II. THE GENOTYPES OF THE SAWFLIES AND WOODWASPS, OR THE SUPERFAMILY TENTHREDINOIDEA.

BY

S. A. ROHWER,
Agent and Expert.

Issued March 4, 1911.

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U. S. DEPARTMENT OF AGRICULTURE,
BUREAU OF ENTOMOLOGY.
L. O. HOWARD, Entomologist and Chief of Bureau.

TECHNICAL PAPERS ON MISCELLANEOUS
FOREST INSECTS.

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LETTER OF TRANSMITTAL.

U. S. Department of Agriculture,
Bureau of Entomology,
Washington, D. C., October 22, 1910.

Sir: I have the honor to transmit herewith a manuscript entitled "The Genotypes of the Sawflies and Woodwasps, or the Superfamily Tenthredinoidea." These insects belong to this superfamily of the order Hymenoptera and include some of the important enemies of North American forest trees. The true sawflies, in their larval stage, destroy the foliage of coniferous and other trees and forest growths and some of them are exceedingly destructive, as, for example, the larch sawfly, which feeds upon the foliage of the larch timber of Europe and North America. The woodwasps, in their larval stage, bore in the wood of dying and dead standing and felled trees, causing defects and rapid deterioration.

In addition to the large number of species which are native to this country, there are some very destructive species which have found their way here from other countries, so that it is of the greatest importance to know all of the species and to guard against further introductions.

Both the systematic and economic knowledge of these insects is notably limited, especially as regards North American species, and it is of the utmost importance, as a basis for the best results in investigations of these insects in their relation to economic problems, that considerable purely technical work should be done on them.

Mr. Rohwer has been engaged to work on the sawflies on account of his extended expert knowledge of this group of insects and the work he had done on them before he came to the Bureau. As a collaborator of this Bureau, but at his own expense, Mr. Rohwer visited the principal collections of Europe in the summer of 1909 to study the types of described species and genera, all of which puts him in a position to carry on the research work assigned to him in the most thorough manner. Mr. Rohwer has found it necessary to devote considerable time to preliminary work on the entire group and on the genera of the world in order to have an authoritative basis for the further work of a monographic nature on the more
important groups represented by species which depredate on trees and forest growths. The present paper includes the partial results of his preliminary work, which has been prosecuted with such energy as to leave little more to be done in this line. Mr. Rohwer's future papers will deal with special groups which will be treated in a monographic manner in order that a basis may be formed for special papers on the economic features.

I recommend the publication of this manuscript as Technical Series No. 20, Part II, of the Bureau of Entomology.

Respectfully,

L. O. Howard,
Chief of Bureau.

Hon. James Wilson,
Secretary of Agriculture.
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TECHNICAL PAPERS ON MISCELLANEOUS FOREST INSECTS.

II. THE GENOTYPES OF THE SAWFLIES AND WOODWASPS, OR THE SUPERFAMILY TENTHREDINOIDEA.

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INTRODUCTION.

The following paper deals with the sawflies and horntails and comprises the superfamilies Tenthredinoidea and Siricoidea of Ashmead's classification; the Chalastogastra of Rev. F. W. Konow; the Phyllophaga (=Phytophaga) and Xylophaga of Cresson and authors; or the genera Tenthredo and Sirex of Linnaeus. It is divided into two parts; the first part is an alphabetical catalogue of the generic names used in Tenthredinoidea and Siricoidea with their type species; the second part is composed of descriptions of the briefly characterized genera and species described by the late William H. Ashmead.

An effort has been made to include all the generic names used in these two superfamilies. In case of any omissions the author will be most pleased to have these called to his notice.

AN ALPHABETICAL CATALOGUE OF THE GENERIC NAMES USED IN THE TENTHREDINOIDEA, WITH THEIR TYPE SPECIES.

THE DESIGNATION OF THE TYPE SPECIES OF GENERA.

The necessity of having the types of genera fixed is now recognized by almost every working systematic entomologist. In the designation of the following genotypes the rulings and recommendations of the International Commission on Zoological Nomenclature have been followed. As these rulings and recommendations have never been finally codified, and there are in a few cases apparently contradictory statements, the personal equation has entered into

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the interpretation to some extent. In all such cases an effort is
made to follow the consensus of opinion. Article 2, page 11, of the
International Code of Zoological Nomenclature as applied to medi-
cine\(^a\) says: "The scientific designation of animals is uninominal
for subgenera and all higher groups, binominal for species, and
trinominal for subspecies." Does this mean that a genus can be
founded without included species? In article 30, page 26, and the
correction in Science for October 18, 1907, pages 521–522, it is stated
that a genus must have a type and the type must be an included
species. In this paper a genus is considered to be without standing
until it contains a species; and genera which were founded without
species take the first species placed in them as the type and date
from the time when that species was placed in them. In such
cases the name of the first author of the genus is given first in paren-
theses, and, following the parenthesis, the name of the author who
first included a species.\(^b\)

With the exception of monobasic genera the first designation of
genotypes in Tenthredinoidea and Siricoidea was done by Latreille
in 1810.\(^c\) This has been definitely ruled on by the International
Commission on Zoological Nomenclature as follows:

The Designation of Genotypes by Latreille 1810.—The "Table des genres avec
l'indication de l'espèce qui leur sert de type" in Latreille's (1810) "Considérations
Générales" should be accepted as designation of types of the genera in question.\(^d\)

The next entomologist to fix the types of genera was John Curtis,
in his British Entomology, which was published from 1824 to 1839.
In this work Curtis says "type of the genus," which makes it very
evident that the author endeavored to fix the types of the genera
he treated.

J. O. Westwood, in his Synopsis of the Genera of British Insects,\(^e\)
gives after each genus what he calls a "typical species."\(^f\) In most
cases this species can be taken as the type of the genus in question,
and in many it is the first indication of the fixing of a type for many
of the genera. Inasmuch as the International Commission on
Zoological Nomenclature\(^g\) has said "the meaning of the expression
'select type' is to be rigidly construed; mention of a species as an
illustration or example of a genus does not constitute a selection of

\(^a\) Bul. no. 24, Hygienic Laboratory, Public Health and Marine-Hospital Service
of United States, September, 1905.

\(^b\) See synonyms of Hartigia Schiodte and Boie, p. 80.

\(^c\) Considérations Générales sur l'Ordre Naturel des Animaux composant les Classes
des Crustacés, des Arachnides et des Insectes, Paris, 1810.

\(^d\) Science, n. s. vol. 31, no. 787, p. 150, January 28, 1910.

\(^e\) Published as an appendix to "An Introduction to the Modern Classification of

\(^f\) Synopsis, p. 1, footnote.

\(^g\) Science, n. s. vol. 26, no. 668, p. 521, October 18, 1907.
a type,” the “typical species” of Westwood are not given as the types of genera except in those cases where no typo has been given and the species given by Westwood can be the genotype according to the rules. In the following list, however, the words “Westwood 1840” are placed after the genotypes of certain genera, for the convenience of the student, should any ruling be given on these “typical species.”

With the exception of a few types designated by Brullé and Shipp, few genotypes were named except in the works of the two American writers Ashmead and MacGillivray.

It was hoped to verify every reference given, but in some few cases this was not possible. In such cases the reference is that given by Dalla Torre. The original descriptions of the following genera have not been seen: Xiphiaura Fallén, Hybonotus Klug, Nycteridium Fischer-Waldheim, Pompholyx Freymuth.

RULES OF ZOOLOGICAL NOMENCLATURE FOR THE DESIGNATION OF TYPE SPECIES OF GENERA.

The ruling of the International Commission on Zoological Nomenclature is reprinted here for ready reference. Some of the recommendations which do not deal with any cases found in Tenthredinoidea and which are not of general importance have been omitted.

Art. 30. The designation of type species of genera shall be governed by the following rules (a–g), applied in the following order of precedence:

I. Cases in which the generic type is accepted solely upon the basis of the original publication.

(a) When in the original publication of a genus, one of the species is definitely designated as type, this species shall be accepted as type regardless of any other considerations. (Type by original designation.)

(b) If, in the original publication of a genus, typicus or typus is used as a new specific name for one of the species, such use shall be construed as “type by original designation.”

(c) A genus proposed with a single original species takes that species as its type. (Monotypical genera.)

(d) If a genus, without originally designated (see a) or indicated (see b) type, contains among its original species one possessing the generic name as its specific or sub-specific name, either as valid name or synonym, that species or subspecies becomes ipso facto type of the genus. (Type by absolute tautonomy.)

II. Cases in which the generic type is not accepted solely upon basis of the original publication:

(e) The following species are excluded from consideration in selecting the types of genera:

(a) Species which were not included under the generic name at the time of its original publication.

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c See Science, n. s. vol. 26, no. 698, pp. 521–522, October 18, 1907.
(β) Species which were *species inquirenda* from the standpoint of the author of the generic name at the time of its publication.

(γ) Species which the author of the genus doubtfully referred to it.

(δ) In case a generic name without originally designated type is proposed as a substitute for another generic name, with or without type, the type of either, when established, becomes *ipso facto* type of the other.

(ε) If an author, in publishing a genus with more than one valid species, fails to designate (see α) or to indicate (see β, δ) its type, any subsequent author may select the type, and such designation is not subject to change. (Type by subsequent designation.)

The meaning of the expression "select a type" is to be rigidly construed. Mention of a species as an illustration or example of a genus does not constitute a selection of a type.

III. Recommendations.—In selecting types by subsequent designation, authors will do well to govern themselves by the following recommendations:

(h) In the case of Linnæan genera select as type the most common or the medicinal species.

(i) If a genus, without designated type, contains among its original species one possessing as a specific or subspecific name, either as valid name or synonym, a name which is virtually the same as the generic name, or of the same origin or same meaning, preference should be shown to that species in designating the type, unless such preference is strongly contra-indicated by other factors. (Type by virtual tautonomy.)

(k) If some of the original species have later been classified in other genera, preference should be shown to the species still remaining in the original genus. (Type by elimination.)

(n) Show preference to the best described, best figured, best known, or most easily obtainable species, or to one of which a type specimen can be obtained.

(o) Show preference to a species which belongs to a group containing as large a number of the species as possible.

(g) All other things being equal, show preference to a species which the author of the genus actually studied at or before the time he proposed the genus.

(r) In case of writers who habitually place a certain leading or typical species first as "chef de file," the others being described by comparative reference to this type, this fact should be considered in the choice of the type species.

(s) In case of those authors who have adopted the "first species rule" in fixing generic types, the first species named by them should be taken as types of their genera.

(t) All other things being equal, page precedence should obtain in selecting a type.

**CATALOGUE.**

The various genera accredited to Jurine (Nouv. Meth. Hym. Ins., vol. 1, 1807) have been accredited to Panzer (Krit. Revis., vol. 2, 1806). Panzer accredits the genera to Jurine, but they are in none of Jurine's earlier papers, while he treated them rather fully in 1807.

All references to Encyclopédie Méthodique, Insectes, vol. 10. 1825, have been changed to "vol. 10, pt. 2, 1828." Volume 10 came out in two numbers, the second, containing the Tenthredinidae, appearing in 1828.

The word "isogenotypic" is used when two genera have the same species as the genotype.

The word "monobasic" is used to indicate that a genus was founded on one originally included species.
The plan in the following list is to give the generic name first, the name of the author second, the original reference third, the type species fourth, the authority for the type fifth. In case the genus was monobasic, an asterisk is placed after the type species; in case the genotype was originally designated, the word "designated" is placed in parentheses; in case the genus was not monobasic and no genotype has been designated, the type has been chosen and no authority is given (see *Amauronematus* Konow). Certain apparent synonymy, as in the case of isogenotypic genera, is also given. All such synonymy has been verified, and synonymy not verified is not given.

The list of genera is believed to be complete, in as far as publications have been received in Washington, D. C., up to January 1, 1911. All the new generic names proposed in this paper are included in the alphabetical catalogue with the reference, "see p. —."

Type: *Tenthredo sericea* Linnaeus (Curtis, 1825).

Type: *Tenthredo erythrocephala* Linnaeus (Rohwer, 1910).

**Acanthoperga** Shipp, Ent., vol. 27, pp. 338, 339, 1894.  
Type: *Perga cameroni* Westwood (designated).

Type: *Acanthoptenos weithii* Ashmead (designated).

Type: *Acherdocerus fumipennis* W. F. Kirby.*

Type: *Acidiophora decora* Konow.*

Type: *Acordulecera dorsalis* Say.*

Type: *Cephus trimaculatus* Say.*

Type: *Cimbex maculata* Marlatti (designated).

Type: *Aglaostigma eburneiguttatum* W. F. Kirby.*

Type: *Tenthredo scrophulariae* Linnaeus (Curtis, 1839; Brullé, 1846; Westwood, 1840).

= *Tenthredo* Linnaeus (isogenotypic).

**Allomorpha** Cameron, Trans. Ent. Soc. Lond., p. 463, 1876.  
Type: *Allomorpha incisa* Cameron.*

Type: *Tenthredo obscura* Linnaeus (Westwood, 1840).

**Amauronematus** Konow, Deutsch. ent. Zeitschr., p. 237, 1890.  
Type: *Nematus fallax* Lepeletier.

= *Tenthredo glabrata* Fallén.

= *Taxonus* Hartig.
Type: Tenthredo pini Linnaeus.

Type: Anapeptamena albipes Konow.*

Ancyleneura Cameron, Trans. Ent. Soc. Lond., p. 91, 1877.
Type: Ancyleneura variipes Cameron.*

Type: Tenthredo (Emphytus) coronata Klug.*

Anisolorthra Cameron, Trans. Ent. Soc. Lond., p. 461, 1876.
Type: Anisolorthra carulea Cameron.*

(Antecc., =Senocilia Cameron.)

Anisoneura Cameron, Trans. Ent. Soc. Lond., p. 463, 1876.
Type: Anisoneura stigmaticalis Cameron.*

(Antecc., =Beleses Cameron.)

Type: Lyda alternans O. Costa (Rohwer, 1910).

Type: Nematmus pectoralis Lepeletier.


A genus without a species.

Type: Aphadnurus tantillus O. Costa.*

=Aphadnurus lobatus MacGillivray (designated).

Type: Aphanisus lobatus MacGillivray (designated).

Type: Strongylogaster rubipes Cresson (designated).

Type: Tenthredo varinervis Spinola.*

=Aphanisus tantillus O. Costa.*

=Aphadnurus tantillus O. Costa.*

=Emphytus pumila Klug.

Type: Hylotoma brevicornis Fallén.

Type: Tenthredo (Allantis) bipunctata Klug.

Type: Tenthredo enodis Linnaeus.

Type: Sirex troglodyta Fabricius.

Type: Asticta ianthe E. Newman.*

=Harpiphorus lepidus Klug.

Type: Athechopus armenius Konow.

Type: Tenthredo spinarum Fabricius (Curtis, 1836).

Type: Hylotoma imperalis F. Smith.*
Athlophorus Burmeister, Athlophorus, eine neue Gattung der Blattwespen, pp. 1-9, 1847.
Type: *Athlophorus klugii* Burmeister.*

Atocus Scudder, Bul. U. S. Geol. Surv., vol. 93, p. 24, pl. 2, fig. 5, 1892.
Type: *Atocus defessus* Scudder.*

Type: *Atomacera debilis* Say.*

Type: *Tenthredo vafer* Linneus (Rohwer, 1910).

Type: *Bathyblepta procrer* Konow.*

Beleses Cameron, Trans. Ent. Soc. Lond., p. 88, 1877 (n. u. for *Anisoneura* Cameron, 1876).
Type: *Anisoneura stigmaticalis* Cameron.*

Type: *Syzygonia cyanoecephala* Klug (designated, p. 398).

Type: *Bivena maria* MacGillivray (designated).

Type: *Blasticotoma filiceti* Klug.*

Type: *Tenthredo (Allantus) pusilla* Klug.

Type: *Nematus viduatuz* Zetterstedt.

Type: *Brachyphatnus debilicornis* Konow.

Brachyplaoma Westwood, Thes. Ent. Oxon., p. 109, 1874 (non Swainson, 1840).
Type: *Brachyplaoma funipennis* Westwood (Ashmead, 1898).

Type: *Brachyobo us grandis* Philippi.

Type: *Braunsiola truculenta* Konow.*

Type: *Busarbia viridipes* Cameron.*

Type: *Pompholyx dimorpha* Freymuth (designated).

Type: *Cænocephus jakowleffi* Konow.*

Type: *Tenthredo reticulata* Linneus (Rohwer, 1910).
Type: Cœnoneura dahlbomi Thomson.*

Type: Cephus filiformis Eversmann.

Type: Caliroa sebeta O. Costa.*
=Allantus cinxia Klug.

Type: Caloptilia tomsendi Ashmead (designated).

Type: Selandria fascipennis Norton (designated).
=Parazarca Ashmead.

Type: Camponiscus healsei E. Newman.*
=Platycampus Schiödt.

Type: Perga cressoni Westwood (designated).

Type: Camptoprium leprieuri Spinola.*

Type: Canonias inopinus Konow.*

Type: Lyda maculipennis Stein.*

Cephalocera Klug, Jahrb. Insectenkunde, vol. 1, p. 251, no. 8, 1834.
Type: Cephalocera pumila Klug.*
(preocc., =Corynophilus W. F. Kirby).

Type: Tenthredo signata Fabricius (Rohwer, 1910).

Type: Canonias inopinus Konow.*

Cephalocera Klug, Jahrb. Insectenkunde, vol. 1, p. 251, no. 8, 1834.
Type: Cephalocera pumila Klug.*
(preocc., =Corynophilus W. F. Kirby).

Type: Cephites oxingensis Heer.

Type: Cephosoma syringae Gradl.*
=Hartigia Schiödt and Boie.

Type: Sirex pygmaeus Linnaeus (Latreille, 1810; Brullé, 1846; Westwood, 1840).

Type: Ceratulus spectabilis MacGillivray (designated).

Type: Cerealces scutellata W. F. Kirby.*

Cerobactrus O. Costa, Fauna Napoli., Cephid., p. 9, 1860.
Type: Cerobactrus major O. Costa.*
=Astatus satyrus Panzer.
=Hartigia Schiödt and Boie.

Type: Cerosisastus volupis Konow.*

Type: Oryssus plumicornis Guérin.

Characophygus Konow, Ent. Nachr., vol. 25, p. 73, 1899.
Type: Characophygus moricei Konow.*
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Type: Hylotoma jantheria Klug.

Type: Tenthredo lutea Linnaeus (Latreille, 1810).

Type: Cladiucha insolita Konow.*

Cladius Rossi, Fauna Etrusca, ed. 2e, vol. 2, p. 27, 1807.
Type: Tenthredo difformis Panzer (Latreille, 1810).

Type: Cladomacra macropus F. Smith.*

Type: Cladomacra macropus F. Smith.*

Type: Claremontia typica Rohwer (designated).

Type: Clarissa divergens W. F. Kirby.*

ClaveUaria Lamarck, Syst. des Animaux san vertébrés, p. 264, 1801.
Type: Tenthredo lutea Linnaeus.*

Clavellarlus Olivier, Encycl. Méthod., vol. 4, p. 22, 1789; vol. 6, p. 18, 1791. No species.

Type: Clydostomus cestatus Konow.

Type: Cockerellonis occidentalis MacGillivray (designated).
= Eriocampidea Ashmead.

Type: Colochelyna magrettii Konow.

Type: Conaspidia sikkemensis Konow.*

Type: Corymbas koreana Konow.

Type: Tenthredo (Coryna) scapularis Lepeletier.
= Tenthredo flavans Klug.

= Selandria Leach.

Corynia Imhof et Labram, Insect. Schweiz., vol. 1, pl. 23, 1836.
Type: Corynia rosarum Imhof et Labram.
= Arge Schrank.

Type: Céphalocera pumila Klug.*

Type: Tenthredo septentrionalis Linnaeus.*
= Nematus Jurine.

Type: Nematus (Cryptocampus) medullaris Hartig.
= Euura Newman.

Type: Tenthredo furcata Villers (Curtis, 1825).
= Schizocera Lepeletier (isogenotypic).
Cyphona Dahlbom, Conspect. Tenthred. Scand., p. 6, 1835.
Type: Tenthredo furcata Villers.
= Schizocera Lepeletier.

Type: Decameria testacea W. F. Kirby (designated).

Type: Heterarthrus ochropoda Stephens.

Type: Decaryta pictipennis F. Smith.*
= Decameria (Lepeletier).

Type: Decynna westwoodii Brullé.*
= Decynna Westwood, Arcana Ent., vol. 1, p. 24, pi. 7, fig. 4, 1841.

Type: Deroxera braunsi Konow.*

Type: Hylotoma martini Lepeletier.*

Type: Dietrich degeeri Klug (Westwood, 1846).

Type: Tenthredo pini Linnaeus (Rohwer, 1910).

Type: Macrophya rotundiventris Cameron.*

Type: Distega sjostedti Konow.*

Type: Dolerus gonager Jurine (Latreille, 1810).

Type: Tenthredo eglandaria Fabricius (Brullé, 1846).

= Dolerus Panzer.

Type: Druila parviceps E. Newman.*

= Phyllotoma nemorata Fallen. 

Type: Dulophanes morio Konow.*
Type: *Ebolia fioricina* O. Costa.*

Type: *Electrocephalus strahlendorffi* Konow.*

Type: *Emphytoides perpexus* Konow.  
= *Athlophorus* Burmeister.

Type: *Tenthredo cineta* Linneaus (Curtis, 1833; Westwood, 1840).

Type: *Dolerus (Empria) pallimacula* Lepeletier (Brullé, 1846).

Encarsioneura Konow, Deutsch. ent. Zeitschr., p. 239, 1890.  
Type: *Tenthredo sturnii* Klug.*  
= *Siobla* Cameron.

Type: *Monostegia rosea* Harris (designated).  
= *Caliroa ethiops* (Fabricius).  
= *Caliroa* O. Costa.

Type: *Tenthredo consobrina* Klug.

Type: *Tenthredo (Allantus) pumila* Klug (MacGillivray, 1909).

Type: *Epitactus praexox* Förster.*

Type: *Ephippinotus luteiventris* O. Costa.  
= *Sirex compressus* Fabricius.

Type: *Taxonus albobodopicus* Norton (designated).

Type: *Tenthredo ovata* Linneaus.

Type: *Eriocampidea arizonensis* Ashmead (designated).

Eriocampoides Konow, Deutsch. ent. Zeitschr., p. 239, 1890.  
Type: *Tenthredo limacina* Retzius (MacGillivray, 1908).

Type: *Ermilia pulchella* O. Costa.*  
= *Tenthredo agrorum* Fallén.  
= *Taxonus* Hartig (isogenotypic).  

Type: *Blennocampa pygmea* Say (designated).

Eumetabolus Schulz, Spolia Hymen., p. 211, 1906.  
Type: *Sirex troglodyta* Fabricius.  
= *Sirex nigre* Harris.  
= *Astatus* Panzer.

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Type: *Euryopsis nilens* W. F. Kirby.*

Type: *Euryx xeratus* E. Newman.*

Type: *Euura gallae* Newman.

Type: *Cephus cruentatus* Eversmann.*

Type: *Fenella nigrita* Westwood.*

Type: *Europa aratus* E. Newman.*

Type: *Euura gallae* Newman.

Type: *Cephus cruentatus* Eversmann.*

Type: *Fenella nigrita* Westwood.*

Type: *Europa aratus* E. Newman.*

Type: *Europa gallae* Newman.

Type: *Cephus cruentatus* Eversmann.*

Type: *Fenella nigrita* Westwood.*
THE GENOTYPES OF SAWFLIES AND WOODWASPS. 81

Type: Tenthredo (Allantus) brevis Klug.

Type: Ichneumon camelus Linnaeus.
=Xiphidria Latreille.

Type: Tenthredo rose Linnaeus.*
=Arge Schrank.

Type: Hypargyricus infuscatus MacGillivray (designated).

Type: Hyperoceros peruanus Konow.*

Type: Hypotaxonus abbotii W. F. Kirby.*

Type: Strongylogaster pallipes Say (designated).

Type: Incalia hirticornis Cameron.*

Type: Ischyrocersea hyperboea Kier.*

Type: Isodyctium coryicum Dyar (designated).

Type: Tenthredo hieroglyphica Christ. (Rohwer, 1910).

Type: Janus connectus Stephens (Westwood, 1840).
=Janus eynosabati (Fabricius).

Type: Allantus cephalotes Jakowlew.*

Type: Kaliosphinga dornitii Tischbein.*
=Kaliosphinga dornitii Tischbein.*

Type: Kokujewia cespitosa Konow.

Type: Konowia megapolitana Braun.*

Type: Labidarge bolivari Konow.
=Caloptilia Ashmead.

Type: Labidia colombiana Provancher.*
=Allantus opinus Cresson.

Type: Lagideus crinitus Konow.*
MISCELLANEOUS FOREST INSECTS.

  Type: Tenthredo atroriolaceum Norton (designated).

  Type: Laurentia craverii A. Costa.*
  =Tenthredo gibbosa Fallén.

  Type: Tenthredo alni Linnaeus.
  =Hemicrhoa Stephens.

  Type: Tenthredo alni Linnaeus.
  =Hemicrhoa Stephens.

  Type: Leptocimbex potaninii Semenow.

  Type: Nematus (Leptopus) hypogastricus Hartig.*
  =Tenthredo luridiventris Fallén.
  =Platycampus Schöötte.

  Type: Lyda frontalis Westwood (designated).
  =Cepialeia Panzer.

  Type: Scioneura cereabilis Brues (designated).

  Type: Lithoryssus parvus Brues (designated).

  Type: Lithracia flavipes Cameron.*

  Type: Loboceras mexicanum W. F. Kirby.

Loderus Konow, Deutsch. ent. Zeitschr., p. 240, 1890.
  Type: Tenthredo pratorum Fallén.

  Type: Lophyris tropicus Norton (designated).
  =Lophyroides Cameron.

  Type: Lophyris tropicus Norton (designated).

  Type: Pterygophorus interruptus Klug (designated).
  =Pterygophorus Klug.

  Type: Tenthredo pini Linnaeus.*
  =Diprion Schrank (isogenotypic).

  Type: Selandria sodalis Cresson.*

  Type: Lycosceles herbsti Konow.*

Lyda Fabricius, Syst. Piez., p. 43, no. 5, 1804.
  Type: Tenthredo sylvatica Linnaeus (Curtis, 1831).
  =Pamphilius Latreille.
Lygæonematus Konow, Deutsch. ent. Zeitschr., p. 238, 1890.
Type: Nematus pini Retzius.

Type: Macgillivraya oregonensis Ashmead (designated).
=Macgillivrayella Ashmead.

Macgillivrayella Ashmead, in Smith, Cat. Ins. N. J., p. 606, 1899 (n. n. for Macgil-
levraya Ashmead).
Type: Macgillivraya oregonensis Ashmead.

Type: Harpiphorus varians Norton (designated).

Type: Macrocephus ulmaris Schlechtendal.*
=Tenthredo linearis Schrank, 1781.
=Hartigia Schiodte and Boie.

Macroclada Konow, Genera Insectorum, Fasc. 29, p. 46, 1906.
(An emended name for Cladomacra F. Smith.)
=Cladomacra F. Smith.

Type: Xyela ferruginea Say (designated).

Type: Manoxyela californica Ashmead (designated).
=Pleroneura Konow.

Type: Hoplocampa laricis Marllatt (designated).

Mastigocera Klug, 18—Reference unknown, a synonym of Xyela by Lepeletier,

Type: Tenthredo cephalotes Fabricius (Latreille, 1810).

Type: Xyela major Cresson (designated).

Type: Tarpa fabricii Leach.*

Melanoselandria (Ashmead) MacGillivray, in Smith, Cat. Ins. N. J., p. 606, 1899;
Type: Melanoselandria zabriskiei Ashmead.*
=Hypargyricus MacGillivray, 1908.

Type: Melicerta ochroleucus Stephens.*
=Heptamelus Haliday, 1855.

Type: Melinia minutissima O. Costa.

Type: Tenthredo opaca Fabricius.*

Type: Tenthredo (Emphytus) hortulana Klug.*

Type: Metallus rubi Forbes.*
MISCELLANEOUS FOREST INSECTS.

  Type: Atomocera ruficollis Norton (designated).

  Type: Miocephala chalybea Konow.*

Micronematus Konow, Deutsch. ent. Zeitschr., p. 239, 1890.
  Type: Nematus pullus Förster.
  = Nematus monogynix Hartig.

  Type: Oryssus metallicus Mocsary.*

  Type: Tenthredo (Allantus) lineolata Klug.

  Type: Tenthredo saltuum Linnaeus.

  Type: Monophadnus rubi Harris (designated).

  Type: Tenthredo albipes Gmelin (Ashmead, 1898).

  Type: Tenthredo saltuum Linnaeus.

  Type: Phecilostoma inerentia Norton.*
  = Monsoma MacGillivray.

Monostegia O. Costa, Fauna Napoli, Tenthred., p. 60, 1859.
  Type: Tenthredo abdominalis Fabricius (MacGillivray, 1908).

  Type: Phecilostoma inerentia Norton (designated).

  Type: Tenthredo tuteola Klug.*
  = Monostegia Costa (isogenotypic).

  Type: Nematoneura violaceipennis André.*

Nematinus Rohwer, see p. 99.
  Type: Tenthredo abdominalis Panzer (designated).

  Type: Tenthredo septentrionalis Linnaeus (Latreille, 1810).

  Type: Neocaractus bakeri MacGillivray (designated).

  Type: Neoecurus metallicus Rohwer (designated).

  Type: Neopareophora martini MacGillivray (designated).

  Type: Perga amenaidea Kirby (designated).

  Type: Neoptilia mexicana Ashmead (designated).

  Type: Tenthredopsis quatuordecimpunctata Norton.

  Type: Neotomostethus hyalinus MacGillivray (designated).
THE GENOTYPES OF SAWFLIES AND WOODWASPS.

Type: Lophrys japonicus Marlatt (designated).

Type: Paraselandria imitatrix Ashmead (designated).

Type: Phylotoma? flavescens Marlatt (designated).

Type: Blennocampa religiosa Marlatt (designated).

Type: Eriocampa (Nesocomia) rufulentris Konow.

Type: Nycteridium fischeri Fischer.

Type: Pleroneura avingrata Dyar.*

Type: Opifucia andrei Konow.

Type: Opistheneura crevecoeur Ashmead (designated).

Type: Tenthredo silvatica Linnaeus.*

Type: Parabates histrionicus MacGillivray (designated).

Type: Parabia jokowelevi Semenow (designated).

Type: Paracharactus obscursatus MacGillivray (designated).
Type: Paralypia picipes Kirby.*

Type: Perga jucunda Kirby (designated).

Type: Tenthredo flavana Klug (designated).  
=Selandria Leach.

Type: Strongylogaster rufopterus Norton (designated).

Type: Parastatis indica W. F. Kirby.*

Parasyzygonia Rohwer (see p. 102).  
Type: Syzygonia cyanoptera Klug (designated).

Type: Paremphytus ostentus Brues.*

Type: Pareophora luridiventris Konow.  
=Tenthredo (Allantus) nigripes Klug.

Type: Sirex juvencus Linnaeus.

Type: Tenthredo (Allantus) aterrima Klug (designated).  
=Phymatocera Dahlbom.

Type: Dolerus (Pelmatopus) minutus Hartig.*

Perantherix Westwood, Thes. Ent. Oxon., p. 100, 1874.  
Type: Perantherix pumilio Westwood.*

Type: Perga dorsalis Leach (Shipp, 1894).

Type: Perga dahlbomii Westwood (designated).

Type: Tenthredo (Allantus) lincolata Klug.

Type: Monostega queerus-alba Norton (designated).  
Ashmead gave the type as alba.  
=Eriocampoides Konow.

Type: Tenthredo rubi Panzer.*

Type: Cephus politissimus A. Costa.*

Type: Perreyia lepida Brullé.*

Type: Péus privus Konow.*
THE GENOTYPES OF SAWFLIES AND WOODWASPS.

Phaenusa Cameron, Ent. Monthly Mag., vol. 12, p. 131, 1875.
Type: Phaenusa albipes Cameron.
=Messia Leach.

Philomastix Foggatt, Proc. Linn. Soc. N. S. Wales, (2) vol. 5, p. 467, 1890.
Type: Philomastix naucarroi Foggatt.

Type: Phlebatrophia mathesoni MacGillivray (designated).

Phenacoperga Cockerell, Science, n. s. vol. 27, p. 113, 1908.
Type: Perga coloradensis Cockerell (designated).

Type: Phrontosoma atrum MacGillivray (designated).

Type: Phylophaga eucalypti Froggatt.*

Type: Phylloecus faunus E. Newman.
=Janus Stephens.

Type: Phylloecus faunus E. Newman.
=Janus Stephens.

Type: Phylloecus faunus E. Newman.
=Janus Stephens.

Phyllotoma Fallen, Mon. Tenthred. Suec., p. 25, 1829.
Type: Phyllotoma vagans Fallen.

Type: Phycilostoma maculata Norton (designated).
=Empria Lepeletier.

Type: Pompholyx dimorpha Freymuth.*
preocc.,=Cacosyndia Kirby.
**Pontania** O. Costa, Fauna Napoli, Tenthred., p. 20, 1859.
Type: *Nematus gallicola* Stephens (Marlatt, 1896).

Type: *Poppia athaloides* Konow.*

Type: *Praia taczanowskii* (Wankowitz) André.*

**Priophorus** Dahlbom, Conspect. Tenthred. Scand., p. 4, no. 1, 1835.
Type: *Priophorus pilicornis* Dahlbom.

= *Tenthredo padi* Linnaeus.

**Pristiphora** Latreille, Consid. Générales, p. 294, 1810.
Type: *Pristus testaceus* Jurine (designated).

Type: *Tenthredo punctigera* Lepeletier.

= *Mesoneura* Hartig.

Type: *Probionta langei* Konow.

Type: *Prototaxonus typicus* Rohwer (designated).

Type: *Emphytus coloradensis* Weldon (designated).

**Pseudabia** Schrottky, Ent. Rundschau, vol. 27, no. 23, p. 168, December 1, 1910.
Type: *Pseudabia fusca* Schrottky (designated).

**Pseudoclavellaria** Schultz, Spolia Hym., p. 87, 1906.
Type: *Tenthredo amerixe* Linnaeus.

Type: *Pseudocimbex clavatus* Rohwer (designated).

Type: *Pseudocyphona mexicana* Ashmead (designated).

Type: *Tenthredo (Allantus) parvula* Klug.

Type: *Perga lewisi* Westwood (Shipp, 1894).

Type: *Perga polita* Leach (designated).

Type: *Macrophyia excavata* Norton (designated).

Type: *Pseudotiourex darwinii* Weyenbergh.

Type: *Tenthredo filicis* Klug.*

Type: *Ptenos niger* Norton.

**Pteronidea** Rohwer (see p. 98).
Type: *Nematus ventralis* Say (designated).

Type: *Tenthredo pini* Linnaeus.

= *Diprion* Schrank.
THE GENOTYPES OF SAWFLIES AND WOODWASPS.

Type: *Pterygophorus analis* O. Costa (designated).

= Pterygophorus Klug.

Type: *Pterygophorus cinctus* Klug (Ashmead, 1898).

Ptilia Lepeletier, Mon. Tenthred., p. 49, 1823.
Type: *Ptilia brasiliensis* Lepeletier.

Type: *Rethrax carinata* Cameron.*

Type: *Tenthredo (Allantus) micans* Klug.

Type: *Rhagonyx lituratus* Konow.*

Type: *Tenthredo (Allantus) micans* Klug.

Type: *Rhoptroceros procinctus* Konow.

Type: *Rhoptroceros procinctus* Konow.*


Rusobria Cameron, Trans. Ent. Soc. Lond., p. 150, 1878.
Type: *Rusobria carinata* Cameron.

Type: *Hylotoma fuscata* Villers (Westwood, 1840).

Type: *Tenthredo costalis* Fabricius.*

Sciapteryx is an incorrect spelling.

Type: *Hylotoma melanocephala* Lepeletier.*

Scelioneura Konow, Deutsch. ent. Zeitschr., p. 249, 1890.
Type: *Tenthredo (Allantus) betuleti* Klug (MacGillivray, 1909).

Type: *Tenthredo serva* Fabricius (Brullé, 1846).

Senoclia Cameron, Trans. Ent. Soc. Lond., p. 88, 1877 (n. n. for Anisoarthra Cameron).
Type: *Anisoarthra corulea* Cameron.

Type: *Sericocera spinolae* Brullé.

Type: *Siobia mooreana* Cameron (Ashmead, 1898).

Sirex Linnaeus, Fauna Suec., ed. 29, p. 396, 1761.
Type: *Sirex gigas* Linnaeus.

Type: *Sjoestedtia meruensis* Konow.*

Type: *Sphaecophilus crawii* Provancher.*
Type: *Tanymeles kohli* Konow.*

Type: *Stelidarge diptycha* Konow.*

Type: *Tenthredo delicatulus* Fallén.

Type: *Tenthredo cingulata* Fabricius (MacGillivray, 1868).

Type: *Strongylogaster aprilis* Say (designated).

Type: *Sunoxa purpureifrons* Cameron.*

Type: *Tenthredo delicatula* Klug.*

Type: *Synaptonoeura boliviensis* Konow.*

Type: *Cephus parreyssi* Spinola.*

Syzygonia  Klug, Ent. Monogr., p. 175, 1824.
Type: *Syzygonia cyanoccephala* Klug (Ashmead, 1898).

Type: *Syzygonia cyanae* Brullé (designated).

Type: *Tanymeles hilarulus* Konow.*

Type: *Tanysphatna pellos* Konow.

Tarpa  Fabricius, Syst. Piez., p. 19, no. 2, 1804.
Type: *Tarpa cephalotes* Fabricius (Westwood, 1840).
= *Megalodontes* Latreille.

Type: *Tenthredo (Allantus) nitida* Klug) (=*Tenthredo agorum* Fallén) (Konow,1896).

Type: *Tenthredo atra* Linnaeus (designated).
= *Tenthredo* authors, not Linnaeus.

Type: *Tenthredo flavida* Marlatt (designated).

Type: *Tenthredo scrophulariae* Linnaeus (Latreille, 1810).

Tenthredopsis  O. Costa, Fauna Napoli, Tenthred., no. 98, 1859.
Type: *Tenthredo tessellata* Klug.

Type: *Tremex cubensis* Cresson.

Type: *Tremex cubensis* Cresson.
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Type: Monostegia ignota Norton (designated).
=Empria Lepeletier.

Type: Themos hyalinus Norton.*

Type: Perineura thomsonia Konow.

Type: Strongylogaster contigua Konow (MacGillivray, 1908).

Type: Thulea nigra Say.*

Type: Tenthredo nigrita Fabricius.

Type: Hylotoma (Schizocera) leucocephala Klug.*

Trachelus Jurine, Nouv. Méthod. Class. Hym., p. 70, pl. 2, fig. 9, 1807.
Type: Sirex tabidus Fabricius.

Type: Trailia analis Cameron.

Type: Sirex fuscicornis Fabricius (Latreille, 1810).

Type: Nematus grandis Lepeletier.
= Tenthredo viminalis Fallén.

Type: Tenthredo lucorum Linnaeus (Curtis, 1824).

Type: Trichiosomites obliviosus Brues.*

Type: Trichorhachus nitidus W. F. Kirby.

Trichorrhachus Konow, Genera Insectorum, fasc. 29, p. 15, 1906.
Mispelling of Trichorhachus.

Type: Trichotaxonus readi Rohwer (designated).

Type: Lyda judaicus Lepeletier.*

Type: Tristegus mimarius Konow.*

No species.

Type: Trochophora duckei Konow.*

Type: Urocerites spectabilis Heer.

Type: Sirex gigus Linnaeus (Westwood, 1840).
= Sirex Linnaeus.

Type: Waldheimia braziliensis Lepeletier (designated).
Type: *Dineura (?) africana* Cameron.*

Type: *Ichneumon spectrum* Linnaeus.*

Type: *Xiphidion canadense* Provancher.*

= *Xiphidria provancheri* Cresson.

No species included.

Type: *Ichneumon camelus* Linnaeus.*

Type: *Xyela pusilla* Dalman (Curtis, 1824).

= *Xyela pustulosa* Dalman (Curtis, 1824).


= *Ichneumon fuscicornis* Fabricius.

Type: *Perga hallidayi* Westwood (designated).

Type: *Sirex fusccornis* Fabricius.

= *Tremex Jurine.*

Type *Tenthredo fasciata* Linnaeus.*

Type: *Zarca apicalis* Cameron.*

Type: *Hoplocampa montana* Cresson (designated).

AN INDEX TO THE GENOTYPES.

EXPLANATORY.

The following index includes (1) the name of the species, (2) the name of its author, (3) the name of the genus in which it was originally described, and (4) the name of the genus of which it is the genotype. When a species given in the index is a synonym of another genotype, a cross-reference is given to the genotype of which it is a synonym. When a species was originally placed in the genus of which it is the genotype, only one generic name is given. Species placed in subgenera by older writers are cited in the subgenus only.

abbotii W. F. Kirby (Hypoleopus).
abdominalis Fabricius (Tenthredo, Monostegia).
abdominalis Panzer (Tenthredo, Nematinus).
seratus Newman (Eurys).
æthiops Fabricius (Tenthredo, Endelomyia).
afer Konow (Pampsilota).
africana Cameron (Dineura?, Xenapates).
agrorum Fallén (Tenthredo, Ermilia). "alba" Norton (Monostegia, Periclistoptera).
albipes Cameron (Phænusa).
albipes Konow (Anapeptamena).
albipes Gmelin (Tenthredo, Monophadnus).
albiventris Klug (Allantus, Periclista).

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alni Linnaeus (Tenthredo, Hemichroa).

alni Linnaeus (Tenthredo, Leptocerca [=Hemichroa]).
alni Linnaeus (Tenthredo, Leptocerus [=Hemichroa]).

alternans A. Costa (Anoploplyda).
amenaida W. F. Kirby (Perga, Neoperga).
amerinae Linnaeus (Tenthredo, Pseudoclavellaria).
analis Cameron (Trailila).
analis O. Costa (Pterygophorus, Pterygophorinus).
andrei Konow (Ophrynoporus).
apicalis Say (Strongyllogaster, Strongyllogasteroidae).
apicalis Spinola (Gymnina).
amenius Konow (Ateuchopus).
arizonensis Ashmead (Eriocampidea).
arizonensis Ashmead (Eriocampidea, Cockerelloni [=Eriocampidea]).

aterrima Klug (Allantus, Pectinia).
atriches Konow (Poppia).
atra Linnaeus (Tenthredo, Tenthredella).
atacamensis W. F. Kirby (Polyclonus).
atroviolaceum Norton (Tenthredo, Lagium).
atrium MacGillivray (Phrontosoma).
avingrata Dyar (Pieroneura, Odontophyes).
bakeri MacGillivray (Neocharactus).
betuletii Klug (Allantus, Scioneloneura).
bipunctata Klug (Allantus, Ardis).
boiviensis Konow (Synaptoneura).
bolivari Konow (Labiardige).
braunsi Konow (Didocha).
brazilienesi Lepeletier (Ptilia).
brazilienesi Lepeletier (Waldheimia).
brevicornis Fallén (Hylocoma, Aprosthemata).
brevis Klug (Allantus, Hoplocampa).
breadcrumbs Klug (Aulacomerus).
byussoni Konow (Heptacola).
californica Ashmead (Manoxyela).
californicus Marlett (Gymnonychus).
camelus Linnaeus (Ichneumon, Ilybonotus).
camelus Linnaeus (Ichneumon, Xiphydria).
cameroni Westwood (Perga, Acanthoperga).
canadense Provancher (Xiphidion).
capreæ Panvranus (Tenthredo, Pachynematusc).
carinata Cameron (Rethrax).
carinata Cameron (Rusobria).
cephalotes Fabricius (Tarpa).
cephalotes Fabricius (Tenthredo, Megalodontes).
cephalotes Jakowlew (Allantus, Jermakia).
cestatus Konow (Clydostomus).
chalybea Konow (Miocenephala).
cinctus Klug (Pterygophorus).
cinctus Linnaeus (Tenthredo, Empytus).
cingulata Fabricius (Tenthredo, Strongyllogaster).
cinxia Klug (Allantus, Caliara).
clavatus Rohwer (Pseudocinex).
corulea Cameron (Anisoarthra [Senocilia]).
corulea Cameron (Anisoarthra, Senocilia).
coloradensis Cockrell (Perga, Phenacopera).
coloradensis Weldon (Emphytus, Protemphytus).
columbiana Provancher. (Labidia. See opimus Cresson.).
compressus Fabricius (Sirex, Ephiippinotus).
connectus Stephens (Janus).
consobrina Klug (Tenthredo, Enisicia).
contigua Konow (Strangyllogaster, Thrinax).
coronatus Fabricius (Tenthredo, Orystus).
coronatus Klug (Emphytus, Aneugme-nus).
corycolum Dyar (Isodyctium).
costalis Fabricius (Tenthredo, Sciapteryx).
cressoni Konow (Isodectus).
crinitus Konow (Ophryneura, Odontophyes).
crinitus Konow (Ophryneura, Odontophyes).
cruentatus Eversmann (Cephus, Eversmannella).
cubensis Cresson (Tremex, Teredon [=Ter- edonia]).
cubensis Cresson (Tremex, Teredonia).
cyanea Brullé (Syzygona, Syzygonoidea).
MISCELLANEOUS FOREST INSECTS.

cyanecephala Klug (Syzygopia).
cyanecephala Klug (Syzygopia, Bergiana).
cyanocephala Klug (Syzygopia, Parasyzygopia).
cynosbati Linnaeus (Cephus, Janus).
cynosbati Linnaeus (Cephus, Phyllocerus [=Janus]).
dahlbomii Thomson (Canoneura).
dahlbomii Westwood (Perga, Pergadopsis).
dahli Hartig (Xyela, Pleroneura).
darwinii Weyenbergh (Pseudosirex).
debilicornis (Brachyphatnus).
debris Say (Atomacera).
deca Konow (Acidiphora).
defessus Scudder (Atocus).
degeneri Klug (Allantis, Dineura).
delicatus Fallén (Tenthredo, Stromboceros).
delicata Klug (Tenthredo, Synairema).
delta Provancher (Tenthredo, Bivena).
delta Provancher (Tenthredo, Homoeoneura [=Bivena]).
differmis Panzer (Tenthredo, Cladius).
dimorpha Freymuth (Pompholyx [=Casosyndia]).
dimorpha Freymuth (Pompholyx, Cacosyndia).
diptypha Konow (Stelidarge).
divergens W. F. Kirby (Clarissa).
dohrnii Tischbein (Kaliosysphinga).
dorsalis Say (Acordulecera).
dorsalis Leach (Perga).
dubitatus Norton (Taxonus, Hemitaxonus).
duckei Konow (Trochophora).
ecurnieguttatum W. F. Kirby (Aglaostigma).
ectrapela Konow (Kokujewia).
eclugantie Fabricius (Tenthredo, Dorytheus).
ellisi Curtis (Dielocerus).
epimelas Konow (Haplostegus).
equiseti Fallén (Tenthredo, Taxonus).
erythrocephala Linnaeus (Tenthredo, Acantholyda).
eucalypti Froggatt (Phylactophaga).
eucavata Norton (Macrophya, Pseudosibla).
fabricii Leach (Tarpa, Melanopus).
fallax Lepeletier (Nematus, Amauronematus).
fasciata Linnaeus (Tenthredo, Zarcea).
fascipennis Norton (Selandria, Calozarca).
fauinus Newman (Phyllocerus. See cynosbati Linnaeus).
ferruginca Say (Xyela, Macroxyela).
filiceti Klug (Blasticotoma).
filiformis Eversmann (Cephus, Calameuta).
filicis Klug (Tenthredo, Polystichophagus [=Pseudotaxonus]).
filicis Klug (Tenthredo, Pseudotaxonus).
flabellicornis Germar (Taira, Rhipidoceros).
flavescens Marlatt (Phyllotoma?, Neso-
taxonus).
flavida Marlatt (Tenthredo, Tenthredina).
floricola O. Costa (Ebolia).
flavens Klug (Tenthredo, Paraselandra).
flavipes Cameron (Lithracia).
flaviventris Linnaeus (Tenthredo, Neuro-
toma).
frontalis Westwood (Lyda, Liolyda).
fulvipes A. Costa (Amestastegia).
fumipennis Ashmead (Parazarca).
fumipennis Westwood (Brachyotoma).
fumipennis W. F. Kirby (Achardocerus).
furcata Fabricius (Ilylotoma, Cyphona).
furcata Villers (Ilylotoma, Schizocera).
fusca Schrottky (Pseudabia).
fuscicornis Hartig (Diphadnus).
fuscicornis Fabricius (Sirex, Tremex).
fuscicornis Fabricius (Sirex, Xyloterus
 [=Tremex]).
gallicola Stephens (Nematus, Pontania).
galla Newman. (Etura. See medullaris
Hartig).
gigas Linnaeus (Sirex).
gigas Linnaeus (Sirex, Urocerus [=Sirex]).
gonager Jurine (Dolerus).
grandis Lepeletier. (Trichocampus. See
viminalis Fallén.)
grandis Philippi (Brachyxiphus).
guttatum Fallén (Tenthredo, Peci-
lostoma).
hallidayi Westwood (Perga, Xyloperga).
healae E. Newman. (Camponiscus. See
luridiventris Fallén.)
herbeti Konow (Lycosceles).
hieroglyphica Christ (Tenthredo, Itycor-
sia).
hilarulus Konow (Tanymeles).
hirticornis Cameron (Incalia).
histrionicus MacGillivray (Parabates).
hortulana Klug (Emphytus, Messa).  
hyalinus MacGillivray (Neotomostethus).  
hyalinus Norton (Themos).  
hyperborea Kiaer (Ischyroceraea).  
hypogastricus Hartig.  (See luridiventris Fallén.)  
iante E. Newman (Fenusa, Asticta).  
ignota Norton (Monostegia, Tetraneura).  
imitatrix Ashmead (Paraselandria, Neoseelandria).  
imperialis Smith (Hylotoma, Athermanthus).  
inca Cameron (Allomorpha).  
inda W. F. Kirby (Parastititis).  
inferentia Norton (Pecilostoma, Monosoma).  
inferentia Norton (Pecilostoma, Monosoma [=Monsoma]).  
infeus MacGillivray (Hypargyricus).  
inopenus Konow (Canoniás).  
insolita Konow (Cladiucha).  
inruptus Klug (Pterygophorus, Lophyrotopita).  
jakowlefi Konow (Cenocephus).  
jakowlefi Konow (Dinax).  
jakowlewii semenov (Parabia).  
jantheria Klug (Hylotoma, Cibdela).  
japonica marlatt (Lophyrus, Nesodiprimon.)  
juconda W. F. Kirby (Perga, Paraperga).  
judacius Lepeletier (Lyda, Tristactus).  
ulii Brébisson (Pinicola [=xyela]).  
ulii Brébisson (Pinicola, Xyela).  
juniperi Linneaus (Tenthredo, Monocotenus).  
juvensc Linneaus (Sirex, Paururuss).  
klugii burmeister (Athlophorus).  
kohli konow (Stirocoris).  
koreana konov (Corymbs).  
lata westwood (Dictyyna).  
langei konow (Probleta).  
laricis marlatt (Hoplomcapma, Marlattia).  
lepida brullé (Perreyia).  
lepidus Klug (Emphytus, Asticta [=Harpiphorus]).  
lepidus Klug (Emphytus, Harpiphorus).  
lepiereiiri spinola (Camptomuirium).  
leucocephala Klug (Schizocera, Topotritia).  
lewisii westwood (Perga, Pseudoperga).  
limacina retzius (Tenthredo, Eriocampoides).  
lituratus konow (Rhagonyx).  
lobatus MacGillivray (Aphanisus).  
lucorum Linneaus (Tenthredo, Trichosoma).  
luridiventris Fallén (Tenthredo, Camponiscus [=Platycampus]).  
luridiventris Fallén (Tenthredo, Leptopus [=Platycampus]).  
luridiventris Fallén (Tenthredo, Platycampus).  
luridiventris konow. (Parephora. See nigripes Klug.)  
lutea Linneaus (Tenthredo, Clavellaria).  
lutea Linneaus (Tenthredo, Cimbex).  
luteola Klug (Tenthredo, Nematoceros).  
luteiventris o. costa. (Ephippinotus. See compressus Fabricius.)  
macropus smith (Cladomacra).  
maculata marlatt (Cimbex, Agenocimbex).  
maculata norton (Pecilostoma, Pecilostomidea).  
maculipennis stein (Lyda, Celidoptera).  
maculipennis stein (Lyda, Kelidoptera).  
magrettii konow (Colocheleyna).  
major cresson (Xyela, Megaxyela).  
major o. costa. (See satyrus Panzer.)  
mandibularis zaddach (Lyda, Gongylocorisia).  
maria macgillivray. (Bivena. See delta provancher.)  
martini lepeletier (Hylotoma, Didymia).  
martini macgillivray (Neopareophora).  
mathesoni macgillivray (Phlebatophria).  
mayrii westwood (Perga, Plagioperga).  
medullaris hartig (Cryptocampus).  
megapolitana brauns (konowia).  
meloncephala lepeletier (Hylotoma, Scobina).  
meruensis konow (Sjoesteddia).  
metallica rohwer (Neoeyurs).  
metallicus mocsary (Oryssus, Mocsarya).  
mexicana ashmead (Neoptilia).  
mexicana ashmead (Pseudocyphona).  
mexicanum w. f. kirby (loboceras).  
nigripes klug (Allantus, Parephora).  
nimarius konow (Trigecus).  
minutissima o. costa. (melina. See nigrita westwood.)  
minutus hartig (Pelmatopus).  
montana cresson (Hoplomcapma, Opisthonneura [=Zaschizonyx]).  
montana cresson (Hoplomcapma, Zaschizonyx).  
mooreana cameron (siobla).  
moricei konow (characophygus).  

THE GENOTYPES OF SAWFLIES AND WOODWASPS. 95
MISCELLANEOUS FOREST INSECTS.

morio Konow (Dulophanes).
multicolor Norton (Taxonus, Parataxonomus).
naucarriow Froggatt (Philomastix).
nemorata Fallén (Phyllotoma, Druida).
niger Norton (Ptenos).
nigra Cameron (Fethalia).
nigra Say (Thulea).
nigrescens Rohwer (Diphamomorphos).
nigrita Fabricius (Tenthredo, Tomostethus).
nigrita Westwood (Fenella).
nigrita Westwood (Fenella, Melinia).
nigricornis W. F. Kirby (Hemidianeura).
nitens W. F. Kirby (Euryopsis).
nitidus W. F. Kirby (Trichorhachus).
obliviosus Brues (Trichosomites).
obscura Linnaeus (Tenthredo, Amasis).
obscuratius MacGillivray (Paracharacters).
occentalis MacGillivray. (Cockerel-lonis. See arizonensis Ashmead.)
ochroleucus Stephens (Melicerta [=Hep-tamelus]).
ochroleuca Stephens (Melicerta, Hep-tamelus).
ocropoda Stephens (Heterarthrus, Decatia).
ocropoda Klug (Emphytus, Heterarthus).
oeningensis Heer (Cephitates).
opaca Fabricius (Tenthredo, Mesoneura).
opaca Fabricius (Tenthredo, Pristis [=Mesoneura]).
opimus Cresson (Allantus, Labidia).
oregnensis Ashmead (Macgillivraya [=Magellivrayella]).
oregnensis Ashmead. (Macgillivraya, Magellivrayella).
ostentus Brues (Paremphtyus).
olata Linnaeus (Tenthredo, Eriocampa).
padi Linnaeus (Tenthredo, Priophorus).
parreysii Spinola (Cephus, Syrusta).
pallimacula Lepeletier (Empria).
pallipes Say (Strongylgaster, Hypotaxonomus).
parviceps Newman. (See nemorata Fallén.)
parvulus Klug (Allantus, Pseudodineura).
parvus Brues (Lithoryssus).
pectoralis Lepeletier (Nematus, Anoplonyx).
pellus Konow (Tanyphatna).
perplexus Konow (Emphytoides).
peruanus Konow (Hyperoceros).
picipes W. F. Kirby (Paralyopia).
pictipennis Smith (Derecytara).
pilicornis Dahlibom. (Priophorus. See padi Linnaeus).
pinguis Say (Strongylgaster, Dimorpho-pteryx).
linnaeus Tenthredo, Anachoreta (=Diprion).
linnaeus Tenthredo, Diprion).
linnaeus Tenthredo, Lophyrus (=Diprion).
retius (Nematus, Lygeonematous).
plumicornis Guérin (Oryssus, Chalinus).
polita Leach (Perga, Pseudoperga).
politissimus A. Costa (Cephus, Peronisti-lus).
pratorum Fallén (Tenthredo, Loderus).
pereoxy Föerster (Epitactus).
privus Konow (Pëus).
procercer Konow (Bathyblepta).
principatus Konow (Rhoptroceros [=Rhop-graphus]).
principatus Konow (Rhoptroceros, Rhopo-graphus).
pulchella O. Costa. (Ermilia. See agorum Fallén.)
pullus Föerster (Nematus, Micronemat-tus).
pumila Klug (Allantus, Entodecta).
pumila Klug (Cephalocera [=Corynophi-lus]).
pumila Klug (Cephalocera, Corynophilius).
pumila Klug (Emphytus, Aphadnurus [=Fenusa]).
pumila Klug (Emphytus, Fenusa).
pumilio Westwood (Perantherix).
punctigera Lepeletier. (Pristis. See opaca Fabricius.)
purpureifrons Cameron (Sunoxa).
pusilla Dalman. (Xyela. See jullii Bré-bisson).
pusilla Klug (Allantus, Blennocampa).
pygmaeus Linnaeus (Sirex, Cephus).
pygmea Say (Blennocampa, Erythr-spides).
quattuordecimpunctata Norton (Tenthredo, Neopus).
rape Linnaeus (Tenthredo, Pachyrotasis).
reedi Rohwer (Trichotaxonus).
reitteri Konow (Rhadinoceræa).
religiosa Marlett (Blennocampa, Neso-tomostethus).
reliquata Linnaeus (Tenthredo, Cænolyda).
rose Harris. (Endelomyia. See *athiosps* Fabricius.)
rose Linnaeus (Tenthredo, Corynia [=Hylotoma]).
rose Linnaeus (Tenthredo, Hylotoma).
orosum Imhof et Labram. (See rose Linnaeus.)
rotundiventer Cameron (Macrophyia, Dip

teromorpha).
rubi Forbes (Metallus).
ruhi Harris (Hoplocampa, Monophad
noïdes).
rubi Panzer (Tenthredo, Perineura).
rubripes Cresson (Strongylogaster, Aphilo
ductylii).
rufocinctus Norton (Strongylogaster, Para
siobia).
ruficollis Norton (Atomacera, Micrange).
rufiventer Konow (Netroceros).
rugifrons Cameron (Beldonea).
rusticus Linnaeus (Tenthredo, Ma
crophyia).
saltuum Linnaeus (Tenthredo, Monoplo
pus).
satyrus Panzer (Astatus, Cerobactrus
[=Hartigia]).
satyrus Panzer (Astatus, Hartigia).
scepi Linnaeus (Tenthredo, Monoplo
pus).
scepi Linnaeus (Tenthredo, Hartigia).
scapularis Lepeletier (Coryna).
scepi Linnaeus (Tenthredo).
scepi Linnaeus (Tenthredo, Allant
us [=Tenthredo]).
schellata W. F. Kirby (Ceraleces).
selbina O. Costa (Calioxen).
scepterionalis Linnaeus (Tenthredo,
Cressus [=Nematus]).
scepterionalis Linnaeus (Tenthredo,
Nematus).
serdicea Linnaeus (Tenthredo, Abia).
sera Fabricius (Tenthredo, Selandria).
signata Fabricius (Tenthredo, Cephalacia).
sikkemensis Konow (Conaspida).
singularis Ashmead (Gynnioterus).
sjestedti Konow (Distega).
sluosisome MacGillivray (Polybates).
smyrnmensis Stein (Pachycephus).
sodalis Cresson (Selandria, Lycaota).
spectabilis Heer (Urocerites).
spectabilis MacGillivray (Ceratulus).
spectrum Linnaeus (Ichneumon, Xeris).
spinarum Fabricius (Tenthredo, Athalia).
spinolae Brullé (Seriocera).
стигмати́ка́ Cameron (Anisoneura, Be
leses).
strahleandorffii Konow (Electrocepalus).
sturnii Klug (Tenthredo, Encarsioneura).
sylvatica Linnaeus (Tenthredo, Lyda
[=Pamphilus]).
sylvatica Linnaeus (Tenthredo, Pamphil
iis).
syringe Gradt (Cephosoma).
tabidus Fabricius (Sirex, Trachelus).
taczanowskii André (Praia).
tantillus O. Costa (Aphadnurus).
tessellata Klug (Tenthredo, Tenthred
dopsis).
testaceus Jurine (Pteronus, Pristiphora).
testaceae W. F. Kirby (Decamaria).
thomsoni Konow (Perineura, Thomsonia).
thoracica Klug (Plagiocera).
tibialis Klug (Pachylosticta).
trimaculatus Say (Cephus, Adirus).
troglydites Klug (Astatus).
tropicus Norton (Lophyrus, Lophyridea
[=Lophyroides]).
tropicus Norton (Lophyrus, Lophyridea).
truculentata Konow (Braunsiola).
townsendi Ashmead (Caloptilia).
typica Rohwer (Claremonta).
typica Rohwer (Nortonella).
typicus Brues (Palaeotaxonus).
typicus Rohwer (Prototaxonus).
ulmi Sundevall (Fenus, Kaliofenusa).
vaferLinnaeus (Tenthredo, Bactroceros).
vagans Fallén (Phylloptoma).
varianus Norton (Harpiphorus, Macrem
phytus).
varinervis Spinola (Tenthredo, Antho
leus).
varipes Cameron (Ancyloneura).
ventralis Say (Nematus, Pteronidea).
vexabilis Brues (Scollioneura, Lisconeura).
viodaustus Zetterstedt (Nematus, Brach
colus).
viminalis Fallén (Tenthredo, Trichio
campus).
violeaeiennis André (Nematoneura).
viridipes Cameron (Busarbia).
viridis Linnaeus (Tenthredo, Rhogogaster).
vulupis Konow (Cerospastus).
ulmaris Schlechtendal (Macrocephus).
ustulatus Linnaeus (Tenthredo, Cryptus).
weithii Ashmead (Acanthoptenon).
westwoodii Brulé (Dictyyna).
zabriskie Ashmead (Melanoselandria).
SYNONYMY OF CERTAIN GENERA.

By cross-reference in the index to the genotypes it was found that certain genera were isogenotypic. In some of these cases new names were needed. New names and certain synonymy are given below.

THE SYNONYMS OF HARTIGIA SCHIÖDTE AND BOIE.

Schiödte (Kroyers Naturhistorisk Tidsskrift, vol. 2, p. 332, 1838) gave the name Hartiga for a certain cephid insect which differed from Cephus pygæmus in characters of the antennæ. This species was not named, however, so the genus was without standing until 1855, when F. Boie (Stett. ent. Zeit., vol. 16, p. 49) stated that Astatus satyrus was the species which Schiödte had. This gives Hartiga standing and makes satyrus the type—the genus being monobasic.

The genotypes of the genera Cerobactus O. Costa and Cephosoma Gradl are identical specifically with satyrus; consequently these generic names fall to the older name Hartiga. The species satyrus is also congeneric with Macrocephus ulmariae Schlechtendal (= Tenthredo linearis Schrank), so Macrocephus is a synonym of Hartiga. The synonymy, therefore, is as follows:

Hartiga Schiödte and Boie, 1855.
   Cerobactus O. Costa, 1860.
   Macrocephus Schlechtendal, 1878.
   Cephosoma Gradl, 1881.

PTERONUS Panzer = DIPRION Schrank.

Panzer, in the original description of Pteronus, included the following species in the order named: Hylotoma frutetorum Fabricius, Hylotoma dorsata Fabricius, Hylotoma juniperi Fabricius, Tenthredo pini Linnaeus, and Tenthredo difformis Panzer. As the present-day conception of Pteronus has to be changed, no species originally included belonging to Pteronus Konow and authors, Tenthredo pini Linnaeus has been chosen as the type, making Pteronus Panzer and Diprion Schrank isogenotypic. Diprion is the older name, so Pteronus Panzer is a synonym of Diprion Schrank.

Diprion Schrank, 1802.
   Pteronus Panzer, 1806.

PTERONIDEA, N. N. FOR PTERONUS Konow and authors.

Pteronus Panzer being a synonym of Diprion Schrank, Pteronus Konow and authors is without a name. For this the name Pteronidea may be used. The type of Pteronidea is Nematus ventralis Say, which is congeneric with Konow’s interpretation of Tenthredomyosotides Fabricius.
THE SYNONYMS OF Platycampus Schiödte.

Hartig, in 1837 (Fam. Blatt. Holzwesp., p. 184), described the subgenus Leptopus for a new species, hypogastricus, which has proved to be the same as Tentredo luridiventris Fallén (1808). The name Leptopus had already (Latreille, 1809) been used for a genus of Hemiptera. Schiödte (Magasin de Zool., vol. 9, p. 20, footnote, 1839) proposed the name Platycampus for Leptopus Hartig.

E. Newman (Ent., vol. 4, pp. 215-217, 1869) describes the larva and adult of a sawfly under the name Camponiscus Tiealsei. The adult is very poorly characterized and unrecognizable, but in 1873 (Ent. Monthl. Mag., vol. 10, p. 84) P. Cameron says he has reared the same larva as Newman describes, and that the adult is the same as Nematus (Leptopus) hypogastricus Hartig. This synonymy establishes the genus Camponiscus and makes it the same as Leptopus Hartig, the two genera being isogenotypic.

F. W. Konow (Genera Insectorum, Fasc. 29, p. 48, 1906) uses the name Leptocercus Thomson (a changed spelling for Leptocerca Hartig) for this genus, but in this he is wrong, because Thomson divides Leptocercus into Leptocercus s. s., which contains Tentredo alni Linnaeus, Tentredo rufa Panzer, and Leptocercus nigriceps Thomson, and is Hartig's genus Leptocerca. The second division of Thomson's Leptocercus is Leptopus Hartig and contains Tentredo luridiventris Fallén. The Leptocercus Thomson s. s. is Leptocerca Hartig, not Leptopus Hartig as Konow would have it.

The synonymy of this group is as follows:

Platycampus Schiödte, 1839.
Leptopus Hartig, 1837 (non Latreille, 1809).
Camponiscus E. Newman, 1869.
Leptocercus Konow, 1906 (non Thomson; 1871).

Cræsus Leach=Nematus Jurine.

Latreille (Considérations Générales, p. 435, 1810) fixed the type of Nematus as Tentredo septentrionalis Jurine. Nematus septentrionalis Jurine is the same as Tentredo septentrionalis Linnaeus. Leach (Zool. Misc., vol. 3, p. 129, no. 1, 1817) based his genus Cræsus on Tentredo septentrionalis Linnaeus; so Cræsus Leach is a synonym of Nematus, the genera being isogenotypic.

Nematus Jurine, 1807.
Cræsus Leach, 1817.

Nematinus, N. N. For Nematus Konow.

The fixing the type of Nematus as Tentredo septentrionalis Linnaeus and making Cræsus synonym of it necessitates a new name for Nematus of Konow and authors. For Nematus Konow and authors the name Nematinus may be used.

The type of Nematinus is Tentredo abdominalis Panzer.
GYMNONYCHUS Marlatt=DIPHADNUS Hartig.

In 1837 Hartig (Fam. Blatt. Holzwesp., p. 225) formed a new sub-genus (Diphadnus) of Nematus for a species he called fuscicornis. Later European writers have proved that Nematus (Diphadnus) fuscicornis Hartig is an aberrant form of his Nematus appendiculatus, which for some time was placed in the genus Pristiphora.

Mr. C. L. Marlatt, in his Revision of the Nematinae of North America, described a new genus, Gymnonychus, for certain species near Pristiphora, which have simple tarsal claws. Nematus appendiculatus Hartig belongs to this genus, but in 1837 a generic name was given to an aberrant form of this species, so Mr. Marlatt’s name must fall as a synonym of Diphadnus Hartig.

Diphadnus Hartig, 1837.
Gymnonychus Marlatt, 1896.

CALIROA O. Costa AND ERIOCAMPOIDES Konow.

In 1859 (Fauna Napoli, Tenthred., p. 59) O. Costa described the genus Caliroa and included one species, C. sebetia O. Costa, which is therefore the genotype. Later it was proved that Caliroa sebetia is the same as Tenthredo (Allantus) cinxia Klug.

Rev. F. W. Konow in 1890 (Deutsch. ent. Zeitschr., 1890, p. 239) described his genus Eriocampoides and in his list of species, page 248, considers sebetia O. Costa as a synonym of cinxia Klug, but makes no mention of the genus Caliroa.

Dr. William H. Ashmead in 1898 (Can. Ent., p. 256) divided Konow’s genus Eriocampoides into two genera, naming Monostegia rose Harris as the type of his new genus Endelomyia.

The group of species placed in the genus Eriocampoides by Konow can well be separated into two distinct sections, one of which, Konow to the contrary notwithstanding (for he says Caliroa was founded on a male and not sufficiently characterized, Genera Insectorum, Fasc. 29, p. 75, 1906), must be called Caliroa. The type of Eriocampoides being the common pear slug limacina, that subgenus will contain those species which have the clypeus emarginate, the pedicel subequal in length with the scape, and the hind wings with usually two closed discal cells in the female. The type of Endelomyia Ashmead is Monostegia rose Harris, which is the same as the European rose slug ethiops Fabricius. The subgenus Endelomyia is characterized as having the clypeus truncate, the pedicel shorter than the scape (much wider than long), and the hind wings with usually only one discal cell in the female. Endelomyia is, however, a synonym of Caliroa, their genotypes being strictly congeneric.

The differences between these two groups are hardly of generic importance and could better be treated as subgenera, the arrangement being as follows:

Genus *Caliroa* O. Costa, 1859.
Subgenus *Caliroa* O. Costa, 1859.

*Endelomyia* Ashmead, 1898.
Subgenus *Eriocampoides* Konow, 1890. (See *Periclistoptera*, p. 86.)

**CIMBEX AND ALLIES.**

Olivier (Encycl. Méthod., vol. 4, p. 22, 1789) characterized his genus *Clavellarius*, but included no species in it. No species was ever placed in the genus, but in 1791 (Encycl. Méthod., vol. 6, p. 18) Olivier says that he changed the name to *Cimbex* because of the resemblance to the botanical genus *Clavaria*. In the Encyclopédie Méthodique, volume 5, page 764, 1790, the genus *Cimbex* is described and sixteen species are placed in it. Since *Clavellarius* had no standing until 1791 it must rank as a synonym of *Cimbex* as Olivier would have it.

Lamarck (Système des Animaux sans vertébrés, p. 264, 1801) characterized the genus *Clavellaria*, accrediting it to Olivier, but Olivier’s genus was *Clavellarius*. The only species placed in *Clavellaria* by Lamarck was *Tenthredo lutea* Linnaeus, the genus being monobasic with *Tenthredo lutea* as the type. Latreille (Considérations Générales, 1810), however, gave, as the type of *Cimbex*, *Tenthredo lutea* Linnaeus, so *Clavellaria* Lamarck is a synonym of *Cimbex*, the genera being isogenotypic.

W. A. Schultz (Spolia Hymenopterologica, p. 87, 1906) proposed the name *Pseudoclavellaria* for *Clavellaria* Leach and authors.

The synonymy is as follows:


*Clavellaria* Olivier (Encycl. Méthod., vol. 4, p. 22, 1789; Encycl. Méthod., vol. 6, p. 18, 1791).


*Pseudoclavellaria* Schultz (Spolia Hym., p. 87, 1906).

*Clavellaria* Leach (Zool. Misc., vol. 3, p. 111, 1817; and authors).

The above conclusions differ somewhat from those reached by Schultz (Spolia Hym., 1906), but it is believed that they are correct.

**SYZYGONIA AND ALLIES.**

Klug (Ent. Mon., p. 175, 1824) described his genus *Syzygonia* and included two species, *cyanoptera* Klug and *cyanecephala* Klug. Dr. William H. Ashmead (Can. Ent., p. 230, September, 1898) fixed the type of Klug’s genus as *cyanecephala* and described a genus which he called *Syzygonidea* for *Syzygonia cyanca* Brullé. Brullé (Hist. Nat. Ins. Hym., vol. 4, p. 671, 1846), in his remarks on *Syzygonia*, mentions no species, but refers to plate 48 (fig. 2), where he figures *Syzygonia*
cyanea and accredits it to Klug, but Klug described no such species and the figure must stand as a description of cyanea Brullé, as it does not agree with any described species.

Rev. F. W. Konow (Anal. Mus. Buenos Aires, vol. 6, pp. 397, 398, 1899) argues that Syzygonia cyanoptera Klug should be taken as the type of Syzygonia, as this species came first in the list and forms the first group. On these grounds he makes a new genus, Bergiana, for Syzygonia cyanocephala Klug. Bergiana and Syzygonia are isogenotypic, so Bergiana falls as a synonym of Syzygonia.

PARASYZYGONIA, N. N. FOR SYZYGONIA Konow.

Since Bergiana Konow is a synonym of Syzygonia, Syzygonia Konow must have a new name, as it is different from Syzygonidea Ashmead. For Syzygonia Konow Parasyzygonia may be used.

The above-mentioned genera may be separated in the following manner:

Radial cell of the fore wings not appendiculate (four cubital cells, the second and third each receiving a recurrent nervure; antennæ 6-jointed, the third joint longer than the fourth, and the club gradually formed) Syzygonidea Ashmead.

Radial cell of the fore wings distinctly appendiculate.

Antennæ 5-jointed; third cubital cell receiving the second recurrent nervure. Syzygonia Klug.

Antennæ 6-jointed; the second recurrent nervure interstitial with the second transverse cubitus. Parasyzygonia Rohwer.

Syzygonidea Ashmead.

Syzygonia cyanea Brullé.

Syzygonia Klug (Syn., Bergiana Konow).

Syzygonia cyanoptera Klug.

Parasyzygonia n.

Syzygonia cyanoptera Klug (type).

Syzygonia xne Perty.

THE WORK OF WILLIAM H. ASHMEAD ON THE TENTHREDINOIDEA.

The late Dr. William H. Ashmead's work on Tenthredinoidea was confined almost entirely to the genera, very little being done on the species. It was Doctor Ashmead's desire to give generic tables to all the genera of Hymenoptera. Such an enormous task would never have been undertaken by one less enthusiastic or energetic than Doctor Ashmead. With all the routine duties connected with the position held by this untiring worker there was but a limited time for his researches, so of necessity a great deal of the work was done in a hurry. This hurry caused mistakes, and the founding of genera on what would seem to be trivial characters; but the greater number of the genera founded by Ashmead are at least of subgeneric importance. In unpublished manuscript many of the mistakes and omis-
sions were corrected by Doctor Ashmead, and it is most unfortunate that these were not left in condition in which they could be published.

In the tables of the genera of Tenthredinoidea many genera were described as new, and some of these were based on species hitherto undescribed. The characters given in the tables are sufficient to satisfy the technical requirements, so the generic and specific names should date from their publication in the tables. Various writers have considered the characters given in the tables to be of no value, and in some cases this is correct. On this basis they have sunk into the synonymy genera which have as good standing as many which they recognize.

In the present paper the new genera founded on new species in the tables in the Canadian Entomologist for 1898 are characterized more completely, and a list of all the genera described, with the synonymy, as far as it has been determined, is given. Unless otherwise stated the types have been studied, and the conclusions based on these studies.

AN ALPHABETICAL LIST OF THE GENERA OF TENTHREDINOIDEA DESCRIBED BY WILLIAM H. ASHMEAD, WITH THE DETERMINED SYNONYMY.

1. Acanthoptenos Ashmead. (=Arge Schrank.)
2. Aomodyctium Ashmead. (A genus without a species.)
3. Aphildocyctum Ashmead. (Syn.: Parataxonus MacGillivray.)
4. Caloptilia Ashmead. (Syn.: Labidarge Konow.)
5. Calozarca Ashmead. (=Parazarca Ashmead.)
6. Dimorphopteryx Ashmead.
7. Endelomyia Ashmead. (=Caliroa O. Costa.)
8. Eriocampidea Ashmead. (Syn.: Cockerellonis MacGillivray.)
10. Gymnipterus Ashmead. (Type species lost.)
11. Hemitaxonus Ashmead.
12. Homoeoneura Ashmead. (=Bivena MacGillivray.)
13. Hypotaxonous Ashmead.
14. Liolyda Ashmead. (=Cephaeleia Panzer.)
15. Lophyridea Ashmead. (=Lophyrodes Cameron.)
16. Lophyrotoma Ashmead. (=Pterygophorus Klug.)
17. Macgillivraya Ashmead. (=Macgillivrayella Ashmead.)
18. Macgillivrayella Ashmead.
19. Manoxyela Ashmead. (=Pleroneura Konow.)
20. Marlattia Ashmead.
22. Melanoselandria Ashmead. (=Hypargyricus MacGillivray.)

Listed in Catalogue of Insects from New Jersey and without standing until 1909, when Doctor MacGillivray stated that it was a synonym of Hypargyricus MacGillivray. The synonymy is:


23. Micrarge Ashmead. (Syn.: Braunsiola Konow.)
24. Monophadnoides Ashmead.
25. **Neoperga** Ashmead.
26. **Neoptilia** Ashmead.
27. **Opisthoneura** Ashmead. (=**Zaschizonyx** Ashmead.)
28. **Paraperga** Ashmead.
29. **Paraselandria** Ashmead. (=**Selandria** Leach.)
30. **Parasiobla** Ashmead.
31. **Parazarca** Ashmead. (Syn.: **Calozarca** Ashmead.)
32. **Periclistoptera** Ashmead. (=**Eriocampoides** Konow.)
33. **Psecilostomidea** Ashmead. (=**Einpria** Lepeletier.)
34. **Polystichophagus** Ashmead. (=**Pseudotaxonus** A. Costa.)
35. **Pseudoperga** Ashmead (non Guérin).
36. **Pseudosiobla** Ashmead.
37. **Pterygophorinus** Ashmead. (=**Pterygophorus** Xhig.)
38. **Strongylogasteroidea** Ashmead.
39. **Syzygonidea** Ashmead.
40. **Tetratneura** Ashmead. (=**Einpria** Lepeletier.)
41. **Zaschizonyx** Ashmead.

In all, Ashmead described 41 genera of Tenthredinoidea. Of these 41 genera, 17 have been determined to be synonyms of older genera and 5 have later genera for synonyms. Some of the segregates of **Perga** defined by Ashmead will be classed as synonyms of the segregates formed by Shipp. These will be discussed in a later paper.

**BIBLIOGRAPHY OF THE MORE IMPORTANT WRITINGS OF WILLIAM H. ASHMHEAD ON TENTHREDINOIDEA.**

A new oryssid from Chatham Islands, Bismarck Archipelago.  < Psyche, vol. 10, p. 73, 1903.

**DESCRIPTION OF THE GENERA AND SPECIES.**

**MANOXYELA** Ashmead = **PLERONEURA** Konow.

The type of **Manoxyela californica** Ashmead belongs to the genus **Pleroneura** Konow, so **Manoxyela** is a synonym of **Pleroneura**.


**PLERONEURA CALIFORNICA** (Ashmead).


Length to the end of the second abdominal segment, 2.5 mm.; length of fore wing, 4 mm. Lateral angles and middle production of the clypeus rounded; antennal furrows wanting above the anterior ocellus; middle foveæ elongate; anterior ocellus in a slightly depressed basin, which is sharply angled above; postocellar line slightly
shorter than the ocellocular line, but longer than the ocellocipital line; right mandible with 2 inner teeth; head and parts of the thorax irregularly granular; tarsal claws with a long bristle near the middle; stigma more than twice as long as wide, angled below; venation very like *Xyela julii*; four posterior legs and abdomen beyond the third segment wanting. Black; antennae, palpi, and legs reddish-yellow; wings hyaline, venation pallid.

*Type locality.*—Alameda County, California. One specimen collected in June.


**ACANTHOPTENOS** Ashmead = **ARGE** Schrank.

Ashmead (Can. Ent., p. 212, 1898) described his genus *Acanthoptenos* for *Acanthoptenos weidhii* Ashmead. The genus is founded upon an abberant specimen of *Arge macleayi* authors, the intercostal vein being absent in the only perfect fore wing. *Acanthoptenos* is therefore a synonym of *Arge*.

**ARGE** Schrank, 1892.
*Acanthoptenos* Ashmead, 1898.

**CALOPTILIA** Ashmead.


*Type.*—*Caloptilia townsendi* Ashmead.

Ashmead placed his genus *Caloptilia* in his subfamily Schizocerinae, but in this he is wrong. The type of *Caloptilia townsendi* Ashmead has the cross-vein in the intercostal cell present and belongs to his Hylotominae. It is the same as *Labidarge* Konow.

**LABIDARGE** Konow = **CALOPTILIA** Ashmead.

The error of Doctor Ashmead in placing *Caloptilia* in the Schizocerinae caused Rev. F. W. Konow to form a new genus *Labidarge* for the same group of species. As Konow's genus was described a year later than Ashmead's, it must rank as a synonym of *Caloptilia*.


**CALOPTILIA TOWNSENDI** Ashmead.


Reddish-yellow; head, spot on lateral lobe, four posterior tibiae and tarsi, and apex of abdomen black; wings dusky hyaline with a broad yellow band behind the stigma.

*Female.*—Length, 8 mm. Labrum arcutely emarginate anteriorly; clypeus with a V-shaped notch in the middle; supraclypeal area in cross section triangular; the usual frontal basin sharply defined, the middle foveal area separated from the upper area by a low, complete, transverse carina; the middle fovea with a spherical tubercle; postocellar furrow angled; the postocellar area with longitudinal impressed line; flagellum hairy, very slightly thickening apically; transverse median vein received beyond the middle of the first discoidal cell; stigma elongate, rounded on the lower
margin; saw with regular triangularly-shaped teeth; sheath at the apex obliquely truncate. Reddish-yellow; flagellum, head (labrum and palpi excepted), a spot on the lateral lobe of the mesonotum, four posterior tibiae and tarsi, and apical four abdominal segments black; anterior tarsi dusky. Wings dusky hyaline, with a broad yellow band behind the stigma; venation in the dusky part brown, in the yellow part yellowish, basal part of the stigma yellowish.

Male.—Length, 8 mm. The male agrees with the characters given for the female except that the supraelyceal area and clypeus are pale. Hypopygium rounded apically.

Type locality.—San Rafael, Jicoltepec, Mexico. Five females and one male collected by C. H. T. Townsend (from the Ashmead collection). Also two females from Cordoba, Mexico, collected by Mr. Frederick Knab.

Type.—Cat. No. 13134, U. S. National Museum.

**PSEUDOCYPHONA Ashmead.**


**Type.—*Pseudocyphona mexicana* Ashmead.**

This genus belongs to the Schizocerinae and is related to *Schizocera*, but is readily separated from *Schizocera* and allies by the toothed tarsal claws. Habitus similar to *Schizocera*. Clypeus and labrum emarginate; antennal carina present; eyes elongate oval, slightly converging to the clypeus; malar space almost wanting; ocelli in a low triangle, the lateral ones very little before the supraorbital line; antennae inserted near the middle of the face, the third joint simple in the female and somewhat flattened; thorax and abdomen normal for the group; tibiae without lateral spurs; postbasitarsis shorter than the following joints; claws with an erect inner tooth near the middle; radial cell not appendiculate; four cubital cells, the second receiving both recurrent veins; basal vein joining the subcosta at the origin of the cubitus; transverse median received near the middle of the first discoidal cell; anal cell broadly contracted; radial cell of the hind wings open at the apex; two closed discal cells in the hind wing; the anal cell longly petiolate, the petiole longer than the cell.

**PSEUDOCYPHONA MEXICANA Ashmead.**


Black; mesonotum, scutellum, and upper part of the pleuræ reddish; legs black; wings dark.

Female.—Length, 7 mm. Labrum and clypeus very slightly arcuately emarginate; supraelyceal area convex, triangular in outline, meeting the prominent middle carina between the antennæ; antennal fovea large and joining the supraelyceal fovea; antennal furrows not well defined; ocellar basin represented by a gently depressed area; postocellar fovea almost wanting; postocellar line shorter than the ocellular line; antennæ short, the third joint broad, flattened; thorax normal; transverse median slightly beyond the middle of the first discoidal cell; third cubital cell about one-third longer on the radius than on the cubitus; stigma robust, broadest at the base; sheath with the lower margin marginate; saw with very small, close teeth. Black; pronotum, mesonotum, scutellum, tegulae, and upper part of the mesopleuræ reddish; wings and venation blackish-brown.

Type locality.—San Rafael, Jicoltepec, Mexico. One female from the Ashmead collection, collected by Mr. C. H. T. Townsend.

Type.—Cat. No. 13135, U. S. National Museum.
NEOPTILIA Ashmead.


Type.—Neoptilia mexicana Ashmead.

Belongs to the Schizocerides of Konow, and runs, in Konow’s tables (Genera Insectorum, Fasc. 29, p. 13, 1906), in with Hemiidianeura W. F. Kirby and Ptilia Lepeletier, or to Rhagonyx Konow. Elongate, robust species; head not especially small or transverse, not as wide as the thorax, much broader than high; clypeus and labrum emarginate anteriorly; ocelli in a curved line, the lateral ones in front of the supraorbital line; eyes slightly converging to the clypeus; malar space very narrow, antennal furrows present; ocellular line subequal with the postocellar line; antennae inserted in the middle of the face, ciliate, furcate in the male, simple in the female and scarcely thickening apically; tibiae without lateral spurs; post-basitarsis not as long as the following joints; tarsal claws cleft, the inner tooth larger and shorter in the female; thorax normal for the group. Venation of females as follows: Intercostal cell without a cross-vein; radial cell with a strong appendiculation; four cubital cells, the second receiving both recurrent veins, the second near the middle, the first near the base; basal vein slightly basad of the origin of the cubitus, bent basally and not exactly parallel with the first recurrent; transverse median slightly basad of the middle of the first discoidal; anal cell very broadly contracted; in the hind wings the radial cell is long and not closed at the apex; two closed discal cells, the upper one much longer; transverse median at right angles with the anal vein; anal cell shorter than the rest of the anal vein. The venation of the male differs from that of the female in the absence of the second transverse cubitus. Basal plate with a narrow longitudinal suture.

Rhagonyx Konow (Zeitschr. syst. Hym. Dipt., vol. 3, p. 108, 1903) has the claws cleft, and is perhaps related to Neoptilia Ashmead.

NEOPTILIA MEXICANA Ashmead.


Colored similarly to Hylotoma biramosa Klug, which has been placed in different genera by different authors. There are some minor differences, however, and the standing of biramosa is so uncertain that mexicana should be held distinct until Klug’s type can be studied.

Female.—Length, 11 mm. Labrum deeply arcuately emarginate; clypeus with a deep V-shaped notch; labrum, clypeus, and supraclypeal area with rather large punctures; front with small well-separated punctures; vertex impunctate; supraclypeal area broadly convex, triangular; carina between the antennae high but not sharp; postocellar area parted, with a median furrow, wider than the cephalocaudal length; postocellar furrow not sharply defined; postocellar line subequal with the ocellular line; thorax shining; third cubital cell more than twice as long on the radius as on cubitus. Black; angles of the pronotum broadly pallid; abdomen, except the black second and third dorsal segments, pallid at the base and reddish yellow at the apex; legs, except the anterior tibiae at base beneath, black; wings beyond the basal nervure distinctly brown, basad hyaline; venation black; head with pale hair.

Male.—Length, 9.5 mm. The male differs from the female in the usual sexual characters and the arcuately emarginate clypeus. Hypopygidium very large, apex truncate.

Type locality.—San Rafael, Jicoltepec, Mexico. Three females and one male in the collection of Dr. William H. Ashmead.

Type.—Cat. No. 13133, U. S. National Museum.
MARLATTIA Ashmead.


**Type.**—*Hemichroa laricis* Marlatt.

Clypeus shallowly emarginate; malar space present; pentagonal area present; antennae slender, filiform, fourth joint longer than the third; thorax normal for the group; legs normal except for the simple tarsal claws; venation normal except the intercostal vein, which is interstitial with the basal, and the third cubital cell, which is short as in *Pteronurus*.

Easily known from *Hemichroa* by the simple tarsal claws.

OPISTHONEURA Ashmead—ZASCHIZONYX Ashmead.

The type of *Opistheneura crevecoeuri* Ashmead is the same as *Hoplocampa montana* Cresson, which is the type of *Zaschizonyx* Ashmead.  


PARAZARCA Ashmead.


*Type, Selandria fascipennis* Norton.)

Eyes large, subparallel or slightly converging to clypeus; malar space very narrow so as to be nearly wanting; clypeus truncate, rather large as is the labrum; lateral ocelli below the supraorbital line, the posterior orbits therefore rather narrow; antennae hairy, pedicellum much longer than wide, third joint the longest, apical joints short and narrowing apically; mesosternum with a distinct, triangular-shaped pre sternum; mesopleure without a suture separating off a prepectus, metanotum with a distinct "scutellum;" tarsal claws with a large inner tooth appearing cleft, also a small post-basal tooth, basitarsis subequal with the following joints; wings of the normal blennocampid type; transverse median in the middle of first discoidal cell; third cubital cell longer on the radius than the first and third combined; radial cell of the hind wings appendiculate; no closed discal cell in the hind wings and the anal cell distinctly petiolate.

PARAZARCA FUMIPENNIS Ashmead.


**Female.**—Length, 7 mm. Lateral angles of the clypeus rounded; frontal foveae broad, shallow, the lateral ones somewhat circular in outline; the middle fovea joining with the ocellar basin and forming a broad, shallow, depressed area; antennal furrows obsolete; postocellar furrow faintly indicated; lateral boundaries of the postocellar area sharply defined; postocellar line a very little shorter than the ocellocapitellate line; stigma broadest at base, tapering gradually to the apex; second recurrent vein quite free from the second transverse cubitus; sheath very robust, straight above, the apex truncate, the oblique lower part marginate; saw obliquely ribbed, the teeth small; sharp, and regular. Shining reddish yellow; flagellum, spot inclosing ocelli, apex of saw, and four posterior legs below middle of tibiae black; anterior tarsi brownish, wings brown, venation brownish black.

**Male.**—Length, 6 mm. Almost exactly as in female. Hypopygidium one and one-fourth times as long as wide, the apex gently rounded.
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Type locality.—Frontero, Tabasco, Mexico. A male and female from the Ashmead collection.

Type.—Cat. No. 13136, U. S. National Museum.

COCKEREL Lonis MacGillivray—ERIOCAMPIDEA Ashmead.

Comparison of a specimen, from the original lot collected by Prof. T. D. A. Cockerell and sent to the U. S. National Museum, of Cockerellonis occidentalis MacGillivray proves that this species is the same as Eriocampidea arizonensis Ashmead. Cockerellonis MacGillivray is therefore a synonym of Eriocampidea Ashmead.


Inasmuch as MacGillivray has described Cockerellonis occidentalis (Can. Ent., p. 365, 1908) completely, a description of Eriocampidea arizonensis is not given here.

HYPOTAXONUS Ashmead.

Rohwer a gave this genus as a synonym of Ermilia O. Costa. As his remarks on the type of Taxonus Hartig b are incorrect, this is wrong, and for the present Hypotaxonus should be treated as a good subgenus.