Proc. Ent. Soc. Phil. iv, 258; Trans. vi, 181, ♀. Col.
subfuscus Cress., ibid. iii, 173 (= *Amblyteles*).
sublatus Cress. (*Ischnus*), ibid. iii, 186; Trans. vi, 154, ♂. Can. U.S.
subrufus Cress., ibid. iii, 168 (= *Amblyteles*).
succinctus Brullé, Hym. 301; Cress., Trans. vi, 174, ♂. Can. U.S.
suturalis Say, Bost. Jour. Nat. Hist. i, 226; Lec. Edit. ii, 685 (= *Amblyteles*).
syphax Cress., Proc. Ent. Soc. Phil. iii, 181 (= *Amblyteles detritus*).
tenebrosus Cress. (*nec* Wesm.), ibid. 145 (= *Amblyteles luctus*).
terminalis Cress., ibid. 184; Trans. vi, 170, ♀. Del.
texanus Cress., Trans. Am. Ent. Soc. vi, 159, ♂. Tex.
tharotis Pack., Proc. Bost. Soc. Nat. Hist. xxi, 24, ♀. Mass.
tibialis Brullé, Hym. 300 (= *devinctor*).
torvinus Cress., Trans. Am. Ent. Soc. i, 292; vi, 144, ♂ (= *citimus?*).
trizonatus Prov., Nat. Can. ix, 8; Cress., Trans. vi, 162, ♂. Can.
trogiformis Cress., Proc. Ent. Soc. Phil. iii, 175; Trans. i, 307; vi, 175. U.S.
truculentus Cress., Trans. Am. Ent. Soc. vi, 150, ♀. N.H.
tumidifrons Cress., ibid, i, 311; vi, 172, ♀. Ill.
ultimus Cress., ibid. vi, 178, ♀. N.H.
ultus Cress., ibid. i, 295 (= *Amblyteles*).
uncinatus Cress., ibid. vi, 159, ♀. Can.
unifasciatorius Say, Lec. Edit. i, 48, pl. 22; Cress., Trans. vi, 155. Can. U.S.
ustus Prov., Faun. Ent. Can. ii, 763, ♂ ♀. Can.
utilis Cress., Trans. Am. Ent. Soc. i, 311; vi, 185, ♂. U.S.
vafer Cress., ibid. vi, 178, ♂. N.H.

vagans Prov., Nat. Can. vii, 51; Cress., Trans. vi, 153, ♂. Can.
vancouveriensis Prov., Can. Ent. xvii, 114; Add. Faun. Hym. 33, ♂. Vanc.
variegatus Cress., Proc. Ent. Soc. iii, 153; iv, 251; Trans. vi, 167, ♂. U.S.
varipes Prov. (*nec* Grav.), Nat. Can. vii, 50, ♂; ix, 7 (= *cinctitarsis*).
vecors Cress., Trans. Am. Ent. Soc. vi, 172, ♀. Hud.Bay.
velox Cress., Proc. Ent. Soc. Phil. iii, 185; Trans. vi, 178, ♀. Can. U.S.
ventralis Cress., ibid. iv, 250: Trans. vi, 157, ♂. Col.
ventralis || Cress., ibid. i, 308 (= *vecors*).
versabilis Cress., Trans. Am. Ent. Soc. vi, 161, ♂. Can. U.S.
vescus Prov., Nat. Can. ix, 9; Cress., Trans. vi, 163, ♂. Can. U.S.
vicinus Cress., Proc. Ent. Soc. Phil. iii, 169; Trans. vi, 182, ♀. Ill.
vincibilis Cress., Trans. Am. Ent. Soc. i, 312 (= *Phæogenes*).
vinctus Say, Lec. Edit. i, 375; Cress., Trans. vi, 207, ♂. Ind.
vinnulus Cress. (*Ischnus*), Proc. Ent. Soc. Phil. iii, 189; Trans. vi, 168. Pa. Va.
vinulentus Cress., ibid. 162; Trans. vi, 176, ♂. Col.
viola Cress., ibid. 137; Trans. i, 292; vi, 143, ♀. Can. U.S.
virginicus Cress., ibid. 181; Trans. vi, 177, ♀. W.Va.
vitalis Cress., Trans. Am. Ent. Soc. vi, 149, ♀. N.Y.
vittifrons Cress., Proc. Ent. Soc. Phil. iii, 143; Trans. vi, 153, ♂. Del. Va. Ga.
vivax Cress., Trans. Am. Ent. Soc. vi, 178, ♀. N.H.
volens Cress. (*Ischnus*), Proc. Ent. Soc. Phil. iii, 192; Trans. vi, 182. Can. U.S.
volesus Cress., Trans. Am. Ent. Soc. i, 304; vi, 169, ♀. Mass.
vultus Cress., Proc. Ent. Soc. Phil. iii, 165; Trans. vi, 177, ♂. Col.
w-album Cress. (*Ischnus*), Trans. Am. Ent. Soc. i, 309; vi, 179, ♂ ♀. Can. U.S.
Wilsoni Cress. (*Ischnus*), Proc. Ent. Soc. Phil. iii, 188; Trans. vi, 161, ♂. U.S.
zebratus Cress., Trans. Am. Ent. Soc. i, 299, ♀; iv, 156; vi, 163, ♂. U.S.
zelotypus Cress., ibid. 299; vi, 167, ♂. W.Va.

JOPPA Fabr.

Fabricius, Syst. Piez. 120 (1804).

canadensis Prov., Nat. Can. vi, 336 (= *Ichneumon insolens*).
maurator Brullé, Hym. 287; Cress., Trans. vi, 209. Pa. Car. (= *Ichn. insolens?*)

HOPLISMENUS Grav.

flavitarsis Cress. (*Trogus*), Trans. Am. Ent. Soc. vi, 185, ♂. Col.
impar Prov., Nat. Can. xi, 3; Faun. Ent. Can. ii, 292, ♂. Can.
morulus Say (*Ichneumon*); Cress., Trans. Am. Ent. Soc. vi, 186, ♂ ♀. Can. U.S.
ornatus Cress., ibid. ii, 92 (= *Amblyteles*).
pacificus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 354; Trans. vi, 186, ♂ ♀. Vanc.
scutellatus Prov. (*Ichneumon*); Cress., Trans. Am. Ent. Soc. vi, 186, ♂. Can.
stygicus Prov., Add. Faun. Hym. 34, ♂. Can.
thoracicus Cress., Proc. Ent. Soc. Phil. iii, 288 (= *Platylabus*).

AMBLYTELES Wesm.

anceps Cress. (*Ichneumon*), Trans. Am. Ent. Soc. vi, 193, ♂ ♀. Ct. Del.
Belangeri Cress., ibid. 190, ♀. Can.
bifasciatus Prov. (*Ichneumon*); Cress., ibid. 190, ♀. Can.
borealis Prov., Faun. Ent. Can. ii, 767, ♀. Can.
coloradensis Cress., Trans. Am. Ent. Soc. vi, 193, ♀. Col.

concinnus Say (*Ichneumon*); Cress., ibid. 194, ♂ ♀. N.C. Ill.
detritus Brullé (*Ichneumon*); Cress., ibid. 192, ♀. Can. U.S.
electus Cress. (*Ichneumon*), ibid. 191, ♂. Can. Ct.
excultus Cress. (*Ichneumon*), ibid. vi, 188, ♀. Can. U.S.
expunctus Cress. (*Ichneumon*), ibid. 189, ♂. Can. Col.
fraternus Cress., ibid. 192, ♂. Mass. Va.
hiulcus Cress., Proc. Acad. Nat. Sci. 1878, 355; Trans. vi, 194, ♀. Brit.Col.
hudsonicus Cress., Trans. Am. Ent. Soc. vi, 192, ♀. Hud.Bay.
illætabilis Cress., ibid. 190, ♂. Ga.
improvisus Cress. (*Ichneumon*), ibid. 189, ♂. Can. N.J. (= *tetricus?*).
indistinctus Prov. (*Ichneumon*); Cress., ibid. 192, ♀. Can. U.S.
luctus Cress. (*Ichneumon*), ibid. 190, ♂. Can. U.S.
macrocephalus Prov., Add. Faun. Hym. 34, ♂. Can.
magnus Cress. (*Ichneumon*), Trans. Am. Ent. Soc. vi, 191, ♂. Col.
marginatus Prov., Faun. Ent. Can. ii, 767, ♀. Can.
montanus Cress. (*Ichneumon*), Trans. Am. Ent. Soc. vi, 188, ♂ ♀. Brit.Am. U.S.
mormonus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 355; Trans. vi, 190. Utah.
Nortoni Cress. (*Ichneumon*), Trans. Am. Ent. Soc. vi, 192, ♀. Can. Ct.
nubivagus Cress., ibid. 193, ♂. Can. U.S.
ormenus Cress. (*Ichneumon*), ibid. 190, ♀. Can. U.S.
ornatus Cress. (*Hoplismenus*), ibid. 194, ♀. N.Y.
perluctuosus Prov., Nat. Can. ix, 10; Trans. vi, 189, ♀. Can. N.H. Vanc.
quebecensis Prov. (*Ichneumon*); Cress., Trans. Am. Ent. Soc. vi, 191. Can. Col.
robustus Cress. (*Ichneumon*), ibid. 191, ♀. Can.
rufizonatus Cress. (*Ichneumon*), ibid. 191, ♀. Can. N.J.
semicæruleus Cress. (*Ichneumon*), ibid. 192, ♀. Can. U.S.
stadaconensis Prov. (*Ichneumon*), ibid. 189, ♂. Can. N.H. Mass.
subfuscus Cress. (*Ichneumon*), ibid. 193, ♀. Col. Nev. Cala.
subrufus Cress. (*Ichneumon*), ibid. 193, ♀. Can. U.S.
superbus Prov., Add. Faun. Hym. 35, ♀. Vanc.
suturalis Say (*Ichneumon*); Cress., Trans. Am. Ent. Soc. vi, 193, ♀. Can. U.S.
tacs Cress., ibid. 191, ♀. N.Mex.
tetricus Prov., Nat. Can. ix, 10; Trans. vi, 188, ♀. Can.
ultus Cress. (*Ichneumon*), Trans. Am. Ent. Soc. vi, 189, ♂. Can. U.S.

TROGUS Grav.

apicalis Cress., Trans. Am. Ent. Soc. vi, 197, ♀. Ga.
atrocæruleus Cress., ibid. ii, 92; vi, 196, ♀. La.
atrox Cress., ibid. 93; vi, 197, ♀. Dak.
austrinus Cress., ibid. 92; vi, 197, ♂ ♀. Ga. Fla.
Bolteri Cress., ibid. 94; vi, 198, ♂. Mich.
Brullei Cress., ibid. vi, 196, ♂ ♀. Can. U.S.
buccatus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 356; Trans. vi, 199, ♀. Vanc.
canadensis Prov., Nat. Can. ix, 2; xi, 35; Cress., Trans. vi, 198, ♂ ♀. Can.
Copei Cress., Trans. Am. Ent. Soc. ii, 94; vi, 198, ♂. Can. W.Va.
Edwardsii Cress., Proc. Acad. Nat. Sci. Phil. 1878, 356; Trans. vi, 195, ♂. Vanc.
elegans Cress., Trans. Am. Ent. Soc. ii, 94; vi, 199, ♀. Me.
exesorius Brullé, Hym. 298; Cress., Trans. vi, 196. Can. U.S. (= *Ichn. pennator?*)
fascipennis Cress., Trans. Am. Ent. Soc. vi, 195, ♀. Tex.
flavipennis Cress., Proc. Ent. Soc. Phil. iii, 287; Trans. vi, 196, ♂. Col.

flavitarsis Cress., Proc. Ent. Soc. Phil. iv, 264 (= *Hoplismenus*).
fulvipes Cress., Trans. Am. Ent. Soc. ii, 93, vi, 195, ♂ ♀. Can. Me. N.H.
marginipennis Cress., ibid. 93; vi, 196, ♂. Dak.
mellosus Cress., Rep. Wheeler Exp. 708; Trans. vi, 198, ♀. N.Mex.
nubilipennis Hald.; Cress., Trans. Am. Ent. Soc. vi, 197, ♂ ♀. Can. U.S.
obsidianator Brullé, Hym. 299; Cress., Trans. vi, 196, ♂ ♀. U.S.
occidentalis Cress., Trans. Am. Ent. Soc. ii, 93; vi, 197, ♂. Dak.
Provancheri Burque, Nat. Can. xi, 128 (= *Amblyteles expunctus*).
quebecensis Prov., ibid. vi, 335; xi, 34; Cress., Trans. vi, 197, ♀. Can.
Rileyi Cress., Trans. Am. Ent. Soc. ii, 95; vi, 198, ♀. Ill.

PLATYLABUS Wesm.

aciculatus Prov., Add. Faun. Hym. 36, 37, ♀. Can.
californicus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 357; Trans. vi, 201. Cala.
canadensis Cress., Trans. Am. Ent. Soc. vi, 200, ♀. Can.
cincticornis Prov., Add. Faun. Hym. 38, ♀. Can.
clarus Cress. (*Ichneumon*), Trans. Am. Ent. Soc. vi, 199, ♀. N.H. Mass.
consors Cress., Proc. Acad. Nat. Sci. Phil. 1878, 356; Trans. vi, 200, ♂. Cala.
crassicornis Prov., Add. Faun. Hym. 37, ♀. Can.
lineolatus Prov. (*Ichneumon*); Cress., Trans. Am. Ent. Soc. vi, 201, ♀. Can.
magnificus Prov., Add. Faun. Hym. 36, ♀. Can.
mitralis Prov., ibid. 37, ♀. Can.
montanus Cress., Trans. Am. Ent. Soc. vi, 200, ♀. N.H.
ornatus Prov. (*Phygadeuon*); Cress., ibid. 200, ♀. Can.
4-carinatus Prov. (*Phygadeuon*); Cress., ibid. 201, ♂. Can.
rubricapensis Prov., Faun. Ent. Can. ii, 768, ♀. Can.
ruficornis Prov., Add. Faun. Hym. 38, ♂ ♀. Can.
scutellatus Prov. (*Ischnus*), Nat. Can. vii, 111; Cress., Trans. vi, 200, ♂. Can.
signatus Prov. (*Phygadeuon*); Cress., Trans. Am. Ent. Soc. vi, 200, ♀. Can.
thoracicus Cress. (*Hoplismenus*), ibid. 201, ♂ ♀. Can. U.S.

EURYLABUS Wesm.

agilis Cress., Trans. Am. Ent. Soc. vi, 201, ♂ ♀. Can. Mass. N.Y.

PHÆOGENES Wesm.

annulatipes Prov., Add. Faun. Hym. 43, ♀. Can.
ater Cress., Trans. Am. Ent. Soc. vi, 202, ♀. Mo.
aterrimus Prov., Faun. Ent. Can. ii, 769, ♂; Add. Faun. Hym. 41, ♀. Can.
crassitelus Prov., Add. Faun. Hym. 41, ♀. Can.
decoloratus Cress., Trans. Am. Ent. Soc. vi, 203, ♀. N.H.
discus Cress., ibid. 203, ♂. N.H.
exiguus Cress. (*Ichneumon*), ibid. 204, ♀. Col.
Falardeaui Prov., Faun. Ent. Can. ii, 771, ♂ ♀. Can.
fungor Norton (*Ichneumon*); Cress., Trans. Am. Ent. Soc. vi, 204, ♂. U.S.
Gaspesianus Prov., Faun. Ent. Can. ii, 770, ♀. Can.
hariolus Cress. (*Ichneumon*), Trans. Am. Ent. Soc. vi, 202, ♀. N.H. Mass.
hebe Cress. (*Ichneumon*), ibid. 203, ♀. U.S.
hebrus Cress. (*Ichneumon*), ibid. 203, ♂ ♀. Can. U.S.

helvolus Cress. (*Ichneumon*), ibid. 205, ♀. U.S.
Huarti Prov. (*Posocentrus*), Nat. Can. vii, 273; xi, 251; Faun. Ent. Can. ii, 409. Can.
indistinctus Prov., Add. Faun. Hym. 43, ♂. Can.
lævigatus Cress. (*Ichneumon*), Trans. Am. Ent. Soc. vi, 205, ♀. Col.
mellinus Prov. (*Phygadeuon*); Cress., ibid. 205, ♀. Can. Mass.
nigricornis Prov., Faun. Ent. Can. ii, 770, ♂; Add. Faun. Hym. 41, ♀. Can.
orbus Prov., ibid. ii, 771, ♂. Can.
pinguis Prov., Add. Faun. Hym. 43, ♀. Can.
quadriceps Cress. (*Ichneumon*), Trans. Am. Ent. Soc. vi, 204, ♂ ♀. Can. Ct.
recticaudus Prov., Add. Faun. Hym. 42, ♀. Can.
recticornis Prov., ibid. 42, ♂ ♀. Can.
tuberculifer Prov., Faun. Ent. Can. ii, 770, ♀. Can.
vincibilis Cress. (*Ichneumon*), Trans. Am. Ent. Soc. vi, 204, ♀. Ill.

ISCHNUS Grav.

Gravenhorst, Ichn. Eur. i, 638 (1829).

albitarsis Cress., Proc. Ent. Soc. Phil. iii, 194 (= *Cryptus americanus*).
Blandii Cress., ibid. 188 (= *Ichneumon*).
contiguus Cress., ibid. 190 (= *Cryptus*).
exilis Prov., Nat. Can. vii, 111 (= *Cryptus*).
impressus Prov., ibid. 112 (= *Phygadeuon*).
iridescens Cress., Proc. Ent. Soc. Phil. iii, 193 (= *Cryptus*).
jejunus Cress., ibid. 186 (= *Ichneumon*).
lentus Prov., Nat. Can. vii, 110 (= *Cryptus limatus*).
parvus Prov., ibid. 112 (= *Hemiletes*).
placidus Prov., ibid. 110 (= *Phygadeuon rectus*).
proximus Cress., Proc. Ent. Soc. Phil. iii, 187 (= var. *Ichneumon sublatus*).
pyriformis Prov., Nat. Can. vii, 109 (= *Herpestomus*).
ruficornis Prov., ibid. 110 (= *Phygadeuon*).
scitulus Cress., Proc. Ent. Soc. Phil. iii, 193 (= *Ichneumon*).
scutellatus Prov., Nat. Can. vii, 111 (= *Platylabus*).
sublatus Cress., Proc. Ent. Soc. Phil. iii, 186 (= *Ichneumon*).
variegatus Prov., Nat. Can. vii, 250 (= *Ichneumon w-album*).
vinnulus Cress., Proc. Ent. Soc. Phil. iii, 189 (*Ichneumon*).
volens Cress., ibid. 192 (= *Ichneumon*).
w-album Cress., ibid. 191 (= *Ichneumon*).
Wilsoni Cress., ibid. 188 (= *Ichneumon*).

CENTETERUS Wesm.

tuberculifrons Prov. (*Phygadeuon*); Cress., Trans. vi, 205, ♂ ♀. Can. U.S.

COLPOGNATHUS Wesm.

helvus Cress. (*Ichneumon*), Trans. Am. Ent. Soc. vi, 206, ♀. Can. U.S.

HERPESTOMUS Wesm.

pyriformis Prov. (*Ischnus*), Nat. Can. vii, 109; Cress., Trans. Am. Ent. Soc. vi, 206, ♂. Can. N.Y.

Subfamily CRYPTINÆ.

EXOLYTUS Först.

compressus Cress. (*Stilpnus*), Proc. Ent. Soc. Phil. iv, 260, ♂. Col.
politus Prov. (*Campoplex*), Nat. Can. vi, 144; Faun. Ent. Can. ii, 380, 790. Can.

STILPNUS Grav.

americanus Cress., Trans. Am. Ent. Soc. ii, 95, ♂ ♀. Can. U.S.
appendiculatus Prov., Add. Faun. Hym. 44, ♂. Can.
canadensis Prov., Nat. Can. vii, 112; Faun. Ent. Can. ii, 311, ♂. Can.
clypeatus Cress., Trans. Am. Ent. Soc. ii, 95, ♂. Ill.
compressus Cress., Proc. Ent. Soc. Phil. iv, 260 (= *Exolytus*).
hudsonicus Cress., Trans. Am. Ent. Soc. ii, 95, ♂. Hud.Bay.
lævis Prov., Faun. Ent. Can. ii, 772, ♀. Can.
obscurus Cress., Proc. Ent. Soc. Phil. iv, 259 (= *Tryphon*).

PHYGADEUON Grav.

abdominalis Prov., Nat. Can. vi, 280; Faun. Ent. Can. ii, 319, ♂ ♀. Can.
acaudus Prov., Faun. Ent. Can. ii, 780, ♀. Can.
aciculatus Prov., ibid. 778, ♂. Can.
albicoxus Prov., Nat. Can. vii, 266; Faun. Ent. Can. ii, 318, ♂. Can.
albirictus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 358, ♂. Cala.
alternans Prov., Faun. Ent. Can. ii, 780, ♀. Can.
annulatus Cress., Proc. Ent. Soc. Phil. iii, 308, ♀. Del.
annulatus Prov., Nat. Can. vii, 179, ♀. Can.
apicatus Prov., ibid. 180 (= *Ichneumon velox*).
ater Prov., ibid. viii, 317 (= *Ichneumon helvipes*).
attenuatus Prov., Faun. Ent. Can. ii, 781, ♀. Can.
autumnalis Prov., ibid. 779, ♀. Can.
brevicaudus Prov., Add. Faun. Hym. 54, ♀. Can.
californicus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 358, ♂. Cala.
capitalis Prov., Add. Faun. Hym. 57, ♂. Can.
caudatus Prov., Nat. Can. vii, 82 (= *Ichneumon*).
caudatus Prov. (*Cryptus*), ibid. 314; Faun. Ent. Can. ii, 319, ♀. Can.
cephalicus Prov., Faun. Ent. Can. ii, 777, ♂. Can.
cincticornis Cress., Proc. Ent. Soc. Phil. iii, 309, ♀. Ill.
constrictus Prov., Faun. Ent. Can. ii, 779, ♂; Add. Faun. Hym. 53, ♀. Can.
cornutus Prov., ibid. 778, ♀. Can.
crassipes Prov., Nat. Can. ix, 11; Faun. Ent. Can. ii, 320, ♀. Can. Cala. Vanc.
Cressoni Prov., Nat. Can. viii, 318 (= *Ichneumon velox*).
Crotchii Cress., Proc. Acad. Nat. Sci. Phil. 1878, 357, ♀. Brit.Col.
dorsalis Prov., Nat. Can. vi, 285 (= var. *Ichneumon humilis*).
dubius Prov., ibid. 283 (= *pubescens*).
electus Prov. Add. Faun. Hym. 51, ♀. Can.
excavatus Prov. Nat. Can. vi, 285, ♀. Can.
fasciatus Prov. Add. Faun. Hym. 55, ♀. Can.
fraterculus Prov., ibid. 55, ♀. Can.
fulvescens Cress., Proc. Acad. Nat. Sci. Phil. 1878, 359, ♀. Cala.
fusiformis Prov., Add. Faun. Hym. 51, ♀. Can.

Geddessii Prov., Add. Faun. Hym. 54, ♀. Can.
gracilicornis Prov., ibid. 56, ♀. Can.
Guignardi Prov., ibid. 50. ♀. Can.
hilaris Prov., Nat. Can. vi, 284 (= *Colpognathus helvus*).
impressus Prov., ibid. 281 (= *Platylabus thoracicus*).
impressus Prov. (*Ischnus*), ibid. vii, 112; Faun. Ent. Can. ii, 317, ♂. Can.
inflatus Prov. (*Ichneumon*), ibid. 83; Faun. Ent. Can. ii, 321, ♂ ♀. Can.
inhabilis Prov., ibid. ix, 11; Faun. Ent. Can. ii, 315, ♀. Can.
insignis Prov., ibid. vii, 179 (= *Phæogenes hebrus*).
intermedius Cress., Trans. Am. Ent. Soc. iv, 160, ♀. Tex.
jocosus Prov. Add. Faun. Hym. 53, ♀. Can.
Lavoiei Prov., Faun. Ent. Can. ii, 776, ♀. Can.
Lechevallieri Prov., ibid. 778, ♀. Can.
limatus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 358, ♀. Cala.
longicornis Prov., Add. Faun. Hym. 52, ♀. Can.
lucens Prov., Nat. Can. vi, 281; Faun. Ent. Can. ii, 318, ♀. Can.
maculatus Prov., ibid. vii, 178; Faun. Ent. Can. ii, 314, ♀, 775, ♂. Can.
major Cress., Proc. Ent. Soc. Phil. iii, 308, ♀. Can. Ill.
mandibularis Cress., ibid. 311, ♀. Ill.
marginatus Prov., Add. Faun. Hym. 56, ♂. Can.
maturus Prov., Nat. Can. xi, 68; Faun. Ent. Can. ii, 314, ♀. Can.
mellinus Prov., ibid. vii, 315 (= *Phæogenes*).
Mignaulti Prov., Faun. Ent. Can. ii, 777, ♀. Can.
montanus Cress., Proc. Ent. Soc. Phil. iii, 309, ♀. Col.
mucronatus Prov., Nat. Can. xi, 73; Faun. Ent. Can. ii, 319, ♀, 775, ♂. Can.
niger, Prov., ibid. viii, 317, ♀. Can.
niger Prov., ibid. vi, 280 (= *Ichneumon extrematatis*).
nigriceps Prov., Add. Faun. Hym. 52, ♀. Can.
nigrovariegatus Prov., Nat. Can. vii, 182 (= *Ichneumon*).
nitidulus Prov., Faun. Ent. Can. ii, 317, ♂; Add. Faun. Hym. 58, ♀. Can.
occidentalis Prov. (*Cryptus*), Nat. Can. vii, 314; Faun. Ent. Can. ii, 316, ♀. Can.
orbitalis Prov., Faun. Ent. Can. ii, 776, ♂. Can.
ornatus Prov., Nat. Can. vii, 181 (= *Platylabus*).
ovalis Prov., ibid. 180; Faun. Ent. Can. ii, 317, ♂ ♀. Can.
pallicoxus Prov., ibid. xi, 75; Faun. Ent. Can. ii, 321, ♂. Can.
parallelus Prov., Faun. Ent. Can. ii, 777, ♂. Can.
planosæ Fitch, Second N. Y. Rep. 269, ♀. N.Y.
planus Prov., Nat. Can. vi, 283; Faun. Ent. Can. ii, 322, ♀. Can.
proximus Prov., ibid. 283 (= *Ichneumon*).
pubescens Prov., ibid. 282; Faun. Ent. Can. ii, 318, ♂. Can.
4-*carinatus* Prov., ibid. vii, 180 (= *Platylabus*).
rectus Prov., ibid. 178; Faun. Ent. Can. ii, 315, ♂. Can.
robustus Prov., ibid. xi, 75; Faun. Ent. Can. ii, 322, ♀. Can.
rotundiceps Prov., ibid. ix, 12; Faun. Ent. Can. ii, 320, ♀. Can.
rubricus Prov., Faun. Ent. Can. ii, 780, ♀. Can.
rubrocinctus Prov., Nat. Can. vi, 280; Faun. Ent. Can. ii, 315, ♀. Can.
ruficornis Prov. (*Ischnus*), ibid. vii, 110, 179; Faun. Ent. Can. ii, 321, ♂. Can.
rufipes Prov., ibid. vii, 181 (= *Platylabus lineolatus*).
rufulus Prov., ibid. xi, 76; Faun. Ent. Can. ii, 322, ♀. Can.

segnis Prov., ibid. ix, 11; Faun. Ent. Can. ii, 317, ♀. Can.
signatus Prov. (*Cryptus*), ibid. vi, 179; xi, 68; Faun. Ent. ii, 314, ♀. Can.
signatus Prov., ibid. vi, 282 (= *Platylabus*).
similaris Prov., Add. Faun. Hym. 57, ♂. Can.
subfuscus Cress., Proc. Ent. Soc. Phil. iii, 311, ♀. Can. Ill.
subspinosus Prov., Faun. Ent. Can. ii, 779, ♂. Can.
tegularis Prov., Nat. Can. vi, 282 (= *Cryptus alacris*).
terminalis Prov., ibid. 284 (= *Ichneumon caudatus*).
terminatus Prov., Faun. Ent. Can. ii, 780, ♀. Can.
texanus Cress., Trans. Am. Ent. Soc. iv, 160, ♂. Tex.
timidus Cress., ibid. 161, ♂. Tex.
3-annulatus Prov., Faun. Ent. Can. ii, 777, ♀. Can.
truncatus Prov., Add. Faun. Hym. 53, ♀. Can.
tuberculifrons Prov., Nat. Can. vi, 284 (= *Centeterus*).
vulgaris Cress., Proc. Ent. Soc. Phil. iii, 310, ♀. Can. U.S.

CRYPTUS Fabr.

affabilis Prov., Nat. Can. ix, 13; Faun. Ent. Can. ii, 341, ♀. Can.
alacris Cress., Proc. Ent. Soc. Phil. iii, 306, ♀. Can. Del.
albicaligatus Walsh, Trans. St. Louis Acad. iii, 82, ♂. Ill. (var. *americanus?*).
albicollaris Cress., Trans. Am. Ent. Soc. iv, 158, ♀. Tex.
? albisoleatus Walsh, Trans. St. Louis Acad. iii, 80, ♂. Ill.
albitarsis Cress., Proc. Ent. Soc. Phil. iii, 300, ♂. Del. (= var. *similis?*).
albonotatus Prov., Add. Faun. Hym. 75, ♂. Can.
amblytelarius Prov., ibid. 70, ♀. Can.
americanus Cress., Proc. Ent. Soc. Phil. iii, 297; ♀. Can. U.S.
annulatus Prov., Nat. Can. vii, 179; Faun. Ent. Can. ii, 339, ♂ ♀. Can.
apicatus Prov., ibid. vi, 204; Faun. Ent. Can. ii, 336, ♀. Can.
atriceps Cress., Proc. Acad. Nat. Sci. Phil. 1878, 361, ♀. Utah.
atricollaris Walsh, Trans. St. Louis Acad. iii, 72, ♂ ♀. Can. Ill.
Belangeri Prov., Nat. Can. vi, 201 (= *nuncius*).
Blakei Cress. (*Ichneumon*), Proc. Ent. Soc. Phil. iii, 139, ♂. Can. Col.
brevicornis Prov., Nat. Can. vii, 176 (= *Phygadeuon impressus*).
brevicornis Prov., Add. Faun. Hym. 67, ♀. Can.
buccatus Cress., Trans. Am. Ent. Soc. iv, 159, ♂ ♀. Tex.
calipterus Say; Cress., ibid. 158; Proc. Acad. 1878, 362, ♂ ♀. Tex. Utah. Cala.
canadensis Prov. (*Nematopodius*), Nat. Can. vii, 268; Faun. ii, 337, ♂. Can.
caudatus Prov., ibid. vii, 314 (= *Phygadeuon*).
certus Prov., ibid. vi, 200 (= *Phæogenes fungor*).
cestus Say, Bost. Jour. i, 234; Lec. Edit. ii, 691, ♀. Ind.
cinctipes Walsh, Trans. St. Louis Acad. iii, 74, ♂ ♀. Ill.
cinctus Prov., Nat. Can. vii, 175; Faun. Ent. Can. ii, 336, ♂. Can.
circumcinctus Prov., ibid. xi, 132; Faun. Ent. Can. ii, 331, ♂. Can.
collaris Prov., Add. Faun. Hym. 71, ♂. Can.
comalensis Cress., Trans. Am. Ent. Soc. iv, 159, ♀. Tex.
conquisitor Say, Bost. Jour. Nat. Hist. i, 232; Lec. Edit. ii. 689 (= *Pimpla*).
contiguus Cress. (*Ischnus*), Proc. Ent. Soc. Phil., iii, 190, ♂. Can. Md.
coxatus Prov. (*Nematopodius*), Prov. Nat. Can. vii, 269 (= *americanus* ♂).
crassicornis Cress., Proc. Ent. Soc. Phil. iii, 292, ♂. Col. (= *robustus?*).

Crotchii Cress., Proc. Acad. Nat. Sci. Phil. 1878, 362, ♂ ♀. Cala.
dirus Cress., ibid. 359, ♀. Cala.
discitergus Say, Bost. Jour. i, 231; Lec. Edit. ii, 689, ♀. Ind.
dubius Prov., Add. Faun. Hym. 71, ♂. Can.
ductilis Say, Bost. Jour. i, 233; Lec. Edit. ii, 690, ♀. Ind.
eburneifrons Prov., Nat. Can. xi, 133; Faun. Ent. Can. ii, 332, ♂. Can.
Edwardsii Cress., Proc. Acad. Nat. Sci. Phil. 1878, 363, ♀. Cala.
elongatus Prov., Faun. Ent. Can. ii, 784, ♂. Can.
erythropygus Prov., Add. Faun. Hym. 69, ♀. Can.
excelsus Cress., Proc. Ent. Soc. Phil. iii, 293 (= *Linoceras*).
exilis Prov. (*Ischnus*), Nat. Can. vii, 111; xi, 133; Faun. Ent. Can. ii, 332. Can.
extrematis Cress., Proc. iii, 304; Riley, 4th Mo. Rep. 111, fig. ♂ ♀. Can. U.S.
exulans Cress., Trans. Am. Ent. Soc. iv, 157, ♂. Tex.
flavipectus Prov., Nat. Can. xi, 134; Faun. Ent. Can. ii, 333, ♀. Can.
frater Cress., Proc. Ent. Soc. Phil. iii, 303; Walsh, Tr. St. Louis Acad. iii, 80. Ill.
gracilis Prov., Add. Faun. Hym. 74, ♂. Can.
grallator Say, Bost. Jour. Nat. Hist. i, 236 (= *Labena*).
ignotus Prov., Add. Faun. Hym. 73, ♂. Can.
imitator Prov., Nat. Can. ix, 13; Faun. Ent. Can. ii, 339, ♀. Can.
incertus Cress., Proc. Ent. Soc. Phil. iii, 306, ♀. Del. Tex.
incognitus Prov., Add. Faun. Hym. 70, ♂. Can.
insignis Prov., Nat. Can. vi, 178 (= *Blakei*).
iridescens Cress., Proc. Ent. Soc. iii, 296; Walsh, Tr. St. Louis Ac. iii, 77. Del. Ill.
junceus Cress., ibid. 295 (= *Linoceras*).
laticeps Cress., Trans. Am. Ent. Soc. iv, 157, ♂. Tex.
latus Prov., Nat. Can. vi, 204 (= *Phygadeuon occidentalis*).
limatus Cress., Proc. Ent. Soc. iii, 298; Walsh, Tr. St. Louis Ac. iii, 81. Can. U.S.
linearis Prov., Add. Faun. Hym. 72, ♂. Can.
longicaudus Prov., ibid. 68, ♀. Can.
lophyri Norton, Trans. Am. Ent. Soc. ii, 326, ♂ ♀. Ct.
luctuosus Cress., Proc. Ent. Soc. Phil. iii, 290, ♀. Col.
mellicoxus Prov., Add. Faun. Hym. 75, ♂. Can.
mellipes Prov., ibid. 68, ♀. Can.
micropterus Say, Bost. Jour. Nat. Hist. i, 238; Lec. Edit. ii, 694 (= *Aptesis*).
montivagus Prov., Nat. Can. ix, 10; xi, 139; Faun. Ent. Can, ii, 338, ♀. Can.
mundus Prov., ibid. vi, 203; Faun. Ent. Can. ii, 336, ♂. Can.
nigricalceatus Walsh, Tr. St. Louis Acad. iii, 77, ♂. Ill. (= var. *americanus?*)
nigricornis Prov., Nat. Can. vi, 201; xi, 139; Faun. Ent. Can. ii, 338, ♂. Can.
notatus Prov., ibid. vi, 202; Faun. Ent. Can. ii, 340, ♂. Can.
nubilipennis Cress., Proc. Ent. Soc. Phil. iii, 291 (= *Echthrus*).
nuncius Say, Bost. Jour. i, 237; Lec. Edit. ii, 693. Can. U.S.
occidentalis Prov., Nat. Can. vii, 314 (= *Phygadeuon*).
orbus Say, Bost. Jour. i, 231; Lec. Edit. ii, 688 (= *Hemiteles*).
ornatus Prov. (*scutellatus* ‖), Add. Faun. Hym. 63, 69, ♀. Can.
osculatus Prov., Nat. Can. vi, 178; Faun. Ent. Can. ii, 331, ♂. Can.
pacificus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 361, ♂. Cala.
pallidus Cress., Proc. Ent. Soc. Phil. iii, 307, ♀. Del.
pentagonalis Prov., Add. Faun. Hym. 66, ♂ ♀. Can.
perditus Prov., ibid. 73, ♂. Can.
perplexus Cr., Proc. Acad. Nat. Sci. Phil. 1878, 359, ♀. Cala. (= var. *proximus?*).

persimilis Cr., Proc. Ent. Soc. iii, 298; Walsh, Tr. St. Louis Ac. iii, 79. Can. U.S.
picticoxus Walsh, Trans. St. Louis Acad. iii, 82, ♂. Ill.
pictifrons Cress., Proc. Acad. Nat. Sci. Phil. 1878, 360, ♂. Wyoming.
pleurivinctus Say, Bost. Jour. i, 235; Lec. Edit. ii, 691 (= *Pimpla conquisitor*).
proximus Cress., Proc. Ent. Soc. Phil. iii, 290, ♀. Can. Col. Cala. Vanc.
pubescens Prov., Add. Faun. Hym. 72, ♂. Can.
pumilus Cress., Proc. Ent. Soc. Phil. iii. 301, ♀. Del.
punicus Cress., Proc. Acad. Nat. Sci. 1878, 364, ♂ ♀. Cala. Wash.Terr. Vanc.
purpuripennis Cress., ibid. 364, ♀. Cala.
pusillus Cress., Proc. Ent. Soc. Phil. iii, 302, ♀. Ill.
quebecensis Prov., Nat. Can. vi, 179 (= *velox*).
rectus Prov., Add. Faun. Hym. 75, ♂. Can.
relativus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 359, ♀. Brit.Col.
resolutus Cress., ibid. 363, ♂. Cala.
retentor Brullé, Hym. 192, ♀. Carolina.
rhomboidalis Walsh, Trans. St. Louis Acad. iii, 74, ♀. Ill.
robustus Cress., Proc. Ent. Soc. Phil. iii, 289, ♀. Can. Col.
ruficornis Prov., Nat. Can. xi, 139; Faun. Ent. Can. ii, 338, ♂. Can.
ruficoxus Prov., ibid. vii, 176 (= *Phygadeuon nitidulus*).
rufifrons Walsh, Trans. St. Louis Acad. iii, 75, ♀. Ill.
rufoannulatus Prov., Nat. Can. vi, 202; xi, 136; Faun. Ent. Can. ii, 335. Can.
rufus Prov., ibid. 202; xi, 143; Faun. Ent. Can. ii, 342, ♂ ♀. Can.
saminæ Pack., Proc. Bost. Soc. Nat. Hist. ix, 345, ♂ ♀. Mass.
scutellatus Prov., Nat. Can. ix, 12; xi, 133; Faun. Ent. Can. ii, 332, ♂. Can.
scutellatus ‖ Prov., Add. Faun. Hym. 69, ♀ (= *ornatus*).
semirufus Brullé, Hym. 195, ♀. N.Am.
segregatus Prov., Add. Faun. Hym. 73, ♂. Can.
sericeifrons Prov., Nat. Can. xi, 132; Faun. Ent. Can. ii, 331, ♀; 783, ♂. Can.
signatus Prov., Nat. Can. vi, 179 (= *Phygadeuon*).
similis Cress., Proc. Ent. Soc. Phil. iii, 299, ♀. Del.
Smithii Pack., Proc. Bost. Soc. Nat. Hist. ix, 346, ♂ ♀. Mass.
sordidus Prov., Add. Faun. Hym. 67, ♀. Can.
soriculatus Prov., Faun. Ent. Can. ii, 784, ♂. Can.
soror Cress., Proc. Ent. Soc. Phil. iii, 296, ♂. Del.
sororius Cress., Trans. Am. Ent. Soc. iv, 159, ♂. Tex.
spissicornis Prov., Add. Faun. Hym. 68, ♂ ♀. Can.
subargenteus Cress., Proc. Ent. Soc. Phil. iii, 302, ♀. Pa.
subclavatus Say, Bost. Jour. i, 237; Lec. Edit. ii, 693, ♀. U.S.
subgracilis Cress., Proc. Ent. Soc. Phil. iii, 303, ♀. Ill.
tejonensis Cress., Proc. Acad. Nat. Sci. Phil. 1878, 360, ♀. Cala.
tenellus Say, Bost. Jour. i, 233; Lec. Edit. ii, 690 (= *Hemiteles*).
3-annulatus Prov., Add. Faun. Hym. 74, ♂. Can.
turbatus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 363, ♀. Cala.
ultimus Cress., Proc. Ent. Soc. iii, 305; Walsh, Tr. St. Louis Ac. iii, 83. Ill. Col
varius Prov., Nat. Can. vi, 200 (= *atricollaris*).
velox Cress., Proc. Ent. Soc. Phil. iii, 293, ♀. Can. N.Y.
viduatorius Fabr.; Kirby, Faun. Bor. Am. iv, 259, ♀. Arc.Am.

JOPPIDIUM Walsh.

apicale Cress., Trans. Am. Ent. Soc. iv, 160, ♀. Tex.
rubriceps Cress., ibid. 160, ♂ ♀. Tex. (= *ruficeps*.)
ruficeps Walsh, Trans. St. Louis Acad. iii, 70, ♂ ♀. Ill.

LINOCERAS Tasch.

Cloutieri Prov. (*Atractodes*), Nat. Can. vi, 150; xi, 110; Faun. ii, 343, ♂ ♀. Can.
Edwardsii Cress., Proc. Acad. Nat. Sci. Phil. 1878, 365, ♂. Cala.
excelsus Cress. (*Cryptus*), Proc. Ent. Soc. Phil. iii, 293, ♂ ♀. Col.
junceus Cress. (*Cryptus*), ibid. 295, ♀. Ill.

MESOSTENUS Grav.

albicoxus Prov., Nat. Can. vii, 266, ♂. Can.
albomaculatus Cress., Proc. Ent. Soc. Phil. iii, 313, ♀. Pa.
albopictus Cress., ibid. 312, ♂. Del.
americanus Cress., Can. Ent. x, 209, ♀. Me. Va.
annulatus Prov., Nat. Can. vii, 265 (= *Ichneumon*).
apicalis Prov., ibid. 266 (= var. *Ichneumon finitimus*).
armatus Prov., Add. Faun. Hym. 76, ♀. Can.
arvalis Cress., Trans. Am. Ent. Soc. iv, 163, ♀. Tex.
audax Cress., Can. Ent. x, 207, ♀. Ga.
candidus Cress., ibid. 206, ♂. N.Y.
collinus Prov., Nat. Can. xi, 111; Faun. Ent. Can. ii, 344, ♂. Can.
dejectus Cress., Trans. Am. Ent. Soc. iv, 163, ♀. Tex.
diligens Cress., Can. Ent. x, 207, ♀. Ill.
discoidalis Cress., Trans. Am. Ent. Soc. iv, 162, ♀. Tex.
exaptus Cress., Can. Ent. x, 208, ♀. Mass.
flavipes Prov., Faun. Ent. Can. ii, 785, ♂. Can.
fortis Cress., Can. Ent. x, 206, ♀. N.Y. (= ♀ of *candidus?*).
? **fulvus** Cress., Proc. Ent. Soc. Phil. iii, 316, ♂. Ill.
gracilipes Cress., Proc. Acad. Nat. Sci. Phil. 1878, 365, ♀. Cala.
gracilis Cress., Proc. Ent. Soc. Phil. iii, 315, ♂. Va. Tex.
introitus Cress., Trans. Am. Ent. Soc. iv, 162, ♂. Tex.
jocosus Prov., Nat. Can. vi, 300; Faun. Ent. Can. ii, 346, ♀. Can.
laticinctus Cress., Can. Ent. x, 208, ♀. La.
latigaster Prov., Add. Faun. Hym. 77, ♀. Can.
longicaudis Cress., Trans. Am. Ent. Soc. iv, 164, ♀. Tex.
longicornis Prov., Nat. Can. vi, 300 (= *Mesoleptus Moyeni*).
macilentus Cress., Can. Ent. x, 210, ♂. Ill. La. Tex.
nigricornis Prov., Nat. Can. vii, 264 (= *Echthrus*).
nitidus Prov., ibid. vi, 301 (= *Phygadeuon nitidulus*).
nobilis Prov., Faun. Ent. Can. ii, 785, ♀. Can.
nubilipennis Cress., Can. Ent. x, 205, ♀. Ga.
pallipes Prov., Nat. Can. vii, 264 (= *Mesoleptus triangularis*).
paludatus Cress., Trans. Am. Ent. Soc. iv, 162, ♂. Tex.
pertinax Cress., ibid. 163, ♀. Tex.
pluricinctus Prov., Add. Faun. Hym. 76, ♀. Can.
promptus Cress., Can. Ent. x, 209, ♂. Can. Ill.
ruficoxus Prov., Nat. Can. vii, 266, ♂. Can.

rufipes Prov., Nat. Can. vii, 249 (= *Cryptus rufus*).
rufipes Prov., ibid. 263 (= *Mesoleptus*).
rufotinctus Prov., ibid. vi, 301, ♂. Can.
sagax Prov., ibid. xi, 112; Faun. Ent. Can. ii, 345, ♀. Can.
Saundersi Cress., Can. Ent. x. 208, ♀. Can.
sericeus Prov., Faun. Ent. Can. ii, 345, ♀. Can.
sericeus Prov., Nat. Can. vii, 264 (= *Mesoleptus*).
spinarius Brullé, Hym. 227, ♀. Carolina.
tarsatus Prov. Nat. Can. vii, 265 (=*Cryptus americanus* ♂).
thoracicus Cress., Proc. Ent. Soc. Phil. iii, 314, ♂ ♀. Can. U.S.

HEMITELES Grav.

aciculatus Prov., Add. Faun. Hym. 60, ♂. Can.
caudatus Prov. (*Echthrus*), Nat. Can. vii, 313; xi, 121; Faun. ii, 324. Can.
conspicuus Cress., Trans. Am. Ent. Soc. iv, 161, ♀. Tex.
crassus Prov., Faun. Ent. Can. ii, 783, ♂. Can.
Cressonii Riley, 1st Mo. Rep. 1869, 177, pl. 2, fig. 7; Gen'l Index, 65, ♂. Mo.
debilis Prov., Add. Faun. Hym. 59, ♂. Can.
declivus Prov., ibid. 60, ♂ ♀. Can.
depressus Prov. (*utilis* ‖), Nat. Can. vi, 334; xi, 125, ♀. Can.
fuscatus Walsh, Can. Ent. ii, 12 (= var. *nativorus*).
gigas Prov., Add. Faun. Hym. 59, ♂. Can.
humeralis Prov., Nat. Can. vi, 333; Faun. Ent. Can. ii, 327, ♀. Can.
longicornis Prov., Faun. Ent. Can. ii, 783, ♀. Can.
mandibularis Prov., Nat. Can. vii, 315; Faun. Ent. Can. ii, 324, ♀. Can.
mucronatus Prov., Add. Faun. Hym. 58, ♂. Can.
nativorus Walsh, Can. Ent. ii, 11, ♀. Can. Ill.
nigricans Prov., Faun. Ent. Can. ii, 782, ♂. Can.
orbicularis Prov., Nat. Can. xi, 123; Faun. Ent. Can. ii, 326, ♂. Can.
orbus Say (*Cryptus*), Lec. Edit. ii, 688; Walsh. Can. Ent. ii, 9. Ind. Ill.
ovalis Prov., Nat. Can. vi, 332; Faun. Ent. Can. ii, 325, ♂ ♀. Can.
pallipennis Prov., Faun. Ent. Can. ii, 782, ♂ ♀. Can.
parvus Prov. (*Ischnus*), Nat. Can. vii, 112; Faun. Ent. Can. ii, 324, ♂. Can.
ruficoxus Prov., ibid. vi, 331; Faun. Ent. Can. ii, 325, ♂ ♀. Can.
scabrosus Prov., ibid. 332; Faun. Ent. Can. ii, 324, ♀. Can.
semirufus Prov., ibid. 332; Faun. Ent. Can. ii, 326, ♀. Can.
sessilis Prov., ibid. 334; Faun. Ent. Can. ii, 327, ♀. Can.
subspinosus Prov., ibid. 333; Faun. Ent. Can. ii, 326, ♀. Can.
tenellus Say (*Cryptus*), Lec. Edit. ii, 690; Walsh, Can. Ent. ii, ♀. Pa. Ill.
tener Prov., Nat. Can. vi, 333; Faun. Ent. Can. ii, 326, ♂. Can.
thyridopteryx Riley, 1st Mo. Rep. 150; *thyridopterigis*, Gen'l Index 65, ♂ ♀. Mo.
utilis Norton, Trans. Am. Ent. Soc. ii, 326, ♀. Ct. Tex.
utilis Prov. (*nec* Norton), Nat. Can. xi, 125; Faun. Ent. Can. ii, 328 (= *depressus*).

APTESIS Först.

micropterus Say (*Cryptus*), Bost. Jour. i, 238; Lec. Edit. ii, 694, ♀. Pa.

PTEROCORMUS Först.

compactus Cress. (*Pezomachus*), Can. Ent. iv, 63, ♀. Ill.

PEZOMACHUS Grav.

alternatus Cress., Can. Ent. iv, 64, ♀. Ill.
canadensis Cress., ibid. 62, ♀. Can.
compactus Cress., ibid. 63 (= *Pterocormus*).
dimidiatus Cress., ibid. 63, ♀. Mass. Ill.
gentilis Cress., ibid. 61, ♂ ♀. Pa.
gracilis Cress., ibid. 63, ♀. Pa.
macer Cress., ibid. 64, ♂. Pa.
meabilis Cress., ibid. 62, ♀. Ill.
minimus Walsh, Ins. Inj. 36, figs. 6, 7; Riley, 2d Mo. Rep. 1870, 52, ♂ ♀. Ill. Mo.
obscurus Cress., Can. Ent. iv, 62, ♀. N.J.
Pettitii Cress., ibid. 61, ♀. Can.
quebecensis Prov., Nat. Can. vii, 330 (= *canadensis*).
sulcatus Prov., Add. Faun. Hym. 77, ♀. Can.
tantillus Cress., Can. Ent. iv, 62, ♀. Ill.
texanus Cress., ibid. 64, ♀. Tex.
thripites Taylor, American Agriculturist, N. Y., Oct. 1860, 300, fig. 3. N.Y.
unicolor Cress., Can. Ent. iv, 64, ♀. Mass. Del. Ill.

Subfamily OPHIONINÆ.

OPHION Fabr.

analis Say, Lec. Edit. i, 379, (= *Anomalon*).
atricolor Oliv. Enc. Méth. Ins. viii, 511 (= *Thyreodon morio*).
bifoveolatum Brullé, Hym. 138. Can. U.S.
bilineatum Say, Lec. Edit. i, 378. Can. U.S.
brachiator Say, ibid. ii, 695. Ind.
chloris Oliv., Enc. Méth. Ins. viii, 509 (= *Paniscus geminatus*).
costale Cress., Proc. Acad. Nat. Sci. Phil. 1878, 366, ♀. Cala.
? emarginatum Say, Lec. Edit. i, 380. Ind. (= *Exochus ?*).
geminatus Say, ibid. 379 (= *Paniscus*).
glabratum Say, Bost. Jour. i, 239; Lec. Edit. ii, 695. Can. U.S.
lateralis Brullé, Hym. 141 (= *purgatum*).
macrurum Linn. (*Ichneumon*); Norton, Proc. Ent. Soc. Phil. i, 359. Can. U.S.
mundus Say, Bost. Jour. i, 239; Lec. Edit. ii, 695 (= *Exochilum*).
nigrovarium Prov., Nat. Can. vi, 104; Faun. Ent. Can. ii, 351, ♂ ♀. Can.
purgatum Say, Bost. Jour. i, 238; Lec. Edit. ii, 694. Can. U.S.
relictus Fabr., Ent. Syst. Suppl. 236 (= *Anomalon*).
rugosus Brullé, Hym. 138 (= *macrurum*).
tityri Pack., Proc. Bost. Soc. Nat. Hist. xxi, 19, ♂. Mass.

THYREODON Brullé.

morio Fabr. (*Ichneumon*); Brullé, Hym. 152; Nort., Proc. Ent. Soc. i, 359. Can. U.S.

NOTOTRACHYS Marsh.

californicus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 366, ♀. Cala.
canadensis Prov. (*Trachynotus*), Nat. Can. xi, 119; Faun. Ent. Can. ii, 353. Can.
ejuncidus Say (*Anomalon*), Bost. Jour. i, 241; Lec. Edit. ii, 697, ♀. U.S.

reticulatus Cress. (*Trachynotus*), Proc. Ent. Soc. Phil. iv, 285, ♀. Col.
texanus Cress. (*Trachynotus*), Trans. Am. Ent. Soc. iv, 169, ♀. Tex.

EXOCHILUM Wesm.

fuscipenne Norton, Proc. Ent. Soc. Phil. i, 359, ♀. Can. D.C.
mundum Say (*Ophion*), Bost. Jour. i, 239; Lec. Edit. ii, 695, ♂. Can. U.S.
nigrovarium Brullé (*Anomalon*), Hym. 172, ♀. N.Am.
nigrum Prov. (*Anomalon*), Faun. Ent. Can. ii, 356; Add. Faun. Hym. 78. Can.
occidentale Cress., Proc. Acad. Nat. Sci. 1878, 366, ♀. Or.
tenuipes Norton, Proc. Ent. Soc. Phil. i, 360, ♀. Ct. Mass.

HETEROPELMA Wesm.

flavicornis Brullé (*Anomalon*), Hym. 171, ♂ ♀. Can. Ct. Pa.
longipes Prov., Add. Faun. Hym. 120, ♂. Cala.

ANOMALON Grav.

ambiguum Norton, Proc. Ent. Soc. Phil. i, 362, ♀. Mass.
anale Say (*Ophion*), Lec. Edit. i, 379, ♀. Can. U.S.
attractum Say, Bost. Jour. i, 241; Lec. Edit. ii, 696, ♀. Ind.
californicum Cress., Proc. Acad. Nat. Sci. 1878, 367, ♀. Cala.
canadense Prov., Nat. Can. vi, 175; Faun. Ent. Can. ii, 358 (= var. *prismaticum*).
chlamidatum Prov., Add. Faun. Hym. 82, ♂ ♀. Can.
curtum Norton, Proc. Ent. Soc. Phil. i, 362, ♂. Me. Del.
densatum Say, Bost. Jour. i, 243; Lec. Edit. ii, 698, ♀. Ind.
divaricatus Say, ibid. 244; Lec. Edit. ii, 699 (= *Glypta*).
Edwardsii Cress., Proc. Acad. Nat. Sci. Phil. 1878, 367, ♀. Vanc.
ejuncidus Say, Bost. Jour. i, 241; Lec. Edit. ii, 697 (= *Nototrachys*).
exile Prov., Nat. Can. vi, 175; Faun, Ent. Can. ii, 358, ♀. Can.
ferrugineum Norton, Proc. Ent. Soc. Phil. i, 363, ♀. Ill.
filiforme Prov., Add. Faun. Hym. 83, ♂ ♀. Can.
flavicorne Brullé, Hym. 171, pl. 40, fig. 4 (= *Heteropelma*).
flavicorne Say, Lec. Edit. i, 163 (= *Heteropelma?*).
fulvescens Cress. (*Cremastus*), Proc. Ent. Soc. Phil. v, 284, ♂ ♀. Tex.
humerale Say, Lec. Edit. i, 378 (= *Xylonomus*).
hyaline Norton, Proc. Ent. Soc. Phil. i, 361, ♀. Can. Ct.
laterale Brullé, Hym. 175, ♂ ♀. Can. U.S.
lineatulum Say, Bost. Jour. i, 244; Lec. Edit. ii, 699, ♂. Ind.
luteopectum Norton, Proc. Ent. Soc. Phil. i, 363, ♂. Ct.
maceratum Cress., Proc. Acad. Nat. Sci. Phil. 1878, 368, ♂. Cala.
magniceps Cress., Trans. Am. Ent. Soc. iv, 170, ♀. Tex.
melleum Cress., ibid. 171, ♀. Tex.
mellipes Say, Lec. Edit. i, 378; ii, 697 (= *Odontomerus*).
metallicum Norton, Proc. Ent. Soc. Phil. i, 364, ♀. Mass. Tex.
nigripennis Prov., Nat. Can. vi, 173 (= *Exochilum mundum*).
nigritum Norton, Proc. Ent. Soc. Phil. i, 363, ♂. Can. Mass.
nigrorufum Norton, ibid. 361, ♀. Can. N.Y.
nigrovarium Brullé, Hym. 172 (= *Exochilum*).
nigrum Prov., Nat. Can. xi, 142, Faun. Ent. Can. ii, 356 (= *Exochilum*).
orbitale Cress., Trans. Am. Ent. Soc. iv, 170, ♂. Tex.

pallitarse Cress., ibid. 170, ♂. Tex.
prismaticum Norton, Proc. Ent. Soc. Phil. i, 364, ♂ ♀. Can. Mass. Ct.
propinquum Cress., ibid. iv, 284, ♂. Col.
recurvum Say, Bost. Jour. i, 243; Lec. Edit. ii, 698, ♂ ♀. Ind.
relictum Fabr. (*Ophion*); Norton, Proc. Ent. Soc. Phil. i, 360, ♂ ♀. Can. U.S.
rufulum Prov., Add. Faun. Hym. 80, ♀. Can.
rufum Prov., Nat. Can. vi, 174; Faun. Ent. Can. ii, 358 (= var. *prismaticum*).
semirufum Norton, Proc. Ent. Soc. Phil. i, 362, ♀. Can. N.Y.
sexlineatum Say, Lec. Edit. i, 378, ♀. Ind.
unicolor Prov., Add. Faun. Hym. 82, ♀. Can.
verbosum Cress., Proc. Acad. Nat. Sci. Phil. 1878, 368, ♂ ♀. Cala.
vivum Cress., ibid. 368, ♀. Oregon.

OPHELTES Holmgr.

glaucopterus Linn. (*Ichneumon*); Prov., Faun. Ent. ii, 359. Can. U.S. (Eur.).

PANISCUS Grav.

albotarsatus Prov., Nat. Can. vi, 106; Faun. Ent. Can. ii, 361, ♂, 786 ♀. Can.
albovariegatus Prov., ibid. 106; Faun. Ent. Can. ii, 360, ♀. Can.
appendiculatus Prov., ibid. 105 (= *geminatus*).
canaliculatus Prov., ibid. 105 (= *Mesoleptus*).
geminatus Say (*Ophion*), Lec. Edit. i, 379. Can. U.S.
interruptus Prov., Nat. Can. vi, 107 (= *Mesoleptus*).
quebecensis Prov., ibid. 106 (= *Exetastes suaveolens*).
rufulus Prov., ibid. viii, 328 (= *Mesochorus*).
seminiger Prov., ibid. vi, 107 (= *Mesoleptus*).

CAMPOPLEX Grav.

alius Norton, Proc. Ent. Soc. Phil. i, 367, ♀. Can. Mass.
? arcticus Curtis, Ross' 2d Voyage Append. lxii. Arc.Am.
argenteus Norton, Proc. Ent. Soc. Phil. i. 365, ♀. Can. Ct. N.Y.
assitus Norton, ibid. 367, ♀. Ct.
bellus Cress., Trans. Am. Ent. Soc. iv, 172, ♂. Tex.
carinatus Prov., Nat. Can. xi, 150; Faun. Ent. Can. ii, 365, ♀. Can.
dissitus Norton, Proc. Ent. Soc. Phil. i, 367, ♀. Brit.Am.
diversus Norton, ibid. 366, ♂ ♀. Can. Ct. Mass.
expertus Cress., Trans. Am. Ent. Soc. iv, 171, ♂. Tex.
flavipennis Prov., Nat. Can. vi, 143 (= *Opheltes glaucopterus*).
genuinus Norton, Proc. Ent. Soc. Phil. i, 367, ♂ ♀. Ct.
glaucus Norton, ibid. 366, ♀. Ct.
laticinctus Cress., ibid. iv, 283, ♀. Can. Col.
lucens Prov., Nat. Can. vi, 144 (= *Mesoleptus*).
luctuosus Prov., ibid. vii, 145; Faun. Ent. Can. ii, 362, ♀. Can.
major Cress., Proc. Acad. Nat. Sci. Phil. 1878, 369, ♀. Vanc.
marginatus Prov., Nat. Can. vi, 146 (= *Limneria*).
minor Prov., ibid. xi, 150; Faun. Ent. Can. ii, 364, ♀. Can.
niger Prov., ibid. 148; Faun. Ent. Can. ii, 362, ♀. Can.
nigripes Prov., ibid. vi, 145 (= *laticinctus*).
pieridicola Pack., Proc. Bost. Soc. Nat. Hist. xxi, 20, ♀. Mass.

politus Prov., Nat. Can. vi, 144 (= *Exolytus*).
scalarius Prov., Add. Faun. Hym. 84, ♂ ♀. Can.
semirufus Prov., Faun. Ent. Can. ii, 786, ♀; Add. Faun. 84, ♂. Can.
unicolor Prov., Nat. Can. vi, 144 (= *Mesoleptus uniformis*).
vicinus Prov., ibid. 145; Faun. Ent. Can. ii, 364, ♀. Can.
villosus Norton, Proc. Ent. Soc. Phil. i, 365, ♂ ♀. Ct. N.Y.
vitticollis Norton, ibid. 365, ♀. Can. Ct. Md.
xanthogaster Brullé, Hym. 159; Nort., Proc. i, 366, ♀. N.Am.

CHAROPS Holmgr.

tibialis Cress., Trans. Am. Ent. Soc. iv, 173, ♂. Tex.

LIMNERIA Holmgr.

affinis Cress. (*Mesoleptus*), Proc. Ent. Soc. Phil. iii, 263, ♂. Ill. (var. *oxylus?*).
argentea Prov., Nat. Can. vi, 147; Faun. Ent. Can. ii, 369, ♀. Can.
argentifrons Cress. (*Mesoleptus*), Proc. Ent. Soc. Phil. iii, 261, ♂. Ill.
basilaris Prov., Nat. Can. vii, 147; Faun. Ent. Can. ii, 371, ♂, 786 ♀. Can.
brevicauda Prov., Add. Faun. Hym. 88, ♀. Can.
californica Cress., Proc. Acad. Nat. Sci. Phil. 1878, 369, ♂. Cala.
clavata Prov., Nat. Can. vii, 148; Faun. Ent. Can. ii, 371, ♀. Can.
compacta Prov., Can. Ent. xvii, 116; Add. Faun. Hym. 89, ♀. Vanc.
compressa Cress. (*Mesoleptus*), Proc. Ent. Soc. Phil. iii, 260, ♂. Pa.
conjuncta Cress., ibid. 262, ♂ ♀. Ill.
corrupta Cress., Trans. Am. Ent. Soc. iv, 172, ♀. Tex.
crassicornis Prov., Add. Faun. Hym. 88, ♂. Can.
dentata Prov. (*Macrus*), Nat. Can. vi, 150, Faun. Ent. Can. ii, 373, ♀. Can.
dimidiata Cress. (*Mesoleptus*), Proc. Ent. Soc. Phil. iii, 265, ♀. Ill.
distincta Cress., ibid. 266, ♀. N.J.
distincta Prov., Faun. Ent. Can. ii, 787. ♀. Can.
dubitata Cress. (*Mesoleptus*), Proc. Ent. Soc. Phil. iii, 259, ♀. Can. U.S.
excavata Prov., Nat. Can. vii, 146 (= *valida*).
flavipes Prov., ibid. vi, 148; Faun. Ent. Can. ii, 371, ♂. Can.
flaviricta Cress. (*Mesoleptus*), Proc. Ent. Soc. Phil. iii, 263, ♀. Can. U.S.
fugitiva Say (*Banchus*), Bost. Jour. i, 247; Lec. Edit. ii, 701, ♀. Can. U.S.
fura Cress., Trans. Am. Ent. Soc. iv, 173, ♀. Tex.
fusiformis Prov., Nat. Can. vi, 148; Faun. Ent. Can. ii, 371, ♀. Can.
Guignardi Prov., Add. Faun. Hym. 87. ♂ ♀. Can. June 1886
hostilis Cress. (*Mesoleptus*), Proc. Ent. Soc. Phil. iii, 267, ♂ (= *nigripes?*).
hyalina Prov., Nat. Can. vi, 147; Faun. Ent. Can. ii, 369, ♀. Can.
illepida Cress., Trans. Am. Ent. Soc. iv, 172, ♂. Tex.
infesta Cress., ibid. 172, ♀. Tex.
infumata Prov., Nat. Can. vi, 148; Faun. Ent. Can. ii, 370, ♀. Can.
lophyri Riley, 9th Mo. Rep. 1877, 32; Gen'l Index, 65, ♂ ♀. Mo.
macer Cress. (*Mesoleptus*), Proc. Ent. Soc. Phil. iv, 262, ♀. Col.
macrocephala Prov., Nat. Can. vi, 149 (= *Pyracmon*).
major Cress. (*Mesoleptus*), Proc. Ent. Soc. Phil. iii, 257, ♂. Pa. Del.
marginata Prov. (*Campoplex*), Nat. Can. vi, 146; Faun. Ent. Can. ii, 370. Can.
montana Cress. (*Mesoleptus*), Proc. Ent. Soc. Phil. iv, 261, ♀. Col.
nigricoxa Prov., Faun. Ent. Can. ii, 786, ♀. Can.

nigripes Cress. (*Mesoleptus*), Proc. Ent. Soc. Phil. iii, 267, ♀. Ill.
obliterata Cress., ibid. 260, ♀. Ill.
obscura Cress., ibid. 261, ♀. Pa. Ill. Tex.
oxylus Cress., ibid. 262, ♂ ♀. Pa. Del. Ill.
pallipes Prov., Nat. Can. vii, 147; Faun. Ent. Can. ii, 372, ♀. Can.
parva Prov., ibid. vi, 147; Faun. Ent. Can. ii, 368, ♀. Can.
pilosula Prov., Add. Faun. Hym. 89, ♂ ♀. Can.
plena Prov., Nat. Can. vii, 146; Faun. Ent. Can. ii, 367, ♀. Can.
porrecta Cress. (*Mesoleptus*), Proc. Ent. Soc. Phil. iii, 266, ♀. Del.
? radiolata Prov. (*Podogaster*), Nat. Can. vii, 329; Faun. Ent. Can. ii, 375. Can.
rivalis Cress., Trans. Am. Ent. Soc. iv, 173, ♂ ♀. Tex.
ruficornis Prov., Nat. Can. vii, 147; xi, 181 (= *dentata*).
ruficoxa Prov., ibid. 146; Faun. Ent. Can. ii, 372, ♀. Can.
rufipes Prov., ibid. vi, 149; Faun. Ent. Can. ii, 368, ♀. Can.
sericea Prov., ibid. viii, 148; Faun. Ent. Can. ii, 373, ♂. Can.
sessilis Prov., ibid. 148; Faun. Ent. Can. ii, 370, ♀. Can.
subrubida Cress. (*Mesoleptus*), Proc. Ent. Soc. Phil. iii, 264, ♂. N.J. Ill.
subtenuis Cress., ibid. 267, ♂. Ill.
? sulcatus Prov. (*Podogaster*), Add. Faun. Hym. 90, ♀. Can.
tibiator Cr. (*Mesoleptus*), Proc. Ent. Soc. iii, 259, ♂. N.J. Ill. (= var. *annulipes?*).
valens Cress., ibid. iv, 261, ♀. Col.
valida Cress., ibid. iii, 258, ♂ ♀. Can. U.S.
vicina Cress., ibid. 268, ♀. Pa. N.J.

PYRACMON Holmgr.

annulatum Prov., Nat. Can. xi, 182; Faun. Ent. Can. ii, 374, ♀. Can.
incompletum Prov., Add. Faun. Hym. 90, ♀. Can.
macrocephalum Prov. (*Limneria*), Nat. Can. vi, 149; Faun. ii, 374. Can.
rufum Prov., Faun. Ent. Can. ii, 787, ♀. Can.

CREMASTUS Grav.

angularis Prov., Nat. Can. vi, 176 (= *Porizon*).
apicalis Cress., Proc. Ent. Soc. Phil. iv, 286 (= var. *Anomalon fulvescens*).
fulvescens Cress., ibid. 285 (= *Anomalon*).
fusiformis Prov. (*Atractodes*), Nat. Can. vii, 332; Faun. Ent. Can. ii, 376. Can.
longicaudus Prov., Faun. Ent. Can. ii, 789, ♂ ♀. Can.
mellipes Prov. (*Atractodes*), Nat. Can. vii, 332; Faun. ii, 377, ♀. Can.
nigricans Cress., Proc. Ent. Soc. Phil. iv, 286 (= var. *Anomalon fulvescens*).
piceus Cress., Trans. Am. Ent. Soc. iv, 176, ♀. Tex.
rectus Prov., Nat. Can. vi, 175; Faun. Ent. Can. ii, 376, ♀. Can.
retiniæ Cress., Rep. Ent. U. S. Dept. Agric. 1879, 238, ♂. N.Y.
Royi Prov., Faun. Ent. Can. ii, 788, ♂ ♀. Can.
seminiger Cress., Proc. Ent. Soc. Phil. iv, 286 (= var. *Anomalon fulvescens*).

ATRACTODES Grav.

autumnalis Prov., Faun. Ent. Can. ii, 789, ♂ ♀. Can.
Cloutieri Prov., Nat. Can. vi, 150 (= *Linoceras*).
fusiformis Prov., ibid. vii, 332 (= *Cremastus*).
mellipes Prov., ibid. 332 (= *Cremastus*).

nigricoxus Prov., Faun. Ent. Can. ii, 790, ♂. Can.
nitens Prov., ibid. 790, ♂ ♀. Can.
rufipes Prov., Nat. Can. vi, 151, ♂. Can.
scapiphorus Prov., ibid. 151 ; Faun. Ent. Can. ii, 379, ♂. Can.
singularis Prov., ibid. viii, 328, ♂. Can.

MESOCHORUS Grav.

agilis Cress., Proc. Ent. Soc. Phil. iv, 266, ♀. Col.
americanus Cress., Can. Ent. iv, 23, ♀. U.S.
areolatus Prov., Faun. Ent. Can. ii, 793, ♀. Can.
atriventris Cress., Can. Ent. iv, 21, ♂. Ill.
basalis Cress., ibid. 22, ♀. Mass.
canadensis Prov., Nat. Can. vi, 299 (= *Echthrus*).
electilis Cress., Trans. Am. Ent. Soc. iv, 171, ♀. Tex.
flaviceps Prov., Nat. Can. xi, 210; Faun. Ent. Can. ii, 382, ♀. Can.
fuscipennis Brullé, Hym. 250 (= *Labena grallator*).
humeralis Prov., Faun. Ent. Can. ii, 792, ♀. Can.
iridescens Cress., Proc. Acad. Nat. Sci. Phil. 1878, 369, ♀. Cala.
jucundus Prov., Faun. Ent. Can. ii, 792. ♀. Can.
luctuosus Prov., Nat. Can. vi, 299 (= *Echthrus*).
luteipes Cress., Can. Ent. iv, 22, ♀. Can. N.J.
melleus Cress., ibid. 24, ♂. Pa.
obliquus Cress., ibid. 24, ♀. Pa.
pleuralis Prov. (*Plectiscus*), Nat. Can. vii, 330; Faun. Ent. Can. ii, 381, ♀. Can.
politus Prov., Faun. Ent. Can. ii, 791, ♀. Can.
rufulus Prov. (*Paniscus*), Nat. Can. viii, 328; Faun. Ent. Can. ii, 381, ♀. Can.
saintcyri Prov., ibid. vi, 299 (= *Echthrus abdominalis*).
scitulus Cress., Can. Ent. iv, 24, ♂ ♀. Pa.
uniformis Cress., Trans. Am. Ent. Soc. iv, 171, ♀. Tex.
vitreus Walsh, Ins. Inj. Veg. Ill. 36, fig. 9; Riley, 2d Mo. Rep. 52, ♂ ♀. Ill.

PLECTISCUS Grav.

gracilis Prov. (*Phytodietus*), Nat. Can. vii, 331; Faun. Ent. Can. ii, 382, ♀. Can.
niger Prov., Faun. Ent. Can. ii, 793, ♂ ♀. Can.
pleuralis Prov., Nat. Can. vii, 330 (= *Mesochorus*).

CYRTOCENTRUS Prov.

Provancher, Faun. Ent. Can. ii, 793 (1883).

quebecensis Prov., Faun. Ent. Can. ii, 794, ♀. Can.

PORIZON Grav.

? agilis Cress., Trans. Am. Ent. Soc. iv, 175, ♀. Tex.
albipennis Cress., Proc. Ent. Soc. Phil. iv, 287, ♀. Col.
angularis Prov. (*Cremastus*), Nat. Can. vi, 176; Faun. Ent. Can. ii, 378, ♂. Can.
audax Cress., Trans. Am. Ent. Soc. iv, 174, ♂. Tex.
borealis Prov., Nat. Can. xi, 206; Faun. Ent. Can. ii, 378, ♀. Can.
conotracheli Riley, 3d Mo. Rep. 1871, 28, fig. 9 (= *Thersilochus*).
? delicatus Cress., Trans. Am. Ent. Soc. iv, 176, ♂. Tex.

elongatus Prov., Add. Faun. Hym. 91, ♂ ♀. Can.
facilis Cress., Trans. Am. Ent. Soc. iv, 175, ♂ ♀. Tex.
fuscipennis Cress., Proc. Ent. Soc. Phil. iv, 287, ♀. Col.
hyalinipennis Cress., Trans. Am. Ent. Soc. iv, 174, ♂ ♀. Tex.
macer Cress., ibid. 175, ♂ ♀. Tex.
orbitalis Cress., ibid. 174, ♂ ♀. Tex.
rugosus Prov., Nat. Can. xi, 206; Faun. Ent. Can. ii, 378, ♀. Can.
stigmaterus Cress., Trans. Am. Ent. Soc. iv, 174, ♂ ♀. Tex.

THERSILOCHUS Holmgr.

conotracheli Riley (*Porizon*), 3d Mo. Rep. 1871, 28, fig. 9; Gen'l Index, 64. Mo.
errabundus Prov., Add. Faun. Hym. 92, ♀. Can.
maturus Prov., ibid. 92, ♀. Can.
micans Prov. (*Mesoleptus*), Nat. Can. vii, 114, ♂; Faun. Ent. Can. ii, 379, ♀. Can.
pallipes Prov., Faun. Ent. Can. ii, 789, ♀. Can.

PHARSALIA Cress.

texana Cress., Trans. Am. Ent. Soc. iv, 177, ♀. Tex.
virginiensis Cress., ibid. 177, ♂. W.Va.

EIPHOSOMA Cress.

texana Cress., Trans. Am. Ent. Soc. iv, 176, ♀. Tex.

PRISTOMERUS Curtis.

pacificus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 370, ♀. Cala.

EXETASTES Grav.

abdominalis Cress., Proc. Ent. Soc. Phil. iv, 276, ♀. Col.
affinis Cress., ibid. 277, ♀. Can. Col.
albitarsis Prov., Nat. Can. vi, 78; Faun. Ent. Can. ii, 385, ♀. Can.
bioculatus Cress., Trans. Am. Ent. Soc. iv, 169, ♂. Tex.
brevipennis Prov., Faun. Ent. Can. ii, 386, ♂ ♀. Can.
cæruleus Cress., Proc. Ent. Soc. Phil. iv, 276, ♀. Col.
canadensis Prov. (*Leptobatus*), Nat. Can. vii, 145 (= *Phygadeuon signatus*).
clavatus Prov., Faun. Ent. Can. ii, 386, ♀. Can.
consimilis Cress., Proc. Ent. Soc. Phil. iv, 278, ♂. Col.
decoloratus Cress., ibid. 280, ♂. Col.
fascipennis Cress., ibid. 278, ♀. Can. Col. Tex.
flavipennis Cress., ibid. 275, ♀. Ill. Col.
flavitarsis Cress., ibid. 277, ♂. Col.
illinoiensis Walsh (*Leptobatus*), Trans. St.Louis Acad. iii, 148, ♀. Ill.
matricus Prov., Nat. Can. xi, 213; Faun. Ent. Can. ii, 385, ♀. Can.
maurus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 370, ♀. Cala.
niger Cress., Proc. Ent. Soc. Phil. iv, 275, ♂ ♀. Col.
obscurus Cress., ibid. 281, ♀. Col.
rufofemoratus Prov., Nat. Can. xi, 212; Faun. Ent. Can. ii, 384, ♀. Can.
rufus Prov., ibid. vi, 78; Faun. Ent. Can. ii, 387 (= *Ceratosoma*).
scutellaris Cress., Proc. Ent. Soc. Phil. iv, 279, ♂ ♀. Can. Tex.

suaveolens Walsh, Trans. St. Louis Acad. iii, 146, ♂ ♀. Can. Ill.
zelotypus Cress.. Proc. Acad. Nat. Sci. Phil. 1878, 370, ♂ ♀. Cala.

CERATOSOMA Cress.

apicalis Cress., Proc. Ent. Soc. iv, 282; Walsh, Tr. St. Louis Ac. iii, 102. Col.
fasciata Cress., ibid. 283; Walsh, Tr. St. Louis Ac. iii, 103, ♂ ♀. U.S.
rufa Prov. (*Exetastes*), Nat. Can. vi, 78; xi, 213; Faun. ii, 387, 794, ♂ ♀. Can.

BANCHUS Fabr.

æquatus Say, Bost. Jour. i, 247; Lec. Edit. ii, 701. Ind.
borealis Cress., Can. Ent. i, 33, ♂. Can.
canadensis Cress., ibid. 34, ♂ ♀. Can.
caudatus Prov., Add. Faun. Hym. 121, ♀. Cala.
ferrugineus Prov., Nat. Can. xi, 217; Faun. Ent. Can. ii, 390, ♂. Can.
flavescens Cress., Can. Ent. i, 33, ♂. Can.
flavovariegatus Prov., Nat. Can. vi, 61; xi, 215; Faun. Ent. Can. ii, 388. Can.
formidabilis Prov., ibid. 61; Faun. Ent. Can. ii, 388, ♂ ♀. Can.
fugitivus Say, Bost. Jour. i, 247; Lec. Edit. ii, 701 (= *Limneria*).
inermis Prov., Nat. Can. vi, 62; Faun. Ent. Can. ii, 389, ♂ ♀. Can.
insignis Prov., ibid. 63, ♂. Can.
nervulus Say, Bost. Jour. i, 246; Lec. Edit. ii, 700. Ind.
pallescens Prov., Nat. Can. vi, 62, ♀; xi, 218; Faun. Ent. Can. ii, 391, ♂. Can.
spinosus Cress., Proc. Ent. Soc. Phil. iv, 274, ♂. Col.
superbus Cress., ibid. 273, ♂. Col.

Subfamily TRYPHONINÆ.

MESOLEPTUS Grav.*

affinis Cress., Proc. Ent. Soc. Phil. iii, 263 (= *Limneria*).
albifrons Cress., Trans. Am. Ent. Soc. ii, 98, ♀. Ct.
albocollaris Cress., ibid. 100 (= *Megastylus*).
albopleuralis Prov., Nat. Can. xi, 224; Faun. Ent. Can. ii, 397, ♂. Can.
angustus Prov., Add. Faun. Hym. 96, ♂ ♀. Can.
annulatipes Prov., ibid. 96, ♂. Can.
annulatus Prov. (*Tryphon*), Nat. Can. vii, 119; Faun. Ent. Can. ii, 397, ♀. Can.
annulipes Cress., Proc. Ent. Soc. Phil. iii, 257 (= *Limneria fugitiva*).
antennatus Cress., ibid. 272, ♂. Del.
argentifrons Cress., ibid. 261 (= *Limneria*).
assiduus Cress., Trans. Am. Ent. Soc. ii, 97, ♂. Mass.
barbatus Prov., Add. Faun. Hym. 98, ♀. Can.

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* The genera *Mesoleptus* and *Tryphon* have been made the receptacle of very discordant material, and most of the species enumerated in this list under those genera seem more properly to belong to the intermediate genus *Mesoleius*; but as this cannot be definitely ascertained without a careful study and revision of the species, and with more abundant material, they are in most cases permitted to remain in the genera in which they were originally described. The genus *Cryptocentrus* Walsh (= *Cryptocentrum* Kirby?), of which *Tryphon? submarginatus* Cress., is made the type, seems scarcely distinct from *Mesoleius*.

bicolor Cress., Proc. Ent. Soc. Phil. iii, 269, ♂. Pa.
bicoloratus Cress., Trans. Am. Ent. Soc. iv, 166, ♂. Tex.
canaliculatus Prov. (*Paniscus*), Nat. Can. vi, 105; Faun. Ent. Can. ii, 403. Can.
compressus Cress., Proc. Ent. Soc. Phil. iii, 260 (= *Limneria*).
concolor Cress., ibid. 270, ♀. Can. N.J.
conjunctus Cress., ibid. 262 (= *Limneria*).
cultus Cress., Trans. Am. Ent. Soc. ii, 99, ♂. N.J.
decens Cress., ibid. 101, ♂. Can. Ct. W.Va.
decoloratus Cress., Proc. Ent. Soc. Phil. iii, 265, ♂. Ill.
delicatus Cress., Trans. Am. Ent. Soc. iv, 166, ♂. Tex.
depressus Prov., Nat. Can. vii, 114; Faun. Ent. Can. ii, 399, ♂. Can.
dimidiatus Cress., Proc. Ent. Soc. Phil. iii, 265 (= *Limneria*).
discolor Cress., ibid. 271, ♂. Can. Del.
distinctus Cress., ibid. 266 (= *Limneria*).
dubitatus Cress., ibid. 259 (= *Limneria*).
elongatus Cress., Trans. Am. Ent. Soc. ii, 96, ♂ ♀. Mass.
erectus Prov., Nat. Can. vii, 317; Faun. Ent. Can. ii, 404, ♀. Can.
eximius Cress., Trans. Am. Ent. Soc. ii, 100, ♂. Ct.
facetus Cress., ibid. 100, ♂. W.Va.
fasciatus Prov., Can. Ent. xvii, 116, ♂. Vanc.
filiformis Prov., Add. Faun. Hym. 98, ♀. Can.
flavicornis Prov., Nat. Can. xi, 228; Faun. Ent. Can. ii, 401, ♀. Can.
flavifrons Cress., Proc. Ent. Soc. Phil. iii, 269, ♂. N.J.
flavirictus Cress., ibid. 263 (= *Limneria*).
fucatus Cress., Trans. Am. Ent. Soc. ii, 99, ♀. Can. Ct. W.Va.
honestus Cress., ibid. 98, ♂ ♀. Can. Ct. N.J.
hostilis Cress., Proc. Ent. Soc. Phil. iii, 267 (= *Limneria*).
? ignotus Cress., Trans. Am. Ent. Soc. ii, 103, ♀. W.Va.
inceptus Cress., ibid. 96, ♂ ♀. Can. Mass. Ct.
incompletus Prov., Nat. Can. vii, 270 (= *Cremastus fusiformis*).
innoxius Cress., Proc. Acad. Nat. Sci. Phil. 1878, 371, ♂. Brit.Col.
insidiosus Cress., Trans. Am. Ent. Soc. ii, 98, ♂. Mass.
interruptus Prov. (*Paniscus*), Nat. Can. vi, 107; Faun. Ent. Can. ii, 398, ♀. Can.
lætus Prov., ibid. xi, 231; Faun. Ent. Can. ii, 404, ♀. Can.
largus Prov., Add. Faun. Hym. 98, ♀. Can.
laurentianus Prov. (*Tryphon*), Nat. Can. vii, 118; Faun. Ent. Can. ii, 401. Can.
longicornis Cress., Proc. Ent. Soc. Phil. iii, 270, ♂. Del.
longipes Prov., Nat. Can. vii, 271 (= *Moyeni*).
lucens Prov. (*Campoplex*), ibid. vi, 144; Faun. Ent. Can. ii, 401, ♂. Can.
luteifrons Cress., Trans. Am. Ent. Soc. ii, 99, ♂. Brit.Am.
macer Cress., Proc. Ent. Soc. Phil. iv, 262 (= *Limneria*).
maculosus Prov., Nat. Can. vii, 114 (= *Exyston clavatus*).
major Cress., Proc. Ent. Soc. Phil. iii, 257 (= *Limneria*).
micans Prov., Nat. Can. vii, 114 (= *Thersilochus*).
montanus Cress., Proc. Ent. Soc. Phil. iv, 261 (= *Limneria*).
Moyeni Prov. (*Tryphon*). Nat. Can. vii, 120; Faun. Ent. Can. ii, 396, ♂ ♀. Can.
? muliebris Cress., Trans. Am. Ent. Soc. ii, 102, ♂. Can. W.Va.
? nasutus Cress., ibid. 103 (= *Grypocentrus*).
nigricornis Prov., Add. Faun. Hym. 99, ♀. Can.

nigripes Cress., Proc. Ent. Soc. Phil. iii, 267 (= *Limneria*).
obliteratus Cress., ibid. 260 (= *Limneria*).
obscurus Cress., ibid. 261 (= *Limneria*).
oxylus Cress., ibid. 262 (= *Limneria*).
perditus Prov., Add. Faun. Hym. 97, ♂. Can.
? peregrinus Cress., Trans. Am. Ent. Soc. ii, 102, ♂ ♀. Ct. N.J.
porrectus Cress., Proc. Ent. Soc. Phil. iii, 266 (= *Limneria*).
propinquus Cress., Trans. Am. Ent. Soc. ii, 97, ♂. Mass. Del.
pulcherrimus Cress., ibid. 101 (= *Meniscus*).
? rhopalocerus Prov. (*Baryceros*), Nat. Can. vii, 269; Faun. Ent. ii, 405, ♂. Can.
? rotundiceps Cress., Trans. Am Ent. Soc. iv, 167, ♂. Tex.
rufipes Prov. (*Mesostenus*), Nat. Can. vii, 283; Faun. Ent. Can. ii, 399, ♀. Can.
rufomixtus Prov., Add. Faun. Hym. 97, ♂ ♀. Can.
Sancti-Hyacinthi Prov., Nat. Can. vii, 251 (= *inceptus*).
scapularis Cress., Trans. Am. Ent. Soc. ii, 98, ♀. Ct.
sedulus Cress., ibid. 97, ♂. Mass. N.J.
seminiger Prov. (*Paniscus*), Nat. Can. vi, 107; Faun. Ent. ii, 403, ♂ ♀. Can.
sericeus Prov. (*Mesostenus*), ibid. vii, 264; Faun. Ent. Can. ii, 395, ♂ ♀. Can.
? stigmaterus Cress., Trans. Am. Ent. Soc. iv, 167, ♂. Tex.
? strigosus Cress., ibid. 167, ♂. Tex.
subrubidus Cress., Proc. Ent. Soc. Phil. iii, 264 (= *Limneria*).
subtenuis Cress., ibid. 267 (= *Limneria*).
tibiator Cress., ibid. 259 (= *Limneria*).
triangularis Cress., Trans. Am. Ent. Soc. ii, 101 ♂. Can. Ill.
unicolor Cress., Proc. Ent. Soc. Phil. iii, 271. Can. Pa. Del.
uniformis Prov., Nat. Can. xi, 232; Faun. Ent. Can. ii, 405, ♀. Can.
valens Cress., Proc. Ent. Soc. Phil. iv, 261 (= *Limneria*).
validus Cress., ibid. 258 (= *Limneria*).
variabilis Prov., Nat. Can. vii, 115 (= *muliebris*).
variabilis Prov., Faun. Ent. Can. ii, 795, ♀. Can.
vicinus Cress., Proc. Ent. Soc. Phil. iii, 268 (= *Limneria*).
vultus Cress., ibid. 268, ♂. Del.

ECLYTUS Holmgr.

pleuralis Prov. (*Orthocentrus*), Nat. Can. viii, 328; Faun. Ent. ii, 408, ♀. Can.
robustus Prov., Faun. Ent. Can. ii, 795, ♀. Can.

CTENOPELMA Holmgr.

sanguinea Prov. (*Tryphon*), Nat. Can. vii, 118; Faun. Ent. ii, 406, ♂ ♀. Can.

MEGASTYLUS Schiödte.

albocollaris Cress. (*Mesoleptus*), Trans. Am. Ent. Soc. ii, 100, ♂. Ill.
politus Prov., Nat. Can. vii, 331 (= *Stilpnus americanus*).

MESOLEIUS Holmgr.

? aleutianus Cress., Proc. Acad. Nat. Sci. 1878, 371, ♂. Aleutian Islands.
annulatus Prov., Add. Faun. Hym. 106, ♀. Can.
antennatus Prov., Nat. Can. xi, 260; Faun. Ent. Can. ii, 418, ♀. Can.

canadensis Prov. (*Tryphon*), ibid. vii, 117; Faun. Ent. ii, 417, ♂ ♀. Can.
fissus Prov., ibid. xi, 257; Faun. Ent. Can. ii, 415, ♂. Can.
inflatifrons Prov., Add. Faun. Hym. 107, ♀. Can.
junctus Prov., Faun. Ent. Can. ii, 797, ♂. Can.
? **ætus** Cress., Proc. Acad. Nat. Sci. Phil. 1878, 372, ♂. Vanc.
mellipes Prov. (*Echthrus*), Nat. Can. vi, 59; Faun. Ent. Can. ii, 416, ♂. Can.
niger Prov., Faun. Ent. Can. ii, 796, ♀. Can.
? **rubiginosus** Cress., Proc. Acad. Nat. Sci. Phil. 1878, 372, ♂. Cala.
Stretchii Cress., Proc. Acad. Nat. Sci. Phil. 1878, 371, ♀. Cala.
submarginatus Cress. (*Tryphon*), Proc. Ent. Soc. Phil. iii, 274; (*Cryptocentrus*) Walsh, Trans. St. Louis Acad. iii, 157, ♂ ♀. Can. U.S.
tardus Prov. (*Tryphon*), Nat. Can. vii, 119; Faun. Ent. Can. ii, 417, ♂ ♀. Can.
telarius Prov., Add. Faun. Hym. 106, ♀. Can.

TRYPHON Grav.

æthiops Cress., Trans. Am. Ent. Soc. ii, 106, ♀. Mass. Ct.
affinis Cress., Proc. Ent. Soc. Phil. iii, 277, ♀. Pa. N.J.
americanus Cress., ibid. 276, ♂. Can. Del.
analis Cress., ibid. 279, ♂. Pa.
annulatus Prov., Nat. Can. vii, 119 (= *Mesoleptus*).
annulipes Cress., Trans. Am. Ent. Soc. ii, 108 (= *Polyblastus*).
articulatus Cress., ibid. 110, ♀. Hud.Bay.
atricoxus Walsh, Trans. St. Louis Acad. iii, 104. Ill.
Burgessi Cress., Trans. Am. Ent. Soc. ii, 105, ♂. Mass.
burrus Cress., ibid. 108, ♀. Ct.
californicus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 373, ♂ ♀. Cala.
canadensis Prov., Nat. Can. vii, 117 (= *Mesoleius*).
canaliculatus Prov., ibid. 116 (= *Mesoleius submarginatus*).
capitatus Cress., Proc. Ent. Soc. Phil. iii, 281, ♂. Pa.
carinatus Cress., ibid. 273 (= *Chorinæus*).
Clapini Prov., Nat. Can. viii, 327; Faun. Ent. Can. ii, 414, ♀. Can.
clypeatus Prov., ibid. vii, 309; Faun. Ent. Can. ii, 412, ♂. Can.
communis Cress., Trans. Am. Ent. Soc. ii, 103, ♂ ♀. Can. U.S.
compressiventris Cress., ibid. 105, ♂ ♀. Mass. Ct.
crassus Cress., ibid. 107 (= *Erromenus*).
dimidiatus Cress., ibid. 108 (= *Erromenus*).
Dionnei Prov., Nat. Can. xi, 256, Faun. Ent. Can. ii, 414, ♀. Can.
dorsalis Prov., ibid. 253; Faun. Ent. Can. ii, 411, ♀. Can.
Dufresnei Prov., ibid. vii, 309; Faun. Ent. Can. ii, 411, ♂ ♀. Can.
excavatus Prov., ibid. 310; Faun. Ent. Can. ii, 412, ♂. Can.
festivus Cress., Proc. Ent. Soc. Phil. iii, 279, ♂. Ill.
fractus Prov., Add. Faun. Hym. 101, ♂. Can.
frontalis Cress., Trans. Am. Ent. Soc. ii, 109, ♀. Ct.
? **fumipennis** Prov. (*Westwoodia*), Nat. Can. vii, 329; xi, 219; Faun. ii, 392. Can.
gaspesianus Prov., ibid. xi, 252; Faun. Ent. Can. ii, 410, ♀. Can.
Hervieuxii Prov. ibid. 254; Faun. Ent. Can. ii, 412, ♀. Can.
humeralis Prov., ibid. vii, 117 (= *Bassus*).
laurentianus Prov., ibid. 118 (= *Mesoleptus*).
? **limatus** Cress., Proc. Ent. Soc. Phil. iii, 274, ♂. Del.
? **lineolatus** Kirby (*Cryptocentrum*), Faun. Bor. Am. iv, 260, pl. 6, fig. 1. Bor.Am.

lusorius Cress., Proc. Acad. Nat. Sci. Phil. 1878, 373, ♂. Cala.
minimus Cress., Proc. Ent. Soc. Phil. iii, 281, ♀. Ill.
Moyeni Prov., Nat. Can. vii, 120 (= *Mesoleptus*).
? nasutus Cress., Trans. Am. Ent. Soc. ii, 107, ♀. Ill.
obscurus Cress. (*Stilpnus*), Proc. Ent. Soc. Phil. iv, 259, ♂. Col.
occidentalis Cress., Trans. Am. Ent. Soc. ii, 109, ♀. Ill.
pedalis Cress., Proc. Ent. Soc. Phil. iii, 273 (= *Erromenus*).
pediculatus Prov., Add. Faun. Hym. 102, ♂. Can.
philanthoides Walsh; Cress., Trans, ii, 110 (= *Catocentrus*).
pleuralis Cress., Proc. Ent. Soc. Phil. iii, 275, ♀. N.J.
rufigaster Prov., Add. Faun. Hym. 104, ♂ ♀. Can.
rufocinctus Cress., Proc. Ent. Soc. Phil. iii, 280, ♀. Can. Ill.
sanguineus Prov., Nat. Can. vii, 118 (= *Ctenopelma*).
scutellaris Cress., Trans. Am. Ent. Soc. ii, 104, ♀. Ct.
scutellaris Prov., Nat. Can. vii, 310 (= *Dufresnei*).
seminiger Cress., Proc. Ent. Soc. Phil. iii, 278, ♀. Can. Ill.
semirufus Cress., ibid. 278, ♀. Ill.
signatipes Cress., Trans. Am. Ent. Soc. ii, 105, ♀. Hud.Bay.
subcrassus Cress., ibid. 109 (= *Polyblastus*).
? submarginatus Cress., Proc. Ent. Soc. Phil. iii, 274 (= *Mesoleius*).
tardus Prov., Nat. Can. vii, 119 (= *Mesoleius*).
tarsalis Cress., Trans. Am. Ent. Soc. ii, 106, ♂ ♀. Ct.
tejonicus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 372, ♂. Cala.
tibialis Cress., Proc. Ent. Soc. Phil. iii, 280, ♂. Ill.
trifasciatus Cress., ibid. 276 (= *Exochoides*).
tuberculifer Prov., Add. Faun. Hym. 103, ♀. Can.
varifrons Cress., Trans. Am. Ent. Soc. ii, 104, ♂. Mass. Ct.

GRYPOCENTRUS Ruthe.

nasutus Cress. (*Mesoleptus*), Trans. Am. Ent. Soc. ii, 103, ♂ ♀. Pa.

EUCEROS Grav.

burrus Cress., Can. Ent. i, 104, ♀. Can.
canadensis Cress., ibid. 103, ♀. Can.
Couperii Cress., ibid. 104, ♂. Can.
flavescens Cress., ibid. 105, ♂ ♀. Ct. W.Va.
frigidus Cress., ibid. 105, ♀. Can. Me.
medialis Cress., ibid. 105, ♀. Can. Mass.
quebecensis Prov., Nat. Can. vi, 30 (= *Polyblastus*).
thoracicus Cress.. Can. Ent. i, 105, ♂. Ct.

CATOCENTRUS Walsh.

dilatatus Prov., Nat. Can. vii, 316 (= *Polyblastus*).
philanthoides Cress. (*Tryphon*), Trans. ii, 110; Walsh, Tr. St. L. Ac. iii, 90. Ill.

POLYBLASTUS Hartig.

annulicornis Prov., Add. Faun. Hym. 108, ♀. Can.
annulipes Cress. (*Tryphon*), Trans. Am. Ent. Soc. ii, 108, ♀. Can.
decoratus Prov., Add. Faun. Hym. 107, ♀. Can.

? dilatatus Prov. (*Catocentrus*), Nat. Can. vii, 316; xi, 261; Faun. ii, 419. Can.
inornatus Prov., Add. Faun. Hym. 108, ♀. Can.
quebecensis Prov. (*Euceros*), Nat. Can. vi, 30, Faun. Ent. Can. ii, 420, ♀. Can.
subcrassus Cress. (*Tryphon*), Trans. Am. Ent. Soc. ii, 109. Can. Mass. Ct. Pa.

ERROMENUS Holmgr.

Bedardi Prov., Nat. Can. xi, 266; Faun. Ent. Can. ii, 424, ♀. Can.
crassus Cress. (*Tryphon*), Trans. Am. Ent. Soc. ii, 107, ♂ ♀. Can. Mass. N.J.
dimidiatus Cress. (*Tryphon*), ibid. 108, ♂. Can. N.J. Pa.
marginatus Prov., Faun. Ent. Can. ii, 797, ♀. Can.
obscurellus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 373, ♀. Cala.
pedalis Cress. (*Tryphon*), Proc. Ent. Soc. Phil. iii, 273, ♀. Can. Ill.
tristis Prov., Add. Faun. Hym. 110, ♀. Can.

CTENISCUS Hal.

abdominalis Cress., Proc. Ent. Soc. Phil. iv, 264 (= *Exyston*).
albilineatus Walsh, Trans. St. Louis Acad. iii, 107. Ill.
annulipes Cress., Trans. Am. Ent. Soc. ii, 112, ♂. Mass.
apicatus Prov., Nat. Can. xi, 263; Faun. Ent. Can. ii, 421, ♂. Can.
californicus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 374, ♂. Cala.
canadensis Prov. (*Exenterus*), Faun. Ent. Can. ii, 796, ♂ ♀. Can.
clavatus Cress., Proc. Ent. Soc. Phil. iii, 284 (= *Exyston*).
clypeatus Cress., Trans. Am. Ent. Soc. ii, 113, ♀. Can. Brit.Am.
concolor Prov., Nat. Can. vii, 139 (= *Mesoleptus concolor*).
consors Cress., Trans. Am. Ent. Soc. ii, 113, ♀. Can. Ct.
crassipes Prov., Add. Faun. Hym. 109, ♀. Can.
dorsalis Cress., Proc. Ent. Soc. Phil. iii, 282, ♂. Ill.
excelsus Cress., ibid. iv, 262 (= *Exyston*).
flavicoxæ Cress., Proc. Ent. Soc. Phil. iii, 283, ♀; Walsh (*Exenteron*), Trans. St. Louis Acad. iii, 105, ♂. Can. Del Ill.
hullensis Prov. (*Exenterus*), Add. Faun. Hym. 104, ♂ ♀. Can.
mediatus Cress., Proc. Ent. Soc. Phil. iii, 282, ♂. Can. Ill.
orbitalis Cress., ibid. 283, ♂. Can. Pa.
ornatus Walsh (*Exenteron*), Trans. St. Louis Acad. iii, 105, ♂. Ill.
rufus Prov., Nat. Can. viii, 318; Faun. Ent. Can. ii, 423, ♀. Can.
venustus Cress., Proc. Ent. Soc. Phil. iv, 263 (= *Exyston*).
vitticollis Cress., Trans. Am. Ent. Soc. ii, 113, ♂. Mass.

EXYSTON Schiödte.

abdominalis Cress. (*Cteniscus*), Proc. Ent. Soc. Phil. iv, 264, ♀. Col.
clavatus Cress. (*Cteniscus*), ibid. iii, 284, ♂. Can. Del.
excelsus Cress. (*Cteniscus*), ibid. iv, 262, ♀. Col.
marginatum Prov., Add. Faun. Hym. 99, ♀. Can.
variatus Prov., Nat. Can. xi, 249; Faun. Ent. Can. ii, 407, ♀. Can.
venustus Cress. (*Cteniscus*), Proc. Ent. Soc. Phil. iv, 263, ♀. Col.

EXOCHOIDES Cress. (= *Colpotrochia* Holmgr.?)

texana Cress., Trans. Am. Ent. Soc. iv, 167, ♂. Tex.
trifasciata Cress. (*Tryphon*), Proc. Ent. Soc. Phil. iii, 276, ♂. Pa.

EXOCHUS Grav.

albiceps Walsh, Trans. St. Louis Acad. iii, 96, ♂. Ill.
albifrons Walsh, ibid. 94; Cress., Trans. Am. Ent. Soc. ii, 114. ♂ ♀. Can. Ill.
annulicrus Walsh, ibid. 95, ♂. Ill.
apicalis Cress., Proc. Ent. Soc. Phil. iii, 285, ♂. Ill.
atriceps Walsh, Trans. St. Louis Acad. iii, 95, ♂. Ill.
atrocoxalis Cress., Trans. Am. Ent. Soc. ii, 114, ♀. Dakota, Tex.
brunnipes Cress., Proc. Acad. Nat. Sci. Phil. 1878, 374, ♀. Nev.
dorsalis Cress., Proc. Ent. Soc. Phil. iii, 286, ♂. N.J.
evectus Cress., Trans. Am. Ent. Soc. iv, 168, ♀. Tex.
fulvipes Cress., Proc. Ent. Soc. Phil. iii, 285, ♂ ♀. Can. Pa.
lævis Cress., ibid. iii, 286; Walsh, Tr. St. Louis Ac. iii, 93, ♂ ♀. Can. Ill. Col.
pallipes Cress., ibid. 287, ♂. Ill.
pleuralis Cress., ibid. 286, ♂. Ill.
propinquus Cress., Trans. Am. Ent. Soc. ii, 114, ♂ ♀. Me. Mass. Ct.
pygmæus Cress., Proc. Ent. Soc. Phil. iii, 285, ♂. Can. Ill.
rufomaculatus Prov., Add. Faun. Hym. 113, ♀. Can.
semirufus Cress., Trans. Am. Ent. Soc. ii, 114, ♂ ♀. Can. Mass. Ct. N.Y.
texanus Cress., ibid. iv, 168, ♂. Tex.

CHORINÆUS Holmgr.

carinatus Cress. (*Tryphon*), Proc. Ent. Soc. Phil. iii, 273, ♂. Can. Ill.
cariniger Walsh (*Polyrhabdus*), Trans. St. Louis, Acad. iii, 98, ♂ ♀. Ill.
pulchripes Prov., Faun. Ent. Can. ii, 800, ♀. Can.

ORTHOCENTRUS Grav.

abdominalis Prov. (*Alomya*), Nat. Can. vii, 121; Faun. Ent. Can. ii, 435. Can.
albofasciatus Prov., Faun. Ent. Can. ii, 800, ♀. Can.
canadensis Prov., Nat. Can. vii, 142; Faun. Ent. Can. ii, 435, ♂. Can.
carinatus Prov., ibid. xi, 281; Faun. Ent. Can. ii, 436, ♂. Can.
lucens Prov., ibid. xi, 280; Faun. Ent. Can. ii, 435, ♀. Can.
pilifrons Prov., ibid. 279; Faun. Ent. Can. ii, 434, ♀. Can.
pleuralis Prov., ibid. vii, 328 (= *Eclytus*).
pusillus Walsh (*Exochiscus*), Trans. St. Louis Acad. iii, 97, ♂. Ill.
stigmatias Walsh, ibid. 101, ♀. Ill.
trifasciatus Walsh, ibid. 100, ♀. Ill.

BASSUS Grav.

agilis Cress., Trans. Am. Ent. Soc. ii, 111, ♂. Can. U.S.
albicoxus Prov., Nat. Can. vi, 56 (= *orbitalis*).
amœnus Prov., ibid. 55 (= *orbitalis*).
areolatus Prov., ibid. 58 (= *Lampronota punctulata*).
Belangeri Prov., ibid. 56; Faun. Ent. Can. ii, 430, ♀. Can.
bicapillaris Walsh, Trans. St. Louis Acad. iii, 88, ♂. Ill.
Bouleti Prov., Nat. Can. vi, 32 (= *Erromenus pedalis*).
cinctulus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 375, ♂ ♀. Cala.
cingulatus Prov., Faun. Ent. Can. ii, 798, ♀. Can.
concinnus Cress., Trans. Am. Ent. Soc. ii, 111, ♀. Ct.
costalis Prov., Nat. Can. vi, 58; Faun. Ent. Can. ii, 432, ♀. Can.

cylindricus Prov., Add. Faun. Hym. 111, ♂ ♀. Can.
decoratus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 375, ♂. Cala.
dorsalis Prov., Add. Faun. Hym. 112, ♀. Can.
elongatus Prov., Nat. Can. vi, 57; Faun. Ent. Can. ii, 799, ♂ ♀. Can.
frigidus Cress., Trans. Am. Ent. Soc. ii, 111, ♀. Hud.Bay.
frontalis Cress., ibid. 111, ♀. Can. Ct. Pa. Ill.
fuscitarsus Prov., Nat. Can. vii, 143; Faun. Ent. Can. ii, 430, ♂. Can.
gibbosus Say, Bost. Jour. i, 250; Lec. Edit. ii, 704, ♀. Ind. (a *Braconid?*).
humeralis Prov. (*Tryphon*), Nat. Can. vii, 117; Faun. Ent. Can. ii, 429, ♂ ♀. Can.
ichneumonides Prov., ibid. vi, 57; Faun. Ent. Can. ii, 432, ♂ ♀. Can.
limitaris Say, Bost. Jour. i, 250; Lec. Edit. ii, 703 (= *Earinus*).
longicornis Prov., Faun. Ent. Can. ii, 799, ♀. Can.
maculifrons Cr., Proc. Ent. Soc. Phil. iv, 272; Proc. Acad. 1878, 374. Col. Cala.
orbitalis Cress., ibid. 272, ♀. Can. Col.
pacificus Cress., Proc. Acad. Nat. Sci. 1878, 376, ♂ ♀. Vanc. Cala.
pallipennis Prov., Nat. Can. vi, 56; Faun. Ent. Can. ii, 431, ♀. Can.
pectoralis Prov., ibid. 32; Faun. Ent. Can. ii, 431, ♂. Can.
pleuralis Cress., Trans. Am. Ent. Soc. ii, 111, ♀. Ohio.
pulchripes Prov., Nat. Can. vii. 143; Faun. Ent. Can. ii, 428, ♂ ♀. Can.
ruficrus Walsh, Trans. St. Louis Acad. iii, 86, ♂. Ill.
saginatus Prov., Nat. Can. xi, 277; Faun. Ent. Can. ii, 432, ♀. Can.
sanctus Say, Bost. Jour. i, 249; Lec. Edit. ii, 703, ♀. Ind. (= *Microdus?*).
scapulatus Prov., Faun. Ent. Can. ii, 798, ♀. Can
scutellaris Cress., Trans. ii, 112; Walsh, St. Louis Acad. iii, 84, ♂ ♀. Can. Ill.
semifasciatus Walsh, Trans. St. Louis Acad. iii, 87, ♂. Ill.
sycophanta Walsh, ibid. 86; Cress., Trans. ii, 112, ♂ ♀. Can. U.S.
tibialis Cress., Trans. Am. Ent. Soc. ii, 110, ♀. Can. Ill.
tripicticrus Walsh, Trans. St. Louis Acad. iii, 85, ♂ ♀. Ill.

METOPIUS Grav.

basalis Cress., Proc. Ent. Sec. A. N. S. 1879, xxvii, ♀. Fla.
bellus Cress., ibid. xxviii, ♂. Nev.
comptus Cress., ibid. xxviii, ♀. Col.
concinnus Cress., ibid. xxviii, ♂. Nev.
cordiger Brullé, Hym. 120 (= *pollinctorius*).
Edwardsii Fress., Proc. Acad. Nat. Sci. Phil. 1878, 376, ♂. Wash.Terr.
?Hagenii Cress., Trans. Am. Ent. Soc. iv, 168, ♀. Tex.
laticinctus Cress., Proc. Ent. Sec. A. N. S. 1879, xxix, ♀. Col.
mirandus Cress., ibid. xxix, ♀. Col.
montanus Cress., ibid. xxviii, ♂. Col.
nevadensis Cress., ibid. xxvii. ♂ ♀. Nev.
pinatorius Brullé, Hym. 120 (= *pollinctorius*).
pollinctorius Say (*Peltastes*), Lec. Edit. ii, 700; Walsh, Trans. St. Louis Acad. iii, 91, ♂ ♀. U.S.
pulchellus Cress., Proc. Ent. Soc. Phil. iv, 271, ♀. Col.
robustus Cress., Proc. Ent. Sec. A. N. S. 1879, xxvii, ♀. Md.
rufipes Cress., Proc. Ent. Soc. Phil. iv, 270, ♀. Col.
scitulus Cress., Proc. Ent. Sec. A. N. S. 1879, xxix, ♂. Nev.

Subfamily PIMPLINÆ.

COLEOCENTRUS Grav.

mellipes Prov., Add. Faun. Hym. 113, ♂. Can.
occidentalis Cress., Proc. Acad. Nat. Sci. Phil. 1878, 376, ♀. Vanc.
Pettitii Cress., Can. Ent. i, 35; Prov. Faun. Ent. Can. ii, 440, ♀. Can.
quebecensis Prov., Nat. Can. vi, 79 (= *Pettitii*).
rufus Prov., ibid. viii, 316; xii, 9; Faun. Ent. Can. ii, 441, ♀. Can.

AROTES Grav.

amœnus Cress., Can. Ent. i, 34; Trans. Am. Ent. Soc. ii, 260, ♂ ♀. Can. U.S.
decorus Say (*Acænitus*), Lec. Edit. ii, 702; Walsh, Tr. St. Louis Ac. iii, 149. U.S.
elegans Prov. (*Tropistes*), Nat. Can. vi, 80 (= *amœnus*).
formosus Cress., Can. Ent. i, 34; Trans. Am. Ent. Soc. ii, 260, ♂ ♀. Can. Mass.
superbus Prov., Nat. Can. vi, 81 (= *vicinus*).
venustus Cress., Trans. Am. Ent. Soc. ii, 260, ♂ ♀. Mass. W.Va.
vicinus Cress., ibid. 260, ♂. Can. Mass.

ACÆNITUS Latr.

canadensis Prov., Nat. Can. xii, 10; Faun. Ent. Can. ii, 442, ♂. Can.
decorus Say, Bost. Jour. i, 248; Lec. Edit. ii, 702 (= *Arotes*).
flavipes Prov., Nat. Can. vi, 80; xii, 10; Faun. Ent. Can. ii, 441, ♀. Can.
melleus Say, Bost. Jour. i, 249; Lec. Edit. ii, 703, ♀. Ind.
rupinsulensis Walsh, Tr. St. Louis Ac. iii, 152; Cress., Trans. iii, 143, ♂ ♀. Ill.
stigmapterus Say, Lec. Edit. i, 218 (= *Xylonomus*).

RHYSSA Grav.

albomaculata Cr., Proc. Ent. Soc. iii, 318, ♀. Can. U.S. (= var. *persuasoria ?*).
canadensis Cress., Can. Ent. i, 35, ♀. Can.
clavata Prov. (*Epirhyssa*), Add. Faun. Hym. 115, ♀. Can.
Crevieri Prov. (*Epirhyssa*), Nat. Can. xii, 17; Faun. En. . Can. ii, 449, ♂. Can.
humida Say (*Pimpla*), Lec. Edit. ii, 683; Walsh, Tr. St. Louis Ac. iii, 108. Ind. Ill.
levigata Brullé, Hym. 78, pl. 40, fig. 2 (= *Thalessa atrata* ♂).
nitida Cress., Proc. Ent. Soc. Phil. iii, 319 (= *Thalessa*).
Nortoni Cress., ibid. 317 (= *Thalessa*).
persuasoria Linn. (*Ichneumon*); Cress., ibid. iv, 270; Prov., Faun. Ent. Can. ii, 447, ♂ ♀. Can. U.S. (Eur.).

THALESSA Holmgr.

atrata Fabr. (*Ichneumon*); Brullé, Hym. pl. 40, fig. 1; Prov., Faun. Ent. Can. ii, 445, ♂ ♀. Can. U.S.
lunator Fabr. (*Ichneumon*); Prov., ibid. 446, ♂ ♀. Can. U.S.
nitida Cress. (*Rhyssa*), Proc. Ent. Soc. Phil. iii, 319, ♂. Can. Va.
Nortoni Cress. (*Rhyssa*), ibid. 317, ♀. Can. Col.
quebecensis Prov., Nat. Can. v, 447, ♂ ♀. Can.

EPHIALTES Grav.

albipes Cress., Trans. Am. Ent. Soc. iii, 143, ♀. Can. N.J.
Comstockii Cress., Rep. Ent. U. S. Dept. Agric. 1879, 235, ♀. N.Y.
gigas Walsh, Trans. St. Louis Acad. iii, 110, ♀. Can. Ill.
irritator Fabr. (*Ichneumon*); Walsh, Trans. St. Louis Acad. iii, 112, ♀. Can. U.S.
macer Cress., Can. Ent. i, 35, ♂ ♀. Can.
manifestator Grav., Ichn. Eur. iii, 232 (= *rex*).
occidentalis Cress., Proc. Ent. Soc. Phil. iv, 269, ♀. Can. Col.
perlongus Cress., ibid. iii, 143, ♂. Mass.
pusio Walsh, Trans. St. Louis Acad. iii, 111, ♀. Ill.
pygmæus Walsh, ibid. 111, ♀. Can. Ill.
rex Kriechb., Stett. Ent. Zeits. xv, 155. U.S. (Eur.)
thoracicus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 377, ♀. Vanc.
tuberculatus Fourcr. (*Ichneumon*); Grav., Ichn. Eur. iii, 228. Can. U.S. (Eur.)
variatipes Prov., Add. Faun. Hym. 114, ♂. Can.

EPIMECIS Brullé.

Wiltii Cress., Trans. Am. Ent. Soc. iii, 143, ♀. Ohio.

PERITHOUS Holmgr.

pleuralis Cress., Can. Ent. i, 36, ♀. Can.

THERONIA Holmgr.

fulvescens Cress. (*Pimpla*), Proc. Ent. Soc. Phil. iv, 268, ♂. Col.
melanocephala Brullé (*Pimpla*), Hym. 99; Walsh, Trans. St. Louis Acad. iii, 131, ♂ ♀. Can. U.S.

PIMPLA Fabr.

æqualis Prov., Nat. Can. xii, 36; Faun. Ent. Can. ii, 457, ♀. Can.
alboricta Cress., Trans. Am. Ent. Soc. iii, 147; Walsh, Trans. St. Louis Acad. iii, 143, ♂. Can. Pa. Del.
animosa Cress., ibid. iv, 165, ♀. Tex.
annulicornis Cress., ibid. iii, 147; Walsh, Tr. St. Louis Ac. iii, 135. Can. Pa. Ill.
annulipes Brullé, Hym. 102; Walsh, loc. cit. 133, ♂ ♀. Can. U.S.
aquilonia Cress., Trans. Am. Ent. Soc. iii, 145, ♂. Me.
atrocoxalis Cress., ibid. 145, ♀. Hud.Bay.
Behrensii Cress., Proc. Acad. Nat. Sci. Phil. 1878, 377, ♂ ♀. Cala.
coelebs Walsh, Trans. St. Louis Acad. iii, 141 (= *inquisitor*).
conquisitor Say (*Cryptus*); Walsh, St. Louis Acad. iii, 137, ♂ ♀. Can. U.S.
fulvescens Cress., Proc. Ent. Soc. Phil. iv, 268 (= *Theronia*).
hirticauda Prov., Add. Faun. Hym. 116, ♀. Can.
humida Say, Bost. Jour. Nat. Hist. i, 224 (= *Rhyssa*).
incompleta Cress., Trans. Am. Ent. Soc. iii, 147, ♀. Ill.
indagatrix Walsh; Cress., ibid. 146; Walsh, Tr. St. L. Ac. iii, 141, ♂. Can. U.S.
inquisitor Say (*Ichneumon*); Walsh, St. Louis Acad. iii, 138, ♂ ♀. Can. U.S.
investigatrix Walsh, Trans. St. Louis Acad. iii, 142, ♀. Ill.
maura Cress., Trans. Am. Ent. Soc. iii, 145, ♀. Tex.

melanocephala Brullé, Hym. 99 (= *Theronia*).
notanda Cress., Trans. Am. Ent. Soc. iii, 148, ♂ ♀. Pa. N.J. Col. Tex.
novita Cress., ibid. 146, ♀. Can. Mass.
ontario Cress., ibid. 146, ♂. Can.
pedalis Cress., Proc. Ent. Soc. iv, 268; Walsh, Tr. St. L. Ac. iii, 132. Can. U.S.
? **petiolatus** Say, Bost. Jour. Nat. Hist. i, 224. Ind.
petulca Cress., Trans. Am. Ent. Soc. iv, 165, ♀. Tex.
picticornis Cress., ibid. iii, 146, ♂. Can. N.J.
pictipes Walsh, Trans. St. Louis Acad. iii, 135, ♀. Ill.
pterelas Say (*Ichneumon*), Walsh, Tr. St. Louis Ac. iii, 133, ♀. Can. Ind. Ill.
4-cingulata Prov., Nat. Can. xii, 38; Faun. Ent. Can. ii, 459, ♀. Can.
rufipes Brullé, Hym. 102, ♂ ♀. "N.Am." (probably S.Am.)
rufopectus Cress., Trans. Am. Ent. Soc. iii, 148, ♀. Can. Pa.
rufovariata Cress., ibid. 149, ♀. Can. Pa. N.J.
sanguinipes Cress., ibid. iv, 165, ♀. Tex.
scriptifrons Cress., ibid. iii, 148; Walsh, Tr. St. Louis Acad. iii, 139. Can. U.S.
tenuicornis Cress., Proc. Ent. Soc. Phil. iv, 267, ♀. Can. Col.
texana Cress., Trans. Am. Ent. Soc. iii, 145, ♀. Tex.
vidua Walsh, Trans. St. Louis Acad. iii, 140, ♀. Ill.

POLYSPHINCTA Grav.

acuta Prov., Nat. Can. xii, 44; Faun. Ent. Can. ii, 465, ♀. Can.
albipes Cress., Rep. Ent. U. S. Dept. Agric. 1879, 208, ♂. Fla.
Bruneti Prov., Nat. Can. v, 471; xii, 45; Faun. Ent. Can. ii, 466, ♀. Can.
Burgessii Cress., Trans. Am. Ent. Soc. iii, 149, ♂. Can. Mass.
cingulata Prov., Nat. Can. vii, 141; xii, 45; Faun. Ent. Can. ii, 466, ♀. Can.
limata Cress., Trans. Am. Ent. Soc. iii, 150, ♀. Can. Mass. N.J.
nigriceps Walsh, Trans. St. Louis Acad. iii, 144, ♂ ♀. Ill.
nigrita Walsh, ibid. 144, ♂. Ill.
pimploides Walsh, ibid. 145, ♀. Ill.
pleuralis Prov., Nat. Can. vii, 312 (= *Bassus pulchripes*).
rubricapensis Prov., ibid. v, 470; xii, 44; Faun. Ent. Can. ii, 465, ♀. Can.
rufopectus Prov., ibid. vii, 140 (= *limata*).
texana Cress., Trans. Am. Ent. Soc. iii, 149, ♀. Tex.
vicina Prov., Nat. Can. v, 470; xii, 44; Faun. Ent. Can. ii, 465, ♂. Can.

CLISTOPYGA Grav.

annulipes Cress., Trans. Am. Ent. Soc. iii, 150, ♀. Mass.
canadensis Prov., Nat. Can. xii, 46; Faun. Ent. Can. ii, 467, ♀. Can.
truncata Prov., Faun. Ent. Can. ii, 801, ♀. Can.

GLYPTA Grav.

albomarginata Cress., Trans. Am. Ent. Soc. iii, 157, ♀. Me.
alboscutellaris Walsh, Trans. St. Louis Acad. iii, 127, ♂. Ill.
animosa Cress., Trans. Am. Ent. Soc. iii, 154, ♀. N.Y.
borealis Cress., ibid. 158, ♂. Can.
californica Prov., Add. Faun. Hym. 117, ♀. Cala.
canadensis Cress., Trans. Am. Ent. Soc. iii, 157, ♀. Can.
coloradensis Cress., ibid. 158, ♂. Col.

dakota Cress., ibid. 158, ♂ ♀. Dak.
divaricata Say (*Anomalon*), Lec. Edit. ii, 699. Fla. (= *pulchripes?*)
diversipes Walsh, Trans. St. Louis Acad. iii, 125, ♀. Ill.
erratica Cress., Trans. Am. Ent. Soc. iii, 152, ♂ ♀. Can. U.S.
inversa Cress., ibid. 153, ♀. Mass.
longiventris Cress., ibid. 154; Walsh, Tr. St. Louis Acad. iii, 128, ♂ ♀. Ill.
macra Cress., ibid. 158, ♀. Can.
militaris Cress., ibid. 154, ♀. Ill.
monita Cress., ibid. 155, ♀. W.Va.
? parva Cress., ibid. 155, ♀. Ill.
pulchripes Cress., ibid. 153, ♀. W.Va. (= *divaricata?*).
rubripes Cress., ibid. 156, ♂ ♀. Can.
ruficornis Prov.. Nat. Can. v, 473 (= *macra*).
ruficornis Walsh, Trans. St. Louis Acad. iii, 129, ♂. Ill.
rufipluralis Walsh, ibid. 125, ♂. Ill.
rufiscutellaris Cress., Trans. Am. Ent. Soc. iii, 153; Walsh, l. c. 126, ♂ ♀. U.S.
rufofasciata Cress., ibid. 158, ♂. Can. Ill.
rugulosa Prov., Faun. Ent. Can. ii, 801, ♂. Can.
scitula Cress., Trans. Am. Ent. Soc. iii, 155; Walsh, Tr. St. L. Ac. iii, 129. N.J.
simplicipes Cress., ibid. 156; Walsh, l. c. 123, ♂ ♀. U.S.
tuberculifrons Cress., ibid. 152; Walsh, l. c. 124, ♂ ♀. Can. Ill.
varipes Cress., Proc. Ent. Soc. Phil. iv, 267, ♀. Col.
virginiensis Cress., Trans. Am. Ent. Soc. iii, 157, ♀. W.Va.
vulgaris Cress., ibid. 154, ♂ ♀. U.S.

SCHIZOPYGA Grav.

frigida Cress., Trans. Am. Ent. Soc. iii, 159, ♀. Hud.Bay.

ARENETRA Holmgr.

canadensis Cress., Can. Ent. i, 36, ♂. Can.
nigrita Walsh (*Lampronota*); Cress., Trans. Am. Ent. Soc. iii, 159. Can. U.S.
quebecensis Prov., Nat. Can. vii, 141 (= *Lampronota tegularis*).
rufipes Cress., Trans. Am. Ent. Soc. iii, 159, ♀. Can. Me.
ventralis Cress., ibid. 160, ♂. N.Y. Pa.

CYLLOCERIA Schiödte.

Lemoinei Prov., Nat. Can. v, 471; xii, 47; Faun. Ent. Can. ii, 468, ♂ ♀. Can.
occidentalis Cress., Trans. iii, 160: Walsh, St. Louis Ac. iii, 114, ♂ ♀. Can. U.S.

LAMPRONOTA Curtis.

agilis Cress., Trans. Am. Ent. Soc. iii, 164, ♀. N.Y. Pa.
albifacies Prov., Nat. Can. v, 475 (= *pleuralis*).
americana Cress., Trans. iii, 164; Walsh, Tr. St. Louis Ac. iii, 121, ♀. Can. U.S.
amphimilæna Walsh, Trans. St. Louis Acad. iii, 117, ♂. Ill.
breviventris Walsh, ibid. 120, ♀. Ill.
brunnea Cress. (*Lissonota*), Can. Ent. i, 37, ♀. Can.
coloradensis Cress., Trans. Am. Ent. Soc. iii, 165, ♀. Col.
Edwardsii Cress., Proc. Acad. Nat. Sci. Phil. 1878, 379, ♀. Vanc.

exigua Cress., Trans. Am. Ent. Soc. iii, 164, ♀. W.Va,
ex[illegible]lis Cress., ibid. 165, ♂ ♀. Can. Mass. Ct.
frigida Cr. (*Lissonota*), Can. Ent. i, 36, ♀; Walsh, loc. cit. 118, ♂. Can. Ill.
gelida Cress., Proc. Acad. Nat. Sci. Phil. 1878, 377, ♂. Brit.Col.
hilaris Cress., ibid. 378, ♀. Cala.
humeralis Prov., Nat. Can. v, 476; xii, 75; Faun. Ent. Can. ii, 479, 802. Can.
imitatrix Walsh, Trans. St. Louis Acad. iii, 121, ♀. Ill.
insita Cress., Trans. Am. Ent. Soc. iii, 162, ♀. Can. N.J.
interpellata Walsh, Trans. St. Louis Acad. iii, 118, ♂. Ill.
?jocosa Cress., Trans. Am. Ent. Soc. iii, 162, ♂. Can. Ill.
lævigata Cress., ibid. 162, ♀. Can.
?lugubris Cress., Proc. Acad. Nat. Sci. Phil. 1878, 379, ♀. Brit.Col.
macra Cress.; Trans. Am. Ent. Soc. iii, 163, ♂. Del.
marginata Prov., Nat. Can. v, 474; xii, 73; Faun. Ent. Can. ii, 476, ♀. Can.
montana Cress., Proc. Ent. Soc. Phil. iv, 267, ♀. Col.
nigricornis Prov., Nat. Can. v, 476; xii, 73; Faun. Ent. Can. ii, 477, ♀. Can.
nigripes Prov., Add. Faun. Hym. 118, ♀. Can.
nigrita Walsh, Trans. St. Louis Acad. iii, 122 (= *Arenetra*).
occidentalis Cress., Trans. Am. Ent. Soc. iii, 161, ♀. Pa.
parva Cress., ibid. 163, ♀. Can. U.S.
pictiventris Walsh, Trans. St. Louis Acad. iii, 119, ♂. Ill.
pleuralis Cress., Trans. Am. Ent. Soc. iii, 161, ♂ ♀. Can. U.S.
pulchella Cress., ibid. 162, ♂. N.J.
punctulata Cress., ibid. 163, ♀. Can. U.S.
rubrica Cress., ibid. 165; Walsh, Tr. St. Louis Ac. iii, 122, ♀. U.S.
rufipes Cress. (*Lissonota*), Can. Ent. i, 36, ♀. Can.
rufipes Prov., Nat. Can. v, 476; xii, 73; Faun. Ent. Can. ii, 477, ♀. Can.
scutellaris Cress., Trans. Am. Ent. Soc. iii, 161 (= *Meniscus*).
segnis Cress., Proc. Acad. Nat. Sci. Phil. 1878, 378, ♂. Vanc.
tegularis Cress., Trans. iii, 163; Walsh, St. Louis Acad. iii, 116, ♂. Can. U.S.
varia Cress., ibid. 164, ♂. Can. U.S.
vivida Cress., Proc. Acad. Nat. Sci. Phil. 1878, 378, ♂. Vanc.

MENISCUS Schiödte.

Bethunei Cress., Can. Ent. i, 105, ♀. Can.
Crevieri Prov., Nat. Can. vi, 29 (= *scutellaris*).
elegans Cress., Trans. Am. Ent. Soc. iii, 165, ♂ ♀. Can. U.S.
marginatus Prov., Faun. Ent. Can. ii, 802, ♀. Can.
mirabilis Cress., Trans. Am. Ent. Soc, iii, 166, ♀. Mass.
pulcherrimus Cress. (*Mesoleptus*), ibid. ii, 101, ♂. Can. Ct.
scutellaris Cress. (*Lampronota*), ibid. iii, 161; Walsh, Trans. St. Louis Acad. iii, 116, ♀. Can. W.Va. Ill.
superbus Prov., Nat Can. vi, 30; xii, 78; Faun. Ent. Can. ii, 482, ♀. Can.

PHYTODIETUS Grav.

californicus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 380, ♀. Cala.
distinctus Cress., Trans. iii, 166; Walsh, Tr. St. L. Ac. iii, 156, ♀. Can. U.S.
gracilis Prov., Nat. Can. vii, 331 (= *Plectiscus*).
obscurellus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 379, ♀. Cala.

pleuralis Cress., Proc. Ent. Soc. Phil. iv, 266, ♂. Col.
vulgaris Cress., iii, 166; Walsh, Tr. St. Louis Ac. iii, 154, ♂ ♀. Can. U.S.
zonatus Prov., Nat. Can. vi, 79; xii, 80; Faun. Ent. Can. ii, 483, ♀. Can.

XORIDES Grav.

borealis Cress., Trans. Am. Ent. Soc. iii, 167, ♀. Hud.Bay.
canadensis Prov., Nat. Can. vii, 248, ♂. Can.
occidentalis Cress., Proc. Acad. Nat. Sci. Phil. 1878, 380, ♀. Vanc.
vittifrons Cress., Can. Ent. i, 37, ♀. Can.

EUXORIDES Cress.

americanus Cress., Trans. Am. Ent. Soc. iii, 167, ♀. Can. U.S.

XYLONOMUS Grav.

albopictus Cress., Trans. iii, 168; Walsh, Tr. St. L. Ac. iii, 158, ♀. Can. N.Y.
australis Cress., ibid. 167, ♀. La. Tex.
calidus Prov., Add. Faun. Hym. 119, ♀. Can.
californicus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 380 ♀. Cala.
cincticornis Cress., Proc. Ent. Soc. Phil. iv, 288, ♀. Col.
frigidus Cress., Trans. Am. Ent. Soc. iii, 168, ♀. Hud.Bay.
humeralis Say (*Anomalon*), Lec. Edit. i, 378, ♀. Can. Ind.
insularis Cress. (*Pœmeria*), Proc. Acad. Nat. Sci. Phil. 1878, 380, ♀. Vanc.
lavallensis Prov., Nat. Can. vi, 59 (= *humeralis*).
stigmapterus Say (*Acœnitus*), Lec. Edit. i, 218; Walsh, Trans. St. Louis Acad. iii, 165, ♀. Can. U.S.

APLOMERUS* Prov.

tibialis Prov. (*Platysoma* ‖), Can. Ent. xvii, 115, ♀. Vanc.

ODONTOMERUS Grav.

abdominalis Cress., Proc. Ent. Soc. Phil. iv, 289, ♀. Col.
æthiops Cress., ibid. 289, ♂ ♀. Col.
bicolor Cress., Trans. Am. Ent. Soc. iii, 169. ♀. Can. Pa.
canadensis Prov., Nat. Can. xii, 102; Faun. Ent. Can. ii, 490, ♂ ♀. Can.
mellipes Say (*Anomalon*); Walsh, Trans. St. Louis Acad. iii, 164. Can. Ind. Ill.
vicinus Cress., Trans. Am. Ent. Soc. iii, 168, ♂. Mass.

ECHTHRUS Grav.

abdominalis Cress., Can. Ent. i, 37, ♂ ♀. Can.
annulicornis Walsh, Trans. St. Louis Acad. iii, 159, ♀. Ill.
canadensis Prov. (*Mesochorus*), Nat. Can. vi, 299; Faun. Ent. Can. ii, 486. Can.
caudatus Prov., Nat. Can. vii, 313 (= *Hemiteles*).
luctuosus Prov. (*Mesochorus*), ibid. vi, 299; Faun. Ent. Can. ii, 486, ♀. Can.
? maurus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 381, ♀. Vanc.
mellipes Prov., Nat. Can. vi, 59 (= *Mesoleius*).
niger Cress., Can. Ent. i, 37, ♂ ♀. Can.

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* Preoccupied in Coleoptera.

nigricornis Prov. (*Mesostenus*), Nat. Can. vii, 264; Faun. Ent. Can. ii, 486, ♂; 803, ♀. Can.
nubilipennis Cress. (*Cryptus*), Proc. Ent. Soc. Phil. iii, 291, ♀. Col.
pediculatus Prov., Nat. Can. xii, 99; Faun. Ent. Can. ii, 487, ♀. Can.
Provancheri Prov., Can. Ent. xvii, 116; Add. Faun. Hym. 118. Can. Vanc.
rubripes Prov., Faun. Ent. Can. ii, 803, ♀. Can.

LABENA Cress.

apicalis Cress., Proc. Ent. Soc. Phil. iii, 402, ♂. Del.
grallator Say (*Cryptus*); Cress., ibid. 400; Walsh, Tr. St. Louis Ac. iii, 162. U.S.

GROTEA Cress.

anguina Cress., Proc. Ent. Soc. Phil. iii, 398, ♂ ♀. N.Y. N.J.
californica Cress., Proc. Acad. Nat. Sci. Phil. 1878, 370, ♀. Cala.

Family **STEPHANIDÆ.**

STEPHANUS Jur.

bicolor Westw., Trans. Ent. Soc. Lond. iii, 276 (= *Megischus*).
cinctipes Cress., Proc. Ent. Sec. A. N. S. 1880, xviii, ♀. Wash.Terr.
rufipes Say, Lec. Edit. i, 218 (= *Megischus*).

MEGISCHUS Brullé.

bicolor Westw. (*Stephanus*), Trans. Ent. Soc. Lond, iii, 276, ♀. Ga.
rufipes Say (*Stephanus*), Lec. Edit. i, 218, ♀. Pa.
texanus Cress., Trans. Am. Ent. Soc. iv, 190, ♀. Tex.

Family **BRACONIDÆ.**

Subfamily BRACONINÆ.

BRACON Fabr.

aciculatus Cress., Proc. Ent. Soc. Phil. iv, 73 (Cuba); Prov., Faun. ii, 500. Can.
æqualis Prov., Nat. Can. xii, 141; Faun. Ent. Can. ii, 502, ♀. Can.
apicatus Prov., ibid. 143; Faun. Ent. Can. ii, 504, ♀. Can.
argutator Say, Bost. Jour. i, 253; Lec. Edit. ii, 706, ♀. Ind.
Belfragei Cress., Trans. Am. Ent. Soc. iv, 186, ♀. Tex.
charus Riley, Seventh Mo. Rep. 1875, 75, fig. 13; Gen'l Index 67, ♀. Mo.
crocator Kirby, Faun., Bor.-Am. iv, 261, ♀. Arc.Am.
croceiventris Cress., Proc. Ent. Soc. Phil. iv, 301, ♂. Col.
croceus Cress., ibid. 302, ♀. Col.
dichrous Brullé, Hym. 398, ♀. N.Am.
disjunctus Cress., Trans. Am. Ent. Soc. iv, 186, ♀. Tex.
disputabilis Cress., Proc. Ent. Soc. Phil. iv, 300, ♀. Col.
dissitus Cress., ibid. 300, ♀. Can. Col.
dorsator Say, Bost. Jour. i, 253; Lec. Edit. ii, 705, ♂ ♀. Ind.
epicus Cress., Trans. Am. Ent. Soc. iv, 183, ♀. Tex.

erythrogaster Brullé, Hym. 401, ♀. N.Am.
eurygaster Brullé, ibid. 400, ♀. Pa.
exhalans Say, Lec. Edit. i, 381, ♀. Ind.
explorator Say, Bost. Jour. i, 259 (= *Toxoneura*).
faustus Cress., Trans. Am. Ent. Soc. iv, 185, ♀. Tex.
hebetor Say, Bost. Jour. i, 252; Lec. Edit. ii, 705, ♂ ♀. Ind.
honestor Say, Lec. Edit. i, 381, ♀. Ind.
inescator Say, Bost. Jour. i, 257; Lec. Edit. ii, 709, ♀. Ind.
inquisitor Prov., Nat. Can. xii, 138; Faun. Ent. Can. ii, 499, ♀. Can.
lævis Prov., ibid. 138; Faun. Ent. Can. ii, 498, ♀. Can.
ligator Say, Lec. Edit. i, 217, ♀. Pa.
lineola Brullé, Hym. 397, ♀. Can.
longicauda Prov., Nat. Can. xii, 142; Faun. Ent. Can. ii, 502, ♂ ♀. Can.
lutus Prov., ibid. 142; Faun. Ent. Can. ii, 503, ♀. Can
mavoritus Cress., Trans. Am. Ent. Soc. iv, 186, ♀. Tex.
mellitor Say, Bost. Jour. i, 256; Lec. Edit. ii, 708, ♂. Ind.
minimus Cress., Trans. Am. Ent. Soc. iv, 187, ♂ ♀. Tex.
montivagus Cress., Proc. Ent. Soc. Phil. iv, 299, ♂ ♀. Col.
nanus Prov., Nat. Can. xii, 143; Faun. Ent. Can. ii, 504, ♂ ♀. Can.
nigripes Prov., Add. Faun. Hym. 121, ♂ ♀. Can.
nigropectus Prov., Nat. Can. xii, 143; Faun. Ent. Can. ii, 503, ♀. Can.
nitidus Prov., Faun. Ent. Can. ii, 803, ♂ ♀. Can.
novitus Cress., Trans. Am. Ent. Soc. iv, 186, ♂. Tex.
nuperus Cress., ibid. 187, ♀. Tex.
obliquus Prov., Nat. Can. xii, 141; Faun. Ent. Can. ii, 501, ♀. Can.
orbita Brullé, Hym. 399, ♀. N.Am.
orbitalis Cress., Trans. Am. Ent. Soc. iv, 184, ♂ ♀. Tex.
ornatus Prov., Nat. Can. xii, 141; Faun. Ent. Can. ii, 502, ♂ ♀. Can.
palliventris Cress., Proc. Ent. Soc. Phil. iv, 301, ♀. Col.
paululor Say, Bost. Jour. i, 257; Lec. Edit. ii, 709, ♀. Ind.
pectinator Say, ibid. 251; Lec. Edit. ii, 704, ♀. U.S.
populator Say, Lec. Edit. i, 216 (= *Toxoneura*).
pullator Say, Bost. Jour. i, 257; Lec. Edit. ii, 709, ♀. Ind.
pygmæus Prov., Nat. Can. xii, 144; Faun. Ent. Can. ii, 504, ♂ ♀. Can.
radiatus Cress., Trans. Am. Ent. Soc. iv, 185, ♀. Tex.
rufovariegatus Prov., Nat. Can. xii, 142; Faun. Ent. Can. ii, 503, ♂ ♀. Can.
rugator Say, Bost. Jour. i, 251; Lec. Edit. ii, 704, ♀. Ind.
rugiceps Cress., Trans. Am. Ent. Soc. iv, 184, ♀. Tex.
rugulosus Say, Bost. Jour. i, 255; Lec. Edit. ii, 707. Ind.
scrutator Say, ibid. 254; Lec. Edit. ii, 707, ♂ ♀. Ind.
scolytivorus Riley, Fifth Mo. Rep. 1873, 106; Gen'l Index 67, ♂ ♀. Mo.
simplex Cress., Trans. Am. Ent. Soc. iv, 184, ♀. Can. Tex.
stigmator Say, Lec. Edit. i, 217. "N.W.Terr."
striatus Prov., Nat. Can. xii, 140; Faun. Ent. Can. ii, 500, ♂. Can.
texanus Cress., Trans. Am. Ent. Soc. iv, 187, ♀. Tex.
thoracicus Say, Bost. Jour. i, 260; Lec. Edit. ii, 711, ♀. Ind.
tibiator Say, Lec. Edit. i, 216 (= *Toxoneura*).
transversus Say, Bost. Jour. i, 255; Lec. Edit. ii, 708, ♀. Ind.
trilobatus Say, ibid. 259; Lec. Edit. ii, 710, ♂. Ind.

truncator Say, Lec. Edit. i, 381. Ind.
uniformis Cress., Proc. Ent. Soc. Phil. iv, 302, ♀. Col.
ventralis Cress., ibid. 76 (Cuba); Prov., Faun. Ent. Can. ii, 501, ♀. Can.
viator Say, Bost. Jour. i, 258; Lec. Edit. ii, 710 (= *Toxoneura*).
xanthostigma Cress., Proc. Ent. Soc. iv, 303; Trans. iv, 187, ♀. Col. Tex.

Subfamily EXOTHECINÆ.

EXOTHECUS Wesm.

atriventris Cress., Trans. Am. Ent. Soc. iv, 189, ♀. Tex.
prodoxi Riley, Am. Ent. iii, 156, ♂ ♀. S.Car.
rugulosus Cress., Trans. Am. Ent. Soc. iv, 190, ♀. Tex.

Subfamily SPATHIINÆ.

SPATHIUS Nees.

Laflammei Prov., Nat. Can. xii, 164; Faun. Ent. Can. ii, 510, ♀. Can.
trifasciatus Riley, Fifth Mo. Rep. 1873, 106; Gen'l Index 67, ♂ ♀. Mo.

Subfamily HECABOLINÆ.

HECABOLUS Curtis.

lycti Cress. (*Anisopelma*), Am. Ent. iii, 24, ♂ ♀. Pa.
minimus Cress. (*Anisopelma*), ibid. 24, ♀. Pa.
utilis Cress. (*Anisopelma*), ibid. 24, ♂ ♀. N.Y.

Subfamily DORYCTINÆ.

DORYCTES Hal.

fartus Prov. (*Syngaster*), Faun. Ent. Can. ii, 509, ♀. Can.
macilentus Prov. (*Syngaster*), ibid. 509, ♂ ♀. Can.

SYNGASTER Brullé.*

Brullé, Hym. 454 (1846).

atripes Prov., Add. Faun. Hym. 122, ♀. Can.
bæticatus Prov., Nat. Can. xii, 162; Faun. Ent. Can. ii, 509, ♀. Can.
cingulatus Prov., ibid. 162; Faun. Ent. Can. ii, 508, ♀. Can.
erythromelas Brullé, Hym. 458, ♂. N.Am.?
fartus Prov., Nat. Can. xii, 163 (= *Doryctes*).
macilentus Prov., ibid. 163 (= *Doryctes*).
rufiventris Brullé, Hym. 458, ♀. N.Am.
rugosus Prov., Add. Faun. Hym. 122, ♂ ♀. Can.

Subfamily HORMIINÆ.

HORMIUS Nees.

?aciculatus Cress., Trans. Am. Ent. Soc. iv, 190, ♀. Tex.

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* The species placed here under this genus probably belong to *Doryctes*.

Subfamily RHOGADINÆ.

RHOGAS Nees.

abdominalis Cress. (*Aleiodes*), Trans. Am. Ent. Soc. ii, 379, ♀. Can. U.S.
aciculatus Cress. (*Aleiodes*), ibid. 381, ♀. U.S.
atricornis Cress., ibid iv, 188, ♀. Tex.
burrus Cress. (*Aleiodes*), ibid. ii, 381, ♀. U.S.
canadensis Cress. (*Aleiodes*), ibid. 380, ♀. Can.
delicatus Cress., ibid. iv, 189, ♂. Tex.
discoideus Cress. (*Aleiodes*), ibid. ii, 380, ♀. Ill.
femoratus Cress. (*Aleiodes*), ibid. 382, ♀. W.Va.
fulvus Cress. (*Aleiodes*), ibid. 381, ♂ ♀. Can.
fumipennis Cress. (*Aleiodes*), ibid. 378, ♀. Ill.
graphicus Cress., ibid. iv, 188, ♂. Tex.
intermedius Cress. (*Aleiodes*), ibid. ii, 380, ♂ ♀. Can. U.S.
lectus Cress. (*Aleiodes*), ibid. 379, ♂. Ill. (= *abdominalis?*).
mandibularis Cress., ibid. iv, 188, ♂. Tex.
melleus Cress. (*Aleiodes*), ibid. ii, 382, ♂. Mass.
molestus Cress., ibid. iv, 188, ♀. Tex.
parasiticus Norton (*Aleiodes*), ibid. ii, 327, 379, ♂ ♀. Ct.
pilosus Cress., ibid. iv, 189, ♀. Tex.
quebecensis Prov., Nat. Can. xii, 145; Faun. Ent. Can. ii, 506, ♀. Can.
Rileyi Cress. (*Aleiodes*), Trans. Am. Ent. Soc. ii, 382, ♀. Mo.
sanctihyacinthi Prov., Nat. Can. xii, 146; Faun. Ent. Can. ii. 506, ♀. Can.
terminalis Cress. (*Aleiodes*), Trans. Am. Ent. Soc. ii, 379, ♂ ♀ Can. U.S.
texanus Cress. (*Aleiodes*), ibid. 378, ♀. Tex.

Subfamily SIGALPHINÆ.

SIGALPHUS Latr.

basilaris Say, Lec. Edit. i, 216 (= *Chelonus*).
canadensis Prov., Nat. Can. xii, 197; Faun. Ent. Can. ii, 530, ♀. Can.
curculionis Fitch; Riley, Third Mo. Rep. 1871, 25–27, figs. 7–8; Gen'l Index 67, ♂ ♀. U.S.
sericeus Say, Lec. Edit. i, 215 (= *Chelonus*).
texanus Cress., Trans. Am. Ent. Soc. iv, 179, ♀. Tex.
tibialis Hald., Proc. Acad. Nat. Sci. Phil. iv, 203 (= *Phanerotoma*).
trisectus Prov., Add. Faun. Hym. 143, ♂. Can.

Subfamily CHELONINÆ.

PHANEROTOMA Wesm.

fasciata Prov., Nat. Can. xii, 200; Faun. Ent. Can. ii, 534, ♀. Can.
tibialis Hald. (*Sigalphus*), Proc. Acad. Nat. Sci. Phil. iv, 203. Pa. Tex.

CHELONUS Jur.

argentifrons Prov., Add. Faun. Hym. 145, ♂. Can.
basicinctus Prov., Nat. Can. xii, 198; Faun. Ent. Can. ii, 531, ♀. Can.
basilaris Say (*Sigalphus*), Lec. Edit. i, 216; ii, 716. Pa.

carinatus Prov., Nat. Can. xii, 199; Faun. Ent. Can. ii, 533, ♀. Can.
cautus Cress., Trans. Am. Ent. Soc. iv, 180, ♀. Tex.
connectens Cress., ibid. 180, ♀. Tex.
electus Cress., ibid. 180, ♂ ♀. Tex.
fissus Prov., Nat. Can. xii, 199; Faun. Ent. Can. ii, 532, ♂. Can.
insularis Cress., Proc. Ent. Soc. iv, 61 (Cuba); Prov., Faun. ii, 531, ♀. Can.
iridescens Cress., Proc. Ent. Soc. Phil. iv, 294, ♂. Can. Col.
lævifrons Cress., ibid. 294, ♂. Col.
laticinctus Cress., Trans. Am. Ent. Soc. iv, 180, ♀. Tex.
lunatus Hald., Proc. Acad. Nat. Sci. Phil. iv, 203. Pa.
minimus Cress., Trans. Am. Ent. Soc. iv, 181, ♀. Tex.
nanus Prov., Nat. Can. xii, 200; Faun. Ent. Can. ii, 533, ♂ ♀. Can.
parvus Say, Bost. Jour. i, 265; Lec. Edit. ii, 715. Ind.
rufiscapus Prov., Add. Faun. Hym. 144, ♀. Can.
rufiventris Cress., Proc. Ent. Soc. Phil. iv, 293, ♂. Col.
sericeus Say (*Sigalphus*), Lec. Edit. i, 215; ii, 716, ♀. Can. U.S.
sobrinus Hald., Proc. Acad. Nat. Sci. Phil. iv, 203. Pa.
texanus Cress., Trans. Am. Ent. Soc. iv. 179, ♀. Tex.

ASCOGASTER Wesm.

? Aughei LaMun. (*Davisania*), Proc. Neb. Assoc. Adv. Sci. 1877. Neb.
? nebraskænsis LaMun. (*Davisania*), ibid. 1877, ♀. Neb.
rufipes Prov., Add. Faun. Hym. 146, ♀. Can.

SPHÆROPYX Hal.

bicolor Cress. (*Rhitigaster*), Proc. Ent. Sec. A. N. S. 1880, xvii, ♂ ♀. U.S.
ovalis Prov. (*Rhitigaster*), Add. Faun. Hym. 146, ♀. Can.
parvus Prov. (*Rhitigaster*), Faun. Ent. Can. ii, 805, ♀. Can.
quebecensis Prov. (*Rhitigaster*), Nat. Can. xii, 201; Faun. ii, 534, ♂ ♀. Can.

Subfamily MICROGASTERINÆ.

APANTELES Först.

acronyctæ Riley, Trans. St. Louis Acad. iv, 312, ♂. Ill.
aletiæ Riley, ibid. 298, 306, fig. 1, ♂ ♀. Fla. Ala.
cacœciæ Riley, ibid. 305, ♂ ♀. Mo.
carpatus Say (*Microgaster*), Bost. Jour. i, 263; Lec. Edit. ii, 714, ♀. Can. U.S.
cassianus Riley, Trans. St. Louis Acad. iv, 307, ♂ ♀. Ill.
cinctus Prov. (*Microgaster*), Nat. Can. xii, 196; Faun. Ent. Can. ii, 529, ♀. Can.
congregatus Say (*Microgaster*); Riley, Trans. St. Louis Acad. iv, 309. Can. U.S.
flaviconchæ Riley, ibid. 308 (= var. *limenitidis*).
hemileucæ Riley, ibid. 309 (= var. *congregatus*).
hyphantriæ Riley, Rep. Ent. U. S. Dept. Agric. 1886, 533, ♀. D.C.
limenitidis Riley (*Microgaster*), Third Mo. Rep. 1871, 158. Ct. Mo.
lunatus Pack. (*Microgaster*), Proc. Bost. Soc. Nat. Hist. xxi, 28, ♀. Mass.
megathymi Riley, Trans. St. Louis Acad. iv, 304, ♂ ♀. S.C.
militaris Walsh (*Microgaster*), Ins. Inj. Veg. Ill. 37; Tenth Ill. Rep. 1881, 38. Ill.
nephoptericis Pack. (*Microgaster*), Proc. Essex Inst. iv, 122, pl. 3, fig. 3 (1864). Vt.
orobenæ Forbes, Twelfth Ill. Rep. 1882, 104, ♂ ♀. Ill.

paleacritæ Riley. Trans. St. Louis Acad. iv, 313, ♂ ♀. Can. Ill.
politus Riley, ibid. 307, ♂ ♀. Mo.
rufocoxalis Riley, ibid. 310 (= var. *congregatus*).
scitulus Riley, ibid. 310 (= var. *congregatus*).
smerinthi Riley, ibid. 311, ♂ ♀. Mo.
theclæ Riley, ibid. 308, ♂ ♀. Ga. Ala.
xylina Say (*Microgaster*), Bost. Jour. i, 262; Lec. Edit. ii, 712. Can. Ind.

MICROPLITIS Först.

ceratominæ Riley, Trans. St. Louis Acad. iv, 303, ♂ ♀. Mo. Ill. Ks.
croceipes Cress. (*Microgaster*), Trans. Am. Ent. Soc. iv, 183, ♂ ♀. Tex.
gortynæ Riley, Trans. St. Louis Acad. iv, 304, ♂ ♀. N.Y. Ia.
maculipennis Cress. (*Microgaster*), Trans. Am. Ent. Soc. iv, 183, ♂ ♀. Tex.

MICROGASTER Latr.

acaudus Prov., Add. Faun. Hym. 142, ♂ ♀. Can.
atalantæ Pack., Proc. Bost. Soc. Nat. Hist. xxi, 27 (= var. *Apanteles congregatus*).
auripes Prov., Add. Faun. Hym. 141, ♀. Can.
bisstigmata Say, Bost. Jour. i, 264; Lec. Edit. ii, 714, ♂. Ind.
brevicaudus Prov., Add. Faun. Hym. 140, ♀. Can.
calliptera Say, Bost. Jour. i, 264; Lec. Edit. ii, 715; Prov., Faun. Ent. Can. ii, 527, ♂ ♀. Can. Ind.
carduicola Pack., Proc. Bost. Soc. Nat. Hist. xxi, 27, ♂ ♀. Mass.
carinata Pack., ibid. 25 (= var. *gelechiæ*).
carpata Say, Bost. Jour. i, 263; Lec. Edit. ii, 714 (= *Apanteles*).
cinctus Prov., Nat. Can. xii, 196 (= *Apanteles*).
clavatus Prov., ibid. 196; Faun. Ent. ii, 529, ♀. Can. (var. *Apanteles carpatus?*)
congregata Say, Bost. Jour. i, 262; Lec. Edit. ii, 713 (= *Apanteles*).
crassicornis Prov., Add. Faun. Hym. 142, ♀. Can.
croceipes Cress., Trans. Am. Ent. Soc. iv, 183 (= *Microplitis*).
ensiger Say, Bost. Jour. i, 260; Lec. Edit. ii, 711, ♂ ♀. Can. Ind.
femurnigrum Prov., Add. Faun. Hym. 142, ♀. Can.
gelechiæ Riley, First Mo. Rep. 1869, 178; Gen'l Index 66, ♂ ♀. Mo.
Hallii Pack., Am. Nat. xi, 1877, 52. Greenland.
lateralis Prov., Add. Faun. Hym. 141, ♀. Can.
limenitidis Riley, Third Mo. Rep. 1871, 158 (= *Apanteles*).
longicornis Prov., Add. Faun. Hym. 143, ♂. Can.
lunatus Pack., Proc. Bost. Soc. Nat. Hist. xxi, 28 (= *Apanteles*).
maculipennis Cress., Trans. Am. Ent. Soc. iv, 183 (= *Microplitis*).
melligaster Prov., Add. Faun. Hym. 143, ♀. Can.
mellipes Say, Bost. Jour. i, 261; Lec. Edit. ii, 712, ♂. Ind.
militaris Walsh, Ins. Inj. Veg. Ill. 37 (= *Apanteles*).
militaris Riley, Eighth Mo. Rep. 1876, 54 (= var. *Apanteles congregatus*).
nephoptericis Pack., Proc. Essex Inst. iv, 122 (= *Apanteles*).
oleracea Taylor, American Agriculturist, N. Y. Oct. 1860, 301, fig. 5. N.Y.
pieridis Pack., Proc. Bost. Soc. Nat. Hist. xxi, 26 (= var. *Apanteles congregatus*).
4-dentatus Prov., Add. Faun. Hym. 140, ♂. Can.
robiniæ Fitch, Fifth N. Y. Rep. 1859, 56. N.Y. (= *Apanteles?*)
unicolor Curtis, Ross' Second Voy. Append. lxii. Arc.Am.

utilis French, Can. Ent. xii, 42 (= *Apanteles congregatus*).
xylina Say, Bost. Jour. i, 262; Lec. Edit. ii, 712 (= *Apanteles*).
zonaria Say, ibid. 263; Lec. Edit. ii, 714, ♀. Ind.

Subfamily AGATHIDINÆ.

AGATHIS Latr.

atripes Cress., Proc. Ent. Soc. Phil. iv. 296, ♂. Col.
exoratus Cress., Trans. Am. Ent. Soc. iv, 182, ♂. Tex.
femorator Prov., Nat. Can. xii, 177; Faun. Ent. Can. ii, 524, ♀. Can.
hæmatodes Brullé, Hym. 495, ♂. Pa.
liberator Brullé, ibid. 502; Prov., Faun. Ent. Can. ii, 523, ♂ ♀. Can. Car.
meabilis Cress., Trans. Am. Ent. Soc. iv, 183, ♂ ♀. Tex.
media Cress., Proc. Ent. Soc. Phil. iv, 295, ♂. Col.
nigripes Cress., ibid. 297, ♀. Col.
ornata Say, Bost. Jour. i, 226; Lec. Edit. ii, 684, ♂. Ind.
perforator Prov., Nat. Can. xii, 177; Faun. Ent. Can. ii, 523, ♀. Can.
polita Say, Bost. Jour. i, 225; Lec. Edit. ii, 684, ♂ ♀. Ind.
quæsitor Prov., Nat. Can. xii, 176; Faun. Ent. Can. ii, 523, ♀. Can.
rubripes Cress., Trans. Am. Ent. Soc. iv, 183, ♀. Tex.
scrutator Prov., Add. Faun. Hym. 137, ♂ ♀. Can.
semirubra Brullé, Hym. 494, ♂. Pa.
tibiator Prov., Nat. Can. xii, 177; Faun. Ent. Can. ii, 524, ♀. Can.
vulgaris Cress., Proc. Ent. Soc. Phil. iv, 295, ♀. Col. Tex.

EARINUS Wesm.

limitaris Say (*Bassus*); Cress., Can. Ent. v, 54, ♂ ♀. Can. U.S.

MICRODUS Nees.

agilis Cress., Can. Ent. v. 52, ♀. Can. Mass.
annulipes Cress., ibid. 53, ♀. Can. U.S.
bicolor Prov., Nat. Can. xii, 179; Faun. Ent. Can. ii, 526, ♀, 805, ♂. Can.
calcaratus Cress., Can. Ent. v, 51, ♀. Del.
cinctus Cress., ibid. 53, ♂ ♀. Ill.
discolor Cress., ibid. 52, ♂ ♀. Ill.
dispar Prov., Add. Faun. Hym. 138, ♀. Can.
divisus Cress., Can. Ent. v, 52, ♂. Ill.
earinoides Cress., ibid. 54, ♀. Mass. Ill.
fulvescens Cress., Proc. Ent. Soc. Phil. iv, 297, ♀. Col.
imitatus Cress., Can. Ent. v, 51, ♀. Mass.
laticinctus Cress., ibid. 53, ♂. Can. Mo.
? longipalpus Cress., Proc. Ent. Soc. Phil. iv, 299, ♀. Col.
medius Cress., ibid. 298, ♂. Col.
nigriceps Cress., Trans. Am. Ent. Soc. iv, 182, ♂. Tex.
nigricoxus Prov., Add. Faun. Hym. 138, ♀. Can.
pallens Cress., Can. Ent. v, 53, ♀. Ill.
pygmæus Cress., Trans. Am. Ent. Soc. iv, 182, ♂ ♀. Tex.
quebecensis Prov., Nat. Can. xii, 178; Faun. Ent. Can. ii, 525, ♀. Can.
? sanctus Say (*Bassus*), Lec. Edit. ii, 703, ♀. Ind.

similimus Cress., Can. Ent. v, 51, ♂ ♀. U.S.
terminatus Cress., Proc. Ent. Soc. Phil. iv, 298, ♂. Col.
texanus Cress., Trans. Am. Ent. Soc. iv, 181, ♂. Tex.
thoracicus Cress., ibid. 181, ♂ ♀. Tex.
verticalis Cress., ibid. 182, ♀. Tex. (= *nigriceps?*)

ORGILUS Hal.

detectus Prov., Add. Faun. Hym. 134, ♀. Can.
læviventris Cress. (*Ischius*), Trans. Am. Ent. Soc. iv, 182, ♂. Tex. Dac.

Subfamily EUPHORINÆ.

MICROCTONUS Wesm.

agilis Cress., Can. Ent. iv, 226, ♂. Ill.
cephalicus Prov., Add. Faun. Hym. 127, ♂. Can.
linearis Prov., ibid. 127, ♀. Can.
punctatus Prov., Faun. Ent. Can. ii, 804, ♂. Can.
vigilax Prov. (*Gamosecus*), Nat. Can. xii, 167; Faun. Ent. Can. ii, 514, ♂ ♀. Can.

GAMOSECUS Prov.

Provancher, Faun. Ent. Can. ii, 513 (1883).

laticeps Prov., Add. Faun. Hym. 126, ♀. Can. (= *Microctonus?*)
mellinus Prov., Nat. Can. xii, 168 (= *Perilitus*).
vigilax Prov., ibid. 167 (= *Microctonus*).

PERILITUS Nees.

mellinus Prov. (*Gamosecus*), Nat. Can. xii, 168; Faun. Ent. Can. ii, 514, ♀. Can.
(See species under *Meteorus*.)

EUSTALOCERUS Först.

fasciatus Prov. (*Rhopalophorus*), Add. Faun. Hym. 129, ♀. Can.
longicornis Prov. (*Rhopalophorus*), ibid. 129, ♀. Can.
petiolatus Prov. (*Rhopalophorus*), ibid. 128, ♀. Can.
tauricornis Prov. (*Rhopalophorus*), Nat. Can. xii, 168; Faun. Ent. ii, 515. Can.

EUPHORUS Nees.

mellipes Cress., Can. Ent. iv, 227, ♂. N.J. Ill.
scitulus Cress., ibid. 227, ♀. Ill.
sculptus Cress., ibid. 227, ♀. Ill.

Subfamily METEORINÆ.

METEORUS Hal.

communis Cress., Can. Ent. iv, 82, ♂ ♀. Can. Ct. N.J.
dimidiatus Cress., ibid. 83, ♂ ♀. Can. U.S.
gracilis Prov. (*Perilitus*), Add. Faun. Hym. 125, ♀. Can.
humilis Cress., Can. Ent. iv, 84, ♀. Can. Ill.
hyphantriæ Riley, Rep. Ent. U. S. Dept. Agric. 1886, 532, ♂ ♀. D.C.
incompletus Prov. (*Perilitus*), Add. Faun. Hym. 126, ♂. Can.

indagator Riley, Fourth Mo. Rep. 1872, 43; Gen'l Index 66, ♀. Mo.
intermedius Cress., Can. Ent. iv, 82, ♂. Mass.
niveitarsis Cress., ibid. 81, ♂ ♀. Mass.
pallitarsis Cress., ibid. 81, ♂. N.J.
politus Prov. (*Perilitus*), Add. Faun. Hym. 126, ♀. Can.
proximus Cress., Can. Ent. iv, 83, ♂. Ill.
robustus Prov. (*Perilitus*), Add. Faun. Hym. 125, ♀. Can.
vulgaris Cress., Can. Ent. iv, 83, ♂. Can. U.S.

Subfamily CALYPTINÆ.

EUBADIZON Nees.

americanus Cress., Can. Ent. iv, 230, ♀. Can. N.J.
gracilis Prov., Nat. Can. xii, 171; Faun. Ent. Can. ii, 518, ♀. Can.
lateralis Cress., Can. Ent. iv, 229, ♂. Ill.
maculiventris Cress., Trans. Am. Ent. Soc. iv, 178, ♂. Tex.
pleuralis Cress., Can. Ent. iv, 230, ♂ ♀. Can. Mo.
submucronatus Prov., Nat. Can. xii, 171; Faun. Ent. Can. ii, 518, ♂ ♀. Can.

CALYPTUS Hal.

crassigaster Prov. (*Brachistes*), Add. Faun. Hym. 132, ♂ ♀. Can.
magdali Cress., Psyche, ii, 189, ♂ ♀. Mass.
major Cress., Can. Ent. iv, 228, ♀. Can. U.S.
rotundiceps Cress., ibid. 228, ♂. Ill.
tibiator Cress., ibid. 229, ♂. N.J.

Subfamily BLACINÆ.

BLACUS Nees.

defectuosus Prov., Add. Faun. Hym. 133, ♀. Can.
longicaudus Prov., ibid. 133, ♀. Can.

Subfamily LIOPHRONINÆ.

LIOPHRON Nees.

lævis Cress., Can. Ent. iv, 228, ♂. Can.

Subfamily ICHNEUTINÆ.

ICHNEUTES Nees.

abdominalis Cress., Trans. Am. Ent. Soc. iv, 179, ♀. Tex.
bicolor Cress., Can. Ent. iv, 230, ♀. Mass.
fulvipes Cress., ibid. 231, ♂. Ill.

PROTEROPS Wesm.

californicus Cress., Can. Ent. v, 69, ♂. Cala.

Subfamily Toxoneurinæ.

TOXONEURA Say.

abdominalis Cress., Can. Ent. v, 68, ♂. Ill.
apicalis Cress., ibid. 68, ♂. Ill.
explorator Say (*Bracon*), Lec. Edit. ii, 710; Cress., Can. Ent. v. 67. Ind. Tex.
minuta Cress., Can. Ent. v, 67, ♀. Ill.
populator Say (*Bracon*), Lec. Edit. i, 216; ii, 710, ♂ ♀. U.S.
seminigra Cress. (*Tenthredoides*), Proc. Ent. Soc. Phil. iv, 291, ♂ ♀. Col.
tibiator Say (*Bracon*), Lec. Edit. i, 216; ii, 710; Cress., Can. Ent. v, 68. Pa. Ill.
viator Say (*Bracon*), ibid. ii, 710; Cress., Can. Ent. v, 69. Ind. Ariz.

Subfamily Helconinæ.

HELCON Nees.

albitarsis Cress., Can. Ent. v, 83, ♂ (= *dentipes*).
americanus Cress., ibid. 84 (= *Gymnoscelus*).
borealis Cress., ibid. 83, ♂ (= *dentipes*).
dentipes Brullé, Hym. 479, ♀. Can. U.S.
frigidus Cress., Can. Ent. v, 84, ♀. Brit.Am.
fulvipes Cress., Proc. Ent. Soc. Phil. iv, 292 (= *Gymnoscelus*).
occidentalis Cress., ibid. 292, ♂. Col.
pedalis Cress., Can. Ent. v, 85 (= *Gymnoscelus*).
texanus Cress., Trans. Am. Ent. Soc. iv, 179 (= *Gymnoscelus*).

GYMNOSCELUS Först.

americanus Cress. (*Helcon*), Can. Ent. v, 84, ♀. Can. Va.
fulvipes Cress. (*Helcon*), Proc. Ent. Soc. Phil. iv, 292, ♀. Col.
pedalis Cress. (*Helcon*), Can. Ent. v, 85, ♂ ♀. Brit.Am. Mass.
texanus Cress. (*Helcon*), Trans. Am. Ent. Soc. iv, 179, ♀. Tex.

Subfamily Macrocentrinæ.

MACROCENTRUS Curtis.

delicatus Cress., Trans. iv, 178; Riley, 5th Mo. Rep. 50, ♂ ♀, fig. 27. Can. U.S.
iridescens French, Can. Ent. xii, 43, ♂ ♀. Ill.
longicornis Prov., Nat. Can. xii, 173; Faun. Ent. Can. ii, 519, ♂. Can.
mellipes Prov., ibid. 172; Faun. Ent. Can. ii, 519, ♀. Can.
nuperus Cress., Trans. Am. Ent. Soc. iv, 178, ♀. Tex.
pectoralis Prov., Nat. Can. xii, 173; Faun. Ent. Can. ii, 520, ♂. Can.
uniformis Prov., Faun. Ent. Can. ii, 520, ♀. Can.

ZELE Hal.

cinctus Prov. (*Phylax*), Nat. Can. xii, 175; Faun. Ent. Can. ii, 522, ♂. Can.
curtus Prov. (*Phylax*), Add. Faun. Hym. 130, ♂ ♀. Can.
gracilis Prov. (*Phylax*), ibid. 131, ♂. Can.
melleus Cress. (*Phylax*), Trans. Am. Ent. Soc. iv, 178, ♀. Tex.
niger Prov. (*Phylax*), Can. Ent. xvii, 117, ♂. Vanc.
pacificus Prov. (*Phylax*), ibid. 117, ♀. Vanc.

palliventris Prov. (*Phylax*), Nat. Can. xii, 174; Faun. Ent. Can. ii, 521, ♀. Can.
rufipes Prov. (*Phylax*), ibid. 175; Faun. Ent. Can. ii, 521, ♀. Can.

Subfamily Opiinæ.

OPIUS Wesm.

brunneiventris Cress., Trans. Am. Ent. Soc. iv, 178, ♂. Tex.
cinctus Prov., Add. Faun. Hym. 124, ♀. Can.
macrocephalus Prov., ibid. 123, ♀. Can.
mellipes Prov., ibid. 123, ♂. Can.
pallipes || Prov., Nat. Can. xii, 164; Faun. Ent. Can. ii, 511 (= *mellipes*).
politus Prov., Faun. Ent. Can. ii, 804, ♂. Can.
ruficeps Prov., Add. Faun. Hym. 124, ♀. Can.

Subfamily Alysiinæ.

ALYSIA Latr.

astigma Prov., Faun. Ent. Can. ii, 805, ♀. Can.
caudata Prov., Nat. Can. xii, 202; Faun. Ent. Can. ii, 535, ♀. Can.
completa Prov., Add. Faun. Hym. 147, ♂ ♀. Can.
fuscipennis Brullé, Hym. 516, ♂. N. Am.
lucens Prov., Nat. Can. xii, 202; Faun. Ent. Can. ii, 535, 806, ♀. Can.
nigriceps Prov., ibid. 203; Faun. Ent. Can. ii, 536, ♀. Can.
pallipes Say, Lec. Edit. i, 380 (= *Aphæreta*).
rubriceps Prov., Faun. Ent. Can. ii, 806, ♂. Can.
rudibunda Say, Lec. Edit. i, 380, ♂. Ind.

TRINARIA Prov.

Provancher, Add. Faun. Hym. 149 (1886).

pilicornis Prov., Add. Faun. Hym. 149, ♀. Can.

ASYNAPHES Prov.

Provancher, Add. Faun. Hym. 150 (1886).

aciculata Prov., Add. Faun. Hym. 150, ♀. Can.
brevicauda Prov., ibid. 151, ♀. Can.

APHÆRETA Först.

auripes Prov. (*Trichesia*), Nat. Can. xii, 203; Faun. Ent. Can. ii, 537, ♂. Can
pallipes Say (*Alysia*), Lec. Edit. i, 380. Ind.

Subfamily Dacnusinæ.

DACNUSA Hal.

crassitela Prov., Add. Faun. Hym. 148, ♀. Can.
læviceps Cress, Trans. Am. Ent. Soc. iv, 191, ♀. Tex.
minima Cress., ibid. 191, ♂. Tex.
spatulata Prov., Add. Faun. Hym. 149, ♂. Can.

CŒLINIUS Nees.

meromyzæ Forbes, 13th Ill. Rep. 1883, 26, pl. ii, fig. 1–2, ♂ ♀. Ill.

Subfamily APHIDIINÆ.

PRAON Hal.

avenaphis Fitch, Sixth N. Y. Rep. 98. N.Y. (= *Aphidius?*)
polygonaphis Fitch, First N. Y. Rep. 136. N.Y.
viburnaphis Fitch, ibid. 137. N.Y.

APHIDARIA Prov.

Provancher, Add. Faun. Hym. 152 (1886).

simulans Prov., Add. Faun. Hym. 153 ♂ ♀. Can.

EPHEDRUS Hal.

completus Prov., Add. Faun. Hym. 156, ♀. Can.
incompletus Prov., ibid. 156, ♀. Can.

TOXARES Westw.

triticaphis Fitch, Sixth N. Y. Rep. 98. N.Y.

RADIOLARIA Prov.

Provancher, Add. Faun. Hym. 154 (1886).

clavata Prov., Add. Faun. Hym. 155, ♀. Can.

ROPRONIA Prov.

Provancher, Add. Faun. Hym. 154 (1886).

pediculata Prov., Add. Faun. Hym. 154, ♀. Can.

TRIOXYS Hal.

cerasaphis Fitch, First N. Y. Rep. 138. N.Y.
piceus Cress., Rep. Ent. U. S. Dept. Agric. 1879, 260, ♂ ♀. Va.
populaphis Fitch, First N. Y. Rep. 137. N.Y.
salicaphis Fitch, ibid. 137. N.Y.
testaceipes Cress., Rep. Ent. Dept. Agric. 1879, 208; Hubbard, Orange Ins. pl. xiii, fig. 3, ♀. Md. Fla. Ala.

APHIDIUS Nees.

canadensis Prov., Nat. Can. xii, 204; Faun. Ent. Can. ii, 538, ♀. Can.
? citraphis Ashm., Orange Ins. 1880, 71, ♂ ♀. Fla.
lactucaphis Fitch, First N. Y. Rep. 136. N.Y.
? maidaphidis Forbes (*Adialytus*), 14th Ill. Rep. 1884, 31, pl. xii, fig. 4, ♂ ♀. Ill.
obscurus Prov., Add. Faun. Hym. 152, ♀. Can.

NEVROPENES Prov.

Provancher, Add. Faun. Hym. 153 (1886).

ovalis Prov., Add. Faun. Hym. 153, ♂ ♀. Can.

SCOTIONEURUS Prov.

Provancher, Add. Faun. Hym. 156 (1886).

dives Prov., Add. Faun. Hym. 157, ♂. Can.
stenostigma Prov., ibid. 157, ♀. Can.

Family CHALCIDIDÆ.

Subfamily LEUCOSPIDINÆ.

LEUCOSPIS Fabr.

affinis Say, Lec. Edit. i, 220; Cress., Trans. Am. Ent. Soc. iv, 32, ♂ ♀. Can. U.S.
basalis Westw., Germ. Zeits. Ent. i, 264 (= *affinis*).
canadensis Walk., Jour. Ent. i, 17 (= *affinis*).
floridana Cress., Trans. Am. Ent. Soc. iv, 33 (= var. *affinis*).
fraterna Say, Bost. Jour. i, 269; Lec. Edit. ii, 718 (= *affinis*).
integra Hald.; Cress., Trans. iv, 35, ♂. Pa. (= *Chalcis flavipes* Fabr.?)
Shuckardi Westw.; Cress., ibid. 35, ♂. N.Am.
subnotata Westw., Ent. Mag. ii, 215 (= *affinis*).
texana Cress., Trans. Am. Ent. Soc. iv, 31, ♂. Tex.

Subfamily CHALCIDINÆ.

SMICRA* Spin.

albifrons Walsh (*Chalcis*), Ins. Inj. Veg. Ill. 37; Tenth Ill. Rep. 1881, 40. Ill.
amœna Say (*Chalcis*); Cress., Trans. Am. Ent. Soc. iv, 58. Ind.
arcana Cress., ibid. 44, ♂. Del.
barbara Cress., ibid. 47, ♂. Tex.
bioculata Cress., ibid. 43, ♂. Fla. Tex.
bracata Sanborn (*Chalcis*); Cress., ibid. 46. Mass. Del.
canadensis Cress., ibid. 39, ♀. Can.
coæqualis Cress., ibid. 46 (= var. *bracata*).
coxalis Cress., ibid. 45, ♂. Del.
debilis Say (*Chalcis*), Bost. Jour. i, 271; Lec. Edit. ii, 720. Del. Ind. Ill.
decempunctata Ashm., Proc. Ent. Soc. A. N. S. 1881, xxix, ♀. Fla.
delicata Cress., Trans. Am. Ent. Soc. iv, 54, ♀. Tex.
delira Cress., ibid. 41, ♂. Fla. Ala. Tex.
delumbis Cress., ibid. 40, ♂ ♀. Mass. Tex.
dorsata Cress., ibid. 49, ♀. Tex.
encausta Cress., ibid. 46, ♂. Col.
faceta Cress., ibid. 43, ♂ (= var. *bioculata*).
flavopicta Cress., Proc. Ent. Soc. Phil. iv, 99. Fla. (Cuba.)
flebilis Cress. Trans. Am. Ent. Soc. iv, 39, ♂. Mass.
gigantea Ashm., Can. Ent. xiii, 90 (= *Phasgonophora sulcata*).
hirtifemora Ashm., Proc. Ent. Soc. A. N. S. 1885, x, ♂. Fla.
ignea Cress., Trans. Am. Ent. Soc. iv, 49. Tex.
igneoides Kirby, Jour. Linn. Soc. Lond. xvii, 71. U.S.
longipetiola Ashm., Proc. Ent. Soc. A. N. S. 1885, x, ♂. Fla.
maculata Fabr. (*Chalcis*), Ent. Syst. ii, 198; Walk., Entom. 217. N.Y.
mariæ Riley, Am. Ent. ii, 101; Cress., Trans. Am. Ent. Soc. iv, 52, ♂ ♀. U.S.
microgaster Say (*Chalcis*); Cress., Trans. Am. Ent. Soc. iv, 38. Can. U.S.
mirabilis Cress., ibid. 53, ♂. Ga. Tex.

* The species enumerated under this genus more properly belong to *Spilochalcis* Thom., at least those having the middle tibiæ spurred at apex.

missouriensis Howard (*Spilochalcis*), Bull. v, Ent. Bur. U. S. Dep. Agric. 6. Mo.
nigricornis Fabr. (*Chalcis*), Ent. Syst. Suppl. 243. N.Am.
nigrifex Walk.; Cress., Trans. Am. Ent. Soc. iv, 55, ♂ ♀. N.Am. (Eur.)
Nortoni Cress., ibid. 45, ♂. D.C.
odontotæ Howard (*Spilochalcis*), Bull. v, Ent. Bur. U. S. Dep. Agric. 7, ♂. D.C.
pulchra Cress., Proc. Ent. Soc. Phil. iv, 94. Fla. (= *transitiva?*)
rufipes Kirby, Jour. Linn. Soc. Lond. xvii, 70. Ga.
rufofemorata Cress., Trans. Am. Ent. Soc. iv, 39, ♂. Tex.
sanguiniventris Cress., ibid. 43, ♀. Tex.
side Walk.; Cress., ibid. 55, ♀. Fla.
subobsoleta Cress., ibid. 42, ♂. Tex.
torvina Cress., ibid. 40, ♀. U.S.
transitiva Walk.; Cress., ibid. 57, ♀. Fla.
virens Howard (*Spilochalcis*), Bull. v, Ent. Bur. U. S. Dep. Agric. 6, ♂. Iowa.
vittata Ashm., Proc. Ent. Sec. A. N. S. 1885, x, ♀. Fla.

CHALCIS Fabr.

albifrons Walsh, Ins. Inj. Veg. Ill. 37 (= *Smicra*).
amœna Say, Bost. Jour. i, 270; Lec. Edit. ii, 719 (= *Smicra*).
bracata Sanborn, Report Mass. Board Agric. 1863, 172, fig. 46 (= *Smicra*).
coloradensis Cress., Trans. Am. Ent. Soc. iv, 60, ♂. Col.
columbiana Howard, Bull. v, Ent. Bur. U. S. Dep. Agric. 8, ♀. D.C.
debilis Say, Bost. Jour. i, 271; Lec. Edit. ii, 720 (= *Smicra*).
flavipes Fabr., Ent. Syst. ii. 197. N.Am.
flavipes Ashm., Proc. Ent. Sec. A. N. S. 1885, xi, ♂. Fla.
maculata Fabr., Ent. Syst. ii, 198 (= *Smicra*).
microgaster Say, Lec. Edit. i, 219 (= *Smicra*).
minuta Linn., Syst. Nat. i, 952; Fabr., Ent. Syst. ii, 195. Ga. (= *flavipes* Fabr.?)
nigricornis Fabr., Ent. Syst. Suppl. 243 (= *Smicra*).
ovata Say, Lec. Edit. i, 219; Cress., Trans. iv, 59, ♂ ♀ (= *flavipes* Fabr.).
pedalis Cress., Trans. Am. Ent. Soc. iv, 60, ♀. Tex.
robusta Cress., Proc. iv, 101; Hubbard's Orange Ins. 139, fig. 56. Fla. (Cuba.)
tachinæ Howard, Bull. v, Ent. Bur. U. S. Dep. Agric. 8, ♀. N.H.
tegularis Cress., Trans. Am. Ent. Soc. iv, 60, ♀. Tex.

PODAGRION Spin.

mantis Ashm., Can. Ent. xviii, 57, ♀. Fla.

PHASGONOPHORA Westw.

elegans Prov., Add. Faun. Hym. 191, ♀. Can.
sulcata Westw., Griff. Anim. Kingd. Ins. ii, 432, pl. 77, fig. 2. U.S.

HALTICHELLA Spin.

americana Howard, Bull. v, Ent. Bur. U. S. Dep. Agric. 9, ♀. D.C.
onatas Walk. (*Hockeria*, Ann. Soc. Ent. Fr. ser. 2, i, 146, ♀. Fla.
perpulchra Walsh (*Hockeria*), Ins. Inj. Veg. Ill. 42; Tenth Ill. Rep. 39. Ill.
viridis Prov., Add. Faun. Hym. 192, ♀. Can.
xanticles Walk. (*Hockeria*), Ann. Soc. Ent. Fr. ser. 2, i, 147, ♀. Fla.

Subfamily EUCHARINÆ.

EUCHARIS Latr.

Latreille, Hist. Nat. xiii, 210 (1805).

gibbosa Prov., Nat. Can. xii, 292; Faun. Ent. Can. ii, 571, ♀. Can.

THORACANTHA Latr.

Latreille, Fam. Nat. 447 (1825).

floridana Ashm., Ent. Am. i, 96; Proc. Ent. Soc. A. N. S. 1885, xi, ♂ ♀. Fla.

Subfamily PERILAMPINÆ.

PERILAMPUS Latr.

aciculatus Prov., Add. Faun. Hym. 199, ♀. Can.
alexinus Walk., Brit. Mus. Cat. Chalc. i, Append. 89 (= *hyalinus*).
cyaneus Brullé, Hym. 573, pl. 39, fig. 3. Car. Fla. (= *hyalinus ?*)
eutellus Walk., Ann. Nat. Hist. xii, 103 (= *platygaster*).
fulvicornis Ashm., Trans. Am. Ent. Soc. xiii, 126, ♂. Fla.
hyalinus Say, Lec. Edit. i, 382. Can. Pa. Fla.
lævis Prov., Add. Faun. Hym. 199, ♀. Can.
lepreos Walk., Brit. Mus. Cat. Chalc. i, Append. 89 (= *triangularis*).
platygaster Say, Bost. Jour. i, 274; Lec. Edit. ii, 722. Can. Ind.
triangularis Say, Lec. Edit. i, 381. Can. Ind. Fla.
violaceus Dalm.; Lintner, First N. Y. Rep. 1882, 146. N.Y. (Eur.)

Subfamily EURYTOMINÆ.

EURYTOMA Illig.

abatos Walk., Ann. Soc. Ent. Fr. ser. 2, i, 152, ♀. Fla.
abnormicornis Walsh, Am. Ent. ii, 299, ♀. Ill.
albipes Ashm., Proc. Ent. Soc. A. N. S. 1881, xxxi, ♂ ♀. Fla.
auriceps Walsh, Am. Ent. ii, 299, ♂ ♀. Ill.
bicolor Walsh, ibid. 298, ♂ ♀. Ill.
Bolteri Riley, First Mo. Rep. 177, fig. 97 (= var. *diastrophi*).
conica Prov., Add. Faun. Hym. 193, ♀. Can.
cretheis Walk., Ann. Soc. Ent. Fr. ser. 2, i, 150, ♀. Fla.
diastrophi Walsh, Am. Ent. ii, 299, ♂ ♀. Can. Ill.
flavipes Fitch, Seventh N. Y. Rep. 159 (= *fulvipes*).
fulvipes Fitch, Jour. N. Y. Agric. Soc. ix, 115. N.Y. (= *Isosoma hordei ?*)
funebris Howard, Rep. Ent. Dept. Agric. 1879, 196, ♂. D.C.
gigantea Walsh, Am. Ent. ii, 300, ♀. Ill.
globulicola Walsh, ibid. 299 (= var. *pruvicola*).
hecale Walk., Ann. Soc. Ent. Fr. ser. 2, i, 151, ♀. Fla.
hordei Harris, New England Farmer, ix (July, 1830), 2 (= *Isosoma*).
iphis Walk., Brit. Mus. Cat. Chalc. i, Append. 85, ♀. Fla.
lanulæ Fitch, Fifth N. Y. Rep. 37. N.Y.
nigricoxa Prov., Add. Faun. Hym. 193, ♀. Can.
obtusilobæ Ashm., Proc. Ent. Soc. A. N. S. 1885, xii, ♂ ♀. Fla.
orbiculata Say, Bost. Jour. i, 272; Lec. Edit. ii, 720. Ind.
phylloxeræ Ashm., Proc. Ent. Soc. A. N. S. 1881, xxx, ♀. Fla.

prunicola Walsh, Am. Ent. ii, 298, ♂ ♀. Ill.
punctiventris Walsh, ibid. 299, ♀. Ill.
pythes Walk., Ann. Soc. Ent. Fr. ser. 2, i, 154, ♀. Fla.
secalis Fitch, American Agriculturist, N. Y. 1861, 236 (= *Isosoma hordei*).
seminatrix Walsh, Am. Ent. ii, 299 (= var. *auriceps*).
studiosa Say, Bost. Jour. i, 272; Lec. Edit. ii, 721; Walsh, l. c. 299. Can. U.S.
succinipedis Ashm., Proc. Ent. Soc. A. N. S. 1881, xxxi, ♂ ♀. Fla.
teredon Walk., Ann. Soc. Ent. Fr. ser. 2, i, 153, ♂ ♀. Fla.
tritici Fitch, Jour. N. Y. Agric. Soc. ix, 115 (= *Isosoma hordei*).
vagabunda Ashm., Can. Ent. xiii, 134, ♀. Fla.

DECATOMA Spin.

basilaris Prov., Nat. Can. xii, 290; Faun. Ent. Can. ii, 569 (= *hyalipennis*).
batatoides Ashm., Can. Ent. xiii, 136. Fla.
bicolor Ashm., Proc. Ent. Soc. A. N. S. 1881, xxxii, ♀. Fla.
catesbæi Ashm., ibid. xxxii, ♀. Fla.
dubia Walsh, Am. Ent. ii, 300 (= var. *varians*).
excrucians Walsh, ibid. 300 (= var. *nigriceps*).
flava Ashm., Can. Ent. xiii, 134, ♂ ♀. Fla.
flavicollis Ashm., Proc. Ent. Soc. A. N. S. 1885, xiii, ♂ ♀. Fla.
foliatæ Ashm., Can. Ent. xiii, 136, ♂ ♀. Fla.
hyalipennis Walsh, Am. Ent. ii, 301, ♂ ♀. Can. Ill.
lanæ Ashm., Can. Ent. xiii, 135, ♂ ♀. Fla.
maculipes Ashm., Trans. Am Ent. Soc. xiii, 126, ♀. Fla.
nigriceps Walsh. Am. Ent. ii, 300, ♂ ♀. Ill.
nubilistigma Walsh, ibid. 301, ♂ ♀. Ill.
phellos Ashm., Can. Ent. xiii, 136, ♂. Fla.
querci Ashm., ibid. 135, ♂. Fla.
simplicistigma Walsh, Am. Ent. ii, 301, ♂ ♀. Ill.
varians Walsh, ibid. 300, ♂ ♀. Can. Ill.

SYSTOLE Walk.

brachyptera Ashm., Trans. Am. Ent. Soc. xiii, 126, ♀. Fla.

ISOSOMA Walk.

allynii French, Can. Ent. xiv, 9 (= *Eupelmus*).
elymi French, ibid. 10, ♀. Ill.
gigantea Ashm., Trans. Am. Ent. Soc. xiii, 127, ♂. Fla.
grande Riley, Bull. Brook. Ent. Soc. vii, 111; Rep. Ent. Dept. Agric. 1884, 358, pl. vii, viii, ♀. Ohio, Ind.
hordei Harris (*Eurytoma*); Walsh, Am. Ent. ii, 329, figs. 3–4, ♂ ♀. Can. U.S.
nigrum Cook, Rural New Yorker, June, 1885, 314 (= *hordei*).
tritici Riley, Am. Nat. xvi, 247; Rep. Ent. 1882. 186, ♀. Can. U.S.
vitis Saunders, Can. Ent. ii, 26; Riley, 2d Mo. Rep. 92, fig. 65, ♂ ♀. Can. U.S.

Subfamily TORYMINÆ.

MEGASTIGMUS Dalm.

flavipes Ashm., Trans. Am. Ent. Soc. xiii, 128, ♂. Fla.
pinus Parfitt, Zoologist, xv, 5543, ♀. Cala.

MONODONTOMERUS Westw.

viridæneus Prov., Nat. Can. xii, 290; Faun. Ent. Can. ii, 569, ♀. Can.

DIOMORUS Walk.

Zabriskii Cress., Psyche, ii, 189, ♀. N.Y.

OLIGOSTHENUS Först.

bimaculatus Prov., Add. Faun. Hym. 196, ♀. Can.

SYNTOMASPIS Först.

californica Ashm., Trans. Am. Ent. Soc. xiii, 127, ♂ ♀. Cala.
citriformis Ashm. (*Callimome*), Proc. Ent. Soc. A. N. S. 1885, xiii, ♀. Fla.
elegantissima Ashm. (*Callimome*), ibid. 1881, xxxiv, ♀. Fla.
melanoceræ Ashm. (*Callimome*), ibid. 1885, xiii, ♀. Fla.
racemariæ Ashm. (*Callimome*), ibid. 1881, xxxiii, ♂ ♀. Fla.
splendens Prov., Add. Faun. Hym. 196, ♂ ♀. Can.

TORYMUS Dalm.

adv[illegible]a O. S. (*Callimome*), Trans. Am. Ent. Soc. iii, 59, ♂ ♀. D.C.
æa Walk. (*Callimome*), Ann. Nat. Hist. xii, 104, ♀. N.Y.
æneus Ashm. (*Callimome*), Proc. Ent. Soc. A. N. S. 1881, xxxiii, ♂ ♀. Fla.
brevicauda ‖ O. S. (*Callimome*), Trans. Am. Ent. Soc. iii, 62, ♂ ♀ (= *Sackenii*).
brevissimicauda Ashm. (*Callimome*), Proc. Ent. Soc. A. N. S. 1881, xxxiii. Fla.
cœruleus Ashm. (*Callimome*), Proc. Ent. Soc. A. N. S. 1881, xxxiii, ♂ ♀. Fla.
cecidomyiæ Walk. (*Callimome*), Ann. Nat. Hist. xiv. 15, ♀. Hud.Bay.
chrysochlora O. S. (*Callimome*), Trans. Am. Ent. Soc. iii, 63, ♂ ♀. N.E.States.
dryorhizoxeni Ashm. (*Callimome*), Proc. Ent. Soc. A. N. S. 1885, xiii, ♀. Fla.
dura O. S. (*Callimome*), Trans. Am. Ent. Soc. iii, 59, ♂. D.C.?
ebrius O. S. (*Callimome*), ibid. 58, ♂ ♀. D.C.
fagopirum Prov. (*Callimome*), Nat. Can. xii, 291; Faun. Ent. Can. ii, 570. Can.
flavicoxa O. S. (*Callimome*), Trans. Am. Ent. Soc. iii, 61, ♀. Can. Ct.
Harrisii Fitch, Seventh N. Y. Rep. 153. N.Y.
lissus Walk. (*Callimome*), Ann. Ent. Soc. Fr. ser. 2, i, 150, ♂. Fla.
lividus Ashm. (*Callimome*), Proc. Ent. Soc. A. N. S. 1885, xiii, ♀. Fla.
longicaudus Prov. (*Callimome*), Faun. Ent. Can. ii, 808, ♀. Can.
magnificus O. S. (*Callimome*), Trans. Am. Ent. Soc. iii, 62, ♂ ♀. Ct.
ocreatus Say, Bost. Jour. i, 275; Lec. Edit. ii, 723, ♂ ♀. Ind.
pavidus Say, ibid. 275; Lec. Edit. ii, 723, ♂. Ind.
Sackenii Ashm., Proc. Ent. Soc. A. N. S. 1881, xxxii. D.C. Fla.
solitarius O. S. (*Callimome*), Trans. Am. Ent. Soc. iii, 64, ♀. D.C.?
splendidus Walk. (*Callimome*), Ann. Mag. Nat. Hist. xiv, 14, ♀. Hud.Bay.
theon Walk. (*Callimome*), Ann. Ent. Soc. Fr. ser. 2, i, 149, ♀. Fla.
tubicola O. S. (*Callimome*), Trans. Am. Ent. Soc. iii, 60, ♂ ♀. Can. D.C.
virentis Ashm. (*Callimome*), Proc. Ent. Soc. A. N. S. 1881, xxxiv, ♀. Fla.

ORMYRUS Westw.

andricus Ashm., Trans. Am. Ent. Soc. xiii, 128, ♀. Fla.
brunneipes Prov., Add. Faun. Hym. 198, ♀. Can.
dryorhizoxeni Ashm., Proc. Ent. Soc. A. N. S. 1885, xiv, ♀. Fla.
labotus Walk., Ann. Soc. Ent. Fr. ser. 2, i, 148, ♂ ♀. Fla.

quercus Ashm., Trans. Am. Ent. Soc. xiii, 128, ♂ ♀. Fla.
rosæ Ashm., Proc. Ent. Sec. A. N. S. 1885, xiv, ♀. Fla.

Subfamily EUPELMINÆ.

EUPELMUS Dalm.

allynii French (*Isosoma*), Can. Ent. xiv, 9; Riley, Proc. U. S. Nat. Mus. viii, 1885, 418, pl. xxiii, figs. 3–4, ♂ ♀. U.S.
auratus Ashm., Trans. Am. Ent. Soc. xiii, 128, ♀. Fla.
conigeræ Ashm., Proc. Ent. Sec. A. N. S. 1885, xv, ♀. Fla.
cynipidis Ashm., Can. Ent. xiv, 36, ♀. Fla.
cyaniceps Ashm., Trans. Am. Ent. Soc. xiii, 129, ♀. Fla.
dryophantæ Ashm., ibid. 130, ♂ ♀. Fla.
dryorhizoxeni Ashm., ibid. 129, ♂ ♀. Fla.
epicaste Walk., Ann. Mag. Nat. Hist. xx, 20, ♀. N.Am.
floridanus Howard, Can. Ent. xii, 209, ♂. Fla.
fonteia Walk., Ann. Mag. Nat. Hist. xx, 19, ♀. N.Am.
Gemmarii Ashm., Trans. Am. Ent. Soc. xiii, 129, ♀. Fla.
hirtus Ashm., Proc. Ent. Sec. A. N. S. 1885, xiv, ♂ ♀. Fla.
lamachus Walk., Ann. Mag. Nat. Hist. xx, 20, ♀. N.Am.
manus Ashm., Proc. Ent. Sec. A. N. S. 1885, xv, ♂ ♀. Fla.
mirabilis Walsh (*Antigaster*), Am. Ent. ii, 369; Riley, Sixth Mo. Rep. 1874, 162, fig. 48 ♂, 49 ♀. Ill. Mo.
quercus Ashm., Trans. Am. Ent. Soc. xiii, 130, ♀. Fla.
reduvii Howard, Can. Ent. xii, 207, ♂ ♀. D.C.?
rosæ Ashm., ibid. xiv, 36, ♀. Fla.
sphæricephalus Ashm., Trans. Am. Ent. Soc. xiii, 129, ♀. Fla.
zeli Ashm., ibid. 130, ♀. Fla.

CHARITOPUS Först.

facialis Prov., Add. Faun. Hym. 203, ♂. Can.

METAPELMA Westw.

spectabilis Westw., Proc. Zool. Soc. Lond. 1835, 69; Thes. Ent. Oxon. 149. Ga.

Subfamily ENCYRTINÆ.

RHOPUS Först.

coccois Smith (*Acerophagus*), N. Am. Ent. i, 84, pl. vi, figs. 20–23 ♀; Howard, Rep. Ent. Dept. Agric. 1880, 361, pl. 24, fig. 2, ♀. Pa. Ill.

APHYCUS Mayr.

annulipes Ashm. (*Coccophagus*), Can. Ent. xiv, 37, ♀. Fla.
brunneus Howard, Bull. v, Ent. Bur. U. S. Dep. Agric. 17, ♀. N.J.
ceroplastis Howard, ibid. 18, ♂ ♀. N.Mex.
eruptor Howard, Rep. Ent. Dept. Agric. 1880, 364, pl. 23, fig. 5, ♂ ♀. Va. Fla.
flavus Howard, ibid. 365, ♀, Fla.
maculipes Howard, Bull. v, Ent. Bur. U. S. Dep. Agric. 18, ♂ ♀. S.Car.
pulvinariæ Howard, Rep. Ent. Dept. Agric. 1880, 365, ♀. Iowa.

BLASTOTHRIX Mayr.

adjutabilis Howard, Rep. Ent. Dept. Agric. 1880, 365, pl. 23, fig. 6, ♀. Va. Fla.
incerta Howard, ibid. 366, ♂. Fla.
longipennis Howard, ibid. 366, ♀. D.C.
rosæ Ashm., Trans. Am. Ent. Soc. xiii, 130, ♀. Fla.

ENCYRTUS Dalm.

albocinctus Ashm. (*Eupelmus* error), Proc. Ent. Soc. A. N. S. 1885, xvi, ♀. Fla.
artaceæ Howard, Rep. Ent. Dept. Agric. 1880, 252, ♂ ♀. Fla.
bolus Walk., Ann. Mag. Nat. Hist. xiv, 17, ♀. Hud.Bay.
bucculatricis Howard, Lintner's First N. Y. Rep. 1882, 160. fig. 43, ♀. U.S.
cecidomyiæ Howard, Bull. v, Ent. Bur. U. S. Dep. Agric. 16, ♂ ♀. Va.
ensifer Howard, ibid. 13, ♂ ♀. Fla.
flaccus Walk. (*Cerchysius*). Ann. Mag. Nat. Hist. xx, 21, ♀. N.Am.
flavus Howard, Rep. Ent. Dept. Agric. 1880, 367, pl. 23, fig. 7-8, ♂ ♀. Cala.
fuscicornis Howard, Bull. Ent. Bur. U. S. Dep. Agric. v, 13, ♀. Md.
gastron Walk., Ann. Mag. Nat. Hist. xx, 21, ♀. N.Am.
inquisitor Howard, Rep. Ent. Dept. Agric. 1880, 367, pl. 24, fig. 1, ♀. Fla
lachni Ashm. (*Eupelmus* error), Proc. Ent. Soc. A. N. S. 1885, xvi, ♀. Fla.
montinus Pack., Proc. Bost. Soc. Nat. Hist. xxi, 31. N.H.
pachypsyllæ Howard, Bull. v, Ent. Bur. U. S. Dep. Agric. 15, ♂ ♀. Md.
puncticeps Howard, ibid. 14, ♀. Va.
reate Walk., Ann. Mag. Nat. Hist. xx, 22, ♂. N.Am.
schizoneuræ Ashm. (*Eupelmus* error), Proc. Ent. Soc. A. N. S. 1885, xvi. Fla.
siphonophoræ Ashm., Trans. Am. Ent. Soc. xiii, 131, ♀. Fla.
solus Howard, Bull. v, Ent. Bur. U. S. Dept. Agric. 15, ♀. Fla.
sublestus Howard, ibid. 12, ♂. Fla.
trioziphagus Howard, 14, ♂ ♀. D.C.
turni Pack., Proc. Bost. Soc. Nat. Hist. xxi, 32, ♂ ♀. Ct.
vectius Walk., Ann. Mag. Nat. Hist. xx, 21, ♂. N.Am.

PSILOPHRYS Mayr.

hyalinipennis Howard, Bull. v. Ent. Bur. U. S. Dep. Agric. 21, ♂. Mo.

LEPTOMASTIX Först.

dactylopii Howard, Bull. v, Ent. Bur. U. S. Dep. Agric. 23, ♂ ♀. D.C.

COPIDOSOMA Ratz.

celænæ Howard, Bull. v, Ent. Bur. U. S. Dep. Agric. 11, ♀. Mo.
gelechiæ Howard, ibid. 10, ♂ ♀. U.S.
intermedium Howard, ibid 12, ♂ ♀. N.J. Mo.
melanocephalum Ashm., Trans. Am. Ent. Soc. xiii, 131, ♂. Fla.
pallipes Prov., Add. Faun. Hym. 205, ♀. Can.
truncatellum (?) Dalm.; Howard, Rep. Ent. 883, 121, pl. xi, fig. 6. U.S.
vagum Howard, Bull. v, Ent. Bur. U. S. Dept. Agric. 11, ♂ ♀. Mo.

COMYS Först.

albicoxa Ashm., Proc. Ent. Soc. A. N. S. 1885, xvi, ♂ ♀. Fla.
bicolor Howard, Rep. Ent. Dept. Agric. 1880, 362, pl. 23, fig. 3, ♂ ♀. D.C.
fusca Howard, ibid. 363, ♂ ♀. Ala.

CHILONEURUS Westw.

albicornis Howard, Rep. Ent. Dept. Agric. 1880, 363, pl. 23, fig. 4, ♀. U.S.
cupreicollis Ashm., Trans. Am. Ent. Soc. xiii, 131, ♀. Fla.
dactylopii Howard, Bull. v, Ent. Bur. U. S. Dept. Agric. 17. D.C.
dubius Howard, ibid. 17, ♂. Wisc. Mo.
maculatipennis Prov., Add. Faun. Hym. 203, ♀. Can.

HOMALOTYLUS Mayr.

lachni Ashm., Trans. Am. Ent. Soc. xiii, 132, ♀. Fla.
obscurus Howard, Bull. v, Ent. Bur. U. S. Dept. Agric. 22; Orange Ins. 1885, 74, fig. 35, ♀. Fla.

DINOCARSIS Först.

thyridopterygis Ashm., Can. Ent. xviii, 97, ♀. Fla.

BOTHRIOTHORAX Ratz.

Peckhamii Ashm., Trans. Am. Ent. Soc. xiii, 132, ♂ ♀. Wisc.
peculiaris Howard, Bull. v, Ent. Bur. U. S. Dept. Agric. 20, ♂ ♀. Va.
virginiensis Howard, ibid. 20, ♀. Va.

Subfamily APHELININÆ.

COCCOPHAGUS Westw.

annulipes Ashm., Can. Ent. xiv, 37 (= *Aphycus*).
ater Howard, Rep. Ent. Dept. Agric. 1880, 359, ♂ ♀. N.Y.
brunneus Prov., Add. Faun. Hym. 205, ♀. Can.
cognatus Howard, Rep. Ent. Dept. Agric. 1880, 359, pl. 23, fig. 2, ♂ ♀. D.C. Ala.
compressicornis Prov., Add. Faun. Hym. 206, ♀. Can.
flavifrons Howard, Bull. v, Ent. Bur. U. S. Dept. Agric. 25, ♂. Fla.
flavoscutellum Ashm., Florida Agriculturist, iv. 65, 1881. Fla.
fraternus Howard, Rep. Ent. Dept. Agric. 1880, 359, ♀. D.C.
fuscipennis Howard, ibid. 359, ♂ ♀. Fla.
immaculatus Howard, ibid. 358, ♂ ♀. D.C.
Koebelei Howard Bull. v, Ent. Bur. U. S. Dept. Agric. 25, ♂. Fla.
lecanii Fitch (*Platygaster*); Howard, Rep. Ent 1880, 357, ♂ ♀. U.S.
pallipes Prov., Add. Faun. Hym. 206, ♀. Can.
purpureus Ashm., Trans. Am. Ent. Soc. xiii, 132, ♀. Fla.
varicornis Howard, Rep. Ent. Dept. Agric. 1880, 360, ♀. D.C.
vividus Howard, Bull. v, Ent. Bur. U. S. Dept. Agric. 24, ♂ ♀. Fla.

APHELINUS Dalm.

abnormis Howard, Rep. Ent. Dept. Agric. 1880, 355, ♀. D.C.
aspidiaticola Ashm., Can. Ent. xi, 159, Fla. (= a *Proctotrupid?*)
diaspidis Howard, Rep. Ent. Dept. Agric. 1880, 355, ♂ ♀. Fla. Cala.
fuscipennis Howard, ibid. 356, ♀. D.C. Fla. Cala.
mali Hald. (*Eriophilus*), Proc. Bost. Soc. vi, 403; Howard, l. c. 356, ♀. U.S.
mytilaspidis LeBaron, Am. Ent. ii, 360; Howard, l. c. 354, pl. 23, fig. 1. U.S.
pulchellus Howard, Rep. Ent. Dept. Agric. 1880, 356, ♀. D.C.

Subfamily PIRENINÆ.

MACORGLENES Westw.

dryorhizoxeni Ashm., Trans. Am. Ent. Soc. xiii, 133, ♀. Fla.
querci-globuli Fitch, Fifth N. Y. Rep. 32. N.Y.
querci-pisi Fitch, ibid. 39. N.Y. Fla.

DILOPHOGASTER Howard.

californica Howard (*Tomocera*), Rep. Ent. Dept. Agric. 1880, 368, pl. 24, fig. 3–4, ♂ ♀. Cala.

Subfamily TRIDYMINÆ.

SEMIOTELLUS Westw.

chalcidephagus Walsh, Am. Ent. ii, 368, ♂ ♀. Can. U.S.
clisiocampæ Fitch (*Cleonymus*), Second N. Y. Rep. 200, ♂ ♀. N.Y.
cupræus Prov., Nat. Can. xii, 295; Faun. Ent. Can. ii, 574, ♂. Can.
fasciatus Prov., ibid. 294; Faun. Ent. Can. ii. 573, ♂ ♀. Can.
ficigeræ Ashm., Proc. Ent. Soc. A. N. S. 1885. xvii, ♂ ♀. Fla.
fuscipes Prov., Nat. Can. xii, 295; Faun. Ent. Can. ii, 574, ♀. Can.
melanicrus Prov., ibid. 294; Faun. Ent. Can. ii, 573, ♂ ♀. Can.
minimus Prov., ibid. 295; Faun. Ent. Can. ii, 574, ♀. Can.
oblongus Prov., ibid. 295; Faun. Ent. Can. ii, 574, ♀. Can.
suborbicularis Prov., ibid. 296; Faun. Ent. Can. ii, 575, ♀. Can.

PAPHAGUS Walk.

rugosus Prov., Nat. Can. xii, 293; Faun. Ent. Can. ii, 572, ♂. Can.

Subfamily SPALANGINÆ.

THEOCOLAX Westw.

canadensis Prov., Faun. Ent. Can. ii, 809, ♀. Can.

SPALANGIA Latr.

ænea Prov., Add. Faun. Hym. 200, ♂. Can.
polita Say, Lec. Edit. i, 382, ♀. Va.
querci-lanæ Fitch, Fifth N. Y. Rep. 36. N.Y.
? syrphi Ashm., Can. Ent. xiii, 171, ♂ ♀. Fla.

Subfamily PTEROMALINÆ.

LAMPROTATUS Westw.

cyrnus Walk., Ann. Soc. Ent. Fr. ser. 2, i, 157. Fla.
diæus Walk., Ann. Mag. Nat. Hist. xiv, 16, ♀. Hud.Bay.
habis Walk., Ann. Soc. Ent. Fr. ser. 2, i, 155, ♀. Fla.
salemus Walk., ibid. 156, ♀. Fla.
trypherus Walk., ibid. 158, ♀. Fla.

GLYPHE Walk.

Walker, Ent. Mag. ii, 170 (1834).

viridascens Walsh, Ins. Inj. Veg. Ill. 38; Tenth Ill. Rep. 39. Ill.

EPSITENIA Westw.

cœruleata Westw., Griff. Anim. Kingd. Ins. ii, 432, pl. 77, fig. 3; Thes. Ent. Oxon. 147. Ga.

CHIROPACHYS Westw.

nigrocyaneus Norton, Trans. Am. Ent. Soc. ii, 327, ♀. Ct.

METACOLUS Först.

conicus Prov., Add. Faun. Hym. 200, ♀. Can.

DINOTUS Först.

acutus Prov., Add. Faun. Hym. 201, ♀. Can.

PACHYNEURON Walk.

albutius Walk., Ann. Soc. Ent. Fr. ser. 2, i, 158. ♀. Fla.
altiscuta Howard, Cook's Notes on Inj. Ins. 1884, 13, ♂ ♀. Mich.
anthomyiæ Howard, Hubbard's Orange Ins. 1855, 217, ♂ ♀. Fla.
syrphi Ashm., Trans. Am. Ent. Soc. xii, 131, ♂ ♀. Fla.

BŒOTOMUS Först.

cyrene Walk. (*Micromelus*), Ann. Soc. Ent. Fr. ser. 2, i, 154, ♀. Fla.

MERISUS Walk.

destructor Say (*Ceraphron*); Riley, Proc. U. S. Nat. Mus. viii, 1885, 413, pl. 23, fig. 1, ♂ ♀. U.S.
isosomatis Riley (*Stictonotus*), Rep. Ent. Dept. Agric. 1882, 186, ♂ ♀. Tenn.
fulvipes Forbes (*Pteromalus?*), 14th Ill. Rep. 1885, 47, ♂ ♀. Ill. (= *subapterus*).
subapterus Riley (*Homoporus*), Proc. U. S. Nat. Mus. viii, 416, ♂ ♀. Mo. (= *fulvipes*).

EUTELUS Walk.

? scymnæ Shimer, Trans. Am. Ent. Soc. ii, 385, ♂. Ill.

ROPTROCERUS Ratz.

rectus Prov., Add. Faun. Hym. 202, ♀. Can.

PTEROMALUS Swed.

acutus Prov., Nat. Can. xii, 297; Faun. Ent. Can. ii, 576, ♀. Can.
calandræ Howard, Rep. Ent. Dept. Agric. 1880, 273, ♂. Tex.
cassotis Walk., Ann. Mag. Nat. Hist. xix, 393, ♀. N.Am.
cratylus Walk., ibid. 392, ♀. N.Am.
damo Walk., ibid. 395, ♀. N.Am.
dipsas Walk., ibid. 394, ♀. N.Am.
doryssus Walk., ibid. 395, ♂. N.Am.
dymnus Walk., ibid. 397, ♀. N.Am.
epicles Walk., ibid., 394, ♀. N.Am.
eryx Walk., ibid. 397, ♂. N.Am.

eurypon Walk., ibid. 398, ♀. N.Am.
euthymus Walk., ibid. 393, ♂. N.Am.
? fulvipes Forbes, 14th Ill. Rep. 1885, 47, pl. 4, fig. 2 (= *Merisus*).
gelechiæ Webster, Twelfth Rep. State Ent. Ill. 1882. 151, ♂ ♀. Ind. Ill.
hermeas Walk., Ann. Mag. Nat. Hist. xix, 394, ♀. N.Am.
hybreas Walk., ibid. 397, ♀. N.Am.
lausus Walk., ibid. 392, ♀. N.Am.
nematicida Pack., Rep. Ent. Dept. Agric. 1883, 146, pl. xiii, fig. 5. Me.
nigricornis Prov., Nat. Can. xii, 297; Faun. Ent. Can. ii, 576, ♀. Can.
œax Walk.. Ann. Mag. Nat. Hist. xix, 395, ♀. N.Am.
onerati Fitch, Fifth N. Y. Rep. 32. N.Y.
orontas Walk., Ann. Mag. Nat. Hist. xix, 396, ♀. N.Am.
pallipes Forbes, 14th Ill. Rep. 1885, 46, pl. 4. fig. 1. Ill.
pieridis Prov., Nat. Can. xii, 296; Faun. Ent. Can. ii. 575, ♂ ♀. Can.
puparum Linn.; Pack., Proc. Bost. Soc. Nat. Hist. xxi, 30. ♂ ♀. Can. U.S.
quadrimaculatæ Ashm., Can. Ent. xiii, 171, ♂ ♀. Fla.
querci-pilulæ Fitch, Fifth N. Y. Rep. 39. N.Y.
tabacum Fitch, Ninth N. Y. Rep. 225. N.Y.
timæa Walk., Ann. Mag. Nat. Hist. xix, 396, ♀. N.Am.
verditer Norton, Trans. Am. Ent. Soc. ii, 327, ♂ ♀. Ct.

METOPON Walk.

deiphon Walk., Ann. Soc. Ent. Fr. ser. 2. i, 161, ♀. Fla.

NORBANUS Walk.

dysaules Walk., Ann. Soc. Ent. Fr. ser. 2, i, 159, ♂ ♀. Fla.
pisius Walk., ibid. 160, ♀. Fla.

Subfamily ELACHISTINÆ.

EUPLECTRUS Westw.

catocalæ Howard, Bull. v, Ent. Bur. U. S. Dept. Agric. 27, ♂ ♀. Md. Mo.
Comstockii Howard, Can. Ent. xii, 159; 4th U. S. Ent. Com. 1885, 107, fig. 35, ♂ ♀. U.S.
frontalis Howard, Bull. v, Ent. Bur. U. S. Dept. Agric. 27, ♀. Va.
leucotrophis Howard, ibid. 26, ♂. Fla.
lucens Prov., Add. Faun. Hym. 207, ♀. Can.
marginatus Ashm., Proc. Ent. Soc. A. N. S. 1885, xviii, ♂ ♀. Fla.
mellipes Prov., Add. Faun. Hym. 207, ♀. Can.
platyhypenæ Howard, Bull. v, Ent. Bur. U. S. Dept. Agric. 26, ♂ ♀. D.C.
viridæneus Prov., Add. Faun. Hym. 207, ♀. Can.

STENOMESIUS Westw.

? aphidicola Ashm., Orange Ins. 1880, 67, fig. 21. Fla.

ELACHISTUS Spin.

cacœciæ Howard, Bull. v, Ent. Bur. U. S. Dept. Agric. 28, ♂. Mo.
coxalis Howard, ibid. 28, ♀. D.C.
euplectri Howard, 4th Rep. U. S. Ent. Com. Append. 108, ♂ ♀. Ala.

flavipes Ashm. Trans. Am. Ent. Soc. xiii, 133, ♀. Fla.
levana Walk., Ann. Mag. Nat. Hist. xx, 27, ♀. N.Am.
proteoteratis Howard, Bull. v, Ent. Bur. U. S. Dept. Agric. 27, ♀. Mo.

MIOTROPIS Thom.

nebulosa Prov., Add. Faun. Hym. 208, ♀. Can.
platynotæ Howard, Hubbard's Orange Ins. 1885, 217, ♂ ♀. Fla.

CIRROSPILUS Westw.

eunapius Walk., Ann. Mag. Nat. Hist. xx, 27, ♀. N.Am.
esurus Riley, Can. Ent. xi, 162 (= *Tetrastichus*).
flavicinctus Riley, Lintner's First N. Y. Rep. 1882, 159, ♂ ♀, fig. 42. Mo.
purpureus Ashm., Trans. Am. Ent. Soc. xiii, 133, ♀. Fla.

MELITTOBIA Westw.

megachilis Pack. (*Anthophorabia*), Proc. Essex Inst. iv, 134, ♀. Vt.

Subfamily ELASMINÆ.

ELASMUS Westw.

albicoxa Howard, Bull. v, Ent. Bur. U. S. Dept. Agric. 30, ♂. Mo.
nigripes Howard, ibid. 30, ♂. Mo.
pullatus Howard, ibid. 30, ♂. Mo.
tischeriæ Howard, ibid. 30, ♀. D.C. Va.
varius Howard, ibid. 29, ♂. Mo.

Subfamily EULOPHINÆ.

SYMPIESIS Först.

flavipes Ashm. (*Sympiezus*), Trans. Am. Ent. Soc. xiii, 133, ♀. Fla.
uroplatæ Howard (*Sympiezus*), Ent. Am. i, 117, ♂. D.C.

EULOPHUS Geoff.

basalis Say, Bost. Jour. i, 273; Lec. Edit. ii, 721, ♀. Ind.
calavius Walk., Ann. Mag. Nat. Hist. xx, 24, ♂ ♀. N.Am.
cyriades Walk., ibid. 25, ♂. N.Am.
dicladus Say, Bost. Jour. i, 273; Lec. Edit. ii, 721. Ind.
gobryas Walk., Ann. Mag. Nat. Hist. xx, 26, ♂. N.Am.
hircinus Say, Bost. Jour. i, 274; Lec. Edit. ii, 722. Ind.
iphiuœ Walk., Ann. Mag. Nat. Hist. xx, 25, ♂. N.Am.
minio Walk., ibid. 25, ♀. N.Am.
minyas Walk., ibid. 26, ♀. N.Am.
ramosus Prov., Nat. Can. xii, 297; Faun. Ent. Can. ii, 576, ♂ ♀. Can.
semideæ Pack., Proc. Bost. Soc. Nat. Hist. xxi, 35, ♂ ♀. N.H.
Saundersii Pack., ibid. 34, ♂. Can.
theclæ Pack., ibid. 34, ♂. Mass.
tricladus Prov., Add. Faun. Hym. 208, ♂ ♀.

Subfamily ENTEDONINÆ.

ASTICHUS Först.

minutus Howard, Rep. Ent. Dept. Agric. 1880, 369, ♂. D.C.

HOLCOPELTE Först.

albipes Prov., Add. Faun. Hym. 210, ♂. Can.

PLEUROTROPIS Först.

phyllotretæ Riley, Rep. Ent. Dept. Agric. 1884, 307, ♂ ♀. Mo.

ENTEDON Dalm.

antiopæ Pack., Proc. Bost. Soc. Nat. Hist. xxi, 36, ♂. Mass.
damastes Walk. (*Closterocerus*), Ann. Mag. Nat. Hist. xx, 22, ♀. N.Am.
diastatæ Howard, Rep. Ent. Dept. Agric. 1880, 246, ♂ ♀. D.C.
herillus Walk. (*Euderus*), Ann. Mag. Nat. Hist. xx, 23, ♀. N.Am.
imbrasus Walk., ibid. 23, ♀. N.Am.
sardus Walk. (*Horismenus*), ibid. 23, ♀. N.Am.

TRICHASIUS Prov.

Provancher, Add. Faun. Hym. 209 (1887).

clavatus Prov., Add. Faun. Hym. 209, ♀. Can.

CHRYSOCHARIS Först.

viridis Prov., Add. Faun. Hym. 209, ♀. Can.

DÆROSTENUS Westw.

primus Howard, MS. Ent. Am. i, 117. D.C.

TETRACNEMUS Westw.

floridanus Ashm., Proc. Ent. Soc. A. N. S. 1885, xviii, ♂. Fla.

Subfamily TETRASTICHINÆ.

GYROLASIA Först.

flavimedia Howard, Rep. Ent. Dept. Agric. 1880, 369, pl. 24, fig. 5, ♂. Cala.
nigrocyaneus Ashm., Trans. Am. Ent. Soc. xiii, 134, ♀. Fla.

TETRASTICHUS Hal.

acutus Ashm., Trans. Am. Ent. Soc. xiii, 134, ♂. Fla.
carinatus Forbes, 14th Ill. Rep. 1885, 48, ♀. Ill.
epidius Walk., Ann. Mag. Nat. Hist. xx, 28, ♀. N.Am.
esurus Riley (*Cirrospilus*), Can. Ent. xi, 162, ♂ ♀. South.U.S.
flavipes Ashm., Trans. Am. Ent. Soc. xiii, 135, ♀. Fla.
gala Walk., Ann. Mag. Nat. Hist. xx, 28, ♀. N.Am.
granulatus Walk., ibid. xiv, 17, ♀. Hud.Bay.
hæmon Walk., ibid. xx, 28, ♀. N.Am.

lecanii Ashm., Proc. Ent. Soc. A. N. S. 1885, xix, ♂. Fla.
productus Riley, Proc. U. S. Nat. Mus. viii, 1885, 419, pl. 23, fig. 5, ♂ ♀. Mo.
racemariæ Ashm., Trans. Am. Ent. Soc. xiii, 134, ♂ ♀. Fla.
rosæ Ashm., ibid. 134, ♂ ♀. Fla.

OXYMORPHA Först.

livida Ashm. Trans. Am. Ent. Soc. xiii, 135, ♀. Fla.

ACRIAS Walk.

nileus Walk., Ann. Mag. Nat. Hist. xx, 29, ♀. N.Am.

Subfamily TRICHOGRAMMINÆ.

TRICHOGRAMMA Westw.

flavum Ashm., Orange Ins. 1880, 33, pl. i, fig. 4. Fla.
? **fraterna** Fitch, Second N. Y. Rep. 217. N.Y.
minutissimum Pack., Proc. Bost. Soc. Nat. Hist. xxi, 37, ♂ ♀. Mass.
? **minutum** Riley, Third Mo. Rep. 158, fig. 72; Pack., l. c. 37, ♂. Mo.
odontotæ Howard, Ent. Am. i, 117, ♂ ♀. D.C.
? **orgyiæ** Fitch, Second N. Y. Rep. 216. N.Y.
pretiosa Riley, Can. Ent. xi, 161; 4th Rep. U. S. Ent. Com. 102, fig. 31, ♀. U.S.

Family PROCTOTRUPIDÆ.*

Subfamily DRYININÆ.

DRYINUS Latr.

alatus Cress. (*Gonatopus?*), Trans. Am. Ent. Soc. iv, 193, ♀. Tex.
atriventris Cress., ibid. 193, ♀. Tex.
bifasciatus Say, Lec. Edit. i, 384. Ind.

GONATOPUS Ljungh.

? *alatus* Cress., Trans. Am. Ent. Soc. iv, 193 (= *Dryinus*).
contortulus Patton, Can. Ent. xi, 65. Ct.
decipiens Prov., Add. Faun. Hym. 179, ♀. Can.

LABEO Hal.

incertus Ashm., Ent. Am. iii, 74, ♀. Fla.

ANTEON Jur.

tibialis Say, Bost. Jour. i, 284; Lec. Edit. ii, 730. Ind.

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* The *Entomologica Americana* and *Canadian Entomologist* for July, containing descriptions of a number of new species belonging to this family, were received just in time to add them here. It is worthy of notice, that in the subfamily Platygasterinæ, all the genera characterized in the Synopsis (ante p. 84), except *Iphitrachelus*, have been recognized by Mr. Ashmead as occurring in our fauna.

APHELOPUS Dalm.

americanus Ashm., Ent. Am. iii, 74, ♂. Fla.

Subfamily EMBOLEMINÆ.

EMBOLEMUS Westw.

nasutus Ashm., Ent. Am. iii, 75, ♂. Fla.

Subfamily BETHYLINÆ.

SCLEROCHROA Först.

contracta Westw. (*Scleroderma* ‖), Trans. Ent. Soc. Lond. ii, 169, pl. 15, fig. 11, ♀; Thes. Ent. Oxon. 170. Car.
cynipsiphila Ashm., Ent. Am. iii, 75, ♀. Fla.
gallicola Ashm., ibid. 75, ♀. Fla.
macrogaster Ashm., ibid. 75, ♀. Fla.
thoracica Westw. (*Scleroderma*), Trans. Ent. Soc. Lond. ii, 167, ♀. N.Am.

PRISTOCERA Klug.

Klug, Weber u. Mohr, Beitr. z. Naturk. ii, 202 (1810).

atra Klug; Westw., Thes. Ent. Oxon. 163, pl. xxxi. fig. 5, ♂. Ga. Fla.

SIEROLA Cam.

maculipennis Ashm., Ent. Am. iii, 75, ♀. Fla.

PERISEMUS Först.

[illegible]us Ashm., Ent. Am. iii, 76, ♂ ♀. Fla.
[illegible]s Ashm., ibid. 76, ♀. Fla.

GONIOZUS Först.

foveolatus Ashm., Ent. Am. iii, 76, ♀. Fla.
grandis Ashm., ibid. 76, ♂ ♀. Fla.
Hubbardi Howard, Hubbard's Orange Ins. 1885, 217, ♀. Fla.

EPYRIS Westw.

analis Cress., Trans. Am. Ent. Soc. iv, 193, ♀. Tex.
læviventris Cress., ibid. 193, ♂. Tex.
rufipes Say (*Bethylus*), Lec. Edit. i, 221. Tex. Mo.

ISOBRACHIUM Först.

floridanum Ashm., Ent. Am. iii, 76, ♀. Fla.

BETHYLUS Latr.

armiferus Say, Lec. Edit. i, 383. Ind.
cellularis Say, Bost. Jour. i, 279; Lec. Edit. ii, 726. Ind.
centratus Say, ibid. 281; Lec. Edit. ii, 727. Ind.
formicoides Prov., Add. Faun. Hym. 179, ♀. Can.
musculus Say, Bost. Jour. i, 280; Lec. Edit. ii, 726. Ind.
pedatus Say, ibid. 280; Lec. Edit. ii, 727. Ind.

prolongatus Prov., Nat. Can. xii, 265; Faun. Ent. Can. ii, 563, ♀. Can.
rufipes Say, Lec. Edit. i, 221 (= *Epyris*).

Subfamily Ceraphroninæ.

CERAPHRON Jur.

armatus Say, Bost. Jour. i, 276; Lec. Edit. ii, 724. Ind.
destructor Say, Jour. Acad. Nat. Sci. Phil. i, 47; Lec. Edit. ii, 6 (= *Meŕisus*).
stigmatus Say, Bost. Jour. i, 277; Lec. Edit. ii, 724. Ind.
triticum Taylor, American Agriculturist, N. Y. Oct. 1860, 300, fig. N.Y.

MEGASPILUS Westw.

lucens Prov., Faun. Ent. Can. ii, 808, ♀. Can.

Subfamily Proctotrupinæ.

PROCTOTRUPES Latr.

abruptus Say, Bost. Jour. i, 278; Lec. Edit. ii, 725, ♀. Can. Ind.
californicus Holmgr., Kongl. Sv. Freg. Eug. Resa, Ins. 434. Cala.
caudatus Say, Lec. Edit. i, 221, ♀. Mo.
crenulatus Patton, Can. Ent. xi, 64, ♀. Ct.
flavipes Prov., Nat. Can. xii, 264; Faun. Ent. Can. ii, 562, ♀. Can.
obsoletus Say, Bost. Jour. i, 277; Lec. Edit. ii, 725, ♀. Ind.
pallidus Say (*Codrus*), Lec. Edit. i, 382; ii, 725. Ind.
rufigaster Prov., Nat. Can. xii, 263; Faun. Ent. Can. ii, 561, ♂ ♀. Can.

Subfamily Scelioninæ.

TELENOMUS Hal.

bifidus Riley, Rep. Ent. Dept. Agric. 1886, 531, ♂ ♀. D.C.
orgyiæ Fitch, Eighth N. Y. Rep. 197. N.Y.
stygicus Prov., Add. Faun. Hym. 180, ♀. Can.

HADRONOTUS Först.

leptocorisæ Howard, Hubbard's Orange Ins. 1885, 215, ♂ ♀. Fla.

SCELIO Latr.

famelicus Say (*Sparasion*), Bost. Jour. i, 276; Lec. Edit. ii, 723. Ind.
ovivora Riley (*Caloptenodia*), 1st Rep. Ent. Com. 306; 2d Rep. 270 (= *famelicus*).
terminalis Say (*Serlion*), Lec. Edit. i, 383. Ind.

Subfamily Platygasterinæ.

ALLOTROPA Först.

americana Ashm., Can. Ent. xix, 125, ♂. Fla.

METACLISIS Först.

belonocnemæ Ashm., Can. Ent. xix, 125, ♀. Fla.

MONOCRITA Först.

canadensis Ashm., Can. Ent. xix, 126, ♀. Can.
melanostropha Ashm., ibid. 126, ♀. Fla.

ISOSTASIUS Först.

arietinus Prov., Add. Faun. Hym. 183, ♀. Can.
musculus Ashm., Can. Ent. xix, 126, ♀. Fla.
punctiger Nees (*Platygaster*); Wagner, Stett. Ent. Zeits. 1866, 178, pl. iii, figs. 23–25. Va. (Howard)

INOSTEMMA Hal.

Cressoni Ashm., Can. Ent. xix, 127, ♀. Fla.
Horni Ashm., ibid. 126, ♂ ♀. Fla.
Packardi Ashm., ibid. 127, ♀. Fla.
Rileyi Ashm., ibid. 127, ♂ ♀. Fla.

ACEROTA Först.

caryæ Ashm., Can. Ent. xix, 128, ♂ ♀. Fla.
floridana Ashm., ibid. 128, ♀. Fla.
opaca Prov., Add. Faun. Hym. 184, ♀. Can.

CATILLUS Först.

maculipes Ashm., Can. Ent. xix, 128, ♀. Fla.

XESTONOTUS Först.

andriciphilus Ashm., Can. Ent. xix, 128, ♀. Fla.

AMBLYASPIS Först.

americanus Ashm., Can. Ent. xix, 129, ♀. Fla.
longipes Ashm., ibid. 128, ♂. Fla.

LEPTACIS Först.

cynipsiphila Ashm., Can. Ent. xix, 129, ♂ ♀. Fla.

ISORHOMBUS Först.

hyalinipennis Ashm., Can. Ent. xix, 129, ♀. Fla.

ECTADIUS Först.

americanus Ashm. (*Epimeces*), Can. Ent. xix, 129, ♂ ♀. Fla.

SACTOGASTER Först.

anomaliventris Ashm., Can. Ent. xix, 130, ♀. Fla.

SYNOPEAS Först.

melanocera Ashm., Can. Ent. xix, 130, ♀. Fla.

ANOPEDIAS Först.

incertus Ashm., Can. Ent. xix, 130, ♀ Fla.

ISOCYBUS Först.

longiventris Ashm., Can. Ent. xix, 130, ♀. Fla.

TRICHACIS Först.

brunneipes Ashm., Can. Ent. xix, 131, ♀. Fla.

HYPOCAMPSIS Först.

pluto Ashm., Can. Ent. xix, 131, ♀. Fla.

POLYGNOTUS Först.

baccharicola Ashm., Can. Ent. xix, 132, ♂ ♀. Fla.
solidaginis Ashm., ibid. 131, ♂ ♀. Fla.

PLATYGASTER Latr.

canadensis Prov., Add. Faun. Hym. 181, ♂ ♀. Can.
error Fitch, Sixth N. Y. Rep. 76, pl. 1, fig. 4. N.Y.
floridensis Ashm., Can. Ent. xix, 132, ♀. Fla.
gracilis Ashm., ibid. 132, ♂. Fla.
Herrickii Pack., Proc. U. S. Nat. Mus. viii, 420, pl. xxiii, fig. 6, ♂. Mo.
pallipes Say, Lec. Edit. i, 383. Ind.?

Subfamily MYMARINÆ.

ALAPTUS Walk.

aleurodis Forbes (*Elaptus*), 14th Ill. Rep. 1884, 110, pl. 11, fig. 6, ♀. Ill.

COSMOCOMA Först.

elegans Howard, Rep. Ent. Dept. Agric. 1880, 371, pl. 24, fig. 7, ♂. Cala.

ANAPHES Hal.

gracilis Howard, Rep. Ent. Dept. Agric. 1880, 370, pl. 24, fig. 6, ♀. D.C.

SIGNIPHORA Ashm.

Ashmead, Orange Ins. 30 (1880).

flavopalliatus Ashm., Orange Ins. 31, pl. ii, fig. 2, ♀. Fla.

PTERATOMUS Pack.

Packard, Proc. Essex Inst. iv, 137 (1863).

Putnamii Pack., Proc. Essex Inst. iv, 138, pl. 3, fig. 8; Cox, Am. Nat. xii, 1878, 445, ♂. Vt.

AMITUS Hald.

Haldeman, Sill. Am. Jour. 2d ser. ix, 109 (1850).

aleurodinus Hald., Sill. Am. Jour. 2d ser. ix, 110. Pa.

ERETMOCERUS Hald.

Haldeman, Sill. Am. Jour. 2d ser. ix, 111 (1850).

corni Hald., Sill. Am. Jour. 2d ser. ix, 111. Pa.

Subfamily DIAPRINÆ.

COPTERA Say.

Say, Lec. Edit. ii, 727 (1835); *Entomacis* Först?

polita Say, Bost. Jour. i, 282; Lec. Edit. ii, 728, ♂. Can. Ind.

PLATYMISCHUS Westw.

torquatus Prov., Add. Faun. Hym. 182, ♀. Can.

GALESUS Curtis.

quebecensis Prov., Nat. Can. xii, 260; Faun. Ent. Can. ii, 559, ♂. Can.

ANEURHYNCHUS Westw.

aneurus Prov., Add. Faun. Hym. 176, ♀. Can.
inermis Prov., ibid. 176, ♀. Can.
spinosus Prov., Nat. Can. xii, 262; Faun. Ent. Can. ii, 560, ♀. Can.

SPILOMICRUS Westw.

foveatus Prov., Add. Faun. Hym. 176, ♀. Can.
longicornis Prov., Nat. Can. xii, 262; Faun. Ent. Can. ii, 561, ♀. Can.

DIAPRIA Latr.

abdominalis Say (*Psilus*), Bost. Jour. i, 283; Lec. Edit. ii, 729. Ind.
agromyzæ Fitch, Second N. Y. Rep. 303. N.Y.
apicalis Say (*Psilus*), Bost. Jour. i, 283; Lec. Edit. ii, 729. Can. Ind.
brevicornis Say (*Psilus*), Lec. Edit. i, 221. "St.Peter's River."
ciliatus Say (*Psilus*), ibid. 383. Ind.
colon Say (*Psilus*), Bost. Jour. i, 284; Lec. Edit. ii, 729. Ind.
obtusus Say (*Psilus*), Lec. Edit. i, 383. Ind.
terminatus Say (*Psilus*), Bost. Jour. i, 282; Lec. Edit. ii, 728. Ind.

BASALYS Westw.

ruficornis Prov., Nat. Can. xii, 261; Faun. Ent. Can. ii, 560, ♂. Can.

Subfamily BELYTINÆ.

CINETUS Jur.

mellipes Say, Bost. Jour. i, 279; Lec. Edit. ii, 726. Can. Ind.
nasutus Prov., Add. Faun. Hym. 178, ♀. Can.

Subfamily HELORINÆ.

HELORUS Latr.

paradoxus Prov. (*Copelus*), Nat. Can. xii, 207; Faun. Ent. Can. ii, 540, ♀. Can.

Family PELECINIDÆ.

PELECINUS Latr.

polyturator Drury (*Ichneumon*), Ins. ii, 77 and index, pl. 40, fig. 4. U.S.

Family CHRYSIDIDÆ.

Subfamily CLEPTINÆ.

CLEPTES Latr.

aliena Patton, Can. Ent. xi, 66, ♀; Aaron, Tr. Am. Ent. Soc. xii, 211. Mont. Wym.
americana Cress., Proc. Ent. Sec. A. N. S. 1879, x (= var. *purpurata*).
americana ‖ Prov., Nat. Can. xii, 304; Faun. Ent. Can. ii, 583 (= *Provancheri*).
insperata Aaron, Trans. Am. Ent. Soc. xii, 212, ♀. Montana.
Provancheri Aaron, ibid. 212, ♂ ♀. Can. Col. Wash.Terr.
purpurata Cress., Proc. Ent. Sec. A. S. N. 1879, x, ♀. Vanc. Wash.Terr. Cala.
speciosa Aaron, Trans. Am. Ent. Soc. xii, 212, ♀. Montana.

Subfamily ELAMPINÆ.

OMALUS Panz.

coruscans Norton (*Elampus*), Trans. Am. Ent. Soc. vii, 234, ♀. Can. U.S.
diversus Aaron, ibid. xii, 213, ♀. Cala.
iridescens Norton (*Elampus*), ibid. vii, 234, ♂. Can. U.S.
læviventris Cress., Proc. Ent. Soc. Phil. iv, 303, ♀. Can. U.S.
semicircularis Aaron, Trans. Am. Ent. Soc. xii, 215, ♂. Col.
sinuosus Say (*Hedychrum*), Lec. Edit. i, 384; Aaron, Trans. xii, 214. Can. U.S.

ELAMPUS Spin.

Cressoni Aaron, Trans. Am. Ent. Soc. xii, 215, ♂ ♀. Col. Mont.
coruscans Norton, ibid. vii, 234 (= *Omalus*).
cyanescens Prov., Nat. Can. xii, 303; Faun. Ent. Can. ii, 582 (= *Omalus læviventris*).
iridescens Norton, Trans. Am. Ent. Soc. vii, 234 (= *Omalus*).
marginatus Prov., Nat. Can. xii, 304; Faun. Ent. Can. ii, 583 (= *Omalus iridescens*).
purpurascens Prov., ibid. 303; Faun. Ent. Can. ii, 582 (= *Omalus sinuosus*).
speculum Say (*Hedychrum*), Bost. Jour. i, 285; Lec. Edit. ii, 730, ♂. Ind. Ill.
spinosus Prov., Nat. Can. xii, 302; Faun. Ent. ii, 581 (= *Notozus viridicyaneus*).
variatus Aaron, Trans. Am. Ent. Soc. xii, 215, ♂ ♀. Col. Mont.
versicolor Norton, ibid. vii, 235 (= *Notozus*).
viridicyaneus Norton, ibid. 235 (= *Notozus*).

DIPLORRHOS Aaron.

plicatus Aaron, Trans. Am. Ent. Soc. xii, 216, ♂ ♀, pl. vi, fig. 18. Col. Mont.

NOTOZUS Först.

hyalinus Aaron, Trans. Am. Ent. Soc. xii, 218, ♀. Nev. Mont.
intermedius Aaron, ibid. 218, ♂. Montana.
marginatus Patton, Can. Ent. xi, 66. Can. U.S.
nitidus Aaron, Trans. Am. Ent. Soc. xii, 218, ♂. Mont. Cala.
productus Aaron, ibid. 219, ♀. Montana.
seminudus Aaron, ibid. 218, ♂ ♀. Wash.Terr.
versicolor Norton (*Elampus*), ibid. vii, 235, ♂. Dakota, Montana.
viridicyaneus Norton (*Elampus*), ibid. 235, ♀. Can. U.S.

HOLOPYGA Dahlb.

compacta Cress., Proc. Ent. Soc. Phil. iv, 304 (= *ventralis*).
horus Aaron, Trans. Am. Ent. Soc. xii, 220, ♂ ♀. Nev. Mont.
ventralis Say (*Hedychrum*); Norton, Trans. vii, 235; Aaron, ibid. xii, 220, ♀. Can. Vanc. U.S.

HEDYCHRIDIUM Perrin.

cæruleum Norton (*Hedychrum*), Trans. Am. Ent. Soc. vii, 239, ♀. Dak. Mont.
dimidiatum Say (*Hedychrum*), Lec. Edit. i, 222; Aaron, Trans. xii, 221. U.S.
viride Cress. (*Hedychrum*), Proc. Ent. Soc. iv, 306; Aaron, Trans. xii, 221. U.S.

HEDYCHRUM Latr.

asperum Brullé, Hym. 52 (= *violaceum*).
cæruleum Norton, Trans. Am. Ent. Soc. vii, 239 (= *Hedychridium*).
continuum Aaron, ibid. xii, 224, ♂ ♀. Nev. Cala. Wash.Terr.
cupricolle Cress., Proc. Ent. Soc. Phil. iv, 305, ♀. Col.
dimidiatum Say, Lec. Edit. i, 222 (= *Hedychridium*).
janus Hald., Proc. Acad. Nat. Sci. Phil. ii, 55 (= *Omalus sinuosum*).
louisianæ Norton, Trans. Am. Ent. Soc. vii, 238 (= *violaceum*).
obsoletum Say, Bost. Jour. i, 284; Lec. Edit. ii, 730, ♀. U.S.
sinuosum Say, Lec. Edit. i, 384 (= *Omalus*).
speculum Say, Bost. Jour. i, 285; Lec. Edit. ii, 730 (= *Elampus*).
ventrale Say, Lec. Edit. i, 222 (= *Holopyga*).
violaceum Brullé, Hym. 51; Aaron, Tr. Am. Ent. Soc. xii, 223. Can. Vanc. U.S.
viride Cress., Proc. Ent. Soc. Phil. iv, 306 (= *Hedychridium*).
Wiltii Cress., ibid. 305 (= var. *violaceum*).
Zimmermanni Dahlb., Hym. Eur. ii, 61 (= *obsoletum*).

Subfamily CHRYSIDINÆ.

CHRYSIS Linn.

aurichalcea Prov., Nat. Can. xii, 300; Faun. Ent. Can. ii, 579, ♀. Can. Me.
bella Cress., Proc. Ent. Soc. Phil. iv, 312 (= var. *cærulans*).
californica Gribodo, Ann. Mus. Genov. xiv, 336, ♀. Cala.
carinata Say, Lec. Edit. i, 384 (= *parvula*).
clara Cress., Proc. Ent. Soc. Phil. iv, 313, ♀. Col. Ariz. Tex. Wash.Terr.
cobaltina Aaron, Trans. Am. Ent. Soc. xii, 228, ♀. Mass.
cœrulans Fabr., Syst. Piez. 173; Aaron, Trans. xii, 236. Can. Vanc. U.S.
densa Cress., Proc. Ent. Soc. Phil. iv, 307, ♀. Col. Cala.
discreta Aaron, Trans. Am. Ent. Soc. xii, 230, ♀. N.Car.
Doriæ Gribodo; Aaron, ibid. 231. N.Am.
dorsalis Aaron, ibid. 234. Vanc. Col. Cala. Mont. Wash.Terr.
faceta Aaron, ibid. 229. Col.
Frey-Gessneri Gribodo; Aaron, ibid. 234, ♀. N.Y. Tex. Wash.Terr.
haltictula Gribodo; Aaron, ibid. 227 (= *hilaris*).
hilaris Dahlb., Hym. Eur. ii, 103; Norton, Trans. Am. Ent. Soc. vii, 239; Aaron, ibid. xii, 227. Can. U.S.
hirsuta Aaron, Trans. Am. Ent. Soc. xii, 235, ♂ ♀. Utah, Mont.
inæquidens Dahlb.; Aaron, ibid. 242. N.Y.

inflata Aaron, ibid. 237, ♂ ♀. Col. Utah, Cala.
integra Cress. (*nec.* Fabr.), Proc. Ent. Soc. Phil. iv, 306; Norton, Trans. Am. Ent. Soc. vii, 240 (= *tota*).
intricata Brullé, Hym. 25; Aaron, Trans. Am. Ent. Soc. xii, 241, ♂ ♀. U.S.
inusitata Aaron, Trans. Am. Ent. Soc. xii, 227. Cala. Vanc.
lateridentata Aaron, ibid. 228, ♀. Mont. Wash.Terr.
lauta Cress., Proc. Ent. Soc. Phil. iv, 310, ♀. Col. Tex. Ariz. Cala. Wash.Terr.
martia Patton, Can. Ent. xi, 67; Aaron, Trans. Am. Ent. Soc. xii, 226. Can.
meta Aaron, Trans. Am. Ent. Soc. xii, 234, ♂ ♀. Montana.
montana Aaron, ibid. 234, ♀. Montana.
mucronata Brullé, Hym. 45 (= *parvula*).
nitidula Fabr., Ent. Syst. ii, 243; Aaron, Trans. Am. Ent. Soc. xii, 236. Can. U.S.
Nortoni Aaron, Trans. Am. Ent. Soc. xii, 237, ♂ ♀. Can. U.S.
optima Aaron, ibid. 227, ♀. Cala.
pacifica Say, Lec. Edit. i, 384; Aaron, Trans. xii, 227, ♂ ♀. Labr. U.S.
parvula Fabr., Syst. Piez. 176; Aaron, Trans. xii, 231. U.S.
Pattoni Aaron, Trans. Am. Ent. Soc. xii, 235, ♀. Col.
pellucidula Aaron, ibid. 235, ♀. Va.
pennsylvanica Brullé, Hym. 24; Aaron, Trans. xii, 242, ♂. Pa. Fla.
peracuta Aaron, ibid. 237. Ga. Fla. Ky.
perpulchra Cress., Proc. Ent. Soc. Phil. iv, 308, ♀. Can. Vanc. U.S.
prasinus Cress., ibid. 310 (= var. *lauta*).
propria Aaron, Trans. Am. Ent. Soc. xii, 238, ♂ ♀. Col. Ariz. Mont. Cala.
pulcherrima Cress., Proc. Ent. Soc. Phil. iv, 311 (= var. *lauta*).
scitula Cress., ibid. 308, ♀. Col.
sexdentata Fabr., Ent. Syst. Suppl. 258; Aaron, Trans. xii, 241. Ga.
smaragdicolor Smith, Lord's Nat. Vanc. Is. 343. Brit.Am.
smaragdula Fabr., Ent. Syst. ii, 239; Aaron, Trans. xii, 242. U.S.
striatellus Norton, Trans. Am. Ent. Soc. vii, 241 (= *verticalis*).
texana Gribodo; Aaron, ibid. xii, 239, ♂ ♀. Tex.
tota Aaron, ibid. 228. Mass. Col.
tridens St.Farg; Brullé, Hym. 46 (= *parvula*).
3-*dentata* Dahlb., Dispos. 1845, 15, 22 (= *parvula*).
tripartita Aaron, Trans. Am. Ent. Soc. xii, 238, ♀. Ariz.
venusta Cress., Proc. Ent. Soc. Phil. iv, 311, ♂. Col. Tex. Ariz.
verticalis Patton, Can. Ent. xi, 67. U.S.
virens Cress., Proc. Ent. Soc. Phil. iv, 309 (= *parvula*).

STILBUM Spin.

amethystinum Fabr. (*Chrysis*); Aaron, Trans. xii, 243. Can. (Provancher.)

Subfamily PARNOPINÆ.

PARNOPES Fabr.

chrysoprasina Smith, Tr. Ent. Soc. Lond. 1874, 454; Aaron, Tr. xii, 245. N.C.
Edwardsii Cress. (*Euchroeus*), Proc. Ent. Sec. A. N. S 1879, iv, x. Cala.

Family **FORMICIDÆ.**

CAMPONOTUS Mayr.

americanus Mayr, Verh. z.-b. Ges. Wien, 1862, 661 (= *castaneus*).
atriceps Smith (*Formica*); Mayr., ibid. 1886, 423. Ct. Mass. Fla. (S.Am.)
castaneus Latr. (*Formica*); Mayr. ibid. 420. N.Am. (Eur.)
clarus Mayr, ibid. 1862, 660 (= *castaneus*).
esuriens Smith (*Formica*); Forel, Bull. Soc. Vand. xvi, 76, ☿. U.S. (Mex.)
fumidus Roger, Berl. Ent. Zeits. 1863, 151; Mayr, 1886, 422. Tex. (S. Am.)
herculaneus Linn. (*Formica*); Mayr, Verh. z.-b. Ges. 1886, 419. N.Am. (Eur.)
lævigatus Smith (*Formica*); Mayr, ibid. 420. Cala. N. Mex. Ariz.
lateralis Latr. (*Formica*); Smith, Brit. Mus. Cat. Hym. vi, 52. N.Am. (Eur.)
MacCooki Forel, Bull. Soc. Vand. Sc. Nat. xvi, 69 (= var. *sylvaticus*).
marginatus Latr. (*Formica*); Mayr, Verh. z.-b. Ges. 1886, 423. N.Am. (Eur.)
mina Forel, Bull. Soc. Vand. Sc. Nat. xvi, 83, ☿. L.Cala.
pictus Forel, ibid. 59, ☿ ♀ ♂ (= var. *herculaneus*).
pubescens Fabr. (*Formica*), Ent. Syst. ii, 352. N.Am. (Eur.)
socius Roger, Berl. Ent. Zeits. 1863, 140, ☿; Mayr, Verh. z.-b. Ges. 1886, 422. Fla.
sylvaticus Oliv. (*Formica*); Mayr, Verh. z.-b. Ges. 1886, 422. N.Am.
vicinus Mayr, ibid. 1870, 940 (= var. *sylvaticus*).
yankee Forel, Bull. Soc. Vand. xx, 1885, 340 (= *atriceps*).

COLOBOPSIS Mayr.

impressa Roger, Berl. Ent. Zeits. 1863, 160, ☿; Mayr, Verh. z.-b. Ges. 1886, 423. Ga. Fla.

POLYERGUS Latr.

lucidus Mayr, Verh. z.-b. Ges. Wien, 1870, 952; 1886, 424, ☿ ♀ ♂. U.S.
texanus Buck., Proc. Ent. Soc. Phil. vi, 170, ♀. Tex.

MYRMECOCYSTUS Wesm.

hortusdeorum McCook, Proc. Acad. Nat. Sci. Phil. 1881, 69, 74, pl. 7 (= *melliger*).
melliger Llave (*Formica*); McCook, ibid. 69; Mayr, Verh. z.-b. Ges. 1886, 424. Col. N.Mex.

FORMICA Linn.

aliena Först., Mayr, Verh. z.-b. Ges. 1886, 429 (= var. *Lasius niger*).
americana Buck., Proc. Ent. Soc. Phil. vi, 154, ☿ ♀. Ct.
aphidicola Walsh, ibid. i, 310, ♀ ♂. Ill. (= *Lasius flavus ?*).
arenicola Buck., ibid. vi, 160, ☿. D.C.
aterrima Cress., ibid. iv, 426, ♂. Col.
atra Buck., ibid. vi, 159, ☿. D.C.
atriceps Smith, Brit. Mus. Cat. Hym. vi, 44 (= *Camponotus*).
badia Latr. Hist. Nat. Fourm. 238 (= *Pogonomyrmex*).
brunnea Latr. ibid. 168 (= *Lasius*).
cæspitum Linn., Syst. Nat. i, 963 (= *Tetramorium*).
caryæ Fitch, First N. Y. Rep. 151 (= *Camponotus herculaneus*).
castanea Latr., Hist. Nat. Fourm. 118 (= *Camponotus*).
ciliata Mayr, Verh. z.-b. Ges. Wien, 1886, 428, ♀. Col.
cinerea Mayr, ibid. 1853, 281; 1870, 951 (= var. *fusca*).

clavigera Roger, Berl. Ent. Zeits. 1862, 241 (= *Lasius*).
connecticutensis Buck., Proc. Ent. Soc. Phil. vi, 154, ☿ ♀. Ct.
contracta Latr., Hist. Nat. Fourm. 195, pl. 7, fig. 40 (= *Ponera*).
discolor Buck., Proc. Ent. Soc. Phil. vi, 166 (= *Camponotus marginatus*).
dislocata Say, Bost. Jour. i, 288; Lec. Edit. ii, 733, ♂. Ind.
esuriens Smith, Brit. Mus. Cat. Hym. vi, 54 (= *Camponotus*).
exsectoides Forel, Compt. rend. 1886, xxxviii; Mayr, l. c. 1886, 425. N.H. Ct. Pa.
ferruginea Fabr., Ent. Syst. Suppl. 279 (= *Camponotus herculaneus*).
festinata Buck., Proc. Ent. Soc. Phil. vi, 164, ☿ ♀. Tex.
flava DeGeer, Hist. Ins. ii, 1089 (= *Lasius*).
floridana Buck., Proc. Ent. Soc. Phil. vi, 161 (= var. *Camponotus atriceps*).
fœtida Buck., ibid. 167, ☿ ♀. Tex.
fugax Latr., Hist. Nat. Fourm. 265 (= *Solenopsis*).
fusca Linn., Syst. Nat. i, 963; Mayr, Verh. z.-b. Ges. 1886, 426. U.S. (Eur.)
gagates Latr., Hist. Nat. Fourm. 138, pl. 5, fig. 26 (= var. *fusca*).
gnava Buck., Proc. Ent. Soc. Phil. vi, 156, ☿ ♀ ♂. U.S.
gracilis Buck., ibid. 158, ☿ ♀. N.Y.
herculanea Linn., Syst. Nat. i, 962 (= *Camponotus*).
imparis Say, Bost. Jour. i, 287; Lec. Edit. ii, 732, ♂ ♀. Ind.
insana Buck., Proc. Ent. Soc. Phil. vi, 165 (= *Dorymyrmex pyramica*).
integra Nyl.; Mayr, Verh. z.-b. Ges. Wien, 1886, 425, ☿ ♀ ♂. U.S.
lævigata Smith, Brit. Mus. Cat. Hym. vi, 55 (= *Camponotus*).
lateralis Latr., Hist. Nat. Fourm. 172 (= *Camponotus*).
latipes Walsh, Proc. Ent. Soc. Phil. i, 311 (= *Lasius*).
lauta Say, Bost. Jour. i, 286; Lec. Edit. ii, 731, ♀ ♂. Ind.
ligniperda Latr., Hist. Nat. Fourm. 88 (= var. *Camponotus herculaneus*).
Lincecumii Buck., Proc., Ent. Soc. Phil. vi, 163, ☿ ♀ ♂. Tex.
longicornis Latr., Hist. Nat. Fourm. 113 (= *Prenolepis*).
marginata Latr., ibid. 103 (= *Camponotus*).
masonia Buck., Proc. Ent. Soc. Phil. vi, 165, ☿. Tex.
mellea Say, Bost. Jour. i, 286; Lec. Edit. ii, 731 (= *Camponotus castaneus*).
mellea Prov., Nat. Can. xii, 356; Faun. Ent. Can. ii, 599, ☿. Can.
monticola Buck., Proc. Ent. Soc. Phil. vi, 157, ☿ ♀ ♂. N.Y.
nigra Linn., Syst. Nat. i, 963; Smith, Brit. Mus. Cat. Hym. vi, 52 (= *Lasius*).
Nortonii Buck., Proc. Ent. Soc. Phil. vi, 153, ☿ ♀. Ct.
nova-anglæ Buck., ibid. 153, ☿ ♀. Me.
novæboracensis Fitch, First N. Y. Rep. 62 (= *Camponotus herculaneus*).
obscuripes Forel, Compt.-rend. Soc. Ent. Belg. 1886, xxxix (= var. *rufa*).
obscuriventris Mayr, Verh. z.-b. Ges. Wien, 1870, 951; 1886, 426 (= var. *rufa*).
occidentalis Buck., Proc. Ent. Soc. Phil. vi, 157, ☿ ♀. Ct. N.Y.
pallidefulva Latr., Hist. Nat. Fourm. 174; Mayr, Verh. z.-b. Ges. 1886, 429. N.J.
pallitarsis Prov., Faun. Ent. Can. ii, 598, ♂ ♀. Can.
parva Buck., Proc. Ent. Soc. Phil. vi, 159 (= *Tapinoma sessile*).
pennsylvanica DeGeer, Hist. Ins. iii, 603 (= var. *Camponotus herculaneus*).
perminuta Buck., Proc. Ent. Soc. Phil. vi, 162, ☿ (= *Prenolepis?*).
picea Buck., ibid. 163, ☿ (= *Prenolepis vividula*).
politurator Buck., ibid. 160, ☿. Mich.
pratensis DeGeer; André, Hym. Eur. ii, 184. N.Am. (Eur.)
pubescens Fabr., Ent. Syst. ii, 352 (= *Camponotus*).
rufa Linn.; André, Hym. Eur. ii, 184, pl. ix, fig. 14–16, ☿ ♀ ♂. N.Am. (Eur.)

rufibarbis Fabr., Ent. Syst. ii, 355 (= var. *fusca*).
sanguinea Latr., Hist. Nat. Fourm. 150, pl. 5, fig. 29. N.Am. (Eur.)
san-sabeana Buck., Proc. Ent. Soc. Phil. vi, 167 (= *Camponotus marginatus*).
saxicola Buck., ibid. 166, ☿ ♀. Tex. (= *Lasius?*)
Schaufussi Mayr, Sitz. Ak. Wis. 1866. 493; Verh. z.-b. Ges. 1886, 427, ♀. U.S.
scutellaris Oliv., Enc. Méth. vi, 497 (= *Cremastogaster*).
semipunctata Kirby, Faun. Bor.-Am. iv, 262 (= *Camponotus herculaneus*).
septentroinale Buck., Proc. Ent. Soc. Phil. vi, 161, ☿ ♀. Ill. Mich.
sessilis Say, Bost. Jour. i, 287; Lec. Edit. ii, 732 (= *Tapinoma*).
similis Mayr, Verh. zool.-bot. Ges. Wien, 1886, 425 (= var. *integra*).
subpolita Mayr, ibid. 426 (= var. *fusca*).
subsericea Say, Bost. Jour. i, 289; Lec. Edit. ii, 734 (= *fusca*).
subspinosa Buck. (*Hypochira*), Proc. Ent. Soc. Phil. vi, 169, ☿. Tex.
sylvatica Oliv., Enc. Meth. vi, 491 (= *Camponotus*).
tejonia Buck., Proc. Ent. Soc. Phil. vi, 161, ♂. Cala.
tenuissima Buck., ibid. 162, ☿. Tex.
terricola Buck. (*Tapinoma*), ibid. 168 (= *Prenolepis vividula*).
triangularis Say, Bost. Jour. i, 288; Lec. Edit. ii, 733, ♀ ♂. Ind.
truncicola Nyl.; André, Hym. Eur. ii, 183. N.Am. (Eur.)
umbrata Nyl., Mon. Form. 1048 (= *Lasius*).
virginiana Buck., Proc. Ent. Soc. Phil. vi, 159, ☿. D.C.
vividula Nyl., Mon. Form. 99 (= *Prenolepis*).
wichita Buck. (*Tapinoma*), Proc. Ent. Soc. Phil. vi, 169 (= *Prenolepis nitens*).

LASIUS Fabr.

brunneus Latr. (*Formica*); André, Hym. Eur. ii, 193. N.Am. (Eur.)
claviger Roger (*Formica*), Berl. Ent. Zeits. 1862, 241, pl. i, fig. 13, ♀. U.S.
flavus DeGeer (*Formica*), Hist. Ins. ii, 1089, pl. 42, fig. 24–28. N.Am. (Eur.)
interjectus Mayr, Verh. zool.-bot. Ges. Wien, 1866, 888; 1886, 430. Brit.Am. U.S.
latipes Walsh (*Formica*); Mayr, ibid. 889, pl. 20, fig. 4, ♀. Ill. Wisc.
niger Linn. (*Formica*); André, Hym. Eur. ii, 192, pl. x, fig. 1–3. N.Am. (Eur.)
umbratus Nyl. (*Formica*); Mayr, Verh. z.-b. Ges. Wien, 1886, 430. U.S. (Eur.)

BRACHYMYRMEX Mayr.

Heeri Forel; Mayr, Verh. zool.-bot. Ges. Wien, 1886, 431. U.S. (Eur.)

PRENOLEPIS Mayr.

fulva Mayr, Verh. zool.-bot. Ges. Wien, 1862, 698; 1886, 431. D.C.
longicornis Latr. (*Formica*); Mayr, ibid. 1886, 431. D.C.
nitens Mayr (*Tapinoma*), ibid. 1870, 947; 1886, 431. U.S. (Eur.)
parvula Mayr, ibid. 948 (= var. *vividula*).
vividula Nyl. (*Formica*); André, Hym. Eur. ii, 204, pl. x, fig. 8–10, ☿ ♀ ♂. U.S. (Eur.)

IRIDOMYRMEX Mayr.

MacCooki Forel; Mayr, zool.-bot. Ges. Wien, 1886, 432, ♂ ♀. D.C. Tex.

DORYMYRMEX Mayr.

pyramicus Roger (*Prenolepis*); Mayr, Verh. z.-b. Ges. 1886, 433. U.S. (S.Am.)

LIOMETOPUM Mayr.

microcephalum Panz. (*Formica*); Mayr, Verh. z.-b. Ges. 1886, 434. Cala. (Eur.)

TAPINOMA Först.

boreale Roger, Berl. Ent. Zeits. 1863, 165; Mayr, Verh. zool. bot. Ges. 1886, 434. Fla. Neb.
nitens Mayr, Verh. zool.-bot. Ges. Wien, 1852, 144 (= *Prenolepis*).
sessile Say (*Formica*), Bost. Jour. i, 287; Lec. Edit. ii, 732, ♀. U.S.

DOLICHODERUS Lund.

mariæ Forel; Mayr, Verh. zool.-bot. Ges. Wien, 1886, 437, ♀. N.J. D.C. Va.
plagiatus Mayr (*Hypoclinea*), ibid. 1870, 960, ☿. Ill.
pustulatus Mayr, ibid. 1886, 436, ♀. N.J. D.C. Va.
Taschenbergi Mayr (*Hypoclinea*), ibid. 1870, 958; 1886, 437. ☿. La.

Family ODONTOMACHIDÆ.

ODONTOMACHUS Latr.

clarus Roger, Berl. Ent. Zeits. 1861, 26, ☿. Tex.
hæmatodes Linn. (*Formica*); Mayr, Verh. zool.-bot. Ges. 1886, 437. Ga. Fla. Tex.
texanus Buck., Proc. Ent. Soc. Phil. vi, 335, ☿. Tex.

Family PONERIDÆ.

PONERA Latr.

amplinoda Buck., Proc. Ent. Soc. Phil. vi, 171. Tex.
binodosus Prov. (*Arotropus*), Nat. Can. xii, 205; Faun. Ent. Can. ii, 539. Can.
contracta, Latr. (*Formica*); André, Hym. Eur. ii, 240, pl. xiv. N.Am. (Eur.)
crocea Roger, Berl. Ent. Zeits. 1860, 288, ♀ = (*Proceratium*).
elongata Buck., Proc. Ent. Soc. Phil. vi, 172, ☿. Tex.
gilva Roger, Berl. Ent. Zeits. 1863, 170, ☿. N.Am.
Lincecumii Buck. (*Ectatoma*), Proc. Ent. Soc. Phil. vi, 172, ☿. Tex.
melina Roger, Berl. Ent. Zeits. 1860, 291 (= *Proceratium*).
pennsylvanica Buck., Proc. Ent. Soc. Phil. vi, 171. Pa.
texana Buck., ibid. 170, ☿. Tex.

PROCERATIUM Roger.

croceum Roger (*Ponera*); Mayr, Verh. zool.-bot. Ges. Wien, 1886, 437. Tex.
melina Roger (*Ponera*); Mayr, ibid. 438. Carolina.
silaceum Roger, Berl. Ent. Zeits. 1863, 172, ☿; Mayr, Verh. zool.-bot. Ges. 1886, 437. Tex.

LOBOPELTA Mayr.

septentrionalis Mayr, Verh. zool.-bot. Ges. Wien, 1886, 438, ☿. D.C.

DISCOTHYREA Roger.

testacea Roger, Berl. Ent. Zeits. 1863, 177; Mayr, Verh. zool.-bot. Ges. 1886, 438. N.Am.

AMBLYOPONE Erichs.

pallipes Hald. (*Typhlopone*), Proc. Acad. Nat. Sci. Phil. ii, 54, ☿. U.S.
serratum Roger (*Stigmatomma*), Berl. Ent. Zeits. 1859, 251 (= *pallipes*).

Family DORYLIDÆ.

LABIDUS* Jurine.

Harrisii Hald., Stansb. Salt Lake Exp. Append. C, 367, pl. ix, figs. 4–6. Utah, Tex.
Melshaemeri Hald., ibid. 368, pl. ix, figs. 7–9, ♂. Utah, Tex.
minor Cress., Trans. iv, 195; Mayr, Verh. z.-b. Ges. 1886, 441, ♂. Tex. N.Mex.
nigrescens Cress., ibid. 194, ♂. Tex.
Sayi Hald., Stansb. Salt Lake Exp. Append. C, 367, pl. ix, figs. 1–3. Utah, Tex.
subsulcatum Mayr (*Eciton*), Verh. zool.-bot. Ges. Wien, 1886, 440, ♂. Tex.

Family MYRMICIDÆ.

ECITON Latr.

californicum Mayr, Verh. zool.-bot. Ges. Wien, 1870, 969, ☿. Cala.
coeca Latr. (*Formica*); Mayr, ibid. 1886, 440. Tex.
Sumichrasti Norton, Proc. Essex Inst. vi, 6; Mayr, l. c. 440. Tex. (Mex.)

ATTA Fabr.

arborea Buck. (*Œcodoma*) Proc. Ent. Soc. vi, 349, ☿ ♀ (= *Cremastogaster lineolata*).
bicolor Buck. (*Œcodoma*), ibid. 350 (= *Cremastogaster læviuscula*).
brazœnsis Buck., ibid. 345 (= *Aphænogaster*).
coloradensis Buck., ibid. 346, ☿ (= *Solenopsis geminata*).
crudelis Smith, Brit. Mus. Cat. Hym. vi, 170 (= *Pogonomyrmex transversus*).
fervens Say, Lec. Edit. ii, 734; Smith, l. c. 185, pl. x, fig. 20. Tex. (Mex.)
lævis Mayr, Verh. z.-b. Ges. Wien, 1862, 743 (= *Aphænogaster*).
Lincecumii Buck., Proc. Ent. Soc. Phil. vi, 344 (= *Aphænogaster*).
pennsylvanica Buck., ibid. 345 (= *Aphænogaster*).
picea Buck., ibid. 344 (= *Aphænogaster*).
pilosa Buck. (*Œcodoma*), ibid. 348 ☿. Tex.
septentrionalis McCook, Proc. Acad. Nat. Sci. Phil. 1880, 359–363 (= *tardigrada*).
tardigrada Buck. (*Œcodoma*), Proc. Ent. Soc. vi, 349, ☿ ♀ ♂. N.J. Fla. Tex.
tennesseensis Mayr, Verh. z.-b. Ges. Wien, 1862, 743 (= *Aphænogaster*).
texana Buck. (*Œcodoma*), Proc. Ent. Soc. Phil. vi, 347 (= *fervens*).
virginiana Buck. (*Œcodoma*), Proc. Ent. Soc. Phil. vi, 346, ☿. Va.

* The species of this genus are referred by Mayr (Verh. zool.-bot. Ges. Wien, 1886, 440) to *Eciton* Latr.

APHÆNOGASTER Mayr.

albisetosa Mayr, Verh. zool.-bot. Ges. Wien, 1886, 446, ☿. N.Mex.
Andrei Mayr, ibid. 448, ☿. Cala.
brazœnsis Buck. (*Atta*), Proc. Ent. Soc. Phil. vi, 345, ☿. Tex.
brevicornis Mayr, Verh. zool.-bot. Ges. Wien, 1886, 447, ☿ ♀. Va.
fulva Roger, Berl. Ent. Zeits. 1863, 190; Mayr, l. c. 1886, 445, ☿ ♀ ♂. U.S.
lævis Mayr (*Atta*), Verh. z.-b. Ges. Wien, 1862, 743, ♀ (= *tennesseensis*).
lamellidens Mayr, ibid. 1886, 444, ☿ ♀ ♂. Md. Va. Fla.
Lincecumii Buck. (*Atta*), Proc. Ent. Soc. Phil. vi, 344, ☿ ♀. Tex.
mariæ Forel, Compt.-rend. Soc. Ent. Belg. 1886, xli, ☿. Fla.
pennsylvanica Buck (*Atta*), Proc. Ent. Soc. Phil vi, 345, ☿. Pa.
Pergandei Mayr, Verh. zool.-bot. Ges. Wien, 1886, 448, ☿. Cala.
picea Buck. (*Atta*), Proc. Ent. Soc. Phil. vi, 344, ☿. Tex.
sabeana Buck. (*Myrmica*), ibid. 343, ☿. Tex.
sublanuginosa Buck. (*Myrmica*), ibid. 343, ☿. Tex.
subrubra Buck. (*Myrmica*), ibid. 336, ☿ ♀. D.C. Va.
tennesseensis Mayr (*Atta*), Verh. z.-b. Ges. Wien, 1862, 743; 1886, 446. U.S.
treatæ Forel, Compt.-rend. 1886, xl; Mayr, Verh. z.-b. 1886, 444. N.J. Md. Va.

POGONOMYRMEX Mayr.

badius Latr. (*Formica*); Mayr, Verh. z.-b. Ges. 1870, 971; 1886, 450. Can. Cala.
barbatus Smith (*Myrmica*); Mayr, ibid. 971; 1886, 449. Tex. N.Mex. Ariz.
brevipennis Smith (*Myrmica*); Mayr, ibid. 1886, 450. Ga. (= *transversus?*).
occidentalis Cress. (*Myrmica*), Proc. Ent. Soc. Phil. iv, 426, ☿ ♀. Col. Tex.
opaciceps Mayr, Verh. zool.-bot. Ges. Wien, 1870, 971, ☿ (= *occidentalis*).
subdentatus Mayr, ibid. 971, ☿. Ct. Cala.
transversus Smith (*Myrmica*); Mayr, ibid. 1886, 450. Fla. Ga.

MYRMICA Latr.

aquia Buck., Proc. Ent. Soc. Phil. vi, 341 (= *Aphænogaster fulva*).
atra Buck., ibid. 342 (= *Monomorium*).
barbata Smith, Brit. Mus. Cat. Hym. vi, 130 (= *Pogonomyrmex*).
bicarinata Nyl.; Smith, ibid. 130. Cala. (Eur.)
brevipennis Smith, ibid. 130 (= *Pogonomyrmex*).
californica Buck., Proc. Ent. Soc. Phil. vi, 336, ☿. Cala.
carbonaria Smith, Brit. Mus. Cat. Hym. vi, 127 (= *Monomorium minutum*).
cerasi Fitch, First N. Y. Rep. 130 (= *Cremastogaster*).
coeca Buck., Proc. Ent. Soc. Phil. vi, 339 (= *Monomorium*).
columbiana Buck., ibid. 340 (= *Cremastogaster lineolata*).
corrugata Say, Bost. Jour. i, 291; Lec. Edit. ii, 735, ♂ ♀. Ind.
dimidiata Say, ibid. 293; Lec. Edit. ii, 737, ♀ ♂. U.S.
diversa Buck., Proc. Ent. Soc. Phil. vi, 337 (= *Monomorium*).
exigua Buck., ibid. 342 (= *Tetramorium*).
incompleta Prov., Nat. Can. xii, 359; Faun. Ent. Can. ii, 602, ☿ ♀ ♂. Can.
inflecta Say, Bost. Jour. i, 292; Lec. Edit. ii, 736, ♂. Ind.
lævinodis Nyl.; André, Hym. Eur. ii, 316, pl. xxi, fig. 1, ☿ ♀ ♂. N.Am. (Eur.)
lineolata Say, Bost. Jour. i, 290; Lec. Edit. ii, 734 (= *Cremastogaster*).
lineolata Buck., Proc. Ent. Soc. Phil. vi, 340 (= *Monomorium*).

lobicornis Nyl.; André, Hym. Eur. ii, 318; McCook, Proc. Acad. 1879, 140, ☿ ♀ ♂ (= var. *scabrinodis*).
marylandica Buck., Proc. Ent. Soc. Phil. vi, 339 (= *Cremastogaster lineolata*).
minima Buck., ibid. 338 (= *Monomorium*).
minuta Say, Bost. Jour. i, 294; Lec. Edit. ii, 738, ☿. Ind.
molesta Say, ibid. 293; Lec. Edit. ii, 737 (= *Monomorium*).
molifaciens Buck. (*Monomorium*), Proc. Ent. Soc. Phil. vi, 348 (= *Pogonomyrmex barbatus*).
montana Buck., ibid. 339 (= *Monomorium*).
novæboracensis Buck., ibid. 337 (= *Cremastogaster lineolata*).
occidentalis Cress., ibid. iv, 426 (= *Pogonomyrmex*).
opposita Say, Bost. Jour. i, 292; Lec. Edit. ii, 736 ☿ ♂. N.Am.
punctiventris Roger, Berl. Ent. Zeits. 1863, 190; Mayr, Verh. z.-b. Ges. 1886, 450. N.J. Va.
ruginodis Nyl.; Mayr, Verh. zool.-bot. Ges. Wien, 1886, 450 (= var. *lævinodis*).
rubra Buck., Proc. Ent. Soc. Phil. vi, 335, ☿. Tex.
sabeana Buck. (*Atta*), ibid. 343 (= *Aphænogaster*).
saxicola Buck., ibid. 341 (= *Monomorium*).
scabrata Buck. (*Diplorhoptrum*), ibid. 343 (= *Solenopsis*).
scabrinodis Nyl.; Mayr, Verh. zool.-bot. Ges. Wien, 1886, 451. Brit.Am. U.S.
seminigra Cress., Proc. Ent. Soc. Phil. iv, 427 (= *Pogonomyrmex occidentalis* ♂).
sublanuginosa Buck. (*Atta*), ibid. vi, 343 (= *Aphænogaster*).
subrubra Buck., ibid. 336 (= *Aphænogaster*).
sulcinodis Nyl.; Mayr, Verh. zool.-bot. Ges. Wien, 1886, 451. N.J.
texana Buck., Proc. Acad. Nat. Sci. Phil. 1860, 233 (= *Atta fervens*).
transversa Smith, Brit. Mus. Cat. Hym. vi, 129 (= *Pogonomyrmex*).
tuberum Fabr. Prov., Faun. Ent. Can. ii, 602, ☿ ♀ ♂. Can. (Eur.)

LEPTOTHORAX Mayr.

curvispinosus Mayr, Sitz. Ak. Wis. 1866, 508; Verh. z.-b. Ges. 1886, 453. D.C. Va.
fortinodus Mayr, Verh. zool.-bot. Ges. Wien, 1886, 452, ☿ ♀. Md. D.C.
longispinosus Roger, Berl. Ent. Zeits. 1863, 180, ☿; Mayr, Verh. z.-b. 1886, 453. D.C. Va.
pilifer Roger, ibid. 180, ☿; Mayr, Verh. z.-b. Ges. 1886, 453. Pa.
Schaumii Roger, ibid. 180, ☿; Mayr, Verh. z.-b. Ges. 1886, 453, ♂. Pa. D.C.

TETRAMORIUM Mayr.

cæspitum Linn. (*Formica*); André, Hym. Eur. ii. 285, pl. xix. N.Am. (Eur.)
exiguum Buck. (*Myrmica*), Proc. Ent. Soc. Phil. vi, 342, ☿ ♀. D.C.
guineense Fabr. (*Formica*); Mayr, Verh. z. b. Ges. 1886, 453. D.C. Fla. La. (Eur.)

STENAMMA Westw.

gallarum Patton, Am. Nat. xiii, 1879, 126, ☿ ♀ (= *Leptothorax curvispinosus*).
neoarcticum Mayr, Verh. zool. bot. Ges. 1886, 454, ☿ ♀ ♂. N.H. Va. Cala.

MYRMECINA Curtis.

Latreillii Curtis; André, Hym. Eur. ii, 275, pl. xvii, figs. 7–9. N.Am. (Eur.)

MONOMORIUM Mayr.

atrum Buck. (*Myrmica*), Proc. Ent. Soc. Phil. vi, 342, ☿. D.C.
coeca Buck. (*Myrmica*), ibid. 339. Tex.
diversum Buck. (*Myrmica*), ibid. 337, ☿ ♀. Tex.
lineolatum Buck. (*Myrmica*), ibid. 340, ☿ ♀.
minutum Buck. (*Myrmica*), ibid. 338, ☿ ♀. Tex.
minutum Mayr, Verh. zool.-bot. Ges. Wien, 1886, 455. U.S. (Eur.)
molesta Say (*Myrmica*), Bost. Jour. i, 293; Lec. Edit. ii, 737. N.Am. (Eur.)
montanum Buck. (*Myrmica*), Proc. Ent. Soc. Phil. vi, 339, ☿. Tex.
pharaonis Linn. (*Formica*); Mayr, Verh. z. b. Ges. 1886, 455. U.S. (Eur.)
saxicola Buck. (*Myrmica*), Proc. Ent. Soc. Phil. vi, 341. Tex.

PHEIDOLE Westw.

bicarinata Mayr, Verh. zool.-bot. Ges. Wien, 1870, 989, ☋. Ill.
californica Mayr, ibid. 984, ☿, 987, ☋. Cala.
commutata Mayr, ibid. 1886, 459, ☿. Fla.
dentata Mayr, ibid. 457 (= var. *Morrisi*).
Morrisi Forel, Compt.-rend. 1886, xlvi; Mayr, Verh. z.-b. 1886, 457. U.S.
pennsylvanica Roger, Berl. Ent. 1863, 199; Mayr, Verh. z.-b. 1886, 455. U.S.
vinelandica Forel. Compt.-rend. 1886, xlv; Mayr, Verh. z.-b. 1886, 458. N.J. Va.

SOLENOPSIS Westw.

debilis Mayr, Verh. zool.-bot. Ges. Wien, 1886, 461, ☿ ♀ ☋. N.J. D.C. Va.
fugax Latr. (*Formica*); André, Hym. Eur. ii, 388, pl. xxiv. N.Am. (Eur.)
geminata Fabr. (*Atta*); Mayr, Verh. z.-b. Ges. 1886, 460. Fla. Ala. La. Cala.
madara Roger, Berl. Ent. Zeits. 1863, 200; Verzeichniss, 32, ☿. N.Am.
scabrata Buck. (*Myrmica*), Proc. Ent. Soc. Phil. vi, 343, ☿. Ct.
sulfurea Roger (*Diplorhoptrum*), Berl. Ent. Zeits. 1862, 296, ☿. N.Am.
tenuis Mayr, Verh. zool.-bot. Ges. Wien, 1886, 462. Fla.
xyloni McCook; Hubbard, Orange Ins. 129. fig. 51 (= *geminata*).

CREMASTOGASTER Lund.

Ashmeadi Mayr, Verh. zool.-bot. Ges. Wien, 1886, 463, ☿ ☋. Va. Ga.
cerasi Fitch (*Myrmica*), First N. Y. Rep. 130, ☿. N.Y. (= *lineolata*?)
clara Mayr, Verh. zool.-bot. Ges. Wien, 1870, 993 (= *læviuscula*).
coarctata Mayr, ibid. 992 (= *lineolata*).
læviuscula Mayr, ibid. 993, ☿; 1886, 463. U.S.
lineolata Say (*Myrmica*); Mayr, ibid. 1886, 462; Hub., Or. Ins. 170, fig. 79. U.S.
minutissima Mayr, ibid. 1870, 991, 995, ☿ ♀. S.C. Tex.
scutellaris Oliv. (*Formica*); André, Hym. Eur. ii, 392, pl. xxv, figs. 1–3, ☿ ♀ ☋. N.Am. (Eur.)

PSEUDOMYRMA Guér.

pallida Smith, Trans. Ent. Soc. Lond. new ser. iii, 160, ☿. Fla.

STRUMIGENYS Smith.

clipeata Roger, Berl. Ent. Zeits. 1863, 213, ☿. La.
louisianæ Roger, ibid. 211, ☿. La.

Family **MUTILLIDÆ.**

PSAMMOTHERMA Latr.

ajax Blake, Trans. Am. Ent. Soc. iii, 226; xiii, 193, ♂. Fla.

MUTILLA Linn.

ægina Cress., Proc. Ent. Soc. Phil. iv, 435 (= *Sphaerophthalma*).
arota Cress., Trans. Am. Ent. Soc. v, 120 (= *Sphaerophthalma*).
asopus Cress., Proc. Ent. Soc. Phil. iv, 435 (= *Sphaerophthalma*).
aspasia Blake, Trans. Am. Ent. Soc. vii, 250 (= *Sphaerophthalma*).
auraria Blake, ibid. 248 (= *Sphaerophthalma*).
aureola Cress., Proc. Ent. Soc. Phil. iv, 386 (= *Sphaerophthalma*).
bellona Cress., ibid. 434 (= *Sphaerophthalma*).
bifasciata Swed.; Smith, Brit. Mus. Cat. iii, 58, ♂. N.Y.
bioculata Cress., Proc. Ent. Soc. Phil. iv, 431 (= *Sphaerophthalma*).
briaxus Blake, Trans. Am. Ent. Soc. iii, 227; xiii, 195, ♂ (= var. *hexagona*).
californica Rad.; Cress., Proc. Ent. Soc. Phil. iv, 432 (= *Sphaerophthalma*).
caneo Blake, Trans. Am. Ent. Soc. vii, 250 (= *Sphaerophthalma*).
castanea Cress., Proc. Ent. Soc. Phil. iv, 388 (= *Photopsis*).
clara Cress., ibid. 439 (= *Photopsis*).
clio Blake, Trans. Am. Ent. Soc. vii, 251 (= *Sphaerophthalma*).
coccinea Fabr., Ent. Syst. ii, 366 (= *Sphaerophthalma occidentalis*).
concolor Cress., Proc. Ent. Soc. Phil. iv, 439 (= *Photopsis*).
connectens Cress., ibid. 387 (= *Sphaerophthalma*).
contracta Say, Lec. Edit. ii, 738; Blake, Trans. iii, 256; xiii, 198, ♂. Ark. Mo.
contumax Cress., Proc. Ent. Soc. Phil. iv, 437 (= *Sphaerophthalma*).
copano Blake, Trans. Am. Ent. Soc. iii, 232; xiii, 205, ♂. Tex.
creusa Cress., Proc. Ent. Soc. Phil. iv, 431 (= *Sphaerophthalma*).
dubitata Smith, Brit. Mus. Cat. Hym. iii, 60; Blake, Trans. xiii, 201, ♀. U.S.
Edwardsii Cress., Trans. Am. Ent. Soc. v, 119 (= *Sphaerophthalma*).
electra Blake, ibid. iv, 75 (= *Sphaerophthalma*).
erato Blake, ibid. vii, 251 (= *Sphaerophthalma*).
erudita Cress., ibid. v, 120 (= *Sphaerophthalma*).
euterpe Blake, ibid. vii, 249; xiii, 201, ♀. Fla.
eximia Blake, ibid. xiii, 200, ♂. Ariz.
exulans Fabr., Ent. Syst. ii, 368; Blake, Trans. Am. Ent. Soc. xiii, 280. N.Am.?
fenestrata St. Farg., Hym. iii, 627 (= *Sphaerophthalma*).
ferrugata Fabr., Syst. Piez. 438 (= *Sphaerophthalma*).
floridana Blake, Trans. Am. Ent. Soc. iii, 245; xiii, 197, ♀. Fla.
floridensis Blake, ibid. vii, 249; xiii, 199, ♂. Fla.
frigida Smith, Brit. Mus. Cat. Hym. iii, 60 (= *Sphaerophthalma*).
fulvohirta Cress., Proc. Ent. Soc. Phil. iv, 433 (= *Sphaerophthalma*).
gibbosa Say, Bost. Jour. i, 298; Lec. Edit. ii, 741 (= *Sphaerophthalma*).
glabrella Cress., Proc. Ent. Soc. Phil. iv, 441 (= *Photopsis*).
gracilis Smith, Brit. Mus. Cat. Hym. iii, 42; Blake, Trans. xiii, 202, ♂. Tex.
Grotei Blake, Trans. Am. Ent. Soc. iii, 228; xiii, 195, ♂. Col.
hexagona Say, Lec. Edit. ii, 738; Blake, Trans. iii, 228; xiii, 195, ♂. U.S.
macra Cress., Proc. Ent. Soc. Phil. iv, 429 (= *Sphaerophthalma*).
magna Cress., ibid. 385 (= *Sphaerophthalma*).

marpesia Blake, Trans. Am. Ent. Soc. vii, 247 (= *Sphaerophthalma*).
medea Cress., Proc. Ent. Soc. Phil. iv, 432 (= *Sphaerophthalma*).
mixtura Blake, Trans. Am. Ent. Soc. vii, 251 (= *Sphaerophthalma*).
monticola Cress., Proc. Ent. Soc. Phil. iv, 430 (= *Sphaerophthalma*).
montivaga Cress., ibid. 436 (= *Sphaerophthalma*).
nubecula Cress., ibid. 440 (= *Photopsis*).
occidentalis Linn., Syst., Nat. i, 966 (= *Sphaerophthalma*).
ochracea Blake, Trans. Am. Ent. Soc. vii, 247 (= *Sphaerophthalma*).
orcus Cress., Proc. Ent. Soc. Phil. iv, 428 (= *Sphaerophthalma*).
ornativentris Cress., ibid. 438; Blake, Trans. iii, 230; xiii, 196, ♀. U.S. (= *hexagona* ?).
pacifica Cress., Trans. Am. Ent. Soc. v, 120 (= *Sphaerophthalma*).
parvula Blake, ibid. xiii, 206, ♀. Ala.
peculiaris Cress., ibid. v, 119; Blake, ibid. xiii, 203, ♀. Cala.
pennsylvanica St. Farg., Hym. iii, 628 (= *Sphaerophthalma*).
phædra Blake, Trans. Am. Ent. Soc. vii, 251 (= *Sphaerophthalma*).
promethea Blake, ibid. iii, 229; xiii, 198, ♂. La.
propinqua Cress., Proc. Ent. Soc. Phil. iv, 433 (= *Sphaerophthalma*).
puteola Blake, Trans. Am. Ent. Soc. vii, 252; xiii, 206, ♀. Tex.
pygmea Blake, ibid. 250 (= *Sphaerophthalma*).
4-guttata Say, Lec. Edit. i, 163 (= *Sphaerophthalma*).
rufa St. Farg., Hym. iii, 631; Blake, Trans. iii, 257; xiii, 201, ♂. U.S.
utilans Blake, Trans. Am. Ent. Soc. vii, 248; xiii, 204, ♀. Cala.
Sackenii Cress., Proc. Ent. Soc. Phil. iv, 385 (= *Sphaerophthalma*).
Sayi Blake, Trans. Am. Ent. Soc. iii, 229; xiii, 198, ♂. Tex.
scrupea Say, Lec. Edit. ii, 740; Blake, Trans. iii, 230; xiii, 202, ♂. U.S.
Sicheliana Sauss., Ann. Soc. Ent. Fr. sér. 4, vii, 360 (= *Sphaerophthalma*).
simillima Smith, Brit. Mus. Cat. Hym. iii, 62 (= *Sphaerophthalma*).
tecta Cress., Trans. Am. Ent. Soc. v, 119 (= *Sphaerophthalma*).
texana Blake, ibid. vii, 250 (= *Sphaerophthalma*).
thoracica Blake, ibid. xiii, 204, ♀. N.Y.
tisiphone Blake, ibid vii, 249 (= *Sphaerophthalma*).
trisignata Blake, ibid. iii, 241; xiii, 198, ♀. Fla.
Ulkei Cress., Proc. Ent. Soc. Phil. iv, 387 (= *Sphaerophthalma*).
unicolor Cress., ibid. 389 (= *Photopsis*).
ursula Cress., Trans. Am. Ent. Soc. v, 120 (= *Sphaerophthalma*).
vagans Fabr. Ent. Syst. Suppl. 282; Blake, Trans. iii, 257; xiii, 280, ♀. N.Am.
versicolor Fabr., Ent. Syst. ii, 371; Blake, Trans. iii, 257; xiii, 280, ♀. N.Am.
vesta Cress., Proc. Ent. Soc. Phil. iv, 436 (= *Sphaerophthalma*).
vigilans Say, Lec. Edit. ii, 739; Blake, Trans. iii, 258; xiii, 195 (= var. *hexagona*).
zenobia Blake, Trans. Am. Ent. Soc. vii, 250 (= *Sphaerophthalma*).

SPHÆROPHTHALMA Blake.

admetus Blake, Trans. Am. Ent. Soc. iv, 74; xiii, 229, ♂. Tex.
ægina Cress. (*Mutilla*); Blake, ibid. xiii, 221, ♀. Col. Tex.
albopilosa Blake, ibid. iv, 74; xiii, 241, ♀. Tex.
arota Cress. (*Mutilla*); Blake, ibid. xiii, 218, ♀. Cala.
asopus Cress. (*Mutilla*); Blake, ibid. 225, ♂. Col.
aspasia Blake (*Mutilla*), ibid. vii, 250; xiii, 220, ♀. Nev.
auraria Blake (*Mutilla*), ibid. 248; xiii, 218, ♀. Nev.

aureola Cress. (*Mutilla*); Blake, ibid. xiii, 215, ♀. Cala.
auripilis Blake, ibid. iii, 233; xiii, 208, ♂. Tex.
balteola Blake, ibid. 248; xiii, 242, ♀. U.S.
bellona Cress. (*Mutilla*); Blake, ibid. xiii, 221, ♀. Col.
bexar Blake, ibid. iii, 238; xiii, 229, ♂. Tex.
bioculata Cress. (*Mutilla*); Blake, ibid. xiii, 224, ♂. Col. Tex.
brazoria Blake, ibid. iii, 255; xiii, 254, ♀. Tex.
californica Rad. (*Mutilla*); Blake, ibid. xiii, 219, ♀. Cala.
canadensis Blake, ibid. iii, 252; xiii, 248, ♀. Can.
canella Blake, ibid. 239; xiii, 230, ♂. Tex.
caneo Blake (*Mutilla*), ibid. vii, 250; xiii, 241, ♀. Tex.
castor Blake, ibid. iii, 237; xiii, 227, ♂. Ks. Tex.
chiron Blake, ibid. iv, 72; xiii, 220, ♂. Tex.
clio Blake (*Mutilla*), ibid. vii, 251; xiii, 214, ♀. Vanc.
clotho Blake, ibid. iv, 72; xiii, 212, ♀. Tex.
coccineohirta Blake, ibid. iii, 235; xiii, 221, ♂ ♀. Cala.
comanche Blake, ibid. 234; xiii, 211, ♂ ♀. Tex.
connectens Cress. (*Mutilla*); Blake, ibid. xiii, 249, ♀. L.Cala.
contumax Cress. (*Mutilla*); Blake, ibid. 250, ♀. Col.
creon Blake, ibid. iv, 73; xiii, 228, ♂. Tex.
creusa Cress. (*Mutilla*); Blake, ibid. xiii, 223, ♀. Col. Tex.
cypris Blake, ibid. iii, 246; xiii, 239, ♀. Ga.
Edwardsii Cress. (*Mutilla*); Blake, ibid. xiii, 208, ♂. Or.
electra Blake, ibid. iv, 75; xiii, 248, ♀. Tex.
erato Blake (*Mutilla*), ibid. vii, 251; xiii, 213, ♀. Tex.
erudita Cress. (*Mutilla*); Blake, ibid. xiii, 217, ♀. Cala.
fenestrata St. Farg. (*Mutilla*); Blake, ibid. 228, ♂. U.S. (= *ferrugata ?*)
ferrugata Fabr. (*Mutilla*); Blake, ibid. 239, ♀. U.S.
flavida Blake, ibid. iii, 249; xiii, 244, ♂. Tex.
frigida Smith (*Mutilla*); Blake, ibid. xiii, 239, ♀. Arc.Am.
fulvohirta Cress. (*Mutilla*); Blake, ibid. 219, ♂. Col.
gibbosa Say (*Mutilla*); Blake, ibid. 231, ♂. Ind.
gila Blake, ibid. iii, 250; xiii, 245, ♂. Tex.
gorgon Blake, ibid. 233; xiii, 210, ♀. Tex
grandiceps Blake, ibid. iv, 74; xiii, 244, ♂ ♀. Tex.
hector Blake, ibid. iii, 237; xiii, 225, ♂. Ks.
hispida Blake, ibid. xiii, 226, ♂. Col.
leda Blake, ibid. iv, 72; xiii, 216, ♀. Tex.
luteola Blake, ibid. xiii, 235, ♀. Ks Utah.
macerata Blake, ibid. 227, 286, ♂. Ky. Col. Mont.
macilenta Blake, ibid. iii, 239; xiii, 231, ♂. Tex.
macra Cress. (*Mutilla*); Blake, ibid. xiii, 230, ♂. Tex.
magna Cress. (*Mutilla*); Blake, ibid. 214, ♀. L.Cala.
marpesia Blake (*Mutilla*), ibid. vii, 247; xiii, 218, ♀. Ks. Utah.
medea Cress. (*Mutilla*); Blake, ibid. xiii, 224, ♀. Col.
mixtura Blake (*Mutilla*), ibid. vii, 251; xiii, 234, ♀. Col.
mollissima Blake, ibid. xiii, 215, ♂ ♀. Col.
monticola Cress. (*Mutilla*); Blake, ibid. 226, ♂. Col.
montivaga Cress. (*Mutilla*); Blake, ibid. 254, ♀. Col.

mutata Blake, ibid. iii, 247; xiii, 241, ♀. U.S.
obscura Blake, ibid. 239; xiii, 231, ♂. Mass.
occidentalis Linn. (*Mutilla*); Blake, ibid. xiii, 223, ♂ ♀. N.Am.
oceola Blake, ibid. iii, 248; xiii, 243, ♂. Fla. Tex.
ochracea Blake (*Mutilla*), ibid. vii, 247; xiii, 228, ♂ ♀. Nev.
orcus Cress. (*Mutilla*); Blake, ibid. xiii, 209, ♂ ♀. Tex.
pacifica Cress. (*Mutilla*); Blake, ibid. 217, ♀. Cala.
parmosa Blake, ibid. 210, ♀. Cala.
pennsylvanica St. Farg. (*Mutilla*); Blake, ibid. 208, ♂. Pa. Tex.
phædra Blake (*Mutilla*), ibid. vii, 251; xiii, 219, ♀. Nev.
præclara Blake, ibid. xiii, 252, ♀. Ariz.
propinqua Cress. (*Mutilla*); Blake, ibid. 242, ♂. Col.
pygmea Blake (*Mutilla*), ibid. vii, 250; xiii, 253, ♀. Tex. Col. Nev.
4-guttata Say (*Mutilla*); Blake, ibid. xiii, 239, ♀. Tex.
Sackenii Cress. (*Mutilla*); Blake, ibid. 213, ♂ ♀. Cala.
Sanbornii Blake, ibid. iii, 248; xiii, 243, ♂. Mass.
scæva Blake, ibid. 232; xiii, 207, ♂. Tex.
scævola Blake, ibid. 247; xiii, 241, ♀. U.S.
sicheliana Sauss. (*Mutilla*); Blake, ibid. xiii, 217, ♀. Ariz.
simillima Smith (*Mutilla*); Blake, ibid. 254, ♀. U.S.
tecta Cress. (*Mutilla*); Blake, ibid. 216, ♀. Cala.
texana Blake (*Mutilla*), ibid. vii, 250; xiii, 212, ♀. Tex.
thetis Blake, ibid. xiii, 214, ♀. Ariz.
tisiphone Blake (*Mutilla*), ibid. vii, 249; xiii, 210, ♀. Tex.
Ulkei Cress. (*Mutilla*); Blake, ibid. xiii, 238, ♀. L.Cala.
ursula Cress. (*Mutilla*), Blake, ibid. 218, ♂. Tex. Or.
venifica Blake, ibid. 210, ♀. Cala.
vesta Cress. (*Mutilla*), Blake, ibid. 240, ♀. Col.
virguncula Blake, ibid. 253, ♀. N.Mex.
waco Blake, ibid. iii, 238; xiii, 229, ♀. Tex.
zelaya Blake, ibid. 234; xiii, 211, ♂. Tex.
zenobia Blake (*Mutilla*), ibid. vii, 250; xiii, 220, ♀. Cala.

PHOTOPSIS Blake.

abdominalis Blake, Trans. Am. Ent. Soc. xiii, 275, ♂. Col.
albipes Cress. (*Agama*), ibid. v, 99; Blake, ibid. xiii, 268, ♂. Nev.
alcanor Blake (*Agama*), ibid. iii, 264; xiii, 267, ♂. Ariz.
ampla Blake (*Agama*), ibid. vii, 252; xiii, 266, ♂. Col.
astyanax Blake (*Agama*), ibid. 254; xiii, 272, ♂. Tex.
atrata Blake (*Agama*), ibid. 253; xiii, 268, ♂. Nev.
attenuata Blake (*Agama*), ibid. iv, 76; xiii, 264, ♂. Tex.
aulus Blake (*Agama*), ibid. 75; xiii, 270, ♂. Tex.
Belfragei Blake (*Agama*), ibid. iii, 263; xiii, 263, ♂. Tex.
bicolor Blake (*Agama*), ibid. vii, 252; xiii, 271, ♂. Tex.
castanea Cress. (*Mutilla*); Blake, ibid. xiii, 273, ♂. L.Cala.
clara Cress. (*Mutilla*); Blake, ibid. 262, ♂. Col.
concolor Cress. (*Mutilla*); Blake, ibid. 265, ♂. Col.
contracta Blake (*Agama*), ibid. vii, 253; xiii, 265, ♂. Nev.
danaus Blake (*Agama*), ibid. iii, 261; xiii, 261, ♂. Tex.

ferruginea Blake (*Agama*), ibid. vii, 254; xiii, 264, ♂. Nev.
glabrella Cress. (*Mutilla*); Blake, ibid. xiii, 274, ♂. Col.
hyalina Blake (*Agama*), ibid. iii, 263; xiii, 274, ♂. Tex.
imperialis Blake (*Agama*), ibid. 260; xiii, 265, ♂. Tex.
inconspicuus Blake, ibid. xiii, 272, ♂. Cala.
juxta Blake (*Agama*), ibid. iv, 76; xiii, 270, ♂. Tex.
lepidus Blake, ibid. xiii, 269, ♂. Col.
melaniceps Blake, ibid. 264, ♂. Ariz.
melicausa Blake (*Agama*), ibid. iii, 261; xiii, 262, ♂. Tex.
mellipes Blake, ibid. xiii, 262, ♂. Ariz.
mendica Blake (*Agama*), ibid. iii, 259; xiii, 259, ♂. Nev.
minuta Blake (*Agama*), ibid. iv, 76; xiii, 272, ♂. Tex.
nebulosus Blake, ibid. xiii, 275, ♂. Cala.
nitida Cress. (*Agama*), Rep. Wheeler Exp. 1875, 710; Blake, Trans. xiii, 267. Col.
nokomis Blake (*Agama*), Trans. Am. Ent. Soc. iii, 260; xiii, 260, ♂. Ariz.
nubecula Cress. (*Mutilla*); Blake, ibid. xiii, 266, ♂. Col.
pallida Blake (*Agama*), ibid. iii, 263; xiii, 275, ♂. Tex.
rustica Blake (*Agama*), ibid. vii, 252; xiii, 271, ♂. Cala.
sobrinus Blake, ibid. xiii, 268, ♂. Col.
tapajos Blake (*Agama*), ibid. iii, 262; xiii. 269, ♂. Tex.
triangularis Blake (*Agama*), ibid. 262; xiii, 263, ♂. Nev.
unicolor Cress. (*Mutilla*); Blake, ibid. xiii, 261, ♂. Cala.
uro Blake (*Agama*), ibid. vii, 253; xiii, 273, ♂. Tex.
venustus Blake, ibid. xiii, 270, ♂. Ariz.

CHYPHOTES Blake.

elevatus Blake, Trans. Am. Ent. Soc. xiii, 276, ♀. Ariz. Cala.

MYRMOSA Latr.

rufiventris Blake, Trans. Am. Ent. Soc. vii, 254; xiii, 278, ♂. Nev.
unicolor Say, Lec. Edit. i, 222; Blake, Trans. xiii, 278, ♂. Can. U.S.

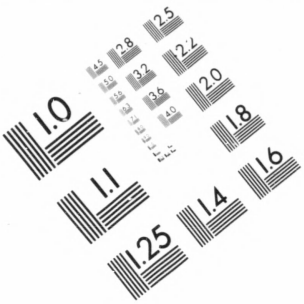
METHOCA Latr.

bicolor Say, Lec. Edit. ii, 741; Blake, Trans. xiii, 279, ♀. Ind.
californica Westw., Proc. Ent. Soc. Lond. 1881, 133, pl. 7, fig. 1; Blake, Trans. xiii, 279, ♀. Cala.
canadensis Smith, Brit. Mus. Cat. Hym. iii, 67; Blake, l. c. 279. Can. (= *stygia?*)
stygia Say (*Tengyra*), Lec. Edit. ii, 74; Blake, l. c. 280, ♂. Ind. (= *bicolor?*)

Family **SCOLIIDÆ.**

TIPHIA Fabr.

albilabris Spin., Ann. Soc. Ent. Fr. x, 102; St. Farg., Hym. iii, 556 (= *Paratiphia*).
caroliniana Panz. Krit. Revis. ii, pl. 1, fig. a, b, c. ♀ (= *Myzine*).
ephippium Fabr., Ent. Syst. ii, 225 (= *Myzine*).
flavipennis St. Farg., Hym. iii, 555, ♀. Cala.



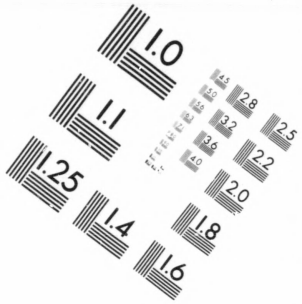
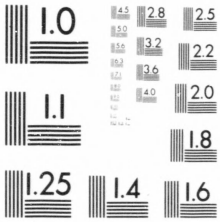
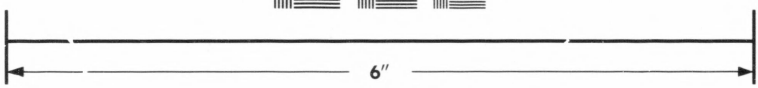
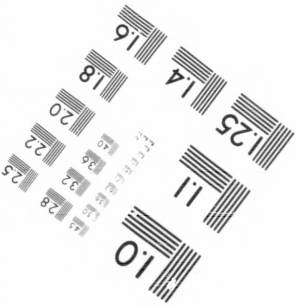
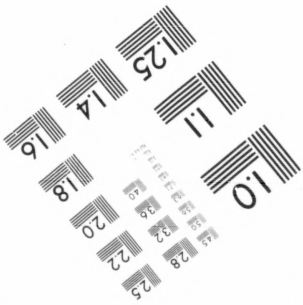


IMAGE EVALUATION TEST TARGET (MT-3)









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hæmorrhoidalis Fabr., Ent. Syst. ii, 225 (= *Myzine*).
inornata Say, Lec. Edit. i, 223. Can. U.S.
interrupta Say, ibid. 223 (= *Myzine*).
luteipennis Cress., Proc. Ent. Soc. Phil. iv, 445, ♀. Col.
maculata Fabr., Ent. Syst. ii, 224; Syst. Piez. 233 (= *Myzine sexcincta*).
namea Fabr., Syst. Piez. 233 (= *Myzine sexcincta*).
obscura Fabr., ibid. 233 (= *Myzine*).
serena Fabr., ibid. 234 (= *Myzine sexcincta*).
tarda Say, Bost. Jour. i, 300; Lec. Edit. ii, 742. Ind. Col.
transversa Say, Lec. Edit. i, 385. Ind. (= *inornata?*).
trifasciata Fabr., Ent. Syst. ii, 226 (= *Elis*).

PARATIPHIA Sichel.

albilabris Spin. (*Tiphia*); Patton, Bull. U. S. Geo. Surv. v, 349. ♂ ♀. Ks. Cala.

MYZINE Latr.

caroliniana Panz. (*Tiphia*), Krit. Revis. ii, pl. 1, fig. a, b, c, ♀. Car.
collaris Say (*Meria*), Bost. Jour. i, 362; Lec. Edit. ii, 748 (= *sexcincta*).
confluens Cress., Proc. Ent. Soc. Phil. iv, 443, ♀. Col.
costata Say (*Meria*), Bost. Jour. i, 361; Lec. Edit. ii, 747, ♀ (= *interrupta*).
dubiosa Cress., Trans. Am. Ent. Soc. iv, 200, ♀. Tex.
ephippium Fabr. (*Tiphia*), Ent. Syst. ii, 225; Guér. (*Plesia*), Rev. Zool. 1838, 57, ♀. N.Am.
flavipes Oliv., Enc. Méth. Ins. viii, 136; Guér. (*Plesia*), Rev. Zool. 1838, 58, ♀. (= *caroliniana*?).
fuliginosa St. Farg. (*Plesia*), Hym. iii, 581, ♂. Pa. (= *obscura*?)
hæmorrhoidalis Fabr. (*Tiphia*), Ent. Syst. ii, 225; Guér. (*Plesia*), Rev. Zool. 1838, 60. N.Am.
hamata Say, Bost. Jour. i, 300; Lec. Edit. ii, 742, ♂. (= *interrupta*).
hyalina Cress., Proc. Ent. Soc. Phil. iv, 442, ♂. Col.
interrupta Say (*Tiphia*), Lec. Edit. i, 223, ♀. Pa.
maiorta Panz. (*Sapyga*), Krit. Revis. ii, pl. 2, fig. d, e, ♂. Car.
marginata Say (*Plesia*), Lec. Edit. i, 164. U.S.
menechma St. Farg. (*Plesia*), Hym. iii, 583 (= *interrupta*).
obscura Fabr. (*Tiphia*), Syst. Piez. 233, ♀. U.S.
proxima Guér., Dict. pitt. d'Hist. Nat. v, 575, ♂. N.Am.
rufiventris Cress., Trans. Am. Ent. Soc. iv, 201, ♂. Tex.
sexcincta* Fabr. (*Scolia*), Syst. Ent. 356; Ent. Syst. ii, 236, ♂ ♀ U.S. (??)
texana Cress., Trans. Am. Ent. Soc. iv, 200, ♀. Tex.

SCOLIA Fabr.

Abotii Klug., Web. u. Mohr-Beitr. ii, 213 (= *bicincta*).
amœna Cress., Proc. Ent. Soc. Phil. iv, 447, ♂. Col. (= DISCOLIA).
aulica Burm., Abh. Nat. Ges. Halle, i, 33 (= *dubia*).
badia Sauss., Catal. Scolia, 54, pl. i, fig. 9, ♀. L.Cala. (= TRISCOLIA).

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* It is probable that this species does not really occur in our fauna, but confined to the West Indian Islands, from whence the type was described. Should this prove to be so, then *maculata* Fabr. (Tiphia), should be substituted, as having priority over *namea*.

bicincta Fabr.; Sauss., ibid. 129, ♂ ♀. U.S. (= DISCOLIA).
bifasciata Smith, Brit. Mus. Cat. Hym. iii, 97 (= *bicincta*).
confluenta Say, Lec. Edit. i, 68, pl. 29, ♀ (= *Elis plumipes*).
consors Sauss., Catal. Scolia, 139, ♂. Cala. (= DISCOLIA).
consors Cress. (*nec.* Sauss.), Trans. Am. Ent. Soc. iv, 449 (= *Elis zonaria*).
dubia Say, Lec. Edit. ii, 749; Sauss., Cat. Scol. 134, ♂ ♀. U.S. (= DISCOLIA).
ephippium Say, ibid. 363; Lec. Edit. ii, 748 (= *Elis*).
fervida Burm.; Sauss., Catal. Scolia, 53, ♀. Tex. (= TRISCOLIA).
flavocostalis Cress., Trans. Am. Ent. Soc. i, 377, ♂. N.Mex. (= DISCOLIA).
flavosignata Cress., Proc. Ent. Soc. Phil. iv, 449 (= *Elis xantiana* ♂).
fossulana Fabr., Syst. Piez. 242 (= *Elis plumipes*).
hæmatodes Burm.; Sauss., Catal. Scolia, 134. ♂ ♀. Tex. (= var. *dubia*).
inconstans Cress., Proc. Ent. Soc. Phil. iv, 446, ♂. Col. (= DISCOLIA).
Lecontei Cress., Trans. Am. Ent. Soc. i, 376, ♀. Tex. N.Mex. (= DISCOLIA).
maculata Guér., Voy. Coq. Zool. ii, 255 (= *nobilitata*).
nobilitata Fabr.; Sauss., Catal. Scolia, 132, ♂ ♀. U.S. (= DISCOLIA).
noveboracensis Forst. (*Apis*), Nov. Spec. Ins. i, 93. N.Am. (= *bicincta?*).
octomaculata Say, Lec. Edit. i, 68, pl. 29 (= *Elis*).
ornata Smith, Brit. Mus. Cat. Hym. iii, 96 (= *nobilitata*).
4-*cincta* Klug., Web. u. Mohr-Beitr. i, 37 (= *Elis plumipes*).
4-*maculata* Fabr., Syst. Ent. 355; Ent. Syst. ii, 229 (= *Elis* 4-*notata*).
4-*notata* Fabr.; Sauss., Catal. Scolia 236 (= *Elis*).
radula Fabr., Ent. Syst. ii, 232 (= *Elis plumipes*).
regina Cress., Proc. Ent. Soc. Phil. iv, 447 (= *Elis xantiana* ♀).
Ridingsii Cress., ibid. 445, ♀. Col. (= DISCOLIA).
sexcincta Fabr., Syst. Ent. 356; Ent. Syst. ii, 236 (= *Myzine*).
tricincta Say, Lec. Edit. i, 69, pl. 29 (= *nobilitata*).
tricolor Klug., Web. u. Mohr-Beitr. i, 35 (= *nobilitata*).
undata Klug., ibid. ii, 212 (= *bicincta*).
unicincta Prov., Faun. Ent. Can. ii, 607, ♂ ♀. Can. (= *nobilitata?*)

ELIS Fabr.

ephippium Say (*Scolia*); Sauss., Catal. Scolia, 229, ♂ ♀. La. Tex. (= DIELIS).
lupina Cress., Trans. Am. Ent. Soc. iv, 202, ♀. Tex. (= TRIELIS.)
octomaculata Say (*Scolia*); Sauss., Catal. Scolia, 148. Ark. (= TRIELIS).
pennsylvanica St. Farg. (*Colpa*), Hym. iii, 546 ♂ (= 4-*notata*).
pilipes Sauss., Ann. Soc. Ent. Fr. 3 sér. vi, 246 (= *texensis*).
plumipes Drury (*Sphex*); Sauss., Catal. Scolia, 243, ♂ ♀. U.S. (= DIELIS).
4-notata Fabr. (*Scolia*); Sauss., ibid. 236, ♂ ♀. U.S. (= DIELIS).
texensis Sauss., ibid. 156, ♂ ♀. Tex. (= TRIELIS).
trifasciata Fabr. (*Tiphia*); Sauss., ibid. 247, ♀. N.Am. (= DIELIS).
xantiana Sauss., ibid. 149, pl. i, figs. 10, 11; Cress., Trans. i, 377, ♂ ♀. Col. N.Mex. (= TRIELIS).
zonaria Cress. (*consors* ‖), Proc. Ent. Soc. iv, 449; Trans. i, 378. ♂. Col. N.Mex. (= TRIELIS).

Family SAPYGIDÆ.

EUSAPYGA Cress.

californica Cress., Proc. Ent. Sec. A. N. S. 1880, xx, ♂. Cala.
nigripes Cress., ibid. xx, ♂. Nev.
proxima Cress., ibid. xx, ♂. Col.
rubripes Cress., ibid. xx, ♂ ♀. Tex.
verticalis Cress., ibid. xx, ♀. Nev.

SAPYGA Latr.

aculeata Cress., Proc. Ent. Soc. Phil. iv, 450, ♀. Col.
americana Cress., Proc. Ent. Sec. A. N. S. 1880, xxi, ♀. N.Y.
angustata Cress., ibid. xxi, ♂. Cala.
centrata Say, Bost. Jour. i, 301; Lec. Edit. ii, 743. U.S.
coloradensis Cress., Proc. Ent. Sec. A. N. S. 1880, xxi, ♂. Col.
confluenta Cress., ibid. xx, ♂. Col.
elegans Cress., ibid. xxi, ♂ ♀. Nev.
emarginata Cress., ibid. xx, ♀. Col.
fulvicornis Cress., ibid. xxi, ♂. Nev.
maculata Prov., Faun. Ent. Can. ii, 610, ♀. Can. (= *Martini?*).
maiorta Panz. Krit. Revis. ii, pl. 2, fig. d, e, ♂ (= *Myzine*).
Martini Smith, Brit. Mus. Cat. Hym. iii, 117, ♂ ♀. Can. Brit.Am.
mœsta Cress., Proc. Ent. Sec. A. N. S. 1880, xx, ♂. Nev.
montana Cress., ibid. xxi, ♀. Nev.
nevadica Cress., ibid. xxi, ♂. Nev.
obscura Cress., ibid. xxi, ♂. Nev.
pumila Cress., ibid. xx, ♀. Nev.
subulata Say, Lec. Edit. i, 164, ♂ (= *Myzine sexcincta*).
truncata Cress., Proc. Ent. Sec. A. N. S. 1880, xxi, ♂. Nev.

Family POMPILIDÆ.

POMPILUS Fabr.

æthiops Cress., Proc. Ent. Soc. iv, 451; Trans. i, 87, ♂ ♀. Can. U.S.
algidus Smith; Cress., Trans. Am. Ent. Soc. i, 101, ♂ ♀. W.Va. Ga. Tex.
alienatus Smith, Brit. Mus. Cat. Hym. iii, 159 (= *Priocnemis*).
americanus Beauv.: Cress., Trans. Am. Ent. Soc. i, 99, ♂ ♀. U.S.
angustatus Cress., Proc. Ent. Soc. Phil. iv, 452; Trans. i, 89. ♂ ♀. Can. Col.
apicatus Prov., Faun. Ent. Can. ii, 621, ♀. Can.
architectus Say, Bost. Jour. i, 303; Lec. Edit. ii, 744 (= *Agenia*).
arctus Cress., Proc. Ent. Soc. Phil. iv, 453; Trans. i, 92, ♂. Col.
argenteus Cress., ibid. i, 93, ♂. W.Va.
atramentarius Dahlb.; Cress., ibid. i, 90. N.Am.
atrox Dahlb.; Cress., i, 98, ♂ ♀. U.S.
biguttatus Fabr.; Cress., ibid. i, 96, ♂ ♀. Can. U.S.
bipartitus St. Farg.; Cress., ibid. i, 101. Pa.
brevicornis Cress., ibid. i, 90, ♂. Pa.
calipterus Say; Cress., ibid. i, 93. Ind.

castaneus Prov., Faun. Ent. Can. ii, 622, ♂.
cinctipes Cress., Trans. Am. Ent. Soc. i, 102, ♂. W.Va.
comparatus Smith, Lord's Nat. Vanc. Is. ii, 341, ♀. Brit.Am.
cornicus (*Miscus*) Say, Bost. Jour. i, 305; Lec. Edit. ii, 746 (= *Priocnemis conicus*).
cylindricus Cress., Trans. Am. Ent. Soc. i, 92, ♂. Can. U.S.
divisus Cress., ibid. 100, ♀. Ga.
ephippiger Smith; Cress., ibid. 99, ♀. N.Am.
fascipennis Say (*nec.* Van d. Lind.), Lec. Edit. i, 224 (= *Priocnemis alienatus*).
ferrugineus Say (*Ceropales*); Cress., Trans. Am. Ent. Soc. i, 107, ♂ ♀. U.S.
ferrugineus Dahlb., Hym. Eur. i, 63 (= *ferrugineus* Say).
formosus Say, Lec. Edit. i, 91, pl. 42 (= *Pepsis*).
funereus St. Farg. (*Anoplius*); Cress., Trans. Am. Ent. Soc. i, [illegible]. Pa.
fuscipennis St. Farg.; Cress., ibid. 102, ♀. W.Va.
griseus Prov., Faun. Ent. Can. ii, 619, ♀. Can.
humilis Cress., Trans. Am. Ent. Soc. i, 91, ♀. N.Y.
hyacinthinus Cress., ibid. 90, ♀. Can. Ct.
ichneumoniformis Patton, Bull. U. S. Geo. Surv. v, 351, ♀. Ks.
ingenuus Cress., Trans. Am. Ent. Soc. i, 89, ♂ ♀. U.S.
interruptus Say (*Ceropales*); Cress., ibid. 104, ♂ ♀. U.S.
? legatus Cress., ibid. 109 (= *Parapompilus*).
luctuosus Cress., Proc. Ent. Soc. Phll. iv, 452; Trans. i, 88, ♂ ♀. Brit.Am. U.S.
maculipennis Smith, Brit. Mus. Cat. Hym. iii, 159 (= *Priocnemis*).
marginatus Say; Cress., Trans. Am. Ent. Soc. i, 98, ♂ ♀. Can. U.S.
? mariæ Cress., ibid. 108 (= *Parapompilus*).
maurus Cress., ibid. 88, ♂ ♀. Can. W.Va. Fla. Ga. Tex.
mellipes Say, Bost. Jour. i, 304; Lec. Edit. ii, 746 (= *Agenia*).
navus Cress., Trans. Am. Ent. Soc. i, 105, ♂ ♀. Ga.
nebulosus Dahlb., Hym. Eur. i, 96 (= *Priocnemis*).
nigripes Cress., Proc. Ent. Soc. Phil. iv, 454 (= *Priocnemis*).
pallidicornis Smith, Brit. Mus. Cat. Hym. iii, 160 (= *Priocnemis unifasciatus*).
parvus Cress., Proc. Ent. Soc. Phil. iv, 453; Trans. i, 91, ♀. Col.
petiolatus (*Miscus*) Say, Bost. Jour. i, 305; Lec. Edit. ii, 746 (= *marginatus*).
philadelphicus St. Farg.; Cress., Trans. Am. Ent. Soc. i, 87, ♂ ♀. Can. U.S.
plebejus Dahlb., Hym. Eur. i, 60 (= *americanus*).
pyrrhomelas Smith, Lord's Nat. Vanc. Is. ii, 341, ♀. Brit.Am.
5-notatus Say, Bost. Jour. i, 304; Lec. Edit. ii, 745 (= *biguttatus*).
scelestus Cress., Proc. Ent. Soc. Phil. iv, 451; Trans. i, 88, ♂ ♀. Can. U.S.
semirufus Cress., ibid. 100, ♀. Ga.
sordidus Smith, Brit. Mus. Cat. Hym. iii, 160 (= *fuscipennis*).
subviolaceus Cress., Trans. Am. Ent. Soc. i, 91, ♀. U.S.
tenebrosus Cress., Proc. Ent. Soc. Phil. iv, 453; Trans. i, 89, ♀. Can. U.S.
terminatus Say, Lec. Edit. i, 92, pl. 42 (= *Priocnemis*).
trifasciatus Beauv., Ins. Afr. et Am. 118 (= var. *americanus*).
tropicus Linn. (*Sphex*); Cress., Trans. Am. Ent. Soc. i, 98, ♂ ♀. U.S.
unifasciatus Say, Lec. Edit. i, 92, pl. 42 (= *Priocnemis*).
virginiensis Cress., Trans. Am. Ent. Soc. i, 92, ♂. Can. W.Va.
Willistoni Patton, Bull. U. S. Geo. Surv. v, 352, ♀. Ks.

PRIOCNEMIS Schiödte.

alienatus Smith (*Pompilus*); Cress., Trans. Am. Ent. Soc. i, 117. ♀. Can. U.S.
conicus Say (*Pompilus*); Cress., ibid. 115, ♂ ♀. Can. U.S.
facetus Cress., ibid. iv, 205, ♀. Tex.
flammipennis Smith (*Pompilus*); Cress., ibid. i, 119. ♂ ♀. Tex. (W. I.)
fortis Cress., ibid. i, 113, ♀. N.Y.
fulgifrons Cress., ibid. 114, ♀. W.Va.
fulvicornis Cress., ibid. 112, ♂ ♀. U.S.
germanus Cress., ibid. 116, ♀. Can. Ct. Del.
Heiligbrodtii Cress., ibid. iv, 204, ♀. Tex.
maculipennis Smith (*Pompilus*); Cress., ibid. i, 112. N.Am. (= *unifasciatus*?)
magnus Cress., ibid. 111, ♀. Ga.
nebulosus Dahlb.; Cress., ibid. 113, ♀. N.Y.
nigripes Cress. (*Pompilus*). ibid. 117, ♀. Col.
nothus Cress., ibid. 118, ♀. Ct. Tex.
nuperus Cress., ibid. 118, ♀. Pa. Tex.
pomilius Cress., ibid. 116, ♀. N.J. Pa.
scitulus Cress., ibid. 118, ♀. Ill.
subopacus Cress., ibid. 114, ♂ ♀. Pa.
terminatus Say (*Pompilus*); Cress., ibid. 113, ♂ ♀. Col. Dak. Tex.
texanus Cress., ibid. iv. 204, ♂ ♀. Tex.
unifasciatus Say (*Pompilus*); Cress., ibid. i, 112, ♂ ♀. U.S.
validus Cress., ibid. 116, ♀. Ga. Tex.

AGENIA Schiödte.

accepta Cress., Trans. Am. Ent. Soc. i, 130, ♀. Ga. Tex.
agilis Cress., ibid. 126, ♂. W.Va.
albopilosa Cress., ibid. 125, ♂. W.Va.
architecta Say (*Pompilus*); Cress., ibid. 122, ♀. Can. U.S.
Belfragei Cress., ibid. iv, 205, ♂. Tex.
bombycina Cress., ibid. 125, ♂ ♀. W.Va.
brevis Cress., ibid. 123, ♂. Ga.
cærulescens Dahlb.; Cress., ibid. 122. S.Car.
calcarata Cress., ibid. 128, ♂. U.S.
congrua Cress., ibid. 129, ♀. W.Va.
cupida Cress., ibid. 122, ♀. W.Va.
dakota Cress., ibid. 124, ♂. Dak. W.Va.?
fulvipes Dahlb., Hym. Eur. i, 92 (= *mellipes*).
iridipennis Cress., Trans. Am. Ent. Soc. i, 127. N.J. W.Va.
longa Cress., ibid. iv, 205, ♀. Tex.
longula Cress., ibid. i, 129, ♂. Dak.
mellipes Say (*Pompilus*); Cress., ibid. 128, ♂ ♀. Can. U.S.
nigropilosa Cress., ibid. 124, ♂. W.Va.
perfecta Prov., Faun. Ent. Can. ii, 627, ♂.
petiolata Cress., Trans. Am. Ent. Soc. i, 127, ♂. Can. Ill.
pulchrina Cress., ibid. 126, ♂. W.Va.
pulchripennis Cress., ibid. 123, ♂ ♀. Can. Mass. Pa. W.Va.
subcorticalis Walsh, American Entomologist, i, 162, ♂ ♀. Ill.
varipes Cress., Trans. Am. Ent. Soc. i, 126, ♀. Ill.

NOTOCYPHUS Smith.

dorsalis Cress., Trans. Am. Ent. Soc. iv, 207, ♀. Tex.
texanus Cress., ibid. 207, ♂. Tex.

PARAPOMPILUS Sm[illegible]

contiguus Cress., Trans. Am. Ent. Soc. iv, 206, ♀. [illegible]
lævifrons Cress. (*Ferreola*), Proc. Bost. Soc. Nat. Hist. xii, 376, ♀. Tex. (Mex.)
legatus Cress. (*Pompilus?*), Trans. Am. Ent. Soc. i, 109, ♀. Ga. Tex.
mariæ Cress. (*Pompilus?*), ibid. 108, ♀. Pa.
? sanguineus Smith (*Ferreola*); Cress., ibid. 133, ♀. Ga.
texanus Cress., ibid. iv, 206, ♀. Tex.
vicinus Cress., ibid. 206, ♀. Tex.

PLANICEPS Latr.

concolor Smith; Cress., Trans. Am. Ent. Soc. i, 137, ♀. Kansas (Patton).
feralis Cress., ibid. iv, 207, ♀. Tex.
niger Cress., ibid. i, 136, ♀. Ct. Ga.

APORUS Spin.

fasciatus Smith; Cress., Trans. Am. Ent. Soc. i, 137, ♂, 149 ♀. S.Car. Ga. Tex.
minimus Cress., ibid. iv, 207, ♂. Tex.
rufiventris Cress., ibid. 207, ♀. Tex.

CEROPALES Latr.

apicalis Say (*nec.* Van d. Lind.), Lec. Edit. ii, 750 (= *Pompilus cinctipes*).
bipunctata Say; Cress., Trans. Am. Ent. Soc. i, 138, ♂ ♀. Can. U.S.
brevicornis Patton, Bull. U. S. Geo. Surv. v, 368, ♂. Ks.
elegans Cress., Trans. Am. Ent. Soc. iv, 208 ♀; Patton, l. c. 367 ♂. Tex. Ks.
fasciata Say (*nec.* Fabr.), Lec. Edit. i, 224 (= *longipes*).
ferrugineus Say, Lec. Edit. i, 225 (= *Pompilus*).
fraterna Smith; Cress., Trans. Am. Ent. Soc. i, 140, ♂ ♀. Can. U.S.
frigida Smith, Brit. Mus. Cat. Hym. iii, 180 (= *longipes*).
fulvipes Cress., Trans. Am. Ent. Soc. iv, 208, ♀. Tex.
interruptus Say, Bost. Jour. i, 365; Lec. Edit. ii, 750 (= *Pompilus*).
longipes Smith; Cress., Trans. Am. Ent. Soc. i, 139, ♀. Can. U.S.
nigripes Cress., ibid. 139, ♀. Tex. Dakota.
Robinsoni Cress., ibid. 140, fig. ♂. W.Va.
rufiventris Walsh, Am. Ent. i, 163, ♂ ♀. Ill.
superba Prov., Faun. Ent. Can. ii, 810, ♀. Can.
texana Cress., Trans Am. Ent. Soc. iv, 208, ♂. Tex. (= *nigripes?*).

MYGNIMIA Smith.

ustulata Dahlb. (*Hemipepsis*); Cress., Trans. Am. Ent. Soc. i, 143. Tex. (Mex.)

PEPSIS Fabr.

dubitata Cress., ibid. 144, ♂ ♀. Ga. Tex.
elegans St. Farg.; Cress., ibid. 144, ♂ ♀. Pa. Ga.

formosa* Say (*Pompilus*); Cress., ibid. 144, ♀. Tex. Ks. Cala.
luteicornis Fabr.; Cress., ibid. 145, ♀. S.Car. (?)
marginata Beauv.; Cress., ibid. 145, ♂ ♀. Tex. (S.Am.)

Family SPHECIDÆ.

AMMOPHILA Kirby.

abbreviata Fabr. (*Pelopœus*), Syst. Piez. 204; Dahlb., Hym. Eur. i, 15. S.Car.
Aberti Hald., Stans. Salt Lake Exp. ii, 368; Patton, Bull. U. S. Geo. Surv. v, 353, ♀. Ks. Utah.
argentifrons Cress., Proc. Ent. Soc. Phil. iv, 462, ♂. Col.
arvensis St. Farg. Hym. iii, 384. N.Am.
cementaria Smith, Brit. Mus. Cat. Hym. iv, 223, ♀. Ga. Fla.
collaris Cress., Proc. Ent. Soc. Phil. iv, 456, ♂. Col.
communis Cress.. ibid. 462, ♂. Can. Col.
conditor Smith, Brit. Mus. Cat. Hym. iv, 223, ♀. Can. Fla.
extrematata Cress., Proc. Ent. Soc. Phil. iv, 457, ♀. Col.
ferruginosa Cress., ibid. 455, ♀. Col.
gracilis St. Farg., Hym. iii, 381. Can. Tex. (Mex.)
grossa Cress., Trans. Am. Ent. Soc. iv, 209, ♀. Tex.
gryphus Smith, Brit. Mus. Cat. Hym. iv, 222, ♂ ♀. Can. U.S. (= *procera?*)
inepta Cress., Trans. Am. Ent. Soc. iv, 209, ♂ ♀. Tex.
intercepta St. Farg., Hym. iii, 378. U.S.
juncea Cress., Proc. Ent. Soc. Phil. iv, 460, ♂. Col.
luctuosa Smith, Brit. Mus. Cat. Hym. iv, 224, ♀. Brit.Am. U.S.
macra Cress., Proc. Ent. Soc. Phil. iv, 460, ♂. Col.
mediata Cress., ibid. 459, ♂ ♀. Col.
nigricans Dahlb., Hym. Eur. i, 14, ♂. S.Car.
pictipennis Walsh, Am. Ent. i, 164, ♂ ♀. Ill. Tex.
placida Smith, Brit. Mus. Cat. Hym. iv, 221, ♂. Cala.
polita Cress., Proc. Ent. Soc. Phil. iv, 458, ♀. Col.
procera Klug; Dahlb., Hym. Eur. i, 15; St. Farg., Hym. iii, 376. N.Am.
pruinosa Cress., Proc. Ent. Soc. Phil. iv, 455, ♂ ♀. Col.
robusta Cress., ibid. 461, ♀. Col.
sæva Smith, Brit. Mus. Cat. Hym. iv, 222, ♀. Cala.
strenua Cress., Proc. Ent. Soc. Phil. iv, 459, ♀. Col.
urnaria Klug; Dahlb., Hym. Eur. i, 14. Pa. S.Car.
valida Cress., Proc. Ent. Soc. Phil. iv, 461, ♀. Col.
varipes Cress., ibid. 457, ♂ ♀. Col.
violaceipennis St. Farg., Hym. iii, 370. Pa.
vulgaris Cress., Proc. Ent. Soc. Phil. iv, 458, ♂ ♀. Col. Tex.
Wrightii Cress. (*Coloptera*), Trans. Am. Ent. Soc. i, 378, ♀. N.Mex.

PELOPŒUS Latr.

abbreviatus Fabr., Syst. Piez. 204 (= *Ammophila*).
architectus St. Farg. Hym. iii, 313 (= var. *cementarius*).

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* Mocsary, in an important paper on the genus *Pepsis* (Termes. Füzet. ix, 245), refers this species to *rubra* Drury (Ins. ii, 75, pl. 39, fig. 6).

californicus Sauss., Reise der Novara, Hym. 26 (= *Chalybion cæruleum*).
canadensis Smith, Brit. Mus. Cat. Hym. iv, 233. Can. (= var. *cementarius?*)
cementarius Drury (*Sphex*), Ins. i, 105, pl. 44, fig. 3. Can. U.S.
lucæ Sauss., Reise der Novara, Hym. 30, ♂ ♀. L.Cala.
Servillei St. Farg., Hym. iii, 313. La. (= var. *cementarius?*).
texanus Cress., Trans. Am. Ent. Soc. iv, 210 (= *Chalybion*).

CHALYBION Dahlb.

cæruleum Linn. (*Sphex*); Patton, Proc. Bost. Soc. Nat. Hist. xx, 378. Can. U.S.
texanum Cress. (*Pelopœus*), Trans. Am. Ent. Soc. iv, 210, ♂ ♀. Tex.
Zimmermanni Dahlb., Hym. Eur. i, 22, ♂ ♀. S.Car. Cala.

CHLORION Latr.

ærarium Patton, Can. Ent. xi, 133, ♀. Ct.
cæruleum Drury (*Sphex*), Ins. ii, 75, pl. 39, fig. 8. U.S.
cyaneum Dahlb., Hym. Eur. i, 24 (= *cæruleum*).

PODIUM Fabr.

luctuosum Smith, Brit. Mus. Cat. Hym. iv, 235, ♀. N.Car.
rufipes Fabr., Syst. Piez. 183; Cress., Trans. Am. Ent. Soc. iv, 211. Tex. (S.Am.)

ISODONTIA Patton.

elegans Smith (*Sphex*); Patton, Proc. Bost. Soc. Nat. Hist. xx, 380, ♀. Cala.
philadelphica St. Farg. (*Sphex*); Patton, ibid. 380. U.S.
tibialis St. Farg. (*Sphex*); Patton, ibid. 381. U.S.

SPHEX Linn.

abdominalis Cress., Trans. Am. Ent. Soc. iv, 211 (= *Harpactopus*).
apicalis Smith, Brit. Mus. Cat. Hym. iv, 262 (= *Isodontia philadelphica*).
argentata Dahlb., Hym. Eur. i, 25; Smith, Brit. Mus. Cat. Hym. iv, 252. Fla.
atrata St. Farg., Hym. iii, 355 (= *Priononyx*).
Belfragei Cress., Trans. Am. Ent. Soc. iv, 212, ♂ ♀. Tex.
cærulea Linn., Syst. Nat. i, 941 (= *Chalybion*).
cærulea Drury (*nec* Linn.), Ins. ii, 75, pl. 39, fig. 8 (= *Chlorion*).
cementaria Drury, Ins. i, 105, pl. 44, fig. 6 (= *Pelopœus*).
croesus St. Farg., Hym. iii, 351. N.Am.
dimidiata St. Farg., ibid. 352. N.Am.
dubitata Cress., Trans. Am. Ent. Soc. iv, 213, ♀. Tex.
elegans Smith, Brit. Mus. Cat. Hym. iv, 262, ♂ (= *Isodontia*).
flavipes Smith, ibid. 263, ♀. Ga. Tex.
flavipes Fabr., Ent. Syst. ii, 202 (= *Pelopœus cementarius*).
habena Say, Lec. Edit. i, 308. La. Tex.
ichneumonea Linn.; Patton, Proc. Bost. Soc. N. H. xx, 382. U.S.
instabilis Smith, Brit. Mus. Cat. Hym. iv, 263, ♀. N.Am.
læviventris Cress., Proc. Ent. Soc. iv, 463 (= *Harpactopus*).
lauta Cress., Trans. Am. Ent. Soc. iv, 212, ♀. Tex.
pennsylvanica Linn.; Patton, Proc. Bost. Soc. Nat. Hist. xx, 383. U.S.

philadelphica St. Farg., Hym. iii, 340 (= *Isodontia*).
plumipes Drury, Ins. i, 104, pl. 44, fig. 5 (= *Elis*).
rufiventris Cress., Trans. Am. Ent. Soc. iv, 211 (= *Harpactopus*).
speciosa Drury, Ins. ii, 71, pl. 38, fig. 1 (= *Sphecius*).
texana Cress., ibid. 212, ♂ ♀. Tex.
thomæ Fabr., Ent. Syst. ii, 199 (= *Priononyx*).
tibialis St. Farg., Hym. iii, 339 (= *Isodontia*).
tropica Linn., Syst. Nat. i, 945 (= *Pompilus*).
violaceipennis St. Farg., Hym. iii, 349. Pa.

HARPACTOPUS Smith.

abdominalis Cress. (*Sphex*), Tr. Am. Ent. Soc. iv, 211, ♂. Tex. (= *rufiventris?*)
læviventris Cress. (*Sphex*), Proc. Ent. Soc. Phil. iv, 463, ♂ ♀. Col.
rufiventris Cress. (*Sphex*), Trans. Am. Ent. Soc. iv, 211, ♀. Tex.

PRIONONYX Dahlb.

atrata St. Farg. (*Sphex*), Hym. iii, 355. U.S.
brunnipes Cress., Trans. Am. Ent. Soc. iv, 213, ♂. Tex.
thomæ Fabr. (*Sphex*), Ent. Syst. ii, 199. U.S.

Family **AMPULICIDÆ.**

RHINOPSIS Westw.

Abbottii Westw., Arcana Entom. ii, 68, pl. 65, fig. 5, ♀ (= *canaliculata*).
canaliculata Say (*Ampulex*), Lec. Edit. i, 165. Can. Pa. Ga. Mo.
pensylvanicus Hald. (*Ampulex*), Proc. Acad. Nat. Sci. Phil. iv, 203 (= *canaliculata*).

Family **LARRIDÆ.**

PISON Spin.

lævis Smith, Brit. Mus. Cat. Hym. iv, 317, ♀. Ga.

ASTATA Latr.

bella Cress., Proc. Ent. Sec. A. N. S. 1881, vi, ♂. Cala.
bicolor Say, Lec. Edit. i, 166. Ark. Mo. Tex.
cærulea Cress., Proc. Ent. Sec. A. N. S. 1881, iv, ♂. Nev.
elegans Cress., ibid. vi, ♂ ♀. Col. Nev. Wash.Terr. Vanc.
montana Cress., ibid. v, ♀. Col. Nev.
nevadica Cress., ibid. v, ♀. Nev.
nigropilosa Cress., ibid. iv, ♂ ♀ Col. Nev.
nubecula Cress., Proc. Ent. Soc. Phil. iv, 466, ♂. Col.
occidentalis Cress., Proc. Ent. Sec. A. N. S. 1881, iii, ♂. Wash.Terr.
rufiventris Cress., Trans. Am. Ent. Soc. iv, 218, ♀. Tex.
terminata Cress., ibid. 218, ♂. Tex. (= var. *bicolor?*).
unicolor Say, Lec. Edit. i, 228, ♀; Smith, B. M. Cat. iv, pl. 8, fig. 1, ♂. Can. U.S.

LIRIS Fabr.

? brunneipes Cress., Proc. Ent. Sec. A. N. S. 1881, iii, ♂ ♀. Col. Nev.

LYRODA Say.

subita Say, Bost. Jour. i, 372; Lec. Edit. ii, 755, ♀. Can. Ind. Tex.
triloba Say, ibid. 372; Lec. Edit. ii, 755. Can. Ind. Tex.

LARRA Latr.

abdominalis Say, Lec. Edit. i, 165 (= *Tachytes*).
acuta Patton, Proc. Bost. Soc. Nat. Hist. xx, 390, ♀. Ct.
æthiops Cress. (*Larrada*), Proc. Ent. Soc. Phil. iv, 465, ♀. Col.
americana Cress. (*Larrada*), Trans. Am. Ent. Soc. iv, 214, ♂. Tex.
analis Fabr., Syst. Piez. 220. U.S.
arcuata Smith (*Larrada*), Brit. Mus. Cat. Hym. iv, 293, ♀. Can.
argentata Beauv., Ins. Afr. et Am. 119, pl. 3, fig. 9. U.S.
aurulenta Fabr., Syst. Piez. 220 (= *Tachytes*).
Belfragei Cress. (*Larrada*), Trans. Am. Ent. Soc. iv, 215, ♀. Tex.
Brendeli Tasch. Zeits. Ges. Nat. xlv, 361 (= *Megastizus brevipennis*).
canescens Smith (*Larrada*), Brit. Mus. Cat. Hym. iv, 292, ♀. Ga.
distincta Smith (*Larrada*), ibid. 292 ♀; Patton, Proc. Bost. Soc. xx, 390. N.Y.
divisa Patton, Bull. U. S. Geo. Surv. v, 368 ♀. Ks.
lævifrons Smith (*Larrada*), Brit. Mus. Cat. Hym. iv, 291, ♀. Fla.
moneduloides Smith, ibid. 346 (= *Bembecinus*).
montana Cress. (*Larrada*), Proc. Ent. Soc. Phil. iv, 465, ♀. Col.
parvula Cress. (*Larrada*), ibid. 465, ♂ (= *montana*).
[illegible]**anica** Beauv., Ins. Afr. et Am. 118, pl. 3, fig. 8. Pa.
[illegible]**ensis** Prov., Faun. Ent. Can. ii, 633, ♂ ♀. Can.
[illegible]**irufa** Cress. (*Larrada*), Proc. Ent. Soc. Phil. iv, 464, ♀. Col.
tarsata Say, Lec. Edit. i, 166. Col. Ark.
tenuicornis Smith (*Larrada*), Brit. Mus. Cat. Hym. iv. 293, ♀. Cala.
terminata Smith (*Larrada*), ibid. 291, ♂. Can. N.Y.
texana Cress. (*Larrada*), Trans. Am. Ent. Soc. iv, 214, ♂ ♀. Tex.
vinulenta Cress. (*Larrada*), Proc. Ent. Soc. Phil. iv, 138. Tex. (Cuba.)

TACHYTES Panz.

abdominalis Say (*Larra*), Lec. Edit. i, 165. Ark. Tex.
aurulentus Fabr. (*Larra*), Syst. Piez. 220. U.S.
cælebs Patton, Bull. U. S. Geo. Surv. v, 355, ♂. Ks.
crassus Patton, Proc. Bost. Soc. Nat. Hist. xx, 393, ♀. Ct.
distinctus Smith, Brit. Mus. Cat. Hym. iv, 307, ♀. U.S.
dives St. Farg., Hym. iii, 247, ♀. Car.
elongatus Cress., Trans. Am. Ent. Soc. iv, 215, ♂. Tex.
fulviventris Cress., Proc. Ent. Soc. Phil. iv, 466, ♀. Col.
harpax Patton, Proc. Bost. Soc. Nat. Hist. xx, 395, ♂ ♀. Ct.
mandibularis Patton, ibid. 394, ♂ ♀. Ct.
obscurus Cress., Trans. Am. Ent. Soc. iv, 217, ♀. Tex.
pepticus Say (*Lyrops*), Bost. Jour. i, 371; Lec. Edit. ii, 754, ♂ ♀. Ind.
rufofasciatus Cress., Trans. Am. Ent. Soc. iv, 217, ♂. Tex.
sericatus Cress., ibid. 216, ♂ ♀. Tex.
texanus Cress., ibid. 217, ♂. Ks. Tex.
validus Cress., ibid. 216, ♂ ♀. Tex.

Family BEMBECIDÆ.

SPHECIUS Dahlb.

convallis Patton, Bull. U. S. Geo. Surv. v, 343, ♂ ♀. Cala. (= var. *speciosus*).
nevadensis Cress. (*Stizus*), Trans. v, 99; Rep. Wheeler Exp. v, 716, pl. 33, fig. 1, ♂. Nev. Utah (= var. *speciosus?*).
speciosus Drury (*Sphex*); Pack., Proc. Ent. Soc. Phil. vi, 442; Patton, Bull. U. S. Geo. Surv. v, 342. U.S.

MEGASTIZUS Patton.

brevipennis Walsh (*Stizus*), Am. Ent. i, 162, ♂. Ill. Ks. Tex.

BEMBECINUS Costa.

moneduloides Smith (*Larra*), Brit. Mus. Cat. Hym. iv, 346, ♂ ♀. Fla.
neglecta Cress. (*Monedula*), Trans. Am. Ent. Soc. iv, 222, ♀. Tex.

STIZUS Latr.

brevipennis Walsh, Amer. Entom. i, 162 (= *Megastizus*).
fervidus Cress., Trans. Am. Ent. Soc. iv, 223 (= var. *Sphecius speciosus*).
grandis Say, Lec. Edit. i, 3, pl. 2, fig. 1-2 (= var. *Sphecius speciosus*).
nevadensis Cress., Trans. Am. Ent. Soc. v, 99 (= *Sphecius*).
Servillii St. Farg. (*Bicyrtes*), Hym. iii, 53, ♀. Pa.
texanus Cress., Trans. Am. Ent. Soc. iv, 222 (= *Megastizus brevipennis*).
unicinctus Say; Lec. Edit. i, 4, pl. 2, fig. 3-4, ♂. Ks. Col. Utah, N.Mex. Tex.

BEMBEX Fabr.

americana Fabr., Ent. Syst. ii, 250; Dahlb., Hym. Eur. i, 183. N.Am.
Belfragei Cress., Trans. Am. Ent. Soc. iv, 220, ♂. Tex.
carolina Fabr., Ent. Syst. ii, 249 (= *Monedula*).
fasciata Fabr., Syst. Piez. 224; Say, Lec. Edit. ii, 751. U.S.
monodonta Say, Lec. Edit. i, 226 (= *Microbembex*).
nubilipennis Cress., Trans. Am. Ent. Soc. iv, 218, ♂ ♀. Tex.
Sayi Cress., Proc. Ent. Soc. Phil. iv, 467, ♀. Ill. Col. Tex.
spinolæ St. Farg., Hym. iii, 277 (= *fasciata*).
texana Cress., Trans. Am. Ent. Soc. iv, 219, ♀. Tex.

MICROBEMBEX Patton.

monodonta Say (*Bembex*); Patton, Bull. U. S. Geo. Surv. v, 362, ♂ ♀. U.S.

STENIOLIA Say.

obliqua Cress. (*Monedula*), Proc. Ent. Soc. Phil. iv, 469, ♀. Col.

MONEDULA Latr.

carolina Fabr. (*Bembex*), Ent. Syst. ii, 249. U.S.
emarginata Cress., Proc. Ent. Soc. Phil. iv, 468, ♂ ♀. Col.
formosa Cress., Trans. Am. Ent. Soc. iv, 221 (= *speciosa*).
neglecta Cress., ibid. 222 (= *Bembecinus*).
obliqua Cress., Proc. Ent. Soc. Phil. iv, 469 (= *Steniolia*).
pictifrons Smith, Brit. Mus. Cat. Hym. iv, 335, ♀. N.Car. Tex.

pulchella Cress., Proc. Ent. Soc. Phil. iv. 471, ♂ ♀. Col.
4-fasciata Say, Lec. Edit. i, 226, ♂. Pa. Tex.
Sallei Guér., Icon. Règ. Anim. iii, 437. La. (= *4-fasciata?*).
speciosa Cress., Proc. Ent. Soc. Phil. iv, 470, ♀. Col. Tex. Ks.
ventralis Say, Lec. Edit. i, 227, ♂. Can. U.S.

Family **NYSSONIDÆ.**

GORYTES Latr.

abdominalis Cress., Proc. Ent. Soc. Phil. iv, 474 (= *Hoplisus*).
apicalis Smith, Brit. Mus. Cat. Hym. iv, 369, ♂. Ga.
atricornis Pack., Proc. Ent. Soc. Phil. vi, 428 (= *Hoplisus*).
Belfragei Cress., Trans. Am. Ent. Soc. iv, 224, ♀. Tex.
bipunctatus Say, Lec. Edit. i, 228 (= *Euspongus*).
Bollii Cress., Trans. Am. Ent. Soc. iv, 225, ♀. Tex.
canaliculatus Pack., Proc. Ent. Soc. Phil. vi, 428 (= *Hoplisus*).
costalis Cress., Trans. Am. Ent. Soc. iv, 225, ♀. Tex.
denticulatus Pack., Proc. Ent. Soc. Phil. vi, 430, ♀. La.
divisus Smith, Brit. Mus. Cat. Hym. iv, 370, ♂. Ga.
ephippiatus Pack., Proc. Ent. Soc. Phil. vi, 426 (= *Hoplisus*).
flavicornis Pack., ibid. 429 (= *Hoplisus*).
fulvipennis Smith, Brit. Mus. Cat. Hym. iv, 367 (= *Hoplisus*).
modestus Cress., Proc. Ent. Soc. Phil. iv, 473 (= *Hoplisus*).
moneduloides Pack., ibid. vi, 431 (= *Hoplisus*).
nebulosus Pack., ibid. 424, ♀. Mass. N.J.
nigrifrons Smith, Brit. Mus. Cat. Hym. iv, 368, ♀. N.Scotia.
phaleratus Say, Bost. Jour. i, 367; Lec. Edit. ii, 752 (= *Hoplisus*).
placidus Smith, Brit. Mus. Cat. Hym. iv, 368, ♂ ♀. Fla.
propinquus Cress., Trans. Am. Ent. Soc. i, 379 (= *Hoplisus*).
rufipes Smith, Brit. Mus. Cat. Hym. iv, 369, ♀. Fla.
rufoluteus Pack., Proc. Ent. Soc. Phil. vi, 425 (= *Hoplisus*).
rugosus Pack., ibid. 427, ♂. Me.
simillimus Smith, Brit. Mus. Cat. Hym. iv, 367 (= *Hoplisus*).
Smithii Cress., Proc. Ent. Sec. A. N. S. 1880, xviii (= *Hoplisus*).
tricolor Cress., Trans. Am. Ent. Soc. i, 380, ♀. N.Mex.
venustus Cress., Proc. Ent. Soc. Phil. iv, 472 (= *Hoplisus*).

HOPLISUS St. Farg.

abdominalis Cress. (*Gorytes*), Proc. Ent. Soc. Phil. iv, 474, ♂ ♀. Col.
atricornis Pack. (*Gorytes*), ibid. vi, 428, ♂ ♀. Can. Me. Mass.
canaliculatus Pack. (*Gorytes*), ibid. 428, ♀. Me.
ephippiatus Pack. (*Gorytes*), ibid. 426, ♂. Can. Ill.
flavicornis Pack. (*Gorytes*), ibid. 429, ♂ ♀. Me. Mass.
fulvipennis Smith (*Gorytes*), Brit. Mus. Cat. Hym. iv, 367, ♀. Can. U.S.
gracilis Patton, Can. Ent. xi, 210, ♀. Ct.
modestus Cress. (*Gorytes*), Proc. Ent. Soc. Phil. iv, 473, ♂. Col.
moneduloides Pack. (*Gorytes*), ibid. vi, 431, ♂. La.
phaleratus Say (*Gorytes*), Bost. Jour. i, 367; Lec. Edit. ii, 752. Can. Ind.
propinquus Cress. (*Gorytes*), Trans. Am. Ent. Soc, i, 379, ♀. Tex. N.Mex.

rufoluteus Pack. (*Gorytes*), Proc. Ent. Soc. Phil. vi, 425, ♂ ♀. Ill. La.
simillimus Smith (*Gorytes*), Brit. Mus. Cat. Hym. iv, 367, ♀. N.Scotia.
Smithii Cress. (*Gorytes*), Proc. Ent. Sec. A. N. S. 1880, xviii, ♀. Ill.
venustus Cress. (*Gorytes*), Proc. Ent. Soc. Phil. iv, 472, ♂ ♀. Col.

EUSPONGUS St. Farg.

bipunctatus Say (*Gorytes*), Lec. Edit. i, 228. Pa.

ALYSON Jur.

melleus Say; Pack., Proc. Ent. Soc. Phil. vi, 422, ♀. Ind. N.J.
oppositus Say; Pack., ibid. 421, ♂ ♀. Can. U.S.
texanus Cress., Trans. Am. Ent. Soc. iv, 226, ♂. Tex.

PARANYSSON Guér.

fuscipes Cress., Trans. Am. Ent. Soc. ix, 274, ♂ ♀. Wash.Terr. Oregon.
texanus Cress. (*Nysson*), ibid. 273, ♂ ♀. Tex. Montana.

NYSSON Latr.

æqualis Patton; Cress., Trans. Am. Ent. Soc. ix, 277, ♂. Mass.
albomarginatus Cress., ibid. 278, ♂ ♀. Nev.
aurinotus Say; Cress., ibid. 277. Ind. Tex.
basilaris Cress., ibid. 281, ♀. Ga.
bellus Cress., ibid. 280, ♀. Tex. Mont.
compactus Cress., ibid. 278, ♂ ♀. Wash.Terr.
fidelis Cress., ibid. 282, ♂ ♀. Col. Mont.
? inerme Cress., ibid. iv, 224, ♀. Tex.
lateralis Pack.: Cress., ibid. ix, 282, ♂ ♀. Can. N.H. Va.
mellipes Cress., ibid. 279, ♂ ♀. Col. Mont.
mœstus Cress., ibid. 280, ♂. Wash.Terr.
opulentus Gerts.; Cress., ibid. 279, ♂ ♀. N.Y.
plagiatus Cress., ibid. 276, ♂ ♀. Ill. Neb. Tex. Wash.Terr.
pumilus Cress., ibid. 283, ♂. Nev.
5-spinosus Say; Cress., ibid. 284. Ark.
rufiventris Cress., ibid. 283, ♀. Col. Mont.
rusticus Cress., ibid. 282, ♂ ♀. Wash.Terr.
texanus Cress., ibid. iv, 223 (= *Paranysson*).
tristis Cress., ibid. ix, 281, ♂. Wash.Terr.

HYPONYSSON Cress.

bicolor Cress., Trans. Am. Ent. Soc. ix, 284, ♀. Wash.Terr.

Family **PHILANTHIDÆ.**

PHILANTHUS Fabr.

albifrons Cress., Proc. Ent. Soc. Phil. v, 101, ♂ ♀. Col.
albopilosus Cress., ibid. 91, ♂. Ill.
barbatus Smith; Cress., ibid. 103, ♂. N.Am.
basilaris Cress., Proc. Ent. Sec. A. N. S. 1879, xxxiii, ♂ ♀. Col.
bilunatus Cress., Proc. Ent. Soc. Phil. v, 97, ♂. Can. U.S.

californicus Cress., Proc. Ent. Sec. A. N. S. 1879, xxxii, ♂. Cala.
canaliculatus Say, Lec. Edit. i, 111, pl. 49 (= *Eucerceris*).
crabroniformis Smith; Cress., Proc. Ent. Soc. Phil. v, 104, ♂. Cala.
dubius Cress., ibid. 96, ♂. N.Y. Ill. (= *politus?*).
flavifrons Cress., ibid. 102, ♀. Col.
frigidus Smith, Brit. Mus. Cat. Hym. iv, 475 (= *Aphilanthops*).
frontalis Cress., Proc. Ent. Soc. Phil. v, 99, ♂ (= var. *ventilabris*).
gibbosus Dahlb. (*Anthophilus*), Hym. Eur. i, 192 (= *punctatus*).
gloriosus Cress., Proc. Ent. Soc. Phil. v, 86, ♀. Col.
inversus Patton, Bull. U. S. Geo. Surv. v, 355, ♀. Ks.
laticinctus Cress., Proc. Ent. Soc. Phil. v, 91 (= *Aphilanthops*).
lepidus Cress., ibid. v, 92, ♂. Col.
pacificus Cress., Proc. Ent. Sec. A. N. S. 1879, xxxii, ♂. Nev. Or.
politus Say; Cress., Proc. Ent. Soc. Phil. v, 94, ♀. U.S.
pulchellus Cress., ibid. 93, ♂. Col.
punctatus Say; Cress., ibid. 100, ♂ ♀. U.S.
punctiger Westw. (*Cheilopogonus*), Zool. Mag. v, 441, pl. 22, fig. 4 (= *punctatus*).
Sanborni Cress., Proc. Ent. Soc. Phil. v, 89, ♂ ♀. Mass.
scelestus Cress., Proc. Ent. Sec. A. N. S. 1879, xxxiii, ♀. Col.
scutellaris Cress., ibid. xxxiv, ♂. Ks.
simillimus Cress., Proc. Ent. Soc. Phil. v, 95, ♀. Ill.
solivagus Say; Cress., ibid. 103, ♂; Pack., ibid. vi, 57, ♀. Can. U.S.
sublimis Cress., Proc. Ent. Sec. A. N. S. 1879, xxxii, ♂. Col. Cala.
ventilabris Fabr.; Cress., Proc. Ent. Soc. Phil. v, 98, ♂ ♀. U.S.
vertilabris Fabr., Syst. Piez. 303 (= *ventilabris*).
zebratus Cress., Proc. Ent. Sec A. N. S. 1879, xxxiii, ♂. Nev.
zonatus Say, Lec. Edit. i, 111, pl. 49 (= *Eucerceris*).

APHILANTHOPS Patton.

frigidus Smith (*Philanthus*); Cress., Proc. Ent. Soc. Phil. v, 87. Can. N.Scotia.
laticinctus Cress. (*Philanthus*), ibid. 91, ♂. Col.

EUCERCERIS Cress.

bicolor Cress., Proc. Ent. Sec. A. N. S. 1881, xxxviii, ♀. Mont.
canaliculatus Say (*Philanthus*); Patton, Bull. U. S. Geo. Surv. v, 357, ♂ ♀. Ks.
cingulatus Cress., Proc. Ent. Soc. Phil. v, 110, ♂ (= *flavocinctus*).
elegans Cress., Proc. Ent. Sec. A. N. S. 1879, xxiii, ♂. Nev.
flavocinctus Cress., Proc. Ent. Soc. Phil. v, 109, ♀. Col.
fulviceps Cress., Proc. Ent. Sec. A. N. S. 1879, xxiii, ♀. N.Mex.
fulvipes Cress., Proc. Ent. Soc. Phil. v, 111, ♂ ♀. Col. Mont.
laticeps Cress., ibid. 107; Patton, Bull. Geo. Surv. v, 357, ♂ ♀. Mass. Ks.
montanus Cress., Proc. Ent. Sec. A. N. S. 1882, viii, ♂ ♀. Mont.
rubripes Cress., ibid. 1879, xxiii, ♂. Col. Ks. Mont.
similis Cress., ibid. xxiv, ♂ ♀. Nev.
superbus Cress., Proc. Ent. Soc. Phil. v, 108; Patton, Bull. v, 356, ♂. Col. Ks.
unicornis Patton, Bull. U. S. Geo. Surv. v, 359, ♀. Ks.
vittatifrons Cress., Proc. Ent. Sec. A. N. S. 1879, xxiv, ♂. Nev. Wash.Terr.
zonatus Say (*Philanthus*); Cress., Proc. Ent. Soc. Phil. v, 105, ♂ ♀. Mass. Ill.

CERCERIS Latr.

bicornuta Guér.; Cress., Proc. Ent. Soc. Phil. v, 117, ♀. U.S.
bidentata Say, Lec. Edit. i, 168; Patton, Bull. v, 357 (= *Eucerceris canaliculatus*).
biungulata Cress., Proc. Ent. Soc. Phil. v, 118, ♀. Col.
Blakei Cress., ibid. 121, ♀. Ga.
californica Cress., ibid. 128, ♂. Cala.
cincta Dahlb., Hym. Eur. i, 204 (= *fumipennis*).
clypeata Dahlb.; Cress., Proc. Ent. Soc. Phil. v, 114, ♂ ♀. Can. U.S.
compacta Cress., ibid. 127, ♂ ♀. U.S.
compar Cress., ibid. 126, ♂; Patton, Proc. Bost. Soc. xx, 404, ♀. Ill. Ks.
dentifrons Cress., ibid. 124, ♀. N.Y. Ill.
deserta Say; Cress., ibid. 125, ♂. Can. U.S.
Dufourii Guér.; Cress., ibid. 131, ♂. La.
elegans Smith; Cress., ibid. 131, ♂. Fla.
fasciola Cress., Trans. Am. Ent. Soc. iv, 230, ♂. Tex.
finitima Cress., Proc. Ent. Soc. Phil. v, 122, ♀. Ill.
firma Cress., Trans. Am. Ent. Soc. iv, 229, ♀. Tex.
frontata Say; Cress., Proc. Ent. Soc. Phil. v, 129, ♀. Ark.
fulvipes Cress., ibid. 126; Patton, Bull. U. S. Geo. Surv. v, 360, ♀. Del. Ill. Ks.
fumipennis Say; Cress., ibid. 113, ♂ ♀. U.S.
gnara Cress., Trans. Am. Ent. Soc. iv, 229, ♂. Tex.
imitator Cress., Proc. Ent. Soc. Phil. v. 125, ♂. Ill.
insolita Cress., ibid. 129, ♂. Ill.
jucunda Cress., Trans. Am. Ent. Soc. iv, 231, ♂. Tex.
Kennicottii Cress., Proc. Ent. Soc. Phil. v, 128, ♂. La. Tex.
mandibularis Patton, Proc. Bost. Soc. Nat. Hist. xx, 1880, 403, ♂ ♀. Ct.
mimica Cress., Trans. Am. Ent. Soc. iv, 228, ♂ ♀. Tex.
morata Cress., ibid. 230, ♀. Tex.
nigrescens Smith; Cress., Proc. Ent. Soc. Phil. v, 123. Can. N.Scotia, Col. Tex.
occipitomaculata Pack., ibid. vi, 62, ♂. Ks. Tex.
rufinoda Cress., ibid. v, 121, ♂. Col.
rufopicta Smith; Cress., ibid. 131, ♂. Fla.
sexta Say; Cress., ibid. 119, ♂. Col. Ks.
unicincta Tasch., Zeits. Ges. Nat. xlv, 397, ♀. Tenn.
venator Cress., Proc. Ent. Soc. Phil. v, 116, ♂. U.S. (= *bicornuta?*).
verticalis Smith; Cress., ibid. 130, ♀. Ga.
vicina Cress., ibid. 120, ♀. Col.

Family **MIMESIDÆ.**

MIMESA Shuck.

argentifrons Cress., Proc. Ent. Soc. Phil. iv, 487, ♂ ♀. Can. Ill. Col.
basirufa Pack., ibid. vi, 406, ♀. Me.
borealis Smith; Pack., ibid. 408, ♂. Brit.Am.
cingulata Pack., ibid. 410, ♂. Me.
Cressoni Pack., ibid. 405, ♀. N.Y. N.J.

denticulata Pack., ibid. 406. ♂. Can. N.Y. Ill.
monticola Pack., ibid. 407, ♂. N.H.
pauper Pack., ibid. 409, ♂. Can. Ill. Tex.
proxima Cress., ibid. iv, 488, ♀. Col.
tibialis Cress., Trans. Am. Ent. Soc. iv, 227, ♂ ♀. Tex.
unicincta Cress., Proc. Ent. Soc. Phil. iv, 488, ♀. Col.

PSEN Latr.

chalcifrons Pack., Proc. Ent. Soc. Phil. vi, 401, ♀. Ill.
elongatus Pack., ibid. 400, ♀. Ill.
fuscipes Pack., ibid. 402, ♀. Mass.
leucopus Say; Pack., ibid. 398, ♂ ♀. Can. U.S.
mellipes Say, Bost. Jour. i, 369; Lec. Edit. ii, 753, ♀. Ind.
niger Pack., Proc. Ent. Soc. Phil. vi, 399, ♂ ♀. Can. Va.

Family MELLINIDÆ.

MELLINUS Fabr.

abdominalis Cress., Proc. Ent. Soc. A. N. S. 1881, xxxix, ♂ ♀. Mont.
bimaculatus Pack., Proc. Ent. Soc. Phil. vi, 419, ♀. Me. N.H.
rufinodus Cress., ibid. iv, 475, ♂ ♀. Col.

Family PEMPHREDONIDÆ.

SPILOMENA Shuck.

pusilla Say (*Stigmus*), Lec. Edit. ii 760; Patton, Can. Ent. xi, 213, ♀. Ct. Ind.

STIGMUS Jur.

americanus Pack., Proc. Ent. Soc. Phil. vi, 386, ♀. Ill.
fraternus Say; Pack., ibid. 387, ♂ ♀. Can. N.Y. Pa.
pusillus Say, Bost. Jour. i, 378; Lec. Edit. ii, 760 (= *Spilomena*).

CEMONUS Jur.

inornatus Say (*Pemphredon*); Pack., Proc. Ent. Soc. Phil. vi, 389, ♂ ♀. Can. U.S.

PEMPHREDON Latr.

annulatus Say, Bost. Jour. i, 379; Lec, Edit. ii, 761 (= *Passalœcus*).
concolor Say; Pack., Proc. Ent. Soc. Phil. vi, 391, ♀. Can. U.S.
inornatus Say, Lec. Edit. i, 229 (= *Cemonus*).
mandibularis Cress., Proc. Ent. Soc. Phil. iv, 487 (= *Passalœcus*).
marginatus Say, Bost. Jour. i, 379; Lec. Edit. ii, 760. Pa.
morio Cress., Proc. Ent. Soc. Phil. iv, 486, ♀ (= *concolor*)?

PASSALŒCUS Shuck.

annulatus Say (*Pemphredon*); Pack., Proc. Ent. Soc. Phil. vi, 395, ♂ ♀. U.S.
cuspidatus Smith, Brit. Mus. Cat. Hym. iv, 427, ♀. Brit.Am.
mandibularis Cress. (*Pemphredon*), Proc. Ent. Soc. Phil. iv, 487, ♀. Can. U.S.

DIODONTUS Curtis.

americanus Pack., Proc. Ent. Soc. Phil. vi. 393, ♀. Me.

Family **CRABRONIDÆ.**

TRYPOXYLON Latr.

californicum Sauss., Reise d. Novara, Zool. ii, 78, ♀. Cala.
carinatum Say, Bost. Jour. i, 374; Lec. Edit. ii, 757, ♂. Ind.
clavatum Say; Pack., Proc. Ent. Soc. Phil. vi, 414, ♀. Can. U.S.
collinum Smith; Pack., ibid. 415, ♂ ♀. Fla.
frigidum Smith; Pack., ibid. 415, ♂ ♀. Brit.Am. U.S.
neglectum Kohl, Verh. zool.-bot. Ges. Wien, xxxiii, 340, pl. 18, fig. 3, ♂. S.Car.
pennsylvanicum Sauss. Reise d. Novara, Zool. ii, 82, ♀. Pa.
politum Say; Pack., Proc. Ent. Soc. Phil. vi, 413. Pa. Ill. Tex.
rubrocinctum Pack., ibid. 416, ♀. Del. Va.
sulcus La Munyon, Proc. Nebr. Assoc. Adv. Sci. Mch. 1877. Neb. (= *texense?*).
texense Sauss., Reise d. Novara. Zool. ii, 77, ♀. Tex.
tridentatum Pack., Proc. Ent. Soc. Phil. vi, 417, ♀. N.Y. N.J. Tex.
unicolor Beauv., Ins. Afr. et Am. 116, Hym. pl. 3, fig. 3. Carolina.
xantianum Sauss., Reise d. Novara. Zool. ii, 78, ♂ ♀. L.Cala.

RHOPALUM Kirby.

pedicellatum Pack., Proc. Ent. Soc. Phil. vi, 380, ♂ ♀. Can. U.S.
rufigaster Pack., ibid. 382, ♂ ♀. Can. Ill.

CRABRO Fabr.

aciculatus Prov., Faun. Ent. Can. ii, 661, ♂ ♀. Can.
advena Smith, Brit. Mus. Cat. Hym. iv, 421 (= *Thyreopus*).
arcuatus Say, Bost. Jour. i, 377; Lec. Edit. ii, 759 (= *chrysarginus*).
ater Cress.; Pack. (*Blepharipus*), Proc. Ent. Soc. Phil. vi, 374. Can. Me. Va. Col.
atriceps Cress., ibid. iv, 483, ♀. Col.
atrifrons Cress., ibid. 483, ♂. Col.
aurifrons Smith; Pack., ibid. vi, 80, ♀. Ga. Fla.
bellus Cress., ibid. iv, 481, ♀. Col.
bigeminus Patton, Can. Ent. xi, 213, ♂ ♀. Ct.
brunneipes Pack., Proc. Ent. Soc. Phil. vi, 102, ♂. Me. Pa.
chrysarginus St. Farg.; Pack., ibid. 82, ♂ ♀. Can. U.S.
cinctipes Prov. (*Blepharipus*), Faun. Ent. Can. ii, 667, ♂. Can.
collinus Smith, Brit. Mus. Cat. Hym. iv, 420, ♂. Fla.
confluentus Say, Bost. Jour. i, 376; Lec. Edit. ii, 758 (= *interruptus*).
conspicuus Cress., Proc. Ent. Soc. Phil. iv, 480 (= *Thyreopus*).
contiguus Cress., ibid. 484, ♀. Col.
corrugatus Pack., ibid. vi, 107, ♀. W. Va.
cristatus Pack., ibid. 101, ♂. Ill. Col.
cubiceps Pack., ibid. 105, ♀. Can. Ill.
10-maculatus Say; Pack., ibid. 79, ♀. U.S.
denticulatus Pack., ibid. 97, ♂. Can. N.Y. Va.
dilectus Cress., ibid. iv, 478, ♂ ♀. Col.

dubius Smith, Brit. Mus. Cat. Hym. iv, 417 (= *interruptus*).
effossus Pack., Proc. Ent. Soc. Phil. vi, 104, ♂. Can. N.Y.
frigidus Smith, Brit. Mus. Cat. Hym. iv, 419, ♀. N.Am.
gracilissimus Pack., Proc. Ent. Soc. Phil. vi, 78, ♂. Col.
Harrisii Pack. (*Blepharipus*), ibid. 376, ♂. Mass.
hilaris Smith, Brit. Mus. Cat. Hym. iv, 416, ♀. Fla.
honestus Cress., Proc. Ent. Soc. Phil. iv, 485, ♀. Col.
impressifrons Smith (*tibialis* ‖ Say); Pack. (*Blepharipus*), ibid. 374. Mass. N.Y.
interruptus St. Farg. (*Solenius*); Pack., ibid. 74, ♂ ♀. Can. U.S.
latipes Smith, Brit. Mus. Cat. Hym. iv, 396 (= *Thyreopus*).
maculatus Fabr., Ent. Syst. ii, 295; Pack., Proc. vi, 115. N.Am.
maculipennis Smith; Pack. (*Blepharipus*), Proc. vi, 372, ♂ ♀. Me. Mass.
minimus Pack. (*Blepharipus*), ibid. 377, ♂ ♀. Can. Me.
montanus Cress., ibid. iv, 484, ♀. Col.
nigrifrons Cress., ibid. 482, ♂. Can. Col.
oblongus Pack., ibid. vi, 88, ♀. Ct.
obscurus Smith; Pack., ibid. 99, ♀. Can. Ct. Pa.
odyneroides Cress., ibid. iv, 481, ♂. Col.
Packardii Cress., ibid. 477, ♂ ♀. Col.
parvulus Pack., ibid. vi, 108, ♀: Col.
paucimaculatus Pack., ibid. 90, ♀. Ill.
pauper Pack., ibid. 95, ♂. Can. Me. W.Va.
pictus Smith, Brit. Mus. Cat. Hym. iv, 417 (= *maculipennis*).
producticollis Pack., ibid. 76, ♂. N.J.
quadrangularis Pack., ibid. 85, ♀. Pa.
4-maculatus Prov., Faun. Ent. Can. ii, 654, ♀. Can.
14-maculatus Pack., Proc. Ent. Soc. Phil. vi, 87, ♂. Ill.
rufifemur Pack., ibid. 81, ♂ ♀. Can. Ill. Tex.
rufipes St. Farg. (*Ceratocolus*), Ann. Soc. Ent. Fr. iii, 741; Hym. iii, 146. Car.
scaber St. Farg. (*Solenius*); Pack., Proc. Ent. Soc. Phil. vi, 113, ♀. Fla.
scutellatus Say; Pack. (*Blepharipus*), ibid. 375, ♂. Mass. N.Y.
septentrionalis Pack., ibid. 110, ♀. Brit.Am. Me.
6-maculatus Say: Pack., ibid. 91, ♂ ♀. Can. U.S.
singularis Smith; Pack., ibid. 86, ♂ ♀. Can. E.States.
stirpicola Pack., ibid. 111, ♂ ♀. Can. N.Y. N.J. Ill.
succinctus Cress., ibid. iv, 479 (= *Thyreopus*).
tenuiglossa Pack., ibid. 98. ♀. Ill.
texanus Cress., Trans. Am. Ent. Soc. iv, 227, ♀. Tex.
tibialis Say (*nec* Fabr.), Lec. Edit. i, 230 (= *impressifrons*).
trapezoideus Pack., Proc. Ent. Soc. Phil. vi, 89, ♂. Ill.
trifasciatus Say; Pack., ibid. 93, ♂ ♀. Can. Me. Mass.
unicus Patton (*Blepharipus*), Can. Ent. xi, 214, ♀. Ct.
vicinus Cress., Proc. Ent. Soc. Phil. iv, 479, ♀. Col.
villosifrons Pack., ibid. vi, 84, ♀. Can. N.J. Pa.

THYREOPUS St. Farg.

advenus Smith (*Crabro*); Pack., Proc. Ent. Soc. Phil. vi, 368. Me. Ct. Col.
argus Pack., ibid. 359, ♂. Me.
cingulatus Pack., ibid. 366, ♂ ♀. Ill.

coloradensis Pack., ibid. 356, ♂. Col.
conspicuus Cress. (*Crabro*), ibid. iv, 480, ♀. Col.
cribrellifer Pack., ibid. vi, 358, ♂. Me. Mass. Ill.
discifer Pack., ibid. 363, ♂.
latipes Smith (*Crabro*); Pack., ibid. 355, ♂. Can. Me. Mass. Ct.
monticola Pack., ibid. 367, ♀. Can. N.H.
pegasus Pack., ibid. 362, ♂ ♀. Can. Mass.
rugosopunctatus Prov., Faun. Ent. Can. ii, 664, ♀. Can.
signifer Pack., Proc. Ent. Soc. Phil. vi, 361, ♂ ♀. Me. Mass.
sinuatus Prov., Faun. Ent. Can. ii, 664, ♀. Can.
succinctus Cress. (*Crabro*), Proc. Ent. Soc. Phil. iv, 479, ♀. Col.
tumidus Pack., ibid. vi, 364, ♂ ♀. Pa. Ill.
vernalis Pack., ibid. 369, ♀. Ill.

ANACRABRO Pack.

ocellatus Pack., Proc. Ent. Soc. Phil. vi, 68, ♀. Mass. Ill.

ENTOMOGNATHUS Dahlb.

texanus n. sp.* ♂ ♀. Tex.

OXYBELUS Latr.

Brodiei Prov., Faun. Ent. Can. ii, 811, ♀. Can.
emarginatus Say; Pack., Proc. Ent. Soc. Phil. vi, 435, ♂ ♀. U.S.
impatiens Smith, Brit. Mus. Cat. Hym. iv, 390, ♀. Cala.
interruptus Cress., Proc. Ent. Soc. Phil. iv, 475, ♀. Col.
lætus Say; Pack., ibid. vi, 434, ♀. N.Car. Ill.
mucronatus Pack., ibid. 436, ♂ ♀. Pa. Ill.
parvus Cress., ibid. iv, 476, ♀. Col.
4-notatus Say; Pack., ibid. vi, 437, ♂ ♀. Can. U.S.

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* **Entomognathus texanus.**—♀. Black, shining, impunctured; vertex and thorax above with short fuscous pubescence, sides of face, clypeus and thorax beneath with short silvery pile; anterior margin of clypeus, base of mandibles, scape, two spots on prothorax, tubercles, spot on tegulæ anteriorly, two spots on scutellum, all the tibiæ and tarsi, apical half or third of four anterior femora, and a large transverse subovate spot on each side of segments 1–5 of abdomen above, lemon-yellow; anterior margin of pleura carinate, and with a transverse row of deep foveæ beneath tegulæ; post-scutellum with a large deep fovea on each side; metathorax coarsely reticulated at base above, the posterior face with two oblong-ovate enclosures of oblique striæ; wings fusco-hyaline; abdomen smooth, polished, with very short pale pubescence at sides and at apex, the apical segment rufo-fuscous, rather densely pubescent; venter smooth, polished, apical margin of the segments pale, the extreme apex dull rufo-fuscous. Length .30 inch.

♂.—Much like the ♀, but with the clypeus except sides, interrupted line on prothorax, four anterior femora except base above, line on posterior pair beneath, two subapical lunate spots on second ventral segment and most of the apical segment, lemon-yellow. Length .24 inch.

Hab.—Texas (Belfrage). Two ♂ ♀ specimens.

similis Cress., ibid. iv, 476, ♀. Col.
uniglumis Linn. (*Vespa*); Dahlb., Hym. Eur. i, 273. Carolina (Eur.).

Family **MASARIDÆ.**

MASARIS Fabr.

Edwardsii Cress., Trans. Am. Ent. Soc. iv, 87. Cala.
marginalis Cress., Proc. Ent. Soc. Phil. iii, 677, ♀. Col.
occidentalis Cress., Trans. Am. Ent. Soc. iii, 348, ♀; iv, 231, ♂. Tex.
texanus Cress., ibid. 348, ♂ ♀. Tex.
vespoides Cress., Proc. Ent. Soc. Phil. ii, 69, pl. 4; iii, 673, ♂ ♀. Col.
zonalis Cress., ibid. iii, 674, ♂ ♀. Col.

EUPARAGIA Cress.

scutellaris Cress., Proc. Ent. Sec. A. N. S. 1879, vi, ♂ ♀. Nev. Cala.

Family **EUMENIDÆ.**

ZETHUS Fabr.

bicolor Sauss., Mon. des Guepes Sol. 17 (= var. *spinipes*).
spinipes Say (*Lethus*); Sauss., Synop. Am. Wasps Sol. 29, ♂ ♀. U.S.

EUMENES Latr.

agilis Sauss., Mon. des Guepes Sol. 42, ♂. N.Am.
anormis Say, Lec. Edit. i, 234 (= *Odynerus*).
Belfragei Cress., Trans. Am. Ent. Soc. iv, 232, ♂ ♀. Tex. (= *Smithii ?*).
Bollii Cress., ibid. 232, ♂ ♀. Tex.
fervens Sauss., Mon. des Guepes Sol. 40 (= *fraternus*).
fraternus Say; Sauss., Synop. Am. Wasps Sol. 95, ♂ ♀. Can. U.S.
globulosus Sauss., ibid. 101, ♀. Brit.Am. Ill. Wisc.
macrops Sauss., Mon. des Guepes Sol. 41 (= *fraternus*).
pensylvanica Hald., Proc. Acad. Nat. Sci. Phil. vi, 365 (= *Zethus spinipes*).
Smithii Sauss., Synop. Am. Wasps Sol. 104, ♂ ♀. Fla.
substricta Hald., Proc. Acad. Nat. Sci. Phil. ii, 54 (= *Zethus spinipes*).
verticalis Say, Lec. Edit. i, 233, Pa. (= *fraternus ?*).

MONOBIA Sauss.

californica Sauss., Synop. Am. Wasps Sol. 129, ♂. L.Cal.
quadridens Linn. (*Vespa*); Sauss., ibid. 132, ♂ ♀. U.S.

NORTONIA Sauss.

symmorpha Sauss. (*Odynerus*), Synop. Am. Wasps Sol. 139, ♂ ♀. U.S.

ODYNERUS Latr.

adiabatus Sauss., Synop. Am. Wasps Sol. 171, ♂. Car. (ANCISTROCERUS).
albomarginatus Sauss., ibid. 154, ♀. N.Am. (SYMMORPHUS).
albophaleratus Sauss., ibid. 167, ♂ ♀. Can. U.S. (ANCISTROCERUS).
ammonia Sauss., Mon. des Guepes Sol. 144 (= *histrio*).

annectens Sauss., Synop. Am. Wasps Sol. 272, ♀. Fla.
annulatus Say; Sauss., ibid. 273, ♂ ♀. U.S.
anormis Say (*Eumenes*); Sauss., ibid. 318, ♂ ♀. U.S.
arvensis Sauss., ibid. 270, ♂ ♀. Can. U.S.
austrinus Cress., Trans. Am. Ent. Soc. iv, 243, ♂ ♀. Tex.
Bairdi Sauss., Rev. Mag. Zool. 1858. 169 (= *annulatus*).
balteatum Say (*Rygchium*), Bost. Jour. i, 383; Lec. Edit. ii, 764 (= *dorsalis*).
Bellone St. Farg., Hym. ii, 660 (= *quadrisectus*).
bellulus Cress., Trans. Am. Ent. Soc. iv, 243, ♀. Tex.
bidens Sauss., Synop. Am. Wasps Sol. 267. ♂ ♀. Fla. Tenn.
birenimaculatus Sauss., ibid. 175, ♂ ♀. U.S. (ANCISTROCERUS).
blandus Sauss., ibid. 289, ♀. Cala.
Boscii St. Farg.; Sauss., ibid. 255, ♂ ♀. U.S.
californicus Sauss., Synop. Am. Wasps Sol. 243, ♀. L.Cala.
campestris Sauss., ibid. 183, ♂ ♀. Can. U.S. (ANCISTROCERUS).
canadensis Sauss., ibid. 156, ♀. Can. (SYMMORPHUS).
capra Sauss., ibid. 163, ♂ ♂. Can. U.S. (ANCISTROCERUS).
castigatus Sauss., Mon. des Guepes Sol. 178 (= *Boscii*).
catskillensis Sauss., Synop. Am. Wasps Sol. 168, ♂ ♀. U.S. (ANCISTROCERUS).
cervis Sauss., Rev. Mag. Zool. 1858, 165 (= *tigris*).
clusinus Cress., Trans. Am. Ent. Soc. iv, 234, ♂ ♀. Tex.
collega Sauss., Synop. Am. Wasps Sol. 320, ♂. Ct.
colon Cress., Trans. Am. Ent. Soc. iv, 241, ♂ ♀. Col. Tex.
conformis Sauss., Synop. Am. Wasps Sol. 315, ♀. N.Y. Tenn.
cristatus Sauss., ibid. 156, ♀. N.Am. (SYMMORPHUS).
crypticus Say, Lec. Edit. i, 168; Sauss., Syn. Am. Wasps, Sol. 276. Ark.
cultus Cress., Trans. Am. Ent. Soc. iv, 236, ♂. Tex.
debilis Sauss., Synop. Am. Wasps Sol. 155, ♀. Can. U.S. (SYMMORPHUS).
delicatus Cress., Trans. Am. Ent. Soc. iv, 236, ♀. Tex.
designatus Cress., ibid. 235, ♀. Tex.
dorsalis Fabr. (*Vespa*); Sauss., Synop. Am. Wasps Sol. 257, ♂ ♀. U.S.
ductus Cress., Trans. Am. Ent. Soc. iv, 238, ♂ ♀. Tex.
electus Cress., ibid. 243, ♂. Tex.
erinnys St. Farg.; Sauss., Synop. Am. Wasps Sol. 245, ♂ ♀. Southern States.
evectus Cress., Trans. Am. Ent. Soc. iv, 235, ♀. Tex.
firmus Cress., ibid. 239, ♂ ♀. Tex.
flavopictus Sauss., Synop. Am. Wasps Sol. 293, ♀. Tenn.
foraminatus Sauss., ibid. 285, ♂ ♀. U.S.
fulvipes Sauss., ibid. 201, ♂ ♀. U.S. (ANCISTROCERUS).
fundatus Cress., Trans Am. Ent. Soc. iv, 242, ♂ ♀. Tex.
fuscipes ‖ Sauss., Mon. des Guepes Sol. 143 (= *pedestris*).
fusus Cress., Trans. Am. Ent. Soc. iv, 238, ♂ ♀. Tex.
geminus Cress., ibid. 240, ♀. Tex.
hidalgi Sauss., Synop. Am. Wasps Sol. 252, ♂ ♀. U.S.
histrio St. Farg.; Sauss., ibid. 199, ♂ ♂. Southern States.
huro Sauss., ibid. 351, ♀. U.S.
kennicotianus Sauss., ibid. 325, ♀. Ill.
leucomelas Sauss., ibid. 287, ♂ ♀. Can. U.S.
louisianum Sauss., Mon. des Guepes Sol. 171, pl. 13, fig. 9 (= var. *dorsalis*).
luctuosus Sauss., Synop. Am. Wasps Sol. 311. N.Am.?

manifestus Cress., Trans. Am. Ent. Soc. iv, 241, ♂ ♀. Tex.
megæra St. Farg ; Sauss., Synop. Am. Wasps Sol. 283, ♂ ♀. U.S.
mohicanus Sauss., ibid. 352, ♂. N.Y.
molestus Sauss., ibid. 290, ♂. Tenn.
nortonianus Sauss., ibid. 333, ♀. Ct.
oculatus Say, Bost. Jour. i, 385; Lec. Edit. ii, 766 (= *anormis*).
ornatus Sauss. (*Leptochilus*), Synop. Am. Wasps Sol. 367, ♀. Carolina.
pedestris Sauss., ibid. 322, ♂ ♀. Ct. N.Y.
pennsylvanicus Sauss., ibid. 327, ♂ ♀. Can. U.S.
perennis Sauss., ibid. 328, ♂ ♀. N.Y. Tenn.
persecutor Sauss., Mon. des Guepes Sol. Suppl. 256, pl. 14, fig. 1 (= *anormis*).
pertinax Sauss., ibid. 216 (= *tigris*).
philadelphiæ Sauss., Synop. Am. Wasps Sol. 153, ♀. Can. U.S. (SYMMORPHUS).
pratensis Sauss., ibid. 292, ♂ ♀. N.Mex. L.Cala.
proximus Sauss. (*Ancistrocerus*), Rev. Mag. Zool. 1857, 274 (= *pedestris*).
quadrisectus Say; Sauss., Synop. Am. Wasps Sol. 193. U.S. (ANCISTROCERUS).
rufinodus Cress., Trans. Am. Ent. Soc. i, 381, ♀. N.Mex.
rugosus Sauss., Mon. des Guepes Sol. 179 (= *foraminatus*).
sæcularis Sauss., Synop. Am. Wasps Sol. 202, ♂ ♀. So. States (ANCISTROCERUS).
scutellaris Sauss., ibid. 262, ♂. Cala.
spinolæ Sauss., ibid. 165, ♀. U.S. (ANCISTROCERUS).
sulfureus Sauss., ibid. 276, ♀. Cala.
sutterianus Sauss., ibid. 186, ♂ ♀. Cala. (ANCISTROCERUS).
symmorphus Sauss., Mon. des Guepes Sol. Suppl. 246 (= *Nortonia*).
taos Cress. (error *toas*), Trans. Am. Ent. Soc. i, 381, ♂ ♀. Tex. N.Mex.
texanus Cress., ibid. iv, 234, ♀. Tex.
texensis Sauss., Synop. Am. Wasps Sol. 329, ♂. Tex.
tigris Sauss., ibid. 160, ♂ ♀. Can. U.S. (ANCISTROCERUS).
turpis Sauss., ibid. 281, ♀. U.S.
uncinatus Say (*not* Fabr.), Bost. Jour. i, 386; Lec. Edit. ii, 766 (= *unifasciatus*).
unifasciatus Sauss., Synop. Am. Wasps Sol. 181, ♂ ♀. U.S. (ANCISTROCERUS).
vagus Sauss., ibid. 314, ♀. U.S.
verus Cress., Trans. Am. Ent. Soc. iv, 237, ♂ ♀. Tex.
walshianus Sauss., Synop. Am. Wasps Sol. 152, ♀. Ill. (SYMMORPHUS).
xanthianus Sauss., ibid. 324, ♀. L.Cala.

PTEROCHILUS Klug.

biplagiatus Cress., Proc. Ent. Sec. A. N. S. 1879, xix, ♂ ♀. Cala.
comptus Cress., ibid. xviii, ♀. Nev.
decorus Cress., ibid. xviii, ♀. Nev.
laticeps Cress., Trans. Am. Ent. Soc. iv, 244, ♂ ♀. Tex.
Lewisii Cress., ibid. i, 382; Sauss., Synop. 368, ♀. N.Mex.
mirandus Cress., Proc. Ent. Sec. A. N. S. 1879, xvii, ♂ ♀. Nev.
Morrisoni Cress., ibid. xix, ♂ ♀. Nev.
5-fasciatus Say; Sauss., Synop. Am. Wasps Sol. 371, ♀. Mo. Tex.
texanus Cress., Trans. Am. Ent. Soc. iv, 244, ♀. Tex.
zonatus Cress., Proc. Ent. Sec. A. N. S. 1879, xviii, ♂. Nev.

Family VESPIDÆ.

POLYBIA St. Farg.

flavitarsis Sauss.. Mon. Guepes Soc. 199 · Smith, Brit. Mus. Cat. Hym v, pl. 5 fig. 1, ♀. Cala.

POLISTES Latr.

americanus Fabr,, Syst. Piez. 275. Tex. (S.Am.)
annularis Linn. (*Vespa*); Sauss., Mon. des Guepes Soc. 79, pl. 8, fig. 4. N.Am.
apachus Sauss., Ann. Soc. Ent. Fr. 3 sér. v, 314. N.Mex.
aurifer Sauss., Mon. des Guepes Soc. 78, ♀. Cala.
bellicosus Cress., Trans. Am. Ent. Soc. iv, 247, ♂ ♀. Tex.
canadensis Linn. (*Vespa*); Sauss., Mon. Guepes Soc. 72, pl. 9, fig. 1. N.Am.
carolinus Linn. (*Vespa*); Sauss., ibid. 102. Car.
comanchus Sauss., Ann. Soc. Ent. Fr. 3 sér. v, 314. N.Mex.
exilis Sauss., Mon. Guepes Soc. 85, pl. 12, fig. 5, ♂. N.Am.
flavus Cress., Trans. Am. Ent. Soc. i, 383, ♀. N.Mex.
generosus Cress., ibid. iv, 246, ♂. Tex.
instabilis Sauss., Mon. Guepes 91 (Mex.); Smith, B. M. Cat. Hym. v, 110. U.S.
metricus Say, Bost. Jour. i, 388; Sauss., Mon. Guepes Soc. 75, pl. 7, fig. 4. N.Am.
minor Beauv.; Sauss., Mon. Guepes Soc. 96, pl. 11, fig. 3. Tex. (Cuba.)
navajoe Cress., Trans. Am. Ent. Soc. i, 383, ♀. N.Mex. Ariz.
nestor Fabr. (*Vespa*), Ent. Syst. Suppl. 262; Syst. Piez. 272. N.Am.
pallipes St. Farg.; Sauss., Mon. Guepes Soc. 82, pl. 12, fig. 1–4. Can. U.S.
perplexus Cress., Trans. Am. Ent. Soc. iv, 245, ♂. Tex.
rubiginosus St. Farg.; Sauss., Mon. Guepes Soc. 74. U.S.
texanus Cress., Trans. Am. Ent. Soc. iv, 246, ♂ ♀. Tex.
variatus Cress., ibid. 247, ♂ ♀. Tex.

VESPA Linn.

annularis Linn., Syst. Nat. i, 950 (= *Polistes*).
arenaria Fabr., Ent. Syst. ii, 258; Sauss., Mon. Guepes Soc. 134. N.Am.
borealis Kirby, Faun. Bor.-Am. iv, 264; Sauss., Mon. Guepes Soc. 140. N.Am.
canadensis Linn., Syst. Nat. i, 952 (= *Polistes*).
carolina Linn., Syst. Nat. i, 948 (= *Polistes*).
carolina Drury, Ins. pl. 44, fig. 4; Sauss., Mon. Guepes Soc. 142. N.Am.
cincta Drury, Ins. i, 98, pl. 43, fig. 6 (= *Polistes annularis*).
communis Sauss., Stett. Ent. Zeits. 1857, 117. N.Am.
consobrina Sauss., Mon. Guepes Soc. 141, ☿ (= *arenaria*).
crabro Linn., Syst. Nat. i, 948; Angus, Am. Nat. v, 172. N.Y. (Eur.)
cuneata Fabr., Syst. Piez. 258; Sauss., Mon. Guepes Soc. 135, ☿ ♂. U.S.
diabolica Sauss., Mon. Guepes Soc. 138, ♀ ☿. Can. U.S.
dorsalis Fabr., Ent. Syst. ii, 265 (= *Odynerus*).
germanica Fabr., ibid. 256; Sauss., Mon. Guepes 116, pl. 14, fig. 4. N.Am. (Eur.)
infernalis Sauss., Mon. Guepes Soc. 139, ☿. N.Am.
maculata Linn., Syst. Nat. i, 948; Sauss., Mon. Guepes Soc. 141. Can. U.S.
marginata Kirby, Faun. Bor.-Am. iv, 265, pl. 6, fig. 2 (= *arenaria*).
media Oliv.; Prov., Faun. Ent. Can. ii, 685, ♂ ♀ ☿. Can. (Eur.)
nestor Fabr., Ent. Syst. Suppl. 262; Syst. Piez. 272 (= *Polistes*).
nigripennis De Geer, Mem. Ins. iii, 582, pl. 29, fig. 10 (= *Polistes canadensis*).

occidentalis Cress., Trans. Am. Ent. Soc. v, 100, ♂ ♀. Nev. N.Mex.
pensylvanica Sauss., Stett. Ent. Zeits. 1857, 117. N.Am.
quadridens Linn., Syst. Nat. i, 951 (= *Monobia*).
rufa Linn.; Prov., Faun. Ent. Can. ii, 685, ☿. Can. (Eur.)
serripes Fabr., Ent. Syst. ii, 266. N.Am.
squamosa Drury, Ins. i, 98, pl. 43, fig. 7. N.Y. (= *carolina*?).
sulphurea Sauss., Mon. Guepes Soc. 137, ♀. Cala. Tex.
tibialis Oliv., Enc. Méth. Ins. vi. 690. Ga.
uncinata Fabr., Ent. Syst. ii, 264 (= *Monobia quadridens*).
vidua Sauss., Mon. Guepes Soc. 136, ☿. Car.
vulgaris Linn., Syst. Nat. i, 949; Sauss., Mon. 113, pl. 14, fig. 3. N.Am. (Eur.)

Family **ANDRENIDÆ.**

COLLETES Latr.

albescens Cress., Proc. Bost. Soc. Nat. Hist. xii, 168, ♀. Ill. Tex.
americana Cress., ibid. 167, ♂ ♀. U.S.
armata Patton, Bull. U. S. Geo. Surv. v, 365, ♂. Ks.
ciliata Patton, ibid. 369, ♀. Ks.
canadensis Cress., Proc. Bost. Soc. Nat. Hist. xii, 166, ♂. Can.
compacta Cress., ibid. 166, ♂ ♀. Ct. Ill.
consors Cress., ibid. 168, ♂. Col. Tex.
distincta Cress., ibid. 167, ♂. Ga.
inæqualis Say; Cress., ibid. 166, ♀. U.S.
mandibularis Smith, Brit. Mus. Cat. Hym. i, 5, ♂. Ga.
nitidus Smith, New Spec. Hym. Brit. Mus. 1, ♂ ♀. Fla.
propinqua Cress., Proc. Bost. Soc. Nat. Hist. xii, 165, ♂ ♀. U.S.
simulans Cress., ibid. 168, ♂. Col.
texana Cress., Trans. Am. Ent. Soc. iv, 249, ♀. Tex.
thoracica Smith, Brit. Mus. Cat. Hym. i, 5, ♂ ♀. Fla.
valida Cress., Proc. Bost. Soc. Nat. Hist. xii, 165, ♂ ♀. Mass. Tex.

PROSOPIS Fabr.

affinis Smith, Brit. Mus. Cat. i, 24; Cress., Proc. Bost. Soc. xii, 270. Can. U.S.
antennata Cress., Proc. Bost. Soc. Nat. Hist. xii, 271, ♂. N.J.
basalis Smith, Brit. Mus. Cat. i, 23; Cr., Proc. Bost. Soc. xii, 269, ♂ ♀. Brit.Am
confluens Smith, ibid. i, 24, ♀. Fla.
elliptica Kirby, Faun. Bor.-Am. iv, 266. Brit.Am.
modestus Say (*Hylæus*), Bost. Jour. i, 392; Lec. Edit. ii, 771, ♂ ♀. U.S.
pygmæa Cress., Proc. Bost. Soc. Nat. Hist. xii, 272, ♂. Ill.
sparsa Cress., ibid. 271, ♀. Pa.
varifrons Cress., ibid. 270, ♀. Col.
verticalis Cress., ibid. 271, ♂. U.S.

SPHECODES Latr.

arvensis Patton, Am. Ent. iii, 230, ♂ ♀. E. and M. Atlantic States.
confertus Say, Bost. Jour. i, 392; Lec. Edit. ii, 771. Ind.
dichroa Smith, Brit. Mus. Cat. Hym. i, 38, ♂ ♀. Can. U.S.

falcifer Patton, Am. Ent. iii, 230, ♂ ♀. N.E.States.
mandibularis Cress., Trans. Am. Ent. Soc. iv, 250, ♀. Tex.
texana Cress., ibid. 249 (= *Parasphecodes*).

PARASPHECODES Smith.

texana Cress. (*Sphecodes*), Trans. Am. Ent. Soc. iv, 249, ♂ ♀. Tex.

HALICTUS Latr.

abdominalis Panz. (*Hylæus*); Smith, Brit. Mus. Cat. Hym. i, 45. N.Scotia.
albitarsis Cress., Trans. Am. Ent. Soc. iv, 254, ♂. Can. Tex.
armaticeps Cress., ibid. 250, ♀. Tex.
bardus Cress., ibid. 251, ♀. Tex.
capitosus Smith, Brit. Mus. Cat. Hym. i, 67, ♀. Ga. Fla.
coactus Cress., Trans. Am. Ent. Soc. iv, 254, ♀. Tex.
confusus Smith, Brit. Mus. Cat. Hym. i, 70, ♂ ♀. Brit.Am. N.Y.
connexus Cress., Trans. Am. Ent. Soc. iv, 253, ♀. Tex.
constrictus Prov., Faun. Ent. Can. ii, 702, ♀. Can.
coriaceus Smith, Brit. Mus. Cat. Hym. i, 70, ♀. Can. N.Scotia.
crassicornis Kirby, Faun. Bor.-Am. iv, 267, ♀. N.Am.
creberrimus Smith, Brit. Mus. Cat. Hym. i, 72, ♀. N.Am.
dimidiatus St. Farg., Hym. ii, 283, ♀. N.Am.?
discus Smith, Brit. Mus. Cat. Hym. i, 70, ♀. Can. N.Am.
disparilis Cress., Trans. Am. Ent. Soc. iv, 253, ♀. Tex.
distinctus Prov., Faun. Ent. Can. ii, 700, ♂. Can.
farinosus Smith, Brit. Mus. Cat. Hym. i, 69, ♀. Cala.
flavipes Fabr. (*Hylæus*); Smith, ibid. 48. Ohio, N.Scotia.
fulvipes Smith, ibid. 67, ♀. Fla.
fuscipennis Smith, ibid. 67, ♂ ♀. Fla.
imitatus Smith, ibid. 71. ♂. N.Am.
impurus Cress., Trans. Am. Ent. Soc. iv, 252, ♀. Tex.
inconspicuus Smith, Brit. Mus. Cat. Hym. i, 73, ♀. N.Am.
lævissimus Smith, ibid. i, 72, ♀. Can. Arc.Am.
Lerouxii St. Farg., Hym. ii, 372 (= *parallelus*).
ligatus Say, Bost. Jour. i, 396; Lec. Edit. ii, 774, ♂ ♀. Can. U.S.
lusorius Cress., Trans. Am. Ent. Soc. iv, 252, ♀. Tex.
nymphalis Smith, Brit. Mus. Cat. Hym. i, 68, ♀. Fla.
occidentalis Cress., Trans. Am. Ent. Soc. iv, 250, ♂ ♀. Tex.
ontariensis Prov., Faun. Ent. Can. ii, 703, 812 (= *Ceratina dupla*).
ornatipes Cress., Trans. Am. Ent. Soc. iv, 252. ♂. Tex.
parallelus Say, Bost. Jour. i, 397; Lec. Edit. ii, 775, ♀. Brit.Am. U.S.
pectoralis Smith, Brit. Mus. Cat. Hym. i, 68, ♀. Fla.
pilosus Smith, ibid. 71, ♀. Can. U.S.
purus Say, Bost. Jour. i, 395; Lec. Edit. ii, 773 (= *Augochlora*).
radiatus Say, ibid. 394; Lec. Edit. ii, 772 (= *Agapostemon*).
scabrosus Prov., Faun. Ent. Can. ii, 700, ♂. Can.
6-cinctus Prov., ibid. 700, ♂. Can.
similis Smith, Brit. Mus. Cat. Hym. i, 69, ♀. Brit.Am. Tex.
splendens St. Farg., Hym. ii, 283, ♀. Carolina.
stultus Cress., Trans. Am. Ent. Soc. iv, 254, ♀. Tex.

subquadratus Smith, Brit. Mus. Cat. Hym. i, 72, ♂. N.Y. (= *coriaceus?*)
texanus Cress., Trans. Am. Ent. Soc. iv, 251, ♂ ♀. Tex.
tricolor St. Farg., Hym. ii, 289 (= *Agapostemon nigricornis* ♂).
trizonatus Cress., Trans. Am. Ent. Soc. v, 101, ♀. Nev.
zephyrus Smith, Brit. Mus. Cat. Hym. i, 68, ♂. Fla.

AUGOCHLORA Smith.

aurata Smith, Brit. Mus. Cat. Hym. i, 82, ♀. Fla.
cuprea Smith, ibid. 79, ♀. N.Am.
fervida Smith, ibid. 81, ♂. N.Am.
festiva Smith, ibid. 80, ♀. Fla.
fulgida Smith, ibid. 79, ♀. Fla.
gratiosa Smith, ibid. 80, ♀. Ga.
humeralis Patton, Bull. U. S. Geo. Surv. v, 365, ♂ ♀. Ks.
lucidula Smith, Brit. Mus. Cat. Hym. i, 81, ♀. N.Am.
purus Say (*Halictus*), Bost. Jour. i, 395; Lec. Edit. ii, 773, ♂ ♀. Can. U.S.
sumptuosa Smith, Brit. Mus. Cat. Hym. i, 82, ♀. N.Am.
vividula Smith, ibid. 81, ♂. N.Y. (= *lucidula?*)

AGAPOSTEMON Smith.

æruginosus Smith, Brit. Mus. Cat. Hym. i, 86, ♀. Fla. Tex.
melliventris Cress., Trans. Am. Ent. Soc. v, 101, ♀. Nev.
nigricornis Fabr. (*Andrena*), Ent. Syst. ii, 313, ♂. U.S. (= *sericea?*)
pulchra Smith, Brit. Mus. Cat. Hym. i, 87, ♀. U.S. (= *radiatus?*)
radiatus Say (*Halictus*), Bost. Jour. i, 394; Lec. Edit. ii, 772, ♀. U.S.
sericea Först. (*Apis*), Nov. Spec. Ins. i, 91 (1771). N.Am.
texanus Cress., Trans. Am. Ent. Soc. iv, 255, ♀. Tex.
tricolor St. Farg., Hym. ii, 289, ♂ (= *nigricornis*).

ANDRENA Fabr.

albicans Kirby (*Melitta*); Smith, Brit. Mus. Cat. Hym. i, 98. N.Scotia (Eur.)
algida Smith, ibid. 116, ♂ ♀. Hud.Bay.
aliena Smith, ibid. 113, ♀. Fla.
auricoma Smith, New Spec. Hym. Brit. Mus. 56, ♂. Vanc.
Belfragei Cress., Trans. Am. Ent. Soc. iv, 256, ♀. Tex.
bicolor Fabr.; Smith, Brit. Mus. Cat. Hym. i, 94. Can. N.Scotia (Eur.).
bidentata Fabr., Ent. Syst. ii, 313 (= *Anthophora*).
bipunctata Cress., Trans. Am. Ent. Soc. iv, 259, ♂. Tex.
brunniventris Cress., ibid. 258, ♂. Tex.
cærulea Smith, New Spec. Hym. Brit. Mus. 55, ♀. Vanc.
candida Smith, ibid. 56, ♀. Vanc.
clypeata Smith, Brit. Mus. Cat. Hym. i, 115, ♂. Fla.
commoda Smith, New Spec. Hym. Brit. Mus. 53, ♀. Can.
desponsa Smith, Brit. Mus. Cat. Hym. i, 114, ♂. N.Scotia.
errans Smith, New Spec. Hym. Brit. Mus. 55, ♂ ♀. Vanc.
fimbriata Smith, Brit. Mus. Cat. Hym. i, 116, ♂ ♀. U.S.
flavoclypeata Smith, New Spec. Hym. Brit. Mus. 54, ♂. Can.
fragilis Smith, Brit. Mus. Cat. Hym. i, 115, ♂. U.S.
frigida Smith, ibid. 115, ♀. Can. N.Scotia.

fulvipennis Smith, ibid. 117, ♀. Fla.
hilaris Smith, ibid. 112, ♀. Can. Ga.
hirticeps Smith, ibid. 116, ♂. Hud.Bay, Tex.
imitatrix Crans. Trans. Am. Ent. Soc. iv, 258, ♀. Tex.
impuncta Kirby, Faun. Bor.-Am. iv, 268, ♀. N.Am.
integra Smith, Brit. Mus. Cat. Hym. i, 114, ♀. Can. U.S.
mellea Cress., Trans. Am. Ent. Soc. i, 384, ♀. N.Mex.
melliventris Cress., ibid. iv, 257, ♀. Tex.
miranda Smith, New Spec. Hym. Brit. Mus. 54, ♂ ♀. Can.
miserabilis Cress., Trans. Am. Ent. Soc. iv, 259, ♂ ♀. Tex.
mœsta Smith, New Spec. Hym. Brit. Mus. 54, ♂ ♀. Can.
nigricornis Fabr., Ent. Syst. ii, 313 (= *Agapostemon*).
nivalis Smith, Brit. Mus. Cat. Hym. i, 118, ♀. Hud.Bay, U.S.
nubecula Smith, ibid. 117, ♀. N.Scotia, U.S.
obscuripennis Smith, ibid. 118, ♀. Ga.
permitis Cress., Trans. Am. Ent. Soc. iv, 257, ♀. Tex.
perplexa Smith, Brit. Mus. Cat. Hym. i, 118, ♀. Can. Ga.
placida Smith, ibid. 112, ♀. Can. U.S.
reflexa Cress., Trans. Am. Ent. Soc. iv, 256, ♂. Tex.
simplex Smith, Brit. Mus. Cat. Hym. i, 114, ♀. Can. U.S.
subtilis Smith, New Spec. Hym. Brit. Mus. 55, ♀. Vanc.
texana Cress., Trans. Am. Ent. Soc. iv, 258, ♂. Tex.
valida Say, Bost. Jour. i, 393; Lec. Edit. ii, 772, ♀. U.S.
varians Rossi (*Apis*); Smith, Brit. Mus. Cat. Hym. i, 97. N.Scotia (Eur.).
verecunda Cress., Trans. Am. Ent. Soc. iv, 257, ♀. Tex.
vicina Smith, Brit. Mus. Cat. Hym. i, 112, ♀. Brit.Am. U.S.
victima Smith, ibid. 113, ♀. N.Scotia.

SCRAPTER St. Farg.

andrenoides Smith, Brit. Mus. Cat. Hym. i, 121, ♀. Ohio.

NOMIA Latr.

? apacha Cress., Trans. Am. Ent. Soc. i, 386 (= *Eunomia*).
? heteropoda Say, Lec. Edit. i, 236 (= *Eunomia*).
nevadensis Cress., Trans. Am. Ent. Soc. v, 101, ♂ ♀. Nev.
Nortoni Cress., ibid. i, 385, ♂ ♀. Ks. Tex.

EUNOMIA Cress.

apacha Cress. (*Nomia?*), Trans. Am. Ent. Soc. i, 386, ♀. Col. N.Mex.
heteropoda Say (*Nomia*), Lec. Edit. i, 236, ♂. Md. Tex. Ark.

CILISSA Leach.

americana Smith, Brit. Mus. Cat. Hym. i, 123, ♀. U.S.

MACROPIS Panz.

ciliata Patton, Ent. Month. Mag. xvii, 1880, 31, ♂ ♀. Ct.
patellata Patton, ibid. 33, ♂. Ct.

MEGACILISSA Smith.

electa Cress, Proc. Acad. Nat. Sci. Phil. 1878, 221, ♂. Ga.

Family **APIDÆ.**

PANURGUS Panz.

æstivalis Prov., Faun. Ent. Can. ii, 705, ♂ ♀. Can.
æthiops Cress., Trans. Am. Ent. Soc. iv, 259 (= *Calliopsis*).
albitarsis Cress., ibid. 260 (= *Calliopsis*).
andrenoides Cress., Trans. Am. Ent. Soc. vii, 62, ♂. Col. Tex.
chalybæus Cress., ibid. 61, ♂ ♀. Cala.
fimbriatus Cress., ibid. 63, ♀. Col.
halictulus Cress., ibid. 63, ♂. Col. Utah.
marginatus Cress., ibid. 62, ♀. Ks.
maurus Cress., ibid. 61, ♀. Col.
nevadensis Cress., ibid. 214, ♂. Nev.
nigrifrons Cress., ibid. 62, ♂. Tex.
8-*maculatus* Say, Lec. Edit. i, 237 (= *Perdita*).
ornatipes Cress., Trans. Am. Ent. Soc. iv. 260 (= *Calliopsis*).
picipes Cress., ibid. 261 (= var. *Calliopsis albitarsis*).
regularis Cress., ibid. vii, 62, ♂. Cala.
vernalis Prov., Faun. Ent. Can. ii, 704, ♂ ♀. Can.

CALLIOPSIS Smith.

abdominalis Cress., Trans. Am. Ent. Soc. vii, 68, ♂ ♀. Tex.
æthiops Cress. (*Panurgus*), ibid. iv, 259, ♂ ♀. Tex.
albitarsis Cress. (*Panurgus*), ibid. 260, ♂ ♀. Col. Tex. Cala.
andreniformis Smith, Brit. Mus. Cat. Hym. i, 128, ♀. Can. U.S.
atriceps Cress., Trans. Am. Ent. Soc. vii, 67, ♂. Cala.
atricornis Cress., ibid. 67, ♂. Col.
californicus Cress., ibid. 67, ♂. Cala.
cinctus Cress., ibid. 201, ♂ ♀. Nev.
clypeatus Cress., ibid. 67, ♂. Col.
coloradensis Cress., ibid. 63, ♂ ♀. Col.
Edwardsii Cress., ibid. 64, ♂ ♀. Nev. Cala.
flavifrons Smith, Brit. Mus. Cat. Hym. i, 129, ♂. Fla.
flavipes Smith, ibid. 129, ♂ (= *andreniformis*).
illinoiensis Cress., Trans. Am. Ent. Soc. vii, 66, ♂. Ill.
lateralis Cress., ibid. 65. 201 (= var. *Edwardsii*).
lepidus Cress., ibid. 68, ♀. Ga.
maculatus Smith, Brit. Mus. Cat. Hym. i, 129, ♀. Fla.
obscurellus Cress., Trans. Am. Ent. Soc. vii, 201, ♂ ♀. Cala.
ornatipes Cress. (*Panurgus*), ibid. iv, 260, ♂. Col. Tex.
pauper Cress., ibid. vii, 66, ♂ ♀. N.Y. Col.
pictipes Cress., ibid. 65, ♂. Col.
scitulus Cress., ibid. 64, ♀. Col.
zebratus Cress., ibid. 64, ♀. Col.
zonalis Cress., ibid. 201, ♂. Cala.

PERDITA Smith.

affinis Cress., Trans. Am. Ent. Soc. vii, 69, ♂ ♀. Col.
albipennis Cress., ibid. i, 386, ♀. Col. Tex. N.Mex.

?californica Cress. (*Macrotera*), Trans. Am. Ent. Soc. vii, 71, ♂. Cala.
?cephalotes Cress. (*Macrotera*), ibid. 71, ♂. Nev.
halictoides Smith, Brit. Mus. Cat. Hym. i, 128, ♀. N.Am.
hyalina Cress., Trans. Am. Ent. Soc. vii, 68, ♂. Col.
interrupta Cress., ibid. 70, ♂. Cala.
?megacephala Cress. (*Macrotera*), ibid. 71, ♂. Tex. (= *texana?*).
obscurata Cress., ibid. 70, ♂ ♀. Ga.
8-maculata Say (*Panurgus*), Lec. Edit. i, 237, ♂ ♀. U.S.
?texana Cress. (*Macrotera*), Trans. Am. Ent. Soc. vii, 70, ♀. Tex.
zebrata Cress., ibid. 69, ♀. Col. Nev.
zonalis Cress., ibid. 202, ♀. Nev.

NOMADA Fabr.

accepta Cress., Trans. Am. Ent. Soc. vii, 77, ♂ ♀. Ks. Col.
adducta Cress., ibid. 73, ♂. Col.
affabilis Cress., ibid. 74, ♂. N.Y. Ill.
albofasciata Smith, New Spec. Hym. Brit. Mus. 100, ♂. Can.
americana Kirby, Faun. Bor.-Am. iv, 269, pl. 6, fig. 3 (= var. *bisignata*).
amœna Cress., Proc. Ent. Soc. Phil. ii, 300 (= var. *bisignata*).
annulata Smith, Brit. Mus. Cat. Hym. ii, 248; Cress., l. c. 297, ♂ ♀. N.Am.
armata Sch.; Cress., Proc. Ent. Soc. Phil. ii, 311, ♂ ♀. N.Scotia (Eur.).
articulata Smith, Brit. Mus. Cat. Hym. ii, 248; Cress., l. c. 297, ♂. U.S.
Belfragei Cress., Trans. Am. Ent. Soc. vii, 72, ♀. Tex.
bella Cress., Proc., Ent. Soc. Phil. ii, 287, ♂. Mass. Ct.
bisignata Say, Lec. Edit. i, 239; Cress., Proc. ii, 305, ♂ ♀. Can. U.S.
citrina Cress., Trans. Am. Ent. Soc. vii, 79, ♀. Col. Nev.
civilis Cress., ibid. 78, ♂. Col.
Crotchii Cress., ibid. 81, ♀. Cala.
crudelis Cress., ibid. 82, ♀. Ga.
depressa Cress., Proc. Ent. Soc. Phil. ii, 302 (= var. *bisignata*).
dilucida Cress., Trans. Am. Ent. Soc. vii, 80, ♀. Col.
Edwardsii Cress., ibid. 72, ♂. Cala.
electa Cress., Proc. Ent. Soc. Phil. ii, 290, ♂ ♀. U.S.
fervida Smith, Brit. Mus. Cat. Hym. ii, 247; Cress., l. c. 294, ♀. Ga. Fla.
festiva Cress., Proc. Ent. Soc. Phil. ii, 289, ♀. N.J.
fragilis Cress., Trans. Am. Ent. Soc. vii, 79, ♂. Col.
gracilis Cress., Proc. Ent. Soc. Phil. ii, 295, ♂. Mass.
grandis Cress., Rep. Wheeler Expl. 1875, 725, ♀. Col.
Heiligbrodtii Cress., Trans. Am. Ent. Soc. vii, 75, ♂ ♀. Tex.
imbricata Smith, Brit. Mus. Cat. Hym. ii, 246; Cress., Proc. ii, 296, ♀. U.S.
incerta Cress., Proc. Ent. Soc. Phil. ii, 309, ♀. U.S.
intercepta Smith, New Spec. Hym. Brit. Mus. 100, ♂. Vanc.
jocularis Cress., Trans. Am. Ent. Soc. vii, 202, ♀. Nev.
lepida Cress., Proc. Ent. Soc. Phil. ii, 288, ♂. Ill. Col. Tex.
libata Cress., Trans. Am. Ent. Soc. vii, 80, ♂ ♀. Col.
luteola St. Farg., Enc. Méth. viii, 365; Cress., Proc. ii, 282, ♂ ♀. Can. U.S.
maculata Cress., Proc. Ent. Soc. Phil. ii, 303 (= var. *bisignata*).
melliventris Cress., Trans. Am. Ent. Soc. vii, 82, ♂. Cala.
miniata Smith, Brit. Mus. Cat. Hym. ii, 250; Cress., Proc. ii, 308, ♀. Ga.

modesta Cress., Proc. Ent. Soc. Phil. ii, 286, ♂ ♀. U.S.
Morrisoni Cress., Trans. Am. Ent. Soc. vii, 72, ♀. Col.
munda Cress., ibid. 80, ♀. Col.
nigrocincta Smith, New Spec. Hym. Brit. Mus. 99, ♂. Arc.Am.
obliterata Cress., Proc. Ent. Soc. Phil. ii, 301 (= var. *bisignata*).
opposita Cress., Trans. Am. Ent. Soc. vii, 73, ♀. Cala.
pacata Cress., ibid. 81, ♀. Col.
parata Cress., ibid. 81, ♀. Col.
perplexa Cress., Proc. Ent. Soc. Phil. ii, 306 (= var. *bisignata*).
? pilosula Cress., Trans. Am. Ent. Soc. vii, 77, ♂. N.Y.
placida Cress., Proc. Ent. Soc. Phil. ii, 291, ♂ ♀. Pa.
proxima Cress., ibid. 294, ♂. Me.
pulchella Smith, Brit. Mus. Cat. Hym. ii, 247 (= *vincta*).
punctata Fabr.; Cress., Proc. Ent. Soc. Phil. ii, 296. Can.
Putnami Cress., Proc. Dav. Acad. Nat. Sci. i, 210, ♂ ♀, pl. 35, fig. 1. Col. Utah.
pygmæa Cress., Proc. Ent. Soc. Phil. ii, 299 (= var. *bisignata*).
Ridingsii Cress., Trans. Am. Ent. Soc. vii, 74, ♀. Col.
rivalis Cress., ibid. 79, ♂. Nev. Cala.
rubicunda St. Farg.; Cress., Proc. Ent. Soc. Phil. ii, 299. Car.
ruficornis Linn. (*Apis*); Cress., ibid. 310, ♂ ♀. N.Am. (Eur.)
scita Cress., Trans. Am. Ent. Soc. vii, 77, ♂. Col.
Snowii Cress., ibid. 75, ♂ ♀. Col.
suavis Cress., ibid. 74, ♂ ♀. Nev. Cala. Or.
suda Cress., ibid. 209, ♀. Nev.
sulphurata Smith, Brit. Mus. Cat. Hym. ii, 249 (= *luteola*).
superba Cress., Proc. Ent. Soc. Phil. ii, 281, ♂. Col.
texana Cress., Trans. Am. Ent. Soc. iv, 271, ♂ ♀. Tex.
torrida Smith, Brit. Mus. Cat. Hym. ii, 250; Cress., Proc. ii, 300, ♀. Pa. Ga.
valida Smith, ibid. 246 (= var. *bisignata*).
verecunda Cress., Trans. Am. Ent. Soc. vii, 203, ♂ ♀. Nev.
vespiformis Först. (*Apis*), Nov. Spec. Ins. i, 92. N.Am. (Eur.)
vicina Cress., Proc. Ent. Soc. Phil. ii, 292, ♂ ♀. Ct. N.Y.
vicinalis Cress., Trans. Am. Ent. Soc. vii, 78, ♂. Col.
vincta Say, Bost. Jour. i, 401; Lec. Edit. ii, 778; Cress., Proc. ii, 284, ♂ ♀. U.S.
vinnula Cress., Trans. Am. Ent. Soc. vii, 202, ♂ ♀. Nev.
volatilis Smith, New Spec. Hym. Brit. Mus. 100, ♂. Can.
zebrata Cress., Trans. Am. Ent. Soc. vii, 73, ♂ ♀. Ks. Col.

PHILEREMUS Latr.

americanus Cress., Trans. Am. Ent. Soc. vii, 83, ♂ ♀. Can. Col.
fulviventris Cress., ibid. 83, ♂. Cala.
montanus Cress., ibid. 83, ♂. Nev.
? productus Cress., ibid. 203, ♀. Nev.
? pulchellus Cress., ibid. 84, ♂ ♀. Col.

EPEOLUS Latr.

agnatus Cress., Trans. Am. Ent. Soc. vii, 89, ♂. Dak.
bardus Cress., ibid. 84, ♀. Tex.
bifasciatus Cress., Proc. Ent. Soc. Phil. iii, 38 (= *fumipennis*).

californicus Cress., Trans. Am. Ent. Soc. vii, 86, ♀. Cala.
compactus Cress., ibid. 89, ♂ ♀. Tex. Col. Nev. Cala.
concavus Cress., ibid. 85, ♀. U.S.
distinctus Cress., ibid. 84, ♂ ♀. Ga.
donatus Smith, Brit. Mus. Cat. Hym. ii, 256; Cr., Proc. ii, 396, ♂ ♀. Can. U.S.
fumipennis Say, Bost. Jour. i, 403; Lec. Edit. ii, 779; Cress., l. c. 398. U.S. (Mex.)
glabratus Cress., Trans. Am. Ent. Soc. vii, 90, ♂. Ga.
lectus Cress., ibid. 88, ♀. Ks.
lunatus Say, Lec. Edit. i, 240; Cress.. Proc. ii, 394, ♂ ♀. U.S.
mercatus Fabr.; Cress., Proc. Ent. Soc. Phil. ii, 395; Trans. vii, 88. Can. U.S.
nevadensis Cress., Trans. Am. Ent. Soc. vii, 86, ♀. Nev.
nigriceps Smith, New Spec. Hym. Brit. Mus. 103, ♀. Tex. Cala.
occidentalis Cress., Trans. Am. Ent. Soc. vii, 87, ♂ ♀. Tex. Nev. Cala.
pusillus Cress., Proc. Ent. Soc. Phil. ii, 398, ♀. N.H. Mass.
4-fasciatus Say, Lec. Edit, i, 169; Cress., Proc. ii, 395. Tex. Ark.
remigatus Fabr. (*Melecta*); Cress., Proc. Ent. Soc. Phil. ii, 393, ♂ ♀. U.S.
robustus Cress., Trans. Am. Ent. Soc. vii, 85, ♀. N.Mex.
scelestus Cress., ibid. 86, ♀. Tex.
scutellaris Say, Lec. Edit. i, 240; Cress., Proc. ii, 397, ♀. Pa. Ark.
texanus Cress., Trans. Am. Ent. Soc. vii, 87, ♂. Tex.
zonatus Smith, Brit. Mus. Cat. Hym. ii, 257; Cress., Proc. ii, 397, ♂ ♀. Fla.

ERICROCIS Cress.

lata Cress. (*Crocisa?*), Trans. Am. Ent. Soc. vii, 91, ♂. Tex.

MELECTA Latr.

californica Cress., Trans. Am. Ent. Soc. vii, 91, ♂ ♀. Cala. Nev.
? Edwardsii Cress., ibid. 92, ♂. Cala.
fulvida Cress., ibid. 204 (= var. *Bombomelecta thoracica*).
interrupta Cress., ibid. iv, 275, ♂ ♀. Tex.
maculata Cress., vii, 204, ♂ ♀. Nev.
? mucida Cress., ibid. 205, ♂. Nev.
pacifica Cress., ibid. 91, ♂ (= var. *Bombomelecta thoracica*).
remigata Fabr., Syst. Piez. 387 (= *Epeolus*).
separata Cress., Trans. Am. Ent. Soc. vii, 204, ♀. Nev. (= *Bombomelecta?*)
thoracica Cress., Rep. Wheeler Expl. 1875, 726, pl. 33, fig. 5 (= *Bombomelecta*).

BOMBOMELECTA Patton.

thoracica Cress. (*Melecta*); Patton, Bull. U. S. Geo. Surv. v, 379, ♀. W.U.S.

STELIS Panz.

australis Cress., Trans. Am. Ent. Soc. vii, 92, ♀. Ga.
costalis Cress., ibid. iv, 274, ♂ ♀. Tex.
? elegans Cress., Proc. Ent. Soc. Phil. ii, 411, ♀. Col.
fœderalis Smith, Brit. Mus. Cat. Hym. ii, 275; Cress., l. c. 410, ♂ ♀. U.S.
interrupta Cress., Trans. Am. Ent. Soc. vii, 205, ♀. Nev.
lateralis Cress., Proc. Ent. Soc. Phil. ii, 410, ♀. Pa. Nev. Tex.
laticincta Cress., Trans. Am. Ent. Soc. vii, 92, ♀. Cala.
montana Cress., Proc. Ent. Soc. Phil. iii, 39, ♀. Col. Nev.

? monticola Cress., Trans. Am. Ent. Soc. vii, 94, ♀. Col.
? nitida Cress., ibid. 92, ♀. Can. N.Y.
obesa Say, Bost. Jour. i, 398; Lec. Edit. ii, 776; Cress., Proc. ii, 409. Ind.
? subcærulea Cress., Trans. Am. Ent. Soc. vii, 93, ♂. Col. Nev.
? subemarginata Cress., ibid. 93, ♀. Col.

CŒLIOXYS Latr.

alternata Say, Bost. Jour. i, 401; Cress., Proc. Ent. Soc. Phil. ii, 406, ♂ ♀. U.S.
altilis Cress. (= *brevis* ‖ Cress.), ibid. 402; Trans. vii, 219, ♂ ♀. U.S.
aperta Cress., Trans. Am. Ent. Soc. vii, 95, ♀. Col.
brevis ‖ Cress. (*nec* Eversm.), Proc. Ent. Soc. Phil. ii, 402 (= *altilis*).
coloradensis Cress., Trans. Am. Ent. Soc. vii, 98, ♂. Col.
Comstockii Cress., ibid. 96, ♀. N.Y.
deplanata Cress., ibid. 96, ♀. Ks. Col.
dubitata Smith, Brit. Mus. Cat. Hym. ii, 272; Cress., Proc. ii, 400, ♀. U.S.
edita Cress., Trans. Am. Ent. Soc. iv, 272, ♂. Tex.
floridana Cress., ibid. vii, 98, ♂. Fla.
funeraria Smith, Brit. Mus. Cat. Hym. ii, 272; Cress., Proc. ii, 404, ♂. Can.
germana Cress., Trans. Am. Ent. Soc. vii, 102, ♀. Ill.
insita Cress., ibid. iv, 273, ♀. Tex.
lateralis Cress., Proc. Ent. Soc. Phil. ii, 405, ♂. Pa.
lucrosa Cress., Trans. Am. Ent. Soc. vii, 97, ♀. N.Y. Col.
modesta Smith, Brit. Mus. Cat. Hym. ii, 271; Cress., Proc. ii, 404, ♀. Pa. N.Y.
mœsta Cress., Proc. Ent. Soc. Phil. ii, 403, ♀. Can. U.S.
8-dentata Say, Lec. Edit. i, 239; Cress., Proc. ii, 401, ♂ ♀. Can. U.S.
4-dentata Linn. (*Apis*); Cress., Proc. ii, 409, ♂ ♀. N.Y. (Eur.)
rufitarsus Smith, Brit. Mus. Cat. Hym. ii, 271; Cress., l. c. 400, ♂. Can. U.S.
scitula Cress., Trans. Am. Ent. Soc. iv, 273, ♂ ♀. Tex.
sodalis Cress., ibid. vii, 99, ♂. N.Y. Col.
texana Cress., ibid. iv, 272, ♂ ♀. Tex.
tristis Prov., Faun. Ent. Can. ii, 725 (typog. error for *mœsta*).

OSMIA Panz.

abjecta Cress., Trans. Am. Ent. Soc. vii, 103, ♀. Col.
abnormis Cress.. ibid. 105, ♂. Col.
albiventris Cress., Proc. Ent. Soc. Phil. iii, 31, ♂ ♀. Can. U.S.
armaticeps Cress., Trans. Am. Ent. Soc. vii, 104, ♀. Col.
atriventris Cress., Proc. Ent. Soc. Phil. iii, 29, ♀. Can. U.S.
bella Cress., Trans. Am. Ent. Soc. vii. 107, ♂. Col. Nev.
brevis Cress., Proc. Ent. Soc. Phil. iii, 36, ♀. Col. Nev.
bucconis Say, Bost. Jour. i, 400; Lec. Edit. ii, 777; Cress., l. c. 26. Can. Ind.
bucephala Cress., Proc. Ent. Soc. Phil. iii, 17, ♀. Brit.Am. U.S.
californica Cress., ibid. 24, ♀. Cala. Nev.
canadensis Cress., ibid. 33 (= *cognata*).
chalybea Smith, Brit. Mus. Cat. Hym. i, 143; Cress., l. c. 22, ♂ ♀. Ga. Fla. Tex.
cobaltina Cress., Trans. Am. Ent. Soc. vii, 104, ♀. Nev. Cala.
cognata Cress., Proc. Ent. Soc. Phil. iii, 33, ♂. Can. U.S.
coloradensis Cress., Trans. Am. Ent. Soc. vii, 105, ♀. Col.
conjuncta Cress., Proc. Ent. Soc. Phil. iii, 31, ♀. Ct.

densa Cress., ibid. 25, ♀. Col.
distincta Cress., ibid. 30, ♀. Ct.
dubia Cress., ibid. 29, ♀. Col. Nev.
exigua Cress., Trans. Am. Ent. Soc. vii, 107. ♂. Cala.
faceta Cress., ibid. 103, ♂ ♀. Can. U.S.
frigida Smith, Brit. Mus. Cat. Hym. i, 142; Cress., Proc. iii, 26, ♂ ♀. Can. U.S.
fulgida Cress., Proc. Ent. Soc. Phil. iii, 34, ♂ ♀. Col. Nev.
georgica Cress., Trans. Am. Ent. Soc. vii, 105, ♀. Ga.
globosa Cress., Proc. Ent. Soc. Phil. iii, 36, ♀. Brit.Am.
hudsonica Cress., ibid. 21, ♂. Hud.Bay.
integra Cress., Trans. Am. Ent. Soc. vii, 106, ♂. Col.
inurbana Cress., ibid. 107, ♂. Col.
juxta Cress., Proc. Ent. Soc. Phil. iii, 19, ♀. Col.
latitarsis Cress., ibid. 20, ♂. N.Y. Va.
lignaria Say, Bost. Jour. i, 399; Lec. Edit. ii, 776; Cress., l. c. 22, ♂ ♀. Can. U.S.
lignicola Prov., Faun. Ent. Can. ii, 708, ♀. Can.
longula Cress., Proc. Ent. Soc. Phil. iii, 19, ♀. Col.
mandibularis Cress., Trans. Am. Ent. Soc. vii, 102, ♀. Col.
marginipennis Cress., ibid. 106, ♂. Col.
maura Cress., ibid. 104, ♀. Cala. Nev.
megacephala Cress., Proc. Ent. Soc. Phil. iii, 18. ♀. Col.
montana Cress., ibid. 24, ♂. Col.
nigrifrons Cress., Trans. Am. Ent. Soc. vii, 103, ♀. Col. Nev.
parva Prov., Faun. Ent. Can. ii, 812, ♂. Can.
propinqua Cress., Proc. Ent. Soc. Phil. iii, 23 (= *lignaria*).
proxima Cress., ibid. 32, ♂ Brit.Am. U.S.
pumila Cress., ibid. 35, ♀. Pa.
purpurea Cress., ibid. 27, ♀. U.S.
pusilla Cress., ibid. 36, ♂ ♀. Col. Nev.
quadriceps Cress., Trans. Am. Ent. Soc. vii, 104, ♀. Cala. Nev.
4-dentata Cress., ibid. 107, ♂. N.Y.
rustica Cress., Proc. Ent. Soc. Phil. iii, 37, ♂. U.S.
sericea Cress., ibid. 27, ♂. Col.
simillima Smith, Brit. Mus. Cat. Hym. i, 142; Cress., l. c. 28. Brit.Am. U.S.
subfasciata Cress., Trans. Am. Ent. Soc. iv, 261, ♂ ♀. Tex.
texana Cress., ibid. 261, ♂. Tex.
vicina Cress., Proc. Ent. Soc. Phil. iii, 38. ♂. Can. Va.
viridis Cress., ibid. 34 (= *fulgida*).

HERIADES Spin.

carinatum Cress., Proc. Ent. Soc. ii, 383, ♂ ♀. Can. U.S.
? **cubiceps** Cress., Trans. Am. Ent. Soc. vii, 205, ♀. Nev.
? **denticulatum** Cress., ibid. 108, ♂. Col. Nev.
? **osmoides** Cress. (*Megachile*), ibid. iv, 269, ♂ ♀. Tex.
? **rotundiceps** Cress., ibid. vii, 205, ♀. Nev. Or.
simplex Cress., Proc. Ent. Soc. Phil. ii, 384 (= *Alcidamea producta* ♀).
variolosum Cress. (*Megachile*), Trans. Am. Ent. Soc. iv, 270, ♀. U.S.

CHELOSTOMA Latr.

albifrons Kirby, Faun. Bor.-Am. iv, 270; Cress., Proc. ii, 382. N.Am.
californicum Cress., Trans. Am. Ent. Soc. vii, 108, ♂. Cala.
rugifrons Smith, Brit. Mus. Cat. Hym. ii, 220; Cress., Proc. ii, 382, ♀. Ga.

ANDRONICUS Cress.

cylindricus Cress., Proc. Ent. Soc. Phil. ii, 384, ♂. N.Y. Ct.

ALCIDAMEA Cress.

pilosifrons Cress., Proc. Ent. Soc. Phil. ii, 386 (= var. *producta*).
producta Cress., ibid. 386, ♂. Can. U.S.
truncata Cress., Trans. Am. Ent. Soc. vii, 108, ♂. Ga.

MONUMETHUS Cress.

argentifrons Cress., Proc. Ent. Soc. Phil. ii, 387 (= *borealis* ♂).
borealis Cress., ibid. 388, ♀. Brit.Am. U.S.
obsoleta Cress., ibid. 388 (= *borealis* ♂).

ANTHIDIUM Fabr.

atrifrons Cress., Trans. Am. Ent. Soc. i, 387 (= *emarginatum*).
atripes Cress., ibid. vii, 205 (= var. *emarginatum*).
atriventris Cress., ibid. 111, ♀. Cala. Nev.
blanditum Cress., ibid. 206, ♀. Nev.
californicum Cress., ibid. 206, ♂. Cala.
cognatum Cress., ibid. 109, ♂ ♀. Ga.
concinnum Cress., ibid. iv, 270, ♂ ♀. Tex.
consonum Cress., ibid. vii, 207 (= var. *illustre*).
conspicuum Cress., ibid. 207, ♀. Nev.
crassipes Cress., ibid. 112, ♀. Fla.
curvatum Smith, Brit. Mus. Cat. Hym. ii, 215 (= *interruptum*).
dorsale St. Farg., Hym. ii, 384; Cress., Proc. Ent. Soc. Phil. ii, 381, ♂. Ga.
Edwardsii Cress., Trans. Am. Ent. Soc. vii, 112, ♂. Cala.
emarginatum Say (*Megachile*); Cress., Proc. ii, 374, ♂ ♀. W.States, Cala. Nev.
formosum Cress., Trans. Am. Ent. Soc. vii, 112, ♂. Col.
illustre Cress., ibid. 206, ♀. Nev.
interruptum Say (*Megachile*); Cress., Proc. Ent. Soc. ii, 380. Ga. Ks. Col. Tex.
jocosum Cress., Trans. Am. Ent. Soc. vii, 111, ♂. Col.
jugatorium Say (*Megachile*); Cress., Proc. Ent. Soc. Phil. ii, 380, ♀. Col. Mo.
lepidum Cress., Trans. Am. Ent. Soc. vii, 115, ♂. Ga.
maculifrons Smith, B. M. C. Hym. ii, 214; Cress., Proc. ii, 375, ♀. W.U.S.
maculosum Cress., Trans. Am. Ent. Soc. vii, 110, ♂ ♀. Utah, Nev. Cala.
montivagum Cress., ibid. 110, ♂ ♀. Col.
mormonum Cress., ibid. 110, ♂. Utah.
notatum Latr.; Cress., Proc. Ent. Soc. Phil. ii, 376, ♂ ♀. U.S.
occidentale Cress., Trans. Am. Ent. Soc. i, 386, ♂ ♀. Col. N. Mex. Nev.
palliventre Cress., ibid. vii, 114, ♀. Cala.
parvum Cress., ibid. 114, ♂ ♀. Col. Or.
perplexum Smith, Brit. Mus. Cat. Hym. ii, 214; Cress., Proc. ii, 377. Ga. Fla.

placitum Cress., Trans. Am. Ent. Soc. vii. 206, ♀. Nev.
pudens Cress., ibid. 208, ♀. Nev.
pudicum Cress., ibid. 208, ♂. Nev.
Ridingsii Cress., ibid. 111, ♀. Ga.
simile Cress., Proc. Ent. Soc. Phil. ii, 378, ♂ ♀. Mass. Ct.
singulare Cress., Trans. Am. Ent. Soc. vii, 207, ♀. Nev.
texanum Cress., ibid. 113, ♂. Tex.
Ulkei Cress., ibid. 115, ♀. Col. Or.
venustum Cress., ibid. 113, ♀. Col.
zebratum Cress., ibid. iv, 270, ♂. Tex. Col.

LITHURGUS Latr.

apicalis Cress., Rep. Wheeler Expl. 1875, 724, ♀. Nev.
compressus Smith, Brit. Mus. Cat. Hym. i, 147, ♂. Ga. Tex. Col.
gibbosus Smith, ibid. 147, ♀ [illegible]a. Col.

MEGACHILE Latr.

acuta Smith, Brit. Mus. Cat. Hym. i, 192, ♀ (= *latimanus*).
addenda Cress., Trans. Am. Ent. Soc. vii, 124, ♂ ♀. U.S.
albitarsis Cress., ibid. iv, 263, ♂. Tex.
amica Cress., ibid. 265, ♂. Ga. Tex.
avara Cress., ibid. vii, 123, ♂. Ga. Col.
brevis Say, Bost. Jour. i, 407; Lec. Edit. ii, 783, ♂ ♀. Can. U.S.
bucephala Smith, Brit. Mus. Cat. Hym. i, 193, ♀. Can. W.U.S.
carbonaria Cress., Trans. Am. Ent. Soc. vii, 208, ♀. Nev.
centuncularis Linn. (*Apis*); Smith, B. M. Cat. Hym. i, 149. N.Am. (Eur.)
cephalica Prov. (*Gnathocera*), Faun. Ent. Can. ii, 716 (= *pugnata* ♀).
comata Cress., Trans. Am. Ent. Soc. iv, 262, ♂. Tex. Col.
deflexa Cress., ibid. vii, 125, ♂. Ks.
disparilis Cress., ibid. iv, 264, ♂ (= *pugnata*).
emarginata Say, Lec. Edit. i, 238 (= *Anthidium*).
exilis Cress., Trans. Am. Ent. Soc. iv, 265, ♂. U.S.
facunda Cress., ibid. 266 (= *pruina*).
femorata Smith, Brit. Mus. Cat. Hym. i, 188, ♂ (= *latimanus*).
fidelis Cress., Trans. Am. Ent. Soc. vii, 120, ♂ ♀. Col. Nev. Cala. Or.
fortis Cress., ibid. iv, 262, ♂. Tex. Col. Ks.
frigida Smith, Brit. Mus. Cat. Hym. i, 193, ♂. Brit.Am. U.S.
frugalis Cress., Trans. Am. Ent. Soc. iv, 266, ♂. Tex.
gemula Cress., ibid. vii, 118, ♂ ♂. N.C. Ga.
generosa Cress., ibid. 125, ♀. N.C. Ga.
gentilis Cress., ibid. iv, 267 (= *brevis*).
georgica Cress., ibid. vii, 123, ♂ ♀. Ga.
grandis Cress., ibid. iv, 268 (= *pollicaris*).
infragilis Cress., ibid. vii, 127, ♂. N.Y.
ingenua Cress., ibid. 122, ♂. Ga. Ill.
inimica Cress., ibid. iv, 267, ♀. Ga. Tex.
integra Cress., ibid. vii, 121, ♂. Tex.
interrupta Say, Lec. Edit. i, 237 (= *Anthidium*).
jugatoria Say, ibid. 238 (= *Anthidium*).

lanuginosa Smith, Brit. Mus. Cat. Hym. i, 190 (= *brevis*).
latimanus Say, Lec. Edit. i, 169, ♂. Can. U.S. Vanc.
legalis Cress., Trans. Am. Ent. Soc. vii, 209, ♂. Nev.
lucrosa Cress., ibid. iv, 267 (= *pugnata*).
manifesta Cress., ibid. vii, 122, ♂. Col. Nev.
melanophæa Smith, Brit. Mus. Cat. Hym. i, 191, ♂ ♀. Brit.Am. U.S.
mellitarsis Cress., Trans. Am. Ent. Soc. vii, 121, ♂. Col.
mendica Cress., ibid. 126, ♀. Can. U.S.
montivaga Cress., ibid. 124, ♂ ♀. U.S.
morio Smith, Brit. Mus. Cat. Hym. i, 189, ♀. U.S.
mucida Cress., Trans. Am. Ent. Soc. vii, 118, ♂ ♀. Ga.
nevadensis Cress., ibid. 209, ♂ ♀. Nev.
nupta Cress., ibid. iv, 268, ♀. Tex.
oblonga Prov., Faun. Ent. Can. ii, 714, ♀. Can.
optiva Cress., Trans. Am. Ent. Soc. iv, 268, ♀. Can. Ga. Fla. Tex.
osmoides Cress., ibid. 269 (= *Heriades ?*).
Palmeri Cress., ibid. vii, 119, ♂ ♀. Guadaloupe Islands.
parallela Smith, Brit. Mus. Cat. Hym. i, 191 (= *pruina*).
perbrevis Cress., Trans. Am. Ent. Soc. vii, 127, ♂. Tex.
petulans Cress., ibid. 127, ♂. N.C. Ga.
pinguis Cress., ibid. 126, ♀. Ga.
pollicaris Say, Bost. Jour. i, 406; Lec. Edit. ii, 782, ♂. Can. Tex. La.
pruina Smith, Brit. Mus. Cat. Hym. i, 190, ♂ ♀. U.S.
pugnata Say, Bost. Jour. i, 408; Lec. Edit. ii, 783, ♂ ♀. Can. U.S.
relativa Cress., Trans. Am. Ent. Soc. vii, 126, ♀. Can. U.S.
Sayi Cress., ibid. 119, ♂ ♀. U.S.
scrobiculata Smith, Brit. Mus. Cat. Hym. i, 191 (= *pugnata*).
simplex Prov., Faun. Ent. Can. ii, 712, ♂. Can.
studiosa Cress., Trans. Am. Ent. Soc. iv, 269 (= *exilis*).
subnigra Cress., ibid. vii, 208 ♂ ♀. Nev.
texana Cress., ibid. 125, ♂ ♀. Tex.
variolosa Cress., ibid. iv, 270 (= *Heriades*).
vidua Smith, Brit. Mus. Cat. Hym. i, 192 (= *frigida*).
xylocopoides Smith, ibid. 189, ♂ ♀. Ga. Fla. Tex.

CERATINA Latr.

bidentata Prov., Faun. Ent. Can. ii, 718, ♂. Can.
dupla Say, Bost. Jour. i, 397; Lec. Edit. ii, 775; Cress., Proc. ii, 389, ♂ ♀. U.S.
strenua Smith, New Spec. Hym. Brit. Mus. 97, ♂. Tex.
tejonensis Cress., Proc. Ent. Soc. Phil. ii, 390, ♂. Cala. Nev. Can. (Prov.)

EUCERA Scop.

maculata St. Farg., Hym. ii, 129, ♀. N.Am.
nuda Prov., Faun. Ent. Can. ii, 692 (= *Macropis ciliata* ♀).

MELISSODES Latr.

acerba Cress., Trans. Am. Ent. Soc. vii, 210 (= *Synhalonia*).
actuosa Cress., Proc. Acad. Nat. Sci. Phil. 1878, 208, ♀. Cala.
afflicta Cress., ibid. 217, ♂ ♀. Tex.

agilis Cress., ibid. 204, ♂. Tex.
albata Cress., Trans. Am. Ent. Soc. iv, 281 (= *Synhalonia*).
americana St. Farg. (*Macrocera*), Hym. ii, 92, ♂. Car.
apacha Cress., Proc. Acad. Nat. Sci. Phil. 1878, 217, ♀. Tex. N.Mex. Ariz.
atrifrons Smith (*Tetralonia*), Brit. Mus. Cat. Hym. ii, 308, ♀. N.C. Ga.
atripes Cress., Trans. Am. Ent. Soc. iv, 275, ♀. Tex.
atriventris Smith, Brit. Mus. Cat. Hym. ii, 310 (= *Synhalonia*).
aurigenia Cress., Proc. Acad. Nat. Sci. Phil. 1878, 212, ♂ ♀. Can. U.S.
australis Cress., ibid. 214 (= *Diadasia*).
Belfragei Cress., Trans. Am. Ent. Soc. iv, 278, ♀. Tex.
bimaculata St. Farg. (*Macrocera*), Enc. Méth. x, 528. U.S.
binotata Say (*Macrocera*), Bost. Jour. i, 404; Lec. Edit. ii, 780 (= *bimaculata*).
bituberculata Cress., Proc. Acad. Nat. Sci. Phil. 1878, 218, ♂. Cala. Nev.
bombiformis Cress., ibid. 219 (= *Emphor*).
brevicornis Cress., Trans. Am. Ent. Soc. iv, 281, ♂. Tex.
californica Cress., Proc. Acad. Nat. Sci. Phil. 1878, 196, ♂. Cala.
californica Smith, New Spec. Hym. Brit. Mus. (1879) 114, ♂ ♀. Cala.
caliginosa Cress., ibid. 192, ♂ ♀. Md. Ga.
coloradensis Cress., ibid. 200, ♂ ♀. Col.
comanche Cress., Trans. Am. Ent. Soc. iv, 276, ♂ ♀. Tex.
communis Cress., Proc. Acad. Nat. Sci. Phil. 1878, 204, ♂ ♀. Ga. Ill.
compta Cress., ibid. 199, ♂ ♀. Ga.
condigua Cress., ibid. 207, ♀. Ill. Ks.
confusa Cress., ibid. 205, ♂ ♀. Col. N.Mex. Nev.
densa Cress., Trans. Am. Ent. Soc. iv, 282 (= *Diadasia enavata* ♂).
denticulata Smith, Brit. Mus. Cat. Hym. ii, 311, ♂ (= *rustica*).
dentiventris Smith, ibid. 312, ♂. Can. N.Y. Ga.
desponsa Smith, ibid. 310, ♀. Can. U.S.
dilecta Cress., Proc. Acad. Nat. Sci. Phil. 1878, 199, ♂. Ill. Tex. Col.
diminuta Cress., ibid. 215 (= *Diadasia*).
dubitata Cress., ibid. 194, ♂ ♀. Ga.
Edwardsii Cress., ibid. 195 (= *Synhalonia*).
enavata Cress., Trans. Am. Ent. Soc. iv, 280 (= *Diadasia*).
fimbriata Cress., Proc. Acad. Nat. Sci. Phil. 1878, 203, ♂ ♀. Tex.
frater Cress., ibid. 197 (= *Synhalonia*).
fulvitarsis Cress., ibid. 196 (= *Synhalonia*).
fulvohirta Cress., ibid. 213, ♂. Ga.
georgica Cress., ibid. 200, ♂. Ga.
honesta Cress., Trans. Am. Ent. Soc. iv, 279 (= *Synhalonia*).
intermedia Cress., ibid. 278, ♀. Tex.
intorta Cress., ibid. 278, ♂. Tex.
intrudens Cress., = *nevadensis* ‖ Cress., ibid. vii, 209, 225 (= *Synhalonia*).
lepida Cress., Proc. Acad. Nat. Sci. Phil. 1878, 198, ♂. Tex. Col.
lupina Cress., ibid. 210, ♂. Cala.
manipularis Smith, Brit. Mus. Cat. Hym. ii, 312, ♂. Ga.
marginella Cress., Trans. Am. Ent. Soc. iv, 282 (= *Entechnia fulvifrons*).
menuacha Cress., ibid. i, 388, ♂. Col. Tex. N.Mex. Nev. Or.
montana Cress., Proc. Acad. Nat. Sci. Phil. 1878, 202, ♂ ♀. Col. N.Mex.
nevadensis Cress., Trans. v, 102; Rep. Wheeler Exp. 726, pl. 34, fig. 6. Nev.
nevadensis Cress., Trans. Am. Ent. Soc. vii, 209 (= *Synhalonia intrudens*).

nigra St. Farg. (*Macrocera*), Hym. ii, 112 (= *bimaculata* ♂).
nigrifrons Cress., Proc. Acad. Nat. Sci. Phil. 1878, 195, ♀. Cala.
nigripes Smith, B. M. Cat. Hym. ii, 311, ♂ ♀ (♂ = *desponsa*, ♀ = *Syn. atriventris*).
obliqua Say (*Macrocera*), Bost. Jour. i, 403; Lec. Edit. ii, 780, ♂. U.S.
olivacea Cress., Proc. Acad. Nat. Sci. Phil. 1878, 216, ♂ ♀. Cala. (Mex.)
pensylvanica St. Farg. (*Macrocera*), Hym. ii, 97, ♂. Pa. Tex.
perplexa Cress., Proc. Acad. Nat. Sci. Phil. 1878, 206, ♂ ♀. Ga. Tex.
petulca Cress., ibid. 261, ♀. Ga.
philadelphica St. Farg. (*Macrocera*), Hym. ii, 110 (= *Xenoglossa pruinosa* ♂).
pygmæa Cress., Trans. Am. Ent. Soc. iv, 279, ♀. Tex.
rivalis Cress., ibid. 277, ♂. Tex.
rustica Say (*Macrocera*), Bost. Jour. i, 406; Lec. Edit. ii, 781, ♂ ♀. U.S.
senilis Smith, Brit. Mus. Cat. Hym. ii, 311, ♀ (= *rustica*).
Snowii Cress., Proc. Acad. Nat. Sci. Phil. 1878, 211, ♂. Col.
speciosa Cress., ibid. 198 (= *Synhalonia*).
spissa Cress., Trans. Am. Ent. Soc. iv, 280, ♀. Tex.
strenua Cress., Proc. Acad. Nat. Sci. Phil. 1878, 213, ♂ ♀. Ga. Tex. N.Mex.
Stretchii Cress., ibid. 207, ♀. Cala.
suavis Cress., ibid. 210, ♀. Col.
suffusa Cress., ibid. 203, ♂ ♀. Tex.
tepida Cress., ibid. 210, ♀. Nev.
texana Cress., Trans. Am. Ent. Soc. iv, 276, ♂ ♀. Tex.
ursina Cress., ibid. 281 (= *Diadasia enavata* ♂).

XENOGLOSSA Smith.

fulva Smith, B. M. Cat. Hym. ii, 315, pl. vii, fig. 8, ♀, pl. xii, 7–8. Ariz. (Mex.)
pruinosa Say (*Macrocera*), Bost. Jour. i, 405; Lec. Edit. ii, 780, ♂ ♀. U.S.

SYNHALONIA Patton.

acerba Cress. (*Melissodes*), Trans. Am. Ent. Soc. vii, 210. Nev. (=*Edwardsii?*).
albata Cress. (*Melissodes*), ibid. iv, 281; Patton, Bull. U. S. Geo. Surv. v, 474. Tex.
atriventris Smith (*Melissodes*), Brit. Mus. Cat. Hym. ii, 310, ♂. N.Am.
Edwardsii Cress. (*Melissodes*), Proc. Acad. Nat. Sci. 1878, 195, ♂. Cala. Nev.
frater Cress. (*Melissodes*), ibid. 197, ♂. Col.
fulvitarsis Cress. (*Melissodes*); Patton, Bull. v, 474, ♂ ♀. Col. Wym.
honesta Cress. (*Melissodes*), Trans. Am. Ent. Soc. iv, 279, ♂. Tex.
intrudens Cress. (*Melissodes nevadensis* ‖), ibid. vii, 209, 225, ♂. Nev.
speciosa Cress. (*Melissodes*), Proc. Acad. Nat. Sci. Phil. 1878, 198, ♀. Col.

DIADASIA Patton.

australis Cress. (*Melissodes*), Proc. Acad. Nat. Sci. 1878, 214, ♂ ♀. Col. Tex.
diminuta Cress. (*Melissodes*) ibid. 215, ♂. Col.
enavata Cress. (*Melissodes*), Trans. Am. Ent. Soc. iv, 280, ♀. Ks. Tex.

EMPHOR Patton.

bombiformis Cress. (*Melissodes*), Proc. Acad. Nat. Sci. 1878. 219, ♂ ♀. U.S.

ENTECHNIA Patton.

fulvifrons Smith (*Anthophora*), Brit. Mus. Cat. Hym. ii, 341, ♀. Tex. (S.Am.)
taurea Say (*Anthophora*), Bost. Jour. i, 410; Lec. Edit. ii, 785, ♂ ♀. U.S.

HABROPODA Smith.

floridana Smith (*Anthophora*), Brit. Mus. Cat. Hym. ii, 339, ♂ ♀. U.S.
miserabilis Cress. (*Anthophora*), Proc. Acad. Nat. Sci. 1878, 191. Cala. Nev.
Morrisoni Cress. (*Anthophora*), ibid. 192, ♂. Col.
mucida Cress. (*Anthophora*), ibid. 191, ♀. Col.

ANTHOPHORA Latr.

abrupta Say, Bost. Jour. i, 409; Lec. Edit. ii, 784, ♂. Can. U.S.
affabilis Cress., Proc. Acad. Nat. Sci. Phil. 1878, 189, ♂ ♀. Tex.
albata Cress., Proc. Dav. Acad. Nat. Sci. i, 211, pl. 35, fig. 2, ♀. Col.
bidentata Fabr. (*Andrena*), Ent. Syst. ii, 313; Syst. Piez. 381. N.Am.
bomboides Kirby, Faun. Bor.-Am. iv, 271; Cress., Trans. ii, 291, ♂ ♀. Can. U.S.
californica Cress., Trans. Am. Ent. Soc. ii, 290, ♂. Cala.
canadensis Cress., ibid. 292 (= ♂ var. *bomboides*).
capistrata Cress., Proc. Acad. Nat. Sci. Phil. 1878, 187, ♂. Tex.
carbonaria Cress., Trans. Am. Ent. Soc. vii, 210, ♀. Nev.
centriformis Cress., ibid. 212, ♂. Nev.
cineraria Smith, New Spec. Hym. Brit. Mus. 124, ♂ ♀. Vanc.
citreostrigata Dours, Mém. Soc. Linn. ii, 95. N.Am.
Crotchii Cress., Proc. Acad. Nat. Sci. Phil. 1878, 192, ♂. Cala.
Edwardsii Cress., ibid. 190, ♂ ♀. Nev. Cala.
exigua Cress., Trans. Am. Ent. Soc. vii, 211, ♂ ♀. Nev.
flexipes Cress., ibid. 211, ♂ ♀. Nev.
floridana Smith, Brit. Mus. Cat. Hym. ii, 339 (=*Habropoda*).
frontata Say, Bost. Jour. i, 409; Lec. Edit. ii, 784, ♂. La.
fulvifrons Smith, Brit. Mus. Cat. Hym. ii, 341 (= *Entechnia*).
fuscipennis Smith, ibid. 338, ♀. N.Am.
holopyrrha Dours, Mém. Soc. Linn. ii, 89 (= *Xenoglossa fulva*).
ignava Cress., Trans. Am. Ent. Soc. vii, 210, ♂ ♀. Nev.
insularis Smith, New Spec. Hym. Brit. Mus. 124, ♀. Vanc.
maculifrons Cress., Trans. Am. Ent. Soc. vii, 210, ♂ ♀. Nev.
miserabilis Cress., Proc. Acad. Nat. Sci. Phil. 1878, 191 (= *Habropoda*).
montana Cress., Trans. Am. Ent. Soc. ii, 290, ♀. Col.
Morrisoni Cress., Proc. Acad. Nat. Sci. Phil. 1878, 192 (= *Habropoda*).
mucida Cress., ibid. 191 (= *Habropoda*).
occidentalis Cress., Trans. Am. Ent. Soc. ii, 292, ♂ ♀. Col. Tex.
pacifica Cress., Proc. Acad. Nat. Sci. Phil. 1878, 190, ♂. Cala. Nev.
pernigra Cress., Trans. Am. Ent. Soc. vii, 210, ♀. Nev.
pyralitarsis Dours, Mém. Soc. Linn. ii, 160. N.Y.
simillima Cress., Proc. Acad. Nat. Sci. Phil. 1878, 189, ♂. Col. Nev.
Smithii Cress., Trans. Am. Ent. Soc. ii, 289, ♂ ♀. Tex. Col. Dak. N.Mex.
sodalis Cress., ibid. vii, 212, ♂. Nev.
sponsa Smith, Brit. Mus. Cat. Hym. ii, 339, ♀ (= *abrupta*).
taurea Say, Bost. Jour. i, 410; Lec. Edit. ii, 785 (= *Entechnia*).
terminalis Cress., Trans. Am. Ent. Soc. ii, 292 (= *Clisodon*).
texana Cress., ibid. iv, 282, ♀. Tex.
urbana Cress., Proc. Acad. Nat. Sci. Phil. 1878, 188, ♂ ♀. Col. Utah, Nev. Cala.
ursina Cress., Trans. Am. Ent. Soc. ii, 291, ♂. W.Va. N.C.
Walshii Cress., ibid. 290, ♂ ♀. Ill.

CLISODON Patton.

terminalis Cress. (*Anthophora*), Tr. Am. Ent. Soc. ii, 292, ♂ ♀ U.S. Vanc. Can.

XYLOCOPA Latr.

æneipennis De Geer; Smith, Trans. Ent. Soc. Lond. 1874, 285. L.Cala. (S.Am.)
arizonensis Cress., Trans. Am. Ent. Soc. vii, 212, ♂ ♀. Ariz.
californica Cress., Proc. Ent. Soc. Phil. iii, 40, ♂ ♀. Cala. Nev.
fimbriata Fabr., Syst. Piez. 340; Patton, Can. Ent. xi, 60. Cala. (Mex. S.Am.)
micans St. Farg.; Smith, Trans. Ent. Soc. Lond. 1874, 297, ♂ ♀. Ga. Fla. Tex.
orpifex Smith, ibid. 298, ♂ ♀. Cala. Nev.
purpurea Cress., Trans Am. Ent. Soc. iv, 284 (= *micans*).
texana Cress., ibid. 283, ♂ ♀. Tex.
varipuncta Patton, Can. Ent. xi, 60, ♀. Ariz.
vidua St. Farg., Hym. ii, 210 (= *micans*).
virginica Drury (*Apis*); Cress., Proc. Ent. Soc. Phil. ii, 90, ♂ ♀. U.S.

CENTRIS Fabr.

carolina Fabr., Syst. Piez. 357 (= *Xylocopa virginica*).
lanosa Cress., Trans. Am. Ent. Soc. iv, 284, ♂. Tex.

APATHUS Newm.

Ashtoni Cress., Proc. Ent, Soc. Phil. iii, 42, ♂ ♀. Can. U.S.
? californica Cress., Trans. Am. Ent. Soc. vii, 214, ♂. Cala.
citrinus Smith, Brit. Mus. Cat. Hym. ii, 385; Cress., Proc. ii, 112, ♂. Can. U.S.
contiguus Cress., Proc., Ent. Soc. Phil. ii, 112 (= var. *citrinus*).
? elatus Fabr. (*Apis*); Cress., ibid. 114, ♂. Can. U.S.
fraternus Smith, Brit. Mus. Cat, Hym. ii, 385; Cress., l. c. 111, ♂. N.Am.
insularis Smith; Cress., Proc. Ent. Soc. Phil. ii, 113, ♂ ♀. Col. Vanc.
laboriosus Fabr. (*Bombus*); Cress., ibid. 111, ♀. Can. W.Va. Tex.
variabilis Cress., Trans. Am. Ent. Soc. iv, 284, ♂ ♀. Tex.

BOMBUS Latr.

affinis Cress., Proc. Ent. Soc. Phil. ii, 103, ♂ ♀. Can. U.S.
appositus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 183, ♂ ♀ ☿. W.U.S.
arcticus Kirby; Cress., Proc. Ent. Soc. Phil. ii, 95, ♂ ♀. Arc.Am.
balteatus Dahlb.; Cress., Proc. Ent. Soc. Phil. ii, 108. Greenland (Eur.).
bifarius Cress., Proc. Acad. Nat. Sci. Phil. 1878, 185, ♀ ☿. Col. Brit.Col.
bimaculatus Cress., ibid. 92, ♂. Mass. Ct.
borealis Kirby; Cress., ibid. 93; iii, 41, ♂ ♀ ☿. Can. U.S.
californicus Smith; Cress., ibid. 97, ♂ ♀ ☿. Nev. Cala. Or.
carolinus Linn. (*Apis*); Cress., ibid. 108. N.Am.
Carriei Greene, Ann. Lyc. Nat. Hist. N. Y. vii, 170 (= *frigidus*).
centralis Cress., Proc. Ent. Soc. Phil. iii, 41, ♀. Col. Cala.
consimilis Cress., ibid. 41, ♀. Can. U.S.
Couperi Cress., Proc. Acad. Nat. Sci. Phil. 1878, 185, ♀. Can.
Crotchii Cress., ibid. 184, ♀. Cala.
derhamellus Kirby, Faun. Bor.-Am. iv, 273. Arc.Am. (Eur.)
dorsalis Cress., Trans. Am. Ent. Soc. vii, 230 (= var. *fervidus*).
dubius Cress., Proc. Ent. Soc. Phil. ii, 97, ☿. Ks. Col.

Edwardsii Cress., Proc. Acad. Nat. Sci. Phil. 1878, 184, ♂ ♀ ☿. W.U.S.
fervidus Fabr. (*Apis*); Cress., Proc. Ent. Soc. Phil. ii, 93, ♂ ♀ ☿. Can. U.S.
flavifrons Cress., ibid. 105, ♂ ♀ ☿. Col. Utah, Alaska.
flavifrons Smith, Lord's Nat. Vanc. Is. 343, ♀. Brit.Am.
frigidus Smith; Cress., Proc. Ent. Soc. Phil. ii, 100, ♂ ♀ ☿. Col. Vanc.
gelidus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 184, ♀. Aleutian Islands.
grœnlandicus Smith; Cress., Proc. Ent. Soc. Phil. ii, 97, ♀. Greenland.
hortorum Linn. (*Apis*); Cress., ibid. 108. Brit.Am. (Eur.)
Howardii Cress., Proc. Ent. Soc. Phil. ii, 99, ♂. Col. Utah, Cala.
hudsonicus Cress., ibid. 92 (= var. *perplexus*).
Huntii Greene, Ann. Lyc. Nat. Hist. N. Y. vii, 172 (= *ternarius*).
hyperboreus Dahlb.; Cress., Proc. Ent. Soc. Phil. ii, 108. Greenland (Eur.).
impatiens Harris; Cress., ibid. 90 (= *virginicus*).
improbus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 186, ♂. Col.
interruptus Greene, Ann. Lyc. Nat. Hist. N. Y. vii, 11, 173 (= *Apathus insularis* ♀).
juxtus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 187, ♀. Col. Nev.
Kirbiellus Curtis; Cress., Proc. Ent. Soc. Phil. ii, 101, ♂ ♀ ☿. Arc.Am.
laboriosus Fabr., Syst. Piez. 352 (= *Apathus*).
lacustris Cress., Proc. Ent. Soc. Phil. ii, 103, ♂ ♀ ☿. Brit.Am. Greenland.
medius Cress., ibid. 97, ☿. Utah?
melanopyge Nyl.; Cress., ibid. 103. Sitka.
mixtus Cress., Proc. Acad. Nat. Sci. Phil. 1878, 186, ♀ ☿. Col.
moderatus Cress. (*modestus* ‖), Proc. Ent. Soc. Phil. ii, 99, 109, ♀. Alaska.
modestus ‖ Cress., ibid. 99 (= *moderatus*).
Morrisonii Cress., Proc. Acad. Nat. Sci. 1878, 183, ♂ ♀ ☿. Col. N.Mex. Nev.
nevadensis Cress., Trans. v, 102; Rep. Wheeler Expl. 728, pl. 34, fig. 5. W.U.S.
occidentalis Greene; Cress., Proc. Ent. Soc. ii, 98, ♂ ♀ ☿. Nev. Cala. Or. Vanc.
oregonensis Cress., Proc. Acad. Nat. Sci. Phil. 1878, 185, ♂. Or.
ornatus Smith; Cress., Proc. Ent. Soc. Phil. ii, 104, ♀. N.Am.
pallidus Cress., ibid. 92 (= var. *pennsylvanicus*).
pennsylvanicus De Geer (*Apis*); Cress., ibid. 94, ♂ ♀ ☿. Can. U.S.
perplexus Cress., ibid. 91, ♂. Brit.Am. U.S.
pleuralis Nyl.; Cress., ibid. 96, ♂ ♀. Sitka.
polaris Curtis; Cress., ibid. 101, ♂ ♀. Arc.Am.
praticola Kirby; Cress., ibid. 106, ♀. Brit.Am.
proximus Cress., ibid. 98 (= var. *Howardii*).
Putnami Cress., Proc. Acad. Nat. Sci. Phil. 1878, 185, ♀. Col.
Ridingsii Cress., ibid. 182, ♀ ☿. Can. U.S.
rufocinctus Cress., Proc. Ent. Soc. Phil. ii, 106, ♂ ☿. Col.
scutellaris Cress., ibid. 96, ♀ ☿. Fla. Tex. Ks.
separatus Cress., ibid. 165, ♂ ♀ ☿. Can. U.S.
sitkensis Nyl.; Cress., ibid. 102, ♂ ♀ ☿. Sitka.
strenuus Cress., ibid. 102, ♂ ♀. Brit.Am.
Suckleyi Greene, Ann. Lyc. Nat. Hist. N. Y. vii, 168 (= *Apathus insularis* ♂).
sylvicola Kirby; Cress., Proc. Ent. Soc. Phil. ii, 106, ♀. Can. Col. Alaska.
ternarius Say; Cress., ibid. 104, ♂ ♀ ☿. Can. U.S.
terricola Kirby; Cress., ibid. 99, ♀ ☿. Can. U.S.
vagans Smith; Cress., ibid. 91, ♂ ♀ ☿. Can. U.S.
vancouverensis Cress., Proc. Acad. Nat. Sci. Phil. 1878, 187, ♂. Vanc.
virginicus Oliv. (*Apis*); Cress., Proc. Ent. Soc. ii, 87, 166, ♂ ♀ ☿. Can. U.S.

APIS Linn.

alpina Linn.; O. Fabr., Faun. Grœnl., 199 (= *Bombus arcticus*).
americanorum Fabr., Syst. Ent. 380 (= *Bombus pennsylvanicus*).
annularis Drury, Insects ii, 71, pl. 37, fig. 7 (= *Polistes*).
carolina Linn., Syst. Nat. i, 959 (= *Bombus*).
elata Fabr., Ent. Syst. Suppl. 274 (= *Apathus*).
fervida Fabr., ibid. 274 (= *Bombus*).
griseocollis De Geer, Ins. iii, 576, pl. 28, fig. 13-14 (= *Xylocopa virginica* ♂).
mellifica Linn., Syst. Nat. i, 955. Can. U.S.
nidulans Fabr., Ent. Syst. Suppl. 274 (= var. *Apathus? elatus*).
noveboracensis Forst., Nov. Spec. Ins. i, 93 (= *Scolia*).
pensylvanica De Geer, Ins. iii, 575, pl. 28, fig. 12 (= *Bombus*).
sericea Forst., Nov. Spec. Ins. i, 91 (= *Agapostemon*).
vespiformis Forst., Nov. Spec. Ins. i, 92 (= *Nomada*).
virginica Drury, Insects i, 96, pl. 43, fig. 1 (= *Xylocopa*).
virginica Oliv., Enc. Méth. Ins. iv, 66 (= *Bombus*).
viridula Fabr., Ent. Syst. ii, 342 (= *Agapostemon nigricornis* ♀).

ADDITIONAL SPECIES.

Family **CYNIPIDÆ.**

RHODITES Hartig.

carolina Ashm., Trans. Am. Ent. Soc. xiv, 148, ♀. N.C.

AMPHIBOLIPS Reinh.

spinosa Ashm., Trans. Am. Ent. Soc. xiv, 141, ♀. Fla.

CALLIRHYTIS Först.

aquaticæ Ashm., Trans. Am. Ent. Soc. xiv, 144, ♀. Fla.
cellæ Ashm., ibid. 141, ♀. Fla.
parvifoliæ Ashm., ibid. 138, ♀. Fla.

ANDRICUS Hartig.

blastophagus Ashm., Trans. Am. Ent. Soc. xiv, 143. Fla.
calycicola Ashm., ibid. 141. Fla.
cinnamomeus Ashm., ibid. 137, ♀. Fla.
cryptus Ashm., ibid. 145, ♀. Fla.
difficilis Ashm., ibid. 143, ♀. N.C.
femoratus Ashm., ibid. 141, ♀. Fla.
? floridanus Ashm., ibid. 137, ♂ ♀. Fla.

infuscatus Ashm., ibid. 144, ♀. Fla.
saltatus Ashm. (*Trisolenia*), ibid. 142, ♀. Fla.
stropus Ashm., ibid. 136, ♀. Fla.
topiarius Ashm., ibid. 136, ♀. Fla.

ACRASPIS Mayr.

echini Ashm., Trans. Am. Ent. Soc. xiv, 140, ♀. Fla.
lanæglobuli Ashm., ibid. 139, ♀. Fla.
vaccinii Ashm., ibid. 136, ♀. N.C. Fla.

BIORHIZA Westw.

mellea Ashm., Trans. Am. Ent. Soc. xiv, 138, ♀. Fla.

DRYOPHANTA Först.

carolina Ashm., Trans. Am. Ent. Soc. xiv, 145, ♀. N.C.
cinereæ Ashm., ibid. 144. Fla.
texana Ashm., ibid. 145, ♀. Tex.

NEUROTERUS Hartig.

laurifoliæ Ashm., Trans. Am. Ent. Soc. xiv, 140, ♀. Fla.
longipennis Ashm., ibid. 140, ♀. Fla.

AULAX Hartig.

Harringtoni Ashm. Trans. Am. Ent. Soc. xiv, 146, ♀. Can.

BASSETTIA Ashm.

Ashmead, Trans. Am. Ent. Soc. xiv, 146 (1887).

floridana Ashm., Trans. Am. Ent. Soc. xiv, 147, ♀. Fla.

EUMAYRIA Ashm.

Ashmead, Trans. Am. Ent. Soc. xiv, 147 (1887).

floridana Ashm., Trans. Am. Ent. Soc. xiv, 147, ♂ ♀. Fla.

SOLENOZOPHERIA Ashm.

Ashmead, Trans. Am. Ent. Soc. xiv, 149 (1887).

vaccinii Ashm., Trans. Am. Ent. Soc. xiv, 149, ♀. Fla.

ALLOTRIA Westw.

brassicæ Ashm., Bull. 14, Div. Ent. U. S. Dept. Agric. 14, ♂ ♀. Fla.
megouræ Ashm., ibid. 19, ♀. Fla.

COPTEREUCOLIA Ashm.

Ashmead, Trans. Am. Ent. Soc. xiv, 151 (1887).

americana Ashm., Trans. Am. Ent. Soc. xiv, 152, ♀. Fla.

KLEIDOTOMA Westw.

americana Ashm., Trans. Am. Ent. Soc. xiv, 152, ♀. Can.

HEXAPLASTA Först.

maculipes Ashm., Trans. Am. Ent. Soc. xiv, 152, ♀. Can,

DIMICROSTROPHIS Ashm.

Ashmead, Trans. Am. Ent. Soc. xiv, 152 (1887).

xystiformis Ashm., Trans. Am. Ent. Soc. xiv, 153, ♂. Fla.

MACROCEREUCOLIA Ashm.

Ashmead, Trans. Am. Ent. Soc. xiv, 153 (1887).

longicornis Ashm., Trans. Am. Ent. Soc. xiv, 153, ♂. Fla.

EUCOILA Westw.

rubripes Ashm., Trans. Am. Ent. Soc. xiv, 153, ♂. Fla.
siphonophoræ Ashm., Bull. 14, Div. Ent. U. S. Dept. Agric. 21, ♂. Fla.

EUCOILIDEA Ashm.

Ashmead, Trans. Am. Ent. Soc. xiv, 154 (1887).

canadensis Ashm., Trans. Am. Ent. Soc. xiv, 154, ♀. Can.
longicornis Ashm., ibid. 154, ♂. Fla.

THYREOCERA Ashm.

Ashmead, Trans. Am. Ent. Soc. xiv, 154 (1887).

nigrifemora Ashm., Trans. Am. Ent. Soc. xiv, 155, ♀. Can.

OMALASPIS Giraud.

Giraud, Verh. z.-b. Ges. Wien, x, 155 (1860).

floridanus Ashm., Trans. Am. Ent. Soc. xiv, 155, ♂. Fla.

FIGITES Latr.

floridanus Ashm., Trans. Am. Ent. Soc. xiv, 155, ♀. Fla.

ASPICERA Dahlb.

Dahlbom, Onychia och Callaspidia, 6 (1842).

albihirta Ashm., Trans. Am. Ent. Soc. xiv, 156, ♀. Fla.
similis Ashm., ibid. 156, ♀. Fla.

SOLENASPIS Ashm.

Ashmead, Trans. Am. Ent. Soc. xiv, 155 (1887).

hyalinipennis Ashm., Trans. Am. Ent. Soc. xiv, 155, ♀. Fla.

ACOTHYREUS Ashm.

Ashmead, Trans. Am. Ent. Soc. xiv, 157 (1887).

osceola Ashm., Trans. Am. Ent. Soc. xiv, 157, ♂. Fla.

ANACHARIS Dalm.

melanoneura Ashm., Trans. Am. Ent. Soc. xiv, 158, ♂. Fla.

MELANIPS Hal.

Haliday, Ent. Mag. iii, 161 (1835).

iowensis Ashm., Trans. Am. Ent. Soc. xiv, 158, ♀. Iowa.

Family BRACONIDÆ.

CHELONUS Jur.

filicornis Cam., Proc. Manch. Lit. Philos. Soc. xxvi (sep. p. 19). N.Mex.

APANTELES Först.

crambi Weed, Bull. Ill. St. Labr. Nat. Hist. iii, 8, ♂ ♀. Ill.
ornigis Weed, ibid. 6, ♂ ♀. Ill.
sarrothripæ Weed, 6, ♂ ♀. Ill.

MICROPLITIS Först.

mamestræ Weed, Bull. Ill. St. Labr. Nat. Hist. iii, 2, ♀. Ill.

Family CHALCIDIDÆ

ENCYRTUS Dalm.

anasæ Ashm., Bull. 14, Div. Ent. U. S. Dept. Agric. 23, ♀. Fla.
aphidiphagus Ashm., ibid. 14, ♀. Fla.
?megouræ Ashm., ibid. 19, ♂ ♀. Fla.

ISODROMUS Howard.

iceryæ Howard, Rep. Ent. U. S. Dept. Agric. 1886, p. 488, pl. iii, fig. 1, ♀. Cala.

PACHYNEURON Walk.

allographtæ Ashm., Bull. 14, Div. Ent. U. S. Dept. Agric. 15, ♂ ♀. Fla.
aphidivora Ashm., ibid. 14, ♀. Fla.

Family PROCTOTRUPIDÆ.

ATELEOPTERUS Först.

nubilipennis Ashm., Ent. Am. iii, 97, ♀. Fla.

HOLOPEDINA Först.

nubilipennis Ashm., Ent. Am. iii, 97, ♀. Fla.

CERAPHRON Jur.

macroneurus Ashm., Ent. Am. iii, 97, ♂. Fla.

TRICHOSTERES Först.

floridanus Ashm., Ent. Am. iii, 98. Fla.

LYGOCERUS Först.

floridanus Ashm. (*Chirocerus*), Proc. Ent. Soc. A. N. S. 1881, xxxiv, ♂ ♀. Fla.

ADRITOMUS Först.

rufiventris Ashm., Ent. Am. iii, 98, ♀. Fla.

MEGASPILUS Westw.

hyalinipennis Ashm., Ent. Am. iii, 98, ♀. Fla.

PROCTOTRUPES Latr.

melliventris Ashm., Ent. Am. iii, 99, ♂. Fla.

THORON Hal.

pallipes Ashm., Ent. Am. iii, 99, ♀. Fla.

ACOLUS Först.

rubriclavus Ashm., Ent. Am. iii, 99, ♀. Fla.

BÆONEURA Först.

cinctiventris Ashm., Ent. Am. iii, 99, ♀. Fla.
floridana Ashm., ibid. 99, ♂ ♀. Fla.

XENOMERUS Walk.

rubicola Ashm., Ent. Am. iii, 100, ♂. Fla.

TELEAS Latr.

dolichocerus Ashm., Ent. Am. iii, 100, ♂. Fla.
infuscatipes Ashm., ibid. 100, ♂ ♀. Fla.
sphingis Ashm., Bull. 14, Div. Ent. U. S. Dept. Agric. 18. Fla.

PROSACANTHA Nees.

americana Ashm., Ent. Am. iii, 100, ♀. Fla.
fuscipennis Ashm., ibid. 117, ♂. Fla.
macrocera Ashm., ibid. 117, ♂. Fla.
mandibularis Ashm., ibid. 117, ♀. Fla.
minutissima Ashm., ibid. 117, ♀. Fla.

TRISACANTHA Ashm.

Ashmead, Ent. Am. iii, 117 (1887).

americana Ashm., Ent. Am. iii, 117, ♂. Fla.

TELENOMUS Hal.

anasæ Ashm., Bull. 14, Div. Ent. U. S. Dept. Agric. 23, ♂ ♀. Fla.
brochymenæ Ashm., Fla. Agric. iv, 1881, 193; Ent. Am. iii, 118. Fla.

ANTERIS Först.

elongata Ashm., Ent. Am. iii, 118, ♂. Fla.

BARYCONUS Först.

floridanus Ashm., Ent. Am. iii, 118. Fla.

HADRONOTUS Först.

floridanus Ashm., Ent. Am. iii, 118, ♀. Fla.

SCELIO Latr.

fuscipennis Ashm., Ent. Am. iii, 119, ♀. Fla.
hyalipennis Ashm., ibid. 119, ♂ ♀. Fla.

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* The previous pages of this list had already been printed, when a copy of this paper was received from the author. The following species are described therein: *Limneria elegans* ♀, p. 40; *Limneria teratis* ♀, p. 40; *Pimpla minuta* ♂, p. 41; *Cremastus Forbesi* ♀, p. 42; *Clinocentrus americanus* ♂ ♀, p. 43; all from Illinois.

ABBREVIATIONS.

Abbreviations used in the references to Serials.

Abh. Nat. Ges. Halle.—Abhandlungen der naturforschenden Gesellschaft zu Halle (1853, *et seqq.*).

Act. Ac. L. C.—Acta nova physico-medica Academiæ Cæsareæ Leopoldino-Carolinæ Naturæ Curiosorum (Erlangen, Breslau, Bonn, and Jena, 1818, *et seqq.*).

Am. Ent.—The American Entomologist, an illustrated Magazine of Popular and Practical Entomology (vols. 1–3, St. Louis and New York, 1868–70).

Am. Nat.—The American Naturalist, a popular illustrated magazine of Natural History (Salem and Boston, 1867, *et seqq.*).

Ann. Lyc. Nat. Hist. N. Y.—Annals of the Lyceum of Natural History (11 vols., New York, 1823–76).

Ann. Mus. Genov.—Annali del Museo Civico di Storia Naturale (Genova, 1870, *et seqq.*)

Ann. Mus.—Annales du Muséum d'Histoire Naturelle (20 vols., Paris, 1802–13).

Ann. Nat. Hist.—Annals of Natural History (5 vols., London, 1838–40).

Ann. Mag. Nat. Hist.—The Annals and Magazine of Natural History (London, 1841, *et seqq.*).

Ann. Sci. Nat.—Annales des Sciences Naturelles (Paris, 1824, *et seqq.*).

Ann. Soc. Ent. Fr.—Annales de la Société Entomologique de France (Paris, 1832, *et seqq.*).

Ann. Soc. Linn. de Lyon.—Annales de la Société Linnéenne de Lyon (1836, *et seqq.*).

Ann. Soc. Nat. Modena.—Annuario della Societa dei Naturalisti Modena (1866, *et seqq.*).

Berl. Ent. Zeits.—Berliner entomologische Zeitschrift (Berlin, 1857, *et seqq.*).

Berl. Mag.—Der Gesellschaft naturforschender Freunde zu Berlin Magazin für die neuesten entdeckungen in der Gesammten Naturkunde (8 vols., Berlin, 1807–18).

Bost. Jour.—Boston Journal of Natural History, containing papers and communications read to the Boston Society of Natural History (7 vols., 1834–63).

Bull. Ac. Brux.—Bulletin de l'Académie Royale des Sciences de Bruxelles (Brussels, 1832, *et seqq.*).

Bull. Brookl. Ent. Soc.—Bulletin of the Entomological Society of Brooklyn (Brooklyn, N. Y., 1878, *et seqq.*).

Bull. Div. Ent. U. S. Dept. Agric.—Bulletin of the Division of Entomology United States Department of Agriculture, Nos. 1–15 (Washington, 1883–87).

Bull. v, Ent. Bur. U. S. Dept. Agric.—Bulletin No. 5, of the Bureau [Division?] of Entomology, United States Department of Agriculture (Washington, 1885).

Bull. Ill. St. Labr. Nat. Hist.—Bulletin of the Illinois State Laboratory of Natural History (Normal, Ill. 1876, *et seqq.*).

Bull. Soc. Vaud. Sc. Nat.—Bulletin de la Société Vaudoise des Sciences Naturelles (Lausanne, 1842, *et seqq.*).

Bull. U. S. Ent. Com.—Bulletin of the United States Entomological Commission, Nos. 1-7 (Washington, 1877-81).

Bull. U. S. Geo. Surv.—Bulletin of the United States Geological and Geographical Survey, Department of the Interior, vol. v (Washington, 1879).

Can. Ent.—The Canadian Entomologist (London, Ontario, 1869, *et seqq.*).

Compt.-rend. Soc. Ent. Belg.—Compte-rendus des Séances Sociétè Entomologique de Belgique (Brussels, 1870, *et seqq.*).

Dict. Class. Hist. Nat.—Dictionnaire Classique d'Histoire Naturelle (17 vols., Paris, 1822-31).

Dict. pitt. Hist. Nat.—Dictionnaire pittoresque d'Histoire Naturelle, etc. (9 vols., Paris, 1833-39).

Edinb. Enc.—Brewster's Edinburgh Encyclopædia (Entomology in vol. ix, Edinburgh, 1815).

Enc. Meth.—Encyclopédie Méthodique (10 vols., Paris, 1789-1825).

Ent. Am.—Entomologica Americana, a monthly journal devoted to Entomology in general (Brooklyn, N. Y., 1885, *et seqq.*).

Entom.—Newman's Entomologist (London, 1840-42, and 1864, *et seqq.*).

Ent. Mag.—The Entomological Magazine (5 vols., London, 1833-38).

Ent. Month. Mag.—The Entomologists' Monthly Magazine (London, 1864, *et seqq.*).

Germ. Zeits. Ent.—Germar's Zeitschrift für die Entomologie (5 vols., Leipzig, 1839-44).

Guer. Mag. Zool.—Guérin-Méneville's Magazin de Zoologie (18 vols., Paris, 1831-48).

Ill. Rep.—Reports of the State Entomologist on the Noxious and Beneficial Insects of the State of Illinois. 1-14 (Walsh, 1, LeBaron 2-5, Thomas 6-11, Forbes 12-14, 1868-85).

Jour. Ent.—The Journal of Entomology, descriptive and geographical (2 vols., London, 1862-64).

Jour. Linn. Soc. Lond.—Journal of the Linnean Society; Zoology (London, 1857, *et seqq.*).

Lond.-Edinb. Phil. Mag.—The London and Edinburgh Philosophical Magazine and Journal of Science (16 vols., London, 1832-40).

Loud. Mag. Nat. Hist.—Loudon's Magazine of Natural History (9 vols., London, 1829-36). New series, by Charlesworth (4 vols., London, 1837-40).

Mem. Soc. Linn.—Memoires Société Linnéenne du Nord de la France (Amiens, 1866, *et seqq.*).

Mo. Rep.—Annual Reports of the Noxious, Beneficial and other Insects of the State of Missouri (see Riley, in titles of separate works).

Nat. Can.—Le Naturaliste Canadien (Cap Rouge, 1868, *et seqq.*).

Nat. Hist. Rev.—The Natural History Review, a quarterly Journal of Science (5 vols., Dublin, 1854-58).

Nat. Tids.—Naturhistorisk Tidsskrift (Copenhagen, 1837–49, and 1861, *et seqq.*).

N. Am. Ent.—The North American Entomologist (1 vol., Buffalo, N. Y., 1879–80).

Nouv. Dict. Hist. Nat.—Nouveau Dictionnaire d'Histoire Naturelle (36 vols., Paris, 1816–19).

Nouv. Mem. Ac. Brux.—Nouveaux Mémoires de l'Académie Royale des Sciences et belles-lettres de Bruxelles (Brussels, 1827, *et seqq.*).

Prac. Ent.—The Practical Entomologist (Philadelphia, published by the Entomological Society, 2 vols., 1865–67).

Ofv.—Ofversigt af Kongliga Svenska Vetenskaps-Akademiens Förhandlingar (Stockholm, 1845, *et seqq.*).

Proc. Acad. Nat. Sci. Phil.—Proceedings of the Academy of Natural Sciences of Philadelphia (1841, *et seqq.*).

Proc. Bost. Soc. Nat. Hist.—Proceedings of the Boston Society of Natural History (Boston, 1841, *et seqq.*).

Proc. Cala. Acad. Sci.—Proceedings of the California Academy of Sciences (San Francisco, 1854, *et seqq.*).

Proc. Dav. Acad. Nat. Sci.—Proceedings of the Davenport Academy of Natural Sciences (Davenport, Iowa, 1867, *et seqq.*).

Proc. Ent. Sec. A. N. S.—Proceedings of the Monthly Meetings of the Entomological Section of the Academy of Natural Sciences (Philadelphia, 1879, *et seqq.*).

Pr., Proc., or Proc. Ent. Soc. Phil.—Proceedings of the Entomological Society of Philadelphia (6 vols., 1861–67).

Proc. Essex Inst.—Proceedings of the Essex Institute (Salem, Mass., 1848, *et seqq.*).

Proc. Manch. Lit. Philos. Soc.—Proceedings of the Manchester Literary and Philosophical Society (Manchester, Eng., 1857, *et seqq.*).

Proc. Neb. Assoc. Adv. Sci.—Proceedings of the Nebraska Association for the advancement of Science (North Platte, Neb. This publication appears to be confined to two or three short papers by La Munyon, published in 1877).

Proc. U. S. Nat. Mus.—Proceedings of the United States National Museum (Washington, D. C., 1878, *et seqq.*).

Proc. Zool. Soc. Lond.—Proceedings of the Zoological Society of London (1833, *et seqq.*).

Psyche.—Psyche: organ of the Cambridge Entomological Club (Cambridge, Mass., 1874, *et seqq.*).

Rep. Ent. Soc. Ont.—Reports of the Entomological Society (of the province) of Ontario (Toronto, Canada, 1871, *et seqq.*).

Rep. Ent. U. S. Dept. Agric.—Reports of the Entomologist of the United States Department of Agriculture for the years 1878, 1879, 1880, 1881–1882, 1883, 1884, 1885 and 1886 (Washington, D. C.).

Rep. U. S. Ent. Com.—Reports 1–4 of the United States Entomological Commission Department of the Interior (Washington, D. C., 1878–85).

Rep. Wheeler Expl.—Report upon Geographical and Geological Explorations and Surveys West of the 100th Meridian, in charge of Lieut. G. M. Wheeler, vol. v, Zoology (Washington, D. C., 1875).

Rev. Zool.—Revue Zoologique, par Guerin-Méneville (11 vols., Paris, 1838–48).

Rev. Mag. Zool.—Revue et Magazin de Zoologie, etc., par Guérin-Méneville (Paris, 1849, *et seqq.*).

Schr. phys.-oken Ges. zu Konigsb.—Schriften der Koniglichen Physikalisch-Okonomischen Gesellschaft zu Königsberg (1860, *et seqq.*).

Sill. Am. Jour.—The American Journal of Sciences and Arts, conducted by Silliman, etal. (New Haven, 1818, *et seqq.*).

Sitz. Akad. Wissen.—Sitzungsberichte der Kaiseriichen Akademie der Wissenschaften (Vienna, 1848, *et seqq.*).

Stett. Ent. Zeits.—Stettiner entomologische Zeitung (Stettin, 1840, *et seqq.*).

Sv. Ak. Handl.—Kongliga Svenska Vetenskaps Akademiens Handlingar (Stockholm, 1780, *et seqq.*).

Termes. Fuzet.—Termeszetrajzi Füzetek (Budapest, 1877, *et seqq.*).

Tr., Trans., or **Trans. Am. Ent. Soc.**—Transactions of the American Entomological Society (Philadelphia, 1867, *et seqq.*).

Trans. Ent. Soc. Lond.—Transactions of the Entomological Society of London (1834, *et seqq.*).

Trans. Linn. Soc. Lond.—Transactions of the Linnean Society of London (1791, *et seqq.*).

Trans. St. Louis Acad.—Transactions of the St. Louis Academy of Science (St. Louis, Mo., 1856, *et seqq.*).

Verh. pr. Rheinl.—Verhandlungen des naturhistorischen Verein der preussischen Rheinlande und Westphalens (Bonn, 1844, *et seqq.*).

Verh. zool.-bot. Ges. Wien.—Verhandlungen des zoologisch-botanischen Vereins in Wien; afterwards, Kaiserlich-Königlische zoologisch-botanische Gesellschaft (Vienna, 1852, *et seqq.*).

Web. u. Mohr Beitr.—Archiv für die systematische Naturgeschichte (edited by F. Weber and M. H. Mohr, Leipsic, 1804); continued under the title: Beiträge zur Naturkunde, etc. (2 vols., Kiel, 1805 and 1810).

Wiegm. Archiv.—Archiv für Naturgeschichte (Berlin, 1835, *et seqq.*).

Wien. Ent. Zeit.—Wiener Entomologische Zeitung (Vienna, 1882, *et seqq.*).

Zeits. Ges. Nat.—Zeitschrift für die gesammten Naturwissenschaften. Herausgegeben von dem naturw. Vereine für Sachsen und Thüringen (Halle, 1843, *et seqq.*).

Zool. Jour.—The Zoological Journal (5 vols., London, 1825–35).

Zool. Mag.—Zoological Magazine, or Journal of Natural History, being a series of miscellaneous articles, original and translated, on interesting subjects in Zoology (1 vol., London, 1833).

Zoologist.—The Zoologist, a popular miscellany of Natural History, etc. (London, 1843, *et seqq.*).

Zool. Jahr.—Zoologische Jahrbücher (Jena, 1886, *et seqq.*).

Abbreviations of Authors' names and titles of Separate Works.

Aaron (S. F.).—In Serials, see *ante* p. 315.

Andre, Hym. Eur.—André (Ed.), Species des Hyménoptéres d'Europe et d'Algerie (vol. 1, Paris, 1879).

Ashm.—Ashmead (W. H.).—In Serials, see *ante* p. 315.

Ashm., Orange Ins.—Ibid. Orange Insects; a Treatise on the Injurious and Beneficial Insects found on the Orange Trees of Florida (Jacksonville, Fla., 1880).

Bass.—Bassett (H. F.).—In Serials, see *ante* p. 316.

Beauv., Ins. Afr. et Am.—Beauvois (P. de), Insects recueillis en Afrique et Amerique, etc. (Paris, 1805).

Blake (C. A.)—In Serials, see *ante* p. 316.

Blanch., Hist. Ins.—Blanchard (E.), Histoire Naturelle des Insectes (3 vols., Paris, 1840–41).

Br.-Zadd.—Brischke (C. J. A.) and Zaddach (G.).—In Serials, see *ante* p. 316.

Brulle, Hym.—Brullé (A.), in St. Fargeau's Histoire Naturelle des Insectes, Hyménoptères (vol. iv, by Brullé, Paris, 1846).

Buck.—Buckley (S. B.).—In Serials, see *ante* p. 316.

Burm.—Burmeister (H.).—In Serials, see *ante* p. 317.

Burque (F. X.).—In Serials, see *ante* p. 316.

Cam.—Cameron (P.).—In Serials, see *ante* p. 317.

Cam. Biol. Centr.-Am.—Ibid. Biologia Centrali-Americana, Hymenoptera (London, 1881–87).

Cam, Mon. Brit. Phy. Hym.—Ibid., a Monograph of the Phytophagous Hymenoptera (vols. 1–2, London, 1882–85).

Cook, Notes on Inj. Ins.—Cook (A. J.), Notes on Injurious Insects from the Entomological Laboratory of Michigan Agricultural College (sometimes quoted as Cook's Practical Entomology. No date, probably 1884).

Costa, Faun. di Napoli.—Costa (A), Fauna di regno di Napoli (Naples, 1859).

Couper (W).—In Serials, see *ante* p. 317.

Cress.—Cresson (E. T.).—In Serials, see *ante* p. 317.

Curtis, Brit. Ent.—Curtis (J.), British Entomology (16 vols., London, 1823–40).

Curtis, Ross' 2d Voy.—Ibid. Descriptions of the Insects brought home by Com. Jas. Clark Ross, 2d Voyage, Appendix Natural History, Hymenoptera pp. lxi–lxiv (London, 1835).

Dahlb. Consp. Tenthr.—Dahlbom (A. G.), Conspectus Tenthredinidum, Siricidum et Oryssinorum Scandinaviæ (Lund, 1835).

Dahlb., Dispos.—Ibid. Dispositio methodica specierum Hymenoptorum secundum familias Insectorum naturales. Particula secunda (Lund, 1845).

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Abbreviations of Localities.

Ala.—Alabama.
Aleut. Is.—Aleutian Islands.
Arc. Am.—Arctic America.
Ariz.—Arizona.
Ark.—Arkansas.
Brit. Am.—British America.
Brit. Col.—British Columbia.
Bor. Am.—Boreal America.
Can.—Canada.
Cala.—California.
Car.—Carolina.
Col.—Colorado.
Ct.—Connecticut.
Dak.—Dakota Territory.
D. C.—District of Columbia.
Del.—Delaware.
E. States.—Eastern States.
E. and M. States.—Eastern and Middle States.
Eur.—Europe.
Fla.—Florida.
Ga.—Georgia.
Hud. Bay.—Hudson Bay Territory.
Ill.—Illinois.
Ind.—Indiana.
Ks.—Kansas.
Ky.—Kentucky.
La.—Louisiana.
Labr.—Labrador.
L. Cala.—Lower California.
Mass.—Massachusetts.
Md.—Maryland.
Me.—Maine.
Mex.—Mexico.
Mich.—Michigan.
Miss.—Mississippi.
Mo.—Missouri.
Mont.—Montana.
N. Am.—North America.
N. C.—North Carolina.
Neb.—Nebraska.
N. E. States.—New England States.
Nev.—Nevada.
N. H.—New Hampshire.
N. J.—New Jersey.
N. Mex.—New Mexico.
N. Scotia.—Nova Scotia.
N. W. Terr.—North West Territory.
Or.—Oregon.
Pa.—Pennsylvania.
S. Am.—South America.
S. C.—South Carolina.
S. U. S.—Southern United States.
Tenn.—Tennessee.
Tex.—Texas.
U. S.—United States.
Va.—Virginia.
Vanc.—Vancouver Island.
Vt.—Vermont.
Wash. Terr.—Washington Territory.
W. I.—West Indies.
Wisc.—Wisconsin.
W. U. S.—Western United States.
W. Va.—West Virginia.
Wym.—Wyoming Territory.

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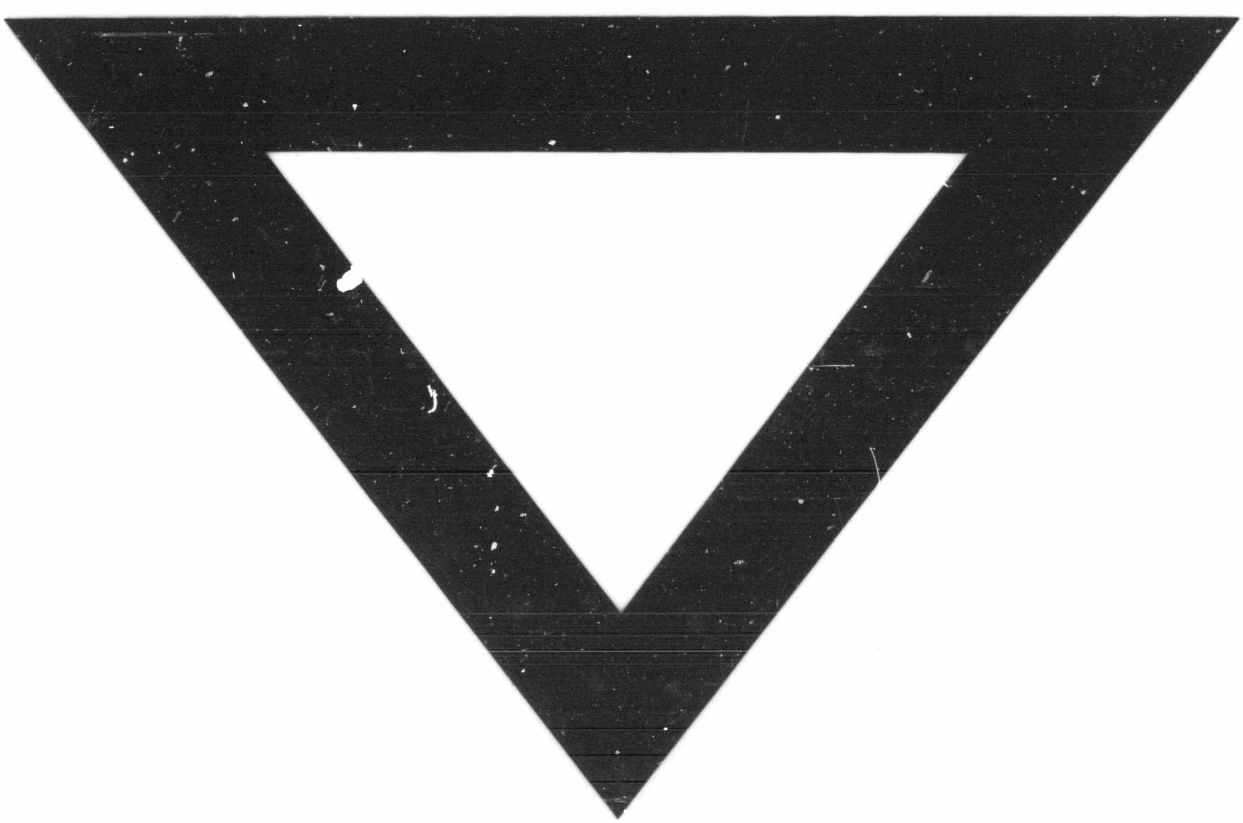
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