Checklist of Chalcidoidea and Mymarommatoidae (Hymenoptera) of Canada, Alaska and Greenland

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Abstract

A checklist of 1246 extant, described species, classified in 346 genera in 18 families of Chalcidoidea (Hymenoptera) are reported from Canada, Alaska (USA) and Greenland (Denmark) based on examined specimens and published records up to December 31, 2020. Of the reported species, 1214 (in 345 genera in 18 families) are listed from Canada, 113 (in 58 genera in 10 families) from Alaska, and 26 (in 22 genera in 4 families) from Greenland. The list includes 235 new species records and 53 new generic records for Canada (no new family records). Forty-one new species records, 22 new generic records and the families Chalcididae and Eurytomidae are newly reported for Alaska. No new records were found for Greenland. Two species (in one genus) of Mymarommatoidae are reported from Canada. For each species in Canada, distribution is tabulated by province or territory, except the province of Newfoundland and Labrador is divided into the island of Newfoundland and the region of Labrador. The inclusion of known species from Alaska and Greenland results in the first comprehensive distributional checklist for Chalcidoidea and Mymarommatoidae (Hymenoptera) of Canada, Alaska and Greenland.
the entire northern part of the Nearctic region. A brief review of the history of cataloguing Chalcidoidea in North America and a comparison of this checklist with four published checklists from the Palaearctic region is provided.

Keywords
Microhymenoptera, Nearctic region, northern North America, species distributions

Introduction

The superfamily Chalcidoidea is one of the most diverse groups of organisms on the planet (Figs 2–13). More than 22,700 species are described (Huber 2017), but Heraty et al. (2013) estimated that there might be up to 500,000 species worldwide. Most chalcidoids, for which the biology is known, are parasitoids, having been reared from a wide variety (12 orders) of Insecta, and also 2 orders of Arachnida and the family Anguinidae (Nematoda) (Gibson 1993). A few are predators and some are phytophagous. For more comprehensive information on the biology of Chalcidoidea see, e.g., Clausen (1940), Askew (1971), Bendel-Janssen (1977), Gordh (1979a), Gauld and Bolton (1988), Hanson and Gauld (1995), Noyes (2019). In addition to Chalcidoidea, the small superfamily Mymarommatoidae is also included in this paper because it is generally considered to be the sister group to Chalcidoidea (Gibson et al. 2007; Huber et al. 2008; Heraty et al. 2013). The biology of Mymarommatoidae is unknown, except that one has been reared from a bracket fungus and most are collected in shady, moist areas such as deciduous forests (Huber et al. 2008).

The first published cataloguing efforts for Chalcidoidea of the Nearctic region began with Peck (1951), with supplements by Burks (1958, 1967b). Peck (1963) catalogued the literature for each species up to and including 1958. The families comprising the Chalcidoidea section in Krombein et al. (1979) were catalogued by B. Burks, G. Gordh, and E. Grissell, former chalcidologists at United States National Museum of Natural History, Washington, DC (USNM), and included the relevant taxonomic literature to the end of 1972 or 1976 depending on the family. These catalogues also included species and records from Greenland. In his acclaimed Universal Chalcidoidea Database (UCD) for world Chalcidoidea, Noyes (2019) included the data from these previous catalogues. His database is now the only comprehensive compilation of taxonomic, biological, distributional and literature source information for world Chalcidoidea for the past 40–50 years, though it has not been updated since March 2019. Among other searches, it can be used to generate numbers and lists of Chalcidoidea names for any biogeographical region or country, and political subdivision within larger countries. Building on the information contained in the UCD, it is the purpose of this paper to provide the first checklist of the Chalcidoidea and Mymarommatoidae of Canada, Alaska and Greenland incorporating previously published, substantiated records as well as new records based on authoritatively identified specimens.
Methods

Sources of data

All records are substantiated by evidence, either collection- or literature-based. The vast majority of records in this checklist are based on specimens in the Canadian National Collection of Insects, Arachnids and Nematodes, Ottawa (CNC). Additional distributional records, for which specimens could not be examined, were obtained by mining previous literature. Because of the relatively poor knowledge of Chalcidoidea, regional collections were generally not consulted because of the immense amount of work required to identify and curate most specimens in these collections. However, a few records were based on examination of specimens (or their photographs) deposited in other collections, as follows: Royal Alberta Museum, Edmonton, Alberta, Canada (PMAE: M. Buck); Royal Ontario Museum, Toronto, Ontario, Canada (ROM: C. Darling); Royal Saskatchewan Museum, Regina, Saskatchewan, Canada (RSKM: C. Sheffield), University of Alaska, Fairbanks, Alaska, USA (UAM: D. Sikes). Whereas most records are Canadian, records from Alaska (USA), Greenland (Denmark) and the 242 km$^2$ French Overseas Collectivity of Saint Pierre and Miquelon islands located 25 km from the southern coast of Newfoundland are also included so as to provide complete coverage of the northern part of the Nearctic region. Most of the Alaska species records (74 of 113) were based on specimens in collections (CNC and UAM). The remainder were literature records, primarily from the chapters in Krombein et al. (1979), which mostly catalogued specimens in the USNM. The Greenland records were taken almost exclusively from the relevant chapters in Böcher et al. (2015) with some records substantiated by specimens in the CNC. The single species recorded from Saint Pierre and Miquelon was obtained from the TAXREF database (Gargominy et al. 2020) managed by the Muséum national d’Histoire naturelle, Paris, but specimens were not examined and this species is only discussed in the text, not included in Table 2. Because of relatively poor sampling of the chalcidoids of these last three regions, it is likely that the current survey is not as complete for them as it is for Canada. All records published up to December 31, 2020 were evaluated for the current checklist.

We exclude from the checklist the very few fossil species of Chalcidoidea described from Canadian Cretaceous amber; all are now classified in Mymaridae (Poinar and Huber 2011) and Rotoitidae (Gumovsky et al. 2018). Further, species introduced into Canada from other countries for biological control against introduced pests are included only if there is irrefutable evidence that they became established after release. Often, no follow up surveys were undertaken to determine if the species released had established and so their continued presence is unsubstantiated. Because there is no single compilation of intentionally released species, one must search for their names in the five volumes on biological control in Canada: McLeod et al. (1962), Kelleher et al. (1971), Kelleher and Hume (1984), Mason and Huber (2002) and Mason and Gillespie (2012). At least 18 species are or were commercially produced in Canada (Mason and Huber 2002), 14 of which are included in the checklist. The other four species, *Aphytis melinus* DeBach, *Eretmocerus californicus* Howard, *Metaphycus helvolus* (Compere) and...
Trichogrammatoidea bactrae Nagaraja, occur in the southern states of USA or outside the
Nearctic region on pests of crops not, or not extensively, grown commercially in Canada
so are most unlikely to be found there. Some of the commercially produced species may
establish more or less permanent populations in areas where they are released, often in
large numbers at intervals (usually in greenhouses) or may occur naturally outside the
facilities that produce them. We do not include any records in Table 2 that are solely
known from websites such as iNaturalist, BugGuide or online databases of specimens
in museums because for Chalcidoidea, examination of specimens with reference to au-
thoritatively identified material is generally required. Finally, we only include described
species, not undescribed taxa or specimens identified only to genus.

Presentation of data

Distributions of taxa are indicated using acronyms of 18, mostly political, regions of
northern (mostly north of 45° latitude) North America. For practical purposes the prov-
ince of Newfoundland and Labrador is divided into the island of Newfoundland and the
region of Labrador on mainland Canada. The acronyms used for the regions are: CAN =
Canada, AK = Alaska (USA), GL = Greenland, SPM = Saint Pierre and Miquelon.
Within Canada, the regions are: AB = Alberta, BC = British Columbia, LB = Labrador,
MB = Manitoba, NB = New Brunswick, NF = Newfoundland island, NS = Nova Scotia,
NT = Northwest Territories, NU = Nunavut, ON = Ontario, PE = Prince Edward Island,
QC = Quebec, SK = Saskatchewan, YT = Yukon Territory. All regions are shown in Fig.
1. The distributional data are presented in two ways. Table 1 is a summary of the num-
bers of described, recorded species of Chalcidoidea and Mymarommatoidae in Canada,
Alaska and Greenland (not including Saint Pierre and Miquelon) totalled for each family
for all 17 regions. Table 2 is the species checklist arranged alphabetically by family for the
same 17 regions. It contains three types of distributional records: 1) a published record
for which we have examined a specimen; 2) a new (unpublished) record for which we
have examined a specimen; and 3) a published record for which we have not examined
a specimen, but is well-substantiated (see Assessing credibility of records section in Ben-
nett 2021a). The different types of records are indicated by different fonts and colours
in Table 2 (see Table heading). The absence of a provincial or territorial acronym for a
species recorded from Canada indicates that the taxon was recorded from Canada but no
province was specified. Literature references (shown in the far right column of Table 2)
are only noted for previously published records for which no specimens were examined.
Authors’ names that have been spelled in different ways, such as with or without diacritic
marks, are spelled in only one way for consistency, for example, Förster, not Foerster.
Literature references for published records for which specimens were examined are not
provided as this would dramatically increase the size of the study and make it practically
impossible to present the distributional data in a table format. We do provide an exten-
sive, but by no means comprehensive, list of references for higher taxa, e.g., revisions of
genera and regional checklists, which are cited directly under the higher taxon names in
Table 2. Our list is not a catalogue so synonyms and homonyms are generally excluded;
these can be found in UCD. In addition to the published checklist, the data presented in Table 2 have been added to Canadensys (https://data.canadensys.net/ipt/resource?r=aafc-hymenoptera-canada-ak-gl) and are also registered on GBIF (Bennett 2021b).

Classification

The family classification in Chalcidoidea has been extremely volatile, varying from 1 to 23 recognized families (see Grissell and Schauf 1997), with changes even in the last few years and more changes likely in the future. We mainly follow the family classification in Heraty et al. (2013) in which 22 families were recognized, except we also recognize the family Megastigmidae, which was raised from subfamily status within Torymidae by Janšta et al. (2018). Five extant families, the Agaonidae, Cynipencyrtidae, Eriaporidae, Rotoitidae, and Tanaostigmatidae do not occur in northern North America. Species of Agaonidae are associated exclusively with figs (Ficus spp.), which do not naturally occur in Canada, Cynipencyrtidae consists of one genus and species in Asia, Eriaporidae occur only in the Old World, the two described species of Rotoitidae occur only in Chile and New Zealand, and species of Tanaostigmatidae occur in the New World only as far north as the southern states of USA.

Results and discussion

A total of 1246 described, extant species of Chalcidoidea in 346 genera in 18 families are listed for Canada, Alaska and Greenland (Tables 1 and 2). Of these, 1214 species, classified in 345 genera in 18 families, are listed from Canada. To place the current number of species in perspective, it represents a 149% increase from the 500 species reported in Danks (1979). In terms of relative species richness within Hymenoptera, Chalcidoidea species comprise 13.5% of the 9250 species recorded in northern North America and 13.6% of the 8933 recorded in Canada (Bennett 2021a). Yet in comparison to other areas of the world the number of Chalcidoidea is relatively low. Gijswit (2003) recorded 1085 species of Chalcidoidea for The Netherlands, Weber et al. (2018) 1964 species (and likely about 380 more) for Germany, Dale-Skey et al. (2016) 1754 species for Great Britain and Ireland, and Belokobylskij et al. (2019) 2307 species for Russia, other countries that have recently published checklists for Chalcidoidea. Britain and Ireland together (313,100 km²) are only about 3.2% the size of Canada (9.985 million km²), but despite this, the 1754 species recorded from there is almost 1.5 times greater than all the species we record from Canada. Canada and Russia have a much greater variety of ecozones and habitats than does Britain and Ireland, which have little or no tundra, temperate rain forest, grassland or semi-desert. While the colder climate over much of Canada contributes to the apparently depauperate fauna this is not the main reason. Lack of collecting as well as lack of study of what has been collected, in groups other than those of research interest to the few taxonomists who study Chalcidoidea in Canada, is probably the main factor contributing to poor knowledge of species and their distributions.
Table 1. Described, recorded species of Chalcidoidea and Mymarommatoida in Canada, Alaska and Greenland totalled for each taxon and in each region. See Methods for acronyms used for the regions and Fig. 1 for their locations. Regions are arranged generally north to south and west to east.

| Taxon      | CAN+AK+GL | CAN(New) | AK+GL | CAN | NT | NU | BC | AB | SK | MB | ON | QC | NB | PE | NS | LB | NF | GL |
|------------|------------|----------|-------|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Aphelinidae| 38         | 38 (12)  |       |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Azotidae   | 1          | 1 (0)    |       |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Chalcididae| 39         | 39 (7)   | 3     | 2   | 1  | 0  | 13 | 9  | 14 | 16 | 29 | 17 | 5  | 1  | 2  | 0  | 1  | 0  |
| Encyrtidae | 110        | 100 (23) | 4     | 2   | 3  | 1  | 33 | 23 | 16 | 14 | 69 | 35 | 23 | 5  | 22 | 1  | 5  | 10 |
| Eucharitidae| 8         | 8 (0)    | 1     | 1   | 1  | 0  | 4  | 7  | 3  | 2  | 6  | 3  | 3  | 2  | 1  | 0  | 0  | 0  |
| Eulophidae | 379        | 374 (62) | 43    | 23  | 34 | 2  | 133| 108| 61 | 87 | 285| 191| 107| 18 | 89 | 5  | 28 | 6  |
| Eupelmidae | 28         | 28 (7)   | 0     | 0   | 0  | 0  | 8  | 6  | 3  | 4  | 20 | 8  | 4  | 3  | 3  | 0  | 0  | 0  |
| Eurytomidae| 87         | 87 (15)  | 4     | 5   | 3  | 0  | 35 | 27 | 21 | 20 | 65 | 44 | 9  | 8  | 11 | 2  | 0  | 0  |
| Leucospidae| 1          | 1 (0)    | 0     | 0   | 0  | 0  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 0  | 0  | 0  |
| Megastigmidae| 21       | 21 (5)   | 3     | 2   | 2  | 1  | 11 | 5  | 3  | 4  | 12 | 10 | 3  | 2  | 3  | 2  | 3  | 0  |
| Mymaridae  | 96         | 94 (7)   | 12    | 5   | 8  | 0  | 29 | 19 | 4  | 9  | 67 | 46 | 10 | 10 | 18 | 0  | 1  | 1  |
| Ormyridae  | 9          | 9 (3)    | 0     | 0   | 1  | 0  | 2  | 2  | 0  | 2  | 7  | 4  | 2  | 0  | 3  | 0  | 0  | 0  |
| Perilampidae| 20        | 20 (6)   | 0     | 2   | 0  | 0  | 8  | 9  | 3  | 14 | 13 | 5  | 4  | 3  | 5  | 0  | 0  | 0  |
| Pteromalidae| 309      | 295 (71)| 36    | 22  | 20 | 3  | 111| 98 | 57 | 58 | 186| 136| 64 | 21 | 49 | 3  | 16 | 9  |
| Signiphoridae| 1        | 1 (0)    | 0     | 0   | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| Tetracampidae| 4        | 4 (0)    | 0     | 0   | 0  | 0  | 0  | 1  | 0  | 0  | 4  | 3  | 1  | 0  | 0  | 0  | 0  | 0  |
| Torymidae  | 60         | 59 (17)  | 3     | 3   | 3  | 0  | 28 | 20 | 9  | 14 | 41 | 22 | 8  | 2  | 5  | 0  | 1  | 0  |
| Trichogrammatidae| 35     | 35 (0)   | 4     | 2   | 2  | 0  | 13 | 11 | 6  | 17 | 13 | 4  | 1  | 3  | 1  | 0  | 0  | 0  |
| CHALCIDOIDEA| 1246     | 1214 (235)| 113   | 69  | 78 | 7  | 440| 355| 207| 245| 852| 566| 257| 79 | 223| 13 | 56 | 26 |
| MYMAROMMATOIDEA| 2      | 2(0)     | 0     | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 2  | 1  | 1  | 0  | 0  | 0  | 0  | 0  |

Total species: 1246
Total Canada: 1214

Figure 1. Map of Canada, Alaska, Greenland, and Saint Pierre and Miquelon showing number of described, recorded Chalcidoidea species and percentage of total species for each region. Canada is comprised of all regions except for Alaska, Greenland, and Saint Pierre and Miquelon. See the Presentation of data section under Methods for the acronyms of the regions treated in the checklist.
Table 2. Checklist of species of Chalcidoidea and Mymarommatoida of Canada, Alaska and Greenland. See Methods for acronyms used for the regions. Distributional acronyms in black regular font are previously published and supported by an examined specimen. Red, boldface records are new (unpublished) records supported by an examined specimen. All specimens supporting boldfaced records are deposited in the CNC except if a depository acronym is noted in the far right column. Blue, italicized records are previously published but not validated by an examined specimen. Literature references are only noted for italicized records. For species with multiple italicized records based on multiple references, the references are listed in order from left to right, corresponding with the distributional records depicted from left to right, unless otherwise noted. An asterisk (*) denotes a record from Newfoundland for which it is uncertain whether it was from the island of Newfoundland or mainland Labrador.

| ORDER HYMENOPTERA |
|-------------------|
| SUPERFAMILY CHALCIDIOIDEA |
| FAMILY APHELINIDAE |
| Genus Aphelinus Dalman, 1820 |
| Partial revision – Shirley et al. 2017 |
| A. abdominalis (Dalman, 1820) |
| BC |
| A. asynclips (Walker, 1851) |
| ON |
| A. asychis Walker, 1839 |
| AB SK MB ON QC NB |
| A. chamae Walker, 1839 |
| ON |
| A. gueugni Timberlake, 1924 |
| QC NB |
| A. howardi Dalla Torre, 1898 |
| A. jucunda Gahan, 1924 |
| ON |
| A. mali (Haldeman, 1851) |
| BC AB SK MB ON QC NB |
| A. martatti (Ashmead, 1888) |
| ON |
| A. niger Girault, 1913 |
| A. perpallida Gahan, 1924 |
| ON |
| A. precipitata Carver, 1980 |
| ON |
| A. sanborniae Gahan, 1924 |
| A. semiflavus Howard, 1908 |
| MB ON |
| A. suipes (Forster, 1840) |
| CAN |
| Genus Aphytis Howard, 1900 |
| World revision – Rosen and DeBach 1979 |
| A. diaspidis (Howard, 1881) |
| ON QC |
| A. mytilaspides (Le Baron, 1870) |
| ON QC NB |
| A. procida (Walker, 1839) |
| Nb |
| Genus Mariettia Motschulsky, 1863 |
| World key – Hayat 1986 |
| M. mexicana (Howard, 1895) |
| QC |
| M. picta (Andre, 1878) |
| CAN |
| M. pulchella (Howard, 1881) |
| CAN |
| SUBFAMILY COCCOPHAGINAE |
| Genus Cococcus Ratzburg, 1852 |
| C. variicornis (Howard, 1881) |
| SK ON QC |
| Genus Coccusprov. |
| World revision – Compere 1931 |
| C. brunneus Provancher, 1887 |
| CAN |
| C. cinguliventris Girault, 1909 |
| CAN |

See Methods for acronyms used for the regions. Distributional acronyms in black regular font are previously published and supported by an examined specimen. Red, boldface records are new (unpublished) records supported by an examined specimen. All specimens supporting boldfaced records are deposited in the CNC except if a depository acronym is noted in the far right column. Blue, italicized records are previously published but not validated by an examined specimen. Literature references are only noted for italicized records. For species with multiple italicized records based on multiple references, the references are listed in order from left to right, corresponding with the distributional records depicted from left to right, unless otherwise noted. An asterisk (*) denotes a record from Newfoundland for which it is uncertain whether it was from the island of Newfoundland or mainland Labrador.
C. fleschleri Howard, 1897  CAN – – – – – – – – ON – – – – – Howard 1897
C. gospopiaria Gahan, 1927  CAN – – – – BC AB – – ON – NB – – – – Mader et al. 2020
C. kyntina (Walker, 1839)  CAN – – – – BC AB – – ON QC – – – – Girault 1912a
C. perfurata Girault, 1916  CAN – – – – – – – – ON QC – – – – Beaulne 1949
C. quaesitor Girault, 1917  CAN – – – – MB ON – – – – – – – – Girault 1917
C. xestellaris (Dalman, 1826)  CAN – – – – BC – – – – – – – –

Genus Encarsia Förster, 1878
E. annulata (Howard, 1894)  CAN – – – – – – – – QC – – – – Girault 1912a
E. citrina (Craw, 1891)  CAN – – – – – – – – ON – – – – Thompson 1953
E. formosa Gahan, 1924  CAN – – – – BC AB SK MB ON QC NB PE NS NF – – AB,SK,MB,QC, NB,PE,NS-Baird 1938; NF-Baird 1940

E. genavaei Pedata & Giorgini, 2017  CAN – – – – – – – – – ON – – – – –
E. launstherii (Burks & Paoli, 1916)  CAN – – – – – – – – ON – – – – – Baird 1947
E. pernicicis (Tower, 1913)  CAN – – – – – – – – ON – – – – – Caesar 1915

E. genavaei Pedata & Giorgini, 2017  CAN – – – – – – – – ON – – – – –
E. launstherii (Burks & Paoli, 1916)  CAN – – – – – – – – ON – – – – – Baird 1947
E. pernicicis (Tower, 1913)  CAN – – – – – – – – ON – – – – – Caesar 1915

SUBFAMILY ERETMOCERINAE

Genus Eretmocerus Haldeman, 1850
E. eremicus Rose & Zolnerowich, 1997  CAN – – – – – – – – ON – – – – –

FAMILY AZOTIDAE

Neartic catalogue – Gonth 1979b (as part of Encyrtidae)

Genus Ablerus Howard, 1894
A. clavicornis (Ashmead, 1894)  CAN – – – – – – – – ON – – – – – Jarvis 1998

FAMILY CHALCIDIDAE

Subfamilies classification, phylogeny – Cruaud et al. 2021; Neartic generic key – Bouček and Halstead 1997; New World generic revision – Bouček 1992; Neartic catalogue – Burks 1979a

SUBFAMILY BRACHYMERINAE

Genus Brachymerus Westwood, 1829
Neartic revision – Burks 1960
B. acuta Burks, 1960  CAN – – – – BC – SK MB ON QC – – NS – – –
B. compispinate (Crawford, 1911)  CAN – – – – BC – – MB ON – – – – – – –
B. minuta (Say, 1824)  CAN – – – – – – – – ON QC – – – – – Pek 1951
B. parvula (Walker, 1834)  CAN AK – – – BC AB SK MB ON – – – – – – AK-UAM
B. podagrica (Fabricius, 1787)  CAN – – – – – – – – AB – – – – – – –
B. repletoria (Cresson, 1872)  CAN AK – – – BC AB SK MB ON QC – – – – – AK-UAM
B. rhinalis (Walker, 1834)  CAN – – – – – – – – – ON QC – – – – – Madrid and Stewart 1980
B. truncatella Burks, 1967  CAN – – – – – – – – SK – – – – –

SUBFAMILY CRATOCENTRINAE

Genus Acraionothocerus Cameron, 1884
Neartic key – Halstead 1990c
A. nigricans Cameron, 1884  CAN – – – – – – – – ON – – – – –

SUBFAMILY CHALCIDINAE

New World revision – Burks 1940; Delvare 1992; Bouček 1992b

Genus Chalcis Fabricius, 1787
Neartic revision – Burks 1940; New World checklist – Delvare 1992
C. ananadius (Cresson, 1872)  CAN – – – – – – MB ON QC NB – – – – – Cresson 1872
C. devia (Walker, 1862)  CAN – – – – – – ON – – – – – – –
C. flexilis (Cresson, 1872)  CAN – – – – – – ON QC – – – – – Cresson 1872
C. microstriga Say, 1824  CAN – – – – – – MB ON QC – – – – –
C. nepii Burks, 1940  CAN – – – – – – SK MB – – – – –
C. phoenicapoda Burks, 1940  CAN – – – – – – – – ON – – – – –
C. comata Spiner, 1837

Genus Comata Spinola, 1837
Neartic revision (as Centromerus, Spilochalcis) – Burks 1940
C. allifers (Walsh, 1861)  CAN AK YT NT – BC AB SK MB ON QC NB PE NS – – – – – AK-UAM
C. arcana (Cresson, 1872)  CAN – – – – – – AB – MB ON – – – – –
C. debrilis (Say, 1836)  CAN – – – – BC – SK MB ON – – – – – Burks 1979a
C. delaminis (Cresson, 1872)  CAN – – – – MB ON QC – – – – –
C. ignatus (Kirby, 1883)  CAN – – – – – – AB – ON – – – – –
C. jucta (Cresson, 1872)  CAN – – – – – – ON QC – – – – –
C. leptis (Burks, 1940)  CAN – – – – – – ON – – – – –
C. martia (Riley, 1870)  CAN – – – – – – ON – – – – –
C. melanis (Burks, 1940)  CAN – – – – – – ON – – – – –
C. metorri (Burks, 1940)  CAN – – – – – – – – – NF – – – – – Halstead 1986
C. sula (Walker, 1843)  CAN – – – – BC – SK – ON QC – – – – – Burks 1940
C. torvis (Cresson, 1872)  CAN – – – – BC AB SK – ON – – – – – Graham 1944
C. xanthoboligia (Dalman, 1820)  CAN – – – – BC AB – ON – – – – –
SUBFAMILY HALITCHELLINAE

Genus Halichanna Spinola, 1811

Neotropical review – Halstead 1996a

H. sanctulus (Waller, 1843) CAN – – – – – – SK – ON QC – – – – – Burka 1979a

Genus Hackoria Walker, 1834

Neotropical revision – Halstead 1996b

H. bicolor Halstead, 1990 CAN – – – – – – – – – – – – – – – Halstead 1990b

H. terebus (Waller, 1942) CAN – – – – – – AB SK – – – – – – – – PMAE; RSKM

H. micranthus Halstead, 1990 CAN – – – – – – AB – – – – – – – – PMAE

H. unipunctatipennis (Girault, 1918) CAN – – – – – – – – ON QC – – – – –

Genus Philochalcis Kieffer, 1905

P. ula (Grissell & Schaff, 1981) CAN – – – – BC SK ON – – – – – –

SUBFAMILY PHASGONOPHORINAE

Genus Phasgonophora Westwood, 1832

P. inucta Westwood, 1832 CAN – – – – BC – – MB ON QC NB – – – – –

Genus Trigonura Sichel, 1866

Neotropical key – Burks 1959

T. elegans (Provancher, 1887) CAN – – – – BC – – MB ON QC – – – – –

T. pinii Burks, 1959 CAN – YT – – BC – – MB – – – – – –

T. tarsata (Dalla Torre, 1898) CAN – – – – – – SK MB ON QC NB – – – – – Burka 1979a

T. ulini Burks, 1959 CAN – – – – – – SK MB ON QC NB – – – – –

FAMILY ENCYRTIDAE

Neotropical generic key – Noyes et al. 1997; Neotropical review – Noyes and Woodley 1994; world review (biocentred) – Noyes and Hayat 1994; Neotropical catalogue – Gondh 1979b; Neotropical review of genera and keys – Triapitzin and Godth 1978a, 1978b; Gondh and Triapitzin 1981

SUBFAMILY ENCYRTIDAE

Genus Acerophagus Smith, 1880

Neotropical Revision and keys – Rosen (1960)

A. angelicus (Howard, 1898) CAN – – – – – – – – – – – – – – – Peck 1963

A. malinus (Gahan, 1946) CAN – – – – – – – – – – – – – – – Boyce 1948

Genus Adelencyrtus Ashmead, 1900

A. intersectus (Fonscolome, 1832) CAN – – – – BC – – – – – –

Genus Agreements Dahlbom, 1857

A. biocolouris (Girault, 1915) CAN – – – – – – – – ON – – – – – – – – Gahan 1924

A. fuscicollis (Dalman, 1820) CAN – – – – BC – – – – – –

A. scutellatum (Miller, 1961) CAN – – – – – – – – ON – – – – – –

A. testaceipes (Ratzeburg, 1848) CAN – – – – – – – – ON – – – – – Wang and Laing 1989

Genus Apylaxos Mercet, 1921

A. crossei Dalman, 1820 CAN – – – – – – – – – – – – – – –

Genus Apsilophrys De Santis, 1964

A. sura (Howard, 1885) CAN – – – – BC AB – MB ON QC NB – – – – – Peck 1963

Genus Blastobrictis Mayr, 1876

Neotropical review – Sogonjaev 1983

B. britannica Girault, 1917 CAN – – – – BC – – – – – – – – – Sugonjaev 1983

B. longipennis Howard, 1881 CAN – – – – – – – – ON QC – – – – – – – – Noyes 2004

B. servita (Dalman, 1820) CAN – – – – BC – SK – ON QC NB – – – – –

Genus Brotrophicus Ratzeburg, 1844

B. nigripes Howard, 1895 CAN – – – – BC AB – – – – – –

B. neovechnus Howard, 1895 CAN – – – – BC – – – – ON – NB – NS –

Genus Casus Noyes & Woodley, 1994

C. pennis Noyes & Woodley, 1994 CAN – – – – – – – – ON – – – – – Noyes and Woodley 1994

Genus Cercheius Westwood, 1832

C. pallipes (Provancher, 1887) CAN – – – – – – – – – – – –

Genus Chelononeurus Westwood, 1833

World revision – Guerrieri and Vigghani 2005

C. alabae Triapitzin & Triapitsyn, 2008 AK – – – – – – – – – – – – – – – Triapitzin and Triapitsyn 2008

C. alvearius Howard, 1881 CAN – – – – – – MB ON – – – – – – – Gahan 1933

C. elegans (Dalman, 1820) CAN – – – – – – – – ON – – PE – – – – – Guerrieri and Vigghani 2005

C. iseneyi Ashmead, 1903 CAN – – – – – – – – ON – – – – –

Genus Coelopenyrtus Timberlake, 1919

C. inflaeuler Burks, 1958 CAN – – – – – – ON – – – – – –

Genus Copidosoma Ratzeburg, 1844

European review – Guerrieri and Noyes 2005

C. alipes (Westwood, 1837) CAN – – – – BC AB SK MB ON QC NB – – – – –

Chalcidoidea of Canada, Alaska and Greenland 77
| Scientific Name                  | CAN  | AB  | SK  | MB  | ON  | NB  | PE  | NF  | NS  | SF  | MB  | ON  | QC  | NB  | Wood and Neill 1957 |
|---------------------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------------------|
| C. bckeri (Howard, 1898)        | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     | King and Atkinson 1928; Wood and Neill 1957 |
| C. insulatricus (Howard, 1892)  | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| C. edraeae Howard, 1885         | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| C. cervix (Walker, 1846)        | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| C. chalcomonot (Dalman, 1820)   | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| C. euphrasius Springate & Noyes, 1990 | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| C. deceptr Miller, 1958         | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| C. filicorni (Dalman, 1820)     | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| C. floridens (Ashmead, 1900)    | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| C. gelechioides Howard, 1885    | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| C. howardi Zohnerovich & Zaparko, 2011 | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| C. lymani Howard, 1907          | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| C. melanomera (Ashmead, 1900)   | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| C. pyralidis (Ashmead, 1888)    | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| C. truncaletami (Dalman, 1820)  | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| Genus Eurycyclus Latreille, 1809 | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| E. annuntii (Geoffroy, 1785)    | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| E. fuscus (Howard, 1881)        | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| E. infusa (Rossi, 1790)         | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| Genus Epitetracnemus Girault, 1915 | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| E. interectus (Fonscolome, 1832) | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| Genus Eubolbocera Timberlake, 1926 | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| G. incerta (Howard, 1881)       | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| Genus Ginsania Erdős & Novicky, 1955 | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| G. richardsi (Baron, 1970)      | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| Genus Habrolpops Förster, 1856  | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| H. dalmanii (Westwood, 1837)    | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| Genus Homalotylus Mayr, 1876    | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| H. hemesperus (De Stefani, 1898) | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| H. terminalis (Say, 1829)       | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| Genus Iodronus Howard, 1887     | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| Neurctic revision – Timberlake 2020 | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| L. atriventris Ashmead, 1900    | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| L. iceryae Howard, 1887         | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| L. niger Ashmead, 1900          | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| L. puncticeps (Howard, 1885)    | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| L. viridis (Dalman, 1820)       | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| Genus Oxystiphagus Howard, 1907 | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| L. bucheri (Howard, 1908)       | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| L. texana Howard, 1907          | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| Genus Lamennauia Girault, 1922  | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| L. ambigua (Nees, 1834)         | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| Genus Merlen Noyes & Woolley, 1994 | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| M. aegrota Noyes & Woolley, 1994 | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| Genus Metaphycus Mercet, 1917   | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| M. australis (Ashmead, 1882)    | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| M. ater (Mercet, 1925)          | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| M. brevipalpis Mercet, 1917     | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| M. catharinae Timberlake, 1929  | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| M. maculipes (Howard, 1885)     | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| M. pulchellus (Howard, 1885)    | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| M. pulvinarum (Howard, 1881)    | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| M. rileyi (Timberlake, 1916)    | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| M. stanleyi Compeere, 1940      | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| Genus Microtoryx Thomson, 1876  | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| M. carrie Triapitzin, 1966      | CAN  |     |     |     |     |     |     |     |     |     |     |     |     |     |         |
| Genus | Species | Distribution | Status |
|-------|---------|--------------|--------|
| M. cyancephala (Dalman, 1820) | CAN | – | – |
| M. ficticolumnis (Howard, 1885) | CAN | – | SK MB ON |
| M. interpectus (Dalman, 1820) | CAN | – | – |
| M. niarki (Mohnschlisky, 1859) | CAN | – | – |
| M. physopseidos Compere, 1926 | CAN | – | AB SK MB ON QC NB PE |
| M. pygmaea (Dalman, 1820) | CAN | – | – |
| Genus Ooencyrtus Ashmead, 1900 | | | |
| O. buccinatris (Howell, 1883) | CAN | – | – |
| O. chalcochroa (Ashmead, 1893) | CAN | – | AB |
| O. kurts (Howard, 1910) | CAN | – | – |
| Genus Prionomus Mayo, 1876 | | | |
| P. mirus (Dalmann, 1820) | CAN | – | – |
| Genus Pseudencyrtus Ashmead, 1900 | | | |
| P. bohnergeri (Novickij, 1926) | CAN | – | – |
| Genus Pseudodorus Ashmead, 1926 | | | |
| P. fuscus (Girault, 1912) | CAN | – | – |
| Genus Psylophagus Ashmead, 1990 | | | |
| P. triripiphagus (Howard, 1885) | CAN | – | – |
| Genus Stemmatosterys (Timberlake, 1918) | | | |
| S. apertus Timberlake, 1918 | CAN | – | – |
| S. kuchii Yoshimoto, 1972 | CAN | – | – |
| Genus Syrphophagus Ashmead, 1900 | | | |
| S. quadrimaculatae (Ashmead, 1881) | CAN | – | – |
| S. simile Kamal, 1926 | CAN | – | – |
| Genus Tachinophagus Ashmead, 1904 | | | |
| T. zealandicus Ashmead, 1904 | CAN | – | – |
| Genus Tetracyclus Kryger, 1942 | | | |
| T. boreus Kryger, 1942 | CAN | – | – |
| Genus Thomsononica Ghesquière, 1946 | | | |
| T. anathus (Walker, 1838) | CAN | – | – |
| Genus Trechnites Thomson, 1876 | | | |
| T. insidius (Crawford, 1910) | CAN | – | – |
| Genus Trichomasthus Thomson, 1876 | | | |
| T. marxis (Walker, 1837) | CAN | – | – |
| Genus Zoloma Ashmead, 1900 | | | |
| Key – Goedl and Triapitzin 1979 | | | |
| Z. luteo (Walker, 1838) | CAN | – | – |

**SUBFAMILY TETRACNEMINAE**

| Genus | Species | Distribution | Status |
|-------|---------|--------------|--------|
| A. antoninae Timberlake, 1920 | CAN | – | – |
| A. aper Noyes & Menezes, 2000 | CAN | – | – |
| A. argyrus Burks, 1952 | CAN | – | – |
| A. pulcher (Ashmead, 1888) | CAN | – | – |
| Genus Aneusa Förster, 1856 | | | |
| A. nasicornis Förster, 1860 | CAN | – | – |
| Genus Chrysoplatycerus Ashmead, 1889 | | | |
| C. splendens (Howard, 1888) | CAN | – | – |
| Genus Clausenina Ishii, 1923 | | | |
| C. parparis Ishii, 1923 | CAN | – | – |
| Genus Empusia Compere, 1947 | | | |
| E. americana (Howard, 1898) | CAN | – | – |
| Genus Euphania Girault, 1913 | | | |
| E. xerophila (Brues, 1906) | CAN | – | – |
| Genus Leptomastidea Mercet, 1926 | | | |
| L. abnormis (Girault, 1915) | CAN | – | – |

**Clausenina of Canada, Alaska and Greenland**

- **A. antoninae** Timberlake, 1920
- **A. aper** Noyes & Menezes, 2000
- **A. argyrus** Burks, 1952
- **A. pulcher** (Ashmead, 1888)
- **A. nasicornis** Förster, 1860
- **C. splendens** (Howard, 1888)
- **C. parparis** Ishii, 1923
- **E. americana** (Howard, 1898)
- **E. xerophila** (Brues, 1906)
- **L. abnormis** (Girault, 1915)
Genus *Leptomasticus* Förster, 1856
*L. dactylopius* Howard, 1885 CAN – – – – BC AB SK – ON QC NB – NS – NF – AB, SK ON NS Baird 1939; BC QC NB Baird 1941; NF Peck 1963

Genus *Mira* Schellenberg, 1803
*M. maccan* Schellenberg, 1803 CAN – – – – – – – – – – NS –

Genus *Pseudoleptomasticus* Girault, 1915
*P. upanemulatus* Girault, 1917 CAN – – – – – – – – – – – – – – – – Noyes 2000

Genus *Rhopus* Förster, 1856
*R. sulphureus* (Westwood, 1837) – – – – – – – – – – – – – – – – GL Noyes 2000

Genus *Tetracnemoides* Howard, 1898
*T. westwoodi* (Cockerell, 1898) CAN – – – – – – QC – – – – – – – – Good 1979b

Genus *Zarhopalus* Ashmead, 1900
*Z. corvatus* (Girault, 1915) CAN – – – BC AB – – ON QC NB – NS – – Baird 1941
*Z. sheldoni* Ashmead, 1900 CAN – – – – – – – – – – – – – – – – AB, MB, Noyes and Heraty 1994; QC Baird 1946

**FAMILY EUCHARITIDAE**
World generic revision – Heraty 2002; Neatric generic key – Heraty 1997; Nearctic catalogue – Burks 1979b

**SUBFAMILY EUCHARITINAE**
Nearctic revision – Heraty 1985
Genus *Pseudochalcigers* Ashmead, 1904
New world revision – Heraty 1986
*P. gibbae* (Tryon, 1881) CAN AK YT NT – BC AB SK MB ON QC NB – –

Genus *Pseudometeiger* Ashmead, 1899
*P. bakeri* Burks, 1961 CAN – – – – – – – – – – ON
*P. barbieri* Heraty, 1985 CAN – – – – – – – – – – ON
*P. montana* (Ashmead, 1890) CAN – – – – – – – – – – ON QC NB PE NS – – Heraty 1985
*P. niger* Heraty, 1985 CAN – – – – – – AB – – ON
*P. occidentalis* Heraty, 1985 CAN – – – – – – BC AB – – ON
*P. schwartzi* (Ashmead, 1892) CAN – – – – – – AB – – ON QC NB PE – –

**SUBFAMILY ORASEMINAE**
Genus *Oreotinea* Cameron, 1884
Revision – Baker and Heraty 2020
*O. coloradensis* Wheeler, 1907 CAN – – – – BC AB – – MB ON – – – – – – Baker and Heraty 2020

**FAMILY EULOPHIIDAE**
Phylogenomics – Rasplus et al. 2020; Nearctic generic review – Schauff et al. 1997; Nearctic catalogue – Burks 1979c

**SUBFAMILY ENTEDONINAE**
Genus *Achrysochroa* Girault, 1913
Nearctic revision – Yoshimoto 1977
*A. allus* Yoshimoto, 1977 CAN – – – – – – – – – – ON – – NS – –
*A. arenacapra* (Miller, 1962) CAN – – – – – – – – – – ON QC
*A. bipunctatus* (Girault, 1916) CAN – – – – – – – SK – ON QC
*A. bisulcata* Yoshimoto, 1977 CAN – – – – – – – – – – ON QC
*A. caritectus* (Miller, 1962) CAN – – – – – – – – – – ON QC
*A. clypeatus* (Miller, 1962) CAN – – – – – – – – – – ON QC
*A. gabani* (Miller, 1962) CAN – – – – – – – – – – ON QC
*A. guizotii* Girault, 1917 CAN – – – – – – – – – – ON
*A. hirticapra* (Miller, 1962) CAN – – – – – – – – – – ON
*A. intricatata* Yoshimoto, 1977 CAN – – – – – – – – – – ON QC
*A. mali* Kamijo, 1991 CAN – – – – – – – – – – – – – NS
*A. reticulata* Yoshimoto, 1977 CAN – – – – – – – – – – ON QC
*A. teratopunctata* Yoshimoto, 1977 CAN – – – – – – – – – – ON
*A. titianii* Girault, 1916 CAN – – – – – – – – – – ON – – NS
*A. yoshimotoi* Kamijo, 1991 CAN – – – – – – – – – – ON QC
*A. zoeuemii* (Delucchi, 1956) CAN – – – –– – BC

Genus *Assedoa* Förster, 1856
*A. congens* (Nees, 1834) CAN – – – BC – – ON – – – – ON
*A. croceus* (Walker, 1848) CAN – – – BC – – – – – – – –
*A. lucens* (Nees, 1834) CAN – – NT – – SK – ON QC NB – NS –
*A. politum* (Hansson, 1885) CAN – – – – – – – – – – ON – – – –
Genus *Ceratius* Walker, 1842

Neartic revision – Triapitsyn and Morse 2005

*C. americanus* (Girault, 1917)

*C. loomani* Triapitsyn & Headrick, 1995

*C. menes* (Walker, 1939)

*C. planitians* Erdős, 1966

*C. ruscellii* (Crawford, 1911)

Genus *Chrysocharis* Förster, 1856

New World/Nearctic revisions – Hansson 1987, 1995b, respectively; Palaeartic revision – Hansson 1985; Nearctic review *Chrysocharis* (Krompholiana), Nearctic revision *Chrysocharis* s.str – Yoshimoto 1973a, 1973b, respectively

*C. acris* (Walker, 1839)

*C. acuminata* Hansson, 1985

*C. australis* Crawford, 1912

*C. alata* Yoshimoto, 1973

*C. amassii* (Walker, 1839)

*C. amygdales* (Walker, 1839)

*C. amsincki* (Walker, 1839)

*C. anis* (Walker, 1839)

*C. atra* Hansson, 1985

*C. Becker convers* Yoshimoto, 1973

*C. ceredonthea* Hansson, 1987

*C. chromatopterus* Hansson, 1987

*C. clarkiae* Yoshimoto, 1973

*C. collaris* Graham, 1963

*C. compressicornis* Ashmead, 1895

*C. cuprodisca* Yoshimoto, 1973

*C. crenierna* Hansson, 1995

*C. crassicapra* (Thomson, 1878)

*C. elongata* (Thomson, 1878)

*C. exociloides* (Walker, 1972)

*C. frigidicola* & Hansson, 1997

*C. fulvicapra* Hansson, 1987

*C. gemma* (Walker, 1839)

*C. grandis* Yoshimoto, 1973

*C. griesslinii* Hansson, 1987

*C. ignota* Hansson, 1987

*C. illueta* Graham, 1963

*C. isometrica* (Walker, 1839)

*C. laricinellae* (Ratzburg, 1848)

*C. limbatus* Delucchi, 1954

*C. longicauda* Hansson, 1987

*C. longicorn* Hansson, 1987

*C. mediana* Förster, 1861

*C. miniata* (Hansson, 1986)

*C. nephrenae* (Walker, 1839)

*C. nitellus* (Walker, 1839)

*C. occidentalis* (Girault, 1916)

*C. occidentalis* Ashmead, 1888

*C. pallipes* (Nees, 1834)

*C. paradoxica* Hansson, 1985

*C. pentheus* (Walker, 1839)

*C. phytomyza* Hansson, 1987

*C. pilina* Delucchi, 1954

*C. polita* (Howard, 1897)

*C. polyza* (Walker, 1839)
| Species                      | CAN | Y.T | N.T | B.C | A.B | S.K | M.B | O.N | Q.C | N.B | N.F* | GL | AB | Hansen 1987 |
|-----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|----|----|-------------|
| *C. predic* (Walker, 1839)  |     |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *C. pubicorna* (Zetterstedt, 1838) | CAN |     |     |     |     | B.C | A.B | M.B | O.N | Q.C | N.S | N.F* |    |    |             |
| *C. robusta* Yoshimoto, 1973 | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *C. subcircularis* Yoshimoto, 1973 | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *C. submucosa* Graham, 1963 | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *C. tristis* Hansson, 1987 | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *C. viridus* (Nees, 1834)  | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *C.华尔街* Yoshimoto, 1973 | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| **Genus Chrysonotomys Ashmead, 1904** |     |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *C. albipes* (Girault & Dodd, 1913) | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *C. maculata* (Duduch, 1962) | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| **Genus Clostreronurus Westwood, 1833** |     |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *C. agumyonar Narayanan, Subba Rao & Ramachandra, 1960* | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *C. cincinnati* Girault, 1916 | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *C. cinctipennis* Ashmead, 1888 | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *C. damastes* Walker, 1847 | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *C. itus* Hansson, 1994 | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *C. rufatum* (Krause, 1917) | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *C. sulidimensis* (Yoshimoto, 1980) | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *C. trifasciatus* Westwood, 1833 | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *C. tabens* Crawford, 1912 | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *C. vecindis* (Moser, 1965) | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| **Genus Derostenus Westwood, 1833** |     |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *D. freemani* Yoshimoto, 1973 | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| **Genus Eumersella Girault, 1916** |     |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *E. lenae* Girault, 1916 | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *E. niveipes* Girault, 1917 | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| **Genus Entodon Dalman, 1820** |     |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *E. abdusamono Schaff, 1988* | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *E. longivesicatus* Ashmead, 1894 | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *E. colombianus* Ashmead, 1888 | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *E. dardrake* Schaff, 1988 | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *E. ergan* Walker, 1839 | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *E. genei* Schaff, 1988 | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *E. methion* Walker, 1839 | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *E. noriecinus* Özdemire, 2011 | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *E. occidentalis* Girault, 1916 | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *E. paez* Schaff, 1988 | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *E. tabbyptorelli* Gahan, 1931 | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *E. teedoe* Schaff, 1988 | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| **Genus Entelononophale Girault, 1915** |     |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *E. carbonaria* (Erdös, 1954) | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| **Genus Holarcticus Koçak & Kemal, 2010** |     |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *H. clavis* (Walker,1839) | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *H. tatters* (Erdös, 1966) | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| **Genus Horismenus Walker, 1843** |     |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *H. fratermus* (Fitch, 1856) | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *H. introdect* Burks, 1971 | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *H. levisurus* Crawford, 1907 | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *H. pattleri* (Grissell, 1981) | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| **Genus Ionympha Graham, 1959** |     |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *I. carne* (Walker, 1839) | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| *I. ochna* (Walker, 1839) | CAN |     |     |     |     |     |     |     |     |     |      |    |    |             |
| **Genus Mestocharis Förster, 1878** |     |     |     |     |     |     |     |     |     |     |      |    |    |             |
Chalcidoidea of Canada, Alaska and Greenland

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M. bimaculatus (Dalman, 1820) CAN – – – BC AB – MB ON QC – – NS – NF* – Hanson 1998
M. tropicalis Yoshimoto, 1976 CAN – – – – – – – ON – – – – – – –

Genus Neochrysocharis Kurdjumov, 1912
Nearctic revision – Hanson 1995a
N. agrumiae (Crawford, 1913) CAN – – – – – – – MB ON QC – PE – – – Hanson 1995a
N. anatus (Walker, 1838) CAN – – – – – – – AB – – ON – – – – – – –
N. arizonensis (Crawford, 1913) CAN – – – – – – – BC – – – – – – –
N. clavatus (Hansson, 1995) CAN – – – – – – – AB – – – – – – –
N. canaevoridae Hansson, 1995 CAN – – – – – – – ON – – – – – – –
N. diastatae (Howard, 1881) CAN AK – – – BC AB SK MB ON QC NB PE NS – GL Hanson 1995a

Genus Nolicaeus Girault, 1901
Can. review – Peck 1985
N. acanis (Walker, 1839) CAN – – – – – – – ON – – – – – – –
N. acuminatiorius (Girault, 1916) CAN – – – – – – – ON – – – – – – –
N. acuminatiorius (Girault, 1917) CAN – – – – – – – ON – – – – – – –
N. aequalis us Hansson, 1996 CAN – – – – – – NT – – – MB – – –
N. bicincta Ashmead, 1888 CAN – – – – – – – ON QC – – – – – – –
N. brevibicornis Hansson, 1996 CAN – – – – – – – ON – – – – – – –
N. cinctus Hansson, 1996 CAN – – – – – – – ON – – – – – – –
N. deplanator Hansson, 1996 CAN – – – – – – – QC – – – – – – –
N. divina (Girault, 1916) CAN – – – – – – – ON – – – – – – –
N. elevate Hansson, 1996 CAN – – – – – – – MB – – – – – – –
N. erinaceus (Walker, 1839) CAN – – – – – – – AB SK MB ON QC NB – NS –
N. flaviceps Hansson, 1996 CAN – – – – – – – ON – – – – – – –
N. flaviventris Hansson, 1996 CAN – – – – – – – ON – – – – – – –
N. gracilicornis (Hansson, 1987) CAN – – – – – – – BC AB – MB ON QC NB –
N. huggeri (Hansson, 1988) CAN – – – – – – – ON – – – – – – –
N. longiseta Hansson, 1996 CAN – – – – – – – QC – – – – – – –
N. marginatius Hansson, 1996 CAN – – – – – – – MB ON QC – – – –
N. marylandensis (Girault, 1916) CAN AK – – – – MB ON QC NB – NS – Hanson 1996a
N. oberculina (Girault, 1916) CAN – – – – – – – MB ON QC – – – –
N. ocellipurus Hansson, 1996 CAN – – – – – – – ON QC – – – –
N. oculipurus Hansson, 1996 CAN – – – – – – – MB ON QC – – – –
N. pedicellatus Hansson, 1996 CAN – – – – – – – ON QC – – – –
N. pilosus Hansson, 1996 CAN – – – – – – – ON – – – – – – –
N. purpureus Hansson, 1996 CAN – – – – – – – ON QC NB – – – –
N. salicis (Haliday, 1833) CAN – – – – – – – AB SK – ON QC NB – – – Hanson 1996a
N. sunt unda (Girault, 1916) CAN – – – – – – – MB ON QC – – – –
N. suvilipes Malicky, 1994 CAN – – – – – – – ON – – – – – – –
N. straminus Hansson, 1996 CAN – – – – – – – MB ON – – – – – – –
N. trocha (Walker, 1839) CAN – – – – – – – BC AB – MB ON QC NB PE NS –
N. trilata Hansson, 1996 CAN – – – – – – – ON QC – – – – – – –
N. varius (Hansson, 1987) CAN – – – – – – – ON QC – – – – – – –
N. varicolor (Nees, 1834) CAN – – – – – – – AB – – ON – – – –
N. vinacea Hansson, 1996 CAN – – – – – – – QC – – – – – – –
N. vulgaris Hansson, 1996 CAN – – – – – – – MB ON QC NB – NS –

Genus Panarectias Ashmead, 1904
Review – Gumovsky 2001
P. atrizennia (Ashmead, 1888) CAN – – – – – – – AB – – – – – – –
P. canaden sis Giroumsky, 2001 CAN – – – – – – – MB – – – – – – –
P. huberti Gumovsky, 2001 CAN – – – – – – – NB – – – – – – –
P. latilatua Giroumsky, 2001 CAN – – – – – – – CAN – – – – – – –
P. maurus (Girault, 1917)

Genus Pedioiusculus Walker, 1846
Nearctic revision – Peck 1985
P. adelaiae Peck, 1985 CAN – – – – – – – ON QC – – – – – – –
P. alasphe (Walker, 1839) CAN – – – – – – – MB ON QC NB – – – –
P. alasphe (Walker, 1839) CAN – – – – – – – MB ON QC NB – – – –
P. alasphe (Walker, 1839) CAN AK – – – BC AB – – ON QC – – – –
P. aphidiphagus (Ashmead, 1887) CAN – – – – – – – BC – – ON QC – – – –
| Species                        | CAN | BC | AB | MB | ON | QC | NB | NS | Peck 1985 |
|-------------------------------|-----|----|----|----|----|----|----|----|-----------|
| P. brachypterus (Thomson, 1878) | CAN | -- | -- | -- | -- | -- | -- | -- | Peck 1985 |
| P. bocculatricis (Gahan, 1927)  | CAN | -- | -- | AB | MB | ON | QC | NB | -- | Peck 1985 |
| P. canuicornis (Thomson, 1878) | CAN | -- | -- | -- | BC | AB | MB | ON | QC | -- | -- | -- | -- |
| P. epigonus (Walker, 1839)     | CAN | AK | YT | NT | BC | AB | SK | MB | ON | QC | NB | PE | NS | LB | -- | -- | -- | -- | -- | -- | -- |
| P. eubius (Walker, 1839)       | CAN | AK | YT | NT | BC | AB | SK | MB | ON | QC | NB | -- | NS | LB | NF | -- | -- | -- | -- | -- | -- | -- |
| P. facialis (Giraud, 1863)     | CAN | -- | -- | -- | -- | BC | AB | SK | MB | ON | QC | NB | -- | NS | -- | -- | -- | -- | -- | -- | -- |
| P. foliorum (Girffrey, 1785)   | CAN | AK | -- | -- | -- | -- | BC | SK | MB | ON | QC | NB | -- | NS | -- | -- | -- | -- | -- | -- | -- |
| P. liceopalatus Peck, 1985     | CAN | -- | -- | -- | -- | -- | -- | -- | -- | ON | QC | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| P. locustae Berk, 1966         | CAN | -- | -- | -- | -- | -- | -- | -- | -- | ON | QC | NB | -- | NS | -- | -- | -- | -- | -- | -- |
| P. lyra (Walker, 1839)         | CAN | -- | -- | -- | -- | -- | -- | -- | -- | ON | QC | -- | -- | -- | -- |-- |-- |-- |-- |-- |-- |
| P. magnificatus Peck, 1985     | CAN | -- | -- | -- | -- | -- | -- | -- | -- | ON | QC | -- | -- | -- | -- |-- |-- |-- |-- |-- |-- |
| P. metallicus (Nees, 1834)     | CAN | -- | -- | -- | BC | AB | SK | ON | QC | NB | -- | NS | -- | NF | -- | -- | -- |-- |-- |-- |-- |
| P. nigritarisis (Thomson, 1878)| CAN | -- | -- | BC | AB | SK | ON | QC | NB | -- | NS | -- | -- | -- |-- |-- |-- |-- |-- |-- |-- |
| P. ocelatus Peck, 1985         | CAN | -- | -- | -- | -- | -- | -- | -- | -- | ON | QC | -- | -- | -- |-- |-- |-- |-- |-- |-- |-- |
| P. phylloletes (Riley, 1884)   | CAN | -- | -- | -- | AB | -- | ON | QC | -- | -- | -- | -- | -- | -- |-- |-- |-- |-- |-- |-- |-- |
| P. planiventris (Thomson, 1878)| CAN | -- | -- | -- | -- | -- | ON | -- | -- | -- | -- | -- | -- | -- |-- |-- |-- |-- |-- |-- |-- |
| P. pseudoligustica Peck, 1985  | CAN | -- | -- | BC | -- | -- | -- | -- | -- | -- | -- | -- |-- |-- |-- |-- |-- |-- |-- |-- |-- |
| P. pygo (Walker, 1839)         | CAN | -- | -- | -- | -- | -- | ON | -- | -- | -- |-- |-- |-- |-- |-- |-- |-- |-- |-- |-- |-- |
| P. termes (Walker, 1839)       | CAN | AK | -- | -- | BC | -- | -- | ON | QC | NB | -- | NS | -- | NF | -- |-- |-- |-- |-- |-- |-- |
| P. williamsoni (Girault, 1911) | CAN | -- | -- |-- | AB | -- | ON | -- |-- |-- |-- |-- |-- |-- |-- |-- |-- |-- |-- |-- |-- |

**Genus Perditiorulus Hansson, 1996**

| Species                        | CAN | BC | AB | MB | ON | QC | NB | NS | -- |
|-------------------------------|-----|----|----|----|----|----|----|----|----|
| P. penicillatus Hansson, 1996  | CAN | -- | -- | -- | -- | ON | -- |-- |-- |

**SUBFAMILY ENTITINAE**

**Genus Asticus Förster, 1856**

| Species                        | CAN | BC | AB | MB | ON | QC | NB | NS | -- |
|-------------------------------|-----|----|----|----|----|----|----|----|----|
| A. intermedium Hedqvist, 1969  | CAN | -- | -- | -- | ON | -- |-- |-- |-- |
| A. pelophoriola Hedqvist, 1969 | CAN | -- | -- |-- | ON | QC | -- |-- |-- |
| A. pachypleurosus Gahan, 1927  | CAN | -- | -- |-- | ON | -- |-- |-- |-- |

**Genus Euderus Haliday, 1844**

Neartic revision – Yoshimoto 1971

| Species                        | CAN | BC | AB | MB | ON | QC | NB | NS | -- |
|-------------------------------|-----|----|----|----|----|----|----|----|----|
| E. acrobasis (Crawford, 1915)  | CAN | -- | -- | AB | -- | ON | QC | -- |-- |
| E. alaskanis Yoshimoto, 1971  | CAN | -- | -- | BC | -- | ON | QC | NB |-- |
| E. allitaris (Zetterstedt, 1838)| CAN | -- | -- | AB | SK | MB | ON | QC | NB | PE | NS |-- |
| E. arenarius (Crawford, 1915)  | CAN | -- | -- | BC | -- | ON | QC | NB |-- |
| E. cardenatus Yoshimoto, 1971 | CAN | -- | NT |-- | BC | AB | SK | MB | ON | QC |-- |-- |
| E. chilicola Yoshimoto, 1971  | CAN | -- |-- | SK |-- | ON |-- |-- |-- |
| E. coxmani (Crawford, 1915)   | CAN | -- | NT | BC | AB | SK | MB | ON | QC | NB |-- |
| E. fuscescens Yoshimoto, 1971 | CAN | -- |-- | SK |-- | ON |-- |-- |-- |
| E. glaucus Yoshimoto, 1971    | CAN |-- | QC |-- | ON |-- |-- |-- |-- |
| E. lividus (Ashmead, 1886)    | CAN |-- | ON |-- |-- |-- |-- |-- |-- |
| E. maorii Yoshimoto, 1971     | CAN |-- | ON |-- |-- |-- |-- |-- |-- |
| E. pecki Yoshimoto, 1971      | CAN |-- | MB |-- | QC |-- |-- |-- |-- |
| E. purpureus Yoshimoto, 1971  | CAN |-- | ON |-- |-- |-- |-- |-- |-- |
| E. rubriscapae (Girault, 1916)| CAN |-- |-- | ON | QC |-- |-- |-- |-- |
| E. rugosus (Crawford, 1915)   | CAN |-- | MB |-- | QC |-- |-- |-- |-- |
| E. superdens Miller, 1965     | CAN |-- | SK | MB | ON |-- |-- |-- |-- |
| E. solidoginii Yoshimoto, 1971| CAN |-- | ON | QC |-- | NS |-- |-- |-- |
| E. isopodac (Gahan, 1927)     | CAN |-- | MB |-- | ON | QC |-- |-- |-- |
|E. verticillatus (Ashmead, 1888)| CAN |-- | ON | QC |-- |-- |-- |-- |-- |

**SUBFAMILY EUROPHINAE**

Neartic key to genera – Miller 1979

**Genus Burseus Perry, 2019**

Revision and key to genera – Perry and Hardy 2019

| Species                        | CAN | BC | AB | MB | ON | QC | NB | NS | NF |
|-------------------------------|-----|----|----|----|----|----|----|----|----|
| B. flavoviridis (Crawford, 1913)| CAN |-- |-- | BC |-- |-- |-- |-- |-- |
| B. robustus Perry, 2019        | CAN |-- | BC | AB |-- | ON |-- |-- |-- |
| B. vitatus (Walker, 1838)      | CAN | AK | YT | BC | AB |-- | ON | QC | NB |-- |

**Genus Cirropus Westwood, 1832**

| Species                        | CAN | BC | AB | MB | ON | QC | NB | NS | -- |
|-------------------------------|-----|----|----|----|----|----|----|----|----|
| C. argi (Crawford, 1911)       | CAN |-- | BC |-- |)-- | ON |-- |-- |-- |
| C. cinctithorax (Girault, 1916)| CAN |-- | BC | AB |-- | ON | QC | NB |-- |
| C. coprodes (Girault, 1916)    | CAN |-- | BC |-- |)-- | ON |-- |-- |-- |
| C. flavicanutus Riley, 1883    | CAN |-- | ON | QC |-- |-- |-- |-- |-- |
| C. hispinus Gahan, 1934        | CAN |-- |-- | ON |-- |-- |-- |-- |-- |
| C. ocellatus Girault, 1917     | CAN |-- |-- | MB |-- | QC |-- |-- |-- |
| C. oringnous Crosby & Matheson, 1915| CAN |-- |-- |-- |-- |-- |-- |-- |-- |

**SUBFAMILY EULOPHINAE**

Neartic key to genera – Miller 1979

**Genus Burks 1979c**
| Taxon | Distribution | Notes |
|-------|--------------|-------|
| C. picta (Nees, 1834) | CAN | Peck 1963 |
| Genus Colocyphus Lucchese, 1941 | CAN | Peck 1963 |
| C. florus (Walker, 1839) | CAN | Peck 1963 |
| Genus Dahlbominus Hincks, 1945 | CAN | Peck 1963 |
| D. fascipennis (Zetterstedt, 1838) | CAN | Peck 1963 |
| Genus Diaululopsis Crawford, 1912 | CAN | Peck 1963 |
| D. calliclora Crawford, 1912 | CAN | Peck 1963 |
| Genus Diclidocerus Westwood, 1832 | CAN | Peck 1963 |
| Neartic revision – Yoshimoto 1976 | CAN | Peck 1963 |
| D. alakerensis Yoshimoto, 1976 | CAN | Peck 1963 |
| D. betularis Yoshimoto, 1976 | CAN | Peck 1963 |
| D. epistostite Yoshimoto, 1976 | CAN | Peck 1963 |
| D. estellae Yoshimoto, 1976 | CAN | Peck 1963 |
| D. nearcticus Yoshimoto, 1976 | CAN | Peck 1963 |
| D. occidentalis Yoshimoto, 1976 | CAN | Peck 1963 |
| D. pacificus Yoshimoto, 1976 | CAN | Peck 1963 |
| D. terrasaurote Yoshimoto, 1976 | CAN | Peck 1963 |
| D. vulgarius Yoshimoto, 1976 | CAN | Peck 1963 |
| D. westwoodi Westwood, 1832 | CAN | Peck 1963 |
| Genus Elaphrus Walker, 1844 | CAN | Peck 1963 |
| D. begini (Ashmead, 1904) | CAN | Peck 1963 |
| D. intermedius (Girault, 1916) | CAN | Peck 1963 |
| D. istea (Walker, 1838) | CAN | Peck 1963 |
| D. pulchripes (Crawford, 1912) | CAN | Peck 1963 |
| D. websteri (Crawford, 1912) | CAN | Peck 1963 |
| Genus Dimmicia Ashmead, 1904 | CAN | Peck 1963 |
| D. incongrua (Ashmead, 1898) | CAN | Peck 1963 |
| D. pallipes Muesebeck, 1927 | CAN | Peck 1963 |
| Genus Elachertus Spinola, 1811 | CAN | Peck 1963 |
| Neartic revision – Schaff 1985a | CAN | Peck 1963 |
| E. attus Schaff, 1985 | CAN | Peck 1963 |
| E. coccocae Howard, 1885 | CAN | Peck 1963 |
| E. coccocae Howard, 1885 | CAN | Peck 1963 |
| E. cidariae Ashmead, 1898 | CAN | Peck 1963 |
| E. fenestretus Nees, 1834 | CAN | Peck 1963 |
| E. lofi Schaff, 1985 | CAN | Peck 1963 |
| Genus Elymus Westwood, 1833 | CAN | Peck 1963 |
| Neartic review – Coote 1997: Neartic key – Buksa 1965 | CAN | Peck 1963 |
| E. albiventer Howard, 1885 | CAN | Peck 1963 |
| E. apicalis Cahlan, 1913 | CAN | Peck 1963 |
| E. apicalis Cahlan, 1913 | CAN | Peck 1963 |
| E. aspidiscus Girault, 1917 | CAN | Peck 1963 |
| E. atnitus Howard, 1897 | CAN | Peck 1963 |
| E. mcerulipes Girault, 1915 | CAN | Peck 1963 |
| E. ponderes Girault, 1917 | CAN | Peck 1963 |
| Genus Eulaphrus Geoffroy, 1762 | CAN | Peck 1963 |
| E. anomocerus (Crawford, 1912) | CAN | Peck 1963 |
| E. baccatus Say, 1836 | CAN | Peck 1963 |
| E. brevipilatus Cook & Davis, 1891 | CAN | Peck 1963 |
| E. koebelei (Crawford, 1912) | CAN | Peck 1963 |
| E. larvatum (Linneaus, 1758) | CAN | Peck 1963 |
| E. nebulosa (Provancher, 1887) | CAN | Peck 1963 |
| E. orygae (Fitch, 1856) | CAN | Peck 1963 |
| E. ramosus Provancher, 1881 | CAN | Peck 1963 |
| E. minoris Ashmead, 1898 | CAN | Peck 1963 |
| Genus Euleptus Westwood, 1832 | CAN | Peck 1963 |
| European revision – Hanson and Schmidt 2018; China species – Zhu and Huang 2003 | CAN | Peck 1963 |
| E. biocula (Svederus, 1795) | CAN | Peck 1963 |
| E. frontalis Howard, 1885 | CAN | Peck 1963 |
| Genus | Species | Distribution | Notes |
|-------|---------|--------------|-------|
| *E. liparidis* | Ferrière, 1941 | CAN | CAN |
| *E. mellipes* | Provancher, 1887 | AK | CAN |
| **Genus Grotiatoxoma** | Girault, 1917 | CAN | CAN |
| *G. flavicornis* | Girault, 1917 | CAN | CAN |
| **Genus Heniptarsenus** | Westwood, 1833 | CAN | CAN |
| *H. collaris* | Ashmead, 1904 | CAN | CAN |
| *H. longifaciatatus* | Girault, 1917 | CAN | CAN |
| *H. suzukii* | Zetterstedt, 1838 | CAN | CAN |
| **Genus Hysopoops** | Girault, 1916 | CAN | CAN |
| Neotropical revision – Schaff 1985b | H. benefactor | Crawford, 1912 | CAN |
| H. johanneseni | Crawford, 1912 | CAN | CAN |
| H. novus | Girault, 1917 | CAN | CAN |
| H. ripacioides | Gahan, 1927 | CAN | CAN |
| H. thyminas | Girault, 1916 | CAN | CAN |
| **Genus Miotropis** | Thomson, 1878 | CAN | CAN |
| *M. melia* | Ashmead, 1904 | CAN | CAN |
| **Genus Neerennmus** | Thomson, 1878 | CAN | CAN |
| *N. californicus* | Girault, 1917 | CAN | CAN |
| *N. duplicata* | Gahan, 1941 | CAN | CAN |
| *N. tigris* | Walker, 1839 | CAN | CAN |
| **Genus Parasululus** | Ashmead, 1894 | CAN | CAN |
| *P. canadensis* | Miller, 1964 | CAN | CAN |
| **Genus Platayplectrus** | Ferrière, 1941 | CAN | CAN |
| *P. americanus* | Girault, 1917 | CAN | CAN |
| **Genus Pseudiolix** | Schrank, 1802 | CAN | CAN |
| *P. boharti* | Yoshimoto, 1983 | CAN | CAN |
| *P. elongatus* | Yoshimoto, 1983 | CAN | CAN |
| *P. glaber* | Yoshimoto, 1983 | CAN | CAN |
| *P. bukabensis* | Ashmead, 1902 | CAN | CAN |
| *P. levis* | Yoshimoto, 1983 | CAN | CAN |
| *P. longulus* | Zetterstedt, 1838 | CAN | CAN |
| *P. maculipes* | Crawford, 1913 | CAN | CAN |
| *P. micro* | Walker, 1847 | CAN | CAN |
| *P. nemati* | Westwood, 1838 | CAN | CAN |
| *P. neolongulus* | Yoshimoto, 1983 | CAN | CAN |
| *P. pallipes* | Provancher, 1887 | CAN | CAN |
| *P. pectinicornis* | Linnaeus, 1758 | CAN | CAN |
| *P. uruphiae* | Howard, 1885 | CAN | CAN |
| **Genus Sympiesis** | Förster, 1856 | CAN | CAN |
| Holartic Review of Sympiesis acule, gordius – Maier and Hansson 2006; Neotropical revision – Miller 1970 | *S. acule* | Walker, 1948 | CAN |
| *S. angulata* | Yoshimoto, 1983 | CAN | CAN |
| *S. argentinicae* | Girault, 1917 | CAN | CAN |
| *S. dilatator* | Ashmead, 1888 | CAN | CAN |
| *S. enayae* | Miller, 1970 | CAN | CAN |
| *S. gordius* | Walker, 1848 | CAN | CAN |
| *S. marindenius* | Singer, 1820 | CAN | CAN |
| *S. sericeicornis* | Nees, 1834 | CAN | CAN |
| *S. stagnata* | Girault, 1917 | CAN | CAN |
| *S. stagnatellus* | Girault, 1917 | CAN | CAN |
| *S. triculata* | Provancher, 1887 | CAN | CAN |
| *S. viridula* | Thomson, 1878 | CAN | CAN |
| *S. ysebeli* | Doganlar, 1979 | CAN | CAN |
| **Genus Xanthella** | Móczár, 1950 | CAN | CAN |
| *X. szabapatayi* | Móczár, 1950 | CAN | CAN |
| **Genus Zagrommosoma** | Ashmead, 1904 | CAN | CAN |
| *Z. americanum* | Girault, 1916 | CAN | CAN |
| *Z. centrilineatum* | Crawford, 1913 | CAN | CAN |

2002 Zhu and Huang
2015 McLeod
| Genus | Subfamily | Species | Distribution | Notes |
|-------|-----------|---------|--------------|-------|
| **Chalcidoidea of Canada, Alaska and Greenland** | | | | |
| **Genus Aprostocetus** Ashmead, 1902 | | A. acuminatus (Ratzeburg, 1848) | CAN – – – – – – ON – NB – – – – – – | |
| | | A. asaphidicus (Burks, 1947) | CAN – – – – – – AB – – ON QC – – – – – – | Pilon 1965 |
| | | A. austrinus (Ashmead, 1902) | – AK – – – – – – – – – – – – – – – – – | Ashmead 1902 |
| | | A. bassadoni (Masi, 1930) | CAN – – – – – – – – – – – – ON QC | |
| | | A. basipubicus (Burks, 1943) | CAN – – – – – – – – – – – – ON | |
| | | A. cassida (Burks, 1943) | CAN – – – – – – – – – – – – ON | |
| | | A. euxus (Riley, 1879) | CAN – – – – – – AB SK MB ON QC NB | |
| | | A. gerryana (Burks, 1963) | CAN – – – – – – BC – – ON | |
| | | A. herbas (Burks, 1943) | CAN – NT – – SK – – – – – – | |
| | | A. imperex (Girault, 1917) | CAN – – – – – – – – – – – – NB | |
| | | A. jaunipi (Crawford, 1915) | CAN – – – – – – BC – – ON | |
| | | A. marrwetichi (Crawford, 1915) | CAN – – – – – – – – – – – – NB | |
| | | A. melofetis Buhl, 1997 | CAN – – – – – – BC AB – – ON QC – – – – – – | GL Buhl 1997 |
| | | A. minutus (Howard, 1881) | CAN – – – – – – BC AB – – ON QC – – – – – – | Samarasinghe and LeRoux 1966 |
| | | A. nehranseni (Girault, 1916) | CAN – – – – – – BC – – ON – NB – – – – – | |
| | | A. pellipes (Dalman, 1820) | CAN – – – – – – AB – – – – – – – – – – – | Graham 1987 |
| | | A. pentermesa (Fullaway, 1912) | CAN – – – – – – BC – – – – – – – – – – – | |
| | | A. pustulari (Walker, 1839) | CAN – – – – – – AB – – ON – – – – – | |
| | | A. pygmaea (Zetterstedt, 1838) | CAN – – – – – – AB – – – – – – – – – – | |
| | | A. rosae (Ashmead, 1886) | CAN – – – – – – BC – – ON – – – – – | Esig 1926 |
| | | A. silvicus (Gahan, 1937) | CAN – – – – – – BC AB – – ON QC NB PE – – | |
| | | A. strobilae (Ratzeburg, 1844) | CAN – – – – – – BC AB – – ON QC NB – – – – – | |
| | | A. strobilus (Burks, 1943) | CAN – – – – – – BC – – ON QC NB – – – – – | Hedlin 1960 |
| | | A. versatus (Gahan, 1914) | CAN – – – – – – ON QC NB – – – – – | |
| | | A. zonatus (Walker, 1839) | CAN – – – – – – MB ON – – – – – | |
| **Genus Barycapus Förster, 1856** | | B. americanus (Ashmead, 1888) | CAN – – – – – – – – – – – – ON – – – – – – | Vickruck et al. 2010 |
| | | B. bruchophagi (Gahan, 1913) | CAN – – – – – – – – – – – – ON – – – – – – | |
| | | B. chalmydys (Ashmead, 1896) | CAN – – – – – – – – – – – – ON QC NB – – – – | |
| | | B. chrysopae (Crawford, 1915) | CAN – – – – – – BC – – – – – – – – – – – | |
| | | B. coerulescens (Ashmead, 1898) | CAN AK – – – – – – BC – – MB ON – NB NS – – | Tongren 1969 |
| | | B. daina (Walker, 1839) | CAN – – – – – – BC – – ON – – NB – – | |
| | | B. galactopus (Ratzeburg, 1844) | CAN – – – – – – BC – – ON QC NB – – – – – | |
| | | B. granulatus (Walker, 1844) | CAN – – – – – – BC – – ON QC NB – – – – – | Walker 1844 |
| | | B. malaconoma (Girault, 1917) | CAN – – – – – – BC – – ON QC – – – – – | |
| | | B. micrornipal (Ashmead, 1896) | CAN – – – – – – MB – – – – – – – – – – – | Blatt et al. 2000 |
| | | B. modestus (Howard, 1889) | CAN – – – – – – – – – – – – – – – – – – | Thompson 1955 |
| | | B. nascentia (Ashmead, 1886) | CAN – – – – – – MB ON QC NB – – – – – | |
| | | B. rugelii (Rohwer, 1919) | CAN – – – – – – MB ON – NB – – – – – | |
| | | B. turismon (Hartig, 1838) | CAN – – – – – – – – – – – – ON – – – – – | |
| **Genus Chrysolestes LaSalle, 1994** | | C. alababa LaSalle, 1994 | CAN – – – – – – – – – – – – QC – – – – – | |
| **Genus Cryptapus Förster, 1878** | | C. marki (Burks, 1839) | CAN – – – – – – – – – – – – MB ON QC – – – – | |
| **Genus Galeopomynia Girault, 1916** | | G. epidius (Walker, 1847) | CAN – – – – – – – – – – – – – – – – – – – | Burks 1975 |
| | | G. haenon (Walker, 1847) | CAN – – – – – – – – – – – – – – – – – – – | |
| **Genus Melittobius Westwood, 1848** | | M. acuta (Walker, 1839) | CAN – – – – – – BC – – MB ON QC NB – – NS – – – – | BC-Buckell 1928; ABMB-Peck 1909; ON-MacFarlane and Pengelly 1978 |
| | | M. chalybs (Ashmead, 1892) | CAN – – – – – – BC AB – – MB ON – – NS – – – – | |
| **Genus Minotetrastichus Kostjukov, 1977** | | M. frontalis (Nees, 1834) | CAN – – – – – – BC AB – – – – – – – – – – | |
Genus Oomyza Rondani, 1870

O. incertu (Ratzeburg, 1844) CAN – – – – – – – – ON QC – – NS – – – –
O. sospos (Thomson, 1878) CAN – – – – – – – – ON – – – – – –
O. sobolovski (Kundjunor, 1912) CAN – – – – – – – – ON – – – – – –

Genus Pedelacantha Yoshimoto, 1970
P. diprioni Yoshimoto, 1970 CAN – – – – – – – – ON QC – – – – – –

Genus Quadrastichicus Girault, 1913
Q. kaldei (Burks, 1943) CAN – – – – – – – – QC – – – – – –
Q. sol安倍a (Burks, 1943) CAN – – – – – – – – AB – – QC – – – – – – Burks 1979c
Q. schmattir (Girault, 1916) CAN – – – – – – – – AB – – QC NB – NS – – – – Burks 1979c

Genus Sigmapothe Rondani, 1867
S. brevicorne (Panzer, 1804) CAN – – – – – – – – ON – – – – – – Burks 1979c

Genus Tetrastichomyza Girault, 1916
T. clivos (Ashmead, 1894) CAN – – – – – – – – ON – – – – – –

Genus Tetrastichus Haliday, 1844

Nearctic revision – Burks 1943
T. alsakensis Ashmead, 1902 – AK – – – – – – – – – – – – – – MB ON QC NB – – – – – – – – Ashmead 1902
T. clivo (Walker, 1840) CAN – – – – – – – – ON – – – – – – – – MB-LNB-Pek 1951; QC-Beaulne 1935
T. overalve (Nees, 1834) CAN – – – – – – – – ON – – – – – – – – Beaulne 1949; Fletcher 1990
T. johnsoni Ashmead, 1896 CAN – – – – – – – – ON – – – – – – – – Snudder 1889
T. julis (Walker, 1839) CAN – – – – – – – – ON – – – – – – – – Burks 1943
T. paraclivina Burks, 1943 CAN – – – – – – – – ON – – – – – – – – Burks 1943
T. pomplitida Graham, 1960 CAN – – – – – – – – ON – – – – – – – – Wilkinson 1966
T. prudicum Riley, 1885 CAN – – – – – – – – MB ON QC NB – – – – – – – – Burks 1943
T. saundersii (Packard, 1881) CAN – – – – – – – – ON – – – – – – – – Burks 1943
T. sensifer Thomson, 1878 CAN – – – – – – – – ON – – – – – – – – Burks 1943
T. simope (Walker, 1839) CAN – – – – – – – – MB ON QC NB – – – – – – – – Burks 1943
T. tibialis (Ashmead, 1894) CAN – – – – – – – – MB ON QC NB – – – – – – – – Burks 1943
T. trisukatsu Provancher, 1887 CAN – – – – – – – – MB ON QC NB – – – – – – – – Burks 1943

FAMILY EUPELMIDAE

Nearctic generic key – Gibson 1997; Nearctic catalogue – Burks 1979d

SUBFAMILY CALOSOTINAE

World generic revision – Gibson 1989

Genus Balcha Walker, 1862

Revision – Gibson 2009a
B. imda (Mani & Kaul, 1973) CAN – – – – – – – – ON – – – – – – – – – – – –

Genus Calosota Curtis, 1836

Nearctic revision – Gibson 2010
C. acrom (Walker, 1848) CAN – – – – – – – – BC – – – – – – – – – – – –
C. activula Curtis, 1836 CAN – – – – – – – – BC – – MB – QC – – – – – – – –
C. melasca (Gahan, 1922) CAN – – – – – – – – BC – – – – – – – – – – – –

SUBFAMILY EUPELMINAE

World generic revision – Gibson 1995

Genus Anastatus Motschulsky, 1859

Nearctic key – Burks 1967a

Subgenus Anastatus Motschulsky, 1859
A. ashmeadi (Melander & Brues, 1903) CAN – – – – – – – – ON QC – – – – – –
A. japonicus Ashmead, 1904 CAN – – – – – – – – ON – – – – – – – – – – – –
A. pearcivall Ashmead, 1898 CAN – – – – – – – – BC – – – – – – – – – – – –
A. redux (Howard, 1880) CAN – – – – – – – – ON – – – – – – – – – – – –
A. ruficollis (Cameron, 1905) CAN – – – – – – – – BC – – – – – – – – – – – –

Genus Arachnopaga Ashmead, 1896

Key to subgenera – Gibson 1995; New World key – Gahan 1943

Subgenus Arachnopaga Ashmead, 1896
A. aldrichi Gahan, 1943 CAN – – – – – – – – ON – – – – – – – – – – – –
Subgenus Scoliocrema Gibson, 1995
A. enigma Gibson, 1995 CAN – – – – – – – – AB – – ON – – – – – – – –

Genus Strumia Cameron, 1884
B. allens (French, 1882) CAN – – – – – – – – MB ON – – PE – – – – – – – – Criddle 1922; Fletcher 1980
B. leucothyrsana Gibson, 1995 CAN – – – – – – – – ON – – – – – – – – – – – –
Genus Eupelmus Dalman, 1820

Subgenus Eupelmus Dalman, 1820
Neotropical revision – Gibson 2011

- E. annulatus Nees, 1834
- E. cyaniceps Ashmead, 1886
- E. depuritatorius Ashmead, 1886
- E. micranurus Förster, 1860
- E. nitidus Gibson, 2011
- E. pinicola Taylor, 1927
- E. pachyrhizi (Cameron, 1904)
- E. unicolor Girault, 1916

Subgenus Macroneura Walker, 1837
Neotropical revision – Gibson 1990

- E. mesone Walker, 1839

Genus Merostenus Walker, 1837
Subgeneric classification – Gibson 2017

- M. excavatus (Dalman, 1820)

Subgenus Reikosiella Yoshimoto, 1969

- M. biguttus (Girault, 1917)
- M. barbipenis (Girault, 1916)

Genus Zaschnopsis Ashmead, 1904

- Z. bouceki (Walker, 1927)

SUBFAMILY NEANASTATINAE

World generic revision – Gibson 1989

Genus Metapelmus Westwood, 1835

- M. spectabilis Westwood, 1835

FAMILY EURYTOMIDAE

- Nearctic generic key – D.Giulio 1997; Nearctic generic key – Burks 1971; Nearctic catalogue – Burks 1979e

SUBFAMILY EURYTOMIDAE

- Phylogenetic analysis – Lotzsch et al. 2007

Genus Axima Walker, 1862

- A. zabriskiei Howard, 1890

Genus Bruchophagus Ashmead, 1888

- B. borealis Ashmead, 1894
- B. gibbus (Boheman, 1836)

Genus Platypterus (Walker, 1834)

- P. roddi (Gussakovskiy, 1933)

Genus Eurytoma Illiger, 1807

- E. atator Walker, 1843
- E. aciculateata Ratzeburg, 1848
- E. affinis Boheman, 1836
- E. altipinnis Bugbee, 1967
- E. appendigaster (Swederus, 1795)
- E. atripos Gahan, 1933
- E. bicolor Walsh, 1870
- E. bolteri Riley, 1869
- E. brevitergis Bugbee, 1975
- E. californicus Ashmead, 1887
- E. cataphytes Bugbee, 1961
- E. carangue Nikol'skaya, 1952
- E. cleri Ashmead, 1894
- E. conica Provancher, 1887
- E. contractus Bugbee, 1967
- E. diastropis Walsh, 1870
- E. discordans Bugbee, 1951
- E. dorcaschenae Ashmead, 1888
- E. flavifacies Bugbee, 1969
- E. fossae Bugbee, 1967
- E. gutii Delvare, 2014

Chalcidoidea of Canada, Alaska and Greenland 89
| Species                        | CAN | AB | SK | MB | ON | QC | NB | —  | LB | —  |
|-------------------------------|-----|----|----|----|----|----|----|----|----|----|
| E. gigantea Walsh, 1870        |     |    |    |    |    |    |    |    |    |    |
| E. becule Walker, 1843         |     |    |    |    |    |    |    |    |    |    |
| E. illinoiensis Girault, 1920  |     |    |    |    |    |    |    |    |    |    |
| E. iniminita Bugbee, 1951      |     |    |    |    |    |    |    |    |    |    |
| E. incerta Fullway, 1912       |     |    |    |    |    |    |    |    |    |    |
| E. insignia Bugbee, 1951       |     |    |    |    |    |    |    |    |    |    |
| E. magellidus Ashmead, 1894    |     |    |    |    |    |    |    |    |    |    |
| E. minnesota Girault, 1916     |     |    |    |    |    |    |    |    |    |    |
| E. nevonecana Girault, 1920    |     |    |    |    |    |    |    |    |    |    |
| E. nigricosta Provancher, 1887 |     |    |    |    |    |    |    |    |    |    |
| E. obtusiventris Gahan, 1934   |     |    |    |    |    |    |    |    |    |    |
| E. onoprhodis Nikolikaya, 1933 |     |    |    |    |    |    |    |    |    |    |
| E. orbidearum (Westwood, 1869) |     |    |    |    |    |    |    |    |    |    |

| Species                        | CAN | AB | SK | ON | QC | —  | PE | —  | NS | LB |
|-------------------------------|-----|----|----|----|----|----|----|----|----|----|
| E. pachyneuron Girault, 1916   |     |    |    |    |    |    |    |    |    |    |
| E. purva Phillips, 1918        |     |    |    |    |    |    |    |    |    |    |
| E. philoestrili Ashmead, 1894  |     |    |    |    |    |    |    |    |    |    |
| E. peora Bugbee, 1967          |     |    |    |    |    |    |    |    |    |    |
| E. peni Bugbee, 1958           |     |    |    |    |    |    |    |    |    |    |
| E. pisondus Girault, 1917      |     |    |    |    |    |    |    |    |    |    |
| E. profunda Bugbee, 1967       |     |    |    |    |    |    |    |    |    |    |
| E. provincialis Walsh, 1870    |     |    |    |    |    |    |    |    |    |    |
| E. quercusblulu (Fitch, 1859)  |     |    |    |    |    |    |    |    |    |    |
| E. robus Crosby, 1909          |     |    |    |    |    |    |    |    |    |    |
| E. shorthousi Zhang & Gates, 2017|   |    |    |    |    |    |    |    |    |    |
| E. silvaneurae Ashmead, 1887   |     |    |    |    |    |    |    |    |    |    |
| E. spongiosa Bugbee, 1951      |     |    |    |    |    |    |    |    |    |    |
| E. strobilata Say, 1836        |     |    |    |    |    |    |    |    |    |    |

| Species                        | CAN | AB | SK | MB | ON | QC | NB | —  | —  | —  |
|-------------------------------|-----|----|----|----|----|----|----|----|----|----|
| E. tonici Ashmead, 1894        |     |    |    |    |    |    |    |    |    |    |
| E. tylodermatis Ashmead, 1896  |     |    |    |    |    |    |    |    |    |    |
| E. verticillata (Fabricius, 1798) |   |    |    |    |    |    |    |    |    |    |
| E. vitis (Saunders, 1869)      |     |    |    |    |    |    |    |    |    |    |

**Genus Mangoma Subba Rao, 1986**

| Species                        | CAN | AB | MB | ON | —  | —  | NS | —  | —  | —  |
|-------------------------------|-----|----|----|----|----|----|----|----|----|----|
| M. salicis (Walker, 1834)      |     |    |    |    |    |    |    |    |    |    |

**Genus Manneroma Bouček, 1983**

| Species                        | CAN | AB | SK | MB | ON | QC | —  | —  | —  | —  |
|-------------------------------|-----|----|----|----|----|----|----|----|----|----|

**Genus Syrphella Walker, 1871**

Neotropical revision – Balfour 1932 (au Deinysta Spinola)

| Species                        | CAN | AB | ON | QC | —  | —  | NS | —  | —  | —  |
|-------------------------------|-----|----|----|----|----|----|----|----|----|----|
| S. adusta (Walsh, 1870)        |     |    |    |    |    |    |    |    |    |    |
| S. marjunicola (Girault, 1916) |     |    |    |    |    |    |    |    |    |    |
| S. melela (Curtis, 1831)       |     |    |    |    |    |    |    |    |    |    |
| S. nigricosta (Walsh, 1870)    |     |    |    |    |    |    |    |    |    |    |
| S. nymphasia (Balduf, 1932)    |     |    |    |    |    |    |    |    |    |    |
| S. nigra (Walsh, 1870)         |     |    |    |    |    |    |    |    |    |    |
| S. nubilistigma (Walsh, 1870)  |     |    |    |    |    |    |    |    |    |    |
| S. ovata (Balduf, 1932)        |     |    |    |    |    |    |    |    |    |    |
| S. subimmaculata (Girault, 1917) |   |    |    |    |    |    |    |    |    |    |
| S. vaceenicola (Balduf, 1932)   |     |    |    |    |    |    |    |    |    |    |

| Species                        | CAN | AB | ON | QC | —  | —  | NS | —  | —  | —  |
|-------------------------------|-----|----|----|----|----|----|----|----|----|----|
| S. varians (Walsh, 1870)       |     |    |    |    |    |    |    |    |    |    |

**Genus Syrtole Walker, 1832**

| Species                        | CAN | AB | MB | ON | QC | —  | —  | —  | —  | —  |
|-------------------------------|-----|----|----|----|----|----|----|----|----|----|
| S. albipennis Walker, 1832     |     |    |    |    |    |    |    |    |    |    |
Genus Tenuspidius Bugbee, 1951
T. medicaginis (Gahan, 1919) CAN – – – – – – – – ON – – – – – – – –
T. ruber Bugbee, 1951 CAN – – – – BC SK MB ON QC – – NS – – – –

Genus Tetramena Walker, 1848
Neotropical revision – Phillips and Emery 1919; Phillips 1936
T. bornei (Harris, 1830) CAN – – – – – – ON QC – – PE NS – – – – – – Webster 1903
T. kingi (Phillips, 1927) CAN – – – – – – AB SK – – – – – – – – Holmes and Blakeley 1971; Peck 1963
T. linearis (Walker, 1832) CAN – – – – – – ON – – – – – – – – ON.PE-Fletcher 1906; QC-Peck 1963
T. longipetalatum (Phillips, 1836) CAN – – – – – – AB – – – – – – – – Phillips and Emery 1919; Peck 1951
T. mad agina (Walker, 1849) CAN – – – – – – ON QC – – – – – – – – Burks 1979c
T. oregon (Phillips, 1836) CAN – – – – – – AB – – – – – – – – – Burks 1979c
T. scalae (Fitch, 1861) CAN – – – – – – AB – – ON – – – – – –
T. tritici (Fitch, 1859) CAN – – – – – – ON QC NB PE – – – – – –
T. vaginicolus (Doane, 1916) CAN – – – – – – ON QC – – – – – – – –
T. websteri (Howard, 1896) CAN – – – – – – AB – – ON QC – – – – – –

SUBFAMILY RILEYINAE

World revision – Gans 2008
Genus Neobisoptera Ashmead, 1904
N. flavipes Ashmead, 1904 CAN – – – – – – MB – – – – – – – –
Genus Rileya Ashmead, 1888
R. campestris American Ashmead, 1888 CAN – – – – – – ON QC – – – – – –
R. insularis (Ashmead, 1894) CAN – – – – – – ON QC – – – – – –

FAMILY LEUCOSPIDAE

Neotropical review – Bouckel 1979a; world revision – Bouckel 1974; Nearctic catalogue – Burks 1979f
Genus Leucospis Fabricius, 1775
L. affinis Say, 1824 CAN – – – – – – BC AB SK MB ON QC NB PE NS – – – – – – AB-PMAE; SK-RSVM; Westwood 1834

FAMILY MEGASTIGMIDAE

World catalogue – Grissell 1999; Nearctic catalogue – Grissell 1979; phylogenetics – Janita et al. 2018
Genus Megastigma Dalman, 1820
Nearctic key – Hedlin et al. 1980; Nearctic revision and key – Milliron 1949
M. aculatus (Svederus, 1795) CAN – – – – – – ON QC – – – – – –
M. allisonei Walker, 1869 CAN – – – – – – BC – – – – – – – – Hedlin et al. 1980
M. anodaeviera Cushman, 1918 CAN – – – – – – BC AB – – MB – – – – – –
M. americana Milliron, 1949 CAN – – – – – – ON QC – – – – – – NF –
M. atedus Walker, 1851 CAN AK – – – – – – ON QC NB – – – – – – Werner 1964
M. brevicicada Retzburg, 1852 CAN – – – – – – MB – – – – – – – –
M. capensia Milliron, 1949 CAN – – – – – – ON – – – – – – – –
M. formosa Milliron, 1949 CAN – – – – – – ON QC – – – – – –
M. gabrini Milliron, 1949 CAN – – – – – – ON QC – – – – – –
M. Hoffmeyeri Walley, 1932 CAN – – – – – – ON QC – – – – – –
M. lariaei Marcevitch, 1914 CAN AK NT NT NU BC AB SK MB ON QC NB PE NS LB NF – – Hedlin et al. 1980
M. latacar pacus Crosby, 1913 CAN – – – – – – BC AB – – – – – –
M. melius Milliron, 1949 CAN – – – – – – ON – – – – – – – –
M. milleri Milliron, 1949 CAN – – – – – – BC – – – – – – – –
M. nigraevigata Ashmead, 1890 CAN AK NT – – BC AB SK – ON QC PE NS NF –
M. polyctapi Crosby, 1913 CAN – – – – – – ON QC – – – – – –
M. pinus Parfitt, 1857 CAN – – – – – – BC – – – – – – – –
M. rafi Hoffmeyer, 1929 CAN – – – – – – BC – – – – – – – –
M. speciecst Walley, 1932 CAN – – – – – – SK MB ON QC NB – NS LB – – Hedlin 1956
M. spermatophobot Wachtl, 1893 CAN – – – – – – BC AB – – – – – –
M. tague Crosby, 1913 CAN – – – – – – BC – – – – – – – –

FAMILY MYMARIDAE

World genera – Annecke and Doutt 1979; Holarctic genera – Schaff 1984; Nearctic generic key – Huber 1997; Huber et al. 2020; New World genera – Yoshimoto 1990; Nearctic catalogue – Burks 1979g; Huber et al. 2020
Genus Aemopodymna Ogbolbin, 1946
Nearctic review – Schaff 1981
A. immaculatum Schaff, 1981 CAN – – – – – – ON – – – – – – NS – – – –
A. variens (Girault, 1917)  
**Genus Alaptus** Westwood, 1839
  Holartic revision – Triapitsyn 2017
A.fuscicornis Walker, 1846  
A. huberti Triapitsyn, 2017  
A. immutatus Perkins, 1905  
A. kloxi Triapitsyn, 2017  
A. minimus Westwood, 1839  
A. pallidivirgus Förster, 1856  
A. sententapri Triapitsyn, 2017  
**Genus Anagrus** Haliday, 1833
  World key – Triapitsyn 2015; Nearctic review – Triapitsyn 1998; Holartic key and Nearctic review – Chiappini et al. 1996; Nearctic key – Grotch and Dunbar 1977
A. atomus (Linnaeus, 1767)  
A. atalae Soya, 1956  
A. daunui Triapitsyn, 1998  
A. incarnatus Haliday, 1833  
A. nigriceps (Smits van Burgst, 1914)  
A. nigroventrus Girault, 1911  
A. pseud Girault, 1912  
A. tubifuscus Förster, 1847  
**Genus Anagrus Haliday, 1833**
  Review and world catalogue – Huber and Thuróczy 2018; Neartic review and keys – species groups and *A. fuscipennis* group – Huber 1992, *A. crassicornis* group – Huber 2006; key and descriptions of carrot weevil parasitoids – Huber et al. 1997
A. alaskae Annecke & Doult, 1961  
A. berrhidiphasus Huber, 1992  
A. calendria (Gahan, 1927)  
A. colinis Walker, 1846  
A. conferta (Doutt, 1949)  
A. comonotus Girault, 1905  
A. eotri Huber, 1997  
A. diaea (Girault, 1911)  
A. flatipes (Förster, 1841)  
A. fuscipennis Haliday, 1833  
A. gerrisophaga (Doutt, 1949)  
A. ile Girault, 1911  
A. listrovoti Huber, 1997  
A. luna (Girault, 1914)  
A. sinipennis Girault, 1911  
A. victus Huber, 1997  
**Genus Camptoptera Förster, 1856**
  Holartic revision – Triapitsyn 2014
C. cardui (Förster, 1856)  
**Genus Chrysoconitus Mathot, 1966**
C. masoni (Yoshimoto, 1990)  
**Genus Cleruchus Enock, 1909**
C. bicilatus (Ferrière, 1952)  
C. pellus (Yoshimoto, 1971)  
**Genus Cosmostoma Howard, 1908**
  World checklist – Huber 2015b; Nearctic key – Triapitsyn 2013b; Nearctic revision (as Genusama rater) – Huber 1988; Nearctic review and key to parasites of Proconini – Triapitsyn 2006
C. bonariensis (Brethès, 1922)  
C. dolichocheerus (Ashmead, 1887)  
C. inepectata (Huber, 1988)  
C. latipennis (Girault, 1911)  
C. nonfaciata (Girault, 1911)  
**Genus Dicopus Enock, 1909**
D. halitus Girault, 1917  
**Genus Erythmelus Enock, 1909**
  Nearctic review – Triapitsyn et al. 2007
E. agilis (Enock, 1909)
Genus Euxochus Halday, 1833
World review – Huber and Baquero 2007; subgeneric definitions – Triapitsyn et al. 2020

Subgenus Caraphractus Walker, 1846
E. cinctus (Walker, 1846) CAN – Y NT – BC – MB ON QC NB – – – –

Subgenus Euxochus Halday, 1833
E. neucticus Yoshimoto, 1990 CAN – – – – BC AB – – ON – – – NS – –
E. pengeliy Huber & Baquero, 2007 CAN – – – – – – – – ON QC – – –
E. yoshimori Huber & Baquero, 2007 CAN – – – BC – – – – – –

Genus Gonatoxoerus Nees, 1834
Review and world key – Triapitsyn and Berezovskiy 2001
Holarctic revision – Triapitsyn and Berezovskiy 2004

Genus Litus Halday, 1833
Nearctic partial key – Triapitsyn 2010; Nearctic revision (as sulphuripes group) – Huber 1988

Genus Lymaenon Walker, 1846
L. campopterus Novicky, 1953 CAN – – – – – – – – ON QC – – –
L. cypripedi Haliday, 1833 CAN – – – – – – – – ON – – –

Genus Macrocampopterus Girault, 1910
Nearctic partial key – Triapitsyn 2010

Genus Mymar Curtis, 1829
M. metotarsa (Girault, 1905) CAN – – – – AB – – ON QC – – –

Genus Neomymar Crawford, 1913
Nearctic revision – Triapitsyn et al. 2006

Genus Nyctoymyrmex Schaeffer, 1883
New World revision – Schauff 1983

Genus Ocotonus Halday, 1833
Nearctic revision – Huber 2012

E. bullik Triapitsyn, 2007 CAN – – – – – – – – ON – – – –
E. flavovarius (Walker, 1846) CAN AK – – – – – – ON QC – – – – PE – – –
E. gracilis (Howard, 1881) CAN – – NT – BC – – ON – – PE – – –
E. mikrob Triapitsyn, 2007 CAN – – – BC – – – – – –
E. miridiphaga Dozier, 1937 CAN – – – – – – – QC – – – –
E. piceus (Girault, 1915) CAN AK – – – BC AB – – ON – – – NS – –
E. palliculus Gahan, 1937 CAN – – – – BC AB – – ON – – NB PE – – –
E. rex (Girault, 1911) CAN – – – – AB SK – – ON QC – – – –
Genus Ooctonus Halday, 1833
World checklist – Huber 2010; Nearctic revision (as sulphuripes group) – Huber 1988

Genus Ooctonus Halday, 1833

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Genus Ooctonus Halday, 1833
| Species                        | CAN | AK | BC | AB | SK | ON | QC | PE | NB | NS | Huber 2012 |
|-------------------------------|-----|----|----|----|----|----|----|----|----|----|------------|
| *O. occidentalis* Whittaker, 1931 |     |    |    |    |    |    |    |    |    |    |            |
| *O. quadricarinatus* Girault, 1916 |     |    |    |    |    |    | QC |    |    |    |            |
| *O. rude Huber*, 2012          |     |    |    |    |    |    |    |    |    |    |            |
| *O. silvestris* Girault, 1916  |     |    |    |    |    |    |    |    |    |    | Girault 1929 |
| *O. tristigmus* Huber, 2012    |     |    |    |    | AB | SK | ON | QC |    |    |            |
| *O. vulgatus* Haliday, 1833    |     |    |    |    |    |    |    |    | NS |    | Huber 2012 |

**Genus Polynema Haliday, 1833**

*P. bimaculatipennis* Girault, 1911  
*P. florum* Girault, 1929  
*P. longipes* (Ashmead, 1887)  
*P. nativum* Girault, 1929  
*P. needhami* Ashmead, 1900  
*P. pestensiplagion* Wély, 1929  
*P. regimun* Girault, 1912  
*P. striatocirrus* Girault, 1911

**Genus Philonymyr Annecke & Doutt, 1961**

*P. magnificum* Yoshimoto, 1990

**Genus Stephanoedes Enock, 1909**

*Genus Stethynium Enock, 1909*

*Genus Omyrmys Westwood, 1832*

*O. acuta* Hanson, 1992  
*O. laboitus* Walker, 1843  
*O. reticulatus* Hanson, 1992  
*O. mae Ashmead, 1885*  
*O. tenax* Hanson, 1992  
*O. tario Hanson, 1992*  
*O. unicaculatipennis* Girault, 1916  
*O. vacciniicola* Ashmead, 1887  
*O. remusius Hanson, 1992*  

**Family OMYRMYCIDAE**

Nearctic generic key – Huber 1987

** genus OMYRMYCINAE**

*Genus Chrysomallus Spinola, 1811*

*C. schwarzi* Crawford, 1914  
*C. syzbrici* (Ashmead, 1896)

**SUBFAMILY CHRYSOLAMPINAE**

New World revision – Darling 1886

**Family PERILAMPINAE**

New World review – Darling 1983

**Subfamily PERILAMPINAE**

World generic key – Bouček 1978

**Genus Eusperilampus Walker, 1871**

*Genus Perilampus Latreille, 1809*

World synopsis and keys – Agassiz 1990, 1991; generic concepts – Darling 1996; Nearctic revision – Smulyan 1937

*P. anomalocera* Crawford, 1914  
*P. canadenis* Crawford, 1914  
*P. carolinensis Smulyan, 1936*  
*P. chrysopea Crawford, 1914*  
*P. fudicornis Ashmead, 1886*  
*P. gabani Smulyan, 1936*  
*P. hyalinus Say, 1829*  
*P. melanocheli Smulyan, 1936*  
*P. platygaster Say, 1836*  
*P. probrongicus Smulyan, 1936*  
*P. robertoni Crawford, 1914*  
*P. rohweri Smulyan, 1936*
**SUBFAMILY ASAPHESINAE**

- Asaphinae (see Burks and Heraty 2020)

**Genus Asaphes Walker, 1834**

- Nearctic revision and world review – Gibson and Vilkberg 1998; Nearctic catalogue – Burks 1979h

| Genus | Specific epithet | Subfamily | Notes |
|-------|-----------------|-----------|-------|
| A. brevipes | null | Asaphesinae | null |
| A. californicus | Girault, 1917 | Asaphesinae | null |
| A. horatus | Gibson & Vilkberg, 1998 | Asaphesinae | null |
| A. petiolatus | (Zetterstedt, 1838) | Asaphesinae | null |
| A. supatus | (Nees, 1834) | Asaphesinae | null |
| A. uluguris | Walker, 1836 | Asaphesinae | null |
| Genus Hypermerus Girault, 1917 | H. corsus | Hypermerinae | null |
| Genus Hypermerus Girault, 1917 | H. paullus | Hypermerinae | null |

**SUBFAMILY CEINAE**

| Genus | Specific epithet | Subfamily | Notes |
|-------|-----------------|-----------|-------|
| C. paliari | Walker, 1837 | Ceinae | null |
| Genus Spalangupellus Masi, 1922 | World revision – Darling 1991 |
| S. apotherisma | Darling & Hanson, 1986 |
| S. canadenis | Darling, 1991 |
| S. citata | Yoshimoto, 1977 |

**SUBFAMILY CEREOCEPHALINAE**

| Genus Cerecephala | Westwood, 1832 |
|-------------------|---------------|
| C. rafa | (Walker, 1833) |

**SUBFAMILY CLEONYMINAE**

- Phylogenetics and world generic revision – Gibson 2003

| Genus Chaleoctodes Walker, 1852 |
|-------------------------------|
| C. ludinipennis | Ashmead, 1896 |

| Genus Cleonymus Latreille, 1809 |
|--------------------------------|
| C. magnificus | Ashmead, 1888 |

| Genus Epistenia Westwood, 1832 |
|-------------------------------|
| E. ovrdeata | Westwood, 1832 |

| Genus Heydenia Förster, 1856 |
|-------------------------------|
| H. setica Cook & Davis, 1891 |

**SUBFAMILY COLOTRECHINAE**

| Genus Colotrechus Thomson, 1878 |
|--------------------------------|
| C. ignitus | Burks, 1958 |

**SUBFAMILY DICARINAE**

| Genus Dicara Walker, 1833 |
|---------------------------|
| D. canadensis | Hedqvist, 1969 |

| Genus Dipasa Walker, 1833 |
|---------------------------|
| D. trilimbata | Yoshimoto, 1977 |

| Genus Lelepa Walker, 1843 |
|---------------------------|
| L. argentipes | (Girault, 1916) |

| Genus L. borkeri | Yoshimoto, 1977 |

| Genus L. striatus | Yoshimoto, 1977 |

| Genus Netomocerus Bouček, 1954 |
|-------------------------------|
| N. nearctica | Yoshimoto, 1977 |

**SUBFAMILY DIPTHESINAE**

| Genus Eunotus Walker, 1834 |
|-----------------------------|
| E. cretaeus | Walker, 1834 |

| E. lividus | Ashmead, 1892 |

| E. lividus | Ashmead, 1892 |

**SUBFAMILY EUNOSTINA**

| Genus Eunotus Walker, 1834 |
|-----------------------------|
| E. cretaeus | Walker, 1834 |

| E. lividus | Ashmead, 1892 |

| E. lividus | Ashmead, 1892 |

| E. lividus | Ashmead, 1892 |

**SUBFAMILY HYPERMERINAE**

| Genus Hypermerus Girault, 1917 |
|--------------------------------|
| H. corsus | Girault, 1917 |

| H. paullus | (Walker, 1833) |

**SUBFAMILY LEPIDOSCHYNA**

| Genus Lepidoschyna Ashmead, 1902 |
|---------------------------------|
| L. cerasi | Ashmead, 1902 |

**SUBFAMILY LEPIDOSCHYNA**

| Genus Lepidoschyna Ashmead, 1902 |
|---------------------------------|
| L. cerasi | Ashmead, 1902 |

**SUBFAMILY LEPIDOSCHYNAE**

| Genus Lepidoschyna Ashmead, 1902 |
|---------------------------------|
| L. cerasi | Ashmead, 1902 |

**SUBFAMILY LEPIDOSCHYNA**

| Genus Lepidoschyna Ashmead, 1902 |
|---------------------------------|
| L. cerasi | Ashmead, 1902 |

**SUBFAMILY PROTRITICINAE**

| Genus Protriticus Thomson, 1868 |
|---------------------------------|
| P. simili | Crawford, 1914 |

| P. rigei | Provancher, 1888 |

| P. subinata | Crawford, 1914 |

| P. tritici | Mayr, 1905 |

**Genus Steffinolampus Peck, 1974**

| S. salutum | (Stefan, 1952) |

**FAMILY PTEROMALIDAE**

- Nearctic generic key – Bouck and Heydon 1997; new Nearctic genera – Bouck 1993; Northwest Europe review and keys – Graham 1969; Nearctic catalogue – Burks 1979h; review of world genera of Trigonoderini and revision of Nearctic species – Heydon 1997
### SUBFAMILY EUTRICHOSOMATINAE

| Genus | Species | CAN | BC | AB | SK | ON | QC | NB | NS | NF |
|-------|---------|-----|----|----|----|----|----|----|----|----|
| **E. minidah Ashmead, 1904** | | | | | | | | | | |
| **Genus Pedicinus Bouček, 1975** | | | | | | | | | | |
| **P. laevis** (Provancher, 1887) | CAN | | | | | | | | | |

### SUBFAMILY MACROMESINAE

| Genus | Species | CAN | BC | AB | SK | ON | QC | NB | NS | NF |
|-------|---------|-----|----|----|----|----|----|----|----|----|
| **Genus Macromeson Walker, 1848** | | | | | | | | | | |
| **M. americanus** Hevelst, 1960 | CAN | | | | | | | | | |

### SUBFAMILY MISCOCASTERINAE

| Genus | Species | CAN | BC | AB | SK | ON | QC | NB | NS | NF |
|-------|---------|-----|----|----|----|----|----|----|----|----|
| **Genus Ardilea Graham, 1959** | | | | | | | | | | |
| **A. armata** (Walker, 1833) | CAN | AK | | | | | | | | |
| **C. invictus** Heydon, 1989 | CAN | | | | | | | | | |
| **Genus Coleotrechus Heydon, 1992** | | | | | | | | | | |
| **C. nucicus** (Graham, 1969) | | | | | | | | | | |
| **Genus Glypogota Graham, 1956** | | | | | | | | | | |
| **G. laevisus** (Delucchi, 1953) | CAN | | | | | | | | | |
| **G. laevis** (Delucchi, 1953) | CAN | AK | Y | | | | | | | |

### SUBFAMILY ORMOCERINAE

| Genus | Species | CAN | BC | AB | SK | ON | QC | NB | NS | NF |
|-------|---------|-----|----|----|----|----|----|----|----|----|
| **Genus Halictoptera Spinola, 1811** | | | | | | | | | | |
| **H. aeneus** (Walker, 1833) | CAN | | | | | | | | | |
| **H. londaei** Ashmead, 1887 | CAN | | | | | | | | | |
| **H. cirrata** (Walker, 1833) | CAN | | | | | | | | | |
| **H. good** Crawford, 1915 | CAN | | | | | | | | | |
| **H. roseae** Burks, 1955 | CAN | AK | | | | | | | | |
| **H. trianulata** (Erdős, 1946) | CAN | | | | | | | | | |
| **Genus Lampromatius Westwood, 1833** | | | | | | | | | | |
| **L. canadensis** Girault, 1917 | CAN | | | | | | | | | |
| **L. cleverget** Thomson, 1876 | | | | | | | | | | |
| **L. conicus** Girault, 1917 | | | | | | | | | | |
| **L. pschorni** Delucchi, 1953 | CAN | | | | | | | | | |
| **L. transana** (Foncocolme, 1832) | CAN | AK | | | | | | | | |
| **Genus Maxelus Graham, 1981** | | | | | | | | | | |
| **M. venetus** Heydon, 1995 | CAN | | | | | | | | | |
| **Genus Merinus Walker, 1833** | | | | | | | | | | |
| **M. lathene** (Walker, 1848) | CAN | AK | NT | | | | | | | |
| **M. megalopterus** Walker, 1833 | CAN | | | | | | | | | |
| **M. splendens** Graham, 1969 | CAN | YT | | | | | | | | |
| **Genus Miscogaster Walker, 1833** | | | | | | | | | | |
| **M. elegans** Walker, 1833 | CAN | | | | | | | | | |
| **Genus Rhiococela Graham, 1956** | | | | | | | | | | |
| **R. constans** (Walker, 1836) | CAN | AK | | | | | | | | |
| **Genus Seladerma Walker, 1834** | | | | | | | | | | |
| **S. diatru** (Walker, 1844) | CAN | | | | | | | | | |
| **S. geniculatum** (Zetterstedt, 1838) | | | | | | | | | | |
| **S. tarale** (Walker, 1833) | | | | | | | | | | |
| **S. vulgaris** (Ashmead, 1902) | CAN | AK | | | | | | | | |
| **Genus Thinodytes Graham, 1956** | | | | | | | | | | |
| **T. caroticus** Heydon, 1995 | CAN | | | | | | | | | |
| **T. cytiopus** Heydon, 1995 | CAN | | | | | | | | | |
| **T. petiolatus** Heydon, 1995 | CAN | | | | | | | | | |
| **Genus Tribocyclus Graham, 1956** | | | | | | | | | | |
| **T. arthropodites** Graham, 1909 | CAN | AK | YT NT NU | | | | | | | |

### SUBFAMILY ORMOCERINAE

| Genus | Species | CAN | BC | AB | SK | ON | QC | NB | NS | NF |
|-------|---------|-----|----|----|----|----|----|----|----|----|
| **Genus Hemadas Crawford, 1909** | | | | | | | | | | |
| **H. subflapennis** (Ashmead, 1887) | CAN | | | | | | | | | |
| **Genus Melanicus Graham, 1969** | | | | | | | | | | |
| **M. diplosis** (Eckel, 1903) | CAN | | | | | | | | | |
| **Genus Semiotellus Westwood, 1839** | | | | | | | | | | |
| **S. minimus** Provancher, 1881 | CAN | | | | | | | | | |
| **Genus Syntosis Walker, 1834** | | | | | | | | | | |
| **S. enervis** Walker, 1834 | CAN | AK | | | | | | | | |
SUBFAMILY PIRENINAE

Genus Gastracanthus Westwood, 1833
A. americana (Ashmead, 1904) CAN – – – – – – ON – – – – – – –
A. clavicornis (Girault, 1917) CAN – – – – – – SK – – – – – – – Girault 1920
A. oblongus (Provancher, 1881) CAN – – – – – – QC – – – – – – – Provancher 1881

Genus Macrogastrus Westwood, 1832
M. penetrans (Kirby, 1800) CAN – – – – – – SK MB ON – – – – – – – Doane et al. 1989

Genus Morohora Gahan, 1933
M. armata Gahan, 1933 CAN – – – – – – BC – – – – – – – Burla 1979h

SUBFAMILY PTEROMALINAE

Genus Abomala Bouček, 1993
A. masoni Bouček, 1993 CAN – – NT – – – – – – – – – –

Genus A. schickae Heydon & Bouček, 1992 CAN – – – – – – BC – – – – – – –

Genus Anisoptera Westwood, 1833
A. cadamorum (Howard, 1881) CAN – – – – – – ON QC – – – – – –

Genus A. pygmaeus Förster, 1856
A. lasioptera (Bouček, 1966) CAN – – – – – – BC – – – – – – –
A. picorn (Ruschka, 1893) CAN – – – – – – – – – – – – –
A. planus Bouček, 1993 CAN – – – – – – – – – – – – –
A. strobilicornis (Thomson, 1878) CAN – – – – – – BC – – – – – –

Genus Acanthotaenia Gahan, 1881
A. dasys Gahan, 1881 CAN – – – – – – ON – – – – – –

Genus Aphispyrus Thomson, 1878
A. fasciata (Provancher, 1881) CAN – – – – – – ON QC – – – – – –
A. oezbei Doğanlar, 1978 CAN – – – – – – BC – – – – – –

Genus B. lasiopterae (Bouček, 1993) CAN – – – – – – – – – – – – –

Genus Bebbidia Dalla Torre, 1897
B. laniatoria (Ashmead, 1893) CAN – – – – – – ON – – – – – –

Genus Cantacrus Förster, 1856
C. cuprea (Provancher, 1881) CAN – – – – – – AB – – ON QC – – – – – – Treherne 1916; Provancher 1881

Genus Callicarposia Heydon, 1989
C. crassiceps (Masi, 1911) CAN – – – – – – – – – – – –
C. cuprea (Burks, 1954) CAN – – – – – – – – – – – –

Genus Callituba Fargnoli, 1811
C. lecoides Spinola, 1811 CAN – – – – – – ON – – – – – –
C. nigricornis (Provancher, 1881) CAN – – – – – – – – – – – – Provancher 1881

Genus Canada Kočak & Kemal, 2008
C. cysticus (Bouček, 1993) CAN – – – – – – – – – – – – NF –

Genus Capella Delucchi, 1958
C. reclusa (Girault, 1920) CAN – – – – – – – – – – – –

Genus C. maculata Thomson, 1878
C. maculata (Girault, 1911) CAN – – – – – – – – – – – –

C. maculata (Blais, 1911) CAN – – – – – – – – – – – –
C. cyanea (Burks, 1954) CAN – – – – – – – – – – – –

Genus Chloropachus Westwood, 1829
C. obscuripes Brues, 1910 CAN – – – – – – – – – – – – – Schidl 1932
C. quadram (Fabricius, 1787) CAN – – – – – – BC AB – – ON QC – – – – – –

Genus Chlorotoma Förster, 1856
C. longicornis (Ashmead, 1896) CAN – – – – – – – – – – – – –
C. rhododendri (Ashmead, 1896) CAN – – – – – – – – – – – – – Thompson 1958

Genus Coelochiliodes Förster, 1856
C. fuscipennis Gahan 1909 CAN – – – – – – ON – – – – – – –
C. subbicoloris (Provancher, 1881) CAN – – – – – – QC NB – – – – – – – Provancher 1881

Genus C. formosa Walker, 1833
C. formosa Walker, 1833 CAN – – – – – – BC AB – – MB ON QC NB – – – – – –

Genus C. formosa Walker, 1833 CAN – – – – – – BC AB – – MB ON QC NB – – – – – –
Genus *Cratonus* Dalman, 1820  
*C. leucophaeus* Ashmead, 1888  
*C. megacephalus* (Fabricius, 1793)  

**Genus Cryptopyrma Förster, 1856**  
*Neurca* review and key – Heydon 1988a  
*C. atrus* (Walker, 1833)  

**Genus Cyclogastrella Bukovskii, 1938**  
*C. simplex* (Walker, 1834)  

**Genus Cyrtogaster Walker, 1833**  
*C. brittensis* Askey, 1965  
*C. capitaneus* Heydon, 1989  
*C. reubnii* Heydon, 1989  
*C. tryphera* (Walker, 1843)  
*C. vulgata* Walker, 1833  

**Genus Dibrachys Förster, 1856**  
*D. confusa* (Girault, 1916)  
*D. fuscicornis* (Walker, 1836)  
*D. iava* Bouček, 1965  
*D. maculipennis Szélenyi, 1957*  
*D. microptera* (Bouček, 1834)  
*D. retinarius* Doganlar, 1987  

**Genus Dígleochus Förster, 1856**  
*D. occidentalis* Ashmead, 1896  

**Genus Dinschach Thomson, 1878**  
*D. eugnathum* (Nees, 1834)  

**Genus Dinarus Thomson, 1878**  
*D. acutus* (Thomson, 1878)  
*D. laeves* (Rondani, 1877)  

**Genus Dinoticus Ghesquière, 1946**  
*D. agonius* (Walker, 1848)  
*D. colon* (Linnæus, 1758)  

**Genus Doganlaria Koçak & Kemal, 2008**  
*D. daphyne* (Girault, 1917)  

**Genus Endomychobius Ashmead, 1896**  
*E. flavipes* Ashmead, 1896  

**Genus Epirteromalus Ashmead, 1904**  
*E. algominquennus* Ashmead, 1904  

**Genus Eulonchetron (Graham, 1916)**  
*E. terynoides* (Thomson, 1878)  

**Genus Eumacropus Graham, 1957**  
*E. salicis* Bouček, 1993  

**Genus Eueneura Walker, 1844**  
*E. laevis* (Ashmead, 1887)  
*E. nippola* (Walker, 1844)  

**Genus Eurydortoleides Girault, 1913**  
*E. incerta* (Ashmead, 1893)  
*E. pendula* (Girault, 1916)  

**Genus Gastracanthus Westwood, 1833**  
*G. conicus* (Girault, 1917)  

**Genus Gelecia Bouček, 1961**  
*G. cordilarana* Bouček, 1993  

**Genus Grisellium Bouček, 1993**  
*G. hirtatum* Bouček, 1993  

**Genus Guolina Heydon, 1994**  
*G. pinicola* Heydon, 1994  

**Genus Gyrophegus Ruschka, 1914**  
*G. aper* (Walker, 1839)  

**Genus Halorhytis Thomson, 1878**  
*H. brevirostris* (Ratzburg, 1844)  
*H. latrus* Wallace, 1954  

**Genus Hemitrachus Thomson, 1878**  
*H. ieniculus* (Nees, 1834)  

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| Genus | Species | Notes |
|-------|---------|-------|
| *H. latrus* | *H. latrus* | Ashmead 1888 |
| *H. brevicornis* | *H. brevicornis* | Ashmead 1888 |
| *E. incerta* | *E. incerta* | Ashmead 1888 |
| *D. daphyne* | *D. daphyne* | Ashmead 1888 |
| *D. acutus* | *D. acutus* | Ashmead 1888 |
| *G. hirtatum* | *G. hirtatum* | Ashmead 1888 |
| *G. cordilarana* | *G. cordilarana* | Ashmead 1888 |
| *G. conicus* | *G. conicus* | Ashmead 1888 |
| *G. daphyne* | *G. daphyne* | Ashmead 1888 |

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*Note: The table above lists the species and their synonyms. The notes column provides additional information about each species.*

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*References for the species listed above.*
**Genus Hlaaska Bouček, 1993**

| Species                | Distribution |
|------------------------|--------------|
| H. gibsoni Bouček, 1993| AK           |

**Genus Homoporus Thomson, 1878**

| Species                | Distribution |
|------------------------|--------------|
| H. atriceps (Gahan, 1927) | CAN          |
| H. destructor (Say, 1817) | CAN          |
| H. fabriconus (Girault, 1917) | CAN          |
| H. insularis (Ashmead, 1904) | CAN          |
| H. nevius (Walker, 1839) | CAN          |

**Genus Hederina Bouček, 1993**

| Species                | Distribution |
|------------------------|--------------|
| H. betuleti Bouček, 1993| CAN          |

**Genus Hypopteronomus Ashmead, 1900**

| Species                | Distribution |
|------------------------|--------------|
| H. inimicus Muesebeck, 1927 | CAN          |
| H. percursor Girault, 1917 | CAN          |
| H. tabacum (Fitch, 1864) | CAN          |

**Genus Jaliscot Bouček, 1993**

| Species                | Distribution |
|------------------------|--------------|
| J. hunteri (Crawford, 1908) | CAN          |

**Genus Jansoniella Kerrich, 1957**

| Species                | Distribution |
|------------------------|--------------|
| J. candula Kerrich, 1957 | CAN          |
| J. intermedia Hedqvist, 1968 | CAN          |
| J. isophyle Heydon, 1968 | CAN          |

**Genus Kaleras Graham, 1957**

| Species                | Distribution |
|------------------------|--------------|
| K. microthorax Bouček, 1993 | CAN          |

**Genus Kedusa Bouček, 1993**

| Species                | Distribution |
|------------------------|--------------|
| K. clipeata Bouček, 1993 | CAN          |

**Genus Lariphagus Crawford, 1909**

| Species                | Distribution |
|------------------------|--------------|
| L. distinguedus ( Förster, 1841) | CAN          |
| L. deyorthianus (Ashmead, 1886) | CAN          |

**Genus Mazinawous Bouček, 1993**

| Species                | Distribution |
|------------------------|--------------|
| M. laticornis Bouček, 1993 | CAN          |

**Genus Meroperus Walker, 1834**

| Species                | Distribution |
|------------------------|--------------|
| M. graminicolor Walker, 1834 | CAN          |

**Genus Mesopolobus Westwood, 1833**

| Species                | Distribution |
|------------------------|--------------|
| M. secaus (Walker, 1834) | CAN          |
| M. brachyphagus (Gahan, 1917) | CAN          |
| M. confusus (Ashmead, 1902) | CAN          |
| M. diffinis (Walker, 1834) | CAN          |
| M. finlaysoni Doğanlar, 1979 | CAN          |
| M. genella Baur & Muller, 2007 | CAN          |
| M. longicandrus Doğanlar, 1979 | CAN          |
| M. mordax Gibson, 2005 | CAN          |
| M. nobilis Walker, 1834 | CAN          |
| M. subflamanti (Ratzburg, 1852) | CAN          |
| M. torynica (Brues, 1910) | CAN          |
| M. verdizeri (Norton, 1869) | CAN          |

**Genus Metacolus Förster, 1856**

| Species                | Distribution |
|------------------------|--------------|
| M. fasciatus Girault, 1917 | CAN          |

**Genus Metastenus Walker, 1834**

| Species                | Distribution |
|------------------------|--------------|
| M. townsendi ( Ashmead, 1904) | CAN          |

**Genus Musciphilus Girault & Sanders, 1910**

| Species                | Distribution |
|------------------------|--------------|
| M. raptor Girault & Sanders, 1910 | CAN          |
| M. raptorellus Kogan & Legner, 1970 | CAN          |
| M. salpeter Kogan & Legner, 1970 | CAN          |

**Genus Nasonia Ashmead, 1904**

| Species                | Distribution |
|------------------------|--------------|
| N. giraldii Darling, 1990 | CAN          |
| N. longicornis Darling, 1990 | CAN          |
| N. vitripennis (Walker, 1836) | CAN          |

**Genus Norbanus Walker, 1843**

| Species                | Distribution |
|------------------------|--------------|
| N. sibiricus (Nees, 1834) | CAN          |

**Genus Notonyctrus Masi, 1917**

| Species                | Distribution |
|------------------------|--------------|
| N. luteus Heydon, 1988 | CAN          |

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(Bionomics – Darling and Weren 1990)

Bouček, 1979h

Burla 1997b

Heydon, 1968

Heydon, 1997

Peck 1963

Tøgersen 1969

Wood and Neilson 1957

Reeks and Smith 1956

Girault, 1917

Thomson, 1878

Förster, 1856

Girault & Sanders, 1910

Baur & Muller, 2007

Crawford, 1909

Mees, 1878

Kukua

Kaleva

H. inimicus Muesebeck, 1927

H. percursor Girault, 1917

H. tabacum (Fitch, 1864)

M. inimicus Muesebeck, 1927

M. percursor Girault, 1917

M. tabacum (Fitch, 1864)
Genus *Ogoloblinaea* Heydon, 1968

*O. americana* (Hedqvist, 1968)

**Genus *O. marzetti* Bouček, 1993**

**Genus *Oxygyrus* Delucchi, 1956**

*O. acutirostris* (Ashmead, 1887)

*O. facialis* (Provancher, 1887)

**Genus *Pachyceropoides* Ashmead, 1904**

*P. viadenusiae* (Rondani, 1875)

**Genus *Pachyneuron* Walker, 1833**

*P. abinitus* Walker, 1843

*P. albitincta* Howard, 1884

*P. aphidis* (Bouché, 1834)

*P. californicus* Girault, 1917

*P. eri* Girault, 1917

*P. formosus* Walker, 1833

*P. groenlandicus* (Holmgren, 1872)

*P. sagittatus* Waterston, 1923

**Genus *Parastonognathus* Thomson, 1878**

*P. algonquinicus* (Girault, 1917)

*P. americana* Hedqvist, 1968

*P. colombianus* (Ashmead, 1896)

**Genus *Paracaratornus* Ashmead, 1894**

*P. cephalotes* Ashmead, 1894

**Genus *Pergoderia* Förster, 1856**

*P. discus* (Walker, 1835)

**Genus *Periphragma* Ruschka, 1823**

*P. americana* Miller, 1865

*P. robusta* Ruschka, 1823

**Genus *Platygerrhus* Thomson, 1878**

*P. algonguinicus* (Girault, 1917)

*P. americana* Hedqvist, 1968

*P. colombianus* (Ashmead, 1896)

**Genus *Platylabrus* Förster, 1856**

*P. acomnata* (Thomson, 1878)

*P. australis* Heydon, 1997

*P. comunitas* Heydon, 1997

*P. gregorii* Heydon, 1997

*P. pilosiculata* Heydon, 1997

*P. plagiolaris* Heydon, 1997

*P. pusilla* Heydon, 1997

*P. vegetables* (Girault, 1917)

*P. vegetables* Heydon, 1997

**Genus *Polognathia* Heydon, 1988**

*P. pelagophila* Heydon, 1988

*P. quadruplana* Heydon, 1988

**Genus *Policernus* Walker, 1843**

*P. achaecus* Walker, 1848

**Genus *Piloceratans* Mayr, 1904**

*P. omnivorus* (Walker, 1835)

**Genus *Pteromalus* Swederus, 1795**

*P. actinorhynchi* (Peck, 1951)

*P. anthocerana* (Ashmead, 1893)

*P. apicatus* (Reitzius, 1783)

*P. bedeguaris* (Thomson, 1878)

*P. britannica* (Girault, 1926)

*P. cassoti* Walker, 1847

*P. cerealella* (Ashmead, 1902)

*P. cernua* (Ashmead, 1888)

*P. cynipis* (Linnaeus, 1758)
Chalcidoidea of Canada, Alaska and Greenland

P. eugeniae Förster, 1841
P. elevatus (Walker, 1834)
P. eurybi (Gahan, 1913)
P. fuscipes (Provancher, 1881)
P. gallicola (Dognian, 1980)
P. grisei Gibson, 2013
P. melanaria (Provancher, 1881)
P. microps (Graham, 1969)
P. onenati Fitch, 1859
P. plicatus (Ashmead, 1898)
P. platystylis Walker, 1874
P. paparum (Linnaeus, 1758)
P. mae (Girault, 1917)
P. semutus (Walker, 1834)
P. sequatur Walker, 1835
P. thyrophoropsis Howard, 1897
P. venustus Statz, 1938

Genus *Rhopophilus* Walker, 1934
R. maculatus Walker, 1934
R. *robnicolus* Thomson, 1987
R. xylophagus (Ratzeburg, 1844)

Genus *Scepbrochys* Graham, 1956
S. deione (Walker, 1839)
S. grandicrus (Walker, 1835)
S. parvicrus Graham, 1969

Genus *Schiromatus* Ratzeburg, 1852
S. latus (Walker, 1835)
S. *rotundiventris* (Girault, 1917)
S. sieboldi (Ratzeburg, 1848)

Genus *Sicyophorus* Gahan, 1951
S. carinata Gahan, 1951

Genus *Spanopius* Walker, 1833
S. desimulus Walker, 1833

Genus *Sphergiaster* Spinola, 1811
S. ater (Ashmead, 1904)
S. constrictus Heydon, 1888
S. excentus Heydon & LaBerge, 1988

Genus *Stryphyon* Gahan, 1951
S. eugeniae Gahan, 1951

Genus *Sphageidae* Spinola, 1811
S. esculenta (Ashmead, 1891)
S. gallicus Heydon & LaBerge, 1988

Genus *Systeon* Masi, 1931
S. m. tika Mackay & Burks, 1920

Genus *Stenomus* Chalcid, 1894
S. gracili (Walker, 1934)

Genus *Stenopus* Thomson, 1878
S. etarctus (Walker, 1848)

Genus *Stenopara* Walker, 1833
S. americana Ashmead, 1895

Genus *Syntomoptera* Gahan, 1917
S. *otomorum* Gahan, 1917

Genus *Tomocobia* Ashmead, 1899
T. *tibialis* Ashmead, 1904

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Thompson 1958
Provancher 1881
Ashmead, 1895
Heydon & LaBerge, 1988
Raske 1988
Peck 1951
Beaune 1940
Waddell 1952
Bright 1996,
Langor and Raske 1988
Thompson 1958
Gahan 1933
Heydon and LaBerge 1988
McLeod 1954
Burka 1979h
| Genus | Species | CAN | AB | SK | MB | ON | QC | NB | NS | Heydon and Grisell 1988 |
|-------|---------|-----|----|----|----|----|----|----|----|------------------------|
| T. aciculare | Heydon, 1988 | CAN | | | | | | | | |
| T. aquilonium | Heydon, 1988 | CAN | AK | | | | | | | |
| T. gera | Heydon, 1988 | CAN | | | | | | | | |
| T. inspira | Heydon, 1988 | CAN | | | | | | | | |

| Genus | Species | CAN | AB | SK | MB | ON | QC | NB | NS | Baur 2005 |
|-------|---------|-----|----|----|----|----|----|----|----|------------|
| T. carolinensis | Bousquet, 1993 | CAN | | | | | | | | |

| Genus | Species | CAN | AB | SK | MB | ON | QC | NB | NS | Baur 2005 |
|-------|---------|-----|----|----|----|----|----|----|----|------------|
| T. americana | Gahan, 1933 | CAN | | | | | | | | |
| T. dubia | Ashmead, 1896 | CAN | | | | | | | | |
| T. fucicola | Walker, 1835 | CAN | | | | | | | | |
| T. hemiptera | Walker, 1835 | CAN | | | | | | | | |

| Genus | Species | CAN | AB | SK | MB | ON | QC | NB | NS | Fitcher 1890 |
|-------|---------|-----|----|----|----|----|----|----|----|-------------|
| T. perigyna | Graham, 1969 | CAN | | | | | | | | |
| T. seraphinae | Gahan, 1914 | CAN | | | | | | | | |

| Genus | Species | CAN | AB | SK | MB | ON | QC | NB | NS | Gibson and Floate 2001 |
|-------|---------|-----|----|----|----|----|----|----|----|-----------------------|
| T. lucidus | Walker, 1835 | CAN | | | | | | | | |
| T. perfectus | Walker, 1835 | CAN | | | | | | | | |

| Genus | Species | CAN | AB | SK | MB | ON | QC | NB | NS | Gibson and Floate 2001 |
|-------|---------|-----|----|----|----|----|----|----|----|-----------------------|
| T. maculata | Gahan, 1914 | CAN | | | | | | | | |

| Genus | Species | CAN | AB | SK | MB | ON | QC | NB | NS | Gibson and Floate 2001 |
|-------|---------|-----|----|----|----|----|----|----|----|-----------------------|
| T. scutellata | Muesebeck, 1927 | CAN | | | | | | | | |

| Genus | Species | CAN | AB | SK | MB | ON | QC | NB | NS | Gibson 2000 |
|-------|---------|-----|----|----|----|----|----|----|----|------------|
| U. maritima | Walker, 1834 | CAN | AK | | | | | | | |
| U. rufipes | Ashmead, 1896 | CAN | | | | | | | | |

| Genus | Species | CAN | AB | SK | MB | ON | QC | NB | NS | Heydon, 1988 |
|-------|---------|-----|----|----|----|----|----|----|----|-------------|
| V. brevieri | Bouček, 1993 | CAN | | | | | | | | |

| Genus | Species | CAN | AB | SK | MB | ON | QC | NB | NS | Heydon, 1988 |
|-------|---------|-----|----|----|----|----|----|----|----|-------------|
| L. meyeri | Ratzeburg, 1844 | CAN | | | | | | | | |

| Genus | Species | CAN | AB | SK | MB | ON | QC | NB | NS | Heydon, 1988 |
|-------|---------|-----|----|----|----|----|----|----|----|-------------|
| Z. squamosa | Huggert, 1979 | CAN | | | | | | | | |

**SUBFAMILY SPALANGINAE**

New World revision – Gibson 2009

| Genus | Species | CAN | AB | SK | MB | ON | QC | NB | NS | Gibson 2009 |
|-------|---------|-----|----|----|----|----|----|----|----|-------------|
| S. alyxia | Gibson, 2009 | CAN | | | | | | | | |
| S. cameroni | Perkins, 1910 | CAN | | | | | | | | |
| S. drosophilae | Ashmead, 1887 | CAN | | | | | | | | |
| S. endius | Walker, 1839 | CAN | | | | | | | | |
| S. erythrocephala | Förster, 1850 | CAN | | | | | | | | |
| S. geminis | Bouček, 1963 | CAN | | | | | | | | |
| S. haematorrhoea Ashmead, 1894 | CAN | | | | | | | | |
| S. nigronervosa | Latreille, 1805 | CAN | | | | | | | | |
| S. nigropleura | Curtis, 1839 | CAN | | | | | | | | |

| Genus | Species | CAN | AB | SK | MB | ON | QC | NB | NS | Gibson 2009 |
|-------|---------|-----|----|----|----|----|----|----|----|-------------|
| S. nigropleura | Gibson, 2009 | CAN | | | | | | | | |

| Genus | Species | CAN | AB | SK | MB | ON | QC | NB | NS | Gibson 2009 |
|-------|---------|-----|----|----|----|----|----|----|----|-------------|
| S. nigronervosa | Förster, 1850 | CAN | | | | | | | | |
| Genus | Species | CAN | SK | MB | ON | QC | NB | PE | NF |
|-------|---------|-----|----|----|----|----|----|----|----|
| E. flavopalliata | S. flavopalliata species group | - | - | - | - | - | - | - | - |
| E. aculeatus | S. flavopalliata species group | - | - | - | - | - | - | - | - |
| M. mandibularis | Gahan, 1941 | - | - | - | - | SK | QC | - | - |
| M. menticile | Crawford, 2000 | - | - | - | - | AB | - | - | - |
| M. minor | Ratzeburg, 1848 | - | - | - | - | BC | AB | - | - |
| M. montisculus | Ashmead, 1890 | - | - | - | - | BC | AB | SK | MB |
| M. obcursa | Westwood, 1833 | - | - | - | - | - | AB | - | ON |
| M. osmiae | Kamijo, 1963 | - | - | - | - | AB | - | ON | - |
| M. parkeri | Grissell, 2000 | - | - | - | - | - | AB | - | - |
| M. torbi | Grissell, 2000 | - | - | - | - | BC | - | ON | - |
| M. viridiscapus | Gahan, 1941 | - | - | - | - | BC | - | - | - |
| Z. mississippiensis | Bréland, 1938 | - | - | - | - | - | AB | SK | - |
| Z. smithi | Crawford, 1834 | - | - | - | - | - | - | ON | QC |
| P. lazulellus | Ashmead, 1890 | - | - | - | - | BC | AB | - | ON | QC | NB | PE | NS | NF |
Genus *Torymus* Dalman, 1820

Holartic partial key – Grissell et al. 2004; updated key to *T. fallata* species group – Grissell 1992; western Nearctic revision – Grissell 1976; Nearctic review – Huber 1927

| Species | CAN | AK | YO | YS | B | MB | QC | ON | NS |
|---------|-----|----|----|----|---|----|----|----|----|
| *T. advenus* (Osten-Sacken, 1870) | CAN | - | - | - | - | - | - | ON | QC |
| *T. aerius* (Huber, 1927) | CAN | - | - | - | - | - | - | ON | - |
| *T. alaskensis* (Huber, 1927) | - | AK | - | - | - | - | - | - | - |
| *T. belegnati* (Linnaeus, 1758) | CAN | - | - | - | - | - | - | ON | QC |
| *T. bicolorata* (Huber, 1927) | CAN | - | - | - | - | - | - | - | - |
| *T. biortitae* (Ashmead, 1887) | CAN | - | - | - | - | - | - | ON | - |
| *T. broderi* (Ashmead, 1887) | CAN | - | - | - | - | - | - | - | - |
| *T. brevi* (Huber, 1927) | CAN | - | - | - | - | - | - | ON | - |
| *T. capillaceus* (Huber, 1927) | CAN | - | - | - | - | - | - | ON | - |
| *T. capitii* (Huber, 1927) | CAN | - | - | - | - | - | - | ON | QC |
| *T. cecidomyia* (Walker, 1844) | CAN | - | - | - | - | - | - | AB | QC |
| *T. chrysalis* (Osten-Sacken, 1870) | CAN | - | - | - | - | - | - | ON | NS |
| *T. citripes* (Huber, 1927) | CAN | - | - | - | BC | - | - | ON | - |

**FAMILY TRICHOGRAMMATIDAE**

New World generic review – Pinto 2006; Nearctic generic key – Pinto 1997; Nearctic catalogue – Bullock 1979

**SUBFAMILY OLIOSITINAE**

Genus *Aphelinoides* Girault, 1911

Review of Palaearctic species including *A. neomexicana* Girault, 1915 – Triapitsyn 2018

Genus *Doria* Walterston, 1928

| Species | CAN | YS | AB | QC |
|---------|-----|----|----|----|
| *D. elegans* Pinto, 2004 | CAN | - | - | - |

Genus *Frisy* Girault, 1911

| Species | CAN | YS | MB | QC |
|---------|-----|----|----|----|
| *F. crevarum* (Ashmead, 1888) | CAN | - | - | - |

Genus *Lathromenoides* Girault, 1912

| Species | CAN | YS | AB | QC |
|---------|-----|----|----|----|
| *L. gerraphagis* Pinto, 2006 | CAN | - | - | - |

Genus *Ussia* Girault, 1911

| Species | CAN | NT | AB | MB |
|---------|-----|----|----|----|
| *U. argentea* (Ashmead, 1888) | CAN | - | - | - |

**Genus U. simplipennis** Owen, 2011

| Species | CAN | NT | AB | MB |
|---------|-----|----|----|----|
| *U. simplipennis* Owen, 2011 | CAN | - | - | - |
SUBFAMILY TRICHOGRAMMATINAED

Genus Hydrophylita Ghesquière, 1946

Key to species – Nealis and Pinto 2007

H. aquivolans (Matheson & Crosby, 1912)

Genus Pintoa Viggiani, 1988

P. nearctica Viggiani, 1988

Genus Soiktiella Novicki, 1934

World key – Velten and Pinto 1990

S. occidentalis Velten & Pinto, 1990

Genus Trichogramma Westwood, 1833

Neotropical revision and key – Pinto 1999

T. acutoiridia Pinto, 1999

T. alpha Pinto, 1999

T. arcuatum Pinto, 1999

T. australum Sugonjaev & Sorekina, 1976

T. ballmeri Pinto, 1999

T. brasicae Bezdenko, 1968

T. canadense Pinto, 1999

T. deion Pinto & Oatman, 1986

T. evanescens Westwood, 1833

T. exiguum Pinto & Platner, 1978

T. facsiaturn (Perkins, 1912)

T. igneum Pinto & Oatman, 1985

T. japonicum Ashmead, 1904

T. julianus Plattner & Oatman, 1981

T. mafardiae Thorpe, 1982

T. minutum Riley, 1871

T. nemesi Pinto, 1999

T. nodlaki Pinto & Oatman, 1985

T. parkeri Nagarkatti, 1975

T. pintoi Voegele, 1982

T. platneri Nagarkatti, 1975

T. pretiosum Riley, 1879

T. rettorum (Giura, 1911)

T. semiblakis (Ouivilus, 1898)

T. sibiricum Sorekina, 1980

Genus Trichogrammatatomyia Giura, 1916

T. totrici Giura, 1916

SUPERFAMILY MYMAROMMATOIDEA

FAMILY MYMAROMMATIDAE

World generic key – Gibson et al. 2007

Genus Mymaromma Giura, 1931

World species key – Huber et al. 2008

M. pala Huber & Gibson, 2008

M. palella Huber & Gibson, 2008

Based on sequencing of the DNA barcode region of cytochrome oxidase I (COI) and using the Barcode Index Number (BIN) criterion of Ratnasingham and Hebert (2013) that 2% sequence divergence is indicative of species differences, Bennett et al. (2019) estimated that there are 3301 species of Chalcidoidea from Canada in the Barcode of Life Data System (BOLD) database (Ratnasingham
and Hebert 2007). This represents 2.7 times the number of recorded named species of Chalcidoidea in Canada. These BINs have not yet been reconciled against the names in the checklist so the percent congruence is unknown, but it illus-

Figures 2–7. 2 *Aphelinus* sp. (Aphelinidae), Clear Creek, ON 3 *Conura* sp. (Chalcididae), near St. Williams, ON 4 *Anusia nasicornis* (Encyrtidae), near Marmora, ON. This is the most recent record of an Old World genus and species in the New World, identified by J. Noyes in October, 2019 5 *Eulophus* sp. (Eulophidae), Fergus, ON 6 *Eupelmus messene* (Eupelmidae) drinking from a water droplet, Forks of the Credit Provincial Park, ON. Until recently, misidentified as the common, polyphagous species *E. vesicularis*; the latter now recorded only from the Old World 7 *Eurytoma gigantea* (Eurytomidae), Fergus, ON. Photos courtesy of S. Marshall.
trates that there are many unrecorded species. The comparison of COI sequences from unidentified specimens against those of named species in such databases as BOLD will certainly help to reveal yet more species to add to the checklist, e.g., *Anastatus reduvii* (Howard) (Eupelmidae), a recent, accidentally introduced parasitoid.
tid of the major pest *Halyomorpha halys* Stål (Hemiptera: Pentatomidae) (Gariepy and Talamas 2019).

Compared to Canada, the number of species of Chalcidoidea recorded from Alaska and Greenland is far lower (113 species in 58 genera in 10 families from Alaska and 26 described species in 22 genera in 4 families from Greenland) (Tables 1, 2). The summary of the entomofauna of Greenland (Böcher et al. 2015) included records from six chalcidoid families, but specimens of Aphelinidae and Trichogrammatidae were only identified to genus, and so are not included in our checklist. Relative to Canada, the smaller land masses and more northerly latitudes of Alaska and Greenland definitely contribute to lower species richness, but it is also probable that the numbers are lower than expected because of relatively poor sampling in Alaska and Greenland (as well as in the three Canadian territories, NT, NU and YT). In addition, one species of Chalcidoidea, *Pteromalus elevatus* (Walker, 1834) (Pteromalidae) has been recorded from the French Overseas Collectivity of Saint Pierre and Miquelon Islands (Gargominy et al. 2020). This record is derived from an online database and specimens have not been examined, but this species has been recorded previously from NB, NS and NL (Hoebekke and Wheeler 1996).

Two species of Mymarommatoida are recorded, one known only from Ontario, and one from Ontario, Quebec and New Brunswick (see bottom of Table 2). The latter species (*Mymaromella pala* Huber and Gibson) has also been collected from Montana, USA (Hatten et al. 2011), so it is likely that future collecting in central and western Canada will reveal its presence there as well. This further illustrates the work still needed to obtain reliable records of the species and their distributions in Canada and the rest of North America.

In terms of species richness by distributional area, the political region with the highest recorded number of species of Chalcidoidea is Ontario (852, 68.4% of 1246 species), followed by Quebec (566, 45.4%) and British Columbia (440, 35.3%) (Fig. 1 and Table 1). The greater relative species richness in these areas is certainly strongly influenced by higher sampling effort compared to more northern or central regions (Langor 2019). Despite this bias, higher species diversity is expected in these three provinces relative to most other regions because of the higher number of ecozones and habitats, compared to more northern areas (Scudder 1979).

In total, 235 new species records of Chalcidoidea are reported for Canada, which represents 19.4% of the total number of described species recorded. The number of new Canadian species records by family is shown in Table 1 (in parentheses following the Canada totals). The checklist includes 53 new generic records for Canada (those for which the only Canadian records are shown in boldface in Table 2). All families in our checklist were previously recorded from Canada, although some, like Azotidae (see Heraty et al. 2013) and Megastigmidae (see Janšta et al. 2018), were not recognized as families in previous catalogues (e.g., chapters in Krombein et al. 1979), whereas some other previously recognized families have been subsumed within others, e.g., Elasmidae is now classified as part of Eulophidae (Gauthier et al. 2000). For Alaska, there were 41 new species records (36.3% of the total), 22 new generic records and the families Chalcididae and Eurytomidae are also newly recorded. There were no new records for Greenland.
The distributions given by province and territory for Canada, the state of Alaska for USA, and Greenland must be accepted with caution. Records taken from the literature, particularly pre-1980 records, could be based on misidentifications because of the difficulty in identifying all taxa reliably to species when fewer workable species keys existed. Although Yoshimoto (1984) provided a key to the families and some subfamilies of Chalcidoidea from Canada, a comprehensive key to the genera of the Nearctic region did not exist prior to 1997 (Gibson et al. 1997). The superfamily is so diverse and speciose, even in the relatively cold, mid-to-high latitude region encompassed by our checklist, that the relatively few authorities available, in the past or now, simply could not correctly identify every specimen encountered. In preparing our checklist, there was no time or sufficient expertise for exhaustive study of all specimens from various localities in Canada and comparison with previously identified CNC specimens, which may or may not have been authoritatively and correctly identified in the first place. As often occurs, cataloguing efforts greatly outpace production of taxonomic revisions, including comparative descriptions and comprehensive identification keys to genera or species. Yet, once published, past identifications are the basis of the names and distributions presented in our checklist and had to be included even if some are wrong. Nevertheless, this checklist is our best summary of the current state of knowledge. It provides baseline data for future studies on the taxonomy, natural history and distribution of chalcidoids and will be useful to more applied fields such as the biological control of insect pests.

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