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Revision of braconine wasps of Japan (Hymenoptera: Braconidae) with revised generic records

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Abstract The braconine fauna of Japan is revised, based on literature and on the collections of the Osaka Museum of Natural History, Osaka, and the Institute for Agro-Environmental Sciences, Tsukuba. A key to the genera is included and distribution records are provided at the prefecture level. Two genera (*Baryproctus* Ashmead and *Dioxybracon* Granger) are recorded for the first time from Japan, with the species *Baryproctus barypus* (Marshall) and *Dioxybracon koshunensis* (Watanabe) comb. nov. (= *Bracon koshunensis* Watanabe). The two species *Stenobracon oculatus* and *Chelonogastra formosana* are excluded from the Japanese species list.

Key words: *Baryproctus*, Braconinae, *Dioxybracon*, *Pedinopleura*

Introduction

More than 3,000 described species and 188 described genera can be found in the braconid subfamily Braconinae (Yu *et al.*, 2012). It is a quite well studied group with several species being used as biocontrol agents (Quicke, 2015). New genera and species are constantly being added to the subfamily (e.g., Wang *et al.*, 2007; Yang *et al.*, 2008; van Achterberg *et al.*, 2009; Mahmood *et al.*, 2011; Ranjith *et al.*, 2016; Quicke *et al.*, 2018) whilst synonymisation of others is still ongoing (e.g., Kittel & Quicke, 2015; Quicke *et al.*, 2019).

Watanabe was the first to list 32 species belonging to 16 genera of Braconinae in Japan including Taiwan (Formosa) and he provided a key for their identification (Watanabe, 1937). However, as Taiwan is no longer part of Japan some of the taxa he recorded as being Japanese no longer are, but have erroneously been carried forward as being Japanese by subsequent authors. Further, some of the species referred to by Watanabe (1937) have been synonymised or transferred to other genera or subfamilies, on the other hand, since Watanabe's work several additional species and genera have been described or newly recorded for Japan, and because of all these things, the key from Watanabe is outdated (Maeto, 1991; Tobias & Belokobylskij, 2000; Yu *et al.*, 2012; Kittel & Maeto, 2015). In this study, two genera *Baryproctus* Ashmead and *Dioxybracon* Granger are recorded from Japan for the first time whereas two species *Stenobracon oculatus* Szépligeti and *Chelonogastra formosana* Watanabe are excluded from the Japanese species list. Here we present a comprehensive treatment of Japan's current braconine fauna, including a key to genera to facilitate their identification and an updated checklist of species. Global distribution and host information are based on Yu *et al.* (2012). With this study, the Japanese braconine fauna now comprises 22 genera and 61 species.

The subfamily Braconinae can be recognised using the subfamily keys of van Achterberg (1993) or Sharkey (1997).

Materials and Methods

Materials used in this study are kept in the following

collections:

- BMNH British Museum of Natural History, London, United Kingdom.
- EIHU Entomological Institute, Hokkaido Imperial University, Sapporo, Japan.
- HECO Hope Entomological Collections, Oxford, United Kingdom.
- HNHM Hungarian National Museum of Natural History, Budapest, Hungary.
- IPS Institute for Plant Protection, Eberswalde, Germany.
- IRSNB Belgium Royal Institute of Natural Sciences, Brussels, Belgium.
- MNHN National Museum of Natural History, Paris, France.
- MRSN Museo Regionale die Scienze Naturali, Torino, Italy.
- MZLU Zoological Institute, Lund, Sweden.
- MZPW Polish Academy of Science, Museum and Institute of Zoology, Warsaw, Poland.
- NIAES Institute for Agro-Environmental Sciences, NARO, Tsukuba, Japan.
- OMNH Osaka Museum of Natural History, Osaka, Japan.
- SNM Natural History Museum of Denmark, Copenhagen, Denmark.
- USNM United States Natural History Museum, Smithsonian Institute, Washington, D.C, USA.
- ZISP Zoological Institute, Academy of Science, St. Petersburg, Russia.

Terminology follows van Achterberg (1988) except wing venation which follows Sharkey and Wharton (1997) with van Achterberg's terminology given in parentheses; see also Fig. 2.2 in Quicke (2015) for comparison of wing venation naming systems. The equivalent terms for veins referred to here are as follows with van Achterberg's terminology given in parentheses. Fore wing: 1cu-a (= cu-a); 1RS (= 1-SR); 2cu-a (= CU1b); 2CUb (= CU1a); 2RS (= 2-SR); 3RSa (= 3-SR); r-rs (= r); (RS+M)a (= 1-SR+M); rs-m (= r-m). Hind wing: R1 (= SC+R1).

Results and Discussion

Simplified key to the braconine genera of Japan modified

after Quicke (1987)

- 1 Tarsal claws with a separate tooth on the inner side (Fig. 1) *Pseudoshirakia*
- 1' Tarsal claws without such a tooth (Fig. 2) 2
- 2 1st and usually 2nd and 3rd basal flagellomeres strongly apically expanded (Fig. 3), especially ventrally *Coeloides*
- 2' Basal flagellomeres cylindrical, not flared apically (cf. Fig. 4) 3
- 3 Metasomal tergites 1-3 immovably joined and fused laterally 4
- 3' Metasomal tergites 1 and 2 movably joined 5
- 4 Pleural suture with distinct crenulations; subocular groove absent *Philomacroploea*
- 4' Pleural suture smooth, sometimes obsolete; malar suture oblique, joining subocular groove *Dioxybracon*
- 5 1st subdiscal cell of fore wing oval, vein 1cu-a antefurcal; junction of veins 2cu-a and 2Cub swollen, much wider than 2CUa posteriorly (cf. Fig. 5) *Megalommum*
- 5' 1st subdiscal cell of fore wing rectangular or at most only slightly ovoid (cf. Fig. 6); junction of veins 2cu-a and 2Cub not swollen and not wider than 2CUa posteriorly .. 6
- 6 Fore wing vein 1cu-a strongly postfurcal and inclivous (Fig. 7) *Euurobracon*
- 6' Fore wing vein 1cu-a interstitial (cf. Fig. 8), antefurcal (cf. Fig. 9) or slightly postfurcal (cf. Fig. 10) 7
- 7 Scapus subcylindrical, with a very large apico-medial ledge (false margin) and sharply and concavely narrowed at the base (Fig. 11) *Atanycolus*
- 7' Scapus variable, sometimes with a weak to moderate apico-medial ledge but never strongly and sharply contracted at the base (cf. Fig. 12) 8
- 8 Hind telotarsus, excluding the claw, at least $0.9 \times$ the length of the hind basitarsus and strongly widened; claws with very large, ventrally rather flat, basal lobes (Fig. 13) *Baryproctus*
- 8' Hind telotarsus, excluding the claw, less than $0.8 \times$ the length of the hind basitarsus; basal lobes of claws smaller, ventrally rounded (Fig. 14) 9
- 9 Tarsal claws with the basal lobe distinctly pointed (cf. Fig. 15) or at least sharply angular (approximately 90°) distally; scapus simple, apically truncate and shorter ventrally than dorsally in lateral aspect 10
- 9' Tarsal claws with the basal lobe rounded, not protruding (cf. Fig. 16) and not pointed or sharply angled distally; scapus variable but often distinctly produced ventrally 16
- 10 Fore wing vein (RS+M) a very strongly arched and usually distinctly thickened at the region of maximum curvature (Fig. 17); hind wing with spurious vein *Calcaribracon*
- 10' Fore wing vein (RS+M)a usually straight, sometimes gently curved, never distinctly thickened sub-medially (cf. Fig. 18); hind wing without spurious vein 11
- 11 1st metasomal tergite more than $2.6 \times$ longer than medially wide, lateral areas largely reduced and without crenulations *Amyosoma*
- 11' 1st metasomal tergite less than $2.0 \times$ longer than medially wide, with well-developed and often crenulate lateral areas 12
- 12 Posterior margin of 6th metasomal tergite with a narrow deep median incision and distinctly produced posterior-laterally *Testudobracon*
- 12' Posterior margin of 6th metasomal tergite without such deep median incision and without being produced posterior-laterally 13
- 13 Propodeum with a complete, lamelliform midlongitudinal carina; dorsal margin of hypoclypeal depression protruding *Simplicibracon*
- 13' Propodeum with at most a weak midlongitudinal ridge posteriorly; dorsal margin of hypoclypeal depression at most forming a weak ridge 14
- 14 Metasomal tergites 3, 4, and 5 with clearly defined antero-lateral furrows defining the antero-lateral areas posteriorly and with well-developed subposterior grooves *Syntomernus*
- 14' Metasomal tergites 3 to 5 never with both clearly defined antero-lateral furrows and transverse sub-posterior grooves 15
- 15 Fore wing vein 3RSa less than $1.5 \times$ longer than vein r-rs, usually less than $1.2 \times$ as long as r-rs (cf. Fig. 19) *Habrobracon*
- 15' Fore wing vein 3RSa more than $1.6 \times$ longer than vein r-rs, usually more than $1.9 \times$ longer (cf. Fig. 20) *Bracon*
- 16 Fore wing vein (RS+M)a curving slightly towards the anterior wing margin after arising from IRS; fore wing marginal cell short and distally widening; vein 3RSb reaching wing margin < 0.8 distance between apex of pterostigma and wing tip *Stenobracon*
- 16' Fore wing vein (RS+M)a usually distinctly curving posteriorly after arising from IRS or straight; fore wing marginal cell longer 17
- 17 Dorsal valves of ovipositor smooth, without a pre-apical notch, nodus or sharp angle (Fig. 21) 18
- 17' Dorsal valves of ovipositor at least with a sharp pre-apical angle usually with a well-developed notch anterior to a sharp angulation or protruding nodus (cf. Fig. 22) 20
- 18 Eyes glabrous or virtually so *Iphiaulax*
- 18' Eyes more or less densely long-setose 19

- 19 Posterior margin of 5th metasomal tergite narrowly emarginate (Fig. 23) *Ectemnoplax*
 19' Posterior margin of 5th metasomal tergite broadly emarginate (Fig. 24) *Chelonogastra*
- 20 3rd and/or 4th metasomal tergites with a well-developed, (usually) crenulate transverse sub-posterior groove, the remainder of the tergites usually coarsely sculptured *Campyloneurus*
 20' 3rd and 4th metasomal tergites without a transverse crenulate sub-posterior groove, the remainder of these tergites largely smooth and shiny 21
- 21 Fore wing vein (RS+M) a straight or at most marginally curved (cf. Fig. 25); base of hind wing usually more or less evenly setose *Cyanopterus*
 21' Fore wing vein (RS+M) a strongly curved or (often) sharply angled posteriorly after arising from 1-M (cf. Fig. 26); base of hind wing markedly reduced setosity distal to vein cu-a and over the posterior part of the sub-basal cell *Callibracon*

Family **Braconidae**
 Subfamily **Braconinae**

Genus ***Amyosoma*** Viereck

Amyosoma Viereck, 1913. Type. *Amyosoma chilonis* Viereck, 1913 by original designation.

Diagnosis. Antennae shorter than fore wing; median flagellomeres wider than long; terminal flagellomere acuminate; scapus shorter ventrally than dorsally, smoothly narrowed basally; dorsal clypeal curved and margin not carinate; eyes glabrous; frons smooth, extensively setose; mesosoma smooth and shiny; mesosoma more than 1.55 × longer than high; propleural carina absent; mesoscutum largely glabrous; notauli strongly impressed; scutellar sulcus smooth; precoxal sulcus absent; propodeum smooth, without lateral carinae; propodeal spiracle round to 2× taller than wide; fore wing vein (RS+M) a straight; fore wing vein 1-M straight; angle between fore wing veins 1RS and C+SC+R more than 55 degrees; second submarginal cell of fore wing long; fore wing vein rs-m as long as or shorter than 2RS; subdiscal cell of fore wing setose; fore wing vein 1cu-a interstitial or virtually so; fore wing vein 2CUa distinctly expanded posteriorly; fore wing vein 2CUB with a spur; hind wing vein 1r-m curved, shorter than R1a; metasoma smooth without coarse sculpture; first metasomal tergite without dorsal carinae; metasomal tergites 1 and 2 movably joined; second metasomal tergite shorter medially than sub-medially; metasomal tergites 3–5 without subposterior transverse groove; ovipositor with a pre-apical dorsal nodus.

Distribution. Afrotropical, Australasian, Central America, Eastern Palaearctic, Oceania, Oriental.

Amyosoma chinense (Szépligeti)

Bracon chinensis Szépligeti, 1902. Type. ♂, from China, in HNHM.

Amyosoma albolineatum (Cameron, 1910).

Amyosoma chilocida (Ramakrishna Ayyar, 1928).

Amyosoma chilonis Viereck, 1913.

Amyosoma chinensis (Szépligeti, 1902).

Amyosoma nigrocephala (Ramakrishna Ayyar, 1928).

Amyosoma noiratum (Ishida, 1915).

Distribution. Bangladesh, China, India, Indonesia, Japan, Korea, Malaysia, Nepal, Oman, Pakistan, Philippines, Sri Lanka, Thailand, USA, Vietnam.

Distribution within Japan. Honshu: Chiba Prefecture, Gifu Prefecture, Hiroshima Prefecture, Kanagawa Prefecture, Saitama Prefecture, Shizuoka Prefecture, Tochigi Prefecture; Kyushu: Fukuoka Prefecture, Kagoshima Prefecture (Mainland and Yakushima Island); Amami Island: Okinoerabu Island, Yoron Island; Ryukyu Islands: Okinawa Island (Nawa, 1915; Watanabe, 1932, 1937, 1942; Hirose, 1966; Watanabe, 1966a, 1967; Maeto & Nakamura, 1995; Nambu, 1999; Kubo, 2000; Katayama, 2002; Nakamura, 2003; Nagase, 2004; Suda, 2004, 2009).

Host. Lepidoptera (*Chilo auricilius*, *C. batri*, *C. ceylonicus*, *C. indicus*, *C. infuscatellus*, *C. partellus*, *C. sacchariphagus*, *C. suppressalis*, *C. zonellus*, *Diatraea grandiosella*, *D. lineolata*, *Hyposidra aquilaria*, *Pectinophora gossypiella*, *Procerata venosata*, *Schoenobius bipunctifer*, *Scirpophaga incertulas*, *Sesamia calamistis*, *Se. inferens*, *Thylacoptila paurosema*).

Amyosoma yanoi (Watanabe)

Bracon yanoi Watanabe, 1960. Type. ♀, from Japan, in EIHU. *Amyosoma yanoi* (Watanabe, 1960).

Distribution. China, Japan.

Distribution within Japan. Hokkaido; Honshu: Aichi Prefecture, Aomori Prefecture; Kyushu: Fukuoka Prefecture; Ryukyu Islands (Watanabe, 1960; Shenefeld, 1978; Maeto, 1992; Kudo *et al.*, 1999).

Host. Lepidoptera (*Casmara patrona*, *Nokona regalis*).

Genus ***Atanycolus*** Förster

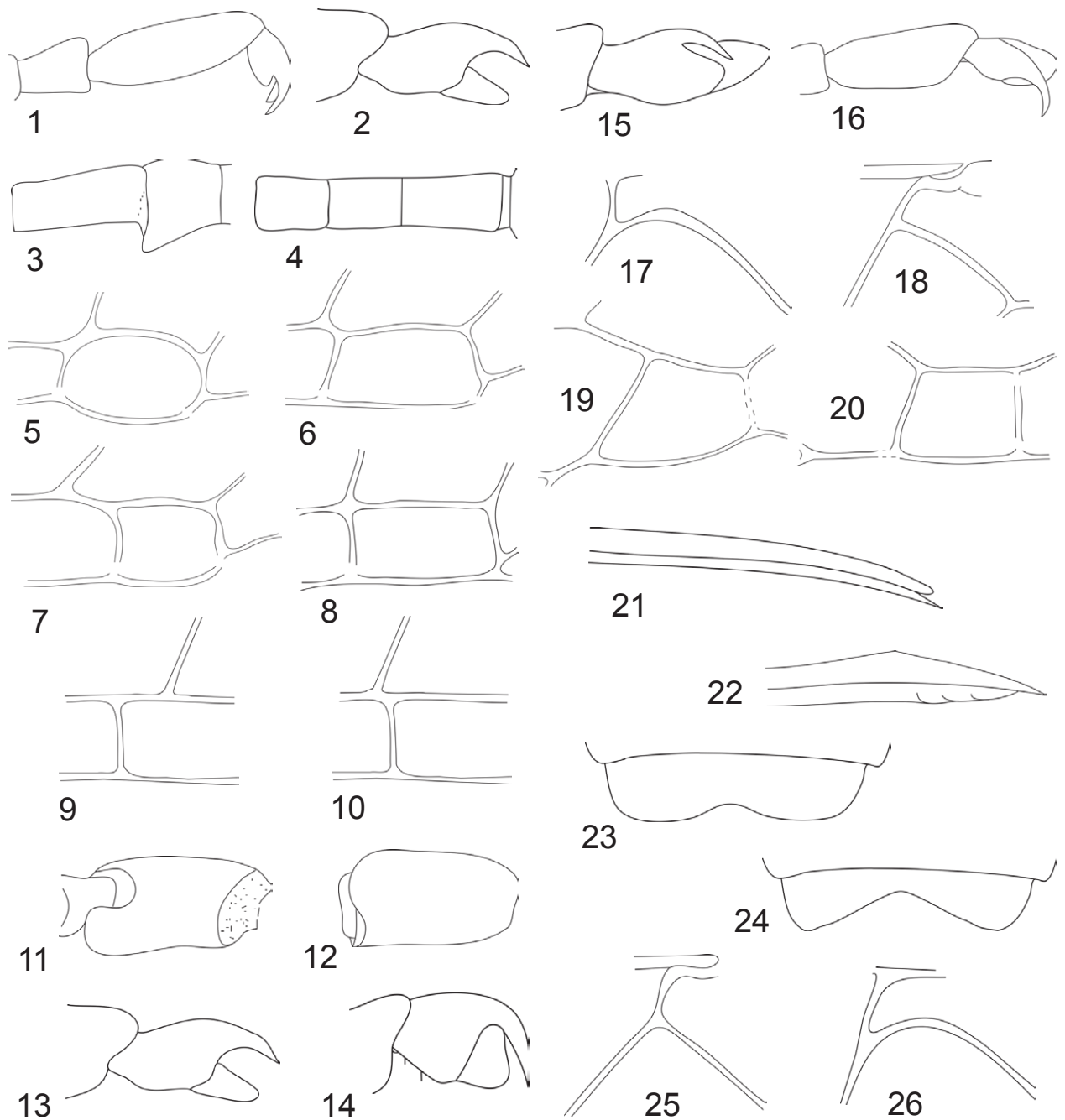
Atanycolus Förster, 1862. Type. *Ichneumon denigrator* Linnaeus, 1758.

Coelobracon Thomson, 1892. Type. *Ichneumon denigrator* Linnaeus, 1758.

Melanobracon Ashmead, 1900 Type. *Bracon simplex* Cresson, 1972.

Atanycolidea Viereck, 1912. Type. *Bracon rugosiventris* Ashmead, (1888) 1889.

Diagnosis. Dorsal clypeal margin curved and carinate; antennal sockets with groove laterally leading to border of eye; eyes glabrous; frons strongly impressed behind antennal sockets, with mid-longitudinal carina; mesosoma smooth



Figs. 1–26. 1, *Pseudoshirakia*, hind telotarsus; 2, *Baryproctus*, hind claw; 3, *Coeloides*, basal flagellomeres; 4, *Sylvibracon*, basal flagellomeres; 5, *Aphrastobracon*, 1st sub-discal cell; 6, *Glyptomorpha*, 1st sub-discal cell; 7, *Euurobracon*, 1st sub-discal cell; 8, *Eutropobracon*, 1st sub-discal cell; 9, *Tropobracon* vein 1cu-a; 10, *Glyptomorpha* vein 1cu-a; 11, *Atanycolus*, left scapus, ventro-lateral aspect; 12, *Tsavobracon*, left scapus, medial aspect; 13, *Baryproctus*, hind claw; 14, *Cyanopterus*, hind claw; 15, *Plesiobracon*, hind claw; 16, *Sylvibracon*, hind telotarsus; 17, *Calcaribracon*, vein (RS+M)a; 18, *Euurobracon*, vein (RS+M)a; 19, *Esenga*, 2nd sub-marginal cell; 20, *Tropobracon*, 2nd sub-marginal cell and vein (RS+M)b; 21, *Iphiaulax*, ovipositor; 22, *Ischnobracon*, ovipositor; 23, *Ectemnoplax*, 5th tergite; 24, *Chelonogastra*, 5th tergite; 25, *Bracomorpha*, vein (RS+M)a; 26, *Aphrastobracon*, vein (RS+M)a.

and shiny; scutellar sulcus crenulate, narrow; precoxal sulcus absent; mesopleural suture smooth; propodeum without lateral carinae; propodeal spiracle round to $2 \times$ taller than wide; fore wing vein (RS+M) a straight or curving posteriorly after arising from 1-M; fore wing vein 1-M straight; angle between fore wing veins IRS and C+SC+R more than 55 degrees; fore wing vein 1cu-a interstitial or virtually so; hind wing vein 1r-m curved, shorter than R1; base of hind wing more or less evenly setose; basal lobe of claws rounded; apex of

fore tibia with transverse row of chaetothria-like pegs; first metasomal tergite without dorsal carinae; metasomal tergites 1 and 2 movably joined; second metasomal tergite with large mid-basal triangular area, with antero-lateral, longitudinal grooves; ovipositor with a pre-apical dorsal notch or nodus; volsella without a lobe.

Distribution. Australasia, Nearctic, Oriental, Palearctic.

Atanycolus initiator (Fabricius)

Ichneumon initiator Fabricius, 1793. Type. ♀, from Germany, in SNM.

Atanycolus flaviceps Ivanov, 1896.

Atanycolus initiator (Fabricius, 1793).

Atanycolus mongolicus Telenga, 1936.

Bracon genalis (Thompson, 1892).

Vipio temporalis (Kukujev, 1898).

Distribution. Austria, Azerbaijan, Belgium, China, Croatia, Czech Republic, Czechslovakia, Finland, France, Germany, Hungary, Italy, Japan, Lithuania, Mongolia, Norway, Poland, Russia, Slovakia, Spain, Sweden, Switzerland, Turkey, Turkmenistan, Ukraine, United Kingdom.

Distribution within Japan. Honshu: Aichi Prefecture, Fukui Prefecture, Hiroshima Prefecture, Kanagawa Prefecture, Saitama Prefecture; Yamagata Prefecture; Shikoku: Ehime Prefecture, Kochi Prefecture (Watanabe, 1952; Kotani, 1980; Urano & Hijii, 1991a, 1991b; Maeto & Nakamura, 1995; Urano & Hijii, 1995; Nambu, 1999; Maeto & Yamamoto, 2000; Nagase, 2004; Watanabe *et al.*, 2012).

Host. Coleoptera (*Acanthocinus aedilis*, *Ac. griseus*, *Ac. reticulatus*, *Arhopalus coreanus*, *Ar. rusticus*, *Ar. syriacus*, *Asemum striatum*, *Blastophagus piniperda*, *Callidium abdominale*, *Ca. coriaceum*, *Ca. rufipennis*, *Cerambyx scopoli*, *Chrysobothris solieri*, *Clytus*, *Hylesinus crenatus*, *Ips subelongatus*, *I. typographus*, *Lampra mirifica*, *Leioderus kollari*, *Melanophila cyanea*, *Me. guttulata*, *Monochamus galloprovincialis*, *Mo. sutor*, *Niphades variegatus*, *Phymatodes pusillus*, *Pissodes notatus*, *Pi. obscurus*, *Rhagium bifasciatum*, *Rh. inquisitor*, *Saperda punctata*, *Scolytus*, *Shirahoshizo insidiosus*, *Sh. pini*, *Sh. rufescens*, *Stenostola ferrea*, *Tetropium castaneum*, *T. fuscum*, *T. gabrieli*, *T. gracilicorne*); Lepidoptera (*Sesia apiformis*, *Synanthedon flaviventris*, *Sy. vespiformis*).

Note. *Atanycolus* only attacks wood-borers. The folivorous sawflies *Arge cyaneocrocea* and *A. pagana* (Hymenoptera: Argidae) must be erroneous host records. Also, *A. initiator* was recognized as *A. genalis* in Tobias & Belokobylskij (2000).

Atanycolus sculpturatus (Thomson)

Bracon (Vipio) sculpturatus Thomson, 1892. Type. ♂, unknown location, in MZLU. Lectotype ♀, from Italy in MZLU, designation by Tobias & Belokobylskij, 2000.

Atanycolus ivanowi (Kokujev, 1898).

Atanycolus sculpturatus (Thomson, 1892).

Distribution. Austria, China, Croatia, Czech Republic, Czechslovakia, Finland, France, Germany, Greece, Hungary, Italy, Japan, Russia, Sweden (STD, 2019), Switzerland, Ukraine.

Distribution within Japan. Hokkaido (Watanabe, 1937).

Host. Coleoptera (*Lampra mirifica*, *Melanophila decastigma*, *M. picta*, *Osphranteria coerulescens inaurata*, *Sphenoptera tappesi*).

Genus ***Baryproctus*** Ashmead

Baryproctus Ashmead, 1900. Type. *Bracon barypus* Marshall, 1885.

Barycryptus Hoffmeyer, 1932.

Diagnosis. Body largely coriaceous; basal flagellomeres cylindrical; eyes glabrous; median area of metanotum with a complete mid-longitudinal carinae; fore wing vein (RS+M) a strongly angled or curved after arising from 1-M; angle between fore wing veins 1RS and C+SC+R less than 50 degrees; fore wing vein 1cu-a interstitial or virtually so; apex of hind wing vein C+SC+R with more than one hamule; hind wing vein 1r-m much shorter than R1; hind telotarsus, excluding the claw, at least 0.9 × the length of the hind basitarsus; claws with very large, ventrally rather flat, basal lobes; metasomal tergite 1 with well-developed dorsal carinae reaching at least to midlength; metasomal tergites 1 and 2 movably joined; metasoma tergite 2 without anterolateral grooves and without midbasal triangular area; exerted part of ovipositor shorter than metasoma.

Distribution. Palaearctic.

Baryproctus barypus (Marshall)

Bracon barypus Marshall, 1885. Type. ♀, from United Kingdom, collection unknown.

Baryproctus apti Györfi, 1953.

Baryproctus barypus (Marshall, 1885).

Baryproctus caucasicus Telenga, 1936.

Baryproctus hungaricus Szépligeti, 1901.

Distribution. Azerbaijan, Czechoslovakia, France, Germany, Greece, Hungary, Japan, Kazakhstan, Moldova, Montenegro, Russia, Slovakia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom.

Distribution within Japan. Hokkaido. This is a new record of this genus and species for Japan.

Host. Diptera (*Lipara orientalis*, *L. rufitarsis*, *L. similis*).

Examined material. 1 ♀, 3 ♂♂ "Kabutonuma, Toyotomi-machi, Hokkaido, 11 vii 1980, K. Maeto" (NIAES); 1 ♀, 6 ♂♂ "Kabutonuma, Toyotomi-machi, Hokkaido, 12 vii 1980, K. Maeto" (NIAES).

Genus ***Bracon*** Fabricius

Bracon Fabricius, 1804. Type. *Ichneumon minutator* Fabricius, 1798.

Microbracon Ashmead, 1890. Type. *Microbracon sulcifrons* Ashmead, 1890.

Amicoplidea Ashmead, 1900. Type. *Zele pallidiventris* Provancher, 1880.

Macrodyctium Ashmead, 1900. Type. *Bracon euurae* Ashmead, (1888) 1889.

Tropodobracon Ashmead, 1900. Type. *Bracon gastroideae* Ashmead, (1888) 1889.

Liobracon Nason, 1905. Type. *Bracon nuperus* Cresson, 1872.

Uncobracon Papp, 1996. Type. *Bracon apoderi* Watanabe, 1933.

Diagnosis. Antennae longer than fore wing; basal flagellomeres cylindrical; terminal flagellomere acuminate; scapus shorter ventrally than dorsally in lateral aspect; dorsal clypeal margin curved but not carinate; antennal sockets without groove running to eye; frons not impressed except for median sulcus; mesosoma variably sculptured; mesoscutum largely glabrous; scutellar sulcus usually crenulate; precoxal sulcus absent; propodeum without lateral carinae; fore wing vein 1-M straight; angle between fore wing veins 1RS and C+SC+R more than 55 degrees; fore wing vein rs-m as long as or shorter than 2RS; subdiscal cell of fore wing setose; fore wing vein 1cu-a interstitial or virtually so; fore wing vein 1CUb more or less straight; fore wing vein 2CUb not expanded posteromedially; base of hind wing more or less evenly setose; hind wing vein 1r-m straight, much shorter than R1; metasomal tergites 1 and 2 movably joined; metasomal tergites 3–5 simple; ovipositor with a pre-apical dorsal notch or nodus; volsella without a lobe.

Distribution. Afrotropical, Australasian, Nearctic, Neotropical, Oceania, Oriental, Palaearctic.

***Bracon abbreviator* Nees**

Bracon abbreviator Nees, 1834. Type. ♀, from Hungary, in HNHM, neotype by Papp, 2008.

Bracon (Glabrobracon) abscissor Nees, 1834.

Bracon (Glabrobracon) eutrephes Marshall, 1897.

Bracon (Glabrobracon) oostmaeli (Wesmael, 1838).

Bracon (Glabrobracon) regularis (Wesmael, 1838).

Bracon (Glabrobracon) rufigaster Szépligeti, 1901.

Bracon (Glabrobracon) rufiventris Telenga, 1936.

Distribution. Albania, Algeria, Armenia, Austria, Azerbaijan, Belgium, Croatia, Cyprus, Czech Republic, Czechoslovakia, Finland, France, Georgia, Germany, Greece, Hungary, Iran, Israel, Italy, Japan, Jordan, Kazakhstan, Lithuania, Macedonia, Morocco, Netherlands, Norway, Poland, Romania, Russia, Slovakia, Slovenia, Spain, Switzerland, Tajikistan, Turkey, Turkmenistan, Ukraine, United Kingdom.

Distribution within Japan. Hokkaido (Watanabe, 1939).

Host. Lepidoptera (*Coleophora follicularis*).

***Bracon adoxophyesi* Minamikawa**

Bracon adoxophyesi Minamikawa, 1954. Type. ♀, from Japan, collection unknown.

Distribution. China, Japan.

Distribution within Japan. Honshu: Aomori Prefecture, Iwate Prefecture, Kanagawa Prefecture, Shizuoka Prefecture, Yamagata Prefecture; Shikoku: Tokushima Prefecture (Minamikawa, 1954; Momoi *et al.*, 1975; Yukinari, 1976; Shenefelt, 1978).

Host. Lepidoptera (*Adoxophyes orana*, *Ad. privatana*, *Archips breviplicanus*, *Ar. fuscocupreanus*, *Homona coffearia*).

***Bracon apoderi* Watanabe**

Bracon apoderi Watanabe, 1933. Type. ♀, from Japan, in EIHU.

Bracon (Uncobracon) apoderi Watanabe, 1933.

Bracon dahuricus Shestakov, 1940.

Bracon dahuricus Telenga, 1936.

Uncobracon apoderi (Watanabe, 1933).

Distribution. Japan, Korea, Russia.

Distribution within Japan. Honshu: Fukui Prefecture, Kanagawa Prefecture, Shizuoka Prefecture; Tochigi Prefecture; Kyushu: Kagoshima Prefecture (Watanabe, 1933, 1937; Papp, 1996; Kubo, 2000; Nakamura, 2003; Watanabe *et al.*, 2012; Kuramitsu & Komizo, 2014; Katayama & Fujie, 2017).

Host. Coleoptera (*Apoderus balteatus*, *Phymatopoderus latipennis*, *Paroplapoderus pardalis*) (Kuramitsu & Komizo, 2014).

Note. One species of *Bracon (Uncobracon)* was found in Honshu: Ibaraki Prefecture (Maleque *et al.*, 2010). *Bracon (Uncobracon) apoderi* is the only *Bracon (Uncobracon)* recorded from Japan thus far and it is therefore possible that the species Maleque *et al.* have found is in fact *B. apoderi*.

***Bracon asphondyliae* (Watanabe)**

Campyloneurus asphondyliae Watanabe, 1940. Type. ♀, from Japan, in EIHU.

Bracon asphondyliae (Watanabe, 1940).

Bracon flaccus Papp, 1996.

Bracon scurra (Fischer, 1980).

Distribution. Japan, Korea, Russia.

Distribution within Japan. Hokkaido; Honshu: Chiba Prefecture, Hyogo Prefecture, Ishikawa Prefecture, Kanagawa Prefecture, Kyoto Prefecture, Nagano Prefecture; Niigata Prefecture, Shiga Prefecture, Shimane Prefecture, Tokyo Prefecture (Mainland and Miyake Island), Yamagata Prefecture; Kyushu: Fukuoka Prefecture, Kagoshima Prefecture, Kumamoto Prefecture (Watanabe, 1940; Fischer, 1980; Maeda *et al.*, 1982; Maeto, 1991; Kubo, 2000; Sugiura *et al.*, 2004; Matsuo *et al.*, 2016).

Host. Diptera (*Asphondylia aucubae*, *A. baca*, *A. diervillae*, *A. itoi*, *A. sphaera*, *A. yushimai*, *Pseudasphondylia matatabi*) (Maeto, 1991; Matsuo *et al.*, 2016).

Note. Takasu & Yukawa reared *Bracon asphondyliae* from galls, but they did not specify the collection sites. Their study sites included Kyushu: Kagoshima Prefecture; Okinawa; Honshu: Saitama Prefecture, Shizuoka Prefecture, Tokyo Prefecture; Shikoku: Tokushima Prefecture (Takasu & Yukawa, 1984).

***Bracon cinctus* (Walker)**

Hecabolus cinctus Walker, 1874. Type. ♂, from Japan, in BMNH, designation by Papp, 1998.

Bracon cinctus (Walker, 1874).

Distribution. Japan, Korea.

Distribution within Japan. Japan (no further location specified) (Walker, 1874).

Host. Unknown.

***Bracon cingillus* Tobias**

Bracon (Glabrobracon) cingillus Tobias, 2000. Type. ♀, from Russia, in ZISP.

Bracon (Osculobracon) cingillus Tobias, 2000.

Distribution. Japan, Russia.

Distribution within Japan. Hokkaido; Honshu: Tochigi Prefecture (Tobias & Belokobylskij, 2000).

Host. Unknown.

***Bracon epitriptus* Marshall**

Bracon epitriptus Marshall, 1885. Type. ♀, from UK, in BMNH, designation of lectotype by Papp, 2003.

Bracon (Glabrobracon) melanogaster Szépligeti, 1901.

Bracon (Glabrobracon) pallidipes Szépligeti, 1896.

Distribution. Armenia, Austria, Azerbaijan, Belarus, China, Croatia, Czech Republic, Czechoslovakia, Georgia, Germany, Greece, Hungary, Iran, Italy, Kazakhstan, Korea, Lithuania, Macedonia, Moldova, Mongolia, Netherlands, Poland, Romania, Russia, Serbia, Slovenia, Switzerland, Turkey, Ukraine, United Kingdom.

Distribution within Japan. Japan (no further location mentioned) (Tobias & Belokobylskij, 2000).

Host. Diptera (*Agromyza flaviceps*, *Iteomyia capreae*), Coleoptera (*Cryptorhynchus lapathi*, *Hylobius transversovittatus*, *Pissodes*), Hymenoptera (*Fenusa pusilla*).

***Bracon flavinus* Fahringer**

Macrodyctium flavipes Ashmead, 1906 (NOT Nees, 1834). Type. ♀, from Japan, in USNM.

Bracon (Glabrobracon) flavinus Fahringer, 1928. Replacement name.

Distribution. China, Japan, Korea.

Distribution within Japan. Hokkaido (Watanabe, 1937).

Host. Unknown.

***Bracon fukushimai* Tobias**

Bracon fukushimai Tobias, 2000. Type. ♀, from Japan, in ZISP.

Distribution. Japan.

Distribution within Japan. Honshu: Fukushima Prefecture (Tobias & Belokobylskij, 2000).

Host. Unknown.

Note. Unfortunately, the species was named after a place (Fukushima) and not a person and should better have been called "fukushimaensis".

***Bracon gilvellus* Tobias**

Bracon gilvellus Tobias, 2000. Type. ♀, from Japan, in ZISP.

Distribution. Japan.

Distribution within Japan. Hokkaido; Honshu: Ibaraki Prefecture; Kyushu: Kumamoto Prefecture (Tobias & Belokobylskij, 2000).

Host. Unknown.

***Bracon honshui* Tobias**

Bracon honshui Tobias, 2000. Type. ♀, from Japan, in ZISP.

Distribution. Japan.

Distribution within Japan. Honshu: Tochigi Prefecture (Tobias & Belokobylskij, 2000).

Host. Unknown.

Note. The species was named after an Island (Honshu) and not a person and should better have been called "honshuensis".

***Bracon imbricatellus* Tobias**

Bracon imbricatellus Tobias, 2000. Type. ♀, from Japan, in ZISP.

Distribution. Japan.

Distribution within Japan. Honshu: Fukushima Prefecture (Tobias & Belokobylskij, 2000).

Host. Unknown.

***Bracon imbricatus* Tobias**

Bracon imbricatus Tobias, 2000. Type. ♀, from Japan, in ZISP.

Distribution. Japan.

Distribution within Japan. Honshu: Fukushima Prefecture (Tobias & Belokobylskij, 2000).

Host. Unknown.

***Bracon intercessor* Marshall**

Bracon intercessor Nees, 1834. Type. ♀, from Germany, in unknown collection.

Bracon adjectus Szépligeti, 1901.

Bracon bisinuatus Szépligeti, 1901.

Bracon dubiosus Szépligeti, 1901.

Bracon duplicatus Szépligeti, 1901.

Bracon elegans Szépligeti, 1901.

Bracon fallaciosus Szépligeti, 1901.

Bracon fulvus Szépligeti, 1896.

Bracon kachetinus Telenga, 1933.

Bracon lativentris Thomson, 1892.

Bracon maslovskii Telenga, 1936.

Bracon mixtus Szépligeti, 1901.

Bracon mundus Szépligeti, 1901.

Bracon nigropictus Szépligeti, 1901.

Bracon nitidiusculus Szépligeti, 1901.

Bracon rhynchiti Greese, 1928.
Bracon rufiscapus Szépligeti, 1901.
Bracon subtilis Szépligeti, 1901.
Bracon suspectus Szépligeti, 1901.
Bracon universitatis Dalla Torre, 1898.
Bracon vigilax Kokujev, 1912.

Distribution. Afghanistan, Albania, Austria, Azerbaijan, Belgium, Bosnia Hercegovina, Bulgaria, Canary Islands, China, Croatia, Cyprus, Czech Republic, Czechoslovakia, France, Georgia, Germany, Greece, Hungary, Iran, Israel, Italy, Kazakhstan, Korea, Latvia, Lithuania, Macedonia, Malta, Moldova, Mongolia, Montenegro, Morocco, Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Syria, Tajikistan, Turkey, Turkmenistan, Ukraine, United Kingdom, Uzbekistan.

Distribution within Japan. Japan (no further location mentioned) (Tobias & Belokobylskij, 2000).

Host. Coleoptera (*Anthonomus pedicularius*, *Anthonomus pomorum*, *Anthonomus sorbi*, *Apion opeticum*, *Lixus brevisrostris*, *L. incanescens*, *L. juncii*, *Microlarinus lareynii*, *Microlarinus lypriformis*, *Rhynchites bacchus*), Lepidoptera (*Archips rosana*, *Coleophora atraphaxidellum*, *Parametriotes theae*, *Paranthrene tabaniformis*, *Scrobipalpa obsoletella*, *Sparganothis pilleriana*, *Synanthedon culiciformis*), Diptera (*Liriomyza huidobrensis*), Hymenoptera (*Pontania nigricantis*, *Tetramesa hyalipennis*, *T. rossica*).

***Bracon japellus* (Ashmead)**

Microbracon japellus Ashmead, 1906. Type. ♀, from Japan, in USNM.
Bracon japellus (Ashmead, 1906).

Distribution. Japan.

Distribution within Japan. Hokkaido (Ashmead, 1906; Watanabe, 1937, 1957).

Host. Unknown.

***Bracon kasparyani* Samartsev**

Bracon kasparyani Samartsev, 2018. Type. ♀, from Russia, in ZISP.

Distribution. Japan, Russia.

Distribution within Japan. Hokkaido (Samartsev, 2018)

Host. Unknown.

***Bracon leleji* Tobias**

Bracon (Orientobracon) leleji Tobias, 2000. Type. ♀, from Japan, in ZISP.

Distribution. Japan, Russia.

Distribution within Japan. Honshu: Ibaraki Prefecture; Kyushu: Miyazaki Prefecture ("Misaki, Kiu Shiu") (Tobias & Belokobylskij, 2000).

Host. Unknown.

***Bracon longicollis* (Wesmael)**

Bracon longicollis Wesmael, 1838. Type. ♀, from Belgium, in IRSNB, designation of lectotype by Papp, 2012.

Bracon brevicauda Thomson, 1892.

Bracon crassicauda Thomson, 1892.

Bracon fraudator Marshall, 1885.

Bracon longicollis (Wesmael, 1838).

Bracon niger (Vojnovskaja-Krieger, 1929).

Bracon subcylindricus (Wesmael, 1838).

Distribution. Afghanistan, Austria, Azerbaijan, Belgium, Bulgaria, China, Croatia, Cyprus, Czech Republic, Denmark, Finland, France, Georgia, Germany, Greece, Hungary, Iran, Israel, Italy, Kazakhstan, Korea, Lithuania, Moldova, Mongolia, Montenegro, Netherlands, Poland, Romania, Russia, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Turkmenistan, Ukraine, United Kingdom, Uzbekistan.

Distribution within Japan. Japan (no further location mentioned) (Tobias & Belokobylskij, 2000).

Host. Diptera (*Chlorops pumilionis*).

***Bracon makarkini* Tobias**

Bracon (Glabrobracon) makarkini Tobias, 2000. Type. ♀, from Japan, in ZISP.

Distribution. Japan.

Distribution within Japan. Kyushu: Fukuoka Prefecture (Tobias & Belokobylskij, 2000).

Host. Unknown.

***Bracon onukii* Watanabe**

Bracon onukii Watanabe, 1932. Type. Collection unknown.

Distribution. China, Japan, Korea, Vietnam.

Distribution within Japan. Honshu: Aichi Prefecture, Akita Prefecture, Gifu Prefecture, Ishikawa Prefecture, Iwate Prefecture, Nagano Prefecture, Niigata Prefecture, Okayama Prefecture, Tokyo Prefecture, Yamagata Prefecture; Shikoku: Ehime Prefecture; Kyushu: Fukuoka Prefecture, Kumamoto Prefecture, Miyazaki Prefecture, Nagasaki Prefecture, Oita Prefecture; Amami Islands: Okinoerabu Island, Yoron Island; Ryukyu Islands: Iriomote Island (Watanabe, 1937; Hirose, 1966; Watanabe, 1966b; Yasumatsu, 1967; Kotani, 1980; Fujie & Shimizu, 2015).

Host. Lepidoptera (*Chilo suppressalis*, *Diatraea shariinensis*, *Sesamia inferens*).

***Bracon osculator* Nees**

Bracon (Osculobracon) osculator Nees, 1811. Type. ♀, from Belgium, in IRSNB, designation of Neotype by Papp, 2012.

Bracon (Osculobracon) bisignatus (Wesmael, 1838).

Bracon (Osculobracon) coniferarum Fahringer, 1928.

Bracon (Osculobracon) degenerator Marshall, 1885.

Bracon (Osculobracon) minutus Szépligeti, 1901.

Bracon (Osculobracon) venustus Telenga, 1936.

Distribution. Afghanistan, Armenia, Austria, Azerbaijan, Belgium, Bosnia Hercegovina, Bulgaria, China, Croatia, Cyprus, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iran, Ireland, Italy, Korea, Latvia, Liechtenstein, Lithuania, Macedonia, Moldova, Mongolia, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom, Uzbekistan.

Distribution within Japan. Japan (no further location mentioned) (Tobias & Belokobylskij, 2000).

Host. Lepidoptera (*Coleophora albicostella*, *C. alticolella*, *C. caespititiella*, *C. colutella*, *C. discordella*, *C. flaviella*, *C. frischella*, *C. gallipennella*, *C. lutipennella*, *C. milvipennis*, *C. obscenella*, *C. ochrea*, *C. saponariella*, *C. serenella*, *C. serratella*, *C. solitariella*, *C. spinella*, *C. spiraella*, *C. therinella*, *C. trifariella*, *C. vibicella*, *C. vicinella*, *C. vulpecula*, *Cosmopterix eximia*, *Cydia strobilella*, *Ectoedemia agrimoniae*, *Elachista contaminatella*, *Gravitar mata margarotana*, *Millieria dolosalis*, *Mompha conturbatella*, *Phyllonorycter* sp., *Rhyacionia perangustana*, *Tuta absoluta*).

***Bracon piger* (Wesmael)**

Bracon piger Wesmael, 1838. Type. ♀, from Belgium, in IRSNB, designation of lectotype by Papp, 2008.

Bracon piger (Wesmael, 1838).

Pigeria piger (Wesmael, 1838).

Bracon (Pigeria) ornatus Telenga, 1936.

Bracon (Pigeria) rotundatus Szépligeti, 1901.

Bracon (Pigeria) rotundulus Szépligeti, 1904.

Bracon (Pigeria) semiluteus Walker, 1874.

Distribution. Armenia, Austria, Azerbaijan, Belgium, Canary Islands, Croatia, Cyprus, Czechoslovakia, France, Germany, Greece, Hungary, Iran, Italy, Japan, Kazakhstan, Macedonia, Mongolia, Montenegro, Netherlands, Poland, Romania, Russia, Serbia, Spain, Switzerland, Tunisia, Turkey, Turkmenistan, USA, Ukraine, United Kingdom.

Distribution within Japan. Japan (no further location mentioned) (Walker, 1874).

Host. Coleoptera (*Pissodes validirostris*); Lepidoptera (*Cnephiasia longana*, *Cydia nigricana*, *Etiella zinckenella*, *Heliothis peltigera*).

***Bracon sergeji* Tobias**

Bracon sergeji Tobias, 2000. Type. ♀, from Japan. The specimen is supposed to be in the NIAES collection, but it is not.

Distribution. Japan.

Distribution within Japan. Hokkaido; Honshu: Fukushima Prefecture; Tochigi Prefecture (Tobias & Belokobylskij, 2000).

Host. Unknown.

***Bracon sulciferus* Tobias**

Bracon sulciferus Tobias, 2000. Type. ♀, from Japan. The specimen is supposed to be in the NIAES collection, but it is not.

Distribution. Japan.

Distribution within Japan. Honshu: Ibaraki Prefecture (Tobias & Belokobylskij, 2000).

Host. Unknown.

***Bracon sunosei* Maeto**

Bracon sunosei Maeto, 1991. Type. ♀, from Japan, in NIAES. Resurrected from synonymy with *Bracon asphondyliae* (Matsuo *et al.*, 2016).

Distribution. Japan.

Distribution within Japan. Hokkaido; Honshu: Yamagata Prefecture; Kyushu: Oita Prefecture (Maeto, 1991; Matsuo *et al.*, 2016).

Host. Diptera (*Asphondylia baca*, *A. diervillae*) (Maeto, 1991; Matsuo *et al.*, 2016).

***Bracon tamabae* Maeto**

Bracon tamabae Maeto, 1991. Type. ♀, from Japan, in NIAES.

Distribution. Japan.

Distribution within Japan. Honshu: Chiba Prefecture, Kanagawa Prefecture, Mie Prefecture, Shizuoka Prefecture, Tokyo Prefecture (Mainland, Hachijo Island, Izu-Oshima Island, Kozu Island, Miyake Island, Nijima Island); Shikoku: Ehime Prefecture, Kochi Prefecture; Kyushu: Fukuoka Prefecture, Kagoshima Prefecture (mailand and Yakushima Island) (Maeto, 1991; Tabuchi & Amano, 2003, 2004; Matsuo *et al.*, 2016).

Host. Diptera (*Asteralobia sasaki*, *A. soyogo*, *Daphnephila machilicola*, *Illiciomyia yukawai*, *Masakimyia pustulae*, *Pseudasphondylia neolitsea*) (Matsuo *et al.*, 2016).

***Bracon terebella* (Wesmael)**

Bracon terebella Wesmael, 1838. Type. ♀, from Belgium, in IRSNB, designation of lectotype by Papp, 2012.

Bracon (Glabrobracon) terebella (Wesmael, 1838).

Bracon (Glabrobracon) breviterebris Fahringer, 1928.

Bracon (Glabrobracon) miaricola Strand, 1928.

Bracon (Glabrobracon) unicolor Telenga, 1936.

Distribution. Algeria, Armenia, Azerbaijan, Belgium, Cyprus, Czech Republic, Denmark, Finland, France, Germany, Hungary, Israel, Italy, Korea, Moldova, Poland, Romania, Russia, Slovakia, Slovenia, Sweden, Switzerland, Syria, Turkey, USA, Ukraine, United Kingdom.

Distribution within Japan. Japan (no further location mentioned) (Tobias & Belokobylskij, 2000).

Host. Hymenoptera (*Cephus cinctus*, *C. pygmeus*,

Trachelus tabidus), Coleoptera (*Cionus scrophulariae*, *Gymnetron campanulae*).

***Bracon tsukubai* Tobias**

Bracon tsukubai Tobias, 2000. Type. ♀, from Japan, in ZISP.

Distribution. Japan.

Distribution within Japan. Honshu: Ibaraki Prefecture (Tobias & Belokobylskij, 2000).

Host. Unknown.

Note. The species was named after a place (Tsukuba) and not a person and should better have been called "tsukubaensis".

***Bracon ussuricus* Tobias**

Bracon ussuricus Tobias, 2000. Type. ♀, from Japan, in ZISP.

Distribution. Japan, Russia.

Distribution within Japan. Honshu: Fukushima Prefecture (Tobias & Belokobylskij, 2000).

Host. Unknown.

***Bracon variegator* (Spinola)**

Bracon variegator Spinola, 1808. Type. ♀, from Italy, in MRSN.

Bracon lineatellae (Fischer, 1968)

Bracon melanosoma Szépligeti, 1901

Bracon micros Szépligeti, 1901

Bracon nanulus Szépligeti, 1901

Bracon variegator (Spinola, 1808)

Distribution. Afghanistan, Armenia, Austria, Azerbaijan, Belgium, Bulgaria, China, Cyprus, Czech Republic, France, Germany, Greece, Hungary, Iran, Ireland, Israel, Italy, Kazakhstan, Korea, Latvia, Macedonia, Moldova, Mongolia, Montenegro, New Zealand, Poland, Romania, Russia, Serbia, Slovenia, Spain, Tajikistan, Tunisia, Turkey, Turkmenistan, Ukraine, United Kingdom, Uzbekistan.

Distribution within Japan. Japan (no further location mentioned) (Tobias & Belokobylskij, 2000).

Host. Lepidoptera (*Adoxophyes orana*, *Agonopterix propinquella*, *Anarsia lineatella*, *Archips rosana*, *Coleophora ibipennella*, *Cydia strobilella*, *Earias insulana*, *Endrosis sarcitrella*, *Ephestia terebellum*, *Pandemis cerasana*, *Pandemis heparana*, *Phyllonorycter kleemannella*, *Phyllonorycter mespilella*, *Recurvaria nanella*, *Teleiodes modestus*, *Tortrix viridana*, *Yponomeuta padella*), Coleoptera (*Anobium abietis*).

***Bracon yakui* Watanabe**

Bracon yakui Watanabe, 1937. Type. ♀, from Japan, in EIHU.

Bracon (Sculptobracon) burjatius Tobias, 1961.

Distribution. Japan, Korea, Russia.

Distribution within Japan. Hokkaido (Watanabe, 1937; Shenefelt, 1978; Papp, 1996).

Host. Lepidoptera (*Clostera anastomosis*).

***Bracon yasudai* Maeto & Uesato**

Bracon yasudai Maeto & Uesato, 2007. Type. ♀, from Japan, in NIAES.

Distribution. Japan.

Distribution within Japan. Amami Islands: Oshiwa Island; Ryukyu Islands: Aguni Island, Ie Island, Iheya Island, Ishigaki Island, Kouri Island, Kume Island, Miyako Island, Okinawa Island, Tarama Island, Tonaki Island, Yonaguni Island (Maeto & Uesato, 2007).

Host. Coleoptera (*Cylas formicarius*, *Eusepepes postfasciatus*).

Genus *Calcaribracon* Quicke

Calcaribracon Quicke, 1986. Type. *Calcaribracon rostratus* Quicke, 1986 by original designation.

Diagnosis. Antennae shorter than fore wing; scapus shorter ventrally than dorsally; scapus smoothly narrowed basally; terminal flagellomere acuminate; dorsal clypeal margin curved and not carinate; face with a parallel-sided, mid-longitudinal area bordered laterally by a pair of carinae; eyes glabrous; mesosoma smooth and shiny; notauli moderately impressed; scutellar sulcus crenulate; propodeum smooth without midlongitudinal carina; angle between fore wing veins IRS and C+SC+R more than 55 degrees; fore wing vein 2CUa posteromedially with a spur; hind wing with a spurious vein posterior to and sub-parallel to 2-M; base of hind wing more or less evenly setose; basal lobe of claws pointed*; metasomal tergites 1 and 2 movably joined; first metasomal tergite without dorsal carinae; second metasomal tergite without a mid-basal area.

* Some extralimital species have a bifurcate claw and would key to *Pseudoshirakia* in couplet 1; *Pseudoshirakia* differs in having a coarsely sculptured metasoma.

Distribution. Australasia, Eastern Palaearctic, Oceania, Oriental.

***Calcaribracon nipponensis* (Watanabe)**

Bracon nipponensis Watanabe 1937. Type. ♀, from Japan, in EIHU.

Calcaribracon nipponensis (Watanabe, 1937).

Calcaribracon (Arostrobracon) sinensis Quicke, 1988.

Distribution. China, Japan.

Distribution within Japan. Honshu: Aichi Prefecture, Hiroshima Prefecture, Iwate Prefecture, Niigata Prefecture, Saitama Prefecture, Tochigi Prefecture, Wakayama Prefecture; Shikoku: Ehime Prefecture, Kagawa Prefecture; Kyushu: Fukuoka Prefecture (Watanabe, 1937, 1960; Kotani, 1980; Maeto, 1992; Maeto & Nakamura, 1995; Toyoshima, 1996; Nambu, 2000; Fujie & Shimizu, 2015; Katayama & Fujie, 2017).

Host. Lepidoptera (*Nokona regalis*, *Similipepsis takizawai*).

Genus *Callibracon* Ashmead

Callibracon Ashmead, 1900. Type. *Bracon limbatus* Brullé, 1846.

Poecilobracon Cameron, 1901. Type. *Poecilobracon flaviceps* Cameron, 1901.

Diagnosis. Antennae longer than fore wing; basal flagellomere cylindrical; terminal flagellomere not acuminate; scapus ventrally produced; dorsal clypeal margin curved; antennal sockets without groove running to eye; eyes glabrous; frons glabrous except at edge; mesosoma smooth and shiny; propleural carina absent; mesoscutum largely glabrous; scutellar sulcus crenulate; precoxal sulcus absent; mesopleural suture smooth; propodeum smooth, without lateral carinae; fore wing vein 1-M moderately curved; angle between fore wing veins IRS and C+SC+R more than 55 degrees; fore wing vein rs-m as long as or shorter than 2RS; subdiscal cell of fore wing setose; fore wing vein 1cu-a interstitial or virtually so; fore wing vein 1CUB more or less straight; fore wing vein 2CUB not expanded posteromedially; base of hind wing with a glabrous area; hind wing vein 1r-m curved; basal lobe of claws rounded; metasomal tergites 1 and 2 movably joined; second metasomal tergite with antero-lateral, longitudinal grooves; second metasomal tergite with lateral longitudinal grooves parallel or diverging posteriorly and usually with large mediobasal triangular area; ovipositor with a pre-apical dorsal nodus.

Distribution. Australasia, Eastern Palaearctic, Oceania.

Callibracon kurentzovi (Belokobylskij)

Ipobracon kurentzovi Belokobylskij, 1986. Type. ♀, from Russia, in ZISP.

Callibracon kurentzovi (Belokobylskij, 1986).

Distribution. Japan, Russia.

Distribution within Japan. Shikoku: Ehime Prefecture. Tobias & Belokobylskij (2000) recorded this species from Shikoku without indicating detailed specimen data.

Host. Unknown.

Examined material. 1 ♀ "Ehime, Japan, Oda-cho 25. viii. 1996, E. Yamamoto" det. Belokobylskij (NIAES).

Genus *Campyloneurus* Szépligeti

Campyloneurus Szépligeti, 1900. Type. *Campyloneurus bicolor* Szépligeti, 1900 by original designation.

Diagnosis. Antennae longer than fore wing; antennae without annulus; terminal flagellomere not acuminate; scapus ventrally produced; dorsal clypeal margin carinate and composed of 3 straight sections; eyes glabrous; frons not impressed except for median sulcus; mesosoma smooth and shiny; notauli strongly impressed; scutellar sulcus

crenulate; precoxal sulcus absent; propodeum smooth without midlongitudinal or lateral carinae; fore wing vein 1-M straight; angle between fore wing veins IRS and C+SC+R more than 55 degrees; fore wing vein 1cu-a interstitial or virtually so; fore wing vein 1CUB more or less straight; fore wing vein 2CUa not expanded posteromedially; base of hind wing more or less evenly setose; basal lobe of claws rounded; metasomal tergites 1 and 2 movably joined; first metasomal tergite with incomplete dorsal carinae; metasomal tergites 3–5 with a sub-posterior, transverse often crenulate groove; ovipositor with a pre-apical dorsal nodus.

Distribution. Afrotropical, Australasia, Oriental, Western Palaearctic.

Campyloneurus cingulicauda Enderlein

Campyloneurus cingulicauda Enderlein, 1920. Type. ♀, from China-Taiwan, in MZPW.

Distribution. China, Japan.

Distribution within Japan. Ryukyu Islands: Iriomote Island (Kittel & Maeto, 2015).

Host. Unknown.

Genus *Chelonogastra* Ahmead

Chelonogastra Ahmead, 1900. Type. *Chelonogastra koebelei* Ashmead, 1900 by original designation.

Diagnosis. Basal flagellomeres cylindrical; scapus small, apically truncate, slightly shorter ventrally than dorsally in lateral aspect; eyes densely long-setose; mesoscutum largely glabrous; notauli complete, narrow, smooth; median area of metanotum at most forming a point or short carina anteriorly, always smooth mid-posteriorly; propodeum smooth without midlongitudinal or lateral carinae; fore wing veins IRS and C+SC+R more than 55 degrees; fore wing vein (RS+M)a straight after arising from 1-M; fore wing vein 1cu-a interstitial; fore wing vein 2CUa not expanded medioposteriorly; apex of hind wing vein C+SC+R with more than one hamule; tarsal claws simple, basal lobes large and rounded; metasoma coarsely sculptured; metasomal tergites 1 and 2 movably joined; metasomal tergite 2 with midbasal triangular area produced posteriorly to form a carina; posterior margin of 5th tergite with a distinct medial semicircular emargination (broad); dorsal valves of ovipositor smooth, without a pre-apical nodus; ovipositor sheaths shorter than the body.

Distribution. Eastern Palaearctic, Oriental; the records from Africa reflect confusion with *Monocoila Roman*.

Chelonogastra formosana Watanabe

Chelonogastra formosana Watanabe, 1937. Type. *Chelonogastra koebelei* form *formosana*, from China, collection unknown.

Distribution. China, Thailand.

Distribution within Japan. Ashmead has described the species *Chelonogastra koebelei* from Japan (Ashmead, 1906). Watanabe later described the form *Chelonogastra koebelei formosana* from Taiwan (Watanabe, 1937). By that time, Taiwan (then known as Formosa) was part of Japan. However, when Watanabe erected *Chelonogastra formosana* as a separate species from *Chelonogastra koebelei* (Watanabe, 1961), the newly erected species *C. formosana* has not been recorded from Japan. Shenefelt listed the species, but did not provide a reference to the presence of *C. formosana* in Japan (Shenefelt, 1978).

Host. Unknown.

Chelonogastra koebelei Ashmead

Chelonogastra koebelei Ashmead, 1900. Type. ♀, from Japan, in USNM, lectotype designation by Watanabe, 1957.

Distribution. China, Japan.

Distribution within Japan. Honshu: Chiba Prefecture, Hiroshima Prefecture, Hyogo Prefecture, Kanagawa Prefecture, Shizuoka Prefecture, Wakayama Prefecture; Shikoku: Ehime Prefecture, Kochi Prefecture; Kyushu: Kumamoto Prefecture (Ashmead, 1906; Watanabe, 1937, 1957; Kotani, 1980; Maeto & Nakamura, 1995; Kubo, 2000; Nagase, 2004; Suda, 2004).

Host. Unknown.

Genus *Coeloides* Wesmael

Coeloides Wesmael, 1838. Type. *Coeloides scolyticida* Wesmael, 1838. Designation by van Achterberg, 1982.

Syntomomelus Kokujev, 1902. Type. *Syntomomelus rossicus* Kokujev, 1902.

Habrobraconidea Viereck, 1912. Type. *Habrobraconidea bicoloripes* Viereck, 1912.

Coeloidina Viereck, 1922. Type. *Coeloides melanotus* Wesmael, 1838.

Cerobracon Viereck, 1926. Type. *Bracon secundus* Dalla Torre, 1898.

Diagnosis. Antennae longer than fore wing; antennae without annulus; terminal flagellomere not acuminate; basal flagellomere apically flared; scapus shorter ventrally than dorsally; dorsal clypeal margin curved and not carinate; eyes glabrous; frons moderately setose; frons strongly impressed; mesosoma smooth and shiny; propleural carina absent; mesoscutum largely glabrous; notauli strongly impressed; scutellar sulcus crenulate; precoxal sulcus absent; mesopleural suture smooth; propodeum smooth without midlongitudinal carina or lateral carinae; fore wing vein (RS+M)a straight; fore wing vein 1-M straight; angle between fore wing veins 1RS and C+SC+R more than 55 degrees; fore wing vein 1cu-a interstitial or virtually so; fore wing vein 2CuB not expanded posteromedially; base of hind wing more or less evenly setose; hind wing vein 1r-m curved; basal lobe of claws rounded; metasoma usually smooth but sometimes with extensive sculpture in extralimital species; metasomal tergites 1 and 2 movably joined; second metasomal tergite with

antero-lateral, longitudinal grooves, sometimes with distinct anterobasal triangular area; metasomal tergites 3–5 without transverse subposterior grooves; ovipositor with a pre-apical dorsal nodus.

Distribution. Nearctic, Neotropical, Oriental, Palearctic.

Coeloides abdominalis (Zetterstedt)

Bracon abdominalis Zetterstedt, 1838. Type. ♂, from Norway, in MZLU, lectotype designation by Haeselbarth, 1967.

Coeloides abdominalis (Zetterstedt, 1838).

Distribution. Armenia, Austria, China, Czech Republic, Czechoslovakia, Denmark, Finland, France, Germany, Hungary, Japan, Korea, Norway, Poland, Romania, Russia, Slovakia, Spain, Sweden, Switzerland, Turkey, United Kingdom.

Distribution within Japan. Hokkaido (Haeselbarth, 1967; Lawson *et al.*, 1996).

Host. Coleoptera (*Acanthocinus aedilis*, *Blastophagus minor*, *B. piniperda*, *Hylesinus fraxini*, *Hylurgops palliatus*, *Ips acuminatus*, *I. cembrae*, *I. sexdentatus*, *I. subelongatus*, *I. typographus*, *Melanophila cyanea*, *Orthotomicus proximus*, *Phloeotribus scarabaeoides*, *Pissodes harcyniae*, *Pi. notatus*, *Pi. piceae*, *Pi. validirostris*, *Scolytus multistriatus*, *S. ratzeburgi*, *S. rugulosus*, *Tomicus pilifer*); Diptera (*Lipara lucens*).

Note. *Coeloides* are apparently specialised parasitoids of wood-boring beetles, predominantly Curculionidae (Scolytinae), therefore a published record from the pine needle tortriced moth (*Epinotia pygmaeana*) should be treated with considerable caution.

Coeloides bostrichorum Giraud

Coeloides bostrichorum Giraud, 1872. Type. ♂ from Austria, in MNHN, lectotype designation by Haeselbarth, 1967.

Distribution. Austria, Bulgaria, China, Czech Republic, Czechoslovakia, Finland, France, Germany, Hungary, Iran, Italy, Japan, Mongolia, Poland, Russia, Slovakia, Sweden, Switzerland.

Distribution within Japan. Hokkaido (Watanabe, 1958).

Host. Coleoptera (*Blastophagus minor*, *B. piniperda*, *Carphoborus minimus*, *Cryphalus piceae*, *Ips amitinus*, *I. cembrae*, *I. duplicatus*, *I. sexdentatus*, *I. subelongatus*, *I. typographus*, *Orthotomicus erosus*, *O. laricis*, *O. proximus*, *Pissodes notatus*, *Pityogenes chalcographus*, *Pityokteines curvidens*, *Scolytus scotylus*).

Coeloides japonicus Watanabe

Coeloides japonicus Watanabe, 1958. Type. ♀ from Japan, in EIHU.

Distribution. Japan, Russia.

Distribution within Japan. Hokkaido (Watanabe, 1958; Haeselbarth, 1967).

Host. Coleoptera (*Hylesinus*).

***Coeloides scolyticida* Wesmael**

Coeloides scolyticida Wesmael, 1838. Type. ♂ from Belgium, in IRSNB, designation by Haeselbarth, 1967.

Coeloides initiatellus (Ratzeburg, 1848).

Distribution. Armenia, Austria, Belarus, Belgium, Bulgaria, Croatia, Czech Republic, Czechoslovakia, France, Georgia, Germany, Hungary, India, Italy, Japan, Kazakhstan, Korea, Latvia, Netherlands, Poland, Romania, Russia, Slovakia, Spain, Sweden, Switzerland, Ukraine, United Kingdom, Serbia.

Distribution within Japan. Hokkaido (Watanabe, 1937, 1958).

Host. Coleoptera (*Agrilus viridis*, *Blastophagus minor*, *Hylesinus fraxini*, *Ips typographus*, *Pissodes validirostris*, *Scolytus esuriens*, *S. multistriatus*, *S. pygmaeus*, *S. ratzeburgi*, *S. scotylus*, *Trypodendron domesticum*, *T. signatum*).

***Coeloides unguularis* Thomson**

Coeloides unguularis Thomson, 1892. Type. ♂ from Sweden, in MZLU, lectotype designation by Haeselbarth, 1967.

Distribution. Austria, China, Czech Republic, Czechoslovakia, Finland, France, Germany, Japan, Poland, Russia, Sweden, Switzerland.

Distribution within Japan. Hokkaido (Haeselbarth, 1967).

Host. Coleoptera (*Dryophilus pusillus*, *Hylurgops palliatus*, *Ips typographus*, *Scolytus butovitschi*, *S. esuriens*, *S. ratzeburgi*, *S. rugulosus*).

Genus *Cyanopterus* Haliday

Cyanopterus Haliday, 1835. Type. *Ichneumon flavator* Fabricius, 1793.

Bracambus Thomson, 1892. Type. *Vipio longipalpis* Thomson, 1892.

Ipoobracon Thomson, 1892. Type. *Bracon nigrator* Zetterstedt, 1838.

Cyanopteridea Viereck, 1911. Type. *Iphiaulax clyeolus* Szepigeti, 1905.

Atanycolimorpha Viereck, 1913. Type. *Atanycolimorpha winnemanae* Viereck, 1913.

Coeloidimorpha Viereck, 1913. Type. *Bracon (Melanobracon) webbi* Viereck, 1909.

Diagnosis. Antennae shorter than fore wing; terminal flagellomere acuminate; scapus ventrally produced; dorsal clypeal margin curved and not carinate; eyes glabrous; frons not impressed except for median sulcus; mesosoma smooth and shiny; notauli more or less absent; scutellar sulcus crenulate; propodeum smooth without midlongitudinal or lateral carinae; fore wing vein (RS+M)a straight; fore wing vein 1cu-a interstitial or virtually so; fore wing vein 2CUa not expanded posteromedially; base of hind wing more or less evenly setose; basal lobe of claws rounded; metasomal tergites

1 and 2 movably joined; first metasomal tergite without dorsal carinae; second metasomal tergite with posteriorly-diverging (smooth) submedial grooves, midbasal triangular area large but sometimes very weak; metasomal tergites 3–5 with or without transverse subposterior grooves.

Distribution. Afrotropical, Australasian, Nearctic, Neotropical, Oceania, Oriental, Palearctic.

***Cyanopterus flavator* (Fabricius)**

Ichneumon flavator Fabricius, 1793. Type. ♀, from unknown location, in SNM, lectotype designation by van Achterberg, 1982.

Cyanopterus barcinonensis (Marshall, 1897).

Cyanopterus flavator (Fabricius, 1793).

Cyanopterus flavulator (Ratzeburg, 1844).

Cyanopterus longipalpis (Thomson, 1892).

Distribution. Algeria, Canary Islands, Croatia, Cyprus, Czech Republic, Czechoslovakia, Finland, France, Germany, Greece, Hungary, Israel, Italy, Japan, Kazakhstan, Korea, Latvia, Morocco, Netherlands, Poland, Portugal, Romania, Russia, Spain, Sweden, Switzerland, Syria, Tunisia, Ukraine, United Kingdom.

Distribution within Japan. Hokkaido (Watanabe, 1937).

Host. Coleoptera (*Acanthocinus griseus*, *Acanthoderes clavipes*, *Bostrichus capucinus*, *Hesperophanes pallidus*, *Monochamus galloprovincialis*, *M. sartor*, *Morimus asper*, *Phymatodes testaceus*, *Pogonocherus fasciculatus*, *Po. hispidus*, *Rhagium inquisitor*, *Saperda scalaris*); Diptera (*Sphenella marginata*).

***Cyanopterus hinoemataensis* Belokobylskij**

Cyanopterus hinoemataensis Belokobylskij, 2000. Type. ♀ from Japan. The specimen is supposed to be in the NIAES collection, but it is not.

Distribution. Japan.

Distribution within Japan. Honshu: Fukushima Prefecture (Tobias & Belokobylskij, 2000).

Host. Unknown.

Note. In the study by Maleque *et al.* (2010), at least one species of *Cyanopterus* was found in Honshu in the Ibaraki Prefecture. Considering that the other species has been recorded from Hokkaido, it is likely that the study by Maleque *et al.* included this species.

Genus *Dioxybracon* Granger

Dioxybracon Granger, 1949. Type. *Dioxybracon mucronatus* Granger, 1949 by original designation and monotypy.

Pedinopleura van Achterberg, 1984. Type. *Pedinopleura marginata* van Achterberg, 1984 by original designation. Synonymised by Quicke *et al.* (2019).

Diagnosis. Terminal flagellomere not acuminate; scapus small, shorter ventrally than dorsally in lateral aspect; dorsal clypeal margin not carinate; mesoscutum densely and

evenly setose; mesoscutum with a pair of sub-medial, mid-longitudinal grooves anteriorly; precoxal sulcus absent; mesopleural suture smooth; metanotum with a complete mid-longitudinal carina; propodeum with a complete, lamelliform, mid-longitudinal carina; base of hind wing with a glabrous area; basal lobe of claws pointed; first metasomal tergite with incomplete dorsal carinae; metasomal tergites 1 and 2 fused; second metasomal tergite longer medially than sub-medially; second metasomal tergite without antero-lateral, longitudinal grooves; ovipositor with a pre-apical dorsal notch or nodus.

Distribution. Afrotropical (including Madagascar and Aldabra), Australasia, Oriental.

***Dioxybracon koshunensis* (Watanabe) comb. nov.**

Bracon koshunensis Watanabe, 1934. Type. ♀ from China, in IPS, designation by van Achterberg, 1984.

Pedinopleura koshunensis (Watanabe, 1934).

Dioxybracon koshunensis (Watanabe, 1934) comb. nov.

Distribution. China, Japan.

Distribution within Japan. Ryukyu Islands: Ishigaki Island, Okinawa Island, Yonaguni Island. This is a new record of the genus and species in Japan.

Host. Unknown.

Examined material. 2 ♀♀, Japan: Okinawa: Nago_c, Sukuta, 26°33'45"N/127°59'18"E, 23 Sep. 2013 (Alt 50 m), Masato Ito leg. (OMNH); 1 ♀, Japan: Okinawa Ishigaki_c, Takeda-Path, 24°24'38"N/124°11'11"E, 18 Mar 2012 (Alt 80m), Masato Ito leg. (OMNH); 1 ♀, Japan: Okinawa: Yonaguni Is, Sonai, 4°28'10"N/123°00'13"E, 21 Jun 2013 (Alt 5m), Masato Ito leg. (OMNH).

Genus *Ectemnoplax* Enderlein

Ectemnoplax Enderlein, (1918) 1920. Type. *Ectemnoplax peruliventris* Enderlein, (1918) 1920 by original designation.

Diagnosis. Scapus small, short, apically truncate; basal flagellomeres cylindrical; eyes usually small, distance between eye and mandible usually more than 0.15 × height of the eye; eyes more or less densely long-setose; not or hardly dorso-ventrally compressed, mesosoma less than 3.2 × longer than high; median area of metanotum at most forming a point or short carina anteriorly, always smooth mid-posteriorly; propodeum smooth without midlongitudinal carina; fore wing vein (RS+M) a straight or weakly angled or curved after arising from 1-M; fore wing vein 1cu-a interstitial to antefurcal; fore wing vein 2CUa not swollen posteriorly; apex of hind wing vein C+SC+R with more than one hamule; hind telotarsus, excluding the claw, less than 0.8 × the length of the hind basitarsus; tarsal claws simple; basal lobes of claws small, ventrally rounded; metasoma coarsely sculptured; metasomal tergites 1 and 2 movably joined; metasomal tergite 2 with midbasal triangular area produced posteriorly to form a carina; posterior margin of 5th tergite with a distinct medial semicircular emargination (narrow); ovipositor sheaths less than 1.2 × longer than the fore wing; dorsal valves

of ovipositor smooth, without a pre-apical nodus or sharp angle, lower valves smooth or with very weak serrations only near the extreme apex; ovipositor sheaths shorter than the body.

Distribution. Eastern Palaearctic, Oriental.

***Ectemnoplax peruliventris* Enderlein**

Ectemnoplax peruliventris Enderlein, 1920. Type. ♀, from China, in MZPW, lectotype designation by Quicke & van Achterberg, 1990.

Distribution. China, Japan, Thailand (unpublished observation).

Distribution within Japan. Honshu: Hiroshima Prefecture, Kyoto Prefecture, Shiga Prefecture, Tokyo Prefecture; Shikoku: Ehime Prefecture; Kyushu: Oita Prefecture (Watanabe, 1937; Maeto & Nakamura, 1995; Maeto & Yamamoto, 2000).

Host. Unknown.

Genus *Euurobracon* Ashmead

Euurobracon Ashmead, 1900. Type. *Bracon penetrator* Smith, 1877.

Delmira Cameron, 1900. Type. *Delmira triplagiata* Cameron, 1900.

Exobracon Szépligeti, 1902. Type. *Bracon quadriceps* Smith, (1860) 1861.

Lissobracon Cameron, 1905. Type. *Lissobracon foricornis* Cameron, 1905.

Diagnosis. Large to very large wasps, body length (females) 14 – 21mm; antennae shorter than fore wing; terminal flagellomere not acuminate; scapus shorter ventrally than dorsally in lateral aspect; dorsal clypeal margin curved and not carinate; eyes glabrous; frons moderately impressed; mesosoma smooth and shiny; notauli more or less absent; scutellar sulcus smooth; propodeum smooth without midlongitudinal carina; angle between fore wing veins IRS and C+SC+R more than 55 degrees; fore wing vein 1cu-a far postfurcal; base of hind wing more or less evenly setose; basal lobe of claws rounded; metasoma smooth and shiny; metasomal tergites 1 and 2 movably joined; first metasomal tergite with incomplete dorsal carinae; second metasomal tergite without a mid-basal area; second metasomal tergite with lateral longitudinal grooves parallel or diverging posteriorly; third metasomal tergite with antero-lateral areas defined posteriorly by a pair of posteriorly diverging grooves; ovipositor from nearly body length to much longer than body.

Distribution. Australasian (Papua New Guinea), Eastern Palaearctic, Oriental; the record from Fiji of *Exobracon nitidulus* Brues is a generic misidentification, see Quicke, 1989.

Note. Species may be identified using the key of Quicke (1989).

***Euurobracon breviterebrae* Watanabe**

Euurobracon breviterebrae Watanabe, 1934. Type. ♀, from China, in EIHU.

Distribution. China, Japan.

Distribution within Japan. Honshu: Chiba Prefecture, Hiroshima Prefecture, Ishikawa Prefecture, Kanagawa Prefecture, Kyoto Prefecture, Niigata Prefecture, Shizuoka Prefecture, Tochigi Prefecture, Tokyo Prefecture (Mainland), Yamanashi Prefecture (Mt Fuji); Shikoku: Ehime Prefecture, Kagawa Prefecture (Watanabe, 1934a, 1937; Kotani, 1980; Quicke, 1989; Maeto & Nakamura, 1995; Toyoshima, 1996; Maeto & Yamamoto, 2000; Togashi, 2000; Nakamura, 2003; Suda, 2003, 2009; Nagase, 2008; Fujie & Maeto, 2014; Fujie & Shimizu, 2015).

Host. Unknown.

***Euurobracon yokahamae* (Dalla Torre)**

Bracon yokahamae Dalla Torre, 1898. Replacement name.

Type. ♀, from Japan, in HECO.

Bracon penetrator (Smith, 1877) (NOT Smith, 1863).

Euurobracon ashmeadi (Sonan, 1933).

Euurobracon melanospilus (Cameron, 1910).

Euurobracon nigropectus (Cameron, 1910).

Euurobracon yokahamae (Dalla Torre, 1898).

Rogas melanospilus (Cameron, 1911).

Distribution. China, India, Japan, South Korea, Laos, Thailand.

Distribution within Japan. Japan (no further location mentioned) (Ashmead, 1906; Watanabe, 1957); Honshu: Aomori Prefecture, Fukui Prefecture, Gifu Prefecture, Hiroshima Prefecture, Hyogo Prefecture, Ibaraki Prefecture, Ishikawa Prefecture, Kanagawa Prefecture, Mie Prefecture, Niigata Prefecture, Osaka Prefecture, Shizuoka Prefecture, Tochigi Prefecture, Tokyo Prefecture, Yamagata Prefecture; Shikoku: Kagawa Prefecture; Kyushu: Kagoshima Prefecture (Cameron, 1910; Matsumura, 1912; Sonan, 1933; Watanabe, 1934a, 1937; Kotani, 1980; Quicke, 1989; Maeto & Nakamura, 1995; Toyoshima, 1996; Togashi, 1999; Oshino & Hisamatsu, 2002; Nakamura, 2003; Nagase, 2004; Takatsuki *et al.*, 2011; Ito, 2012; Watanabe *et al.*, 2012; Fujie & Shimizu, 2015; Yoshida & Yagi, 2016; Kaga *et al.*, 2018).

Host. Coleoptera (*Batocera lineolate*, *Massicus raddei*) (Kaga *et al.*, 2018).

Genus ***Habrobracon*** Ashmead

Habrobracon, Ashmead, 1895. Type. *Bracon gelechia* Ashmead, 1895, designation by Viereck, 1914.

Diagnosis. Antennae shorter than fore wing; antennae without annulus; terminal flagellomere acuminate; basal flagellomere terete; scapus shorter ventrally than dorsally; dorsal clypeal margin curved and not carinate; eyes moderately setose; frons extensively setose; frons not impressed except for median sulcus; mesosoma smooth and shiny; mesoscutum largely glabrous; notauli more or less absent; scutellar sulcus crenulate; precoxal sulcus absent; propodeum smooth without midlongitudinal or lateral carinae; fore wing vein (RS+M)a straight; fore wing vein 1-M straight; angle between fore wing

veins 1RS and C+SC+R more than 55 degrees; fore wing vein 1cu-a interstitial or virtually so; fore wing vein 1CUb more or less straight; fore wing vein 2CUb without a spur; base of hind wing more or less evenly setose; hind wing vein 1r-m straight; basal lobe of claws pointed; first metasomal tergite without dorsal carinae; metasomal tergites 1 and 2 movably joined; second metasomal tergite without antero-lateral, longitudinal grooves and without midbasal triangular area; ovipositor with a pre-apical dorsal nodus, shorter than body.

Distribution. Afrotropical, Australasian, Nearctic, Neotropical, Oceania, Oriental, Palearctic.

***Habrobracon hebetor* (Say)**

Bracon hebetor Say, 1836. Type. From U.S.A., lost (Shenefelt, 1978).

Habrobracon asiaticus Telenga, 1936.

Habrobracon beneficentior Viereck, 1911.

Habrobracon breviantennatus (de Stefani, 1919).

Habrobracon brunneus Szépligeti, 1901.

Habrobracon dorsator (Say, 1836).

Habrobracon flavus Telenga, 1936.

Habrobracon hebetor (Say, 1836).

Habrobracon juglandis (Ashmead, 1889).

Habrobracon loszinkii Bogacev, 1939.

Habrobracon pectinophorae Watanabe, 1935.

Habrobracon plotnicovi Bogoljubov, 1914.

Habrobracon serinopae (Cherian, 1929).

Habrobracon tortricidarum Goidanich, 1934.

Habrobracon turkestanicus Telenga, 1936.

Habrobracon vernalis Szépligeti, 1901.

Distribution. Afghanistan, Algeria, Argentina, Armenia, Australia, Azerbaijan, Azores, Bangladesh, Barbados, Belgium, Bermuda, Botswana, Brazil, Bulgaria, Canada, Canary Islands, Cape Verde Islands, China, Croatia, Cuba, Cyprus, Czech Republic, Czechoslovakia, Egypt, France, Georgia, Germany, Greece, Hungary, India, Iran, Iraq, Ireland, Israel, Italy, Jamaica, Japan, Kazakhstan, Korea, Lesotho, Lithuania, Macedonia, Madeira Islands, Malaysia, Mauritius, Mexico, Moldova, Mongolia, Morocco, Mozambique, Myanmar, Netherlands, New Zealand, Niger, Nigeria, Pakistan, Peru, Poland, Portugal, Puerto Rico, Romania, Russia, Saudi Arabia, Senegal, Serbia, Singapore, Slovakia, Slovenia, South Africa, Spain, Sri Lanka, Sudan, Sweden, Switzerland, Syria, Tajikistan, Thailand, Tunisia, Turkey, Turkmenistan, USA, Ukraine, United Kingdom, Uzbekistan, Vietnam.

Distribution within Japan. Honshu: Ibaraki Prefecture, Tokyo Prefecture (Watanabe, 1937; Chomphukhiao *et al.*, 2018).

Host. Coleoptera (*Anthonomus grandis*, *Caryedon serratus*); Hymenoptera (*Apanteles taragamae*); Lepidoptera (*Achroia grisella*, *Adisura atkinsoni*, *Ancylois undulatella*, *Antigastra catalaunalis*, *Apomyelois ceratoniae*, *Arenipses sabella*, *Cactoblastis cactorum*, *Cadra calidella*, *Cad. cautella*, *Cad. figulilella*, *Chilo infuscatellus*, *Ch. suppressalis*, *Cnaphalocrocis medinalis*, *Cnephasia nubilana*, *Cne. pasquana*, *Corcyra cephalonica*, *Crocidolomia pavonana*,

Cydia funebrana, *Cy. leucostoma*, *Cy. pomonella*, *Depressaria*, *Diatraea saccharalis*, *Earias insulana*, *Ea. vittella*, *Ephestia elutella*, *Ep. kuehniella*, *Etiella zinckenella*, *Eublemma amabilis*, *Euzophora bigella*, *Exoteleia dodecella*, *Galleria mellonella*, *Grapholita molesta*, *Helicoverpa armigera*, *Helic. zea*, *Heliocheilus albipunctella*, *Heliothis peltigera*, *Heliot. virescens*, *Hellula undalis*, *Homoeosoma nebulella*, *Laetitia coccidivora*, *Leucinodes orbonalis*, *Maruca vitrata*, *Opisina arenosella*, *Opogona sacchari*, *Ostrinia nubilalis*, *Pammene amygdalana*, *Pam. gallicolana*, *Papilio demoleus*, *Paralipsa gularis*, *Pectinophora gossypiella*, *Pexicopia malvella*, *Pieris rapae*, *Plodia interpunctella*, *Prays oleae*, *Pseudohypatopa pulvereana*, *Pyralis farinalis*, *Pyrausta purpuralis*, *Pyrau. sanguinalis*, *Rhyacionia buoliana*, *Scirpophaga nivella*, *Sesamia inferens*, *Se. inferens*, *Se. nonagrioides*, *Se. poephaga*, *Sitotroga cerealella*, *Spilonota ocellana*, *Spodoptera littoralis*, *Stenachroia elongella*, *Stomopteryx nerteria*, *Tineola bisselliella*, *Vitula biviella*, *V. edmandsii*, *Yponomeuta malinella*). Some of these host records are unreliable and the principal hosts are stored product pests and concealed stem-borers.

Note. *Habrobracon brevicornis* previously treated as a synonym of *H. hebetor*, was recently revalidated (Kittel & Maeto, 2019). Kittel & Maeto also showed that *H. hebetor* occurs in Japan, but the presence of *H. brevicornis* in Japan is uncertain.

Genus *Iphiaulax* Förster

Iphiaulax Förster, 1862. Type. *Ichneumon impostor* (Scopoli, 1763).

Aniphiaulax Kokujev, 1899. Type. *Vipio jakowlewi* (Kokujev, 1898).

Iphiaulacidea Fahringer, 1926. Type. *Ichneumon impostor* (Marsh, 1979).

Diagnosis. Antennae longer than fore wing; antennae without annulus; terminal flagellomere not acuminate; basal flagellomere cylindrical; scapus ventrally produced, apically with one apico-medial area; dorsal clypeal margin curved and carinate; antennal sockets without groove running to eye; eyes glabrous; frons glabrous except at edge; frons moderately impressed; mesosoma smooth and shiny; mesoscutum largely glabrous; notauli more or less absent; scutellar sulcus crenulate; precoxal sulcus absent; propodeum smooth; propodeum without midlongitudinal or lateral carinae; fore wing vein 1-M straight; angle between fore wing veins 1RS and C+SC+R more than 55 degrees; fore wing vein 1cu-a interstitial or virtually so; fore wing vein 2CUB not expanded posteriorly; base of hind wing with a glabrous area; hind wing vein 1r-m curved, usually longer than R1; basal lobe of claws rounded; metasoma usually largely sculptured; metasomal tergites 1 and 2 movably joined; second metasomal tergite without midbasal triangular area; third metasomal tergite with antero-lateral areas defined posteriorly by a pair of posteriorly diverging grooves; metasomal tergites 3–5 with a sub-posterior, transverse often crenulate groove.

Distribution. Afrotropical, Australasian, Oceania, Oriental,

Palearctic.

Note. Possibly also Nearctic but all described New World species are assignable to *Digonogastra* Viereck (Quicke, 1988).

Iphiaulax impostor (Scopoli)

Ichneumon impostor Scopoli, 1763. Type. Collection unknown.

Iphiaulax carissimus Shestakov, 1927.

Iphiaulax coccineus (Geoffroy, 1785) NOT Brullé, 1846.

Iphiaulax ignotus (Christ, 1791).

Iphiaulax impostor (Scopoli, 1763).

Iphiaulax incertus (Christ, 1791).

Iphiaulax infuscatus Shestakov, 1927.

Iphiaulax parvulus Shestakov, 1927.

Iphiaulax pulchellus Telenga, 1936.

Iphiaulax senex Shestakov, 1927.

Iphiaulax sibiricus Shestakov, 1927.

Distribution. Albania, Algeria, Armenia, Azerbaijan, Bulgaria, China, Croatia, Cyprus, Czech Republic, Czechoslovakia, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iran, Israel, Italy, Japan, Kazakhstan, Korea, Latvia, Lithuania, Macedonia, Mongolia, Montenegro, Morocco, Poland, Portugal, Romania, Russia, Slovakia, Spain, Sudan, Sweden, Switzerland, Tajikistan, Turkey, Turkmenistan, Ukraine, United Kingdom.

Distribution within Japan. Hokkaido; Honshu: Chiba Prefecture, Fukui Prefecture, Hiroshima Prefecture, Ibaraki Prefecture, Kanagawa Prefecture, Kyoto Prefecture, Okayama Prefecture, Tochigi Prefecture, Tokyo Prefecture, Wakayama Prefecture; Shikoku: Ehime Prefecture, Kagawa Prefecture, Kochi Prefecture, Tokushima Prefecture (Matsumura, 1931; Watanabe, 1937; Minamikawa, 1955; Kotani, 1980; Maeto & Nakamura, 1995; Toyoshima, 1996; Nakamura, 2003; Nagase, 2004; Suda, 2004; Maleque *et al.*, 2010; Watanabe *et al.*, 2012; Katayama & Fujie, 2017).

Host. Coleoptera (*Acanthocinus aedilis*, *Acanthoderes clavipes*, *Acanthod. varius*, *Anthaxia morio*, *Apriona germarii*, *Icosium tomentosum*, *I. tomentosum*, *Leiopus nebulosus*, *Monochamus galloprovincialis*, *M. sutor*, *Oberea linearis*, *Plagionotus arcuatus*, *Purpuricenus budensis*, *Rhagium inquisitor*, *Saperda populnea*, *S. populnea*); Lepidoptera (*Xyleutes persona*, *Zeuzera leuconotum*).

Genus *Megalommum* Szépligeti

Megalommum Szépligeti, 1900. Type. *Megalommum oculatum* Szépligeti, 1900, designation by Viereck, 1914. ♀, from Papua New Guinea in HNHM.

Curriea Ashmead, 1900. Type. *Curriea fasciatipennis* Ashmead, 1900.

Endovipio Turner, 1922. Type. *Endovipio ceresensis* Turner, 1922.

Diagnosis. Antennae longer than fore wing; antennae without annulus; terminal flagellomere acuminate; basal flagellomere cylindrical; scapus ventrally produced, without

apico-medial area; dorsal clypeal margin curved and carinate; antennal sockets with groove; eyes glabrous; frons glabrous except laterally; frons strongly impressed; mesosoma smooth and shiny; mesoscutum largely glabrous; notauli more or less absent; scutellar sulcus crenulate; precoxal sulcus absent; propodeum smooth, without midlongitudinal or lateral carinae; fore wing vein 1-M straight; angle between fore wing veins 1RS and C+SC+R more than 55 degrees; fore wing vein 2cu-a widened anteriorly (or medially); hind wing vein rs-m curved; basal lobe of claws rounded; metasoma largely smooth and shiny; metasomal tergites 1 and 2 movably joined; second metasomal tergite with large mid-lasal triangular area; second metasomal tergite with posteriorly diverging submedial grooves and large midbasal triangular area; third metasomal tergite with antero-lateral areas defined posteriorly by a pair of posteriorly diverging grooves. Ovipositor thin, without preapical nodus.

Distribution. Afrotropical, Australasian, Oceania, Oriental, Palaearctic.

Megalommum tibiale (Ashmead)

Curriea tibialis Ashmead, 1906. ♀, from Japan, in USNM, lectotype designation by Watanabe, 1957.

Aphrastobracon tibialis (Ashmead, 1906).

Melanobracon tibialis (Ashmead, 1906).

Megalommum tibiale (Ashmead, 1906).

Distribution. China, Japan.

Distribution within Japan. Honshu: Gifu Prefecture, Kanagawa Prefecture, Kyoto Prefecture, Shimane Prefecture, Shizuoka Prefecture; Shikoku: Ehime Prefecture (Ashmead, 1906; Watanabe, 1937; Kotani, 1980; Maeto & Nakamura, 1995; Maeto & Yamamoto, 2000; Nagase, 2004).

Host. Unknown.

Genus *Philomacroploea* Cameron

Philomacroploea Cameron, 1905. Type. *Philomacroploea basimacula* Cameron, 1905 by original designation.

Diagnosis. Dorsal clypeal margin not carinate; mesoscutum densely and evenly setose; precoxal sulcus present; mesopleural suture crenulate; scutellar sulcus crenulate; propodeum with a complete, lamelliform, mid-longitudinal carina; base of hind wing more or less evenly setose; basal lobe of claws rounded; number of coarsely sculptured metasomal tergites 6 or more; first metasomal tergite with complete dorsal carinae; metasomal tergites 1 and 2 fused; second metasomal tergite longer medially than sub-medially; second metasomal tergite without antero-lateral, longitudinal grooves; metasomal 5 of female with medioposterior, semicircular emargination; ovipositor with a weak pre-apical dorsal nodus.

Distribution. Oriental.

Philomacroploea basimacula Cameron

Philomacroploea basimacula Cameron, 1905. Type. ♀, from

Sri Lanka, in BMNH, designation by van Achterberg, 1984.

Distribution. China, India, Japan, Sri Lanka.

Distribution within Japan. Ryukyu Islands: Iriomote Island (Kittel & Maeto, 2015).

Host. Lepidoptera (*Euploea phaenareta*).

Genus *Pseudoshirakia* van Achterberg

Pseudoshirakia van Achterberg, 1983. Type. *Bracon yokohamensis* Cameron, 1910.

Diagnosis. Scapus apically truncate, not longer ventrally than dorsally; mesoscutum smooth, shiny, largely glabrous, with setosity only near notauli; scutellar sulcus narrow and smooth; propodeum smooth without midlongitudinal or lateral carina; fore wing vein 1cu-a interstitial; fore wing vein (RS+M)a straight; fore wing vein 2CUa not swollen posteromedially; tarsal claws with pointed basal lobe, and with a separate tooth on the inner side; metasomal tergites 1 and 2 movably joined; antero-lateral grooves on third tergite present; metasoma coarsely sculptured with 6 visible tergites; exerted part of ovipositor shorter than metasoma.

Distribution. Eastern Palaearctic, Oriental.

Pseudoshirakia yokohamensis (Cameron)

Bracon yokohamensis Cameron, 1910. Type. ♂, from Japan, in BMNH.

Pseudoshirakia seitzi (Cameron, 1910).

Pseudoshirakia yokohamensis (Cameron, 1910).

Distribution. Bangladesh, China, India, Japan, Korea, Vietnam.

Distribution within Japan. Honshu: Chiba Prefecture, Fukui Prefecture, Hiroshima Prefecture, Kanagawa Prefecture, Osaka Prefecture, Saitama Prefecture, Tochigi Prefecture, Tokyo Prefecture Mainland and Izu Islands (Oshima Island, Hachijo Island), Wakayama Prefecture, Yamaguchi Prefecture; Shikoku: Ehime Prefecture, Kagawa Prefecture, Kochi Prefecture; Kyushu: Nagasaki Prefecture; Okinawa Prefecture (Cameron, 1910; Matsumura, 1931; Watanabe, 1934b, 1937, 1951; Kotani, 1980; van Achterberg, 1983; Toyoshima, 1990; Maeto & Nakamura, 1995; Takahashi, 1995; Kubo, 2000; Maeto & Yamamoto, 2000; Nambu, 2000; Nakamura, 2003; Nagase, 2004; Suda, 2004; Nambu, 2005; Suda, 2009; Watanabe *et al.*, 2012).

Host. Lepidoptera (*Scirpophaga nivella*).

Genus *Simplicibracon* Quicke

Simplicibracon Quicke, 1988. Type. *Simplicibracon maculigaster* Quicke, 1988 by original designation.

Diagnosis. Antennae shorter than fore wing; antennae without annulus; terminal flagellomere acuminate; basal flagellomere terete; scapus shorter ventrally than dorsally; dorsal clypeal margin curved and carinate; antennal sockets

without groove running to eye; eyes moderately setose; frons moderately impressed; propleural carina absent; mesoscutum moderately densely and evenly setose; notauli strongly impressed, crenulate; scutellar sulcus crenulate; precoxal sulcus absent; propodeum with a complete, lamelliform, mid-longitudinal carina, without lateral carinae; fore wing vein (RS+M) a weakly curved posteriorly; fore wing vein 1-M straight; angle between fore wing veins 1RS and C+SC+R more than 55 degrees; fore wing vein 1cu-a interstitial or virtually so; fore wing vein 2Cub without a spur; base of hind wing with a glabrous area; hind wing vein rs-m straight; basal lobe of claws pointed; metasoma coarsely sculptured; metasomal tergites 1 and 2 movably joined; second metasomal tergite without antero-lateral, longitudinal grooves; metasomal tergites 3–5 with a sub-posterior, transverse often crenulate groove; ovipositor with a pre-apical dorsal notch or nodus; volsella without a lobe.

Distribution. Australasian, Eastern Palearctic, Oriental.

Simplicibracon curticaudis Maeto

Simplicibracon curticaudis Maeto, 1991. Type. ♀, from Japan, in NIAES.

Distribution. Japan.

Distribution within Japan. Honshu: Tokyo Prefecture (Izu Islands); Kyushu: Kogashima Prefecture (Maeto, 1991; Matsuo *et al.*, 2016).

Host. Diptera (*Daphnephila machilicola*).

Genus *Stenobracon* Szépligeti

Stenobracon Szépligeti, 1901. Type. *Stenobracon oculatus* Szépligeti, 1901.

Elphea Cameron, 1903. Type. *Elphea lutea* Cameron, 1903.

Phanaulax Cameron, 1910. Type. *Phanaulax levituberculatus* Cameron, 1910.

Diagnosis. Scapus ventrally produced; face with a medio-basal triangular area bordered by sulci laterally; mesoscutum largely glabrous; notauli moderately impressed; scutellar sulcus crenulate; precoxal sulcus absent; propodeum smooth; fore wing vein (RS+M) a distinctly curving anteriorly after arising from 1-M; fore wing second submarginal cell distally expanded; fore wing vein 1-M moderately curved; angle between fore wing veins 1RS and C+SC+R less than 55 degrees; fore wing vein 1Cub more or less straight; fore wing vein 2Cua not expanded posteromedially; base of hind wing with a glabrous area; basal lobe of claws rounded; metasomal tergites largely smooth; metasomal tergites 1 and 2 movably joined; second metasomal tergite with a mid-basal triangular area; second metasomal tergite with lateral longitudinal grooves parallel or diverging posteriorly; ovipositor with a pre-apical dorsal nodus.

Distribution. Australasian, Oceania, Oriental, Palearctic.

Note. Van Achterberg & Polaszek (1996) treated *Stenobracon* as a senior subjective synonym of the Afrotropical genus *Euvipio* Szépligeti, 1904, but we maintain

them separate based on the character used by Quicke (1987).

Stenobracon oculatus Szépligeti

Stenobracon oculatus Szépligeti, 1901. Type. ♂, from Borneo, in HNHM, lectotype designation by Shenefelt, 1978.

Stenobracon elegantulus (Enderlein, 1920).

Stenobracon fuscicornis (Cameron, 1910).

Stenobracon javanicus (Ishida, 1915).

Stenobracon luteus (Cameron, 1903).

Stenobracon maculatus Matsumura, 1910.

Stenobracon trifasciatus Szépligeti, 1908.

Distribution. China, India, Indonesia, Laos, Malaysia, Philippines, Vietnam.

Host. Lepidoptera (*Chilo infuscatellus*, *C. suppressalis*, *Procerata sacchariphaga*, *Scirpophaga incertulas*, *S. nivella*).

Note. Kishore *et al.* (2003) has reported *Stenobracon oculatus* Szépligeti (or rather the synonym *Stenobracon trifasciatus* Szépligeti) to occur in Japan, for which Kishore *et al.* cited FAO (1979). Shiraki (1917) reported this species from Formosa and Watanabe (1967) confirmed the occurrence. However, the island of Formosa (nowadays Taiwan) which now is part of China, but at that time belonged to Japan. This is the reason why *S. oculatus* has been included in the species list of Japan. Hence, the species *Stenobracon oculatus* Szépligeti should not be considered for the Japanese species list.

Genus *Syntomernus* Enderlein

Syntomernus Enderlein, (1918) 1920. Type. *Syntomernus pusillus* Enderlein, (1918) 1920 by original designation.

Diagnosis. Antennae longer than fore wing; terminal flagellomere acuminate; basal flagellomere terete; scapus shorter ventrally than dorsally; scape with no apico-medial area; dorsal clypeal margin curved and not carinate; antennal sockets without groove running to eye; eyes glabrous; frons not impressed except for median sulcus; mesosoma smooth and shiny; propleural carina absent; mesoscutum largely glabrous; scutellar sulcus crenulate; precoxal sulcus absent; propodeum smooth; propodeum without lateral carinae; fore wing vein (RS+M) a straight; fore wing vein 1-M straight; angle between fore wing veins 1RS and C+SC+R more than 55 degrees; fore wing vein 1cu-a interstitial or virtually so; fore wing vein 1Cub more or less straight; base of hind wing more or less evenly setose; hind wing vein rs-m straight; basal lobe of claws pointed; metasomal tergites 1 and 2 movably joined; ovipositor with a pre-apical dorsal notch or nodus; volsella without a lobe.

Distribution. Eastern Palearctic, Oriental.

Syntomernus pusillus Enderlein

Syntomernus pusillus Enderlein, 1920. Type. ♀, from China, in MZPW, lectotype designation by Quicke & van Achterberg, 1990.

Distribution. China, Japan (Kittel & Maeto, 2015).

Distribution within Japan. Ryukyu Islands: Iriomote Island (Kittel & Maeto, 2015).

Host. Unknown.

Genus *Testudobracon* Quicke

Testudobracon Quicke, 1986. Type. *Testudobracon niger* Quicke, 1986 by original designation.

Diagnosis. Face with a mid-longitudinal ridge; dorsal clypeal margin not carinate; mesoscutum densely and evenly setose; scutellar sulcus crenulated; precoxal sulcus present; mesopleural suture smooth; propodeum with a complete, lamelliform, mid-longitudinal carina; fore wing vein 1cu-a interstitial; base of hind wing more or less evenly setose; hind tibia moderately broad with a distinct longitudinal, lateral groove; basal lobe of claws pointed; with 6 coarsely sculptured metasomal tergites; first metasomal tergite without dorsal carinae; metasomal tergites 1 and 2 movably joined; second metasomal tergite longer medially than sub-medially; second metasomal tergite without antero-lateral, longitudinal grooves; metasomal tergites 3–5 with a sub-posterior, transverse often crenulate groove; females with posterior margin of metasomal tergite 6 more or less deeply incised medially; ovipositor longer than the metasoma.

Distribution. Australasian, Eastern Palaearctic, Oriental.

Testudobracon longicaudis Maeto

Testudobracon longicaudis Maeto, 1991. Type. ♀ from Japan, in NIAES.

Distribution. Japan.

Distribution within Japan. Shikoku: Tokushima Prefecture; Kyushu: Fukuoka Prefecture, Kagoshima Prefecture, Miyazaki Prefecture, Nagasaki Prefecture, Saga Prefecture (Maeto, 1991; Matsuo *et al.*, 2016).

Host. Diptera (*Asphondylia aucubae*, *A. baca*, *A. sphaera*) (Matsuo *et al.*, 2016).

Testudobracon pleuralis (Ashmead)

Chelonogastra pleuralis Ashmead, 1906. Type. ♀ from Japan, in USNM, lectotype by Watanabe, 1957.

Testudobracon pleuralis (Ashmead, 1906).

Distribution. China, Japan.

Distribution within Japan. Honshu: Ibaraki Prefecture, Kanagawa Prefecture, Nagano Prefecture, Shizuoka Prefecture, Tochigi Prefecture, Tokyo Prefecture (Mainland and Izu Islands), Yamagata Prefecture; Shikoku: Ehime Prefecture; Kyushu: Fukuoka Prefecture, Kagoshima Prefecture, Kumamoto Prefecture, Saga Prefecture; Ryukyu Islands: Okinawa Island (Ashmead, 1906; Watanabe, 1937, 1951, 1957; Hirose, 1966; Kotani, 1980; Maeto, 1991; Konishi & Maeto, 2000; Kubo, 2000; Nakamura, 2003; Matsuo *et al.*, 2016); Kanto region (without specifying prefectures) (Yukawa

& Nakawatase, 1985).

Host. Diptera (*Asphondylia itoi*, *A. sphaera*, *A. yushimai*) (Matsuo *et al.*, 2016).

Note. The Lepidoptera *Etiella zinckenella* has been reported as a host of *Testudobracon pleuralis* (Watanabe, 1951), but it is doubtful that it is correct as it appears that the hosts of this species as well as all other members of the genus with host records are exclusively parasitoids of gall-forming Diptera and not of Lepidoptera (as suggested previously by Maeto (1991) and Matsuo *et al.* (2016)).

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