

Synopsis of the Agathidinae (Hymenoptera: Braconidae) of America north of Mexico

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Конспект таксонов подсемейства Agathidinae (Hymenoptera: Braconidae) фауны Америки севернее Мексики

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Abstract. The species of the Agathidinae of America north of Mexico are reviewed and a check list is provided. A total of 99 species are recognized. One new synonymy is proposed: *Agathis malvacearum* Latreille 1805 = *Agathis metzneriae* Muesebeck 1967, syn. n. One name is replaced: *Agathis yui*, new name for *Bassus brevicornis* Muesebeck, 1927. Seven new combinations are proposed: *Bassus aciculatus* (Ashmead), *Bassus cupressi* (Muesebeck et Walkley), *Bassus semirubrus* (Brullé), *Coccygidium arizonensis* (Ashmead), *Coccygidium fascipennis* (Cresson), *Earinus rufosfemoratus* (Muesebeck), *Earinus unicolor* (Schrottky). *Cremnops desertor* (Linnaeus) is recorded in the New World for the first time. A key to genera occurring in the region is provided and each genus is given a brief overview. The limits of the genus *Earinus* are expanded to include some species that lack a complete *RS+M* vein in the forewing.

Key words. Hymenoptera, Agathidinae, genera, species, new synonym, new combinations, America north of Mexico.

Резюме. Дается список 99 видов подсемейства Agathidinae, отмеченных в Америке севернее Мексики. Установлен новый синоним: *Agathis malvacearum* Latreille 1805 = *Agathis metzneriae* Muesebeck 1967, syn. n. Заменено видовое название: *Agathis yui* Sharkey, nomen nova pro *Bassus brevicornis* Muesebeck, 1927. Предлагается семь новых комбинаций: *Bassus aciculatus* (Ashmead), *Bassus cupressi* (Muesebeck et Walkley), *Bassus semirubrus* (Brullé), *Coccygidium arizonensis* (Ashmead), *Coccygidium fascipennis* (Cresson), *Earinus rufosfemoratus* (Muesebeck) и *Earinus unicolor* (Schrottky). *Cremnops desertor* (Linnaeus) впервые указывается для фауны Нового Света. Дается определительная таблица родов этого региона, каждый род кратко обсуждается. Расширены границы рода *Earinus* благодаря включению в него нескольких видов без жилки *RS+M* в переднем крыле.

Ключевые слова. Hymenoptera, Agathidinae, роды, виды, новый синоним, новые комбинации, Америка севернее Мексики.

Introduction

Taxonomic studies of the insect fauna of the Nearctic region have largely been restricted to regional treatments delimited by the borders of Canada and the continental United States. There were cultural and practical reasons for restricting research to the confines of these political borders. These coun-

tries share a common language and a long history of taxonomic study. Furthermore, since the Canadian fauna is generally a subset of the fauna of the United States, it is relatively simple for American taxonomists to include the Canada fauna. Finally, restricting a study region to political borders is much easier than deciding on the southern limits of the Nearctic realm. To perpetuate this practice is not my wish but rather I attempt to summarize the current state of agathidine taxonomy in the region. Hopefully, in the future, students interested in North American Agathidiinae and other braconid subfamilies will revise the fauna of monophyletic taxa or natural regions such as the New World or Nearctic realms. This appears to be the new paradigm, for example, Sharkey (1988) revised the species of *Alabagrus* of the New World, Pucci and Sharkey (2004) revised the species of *Agathirsia* of the New World, and a revision of *Crassomicrodon* of the New world is in progress (Figueroa, in prep.).

Starting points for systematic studies of the North American agathidine fauna are still Muesebeck's (1927) species-level revision of the subfamily, and Marsh's (1979) catalogue of the braconid fauna of North America north of Mexico. Since these publications appeared many new species have been described and generic concepts and nomenclature have changed, making Muesebeck's (1927) keys and Marsh's catalogue rather obsolete.

The purposes of this paper are to provide a new key to the agathidine genera found in the United States and Canada, to formally re-assign all described species to reflect modern generic concepts, and to list all species of Agathidiinae known to occur in the region. Generic concepts are discussed below under each currently recognized genus. Seven new combinations, one new synonymy, and one new record for the fauna of Canada and the USA are reported.

This paper is dedicated to Professor Vladimir I. Tobias in recognition of the many important contributions that he has made towards our understanding of the biological and taxonomic diversity of the Braconidae.

Key to genera of Agathidiinae

1. Foreclaw cleft (Fig. 2, d)..... 2
- Foreclaw simple (Fig. 2, c) or with a squared or rounded lobe (Fig. 2, b) 3
- 2(1). Face elongate (Figs. 2, a; 8); base of foreclaw pectinate (Fig. 2, d), ovipositor sheath longer than half length of metasoma (Fig. 8) *Cremnops*
- Face not elongate (Fig. 7); base of foreclaw not pectinate; ovipositor sheath shorter than half length of metasoma (Fig. 7) *Coccygidium*
- 3(1). Forewing vein *(RS+M)a* complete (Fig. 9) *Earinus* s. str.
- Forewing vein *(RS+M)a* mostly absent (Fig. 6) 4
- 4(3). Notauli completely absent (Fig. 9) 5

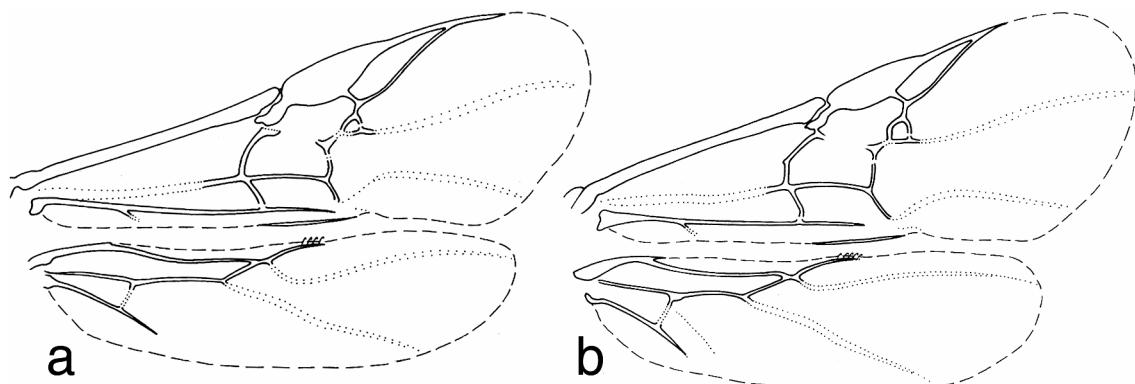


Fig. 1. Wings: a — *Agathirsia testacea*; b — *Crassomicrodon divisus*.

— Notauli present, at least anteriorly (Fig. 6)	6
5(4). Metasoma and hind coxa sharing a common opening on the mesosoma (Fig. 3, a)	<i>Earinus</i> s. l.
— Metasoma and hind coxa separated by a sclerite (Fig. 3, b)	<i>Bassus</i> (few species)
6(4). Frons margined with carina (Fig. 2, e)	<i>Alabagrus</i>
— Frons lacking carina.....	7
7(6). Strong transverse carina on mesosoma between hind coxal insertions and metasomal insertion present (Fig. 3, b)	<i>Bassus</i> (most species)
— Strong transverse carina on mesosoma between hind coxal insertions and metasoma insertion absent	8
8(7). Mandible dorsoventrally flattened or hidden by labrum; pegs at apex of hind tibia thick and conical..	9
— Mandible not dorsoventrally flattened and always visible; pegs at apex of hind tibia hair-like, short and flattened, or absent.....	10
9(8). Face elongate (Fig. 4); third labial palpalomere more than half the length of the fourth.....	<i>Agathis</i>
— Face not elongate (Fig. 6); third labial palpalomere less than half the length of the fourth	<i>Bassus</i> (few species)
10(8). Mandible usually (>99%) without second mandibular tooth; hind tibial spines small and flattened; tarsal claws with basal lobe always present and usually large (Fig. 2, b).....	<i>Agathirsia</i>
— Mandible with second mandibular tooth; hind tibial spines hair-like or absent; tarsal claws usually simple, lacking a basal lobe (Fig. 2, c), rarely with a small basal lobe.....	<i>Crassomicrodon</i>

Overview of Genera

Agathirsia Westwood, 1882 (Fig. 1, a)

Members of the genus *Agathirsia* are found only in the New World and the distribution of the genus is restricted to the United States and Mexico. Pucci and Sharkey (2004) revised the 31 known species,

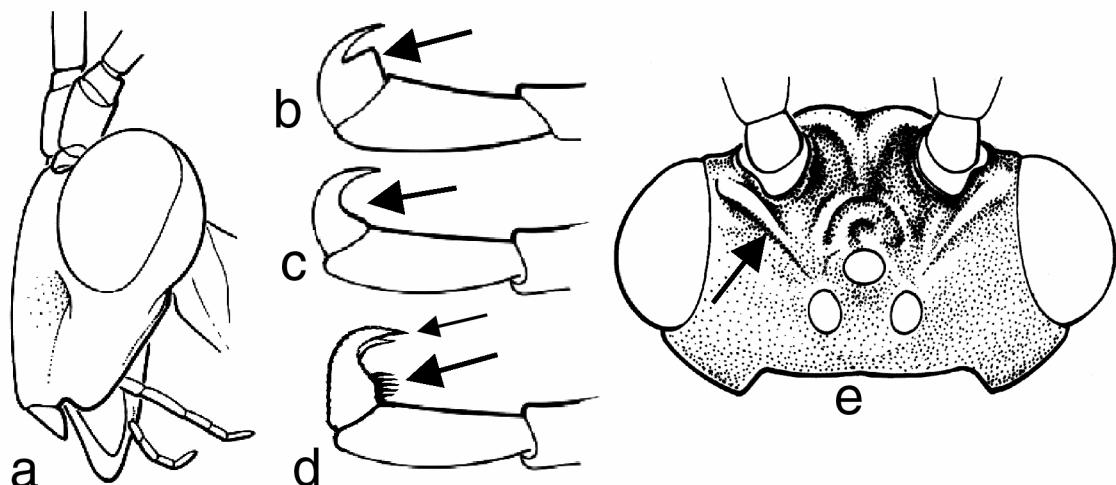


Fig. 2. Morphological features: a — head of *Zacremnops* sp. (lateral view), show the elongate gena, also present in species of *Cremonops* and most species of *Agathis*; b — tarsal claw with large basal lobe of *Bassus* sp.; c — simple tarsal claw lacking basal lobe of *Sesiocionus* sp.; d — tarsal claw of *Cremonops* sp., showing cleft apex and basal pectination; e — head of *Pharpa* sp. (dorsal view), showing lateral carinae of frons, also present in species of *Alabagrus*.

eight of which are found in the United States, and included an updated key to distinguish *Bassus*, *Crassomicrodus*, *Agathis*, and *Agathirsia* from other agathidine genera found in the Nearctic region. This publication resolved some confusion concerning the limits between *Agathirsia* and *Crassomicrodus* and autapomorphies were proposed for each genus for the first time.

Agathis Latreille, 1804 (Fig. 4)

Agathis appears to be cosmopolitan, but I am unaware of any species from Australia and members may not occur there. Generally *Agathis* and *Bassus* have been treated as distinct genera; however Muesebeck (1927) synonymized the two and the Nearctic fauna have been treated together with *Bassus* under the name *Agathis* by Muesebeck (1927), Shenefelt (1970) and Marsh (1979). Recent studies of the Palearctic fauna (Telenga, 1955; Tobias, 1986; Nixon, 1986; Chou, Sharkey, 1989; Simbolotti, Achterberg, 1992, 1999; Sharkey, 1996) treat *Agathis* and *Bassus* as separate genera. Sharkey (1985) discussed the morphological characteristics of *Bassus* and *Agathis* and went as far as to place the genera in separate tribes in his analysis of the subfamily (Sharkey, 1992). The check-list in this paper separates the North American species into the genera *Agathis* and *Bassus* for the first time. Most species under *Agathis* in Marsh's (1979) catalogue are members of *Bassus*.

Since Muesebeck's (1927) paper, Sharkey and Mason (1986) synonymized *Anigmostomus* and its only included species *A. longipalpus* under *Agathis*.

Only seven species of *Agathis* are recorded in North America and this represents less (perhaps much less) than half of the common species. For this reason Muesebeck's (1927) key is quite inadequate. I warn the prospective student that the species limits of members of this genus may be difficult to ascertain.

Due to convergent morphologies, a few species of *Bassus* and *Agathis* are difficult to assign to genus. For example, I consider *Agathis pumilus* to be a member of *Agathis* whereas European authors (Nixon, 1986; Simbolotti, Achterberg, 1992, 1999) place it in *Bassus*. Undoubtedly, molecular studies will resolve this issue in the near future.

Alabagrus Enderlein, 1918 (Fig. 5)

Members of *Alabagrus* are restricted to the New World and are primarily Neotropical in distribution. *Alabagrus* was synonymized under *Agathis* until Sharkey (1988) revised the genus. In Muesebeck's (1927) key to *Agathis*, couplets 2–6 refer to species of *Alabagrus* but some of these names have been

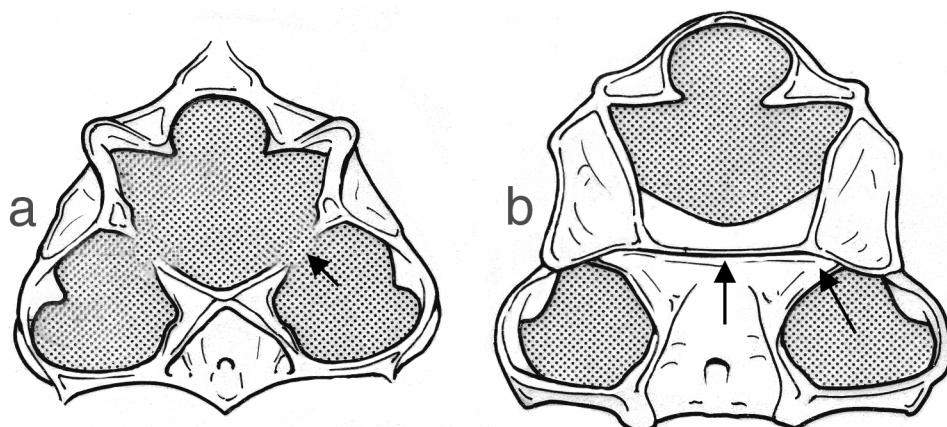


Fig. 3. Posterior views of mesosomata (hind legs and metasoma removed and darkened areas are the cavities — foramina — into which the legs and metasomata attach): a — typical of *Agathis* and *Earinus*, the metasomal and hind coxal cavities are united; b — *Bassus* sp., showing strong scleritization (and carina) between the hind coxa cavities and that of the metasoma, in most species of *Bassus* the sclerite is not so wide.

synonymized by Sharkey (1988) and the key from this paper should be consulted for identification. Of the 104 included species only six have been found in the United States.

Bassus Fabricius, 1804 (Fig. 6)

In Muesebeck's (1927) key to "Agathis", the species of couplets 2–6 have been transferred to *Alabagrus* (Sharkey, 1988); those of couplets 31–32 are members of *Agathis* s. str.; and *A. rufofemoratus* (Muesebeck, 1927, couplet 10) is here transferred to *Earinus*. All other species belong to the poorly delimited, polyphyletic, genus *Bassus*. Eleven species of *Bassus* have been added as newly described species or as introduced exotics since Muesebeck's (1927) publication so it is of limited value.

Coccygidium Saussure, 1892 (Fig. 7)

This is a large cosmopolitan genus, primarily tropical in distribution, with only a small percentage of species occurring in temperate regions. Only two species are recorded from the United States. Both

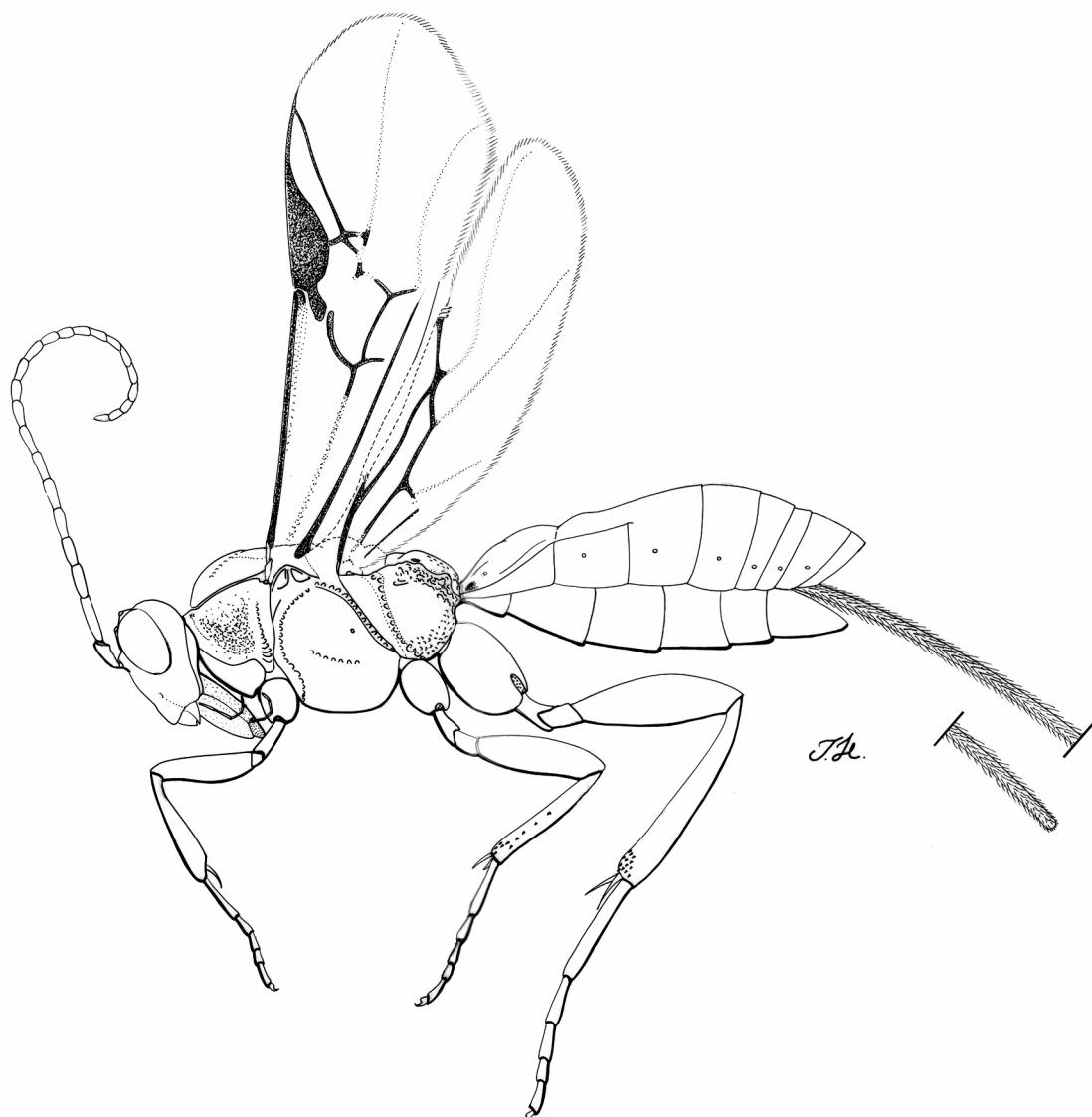


Fig. 4. Lateral habitus of *Agathis* sp.

were placed in the genus *Zelomorpha*, which Chou and Sharkey (1989) synonymized under *Coccygidium*. Sarmiento (in prep.) is currently revising the New World members of the genus and estimates (pers. comm.) that five to ten species occur in southern areas of the United States.

***Crassomicrodes* Ashmead, 1900 (Fig. 1, b)**

Members of *Crassomicrodes* are found almost exclusively in North America with the highest species diversity occurring in Mexico. One undescribed species is found in the dry northeastern coastal region of Colombia, and presumably adjacent regions of northwestern Venezuela. Eight species are re-

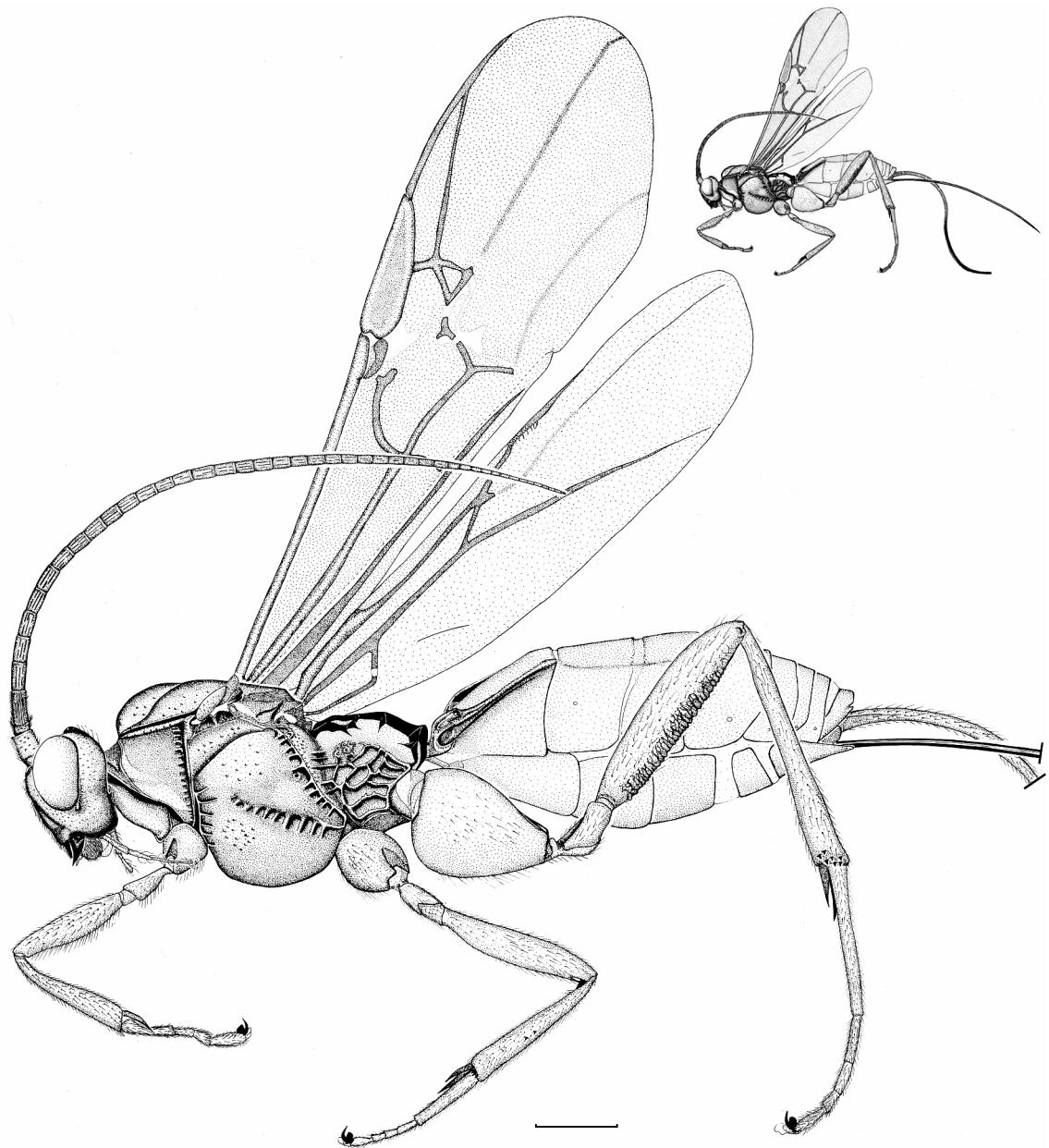


Fig. 5. Lateral habitus of *Alabagrus texanus*.

corded in North America, with seven described and keyed in Muesebeck's (1927) key. All species of *Crassomicrodon* are currently being revised (Figueroa, in prep.), and this revision will result in the synonymy of two presently recognized species found in the United States and 8 to 10 newly described species for the United States (Figueroa, pers. comm.).

***Cremnops* Förster, 1862** (Fig. 8)

The North American members of this large cosmopolitan genus have been revised twice, once by Morrison (1917) under the name *Bracon* and the second time by Marsh (1961). Fifteen species are currently recognized in the United States and Canada. All are described and keyed in Marsh's (1961) revision except for *Cremnops desertor*, a Palearctic species recorded here for the first time as occurring in the New World. Specimens have been collected in Ottawa, Canada, and Washington, D.C. USA. Marsh's (1961) key works well for those species with distinct morphological autapomorphies; however, I have difficulty placing many of the specimens that I try to identify.

***Earinus* Wesmael, 1837** (Fig. 9)

The traditional limits of *Earinus* have confined members to those that occur in the Holarctic region and that have a complete *Rs+M* vein in the forewing. A complete *Rs+M* vein, since it is found in all near relatives of the Agathidinae including members of *Pselaphanus* and *Sigalphinae*, is almost certainly a plesiomorphic character state within the context of the Agathidinae. The sole autapomorphies for the Earinini, to which *Earinus* belongs, are the absence of notauli and the loss of the posterior transverse carinae of the propodeum. The later is shared with the Agathidini, but perhaps convergently (Sharkey, 1992). The only genera presently included in the Earinini are *Sesiocionus* and *Earinus*. Briceco (2003) revised the species of *Sesiocionus*, an exclusively Neotropical genus. Species of *Sesiocionus* share a derived condition of the tarsal claws which are long and simple, lacking a basal lobe. All other species of

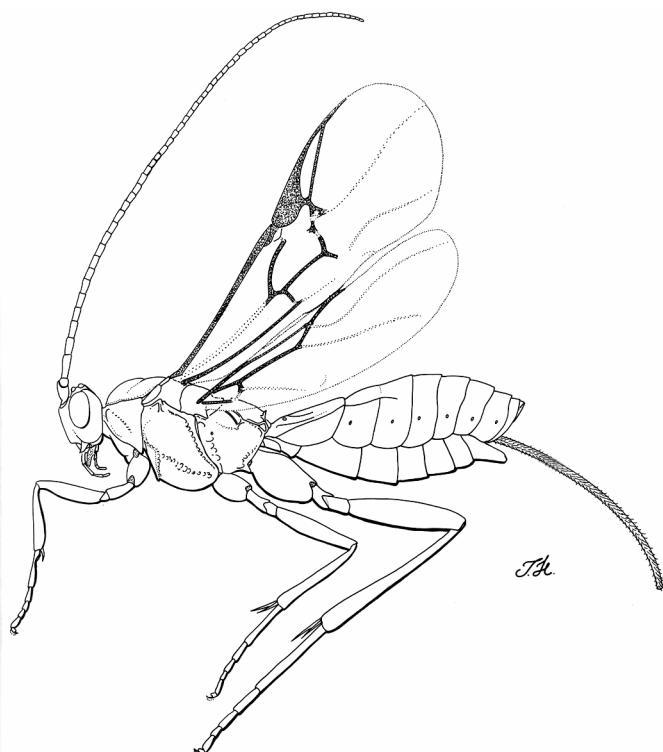


Fig. 6. Lateral habitus of *Bassus spiracularis*.

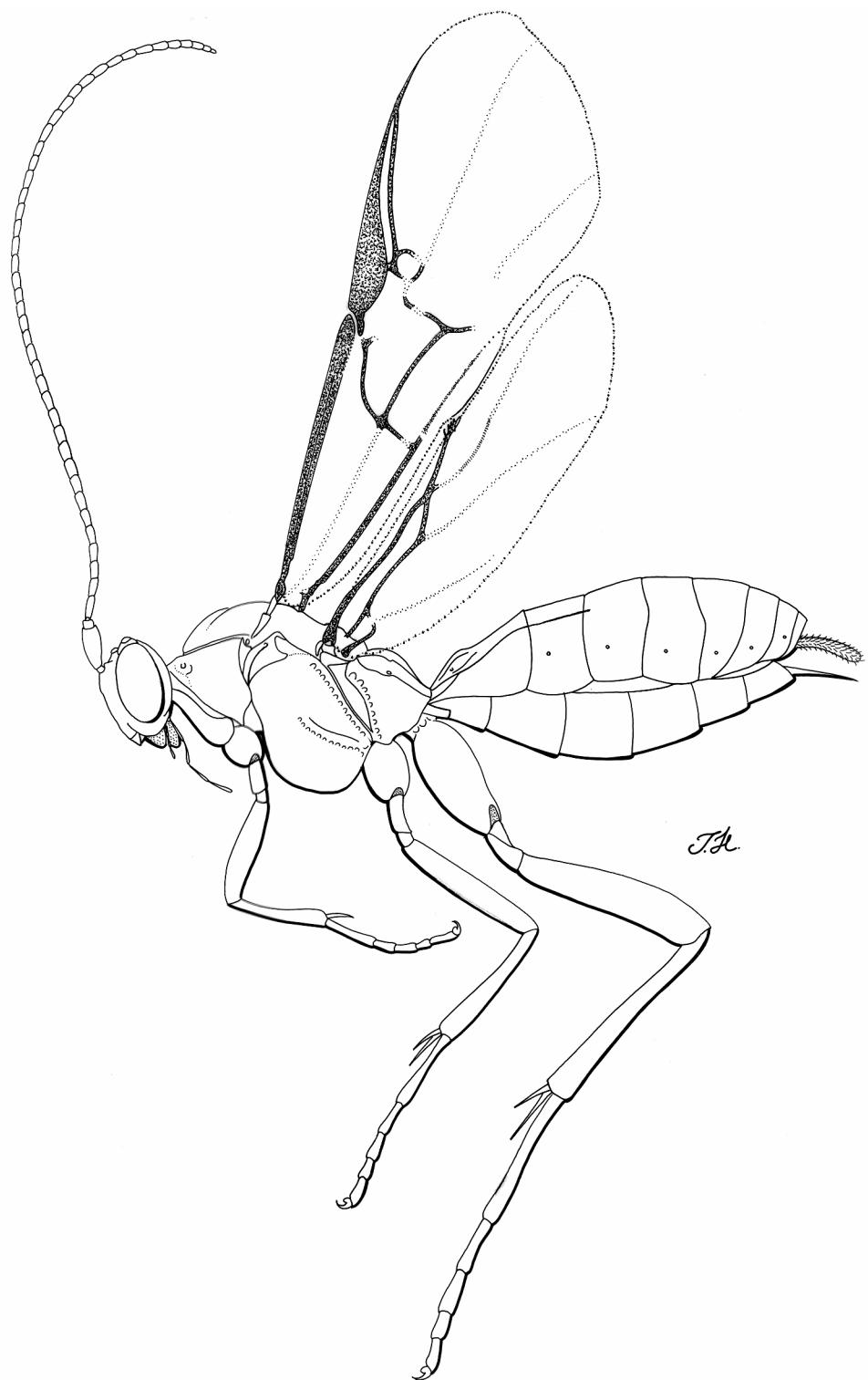


Fig. 7. Lateral habitus of *Coccygidium* sp.

the Earinini I place in the genus *Earinus* which is not diagnosed by autapomorphic characters. They can be separated from all other Agathidinae, including *Sesiocetus* with the following combination of characters: third labial palpomere not greatly reduced, at least half as long as the fourth palpomere; notaui absent (Fig. 9); hind coxa and metasoma sharing a common opening on the mesosoma (Fig. 3, a); tarsal claws with a basal lobe (Fig. 2, b). As defined here, the species diversity of *Earinus* is highest in northern and southern temperate regions as well as high altitude areas of the Neotropical region.

There were two described species of *Earinus* in Canada and the USA but the aforementioned modification of the genus concept adds another two species. Intraspecific variation of north-temperate species of *Earinus* is high and there may be several more undescribed species in the United States and Canada.

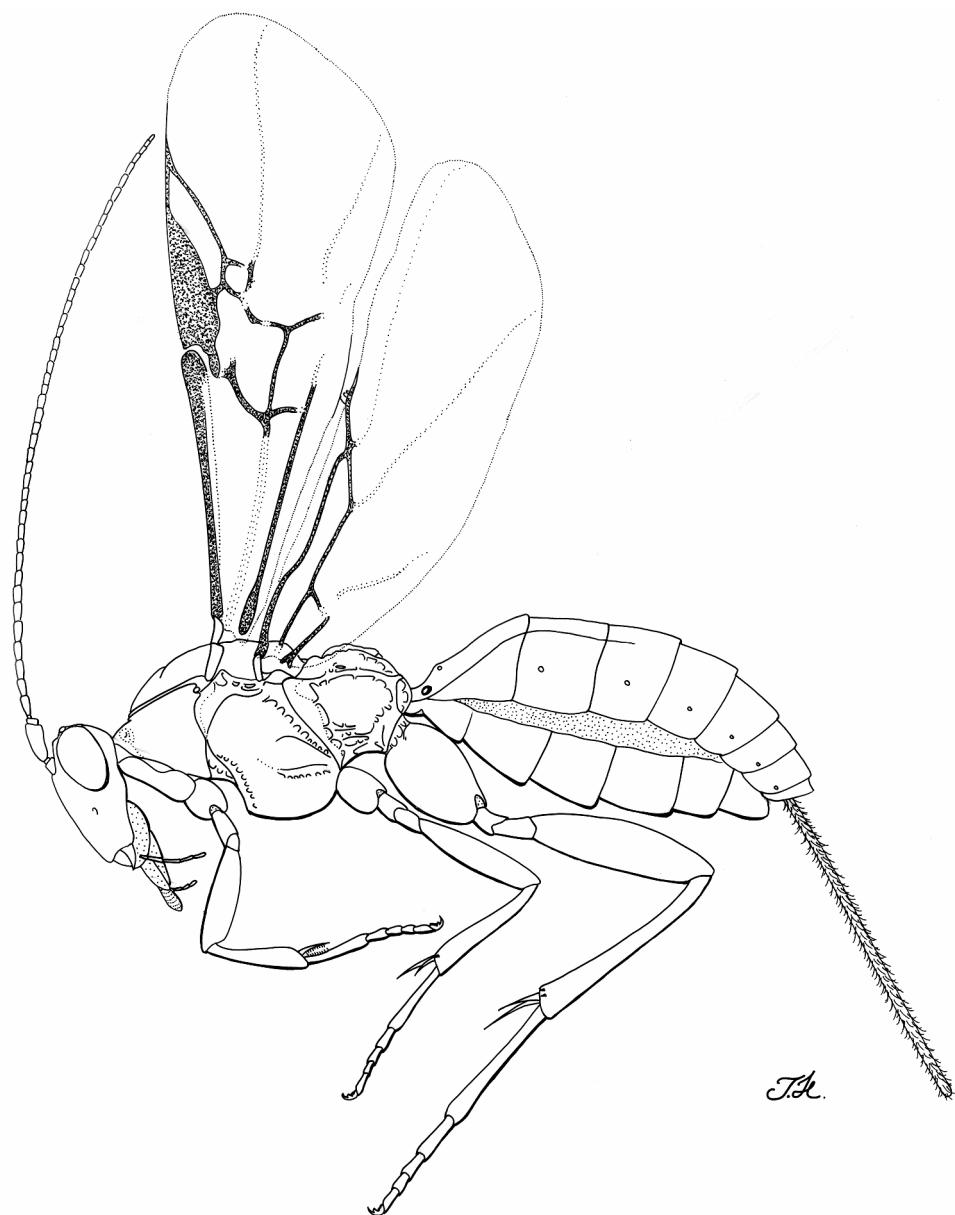


Fig. 8. Lateral habitus of *Cremnops* sp.

Species check-list

A total of 99 species of Agathidinae are recognized belonging to the genera *Agathirsia* (8), *Agathis* (8), *Alabagrus* (6), *Bassus* (48), *Crassomicrodus* (8), *Coccygidium* (2), *Cremnops* (15), and *Earinus* (4).

A species name with an asterisk (*) beside it refers to one that is also found in the Palaearctic region.

Agathirsia Westwood, 1882

bifidilingua Pucci and Sharkey

Agathirsia bifidilingua Pucci and Sharkey, 2004: 87.

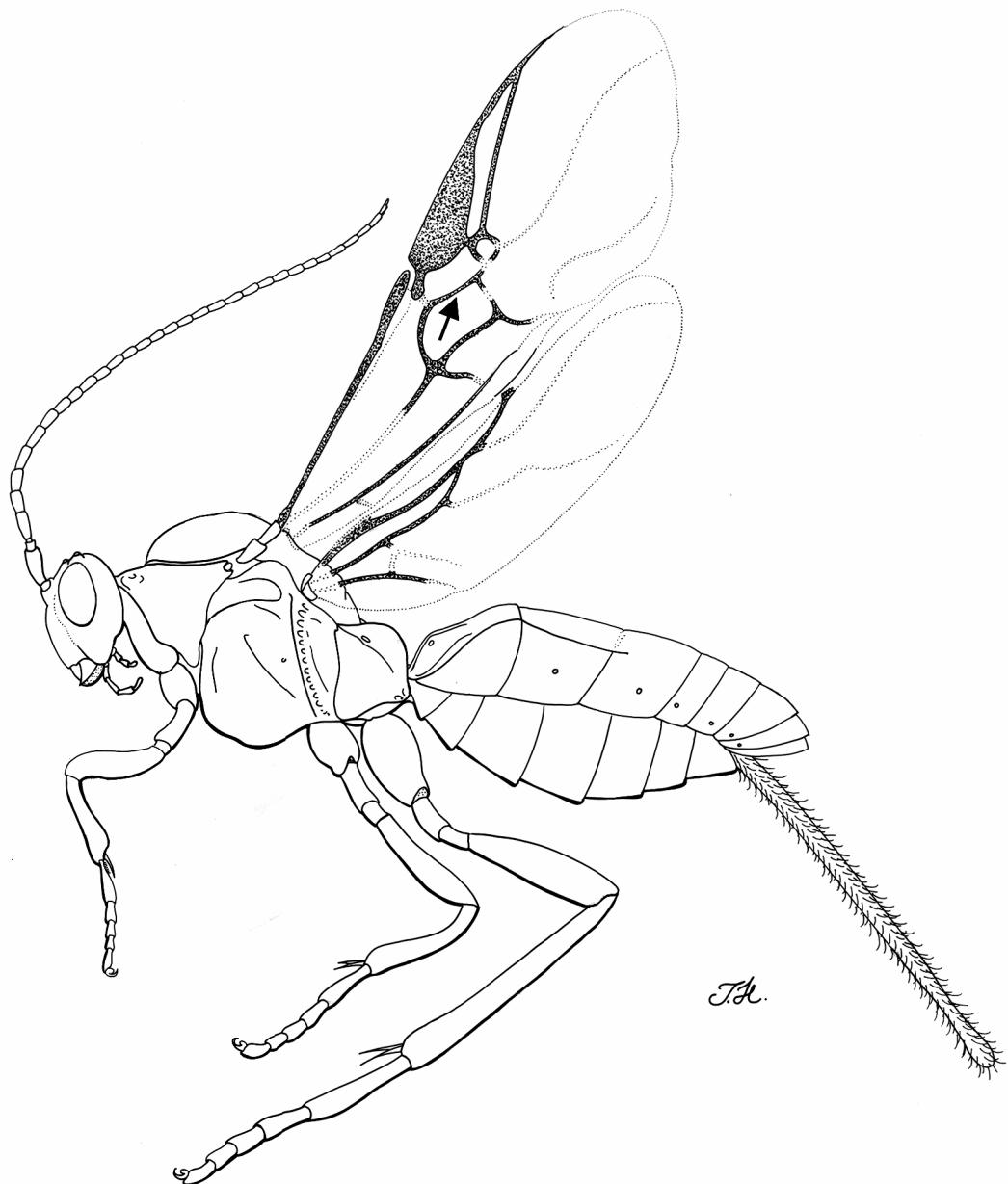


Fig. 9. Lateral habitus of *Earinus* sp.

cressoni Muesebeck and Walkley

Agathirsia cressoni Muesebeck and Walkley, 1951: 116.

Microdus thoracicus Cresson, 1872: 181 (preoccupied by Nees von Esenbeck, 1834).

davidi Pucci and Sharkey

Agathirsia davidi Pucci and Sharkey, 2004: 91.

foveiseries Pucci and Sharkey

Agathirsia foveiseries Pucci and Sharkey, 2004: 92.

nigricauda (Viereck)

Crassomicrodus nigricaudus Viereck, 1905: 288.

ninesevensi Pucci and Sharkey

Agathirsia ninesevensi Pucci and Sharkey, 2004: 99.

testacea Muesebeck

Agathirsia testacea Muesebeck, 1927: 13.

tiro Pucci and Sharkey

Agathirsia tiro Pucci and Sharkey, 2004: 105.

***Agathis* Latreille, 1804**

Doubtful record: *Agathis areolata* Spinola, 1851. Recorded by Tooker and Hanks (2000) based on historical records. The species is otherwise known only from its type locality in Chile. The record is almost certainly based on a misidentification.

***gibbosa* (Say)**

Bassus gibbosus Say, 1835: 250.

= *Microdus castaneicinctus* Viereck 1905: 276.

= *Microdus dispar* Provancher, 1886: 138.

= *Microdus meridionalis* Viereck, 1903: 95.

= *Microdus pygmaeus* Cresson, 1872: 182.

= *Agathis scrutator* Provancher, 1886: 137.

= *Microdus Wichitaensis* Viereck, 1905: 276.

***longipalpus* (Cresson)**

Microdus longipalpus Cresson, 1865: 299.

malvacearum* Latreille

Agathis malvacearum Latreille, 1805: 175.

Ichneumon panzeri Jurine, 1807: 113 (unnecessary new name for *A. malvacearum*).

= *Agathis metzneriae* Muesebeck, 1967: 95 (in: Juhala, 1967), **syn. n.**

Note. I have compared the type species with numerous specimens from Europe identified as *A. malvacearum*. The host plant (the common burdock) and host moth, *Metzneria lappella* L. of the Nearctic wasps are both Palearctic natives, and *A. malvacearum* is recorded (Shenefelt, 1970) as a parasitoid of the same species of moth in Europe.

pumilus* (Ratzeburg)

Microdus pumilus Ratzeburg, 1844: 57.

Note. European authors (Nixon, 1986; Simbolotti, Acherberg, 1992) consider this species to be a member of *Bassus*.

***rubripes* Cresson**

Agathis rubripes Cresson, 1872: 183.

***thompsoni* Sharkey**

Agathis thompsoni Sharkey, 1987.

***tibiator* Provancher**

Agathis tibiator Provancher, 1880: 177.
= *Agathis parvus* Viereck, 1903: 95.
= *Bracon solidaginus* Viereck, 1917: 321.

***yui*, new name**

Replacement name for *B. brevicornis* Muesebeck 1927; *B. brevicornis* preoccupied in *Bassus by brevicornis*, Nees von Esenbeck, 1812 (now in *Dinotrema*).

Note. Named in honor of Dicky Yu, for his diligent work on a catalog of the Braconidae, and for pointing out this homonym to me.

***Alabagrus* Enderlein, 1918**

Doubtful record: *Alabagrus varipes* (Cresson) from Mount Washington, New Hampshire by Slosson (1892) as *Agathis varipes*. Records for this species are otherwise restricted to the Greater Antilles, and the implied disjunct is unlikely. The record is almost certainly the result of a misidentification.

***imitatus* (Cresson)**

Microdus imitatus Cresson, 1873: 51.
= *Microdus nigrotrochantericus* Viereck, 1905: 275.
= *Bassus floridanus* Muesebeck, 1927: 31.

***marginatifrons* (Muesebeck)**

Bassus marginatifrons Muesebeck, 1927: 30.

***sanctus* (Say)**

Bassus sanctus Say, 1935: 249.

***stigma* (Brullé)**

Agathis stigma Brullé, 1846: 501.
= *Microdus stigmaterus* Cresson, 1865: 65.
= *Microdus diatraeae* Turner, 1918: 82.
= *Alabagrus citreistigma* Enderlein, 1920: 203.
= *Microdus crossi* Brethes, 1927: 163.
= *Microdus sacchari* Myers, 1931: 274.

***texanus* (Cresson)**

Microdus texanus Cresson, 1872: 181.

***xolotl* Sharkey**

Alabagrus xolotl Sharkey, 1988: 414.

***Bassus* Fabricius, 1804**

***abdominalis* Muesebeck**

Bassus abdominalis Muesebeck, 1927: 35.

***aciculatus* (Ashmead), comb. n.**

Microdus aciculatus Ashmead, 1889: 639.

***acrobasidis* (Cushman)**

Bassus acrobasidis Cushman, 1920: 289.

***agathoides* Newton et Sharkey**

Bassus agathoides Newton et Sharkey, 2000: 285.

***agilis* (Cresson)**

Microdus agilis Cresson, 1873: 52.
= *Agathis quaeſitor* Provancher, 1880: 176.

***annulipes* (Cresson)**

Microdus annulipes Cresson, 1873: 53.
= *Microdus albocinctus* Ashmead, 1889: 639.
= *Microdus earinoides* Cresson, 1873: 54.
= *Microdus grapholithae* Ashmead, 1889: 639.
= *Bassus waldeni* Viereck, 1917: 229.

***atrides* (Cresson)**

Agathis atrides Cresson, 1865: 296.

***arthurellus* Sharkey**

Bassus arthurellus Sharkey, 1985: 1500.

***azygos* (Viereck)**

Lytopylus azygos Viereck, 1905: 267.
= *Microdus agathoides* Viereck, 1905: 277.

***bakeri* Muesebeck**

Bassus bakeri Muesebeck, 1927: 42.

***binominatus* (Muesebeck)**

Agathis binominata Muesebeck, 1958:26 (replacement name for *M. bicolor* Provancher).
Microdus bicolor Provancher, 1880: 179 (occupied by *M. bicolor* Brullé).

***brooksi* Sharkey**

Bassus brooksi Sharkey, 1998 (in: Janzen et al., 1998): 33.

***buttricki* Viereck**

Bassus (Lytopylus) buttricki Viereck, 1917: 229.

***calcaratus* (Cresson)**

Microdus calcaratus Cresson, 1873: 51.

***californicus* Muesebeck**

Bassus californicus Muesebeck, 1927: 64.

***cinctus* (Cresson)**

Microdus cinctus Cresson, 1873: 53.
Microdus pimploides Viereck, 1905: 276.
= *Bassus winkleyi* Viereck, 1917: 229.

cingulipes* (Nees von Esenbeck)

Microdus cingulipes Nees von Esenbeck, 1812: 189.

Note. Introduced to Canada, establishment not confirmed.

***coleophorae* Rohwer**

Bassus coleophorae Rohwer, 1915: 230.
= *Bassus pyrifolii* Viereck, 1917: 229.

conspicuus* (Wesmael)

Microdus (Therophilus) conspicuus Wesmael, 1837: 17.
= *Earinus zonatus* Marshall, 1885: 268.
= *Bassus carpocapsae* Cushman, 1915: 508.
= *Bassus variabilis* Chou et Sharkey, 1989: 173.

***crassicornis* Muesebeck**

Bassus crassicornis Muesebeck, 1927: 43.

***cupressi* (Muesebeck and Walkley), comb. n.**

Bassus parvus Muesebeck, 1932: 331 (preoccupied in *Agathis* by *A. parvus* Viereck).
Agathis cupressi Muesebeck et Walkley, 1951: 119 (replacement name).

***difficilis* Muesebeck**

Bassus difficilis Muesebeck, 1927: 46.

dimidiator* (Nees von Esenbeck)

Microdus dimidiator Nees von Esenbeck, 1834: 146.
= *Microdus cingulator* Ratzburg, 1852: 46.
= *Microdus laticinctus* Cresson, 1873: 53.
= *Microdus earinoides* Du Porte, 1915: 76.
= *Microdus ocellanae* Richardson, 1913: 211.

***discolor* (Cresson)**

Microdus discolor Cresson, 1873: 52.
= *Bassus brittoni* Viereck, 1917: 37.

***erythrogaster* Viereck**

Bassus (Aerophilopsis) erythrogaster Viereck, 1913: 555.

festivus* (Muesebeck)

Agathis festiva Muesebeck, 1953: 149.
= *Microdus oranae* Watanabe, 1970: 123.
= *Microdus kovalevi* Tobias, 1976: 100.
= *Microdus quadratus* Tobias, 1976: 103.

***immaculatus* Gahan**

Bassus immaculatus Gahan, 1919: 118.

***laticeps* Muesebeck**

Bassus laticeps Muesebeck, 1927: 27.

***malivorellae* Shenefelt**

Agathis malivorellae Shenefelt, 1970: 342 (new name for *B. brevicauda* Muesebeck, not *B. brevicauda* Reinhart).
Bassus brevicauda Muesebeck, 1932: 332.

***nigricoxus* (Provancher)**

Microdus nigricoxus Provancher, 1886: 138.

***nigripes* (Cresson)**

Agathis nigripes Cresson, 1865: 297.
= *Agathis nigriceps* Provancher, 1895: 97.
= *Agathis wyomingensis* Viereck, 1905: 284.

***ninanae* Muesebeck**

Bassus ninanae Muesebeck, 1927: 48.

***nucicola* Muesebeck**

Bassus nucicola Muesebeck, 1940: 91.

***perforator* Provancher**

Agathis perforator Provancher, 1880: 177.
= *Bracon branfordensis* Viereck, 1917: 231.
= *Agathis femorator* Provancher, 1880: 177.
= *Bracon sassacus* Viereck, 1917: 230.

***petiolatus* Muesebeck**

Bassus petiolatus Muesebeck, 1932: 330.

***pini* Muesebeck**

Bassus pini Muesebeck, 1940: 92.

***quebecensis* (Provancher)**

Microdus quebecensis Provancher, 1880: 178.

***reticulatus* Muesebeck**

Bassus reticulatus Muesebeck, 1932: 332.

***rufipes* (Nees von Esenbeck)**

Microdus rufipes Nees von Esenbeck, 1812: 189.

= *Bassus diversus* Muesebeck, 1933: 48.

= *Braunsia germanica* Enderlein, 1904: 436.

***rugareolatus* Viereck**

Bassus (Lytopylus) rugareolatus Viereck, 1917: 229.

***semirubrus* (Brullé), comb. n.**

Agathis semirubra Brullé, 1846: 494.

***simillimus* (Cresson)**

Microdus simillimus Cresson, 1873: 51.

***spiracularis* Muesebeck**

Bassus spiracularis Muesebeck, 1927: 38.

***tenuiceps* Muesebeck**

Bassus tenuiceps Muesebeck, 1927: 47.

***terminatus* (Cresson)**

Microdus terminatus Cresson, 1865: 298.

= *Orgilus terminalis* Ashmead, 1889: 640.

tumidulus* (Nees von Esenbeck)

Microdus tumidulus Nees von Esenbeck, 1812: 189.

= *Microdus annae* Enderlein, 1908: 223.

= *Microdus victoris* Telenga, 1955: 288.

= *Microdus anuphrievi* Tobias, 1986: 288.

Note. Introduced to Ontario, Canada, but establishment unconfirmed.

***usitatus* Gahan**

Bassus usitatus Gahan, 1919: 119.

***verticalis* (Cresson)**

Microdus verticalis Cresson, 1872: 182.

***Coccygidium* Saussure, 1892**

***arizonensis* (Ashmead), comb. n.**

Zelomorpha arizonensis Ashmead, 1900: 129.

***fascipennis* (Cresson), comb. n.**

Microdus fascipennis Cresson, 1865: 65.

***Crassomicrodus* Ashmead, 1900**

***apicipennis* Muesebeck**

Crassomicrodus apicipennis Muesebeck, 1927: 18.

***divisus* (Cresson)**

Microdus divisus Cresson, 1873: 52.

= *Orgilus rileyi* Ashmead, 1889: 640.

***fulvescens* (Cresson)**

Microdus fulvescens Cresson, 1865: 297.

***medius* (Cresson)**

Microdus medius Cresson, 1865: 298.

***muesebecki* Marsh**

Crassomicrodus muesebecki Marsh, 1960: 153.

***nigriceps* (Cresson)**

Microdus nigriceps Cresson, 1872: 182.

***nigrithorax* Muesebeck**

Crassomicrodus nigrithorax Muesebeck, 1927: 17.

***pallens* (Cresson)**

Microdus pallens Cresson, 1873: 53.

***Cremnops* Förster, 1862**

***ashmeadi* (Morrison)**

Bracon ashmeadi Morrison, 1917: 329.

***californicus* (Morrison)**

Bracon californicus Morrison, 1917: 331.

= *Bracon aionos* Shenefelt, 1937: 205.

***comstocki* (Morrison)**

Bracon comstocki Morrison, 1917: 323.

***crassifemur* (Muesebeck)**

Bracon crassifemur Muesebeck, 1927: 9.

***desertor* (Linnaeus)*, new record.**

Ichneumon desertor Linnaeus, 1758: 563.

Bracon deflagrator Spinola, 1808: 101 (unnecessary new name).

***haematodes* (Brullé)**

Agathis haematodes Brullé, 1846: 495.

= *Agathis liberator* Brullé, 1846: 502.

= *Agathis meabilis* Cresson, 1872: 183.

***kelloggi* (Morrison)**

Bracon kelloggi Morrison, 1917: 327.

***melanoptera* Ashmead**

Cremnops melanoptera Ashmead, 1895: 125.

***montrealensis* (Morrison)**

Bracon montrealensis Morrison, 1917: 326.

***nigrosternum* (Morrison)**

Bracon nigrosternum Morrison, 1917: 322.

= *Bracon szépligetii* Morrison, 1917: 334.

***shenefelti* Marsh**

Cremnops shenefelti Marsh, 1961: 857.

***slossonae* (Morrison)**

Bracon slossonae Morrison, 1917: 318.

***virginiensis* (Morrison)**

Bracon virginiensis Morrison, 1917: 341.

***vulgaris* (Cresson)**

Agathis vulgaris Cresson, 1865: 295.

= *Agathis exoratus* Cresson, 1872: 182.

= *Agathis media* Cresson, 1865: 295.

***washingtonensis* (Shenefelt)**

Bracon washingtonensis Shenefelt, 1937: 206.

***Earinus* Wesmael, 1837**

***limitaris* (Say)**

Bassus limitaris Say, 1835: 250.

***rufofemoratus* (Muesebeck), comb. n.**

Bassus rufofemoratus Muesebeck, 1927: 36.

***unicolor* (Schrottky), comb. n.**

Orgilus unicolor Schrottky, 1902: 102.

Agathis unicolorata Shenefelt, 1970: 364 (Unnecessary new name for *O. unicolor* Schrottky).

Note. Argentinean species released in California but establishment not confirmed.

***zeirapherae* Walley**

Earinus zeirapherae Walley, 1935: 55.

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