

# A Systematic Catalogue of Australian Braconidae

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## INTRODUCTION

IT HAS BEEN 60 YEARS since a list of the Braconidae of Australia was published, excepting the world lists compiled by Dalla Torre (1898) and Szépligeti (1904). In 1891, Froggatt published his "Catalogue of Described Hymenoptera of Australia" in which he lists eight species of braconids. Nine years later Dalla Torre's world catalogue appeared in which he records 28 species from Australia and Tasmania. As far as the Australian fauna is concerned, there are errors and omissions which diminish the value of this great work, and in the present catalogue it is referred to only when the nomenclature of a species is affected. For example, Dalla Torre does not mention Guérin's genus *Trachypectus* and records *Bracon bicolor* Brullé from Africa and *Myosoma mutator* Fabr. from America. The next list was published in Szépligeti's "Genera Insectorum," Parts I and II, which appeared in 1904. While Szépligeti was preparing this work, he was actively engaged in a study of the Australian fauna and thus added greatly to our knowledge of this group. He lists 37 species from Australia and Tasmania. The present list records 224 species from Australia and Tasmania.

Unquestionably the taxonomy of the Braconidae is rather confused. Further studies will undoubtedly result in much more synonymy and in the resurrection of some species and genera now suppressed. The great diversity of species occurring in Australia and neighbouring regions necessitates an enormous

amount of work before a proper arrangement of species and their synonymy can be formulated. The arrangement of the genera and higher groups, in the present catalogue, is substantially that used by Muesebeck (1951: 90-184).

For the majority of species listed, I have had access to the original works, but those that were not available to me I have checked with other authors and in the Zoological Record. In compiling the synonymy of the older species, especially those of Fabricius and Brullé, and of the several more or less cosmopolitan species, a complete bibliography is not given, but invariably the original reference, together with all subsequent references where nomenclature is affected, is included. All references are included when a fuller description or figures are given, or when reference is made to the host or distribution of the species concerned. At the end of the catalogue is a list of beneficial species introduced and liberated for purposes of biological control. Established aliens, accidentally introduced species, and those occurring naturally outside the Australian area are given in the body of the catalogue with an indication of their distribution outside Australia. A host index is included as well as a general index, listing all subfamily, generic, specific, and subspecific names included in the catalogue.

Every endeavour has been made to make this catalogue as complete as possible; nevertheless, there may be omissions, and perpetuations of errors occurring in early records, and subsequent authors' corrections may have been overlooked, but it is hoped that such errors have been reduced to a minimum.

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## HISTORICAL

The history of Australian braconid systematics may be divided conveniently into four major periods of activity, namely, 1777 to 1890, 1891 to 1913, 1914 to 1927, and 1928 to 1951.

*First Period 1777–1890.*

Australian braconid systematics commenced with the publication of the description of new species by Fabricius in 1777, and was ably carried on by Brullé in 1846. Other workers who described Australian species during this period were Erichson, Guérin-Ménéville, and Holmgren. During this period, 15 species were described from Australia and Tasmania. Fabricius worked on the collections made by Banks and Solander, naturalists on the "Endeavour" during Cook's voyages. These early Australian species were collected by Banks and Solander on the return journey of the "Endeavour" to England after observing the transit of Venus at Tahiti. The "Endeavour" was in Australian waters from April to August, 1770, and, according to Musgrave (1930: 190), the insects were mostly captured around Botany Bay and the east coast of Australia. From this material, four species of Braconidae were described, and the types are in the Banksian Collection in the British Museum. It was not until 1824 that the next braconids to be described from Australia were obtained during the voyage of the "Coquille", commanded by L. I. Duperrey. Lessen and Garnot were the naturalists, and the insects were later described by Guérin-Ménéville. A footnote (a) by Musgrave (1930: 194) states "In Duperrey's 'Voyage autour du Monde . . . sur . . . La Coquille, pendant les Années 1822–1825.' The plates, with the scientific names of the insects appeared between 1827–1832, but the text did not appear until 1838."

Erichson described a species from Tasmania in 1841. Five years later, Brullé (1846) described eight species from Australia and Tasmania in his great work "Histoire Naturelle des Insects." A specimen collected at Sydney,

New South Wales, was described by the well-known European hymenopterist Holmgren in 1868. No further species were described during this period. Thus, 15 species of braconids were known from Australia and Tasmania to 1890.

*Second Period 1891–1913*

This period may conveniently begin with the publication of Froggatt's "Catalogue of Described Hymenoptera of Australia," in which he lists eight species of braconids from Australia (actually 15 species were known at this time). During the 22 years covered by this period, Ashmead, Froggatt, Cameron, Szépligeti, Bingham, and Kokujew contributed to the knowledge of the Australian members of this family. Szépligeti, between the years 1901 and 1908, played the most prominent part.

A German expedition collected a number of insects in southwest Australia in 1905 which later were described by specialists in "Die Fauna Südwest-Australiens. 1907–1910," in which Szépligeti (1908) described the Braconidae.

*Third Period 1914–1927*

The works of R. E. Turner (1917–27) dominate this period, although those of Froggatt, Fullaway, and Baker must be mentioned. The period closes with the publication in 1926 of Baker's work on the Australian and Philippine Cheloninae.

An expedition, headed by Dr. E. Mjöberg, traveled into Queensland and northwest Australia. The Braconidae were described by Roman (1915).

*Fourth Period 1928–1951*

During this period a great amount of important revisional work was undertaken, principally by Wilkinson, on the Microgasterinae; this work was ably continued by Nixon. These authors dealt with the faunas of large regions and placed the systematics of Australian Braconidae on a sound basis in indicating their relationship with other faunas.

The works of Wilkinson and Nixon in England and Muesebeck in the United States have undoubtedly contributed toward a sounder knowledge of braconid systematics generally, and their work forms a basis for a clearer interpretation of the Australian forms in particular.

Other workers have contributed to the knowledge of the Australian braconid fauna, but those mentioned have made the principal contributions.

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## ABBREVIATIONS OF MUSEUMS

The following abbreviations are used in giving the location of types of Australian Braconidae.

- B.M. British Museum of Natural History, London  
 H.D.O.M. Hope Department, Oxford Museum, Oxford.  
 H.E.S. Hawaii Entomological Society Collections, Honolulu.  
 N.C.A.C. National Collections of Australia, Canberra.  
 N.H.M. National Hungarian Museum, Budapest.  
 N.H.M.S. Natural History Museum, Sweden.  
 N.H.M.V. Natural History Museum, Vienna.  
 N.K. Location not known.  
 S.C.M.G. Saussure Collection, in Museum, Geneva.  
 U.S.N.M. United States National Museum, Washington.

## Order HYMENOPTERA

Suborder APOCRITA (= CLISTOGASTRA)

Superfamily ICHNEUMONOIDEA

## Family BRACONIDAE

## Subfamily APHIDIINAE

All members of this subfamily are internal parasites of aphids.

Genus *DIAERETUS* Foerster, 1862*rapae* (Curtis)Curtis [*Aphidius*] (1855, 2: 194) ♀ descr.Ashmead [*Lipolexis*] (1900: 353) Austr. record.Froggatt [*Lepolexis*] (1907: 87) noted.Cameron [*Lipolexis*] (1912: 197) Austr. record.

Smith (1944: 101) syn., descr., fig.

Loc: Victoria; New South Wales.

Hosts: *Rhopalosiphum pseudobrassicae* (Davis).*Mysus persicae* (Sulz).*Brevicoryne brassicae* (Linn.).

Type: N.K.

Note: This European species is now well established in at least the southern

states of Australia and also in New Zealand.

Genus *EPHEDRUS* Haliday, 1833

*persicae* Froggatt

Froggatt (1904: 611) ♀ descr.

Froggatt (1907: 86) note, fig.

Froggatt (1910: 342) host, fig.

Loc: New South Wales.

Host: Peach aphid.

Type: N.K.

Note: This species is probably a European species that has become established in Australia.

Subfamily *EUPHORINAE*

(= *Meteorinae*)

The members of this subfamily attack a wide range of hosts, but all species are internal parasites.

Genus *ARIDELUS* Marshall, 1887

(= *Helorimorpha* Schmied., 1907)

*exiles* (Turner)

Turner [*Helorimorpha*] (1927: 558) ♂ descr.

Loc: Mackay, Queensland.

Type: B.M.

Genus *METEORUS* Haliday, 1835

(= *Protelus* Foerster, 1862)

Most species of this genus are parasitic on lepidopterous larvae, but some are known to parasitise Coleoptera.

*antipodalis* Ashmead

Ashmead (1900: 353) ♀ descr.

Loc.: New South Wales.

Type: U.S.N.M. (No. 4908).

*bicolor* Szépligeti

Szépligeti (1905: 53) ♀ descr.

Loc: New South Wales.

Type: N.H.M.

*dumbletoni* Muesebeck

Muesebeck (1939: 172) ♂ ♀ descr.

Dumbleton (1940: 325a) host, biol., distr.

Loc: Hobart, Tasmania.

Host: *Tortrix postvittana* Walk.

Type: U.S.N.M. (No. 53341).

*lutens* (Cameron)

Cameron [*Protelus*] (1911: 341) ♀ descr.

Loc: Sydney, New South Wales.

Host: *Teara* sp. [Notodontid.].

Type: B.M.

Genus *PERILITUS* Nees, 1818

(= *Dinocampus* Foerster, 1862)

The species of this genus are internal parasites of adult Coleoptera.

*coccinellae* (Schrank)

Schrank [*Ichneumon*] (1802, 2: 310) ♀ descr.

Nees [*Bracon terminatus*] (1811: 26) ♀ descr.

Nees [*Perilitus terminatus*] (1834: 30) ♂ ♀ descr.

Dalla Torre (1898: 122) listed.

Szépligeti [*Dinocampus terminatus*] (1904: 175) listed.

Timberlake [*D. terminatus*] (1918: 401) Austr. record.

Cushman [*Dinocampus*] (1922: 242) syn.

Muesebeck (1951: 101) syn., listed.

Loc: Queensland. This species is nearly cosmopolitan.

Hosts: *Hippodamia convergens* Guer.

*H. 5-signata* (Kby.).

*Coccinella californica* Mann.

*Coleomegilla maculata* (Deg.).

*Cycloneda sanguinea* (L.).

*C. trifasciata juliana* Muls.

Type: N.K.

Subfamily *MACROCENTRINAE*

Internal parasites of lepidopterous larvae. The gregarious forms seem to be polyembryonic.

Genus *MACROCENTRUS* Curtis, 1833

(= *Amicroplus* Foerster, 1862)

(= *Fhogra* Cameron, 1901a)

*ancylivorus* Rohwer

Rohwer (1923: 56) ♀ descr., N. America.

Loc: Liberated in Goulburn Valley, Victoria.

Host: *Grapholitha molesta*, Busck. [Olethreutid.].

Type: U.S.N.M.

**rubromaculatus** (Cameron)

Cameron [*Fbogra*] (1901*b*: 104) descr., New Zealand.

Wilkinson [*Amicroplus tasmanicus*] (1928*b*: 265) descr. [New synonymy].

Loc: New Zealand; Longford, Tasmania.

Host: *Argotis* sp. (or allied Noctuid).

Type: B.M.

Subfamily *HELCONINAE*

The species of this subfamily, with few exceptions, appear to be parasitic on wood-boring coleopterous larvae.

Tribe *HELCONINI*

Genus *AUSTROHELCON* Turner, 1918

**australiensis** (Kokujew)

Kokujew [*Helcon*] (1901: 15) ♂ descr.

Szépliget [i>*Aspidocolpus*] (1904: 152) listed.

Turner (1918*d*: 165) nomencl., note.

Loc: Tasmania (Kokujew); New South Wales (Turner).

Type: N.K.

**erythrocephalus** Turner

Turner (1918*d*: 167) ♂ descr.

Loc: Victoria.

Type: B.M.

**indultor** (Erichson)

Erichson [*Helcon*] (1842: 258) ♂ descr.

Dalla Torre [*Helcon*] (1898: 84) listed.

Szépliget [i>*Helcon*] (1904: 151) listed.

Turner (1918*d*: 165) nomencl., note.

Loc: Tasmania.

Type: N.K.

**inornatus** (Kokujew)

Kokujew [*Helcon*] (1902: 15) ♂ descr.

Szépliget [i>*Aspidocolpus*] (1904: 152) listed.

Turner (1918*d*: 165) nomencl., note.

Loc: Australia.

Type: N.K.

**meridionalis** Turner

Turner (1918*d*: 167) descr.

Loc: Victoria.

Type: B.M.

Genus *CALOHELCON* Turner, 1918

**obscuripennis** Turner

Turner (1918*d*: 165) descr.

Loc: Victoria.

Type: B.M.

Genus *HELCON* Nees, 1814 (1812)

(= *Gymnoscelus* Foerster, 1862)

**rufithorax** Turner

Turner [*Gymnoscelus*] (1918*d*: 170) descr.

Loc: Victoria.

Type: B.M.

**rufoniges** Turner

Turner [*Gymnoscelus*] (1918*d*: 169) descr.

Loc: Tasmania.

Type: B.M.

Genus *PARAHELCON* Kokujew, 1901

**konowi** Kokujew

Kokujew (1901: 15) ♀ descr., n. gen.

Cameron [*Opius eutbyrrhini*] (1912: 197) ♀ descr., host.

Loc: New South Wales, Australia.

Host: *Eutbyrrhinus meditabundas* Fabr. (palm weevil).

Type: N.K.; Cameron's type, B.M.

Genus *TRICHIOHELCON* Turner, 1818

**phoracanthae** (Froggatt)

Froggatt [*Iphiaulax*] (1916: 565) ♀ descr., fig.

Froggatt [*Iphiaulax*] (1923: 42) descr., fig., host.

Turner (1918*d*: 168) nomencl., note.

Loc: S. E. Australia; Tasmania.

Host: *Trogodendron fasciculatum* Schreiber (Clerid.).

Genus *TRACHYPETUS* Guérin, 1838

The true position of this genus is doubtful; it was placed in the subfamily Cheloninae by Szépliget (1904: 99), but Brues transferred it to the Helconinae.

**clavatus** Guérin

Guérin (1830: 201) ♂ descr., fig.

Schulz (1911: 85) noted.

Brues (1920: 59) nomencl.

Loc: New South Wales, Queensland.

Type: N.K.

## Tribe DIOSPILINI

## Genus DIOSPILUS Haliday, 1833

**ruficeps** Szépligeti

Szépligeti (1905: 14) descr.

Loc: New South Wales.

Type: N.H.M.

## Genus WESTWOODIELLA Szépligeti, 1904

**bicolor** Szépligeti

Szépligeti (1904: 155) ♀ descr.

Loc: Sydney, New South Wales.

**ruficeps** (Brullé)Brullé [*Westwoodia*] (1846: 127) descr., fig.

Loc: Tasmania.

Type: N.K.

## Tribe ZELINI

This tribe has previously been placed in the Macrocentrinae, but I have followed Muesebeck (1951: 111) in placing it in the *Helconinae*.

## Genus ZELE Curtis, 1832

**australiensis** Nixon

Nixon (1938: 419) ♀ descr.

Loc: Mackay, Queensland.

Type: B.M.

## Subfamily BLACINAE

## Genus ORGILONEURA Ashmead, 1900

**antipoda** Ashmead

Ashmead (1900: 355) ♀ descr.

Loc: Australia.

Type: U.S.N.M. (No. 4910).

## Genus ORGILUS Haliday, 1833

(= *Ischius* Wesmael, 1837)**leucogaster** (Holmgren)Holmgren [*Ischius*] (1868: 429) ♂ descr.Froggatt [*Ischius*] (1890: 713) listed.

Dalla Torre (1898: 128) listed.

Szépligeti (1904: 120) listed.

Loc: Sydney, New South Wales.

Type: N.H.M.S.

## Subfamily AGATHIDINAE

As far as is known, all species of this subfamily are internal parasites of lepidopterous larvae.

## Genus AGATHIELLA Szépligeti, 1902

**festinata** Turner

Turner (1918a: 111) ♀ descr., key.

Loc: South Australia.

Type: B.M.

**latibalteata** (Cameron)Cameron [*Agathis*] (1906: 26) ♂ descr.

Turner (1918a: 110) note., nomencl., key.

Loc: Australia.

Type: B.M.

**maligna** Turner

Turner (1918a: 112) ♀ descr., key.

Loc: S.W. Australia.

Type: B.M.

**meridionalis** Turner

Turner (1918a: 110) ♀ descr., key.

Dumbleton (1940: 325a) host.

Loc: Mt. Wellington, Tasmania.

Host: *Tortrix postvittana* Walk. (Tortricid.).

Type: B.M.

**minima** Turner

Turner (1918a: 113) ♀ descr., key.

Loc: Kuranda, Queensland.

Type: B.M.

Note: "It is possible that Ashmead's genus *Orgiloneura* may be founded on a species of this genus, with somewhat reduced neururation, but his description is too short for any conclusions to be drawn." (Turner 1918a: 113).

**ruficeps** Szépligeti

Szépligeti (1905: 52) ♂ descr.

Turner (1918a: 110) note, key.

Loc: Sydney, New South Wales.

Type: N.H.M.

**rugosa** Turner

Turner (1918a: 112) ♂ ♀ descr., key.

Loc: Tasmania.

Type: B.M.

**tenuissima** Turner

Turner (1918a: 111) ♀ descr., key.

Loc: Victoria.

Type: B.M.

Note: Possibly a female of *A. ruficeps* Szépl. (Turner).

**tricolor** Szépligeti

Szépligeti (1905: 52) ♀ descr.

Turner (1918*a*: 110) note, key.

Loc: Sydney, New South Wales.

Type: N.H.M.

**unimaculata** TurnerTurner (1918*a*: 111) ♂ descr., key.

Loc: Kuranda, Queensland; Sydney, New South Wales.

Genus **AGATHIS** Latreille, 1804(= *Bassus* Fabr., 1804)(= *Microdus* Nees, 1814)

The two species described by Brullé in 1849 are listed under this genus, but it is doubtful whether they are typical *Agathis*. In 1918 Turner (p. 110) stated "as far as I am aware typical *Agathis* does not occur in Australia." Brullé's species may probably belong to *Agathiella* Szépl. Muesebeck (1951: 117) synonymises *Microdus* Nees, 1814 (1812) with *Agathis* Latr., 1804, and the four species described by Turner under *Microdus* are listed here under Latreille's genus.

**bicolor** Brullé

Brullé (1846:483) descr.

Froggatt (1890: 710) listed.

Loc: Australia.

Type: N.K.

**dimidiata** Brullé

Brullé (1846: 487) descr.

Froggatt (1890: 710) listed.

Loc: Tasmania.

Type: N.K.

**martialis** (Turner)Turner [*Microdus*] (1918*a*: 108) ♂ ♀ descr., key.

Loc: Kuranda, Queensland.

Type: B.M.

**pedunculatus** Szépligeti

Szépligeti (1905: 51) ♀ descr.

Turner (1918*a*: 106) note.

Loc: Sydney, New South Wales.

Type: N.H.M.

**rufithorax** (Turner)Turner [*Microdus*] (1918*a*: 106) ♀ descr., key.

Loc: Kalamunda, Yallingup, S.W. Australia.

Type: B.M.

**rufobrunneus** (Turner)Turner [*Microdus*] (1918*a*: 106) ♀ descr., key.

Loc: Townsville, Queensland.

Type: B.M.

**xanthopsis** (Turner)Turner [*Microdus*] (1918*a*: 107) ♂ ♀ descr., key.

Loc: Yallingup, S.W. Australia.

Type: B.M.

Genus **BIROIA** Szépligeti, 1900**solitaria** TurnerTurner (1918*c*: 229) ♂ ♀ descr.

Loc: Mackay, Queensland.

Type: B.M.

Genus **BRAUNSI**A Kriechbaumer, 1894**bicolor** Brullé

Brullé (1846: 483) ♀ descr.

Dalla Torre [*Agathis*] (1898: 138) listed.

Loc: Australia.

Type: N.K.

**diversipennis** TurnerTurner (1918*c*: 224) ♂ descr.

Loc: Mackay, Queensland.

Type: B.M.

Genus **CREMNOPS** Foerster, 1862

(= *Bracon* Auct. not of Fabricius. See Opinion 162 of the Internat. Comm. on Zool. Nomencl. 1945.)

**commutator** TurnerTurner (1918*c*: 223) ♀ descr., key.

Loc: Mackay, Queensland (Type), Kuranda, Townsville, Queensland; Port Darwin, Northern Territory.

Type: B.M.

**dissimilis** TurnerTurner (1918*c*: 222) ♂ ♀ descr., key.

Loc: Mackay, Queensland.

Type: B.M.

**marginipennis** TurnerTurner (1918*c*: 222) ♂ ♀ descr., key.

Loc: Kuranda, Queensland.

Type: B.M.

**xanthostigma** Szépligeti

Szépligeti (1900: 61) ♀ descr.

Turner (1918c: 221) note.

Loc: Kuranda, Mackay, Queensland; also New Guinea.

Type: N.H.M.

Genus **DISOPHRYS** Foerster, 1862

**diluta** Turner

Turner (1918c: 228) ♀ descr., key.

Loc: Mackay (type), Kuranda, Queensland.

Type: B.M.

**diversipes** Turner

Turner (1918c: 227) ♀ descr., key.

Loc: Kuranda (type), Mackay, Queensland.

Type: B.M.

**exornata** Turner

Turner (1918c: 227) ♀ descr., key.

Loc: Kuranda, Queensland.

Type: B.M.

**nigropectus** Turner

Turner (1918c: 229) ♀ descr., key.

Loc: Kuranda, Queensland.

Type: B.M.

**ruberrima** Turner

Turner (1918c: 226) ♀ descr., key.

Loc: Mackay (type), Townsville, Queensland.

Type: B.M.

**rufifrons** Turner

Turner (1918c: 226) ♀ descr., key.

Loc: Port Essington, Northern Territory.

Type: B.M.

**signatipennis** Turner

Turner (1918c: 225) ♂ descr.

Loc: Kuranda, Queensland.

Type: B.M.

**similipicta** Turner

Turner (1918c: 228) ♀ descr., key.

Loc: Mackay (type) Townsville, Queensland.

Type: B.M.

Genus **PLATYAGATHIS** Turner, 1918

**learena** Turner

Turner (1918a: 114) ♂ ♀ descr., new genus.

Loc: Yallingup, S.W. Australia.

Type: B.M.

Subfamily **MICROGASTERINAE**

All the species of this subfamily appear to be internal parasites of lepidopterous larvae.

Genus **ADELIUS** Haliday, 1833

**australiensis** (Ashmead)

Ashmead [*Acoelius*] (1900: 358) ♀ descr.

Loc: Australia.

Type: U.S.N.M. (No. 4911).

Genus **APANTELES** Foerster, 1862

**anthelae** Wilkinson

Wilkinson (1932a: 335) ♂ ♀ descr., key.

Loc: Victoria.

Host: *Anthela ocellata* Walker (Anthelid.).

Type: B.M.

**australiensis** Ashmead

Ashmead (1900: 356) ♀ descr.

Wilkinson (1930: 485) host.

Wilkinson (1932a: 334) key.

Loc: New South Wales, Victoria.

Host: *Antheraea eucalypti* Scott (Saturniid.).

Type: U.S.N.M. (No. 4931).

**biroi** Szépligeti

Szépligeti (1905: 49) descr.

Wilkinson (1928: 121) ♂ ♀ descr., key.

Wilkinson (1932a: 337) key.

Loc: Sydney, New South Wales.

Type: N.H.M.

**deliadis** Bingham

Bingham (1906: 125) ♂ ♀ descr., host.

Wilkinson (1932a: 334) ♂ ♀ descr., key.

Loc: Townsville, Queensland.

Host: *Delias argenthona* Fabr. (Pierid.).

Type: H.D.O.M.

**flavipes** (Cameron)

Cameron [*Cotesia*] (1891: 185) descr.

Olliff [*Apanteles nonagriæ*] (1893: 381) descr., fig.



- Wilkinson (1928*a*: 93) ♂ ♀ descr.  
 Wilkinson [*A. nonagriæ*] (1928*a*: 136) descr.  
 Wilkinson (1929*a*: 108) descr.  
 Wilkinson (1932: 337) key.  
 Wilkinson (1934*b*: 156) key.  
 Loc: Australia; also India and Formosa.  
 Host: *Phragmatiphila truncata* Walk. (Noctuid.).  
 Type: B.M.
- glomeratus** (Linnaeus)  
 Linnaeus [*Ichneumon*] (1758: 568) descr.  
 Wilkinson (1932*a*: 334) key.  
 Loc: Nearly cosmopolitan; introduced into Australia.  
 Hosts: *Pieris rapae* (Linn.) (Pierid.).  
*P. brassicae* (Linn.) (Pierid.).  
 Type: N.K.
- guyanensis** Cameron  
 Cameron (1911: 327) ♂ ♀ descr.  
 Wilkinson (1930: 483) host., key.  
 Loc: Western Australia; also British Guiana.  
 Host: Probably *Utsthesia pulchella* Lis. (Arctiid.).  
 Type: B.M.
- philoampus** Cameron  
 Cameron (1911: 342) ♀ descr.  
 Wilkinson (1928*c*: 96) descr.  
 Wilkinson (1932*a*: 333) key.  
 Loc: Wattle Flat, New South Wales.  
 Type: B.M.
- radiantis** Wilkinson  
 Wilkinson (1929*a*: 110) ♂ ♀ descr., host.  
 Wilkinson (1932*a*: 334) key.  
 Loc: Gatton, Queensland.  
 Host: *Euxoa radians* Guen. (Noctuid.).  
 Type: B.M.
- rubecula** Marshall  
 Marshall (1885: 175) ♀ descr.  
 Marshall (1889: 420) ♀ descr.  
 Wilkinson (1932*a*: 334) key, Austr. record.  
 Loc: Europe; Australia; New Zealand.  
 Host: *Pieris rapae* Linn. (Pierid.).  
 Type: N.K.
- ruficrus** (Haliday)  
 Haliday [*Microgaster*] (1835: 253) ♂ ♀ descr.
- Ashmead [*Apanteles antipoda*] (1900: 355) ♂ ♀ descr., host.  
 Tryon (1900: 142) descr., host fig.  
 Cameron [*A. sydneyensis*] (1911: 342) ♀ descr., host.  
 Viereck [*A. narangae*] (1913: 642) descr.  
 Wilkinson [*A. antipoda*] (1928: 95) descr.  
 Gahan (1928: 256) syn.  
 Wilkinson (1929*b*: 108) note, syn.  
 Wilkinson (1932: 333) syn., key.  
 Loc: Nearly cosmopolitan; Queensland; New South Wales.  
 Hosts: *Heliothis armigera* Hubn. (Noctuid.).  
*Agrotis* sp. (Ashmead) (Noctuid.).  
*Plusia* sp.? (Cameron) (Noctuid.).  
*Leucania unipuncta* Haworth (Noctuid.).  
 Type: N.K. (type *A. antipoda* Ash., U.S.N.M. No. 4912).
- rufiventris** (Bingham)  
 Bingham [*Protapanteles*] (1906: 127) ♂ ♀ descr., host.  
 Wilkinson (1932*a*: 335) key, host.  
 Loc: Townsville, Queensland.  
 Type: H.D.O.M.  
 Host: *Ogyris genoveve* How. (Lycaenid.).
- sicarius** Marshall  
 Marshall (1885: 209) ♂ ♀ descr.  
 Wilkinson (1932*a*: 337) key.
- tasmanica** Cameron  
 Cameron (1912: 196) ♀ descr.  
 Wilkinson (1932*a*: 337) ♂ ♀ key.  
 Dumbleton (1940: 325*a*) host, N. Z. record.  
 Dumbleton (1935: 572) host, biol., fig.  
 Loc: Tasmania; New Zealand.  
 Type: B.M.  
 Host: *Tortrix postvittana* Walk. (Tortricid.).
- Genus MICROGASTER Latreille, 1804
- magnifica** Wilkinson  
 Wilkinson (1929*a*: 120) ♂ ♀ descr., key.  
 Loc: Queensland.  
 Type: B.M.
- morata** Wilkinson

Wilkinson (1929a: 106) ♂ ♀ descr., key.  
 Loc: Victoria.  
 Host: *Thyridopteryx berrichi* Westr. (Psychid.).  
 Type: B.M.

**perniciosa** Wilkinson  
 Wilkinson (1929a: 112) ♀ descr., key.  
 Loc: Victoria.  
 Type: B.M.

**petiolaris** Szépligeti  
 Szépligeti (1905: 48) ♂ ♀ descr.  
 Wilkinson (1929a: 104) ♂ ♀ descr., key.  
 Loc: New South Wales.  
 Type: N.H.M.

**resplendens** Wilkinson  
 Wilkinson (1929a: 106) ♀ descr., key.  
 Loc: Mt. Wellington, Tasmania (2,000 ft.)  
 Type: B.M.

**rixosa** Wilkinson  
 Wilkinson (1929a: 108) ♂ ♀ descr., key.  
 Loc: New South Wales.  
 Type: B.M.

**sons** Wilkinson  
 Wilkinson (1932b: 87) descr., fig.  
 Loc: Brindabella, A.C.T.  
 Type: N.C.A.

**tearae** Wilkinson  
 Wilkinson (1929a: 107) ♀ descr., key.,  
 host.  
 Loc: Australia.  
 Host: *Teara tristis* Lewin (Notodontid.).  
 Type: B.M.

**tegaris** Szépligeti  
 Szépligeti (1905: 49) ♂ descr.  
 Wilkinson (1928a: 105) ♂ descr., key.  
 Loc: New South Wales.  
 Type: N.H.M.

**vulpina** Wilkinson  
 Wilkinson (1929a: 109) ♂ ♀ descr., key.  
 Loc: Victoria.  
 Type: B.M.

Genus **MICROPLITIS** Foerster, 1862

**basalis** (Bingham)  
 Bingham [*Microgaster*] (1906: 125) ♂ descr.  
 Dodd [*Microgaster*] (1906: 120) host.  
 Wilkinson (1929a: 122) ♂ ♀ descr.

Wilkinson (1930a: 24) host.  
 Loc: Queensland.  
 Host: *Theratra oldenlandiae* Walk.  
 Type: H.D.O.M.  
**demolitor** Wilkinson  
 Wilkinson (1934a: 119) ♂ ♀ descr., host.  
 Loc: Stanthorpe, Queensland.  
 Hosts: *Heliothis obsoleta* Fabr. (Noctuid.).  
*H. armigera* Hubn. (Noctuid.).  
 Type: B.M.

**perelegans** (Bingham)  
 Bingham [*Microgaster*] (1906: 126) ♂ ♀  
 descr.  
 Dodd [*Microgaster*] (1906: 120) host.  
 Wilkinson (1929a: 122).  
 Wilkinson (1930a: 24) host.  
 Loc: North Queensland.  
 Host: *Pheressaces cynoptera* Lowes (Notodontid.).  
 Type: H.D.O.M.

#### Subfamily **CARDIOCHILINAE**

There are no host records from Australia, but, from the few host records available from other countries, the species of this family apparently parasites lepidopterous larvae.

Genus **CARDIOCHILES** Nees, 1818

**assimilator** Turner  
 Turner (1918b: 49) ♂ ♀ descr.  
 Loc: Kuranda, Mackay, Queensland.  
 Type: B.M.

**dissimulato** Turner  
 Turner (1918b: 50) ♀ descr., key.  
 Loc: Thursday Island, Queensland.  
 Type: B.M.

**rufator** Romans  
 Romans (1915: 17) ♀ descr.  
 Loc: Kimberley, N.W. Australia.  
 Type: N.H.M.S.

**uniformis** Turner  
 Turner (1918b: 51) ♂ ♀ descr., key.  
 Loc: Mackay, Queensland.  
 Type: B.M.

**verticalis** Turner  
 Turner (1918b: 51) ♀ descr.  
 Loc: Mackay, Queensland.

Type: B.M.

Subfamily *CHELONINAE*

Parasites of lepidopterous larvae. Eggs are laid in eggs of the hosts but the larvae of the parasite do not become mature until the hosts have reached maturity.

Genus *ASCOGASTER* Wesmael, 1835

*abdominalis* Szépligeti

Szépligeti (1908*b*: 319) ♀ descr.

Loc: S.W. Australia.

Type: N.H.M.

*antennalis* Szépligeti

Szépligeti (1908*b*: 319) descr.

Loc: S.W. Australia.

Type: N.H.M.

*australiensis* Szépligeti

Szépligeti (1905: 47) descr.

Loc: S.W. Australia.

Type: N.H.M.

*caudata* Szépligeti

Szépligeti (1905: 46) descr.

Loc: Australia.

Type: N.H.M.

*cinctus* Baker

Baker (1926: 477) ♀ descr., key.

Loc: New South Wales.

Type: U.S.N.M.

*detectus* Baker

Baker (1926: 478) ♂ descr., key.

Loc: New South Wales.

Type: U.S.N.M.

*distinctus* Baker

Baker (1926: 481) ♀ descr., key.

Loc: New South Wales.

Type: U.S.N.M.

*erythropus* Cameron

Cameron [*Areogaster*] (1911: 340) ♀ descr.

Loc: Mittagong, New South Wales.

Type: B.M.

Note: *Areogaster*, which occurs in Cameron, 1911, is an evident typographical error for *Ascogaster*.

*intensus* Baker

Baker (1926: 473) ♂ descr., key.

Loc: New South Wales.

Type: U.S.N.M.

*laeviventris* Baker

Baker (1926: 475) ♀ descr., key.

Loc: New South Wales.

Type: U.S.N.M.

*maculaticeps* Baker

Baker (1926: 482) ♂ descr., key.

Loc: New South Wales.

Type: U.S.N.M.

*modestus* Baker

Baker (1926: 474) ♀ descr., key.

Loc: New South Wales.

Type: U.S.N.M.

*palpalis* Szépligeti

Szépligeti (1905: 46) descr.

Loc: Australia.

Type: N.H.M.

*tegularis* Szépligeti

Szépligeti (1905: 46) descr.

Loc: Australia.

Type: N.H.M.

*tricolor* Szépligeti

Szépligeti (1905: 46) descr.

Loc: Mt. Victoria, New South Wales.

Type: N.H.M.

*vividus* Baker

Baker (1926: 479) ♂ descr., key.

Loc: New South Wales.

Type: U.S.N.M.

Genus *CHELONUS* Panzer, 1806

*australiensis* Szépligeti

Szépligeti (1905: 46) descr.

Loc: New South Wales.

Type: N.H.M.

*coriaceus* Szépligeti

Szépligeti (1905: 45) descr.

Loc: New South Wales.

Type: N.H.M.

*megaspilus* Cameron

Cameron (1911: 341) ♀ descr.

Loc: Tamworth, New South Wales.

Type: B.M.

*similis* Szépligeti

Szépligeti (1905: 44) descr.

Loc: New South Wales.

Type: N.H.M.

**unimaculatus** Szépligeti

Szépligeti (1905: 45) descr.

Loc: New South Wales.

Type: N.H.M.

Genus PHANEROTOMA Wesmael, 1838

**australiensis** Ashmead

Ashmead (1900: 354) ♀ descr.

Roman (1915: 17) ♂ descr., noted.

Loc: Broome, W. Australia (Roman).

Type: U.S.N.M. (No. 4904).

**leeuwinensis** Turner

Turner (1917: 247) descr.

Loc: Australia.

Type: B.M.

Genus SIGALPHUS Latreille, 1802

**conjugator** (Turner)Turner [*Sphaeropyx*] (1917: 245) descr.

Loc: Australia.

Type: B.M.

**tripartitus** Szépligeti

Szépligeti (1905: 43) descr.

Loc: New South Wales.

Type: N.H.M.

## Subfamily OPIINAE

The species of this subfamily are, with few if any exceptions, parasitic on Diptera. Some species are important in the biological control of fruit-flies.

Genus OPIUS Wesmael, 1835

Refer to Muesebeck (1951: 153) for the generic synonymy.

**albimanus** Szépligeti

Szépligeti (1905: 54) descr.

Loc: New South Wales.

Type: N.H.M.

**brevicaudis** Szépligeti

Szépligeti (1905: 25) descr.

Loc: New South Wales.

Type: N.H.M.

**carpocapsae** (Ashmead)Ashmead [*Diachasma*] (1900: 357) descr.Szépligeti [*Diachasma*] (1904: 162) listed.

Loc: New South Wales; New Zealand.

Host: Probably *Dacus tryoni* (Froggatt) (Trypetid.).

Type: U.S.N.M. (No. 4914).

**deeralensis** Fullaway

Fullaway (1950: 65) descr., host.

Fullaway (1951: 244) note.

Loc: Deeral, Queensland.

Host: *Dacus laticaudus* Hardy.

Type: H.E.S.

**fijiensis** Fullaway

Fullaway (1950: 67) ♂ ♀ descr., host, recorded Australia.

Fullaway (1951: 244) descr., host.

Loc: Australia; Fiji; New Caledonia.

Host: *Dacus* sp.

Type: H.E.S.

**froggatti** Fullaway

Fullaway (1950: 67) descr., host.

Fullaway (1951: 250) note.

Loc: Deeral, Queensland; Atherton Tableland.

Host: *Dacus* sp.

Type: H.E.S.

**kraussi** Fullaway

Fullaway (1951: 249) ♂ ♀ descr., host.

Loc: Deeral, Queensland.

Host: *Dacus laticaudus* Hardy.

Type: H.E.S.

Note: Reared in Hawaii from fruit-fly pupae collected in Australia.

**perkinsi** Fullaway

Fullaway (1950: 66) descr., host.

Fullaway (1951: 244) listed, host.

Loc: Deeral, Queensland.

Host: *Dacus laticaudus* Hardy.

Type: H.E.S.

**persulcatus** (Silvestri)Silvestri [*Biosteres*] (1916: 167) descr.

Fullaway (1950: 67) note, Australian record.

Loc: Australia.

Host: *Dacus* sp.

Type: N.K.

**tryoni** Cameron

Cameron (1911: 343) ♂ descr.

Gurney and Gallard (1910: 428) noted, fig

Fullaway (1951: 243) noted, host.

Loc: New South Wales.

Hosts: *Dacus laticaudus* Hardy (Trypetid.).  
*Dacus ferrugineus* Fabr. (Trypetid.).  
*Ceratitis capitata* Wied. (Trypetid.).  
 Type: B.M.

Subfamily *BRACONINAE*  
 (= *Vipioninae* Vier.)

The members of this subfamily have a wide variety of hosts, many of which are important pests. Although Thomson's genus *Ipobracon* is closely related to, and considered by some authors to be synonymous with, Foerster's genus *Iphiaulax*. I am at present retaining the identity of *Ipobracon*.

Genus *ATANYCOLUS* Foerster, 1862

**tomentosus** Szépligeti  
 Szépligeti (1905: 25) descr.  
 Loc: Queensland.  
 Type: N.H.M.

Genus *BRACON* Fabricius, 1804-05

Froggatt (1916: 561) describes a species of *Bracon* reared from *Lyctus brunneus* infesting tea chests that were imported from India.

**australasicus** Cameron  
 Cameron (1912: 193) ♀ descr.  
 Loc: Australia.  
 Type: B.M.

**australiensis** Szépligeti  
 Szépligeti (1905: 38) descr.  
 Loc: Australia.  
 Type: N.H.M.

**bimaculatus** Szépligeti  
 Szépligeti (1905: 38) descr.  
 Loc: Australia.  
 Type: B.H.M.

**bimaris** Turner  
 Turner (1918*a*: 93) ♀ descr.  
 Loc: Tasmania.  
 Type: B.M.

**capitator** (Fabricius)  
 Fabricius [*Ichneumon*] (1775: 335) ♀ descr.  
 Fabricius (1804: 108) descr.  
 Dalla Torre (1898: 261) listed.  
 Szépligeti (1904: 37) listed.  
 Loc: Australia.

Type: B.M.

**defensor** (Fabricius)  
 Fabricius [*Ichneumon*] (1775: 335) ♀ descr.  
 Fabricius (1804: 108) descr.  
 Dalla Torre (1898: 262) listed.  
 Szépligeti (1904: 37) listed.  
 Loc: Australia.

Type: B.M.

**eucalypti** Cameron  
 Cameron (1911: 340) ♂ ♀ descr.  
 Loc: Sydney, New South Wales.  
 Type: B.M.  
 Note: Bred from reddish galls on leaves of eucalyptus.

**froggatti** Cameron  
 Cameron (1911: 339) ♀ descr.  
 Loc: Reedy Creek, near Inverell, New South Wales.  
 Type: B.M.

**hartmeyeri** Szépligeti  
 Szépligeti (1908: 317) descr.  
 Loc: S.W. Australia.  
 Type: N.H.M.

**hebetor** Say  
 Say (1836: 252) ♂ ♀ descr.  
 Kirby [*as brevicornis*] (1884: 31) descr.  
 Marshall [*as brevicornis*] (1885: 24) descr.  
 Ashmead [*as juglandis*] (1888: 621) descr.  
 Johnston [*Macrobracon*] (1895: 324)  
 Froggatt (1912: 310) descr., fig., host.  
 Myers [*Microbracon*] (1929: 425) recorded, host.

Loc: Nearly cosmopolitan; Australia.

Hosts: *Plodia interpunctella* Huebner.

*Ephestia kuebniella* Zeller.

*Ephestia eluttella* Huebner.

*Galleria mellonella* Linnaeus.

Type: *hebetor*, lost; *juglandis*, U.S.N.M.

**hospitator** Fabricius  
 Fabricius [*Ichneumon*] (1775: 335) descr.  
 Fabricius (1804: 106) descr.  
 Dalla Torre [*B. arvensis*] (1898: 37) listed.  
 Szépligeti (1904: 37) listed.  
 Loc: Australia.  
 Type: B.M.

**levisulcatus** Cameron  
 Cameron (1912: 194) ♂ descr.

- Loc:** Reedy Creek, Inverell, New South Wales.  
**Type:** B.M.
- pilitarsis** Cameron  
 Cameron (1912: 193) ♀ descr.  
**Loc:** Reedy Creek, Inverell, New South Wales.  
**Type:** B.M.
- pulchellus** Brullé  
 Brullé (1846: 432) descr.  
 Froggatt (1890: 713) listed.  
 Dalla Torre (1898: 285) listed.  
 Szépligeti (1904: 37) listed.  
**Loc:** Australia.  
**Type:** N.K.
- thalpocharis** Ashmead  
 Ashmead (1900: 359) ♂ ♀ descr.  
 Szépligeti [*B. talpocharis*] (1904: 46) listed [error in spelling].  
 Froggatt [*Microbracon thalpocharis*] (1907: 87) descr.  
**Loc:** Australia.  
**Host:** *Thalpocharis coccophaga* Walker.  
**Type:** U.S.N.M. (No. 4915).
- tricolor** Ashmead  
 Ashmead [*Microbracon*] (1900: 359) ♀ descr.  
 Szépligeti (1904: 46) listed.  
**Loc:** Australia.  
**Type:** U.S.N.M. (No. 4916).
- turneri** Cameron  
 Cameron (1906: 26) ♂ descr.  
**Loc:** Australia.  
**Type:** N.K.
- walkeri** Turner  
 Turner (1918a: 93) ♀ descr.  
**Loc:** Queensland; Northern Territory.  
**Type:** B.M.
- Genus CAMPYLONEURUS** Szépligeti, 1906
- australiensis** (Szépligeti)  
 Szépligeti [*Iphiaulax*] (1901: 369) descr.  
 Szépligeti (1906: 561) n. gen.  
 Turner (1918a: 100) key.  
**Loc:** Australia.  
**Type:** N.H.M.
- biplicatus** Roman  
 Roman (1915: 12) ♀ ♂ descr.
- Loc:** Kimberley District, N.W. Australia.  
**Type:** N.H.M.S.
- mutator** (Fabricius)  
 Fabricius [*Ichneumon*] (1775: 335) descr.  
 Fabricius [*Bracon*] (1804: 109) descr.  
 Brullé [*Myosoma*] (1846: 453) descr.  
 Froggatt [*Myosoma*] (1890: 710) listed.  
 Dalla Torre [*Myosoma*] (1898: 255) listed, loc. error.  
 Turner (1918a: 100) nomenclature.  
**Loc:** Queensland.  
**Type:** B.M.
- praeclarus** Turner  
 Turner (1918a: 101) ♀ descr., key.  
**Loc:** Queensland.  
**Type:** B.M.  
 Note: Very near *C. profugus* Turner, of which it may be a variety (Turner 1918a: 101).
- praepotens** Turner  
 Turner (1918a: 101) ♀ descr., key.  
**Loc:** Queensland.  
**Type:** B.M.
- profugus** Turner  
 Turner (1918a: 100) ♀ descr., key.  
**Loc:** Queensland.  
**Type:** B.M.
- Genus CYANOPTERUS** Haliday, 1835
- calligaster** Roman  
 Roman (1915: 16) ♀ descr.  
**Loc:** Fremantle, W. Australia.  
**Type:** N.H.M.S.
- crassicaudis** Szépligeti  
 Szépligeti [*Bracon*] (1901: 397) descr.  
 Szépligeti [*Iphiaulax*] (1904: 21) listed.  
 Turner (1918a: 94).  
**Loc:** Doubtful, probably Australia.  
**Type:** N.H.M.  
 Note: This may be synonymous with *C. profuscator* (Fabr.) (Turner 1918a: 94).
- innotatus** Turner  
 Turner (1918a: 95) ♀ descr., key.  
**Loc:** Queensland.  
**Type:** B.M.

**proficiscator** (Fabricius)

- Fabricius [*Ichneumon*] (1775: 335) descr.  
 Fabricius [*Bracon*] (1804: 105) descr.  
 Szépligeti [*Bracon*] (1904: 37) listed.  
 Turner (1918a: 94) noted, synonymy, key.  
 Loc: Australia.  
 Type: B.M.

**rufus** Szépligeti

- Szépligeti [*Iphiaulax*] (1901: 397) descr.  
 Szépligeti [*Iphiaulax*] (1904: 23) listed.  
 Szépligeti (1906: 586) genus changed.  
 Turner (1918a: 95) noted, key.  
 Loc: New South Wales.  
 Type: N.H.M.

Genus **HYBOGASTER** Szépligeti, 1906

**australiensis** (Ashmead)

- Ashmead [*Iphiaulax*] (1900: 360) ♂ descr.  
 Szépligeti (1904: 23) listed.  
 Roman (1915: 15) ♂ ♀ noted, nomenclature.  
 Loc: Australia, Kimberley (Roman).  
 Type: U.S.N.M. (No. 4918).

Genus **IPHIAULAX** Foerster, 1862

(= *Iprobracon* Dalla Torre, 1898)

**afer** Szépligeti

- Szépligeti (1905: 29) descr.  
 Loc: Australia.  
 Type: N.H.M.

**australis** Szépligeti

- Szépligeti (1901: 369) ♂ descr.  
 Szépligeti (1904: 23) listed.  
 Loc: Australia.  
 Type: N.H.M.

**bifasciatus** Szépligeti

- Szépligeti (1905: 28) descr.  
 Loc: Australia.  
 Type: N.H.M.

**bipartitus** Szépligeti

- Szépligeti (1905: 35) descr.  
 Loc: Australia.  
 Type: N.H.M.

**bisignatus** Szépligeti

- Szépligeti (1905: 29) descr.  
 Loc: Australia.  
 Type: N.H.M.

**camerunensis** Szépligeti

- Szépligeti (1905: 29) descr.  
 Loc: Australia.  
 Type: N.H.M.

**crenulatus** Szépligeti

- Szépligeti (1905: 34) descr.  
 Loc: Australia.  
 Type: N.H.M.

**cristatus** Szépligeti

- Szépligeti (1905: 30) descr.  
 Loc: Australia.  
 Type: N.H.M.

**limbatus** (Brullé)

- Brullé [*Bracon*] (1846: 433) ♀ descr.  
 Froggatt [*Bracon*] (1891: 713) listed.  
 Ashmead [*Callibracon*] (1900: 358) descr.  
 n. gen.

- Szépligeti (1904: 23) listed.  
 Froggatt [*Bracon*] (1907: 86) descr.  
 Loc: Australia.  
 Type: N.K.

**longicornis** Szépligeti

- Szépligeti (1905: 32) descr.  
 Loc: Australia.  
 Type: N.H.M.

**longiseta** Szépligeti

- Szépligeti (1905: 28) descr.  
 Loc: Australia.  
 Type: N.H.M.

**micans** Szépligeti

- Szépligeti (1905: 35) descr.  
 Loc: Australia.  
 Type: N.H.M.

**perspicax** Szépligeti

- Szépligeti (1905: 32) descr.  
 Loc: Australia.  
 Type: N.H.M.

**pretiosus** Szépligeti

- Szépligeti (1905: 36) descr.  
 Loc: Australia.  
 Type: N.H.M.

**pulchricaudis** Szépligeti

- Szépligeti (1905: 30) descr.  
 Loc: Australia.  
 Type: N.H.M.

**rubriceps** Froggatt

- Froggatt (1916: 564) ♀ descr., fig.

- Froggatt (1923: 40) descr., fig., host.  
 Loc: New South Wales.  
 Host: *Trogodendron fasciculatum* Schreibers  
 (yellow-horned clerid.).  
 Type: N.K.
- ruficeps** Szépligeti  
 Szépligeti (1905: 33) descr.  
 Loc: Australia.  
 Type: N.H.M.
- scoparius** Szépligeti  
 Szépligeti (1905: 31) descr.  
 Loc: Australia.  
 Type: N.H.M.
- semirufus** Szépligeti  
 Szépligeti (1905: 33) descr.  
 Loc: Australia.  
 Type: N.H.M.
- speciosissimus** Szépligeti  
 Szépligeti (1905: 31) descr.  
 Loc: Australia.  
 Type: N.H.M.
- transiens** Turner  
 Turner (1918a: 95) ♂ ♀ descr.  
 Loc: Queensland; Northern Territory;  
 N.W. Australia.  
 Type: B.M.
- trifasciatus** Szépligeti  
 Szépligeti (1905: 31) descr.  
 Loc: Australia.  
 Type: N.H.M.
- trinotata** Ashmead  
 Ashmead (1900: 359) ♂ descr.  
 Szépligeti (1904: 23) listed.  
 Loc: Australia.  
 Type: U.S.N.M. (No. 4917).
- Genus **IPOBRACON** Thomson, 1892
- emeraldensis** Fahringer  
 Fahringer (1942: 40) descr.  
 Loc: Australia.  
 Type: N.H.M.
- flaviceps** (Cameron)  
 Cameron [*Poecilobracon*] (1901a: 122) ♂  
 descr.  
 Szépligeti [*Ipbiaulax*] (1904: 23) listed.  
 Turner (1918a: 105) descr., variety.  
 Loc: Australia.
- Type: B.M.
- flaviceps** Roman **mackayensis** Turner  
 Turner (1918a: 105) descr.  
 Loc: Queensland.  
 Type: B.M.
- fraterculus** Turner  
 Turner (1918a: 105) ♀ descr.  
 Loc: S.W. Australia.  
 Type: B.M.
- gilberti** Turner  
 Turner (1918a: 104) ♀ descr.  
 Loc: Queensland.  
 Type: B.M.
- ingressor** Turner  
 Turner (1918a: 102) ♀ descr.  
 Loc: Queensland.  
 Type: B.M.
- pallidicolor** Turner  
 Turner (1918a: 102) ♂ ♀ descr.  
 Loc: Queensland.  
 Type: B.M.
- punctistigma** Roman  
 Roman (1915: 10) ♀ descr.  
 Loc: Kimberley District, N.W. Australia.  
 Type: N.H.M.S.
- quadricolor** Turner  
 Turner (1918a: 103) ♀ descr.  
 Loc: Queensland.  
 Type: B.M.
- torridus** Turner  
 Turner (1918a: 104) ♀ descr.  
 Loc: Queensland.  
 Type: B.M.
- Genus **MACROBRACON** Szépligeti, 1902
- nobilis** Turner  
 Turner (1918a: 96) ♂ ♀ descr.  
 Loc: Queensland.  
 Type: B.M.
- Genus **MEGALOMMUM** Szépligeti, 1900
- annulatum** Turner  
 Turner (1918a: 97) ♂ ♀ descr.  
 Loc: S.W. Australia; Tasmania.  
 Type: B.M.



Genus *MERINOTUS* Szépligeti, 1906  
*xanthocephalus* Turner  
 Turner (1918*a*: 98) ♂ ♀ descr.  
 Loc: Queensland.  
 Type: B.M.  
 Note: This genus is very near, if not identical with, *Sigalphogaster* Cameron.

Genus *MONOCOILA* Roman, 1910  
*parva* Roman  
 Roman (1915: 13) ♀ descr.  
 Loc: Kimberley, N.W. Australia.  
 Type: N.H.M.S. [Not marked as type.]

Genus *PLATYBRACON* Szépligeti, 1900  
*nigriceps* Cameron  
 Cameron (1911: 338) ♀ descr.  
 Loc: Gin Gin, Queensland.  
 Type: B.M.

Genus *STIGMATOBRACON* Turner, 1918  
*basipennis* Turner  
 Turner (1918*a*: 92) ♀ descr., key.  
 Loc: Queensland.  
 Type: B.M.

*diversipennis* Turner  
 Turner (1918*a*: 92) ♀ descr., key.  
 Loc: Victoria.  
 Type: B.M.

*torresensis* Turner  
 Turner (1918*a*: 93) ♂ descr., key.  
 Loc: Cape York, Queensland.  
 Type: B.M.

*xanthostigma* Turner  
 Turner (1918*a*: 92) descr., key.  
 Loc: Queensland.  
 Type: B.M.

Genus *VIPIO* Latrielle, 1905  
*gestroi* Mantero  
 Mantero (1897: 119) ♀ descr.  
 Dalla Torre (1898: 305) listed.  
 Szépligeti (1904: 14) listed.  
 Loc: Australia.  
 Type: N.K.

Subgenus *VIPIELLUS* Roman, 1915  
*mjobergi* Roman  
 Roman (1915: 8) ♀ descr.

Loc: Kimberley, N.W. Australia.  
 Type: N.H.M.S.

#### Subfamily *SPATHIINAE*

As far as is known at present, the species of this family are external parasites on coleopterous larvae.

Genus *LEPTOSPATHIUS* Szépligeti, 1902  
*formosus* Szépligeti  
 Szépligeti (1902: 49) ♂ ♀ descr., genotype.  
 Szépligeti (1904: 54) listed.  
 Loc: Australia.  
 Type: N.H.M.

Genus *SPATHIUS* Nees, 1818  
*apicalis* Westwood  
 Westwood (1882: 43) ♀ descr.  
 Wilkinson [*S. festinans*] (1931*a*: 261) ♂ ♀ descr.  
 Nixon (1943*b*: 378) descr., key, Austr. record.  
 Loc: Kuranda, Queensland; India.  
 Type: N.K.

*iridescens* (Schletterer)  
 Schletterer [*Stenophasmus*] (1889: 203) ♂ descr.  
 Szépligeti (1904: 53) listed, nomenclature.  
 Wilkinson (1931*b*: 526) noted.  
 Loc: Cape York, Queensland; Sydney, New South Wales.  
 Types: N.H.M.V., S.C.G.M.

*kurandaensis* Nixon  
 Nixon (1943*b*: 393) descr., key.  
 Loc: Kuranda, Queensland.  
 Type: B.M.

*turneri* Nixon  
 Nixon (1943*b*: 370) descr.  
 Loc: Tambourine Mountains, S.E. Queensland.  
 Type: B.M.

*sp. ?*  
 Froggatt (1927: 55–56) recorded and figured.

Loc: New South Wales.  
 Note: Collected from imported tea chests infested by a *bostrychid* beetle.

Subfamily *HECABOLINAE*Genus *HETEROSPILUS* Haliday, 1862*asiensis* Nixon

Nixon (1943a: 260) ♂ ♀ descr., fig.

Loc: Maryborough and Imbil, Queensland.

Host: *Xylopsocus gibbicollis* (Bostrychid.).

Type: B.M.

Genus *MONOLEXIS* Foerster, 1862*atis* Nixon

Nixon (1943a: 261) ♂ ♀ descr., fig.

Loc: Atherton, Palm Is., Queensland.

Host: *Lyctus brunneus* (Lyctid.).

Type: B.M.

Note: "It is possible that my new species is a European insect which has been introduced with *Lyctus brunneus* for I have examined a single specimen, a female (Italy, bred from *Bostrychid* in figs) which appears to be identical with *atis*." (Nixon, 1943a: 262.)

Subfamily *EXOTHECINAE*Genus *OPIOPTERUS* Szépligeti, 1908*parvus* Szépligeti

Szépligeti (1908: 318) descr., genotype.

Loc: S.W. Australia.

Type: N.H.M.

Genus *SPINARIA* Brullé, 1846*aliciae* Turner

Turner (1917: 244) descr.

Loc: Australia.

Type: B.M.

Genus *XENARCHA* Foerster, 1862*tricolor* Szépligeti

Szépligeti (1908: 318) descr.

Loc: S.W. Australia.

Type: N.H.M.

Subfamily *ROGADINAE*

The majority of the species of this subfamily are parasitic on lepidopterous larvae

Genus *ROGAS* Nees, 1818(= *Rbogas* Agassiz 1846)*politus* Szépligeti

Szépligeti (1906: 617) descr.

Loc: Australia.

Type: N.H.M.

*tricolor* Haliday

Haliday (1836: 98) descr.

Szépligeti (1904: 87) listed.

Loc: Australia.

Type: N.K.

Subfamily *DORYCTINAE*

Most species of this family are external parasites of coleopterous larvae.

Genus *ACANTHODORYCTES* Turner, 1918*gilberti* Turner

Turner (1918b: 56) ♀ descr., key.

Loc: Mackay, Queensland.

Type: B.M.

*morleyi* (Froggatt)Froggatt [*Ipbiaulax*] (1916: 566) ♀ descr., host.Froggatt [*Ipbiaulax*] (1923: 42) descr., host.

Turner (1918b: 56) noted, genotype.

Loc: East Coast, Australia.

Host: *Trogodendron fasciculatum* (Clerid.).

Type: B.M.

Genus *CAENOPACHYELLA* Szépligeti, 1908*lutea* Szépligeti

Szépligeti (1908: 399) ♂ ♀ descr., genotype.

Loc: New South Wales.

Type: N.H.M.

Genus *DORYCTES* Haliday, 1836*laemosacci* Nixon

Nixon (1943: 257) ♀ descr., host

Loc: Emu Valley, Queensland.

Host: *Laemosaccus* sp. (Curculionid.).

Type: B.M.

*parvus* Muesebeck

Muesebeck (1941: 150) ♂ ♀ descr.

Loc: Queensland, Australia. The type locality is Mayaguez, Puerto Rico.

Type: U.S.N.M. No. 55678.

Host: *Dinoderus minutus* (Fabr.) (Type)*Lyctus* sp. (Queensland.)

Note: This is rather a common species in various tropical regions of the world.

**syagrii** (Fullaway)

Fullaway [*Ischiogonus*] (1922: 201) ♂ ♀ descr., host.

Loc: New South Wales.

Host: *Syagrius fulvitaris* Pasc. (fern weevil).

Type: N.K.

Note: Fullaway (1921: 101, 114) records a species of *Doryctes* parasitic on the fern weevil (*Syagrius fulvitaris*) from New South Wales. This probably is the same species as recorded above.

Genus **LIODORYCTES** Szépligeti, 1906

**atriceps** Turner

Turner (1918*b*: 54) ♀ descr., key.

Loc: Mackay, Queensland.

Type: B.M.

**australiensis** (Szépligeti)

Szépligeti [*Acanthobracon*] (1902: 48) ♂ descr.

Szépligeti [*Neotrimorus*] (1904: 64) listed.

Szépligeti (1906: 599) noted, genotype.

Turner (1918*b*: 55) noted.

Loc: Cooktown, Kuranda, Mackay, Queensland.

Type: B.M.

**erythrothorax** Turner

Turner (1918*b*: 54) ♂ ♀ descr., key.

Loc: Mackay, Queensland.

Type: B.M.

**nigradorsalis** Turner

Turner (1918*b*: 53) ♀ descr., key.

Loc: Port Darwin, Australia.

Type: B.M.

Genus **SYNGASTER** Brullé, 1846

**annulicornis** Brullé

Brullé (1846: 454) descr.

Froggatt (1890: 714) listed.

Szépligeti (1904: 67) listed.

Turner (1918*b*: 57) noted.

Loc: Australia.

Type: N.K.

Note: Turner (1918*b*: 57) had not seen this species, and is doubtful of its

true generic position.

**lepidus** Brullé

Brullé (1846: 459) descr.

Froggatt (1890: 714) listed.

Szépligeti [*S. lepida*] (1904: 67) listed [error in spelling.]

Cameron (1912: 195).

Turner (1918*b*: 57) noted.

Loc: S.E. Australia; Tasmania.

Type: N.K.

## INTRODUCED SPECIES

I am indebted to Mr. Frank Wilson, Principal Research Officer, C.S.I.R.O., Entomology Division, for the following list of braconids introduced into Australia in connection with biological control. No information is available on the extent to which they have become established in the various localities in which they were liberated.

\**Apanteles rubecula* Marshall.

\**Apanteles glomeratus* Linn.

*Ascogaster carpocapsae* Vier. (*A. quadridentatus* Wesm.)

*Bassus diversus* (Mues.) (*Agathis diversus*)

*Chelonus phthorimaeae* Gahan

\**Macrocentrus ancylivorus* Rohwer

*Microbracon gelechiaae* Ashmead (*Bracon gelechiaae*)

*Triaspis thoracicus* (Say) (*T. sayi* Mues. and Walkley.)

The above species are listed under the names by which they are generally referred to in the literature, the correct nomenclature is given in parentheses where this is different.

Species that have become definitely established are marked with an asterisk and included in the body of the catalogue.

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