

**A review of the Palaearctic species of the genera *Barycnemis* Först.,  
*Epistathmus* Först. and *Spinolochus* Horstm.  
(Hymenoptera: Ichneumonidae, Tersilochinae)**

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**Обзор палеарктических видов родов *Barycnemis* Först.,  
*Epistathmus* Först. and *Spinolochus* Horstm.  
(Hymenoptera: Ichneumonidae, Tersilochinae)**

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**Abstract.** Six new species of the genus *Barycnemis* are described: *B. asiatica* sp. n. (Eastern Kazakhstan, Russian Altai and Mongolia), *B. suspecta* sp. n. (Georgia), *B. tarsator* sp. n. (Kyrgyzstan), *B. terminator* sp. n. (Kyrgyzstan), *B. tibetica* sp. n. (Tibet) and *B. tobiasi* sp. n. (Buryatia and south of the Russian Far East). New data on distribution of the Palaearctic species of the genera *Barycnemis* Först., *Epistathmus* Först. and *Spinolochus* Horstm. are provided. A key to the Palaearctic species of the genus *Barycnemis* is given.

**Key words.** Hymenoptera, Ichneumonidae, Tersilochinae, *Barycnemis*, *Epistathmus*, *Spinolochus*, taxonomy, new species, Palaearctic.

**Резюме.** Описано шесть новых видов: *Barycnemis asiatica* sp. n. (Восточный Казахстан, Российский Алтай и Монголия), *B. suspecta* sp. n. (Грузия), *B. tarsator* sp. n. (Киргизия), *B. terminator* sp. n. (Киргизия), *B. tibetica* sp. n. (Тибет) и *B. tobiasi* sp. n. (Бурятия и юг Дальнего Востока России). Представлены новые данные о распространении видов родов *Barycnemis* Först., *Epistathmus* Först. и *Spinolochus* Horstm. в Палеарктике. Данна определительная таблица палеарктических видов рода *Barycnemis*.

**Ключевые слова.** Hymenoptera, Ichneumonidae, Tersilochinae, *Barycnemis*, *Epistathmus*, *Spinolochus*, систематика, новые виды, Палеарктика.

## Introduction

Large number of specimens of *Barycnemis* Först., *Epistathmus* Först. and *Spinolochus* Horstm. was examined from the collections of the Zoological Institute RAS (St. Petersburg, Russia; further ZISP), Institute of Zoology (Kiev, Ukraine; further SIZK) and Institute of Ecology (Vilnius, Lithuania). Some type and non-type specimens were also borrowed from Dr. K. Horstmann (Würzburg, Germany; further HORSTM), Dr. M. Schwarz (Kirchschlag, Austria; further SCHWRZ) and Dr. J. Sawoniewicz (Biały-

stok, Poland; further SAWON). Additional material was sent for examination by Dr. A. Lozan (Czech Republic) and Dr. A.E. Humala (Petrozavodsk, Russia). Horstmann's (1981) key to the species of *Barycnemis* has been modified to accomodate the new species described after 1981.

Geographical distribution is generally based on the work of Horstmann (1971, 1981), with reference to other publications in brackets. Countries and regions recorded for the first time are marked by an asterisk (\*).

### Genus *Barycnemis* Förster, 1869

Type species: *Porizon claviventris* Gravenhorst, 1829.

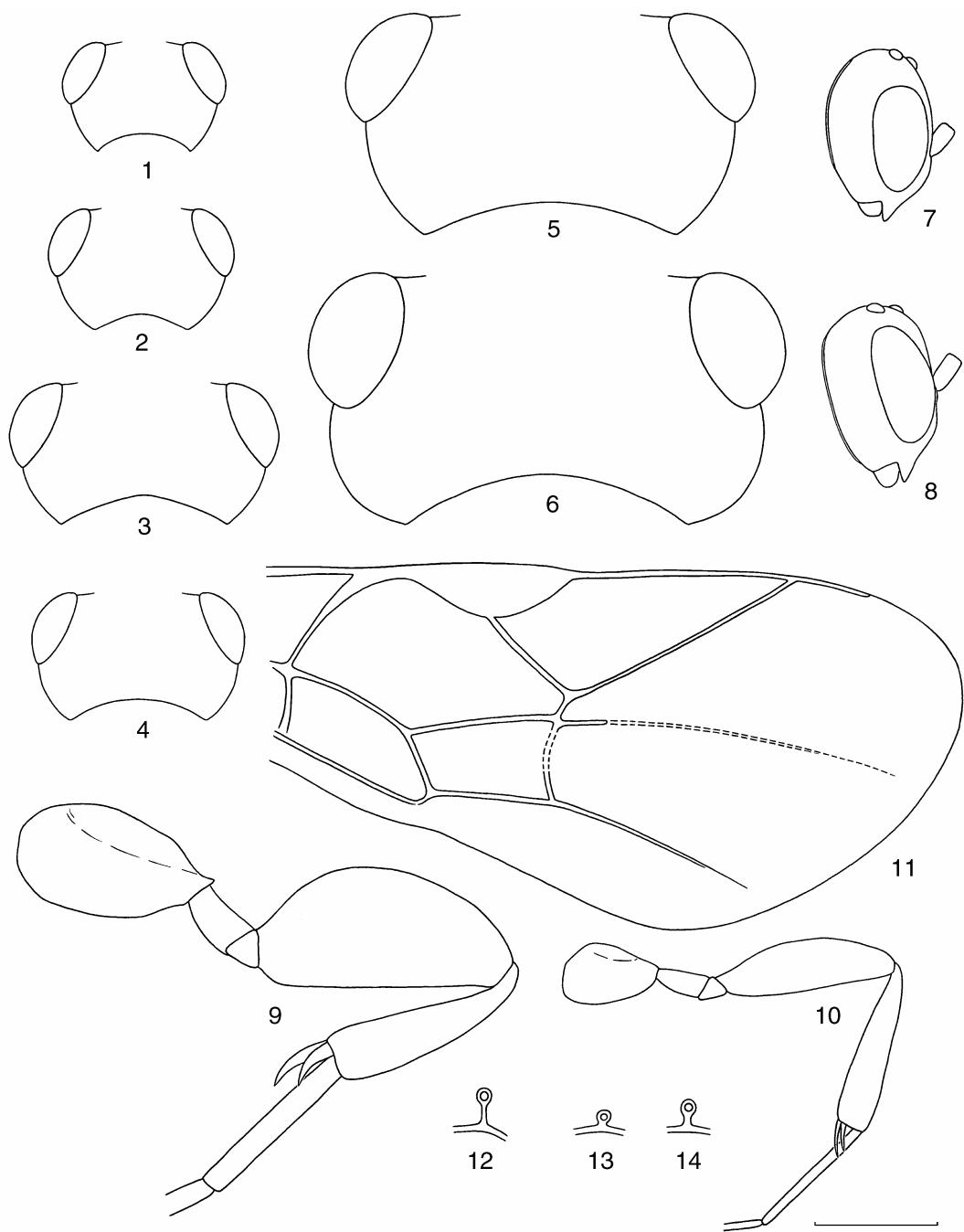
This genus belongs to the “*Tersilochus*” group of genera and is most closely related to the genus *Probles* Först. Both genera are characterized by a long sternaulus, but *Barycnemis* has the sternaulus more linear, spurs of hind leg more or less curved apically, the basal area of propodeum 0.7–2.5 times as long as apical area, and the ovipositor usually short and thick. *Barycnemis* is characterized by considerable sexual dimorphism with males more difficult (sometimes impossible) to recognize than females.

Two Palaearctic species are known as parasites of *Byrrhys* sp. (Byrrhidae) and *Bledius spectabilis* (Staphylinidae), and Nearctic species *B. linearis* Ashm. was reared from *Pissodes* sp. (Curculionidae) (Viereck, 1912).

The genus *Barycnemis* is Holarctic. 9 species were recorded from the Nearctic Region (Horstmann, 2001; Khalaim, 2003) and 24 species from the Palaearctic Region (Horstmann, 1981; Schwarz, 2003); 5 species occur both in Nearctic and Palaearctic Regions. This genus is common in forests and almost entirely absent in the steppe zone of Palaearctic.

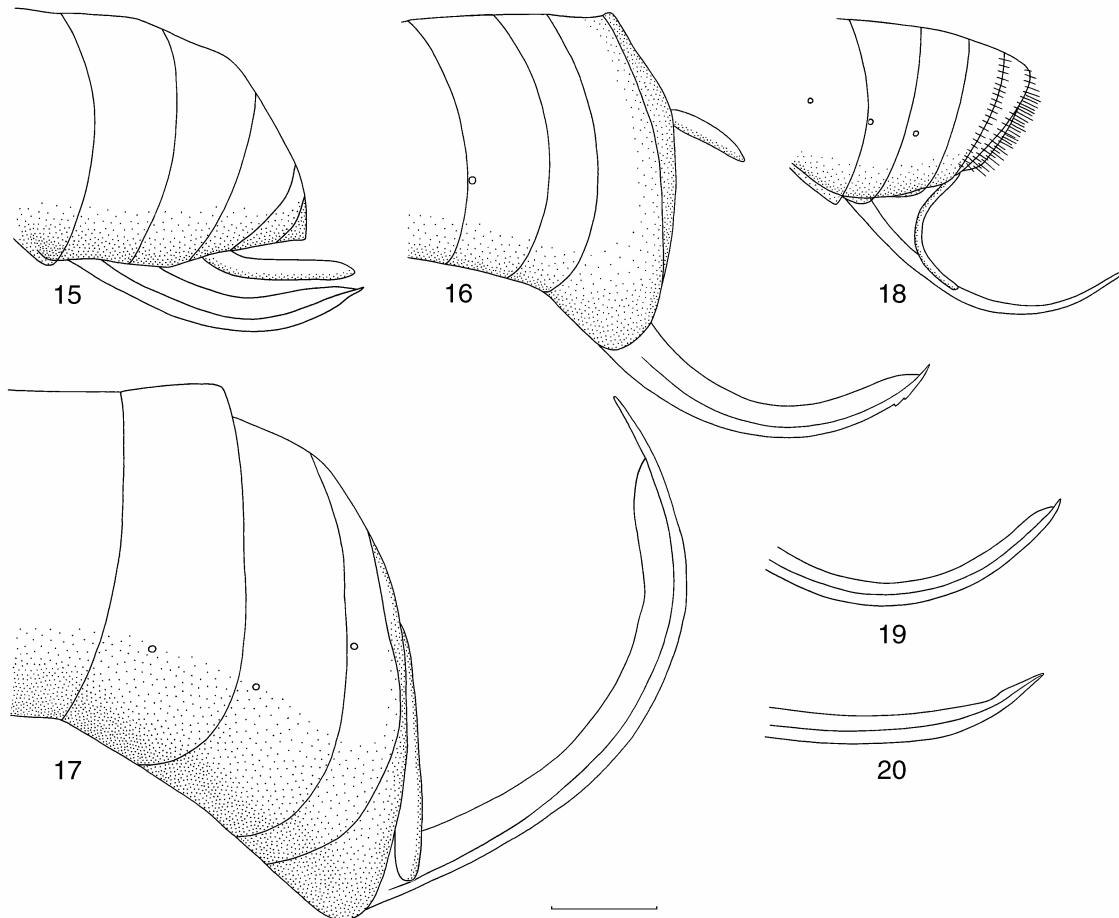
### Key to Palaearctic species of *Barycnemis* (females)

1. Second recurrent vein interstitial or slightly postfurcal, vein 2rm long (Fig. 11); propodeum with basal keel; ovipositor sheath twice as long as first tergite (*B. exhaustator* species group).....  
..... *B. exhaustator* (F.)
- Second recurrent vein distinctly postfurcal, vein 2rm short; propodeum with basal longitudinal furrow dorsally; ovipositor sheath shorter..... 2
2. Petiole of first metasomal segment slender and long, mostly or entirely smooth laterally (Fig. 32); glymma situated in apical half of first tergite; ovipositor relatively slender and weakly compressed (*B. harpura* species group) ..... 3
- Petiole of first metasomal segment short and usually striate laterally; glymma situated in basal half of first tergite; ovipositor of various shape, sometimes very thick, compressed or depressed..... 7
3. Antenna at the most with 25 segments; basal area of propodeum longer than apical area; first segment of hind tarsus equal to or longer than hind tibia ..... 4
- Antenna at least with 26 segments; basal area of propodeum about as long as apical area; first segment of hind tarsus shorter than hind tibia..... 6
4. Hind legs robust, hind femur 2.8–3.0 times as long as broad (Fig. 32); distance between eye and lateral ocellus great in lateral view (Fig. 7) ..... *B. tobiasi* sp. n.
- Hind legs slender or moderately robust, hind femur 3.2–4.0 times as long as broad; distance between eye and lateral ocellus small in lateral view (Fig. 8) ..... 5
5. Malar space longer than basal width of mandible; dorsolateral area of propodeum smooth .....  
..... *B. deserta* Schwarz
- Malar space distinctly shorter than basal width of mandible; dorsolateral area of propodeum finely granulate ..... *B. dissimilis* (Grav.)
6. Malar space longer than basal width of mandible; ovipositor sheath somewhat longer than first tergite ..... *B. alpina* (Strobl)
- Malar space about as long as basal width of mandible; ovipositor sheath slightly shorter than first tergite ..... *B. harpura* (Schrank)



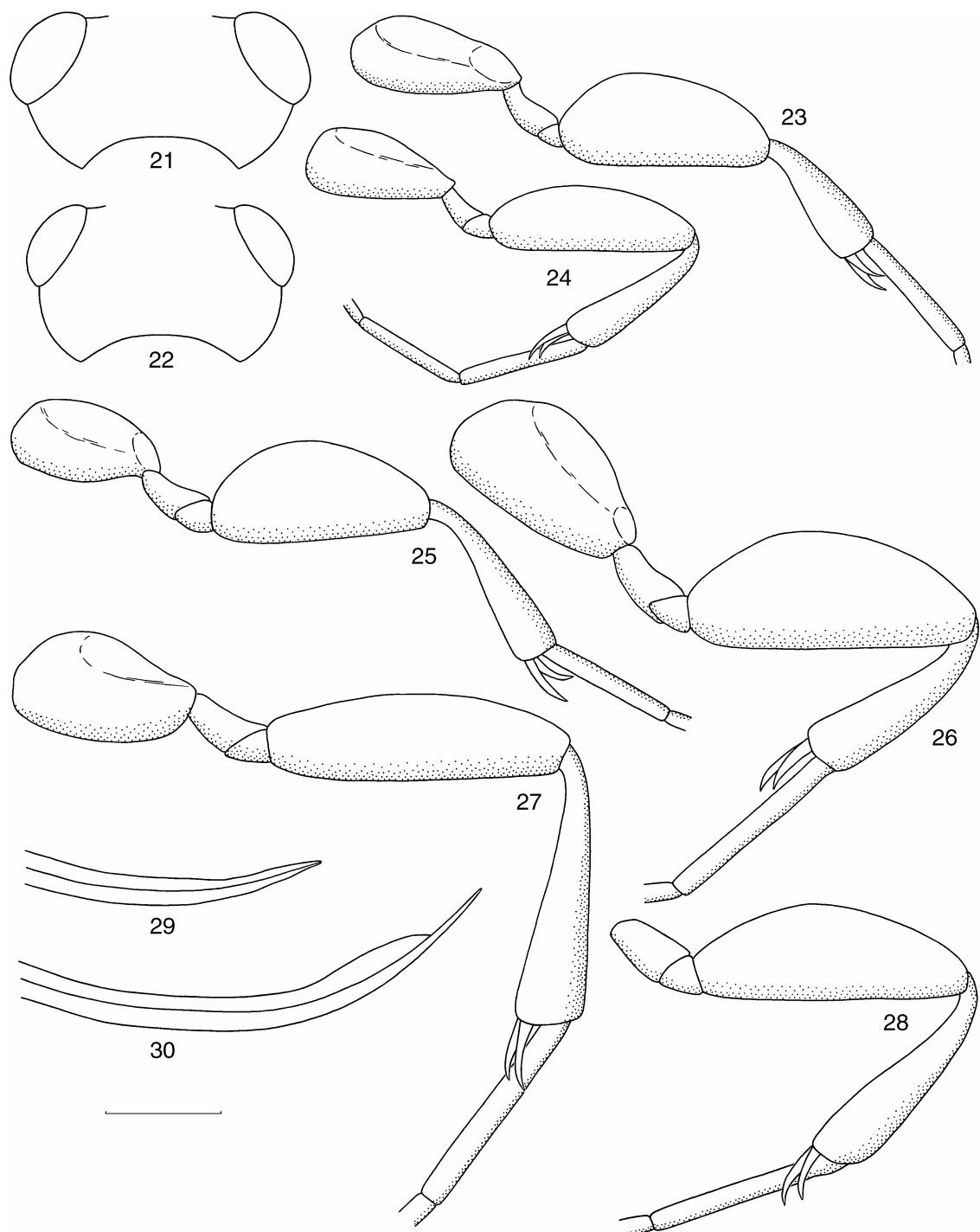
**Figs 1–14.** *Barycnemis* spp. (♀): *B. asiatica* sp. n. (1), *B. tobiasi* sp. n. (2, 7), *B. tibetica* sp. n. (3, 9, 12), *B. punctifrons* (4), *B. angustipennis* (5), *B. gravipes* (6), *B. dissimilis* (8), *B. blediator* (10), *B. exhaustator* (11), *B. claviventris* (13, 14). 1–6 — head, dorsal view; 7, 8 — head, lateral view; 9, 10 — hind leg; 11 — apical part of fore wing; 12–14 — propodeal spiracle and pleural carina. Scale 0.4 mm.

7. Sternaulus narrow and almost linear, without rugulosity near anterior margin of mesopleuron (Fig. 31); basal area of propodeum of various length, usually equal to or longer than apical area, sometimes very long; first segment of hind tarsus of various length; frons and vertex finely and sparsely punctate or impunctate (*B. bellator* species group) ..... 8
- Sternaulus usually wide and crenulate, more or less upcurved anteriorly or with rugulosity near anterior margin of mesopleuron; basal area of propodeum shorter or equal to apical area (somewhat longer in *B. probloides* and *B. punctifrons*); first segment of hind tarsus shorter than hind tibia (subequal to in *B. suspecta* sp. n.); frons and vertex sometimes densely and coarsely punctate ..... 16
8. Basal area of propodeum shorter or subequal to apical area; legs very robust, hind femur 1.8–2.5 times as long as broad (Fig. 9); first segment of hind tarsus shorter or subequal to hind tibia; ovipositor short and very thick (Figs 15, 16) ..... 9
- Basal area of propodeum distinctly longer than apical area; legs of various breadth; first segment of hind tarsus of various length, usually distinctly longer than hind tibia; ovipositor relatively long and slender ..... 11



**Figs 15–20.** *Barycnemis* spp. (♀): *B. tibetica* sp. n. (15), *B. claviventris* (16), *B. angustipennis* (17), *B. agilis* (18), *B. bellator* (19), *B. confusa* (20). 15–18 — apical part of metasoma; 19, 20 — ovipositor, lateral view. Scale 0.4 mm.

9. First segment of hind tarsus almost as long as hind tibia. — Antenna with 21–22 segments .....  
*B. frigida* Schwarz  
 — First segment of hind tarsus distinctly shorter than hind tibia ..... 10
10. Antenna with 23 segments; malar space 1.2 times as long as basal width of mandible; transverse carina of propodeum absent medially; distance between propodeal spiracle and pleural carina about 2.5 diameters of spiracle (Fig. 12); ovipositor without ventral subapical teeth (Fig. 15), its sheath 0.7 times as long as first tergite ..... *B. tibetica* sp. n.
- Antenna with 27–30 segments; malar space about as long as basal width of mandible; transverse carina of propodeum complete; distance between propodeal spiracle and pleural carina 0.5–1.5 diameters of spiracle (Figs 13, 14); ovipositor with ventral subapical teeth (Fig. 16), its sheath about 0.4 times as long as first tergite ..... *B. claviventris* (Grav.)
11. Basal area of propodeum at least twice as long as apical area ..... 12
- Basal area of propodeum about 1.5 times as long as apical area ..... 13
12. Ovipositor depressed, sheath almost half as long as first tergite; petiole of first metasomal segment usually entirely smooth dorsally and mostly laterally ..... *B. gracillima* (Thoms.)
- Ovipositor compressed, sheath somewhat longer than first tergite (Fig. 31); petiole of first metasomal segment distinctly striate dorsally and laterally ..... *B. asiatica* sp. n.
13. Legs moderately robust, hind tibia almost as long as hind femur (Fig. 10); first metasomal segment rather slender, glymma small. — Antenna with 23 segments ..... *B. blediator* (Aubert)
- Legs very robust, hind tibia much shorter than hind femur; first metasomal segment short and thick, glymma usually large ..... 14
14. First segment of hind tarsus about 0.75 as long as hind tibia; hind femur relatively slender, about 2.8 times as long as broad (Fig. 24) ..... *B. tarsator* sp. n.
- First segment of hind tarsus equal to or longer than hind tibia; hind femur robust, 2.0–2.5 times as long as broad (Fig. 23) ..... 15
15. Frons finely punctate, smooth or sometimes finely granulate partly; mesonotum distinctly punctate, smooth or finely granulate; ovipositor wide for most part and roundly tapered apically (Fig. 19). — Antenna with 23–29 segments ..... *B. bellator* (Müller)
- Frons and mesonotum hardly punctate and distinctly granulate; ovipositor evenly tapered towards apex (Fig. 20). — Antenna with 26–30 segments ..... *B. confusa* Horst.
16. Vertex and temple distinctly punctate, distance between punctures on frons mostly shorter or equal to diameter of puncture; ovipositor usually short, thick and strongly upcurved (Fig. 17) (*B. gravipes* species group) ..... 17
- Vertex and temple finely and usually sparsely punctate or impunctate; ovipositor long and slender ..... 21
17. Antenna with 26–30 segments; body length 4.0–6.5 mm; head strongly narrowed behind eyes in dorsal view (Fig. 4); upper tooth of mandible much longer than lower tooth; basal area equal to or somewhat longer than apical area ..... 18
- Antenna with 33–39 segments; body length usually about 8.0 mm; head strongly or weakly narrowed behind eyes in dorsal view (Figs 5, 6); upper tooth of mandible somewhat longer than lower tooth; basal area shorter or equal to apical area ..... 19
18. Middle flagellar segments slightly elongate; first segment of hind tarsus about 0.8 times as long as hind tibia (Fig. 25); ovipositor sheath about as long as first tergite ..... *B. punctifrons* Horst.
- Middle flagellar segments 1.6–1.8 times as long as broad; first segment of hind tarsus almost as long as hind tibia (Fig. 26); ovipositor sheath 1.3 times as long as first tergite ..... *B. suspecta* sp. n.



**Figs 21–30.** *Barycnemis* spp. (♀): *B. filicornis* (21, 27, 29), *B. terminator* sp. n. (22, 28, 30), *B. bellator* (23), *B. tarsator* sp. n. (24), *B. punctifrons* (25), *B. suspecta* sp. n. (26). 21, 22 — head, dorsal view; 23–28 — hind leg; 29, 30 — ovipositor, lateral view. Scale 0.4 mm.

19. Head behind eyes prominent anteriorly and narrowed posteriorly in dorsal view (Fig. 6); postpetiole mostly striate..... *B. gravipes* (Grav.)
- Head behind eyes evenly narrowed in dorsal view (Fig. 5); postpetiole smooth or partly finely striate . ..... 20
20. Dorsolateral area of propodeum smooth and densely punctate dorso-posteriorly; postpetiole partly finely punctato-striate; ovipositor sheath slightly shorter than first tergite..... *B. angustipennis* (Holmg.)
- Dorsolateral area of propodeum punctato-rugose dorso-posteriorly; postpetiole entirely smooth; ovipositor sheath about as long as first tergite ..... *B. guttulator* (Thunb.)
21. 7th and 8th tergites with long setae (Fig. 18); ovipositor depressed; antenna with 20–22 segments (*B. agilis* species group) ..... *B. agilis* (Holmg.)
- 7th and 8th tergites with short setae; ovipositor compressed; antenna with 26–31 segments (*B. filicornis* species group) ..... 22
22. Legs slender, hind femur about 5.0 times as long as broad; hind spurs almost straight; propodeum rugulose dorsally; ovipositor sheath distinctly shorter than hind tibia..... *B. probloides* Horstm.
- Legs robust, hind femur 2.5–3.2 times as long as broad; hind spurs distinctly curved apically; propodeum punctate, smooth or granulate near basal area; ovipositor sheath longer than hind tibia ..... 23
23. Head strongly and almost straightly narrowed behind eyes in dorsal view (Fig. 21); frons very finely granulate or smooth, finely and sparsely punctate or impunctate; first tergite usually striate dorsally and laterally; hind tibia almost as long as hind femur (Fig. 27); ovipositor evenly tapered towards apex (Fig. 29)..... *B. filicornis* (Thoms.)
- Head not strongly and roundly narrowed behind eyes in dorsal view (Fig. 22); frons distinctly granulate, finely and mostly densely punctate; first tergite almost entirely smooth, very finely striate near glymma; hind tibia distinctly shorter than hind femur (Fig. 28); ovipositor wide for most part and roundly tapered apically (Fig. 30)..... *B. terminator* sp. n.

#### ***B. agilis* species group**

##### ***Barycnemis agilis* (Holmgren, 1860) (Fig. 18)**

*Material.* 97 ♀ and 8 ♂ examined. Russia: Murmansk Prov. (80 km SW Murmansk, Verkhnetulomskiy; 100 km S Murmansk, Olenegorsk; Khibiny Mts, Kirovsk; Yuksporiok; 40 km S Lovosero, Seydozero Lake; 8 km SE Revda, Il'ma), Karelia (40 km ENE Belomorsk, Bol'shoy Zhuzhmuy I.), Kaliningrad Prov. (Courish spit, Rybachy), St. Petersburg (Solnechnoe), Leningradskaya Prov. (station Ladoga Lake; Kingisepp), Pskov Prov. (50 km SE Sebezh), Tyumen' Prov. (Krasnosel'kup, Taz River), Chita Prov. (Karymskoe, Ingoda River), Magadan Prov. (50 km N Seymchan, Imeni Lazo), Kamchatka Prov. (8 km S Kozyrevsk; Uzon Volkano), Kuril Is (Ekarma I.; Paramushir I., Severo-Kuril'sk: Utensnaya Bay, Shchelkhan Bay). Lithuania: Jurbarkas (Kalvėliai), Neringa (Courish spit: Preila; Nida), Švenčionys, Ignalina (Visaginas), Varėna. Belarus: Brest Prov. ("Belovezhskaya Pushcha" Nature Reserve). Ukraine: Zakarpatskaya Prov. (Carpathian Nature Reserve, Bily, 1000–1200 m). Kyrgyzstan: Toktogul; Chatyrtau, valley of Aksay River, 3100 m). Mongolia: Dzabkhan Aimag (15 km S Toson-Tsengel).

*Distribution.* Norway, Sweden, Germany, Denmark, Czech Republic, Bulgaria (Kolarov, 1987), \*Lithuania, \*Belarus, \*Ukraine (Carpathians), Russia (european part, \*Siberia and \*Far East), \*Kyrgyzstan, \*Mongolia. — Widespread trans-Palaearctic species.

*Biology.* Host unknown. Flight period from June to September.

#### ***B. bellator* species group**

##### ***Barycnemis asiatica* Khalaim, sp. n. (Figs 1, 31)**

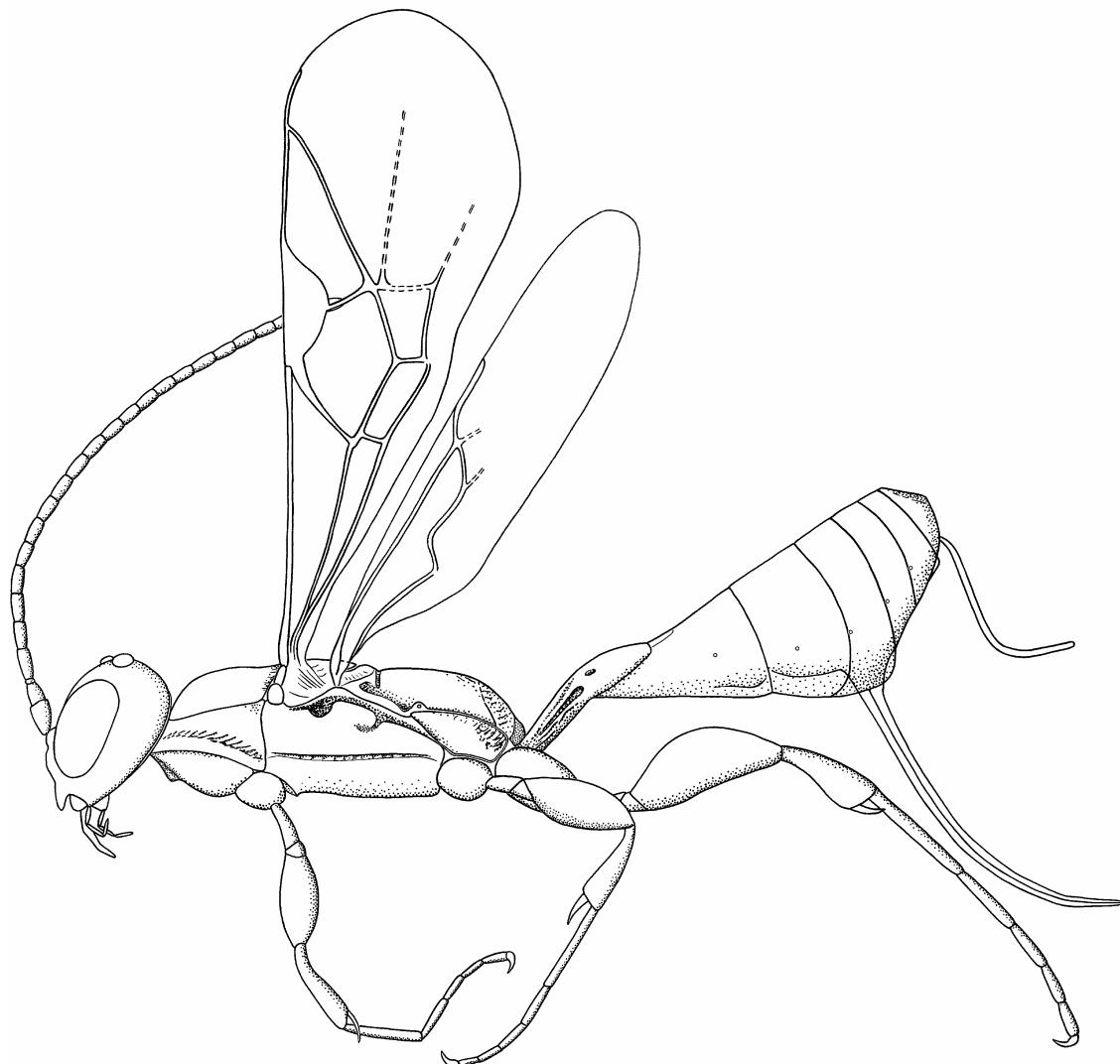
*Diagnosis.* Similar to *B. gracillima*, but differs by the shape and length of the ovipositor, and the strongly striate first tergite.

*Description. Female.* Head strongly narrowed behind eyes in dorsal view (Fig. 1); temple somewhat shorter than eye width (Fig. 1). Antenna with 24–25 segments, all flagellar segments elongate. Upper tooth of mandible longer than lower tooth. Clypeus smooth, sparsely punctate above. Malar space shorter than basal width of mandible. Frons distinctly longer than face and clypeus combined. Face very finely granulate, sometimes partly smooth, finely and densely punctate. Frons smooth, sometimes very finely granulate and very finely and sparsely punctate on its lower part. Vertex smooth, with sparse indistinct punctures. Temple smooth, impunctate.

Mesonotum very finely granulate (almost smooth laterally) and sparsely punctate. Mesopleuron and mesosternum smooth and shining, mesopleuron sparsely punctate anteriorly. Sternaulus narrow and almost linear, extending along entire length of mesopleuron. Dorsolateral area of propodeum mostly finely granulate, smooth laterally, distinctly punctate dorsally, and sometimes slightly rugulose posteriorly. Propodeum with narrow basal longitudinal furrow dorsally, which is twice as long as apical area or longer; apical area irregularly rugulose. Propodeal spiracle adjacent pleural carina.

Second recurrent vein postfurcal, almost entirely unpigmented. Width of pterostigma subequal to first abscissa of radial vein. Metacarp not reaching apex of fore wing.

Hind leg very robust. Hind femur about 2.4 times as long as broad, much longer than hind tibia; hind tibia shorter than first segment of hind tarsus.



**Fig. 31.** *Barycnemis asiatica* sp. n.

Petiole of first metasomal segment strongly striate laterally and finely striate dorsally. Postpetiole usually smooth, punctate posteriorly. Glymma situated about in the middle of first tergite. Thyridia 2.0–2.5 times as long as wide. Ovipositor relatively slender, sheath somewhat longer than first tergite.

Body black. Palpi, mandible (except teeth), tegula and legs yellow-brown. Clypeus below dark brown. Coxae darkened (hind coxa almost black). Pterostigma and femora brown. Metasoma behind first segment dark brown to black.

Body length 3.1 mm; fore wing length 2.3 mm; head width 0.5 mm; mesosoma length 1.17 mm, width 0.43 mm; hind femur length 0.43 mm, broad 0.22 mm; hind tibia length 0.31 mm; first segment of hind tarsus length 0.37 mm; first tergite length 0.5 mm, posterior width 0.2 mm; second tergite length 0.3 mm; ovipositor sheath 0.57 mm.

**Male.** Antenna with 27–28-segments. Frons about as long as face and clypeus combined. Sternaulus wider, up-curved anteriorly. Dorsolateral area of propodeum granulate-rugulose. Basal longitudinal furrow somewhat longer than apical area. Legs slender, first segment of hind tarsus about 0.7 times as long as hind tibia. Petiole of first metasomal segment finely striate. Thyridia very long. Otherwise similar to female.

**Material.** Holotype: ♀, Kazakhstan, Eastern Kazakhstan Prov., Salyk Mt., on herbs, 19 VI 1961 (Tobias) (ZISP). Paratypes. Kazakhstan: Karaganda Prov., Kizyl-Ray Mts, 20 and 21 VI 1959 (Tobias), 2 ♀ (ZISP). Russia: Altai Terr., 15 km N Kosh-Agach, Kurayskiy Mts, 2600 m, 2 and 8 VII 1964 (Kozlov), 1 ♀, 1 ♂ (ZISP). Mongolia: Central Aimag, env. Ulaan-Baator, Bogdo-Ula Mt., steppe slope, 14 VI 1975 (Sugonyaev), 1 ♀, 1 ♂ (ZISP); Gobi-Altai Aimag, 25 km SE Altai Aimag (Yusun-Bulag), 12 VII 1970 (Kerzhner), 1 ♀ (ZISP).

**Distribution.** Eastern Kazakhstan, Russia (Altai Terr.), Mongolia.

### ***Barycnemis bellator* (Müller, 1776) (Figs 19, 23)**

**Material.** Over 85 ♀ and 15 ♂ examined. Russia: Murmansk Prov. (20 km S Murmansk, Kil'dinstroy; Khibiny Mts, Kirovsk; 40 km S Lovosero, Seydozero Lake), Karelia ("Kivach" Nature Reserve), Arkhangel'sk Prov. (White Sea, Kartesh Cape), St. Petersburg (Solnechnoe), Pskov Prov. (23 km SE Sebezh), Tver' Prov. (Selinger Lake, Khachan I.), Stavropol' Terr. ("Teberdinskiy" Nature Reserve, M. Khatipara Mt, 2500 m; Klukhorskiy Pass, Severnyy Priyut), Kabardino-Balkaria (Elbrus Mt., 2400–3000 m), Severnaya Osetia (Tsey, 2500 m), Chuvashiya (Shemursha), Chelyabinsk Prov. (15 km SW Chebarkul, N Kundravy), Tyumen' Prov. (Yamalo-Nenetskiy Autonomous Region: 10 km N Labytnangi; 40 km W Labytnangi, Kharp; 50 km NW Labytnangi, 500 m), Krasnoyarsk Terr. (Yartsevo, Yenisei River; Dudinka), Chita Prov. (10 km N Kurort Darasun, valley of Tura River; Bukukun), Yakutia (Anabar River, Uryung-Khaya; Olenek; Zhitigansk; Yakutsk), Primorskiy Terr. (15 km SE Partizansk, Novitskoe; Spassk-Dal'niy; 25 km SSW Slavyanka), Magadan Prov. (Vetrenyy), Kamchatka Prov. (Avacha Volcano, 1000 m; Dolina Geyzerov; Uzon Volcano; Kozyrevsk, Okhlonets Lake), Kuril Is (Paramushir I., Severo-Kuril'sk). Lithuania: Varėna, Trakai (Paluknys). Azerbaijan (Zakatal'skiy Nature Reserve: Richuk Mt., 2300–2500 m; Kala Mt., 2500 m). Kazakhstan: Alma-Ata Prov. (Alma-Arasan Canyon; Alma-Ata Nature Reserve, Sredniy Talgar River, 2100–2800 m; Zailiyskiy Ala-Tau Mts, Left Talgar River, 2000–2200 m), Eastern Kazakhstan Prov. (Tarbagatai Mts: 30 km NE Blagodarnoe, Tayau Mt.; Staropyatigorskoe). Kyrgyzstan (30 km N Bishkek, Alamedin River; Sarydzhaz River, Arpatektir; 40 km W Atbashi Mts, Fergana Mts; Baydula Mts, Dolon Pass, 3000–3100 m). Mongolia: Ubsunur Aimag (20 km S Ureg-Nur Lake, 2000 m), Dzabkhan Aimag (17 km SW Ilyasutay, Ganuyn-Daba Pass), Central Aimag (Dzun-Mod), 25 km SSW Muren.

**Distribution.** Iceland, Norway, Sweden, Finland, Netherlands, Germany, Austria, Czech Republic, Poland, Bulgaria (Kolarov, 1987), \*Lithuania, \*Azerbaijan, Russia (european part, Caucasus, \*Siberia and \*Far East), \*Kazakhstan, \*Kyrgyzstan, \*Mongolia. — Holarctic species, widespread and transcontinental in the Palaearctic Region.

**Biology.** Host unknown. Flight period from May to September (mostly from July to August).

### ***Barycnemis blediator* (Aubert, 1970) (Fig. 10)**

**Material.** Kazakhstan: Eastern Kazakhstan Prov., Salyk Mt., on herbs, 19 VI 1961 (Tobias), 1 ♀. Mongolia: Khentey Aimag, 15 km S Tsenkher-Mandal, steppe, 4 IX 1975 (Kozlov), 1 ♀.

**Distribution.** England (Wyatt, Foster, 1989), France, Netherlands, Germany, Bulgaria (Kolarov, 1989), \*Kazakhstan, \*Mongolia.

**Biology.** Aubert (1970) mentioned this species as a parasite of *Bledius* sp. (Staphylinidae). Horstmann noted that *B. blediator* occurs in coastal regions (Horstmann, 1981). Wyatt and Foster (1989) established that this species is a common parasite of *Bledius spectabilis* Kratz, which is abundant in salt-marsh territories in England (aggregations up to 4 000 larvae and adults per m<sup>2</sup>). The female wasps go down burrows containing post-dispersal first instar or very rarely 2nd–3rd instar *Bledius* larva. Flight period from June to September.

***Barycnemis claviventris* (Gravenhorst, 1829) (Figs 13, 14, 16)**

*Material.* 17 ♀ and 6 ♂ examined. Russia: Nizhniy Novgorod Prov. (Arzamas), Kamchatka Prov. ("Kronotskiy" Nature Reserve, Uzon Volcano; Pauzhetka). Czech Republic (Stav, env. Jičín). Lithuania: Jurbarkas (Kalvėliai, Viešvilė), Neringa (Courish spit, Juodkrantė). Ukraine: Zhitomir Prov. (Korostyshev). Kazakhstan: Akmolinsk Prov.

*Distribution.* Sweden, Netherlands, Germany, Czech Republic, Poland, \*Lithuania, \*Ukraine, \*Russia (european part and Far East), \*Kazakhstan. — Holarctic species, transcontinental in the Palaearctic Region.

*Biology.* Host unknown. Flight period from June to September.

***Barycnemis confusa* Horstmann, 1981 (Fig. 20)**

*Material.* 33 ♀ and 1 ♂ examined. Russia: Arkhangel'sk Prov. (Ust'-Tsil'ma), Leningradskaya Prov. (station Ladoga Lake), Pskov Prov. (20 km SE Sebezh), Vladimir Prov., Voronezh Prov. (Khoper Nature Reserve, Varvarino), Altai Terr. (Chuyskaya Steppe, Kosh-Agach), Chita Prov. (Kyra; 40 km SW Chita, station Ingoda; 9 km N Kurort Darasun), Yakutia (10 km S Yakutsk; Indigirka River, mouth of Inyal' River), Magadan Prov. (50 km N Magadan), Kamchatka Prov. (8 km S Kozyrevsk). Lithuania: Šalčininkai (Rudininkai), Trakai (Paluknys), Varėna (Mašnyčios). Ukraine: Lugansk Prov. (Lugansk Nature Reserve). Mongolia: Central Aimag (Kerulen), Khentey Aimag (8 km N Binder).

*Distribution.* Sweden, Netherlands, Germany, Denmark, Poland, Hungary, Lithuania, \*Ukraine, \*Russia (european part, Siberia and Far East), \*Mongolia. — Trans-Palaearctic species.

*Biology.* Host unknown. Flight period from June to September.

***Barycnemis frigida* Schwarz, 2003**

*Material.* Austria: "A, S [Salzburg], Hohe Tauern, E Hochtor, 3.8.1995, 47°04' N, 12°50–51' E, 2500–2630 m, Martin Schwarz" 1 ♀ (paratype, SCHWRZ).

*Distribution.* Austria (Alps).

*Biology.* Host unknown. Flight period in August.

***Barycnemis gracillima* (Thomson, 1889)**

*Material.* 78 ♀ and 13 ♂ examined. Russia: Pskov Prov. (Sebezh), Novgorod Prov. (20 km NW Pestovo), Kaluga Prov. (Andreevskoe; env. Kaluga, Sivkovo), Yaroslavl' Prov. (Berditzino; Gedenovo), Ul'yanovsk, Krasnodar Terr. (Sochi, Lazarevskoe), Severnaya Osetia (Vladikavkaz), Stavropol' Terr. (20 km W Stavropol', Sengileevskoe Lake; 20 km NE Shpakovskoe), Voronezh Prov. (Ramon'; Khoper Nature Reserve, Varvarino). Poland ("Kochanów DC33 at Koluszki"). Estonia (Myniste). Lithuania: Varėna (Merkinė), Trakai (Paluknys), Tauragė (Sakalinė), Vilnius, Ignalina, Lazdijai. Belarus ("Berezinskiy" Nature Reserve, Domteritsy; 20 km W Petrikov, Pripyat' River). Ukraine: Zakarpatskaya Prov. (Rakhov Distr., 12 km NE Bogdan, Breskul, 1500 m; Khust, valley of Tissa River; Carpathian Nature Reserve: Pop-Ivan Mt., 1600–1700 m; Bily, 950–1500 m; SW slope of Goverla Mt., 1600–1800 m), Odessa Prov. (NW Izmail, Yalpuh Lake), Kherson Prov. (20 km W Belozerka, Alexandrovka; "Chernomorskiy" Nature Reserve, Yagorlitskiy Kut), Kiev (Kruglik), Nikolaev Prov. (Kuripchino), Zaporozhye Prov. (Vasil'evka), Cherkassy Prov. ("Kazteevskiy" Nature Reserve; Kanev). Georgia (Kazbegi). Armenia (env. Antarat, canyon of Amberd River, 1700 m). Kazakhstan: Western Kazakhstan Prov. (Ural'sk, valley of Ural River), Semipalatinsk Prov. (30 km NNW Tarbagatay, Tarbagatay Mts).

*Distribution.* Sweden, Finland (Jussila, 1984), Belgium, Germany, Austria, Czech Republic, Poland, Slovakia, Hungary, Herzegovina, Romania, Bulgaria (Kolarov, 1987), \*Estonia, Lithuania, \*Belarus, \*Ukraine, \*Georgia, \*Armenia, Russia (european part and Caucasus), \*Kazakhstan. — Europe, Caucasus and Kazakhstan.

*Biology.* Host unknown. Flight period from May to October (mostly from July to August).

***Barycnemis tarsator* Khalaim, sp. n. (Fig. 24)**

*Diagnosis.* Similar to *B. bellator* and *B. confusa*, but differs in the short first segment of hind tarsus and the slender hind tibia (Fig. 24).

*Description.* Female. Head strongly narrowed behind eyes in dorsal view; temple somewhat shorter than eye width. Antenna with 24–25 segments, all flagellar segments elongate. Mandible very finely punctate basally, upper tooth of mandible longer than lower tooth. Clypeus smooth, usually very sparsely punctate above. Malar space almost as long as

basal width of mandible. Face and lower part of frons dull and very finely (sometimes indistinctly) punctate. Upper part of frons, vertex and temple smooth and shining, impunctate.

Mesonotum very finely granulate (almost smooth laterally) and finely punctate. Mesopleuron and mesosternum smooth and shining, sparsely and finely punctate. Sternaulus almost linear, extending along almost entire length of mesopleuron. Dorsolateral area of propodeum mostly smooth, finely granulate and rugulose dorso-posteriorly, densely punctate dorsolaterally and almost impunctate laterally. Propodeum with basal longitudinal irregularly rugulose furrow dorsally, which is about 1.5 times as long as apical area; apical area irregularly rugulose. Propodeal spiracle very small; distance between spiracle and pleural carina subequal to diameter of spiracle.

Second recurrent vein postfurcal, unpigmented on its anterior part. Width of pterostigma somewhat shorter than first abscissa of radial vein. Metacarp not reaching apex of fore wing.

Hind leg robust. Hind femur 2.75 times as long as broad, longer than hind tibia (Fig. 24); first segment of hind tarsus about 0.75 times as long as hind tibia (Fig. 24).

First metasomal segment almost entirely smooth, partly very finely striate and punctate dorsally. Glymma relatively large, situated about in the middle of first tergite. Thyridia 3.5–4.0 times as long as wide. Ovipositor relatively slender, sheath longer than first tergite.

Body black. Palpi, mandible (except teeth), tegula and legs yellow to brownish yellow. Clypeus below sometimes dark brown. Femora brownish yellow to brown. Coxae darkened (hind coxa almost black). Pterostigma brown. Metasoma behind first segment yellow-brown ventrally to dark brown and black dorsally.

Body length 4.8 mm; fore wing length 3.5 mm; head width 0.71 mm; mesosoma length 1.7 mm, width 0.66 mm; hind femur length 0.71 mm, broad 0.26 mm; hind tibia length 0.57 mm; first segment of hind tarsus length 0.43 mm; second segment of hind tarsus length 0.41; first tergite length 0.78 mm, posterior width 0.22 mm; second tergite length 0.57 mm; ovipositor sheath 0.87 mm.

Male unknown.

*Material.* Holotype: ♀, Kyrgyzstan, 10 km W Vorukh, Turkestanskiy Mts, 16 VII 1982 (Belokobylskij) (ZISP). Paratypes. Kyrgyzstan: label as in holotype, 1 ♀ (ZISP); 15 km SW Sokh, Turkestanskiy Mts, forest, 14 VII 1982 (Belokobylskij), 1 ♀ (ZISP); 15 km W Shakhimardan, Alai Mts, 13 VII 1982 (Belokobylskij), 1 ♀ (ZISP); 5 km SE Shakhimardan, Alai Mts, 11, 12 VII 1982 (Belokobylskij), 1 ♀ (ZISP).

*Distribution.* Kyrgyzstan.

### ***Barycnemis tibetica* Khalaim, sp. n. (Figs 3, 9, 12, 15)**

*Diagnosis.* The new species is similar to *B. claviventris* in having the basal area of propodeum short, the first segment of hind tarsus shorter than hind tibia (Fig. 9), and the ovipositor very thick (Fig. 15). But *B. tibetica* sp. n. differs from this species in having the antenna 23-segmented, the malar space longer, the transverse carina of propodeum absent medially, the distance between propodeal spiracle and pleural carina longer (Fig. 12), the ovipositor without ventral subapical teeth (Fig. 15), and the ovipositor sheath longer.

*Description. Female.* Head strongly and almost linearly narrowed behind eyes in dorsal view (Fig. 3), almost entirely smooth; temple shorter than eye width (Fig. 3). Antenna with 23 segments, basal and median flagellar segments more or less elongate, subapical segments as long as wide. Mandible punctate on its basal half, with very short teeth. Clypeus smooth, impunctate. Malar space about 1.2 times as long as basal width of mandible. Upper face and lower frons very finely punctate. Vertex and temple with sparse indistinct punctures.

Mesosoma mostly smooth and shining. Mesonotum finely punctate, predominantly smooth. Mesopleuron and mesosternum with scattered punctures, smooth and shining. Sternaulus narrow and linear, extending along almost entire length of mesopleuron, with very fine rugulosity near anterior margin of mesopleuron. Dorsolateral area of propodeum mostly smooth, almost impunctate dorsally and laterally, and densely punctate dorsolaterally. Propodeum with transverse carina absent medially, and with very weak basal longitudinal furrow dorsally which is almost as long as apical area; apical area irregularly rugulose. Distance between propodeal spiracle and pleural carina equal to about 2.5 diameters of spiracle (Fig. 12).

Distal parts of fore wings missing. Second recurrent vein distinctly postfurcal, unpigmented on its anterior half. Width of pterostigma much shorter than first abscissa of radial vein.

Legs (especially hind) very robust. Hind femur about twice as long as broad, longer than hind tibia; hind tibia somewhat longer than first segment of hind tarsus (Fig. 9).

First metasomal segment smooth dorsally and striate laterally. Glymma large and deep, situated in the middle of first tergite. Thyridia deep, about twice as long as wide. Ovipositor short and thick, weakly upcurved, without ventral subapical teeth (Fig. 15); its sheath 0.7 times as long as first tergite.

Body black. Palpi, mandible, tegula and legs yellowish brown. Coxae dark brown (hind coxa almost black). Femora brown to dark brown. Pterostigma brown. Metasoma dark brown to black.

Body length about 5.4 mm; head width 0.86 mm; mesosoma length 2.0 mm, width 0.8 mm; hind femur length 0.84 mm, broad 0.39 mm; hind tibia length 0.64 mm; first segment of hind tarsus length 0.57 mm; first tergite length 0.86 mm, posterior width 0.39 mm; second tergite length 0.6 mm; ovipositor sheath 0.6 mm.

Male unknown.

*Material*. Holotype: ♀, China, “дол. р. Джагын гол в. Тибетъ 14300' Козловъ. 1-6 vii 00” [valley of Dzhagyn gol River, Eastern Tibet, 1–6 VII 1900 (Kozlov)], “*Barycnemis tibetanus* Kok ♀ n. sp.”, “*Porizon tibetanus* Kok. n. sp. det. N. Kokujew.” (underside of label) (ZISP).

*Distribution*. China (Tibet).

### ***B. exhaustator* species group**

#### ***Barycnemis exhaustator* (Fabricius, 1798) (Fig. 11)**

*Material*. Poland: “Niedźwiady at Miastkop. B. Bśw 12.1c 24.5.74 leg. Ekipa IOLiD AR”, 1 ♀ (SAWON). Kazakhstan: Akmolinsk Prov., Atbasar Distr., station of Zoological Institute RAS near Terisakkan River, steppe, on cereals, 13 V 1957 (Tobias), 1 ♀ (ZISP).

*Distribution*. Finland, Netherlands, Germany, Denmark, Czech Republic, Hungary, \*Kazakhstan. — Holarctic species, ranges from West Europe to Akmolinsk Prov. of Kazakhstan in the Palaearctic Region.

*Biology*. Host unknown. Flight period from May to July.

*Variation*. Specimen from Kazakhstan has 32-segmented antenna (usually antenna with 37 segments).

### ***B. filicornis* species group**

#### ***Barycnemis filicornis* (Thomson, 1889) (Figs 21, 27, 29)**

*Material*. Austria: “Hoch mölbing Tauplitz / Austr. 2300 m 25.7.71”, 1 ♀ (HORSTM); “Kav... Käruten 4.8.65”, 1 ♂ (HORSTM). Czech Republic, Bohemia: Žofinský Prales, Novohradské Hory Mts, 14 VIII 2001 (Lozan), 1 ♀ (ZISP); Šumava Mts, 1080 m, 30 VII 2001 (Lozan), 2 ♂ (ZISP). Ukraine, Ivano-Frankovsk Prov.: Rakhov Distr., 12 km NE Bogdan, locality Breskul, upper zone of fir-wood, 7 VIII 1989 (Kasparyan), 1 ♀ (ZISP); 10 km S Vorokhta, Goverla forestry, fir-wood, 23 VII 1989 (Kasparyan), 1 ♀ (ZISP); 20 km S Vorokhta, upper flow of Prut River, 1300 m, upper zone of fir-wood, 22 VII 1989 (Kasparyan), 1 ♀ (ZISP).

*Distribution*. France, Germany, Switzerland, Italy, Austria, Czech Republic, Poland, \*Ukraine. — European, predominantly mountain species.

*Biology*. Host unknown. Flight period from May to September.

#### ***Barycnemis probloides* Horstmann, 1981**

*Material*. Bulgaria: “21.5.1969 Rodopi, Er-kjupria, P. Angelov”, 1 ♀ (HORSTM); “14.V.1976 Rhodopi, Varbina, leg. J. Kolarov”, 1 ♂ (HORSTM).

*Distribution*. Bulgaria, Macedonia. — South European species.

*Biology*. Host unknown. Flight period from May to July.

#### ***Barycnemis terminator* Khalaim, sp. n. (Figs 22, 28, 30)**

*Diagnosis*. The new species is similar to *B. filicornis*, but differs in the frons granulate, finely and densely punctate, the head roundly narrowed behind eyes in dorsal view (Fig. 22), the first tergite smooth, the hind tibia shorter (Fig. 28), and the shape of the ovipositor (Fig. 30).

*Description*. Female. Head roundly narrowed behind eyes in dorsal view (Fig. 22); temple shorter than eye width (Fig. 22). Antenna with 28–31 segments, all flagellar segments elongate. Mandible punctate on its basal part, upper tooth distinctly longer than lower tooth. Clypeus smooth, sparsely punctate on its upper part. Malar space somewhat longer than basal width of mandible. Face, frons and vertex granulate, finely and mostly densely punctate. Temple finely and very sparsely punctate, smooth and shining.

Mesonotum granulate, finely and mostly densely punctate, slightly rugulose posteriorly. Mesopleuron and mesosternum sparsely punctate, smooth and shining. Sternaulus rather wide, slightly S-shaped. Dorsolateral area of propodeum

sparingly punctate, mostly smooth and shining (slightly granulate and rugulose dorso-posteriorly). Basal longitudinal furrow very weak, about as long as apical area. Apical area irregularly rugulose. Distance between propodeal spiracle and pleural carina shorter than diameter of spiracle, or spiracle adjacent pleural carina.

Second recurrent vein postfurcal, unpigmented on its anterior part. Width of pterostigma shorter than first abscissa of radial vein. Metacarp not reaching apex of fore wing.

Legs (especially hind) robust. Hind femur about 2.8 times as long as broad, longer than hind tibia (Fig. 28); hind tibia longer than first segment of hind tarsus (Fig. 28). Spurs of hind leg thick, strongly curved apically.

First metasomal segment almost entirely smooth, sometimes hardly striate laterally before glymma; postpetiole usually punctate. Glymma large and deep, situated about the middle of first tergite. Thyridia deep, about 2.5 times as long as wide. Ovipositor relatively long and slender, wide for most part and roundly tapered apically (Fig. 30), its sheath distinctly longer than first tergite and hind tibia.

Body black. Palpi, mandible (except for teeth), tegula and legs brownish yellow to brown. Coxae darkened (hind coxa black). Pterostigma brown. Metasoma behind first segment predominantly yellow-brown to black dorsaly.

Body length about 6.0 mm; fore wing length 4.25 mm; head width 0.95 mm; mesosoma length 2.2 mm, width 0.85 mm; hind femur length 0.96 mm, broad 0.34 mm; hind tibia length 0.8 mm; first segment of hind tarsus length 0.64 mm; first tergite length 1.0 mm, posterior width 0.3 mm; second tergite length 0.68 mm; ovipositor sheath 1.3 mm.

**Male.** Antenna with 30–31 segments. Malar space shorter than basal width of mandible. Propodeum with basal area, irregularly rugulose. Legs slender. First metasomal segment slender.

**Material.** Holotype: ♀, Kyrgyzstan, 30 km S Iski-Naukat, Kichikalay Mts, Kirgizata River, arboretum, 2500 m, 6 VI 1978 (Tanasijtshuk) (ZISP). Paratypes. Kyrgyzstan: label as in holotype, 2 ♀, 4 ♂ (ZISP); same locality, 13 VI 1978 (Tanasijtshuk), 2 ♀, 1 ♂ (ZISP); same locality, 2800 m, 1 VI 1978 (Tanasijtshuk), 1 ♂ (ZISP).

**Distribution.** Kyrgyzstan.

### B. *gravipes* species group

#### *Barycnemis angustipennis* (Holmgren, 1860) (Figs 5, 17)

**Material.** 15 ♀ and 10 ♂ examined. Russia: Murmansk Prov. (Khibiny Mts), Karelia (10 km S Kevasalm; 40 km ENE Belomorsk, Malyy Zhuzhmuy I.), Leningradskaya Prov. (Luga Distr.), Novgorod Prov. (20 km NW Pestovo), Vladimir Prov. (Petushinsky Distr., Omutishche), Karachaevo-Cherkessia (Arkhyz), Severnaya Osetia (canyon of Ardon River, 15 km N Mamisonkiy Pass), Krasnoyarsk, Chita Prov. (Ivan-Ozero Lake), Magadan Prov. (12 km N Seymchan). Lithuania: Varena (Kašėtos), Vilnius, Trakai. Ukraine: Zhitomir Prov. (Radomyshl').

f. *brachycera*. Fore wing about 1.5 times as long as mesosoma (in nominative form 1.7–1.8 times).

**Material.** Russia: Leningradskaya Prov. (Kingisepp, 1 ♀; Karel'skiy peresheek, 1 ♀; Luga Distr., Gobzhitsa, 1 ♀); without geographic label (2 ♀).

**Distribution.** Ireland, England, Sweden, Finland, Netherlands, Germany, Denmark, Switzerland, Italy, Austria, Czech Republic, Hungary, Bulgaria (Kolarov, 1987), \*Lithuania, \*Ukraine, Russia (european part, Caucasus, Siberia and Far East). — Trans-Palaearctic species.

**Biology.** Parasite of *Byrrhys* sp. (Byrrhidae) (Horstmann, 1981). Flight period from May to October.

#### *Barycnemis gravipes* (Gravenhorst, 1829) (Fig. 6)

**Material.** 1 ♀ and 7 ♂ examined. Russia: Murmansk Prov. (Khibiny Mts), Novgorod Prov., Yaroslavl' Prov. ("Berditsyno"), Tyumen' Prov. (Krasnosel'kup, Taz River). Ukraine: Ivano-Frankovsk Prov. (10 km S Vorokhta, 900 m). Kazakhstan: Karaganda Prov. (40 km S Zhana-Arka, Koksengir Mt.).

**Distribution.** Ireland, Sweden, Germany, Denmark, Italy, Austria, Czech Republic, Poland, Hungary, Ukraine, Russia (European part and Eastern Siberia), \*Kazakhstan. — Holarctic species, ranges from West Europe to East Siberia and Karaganda Prov. of Kazakhstan in the Palaearctic Region.

**Biology.** Host unknown. Flight period from May to October.

#### *Barycnemis guttulator* (Thunberg, 1822)

**Material.** 16 ♀ and 3 ♂ examined. Russia: Murmansk Prov. (Khibiny Mts: valley of Gakmin River; Vudyavr Lake), Arkhangel'sk Prov. (Ust'-Tsyl'ma, Karavannaya), Chita. Lithuania: Zarasai (Yliškė), Tauragė (Sakalinė). Ukraine: Poltava Prov. ("Ogloblin").

*Distribution.* Germany, Sweden, Greece, \*Lithuania, \*Ukraine, Russia (european part and \*south of Siberia). — Palaearctic species, ranges from West Europe to Chita Prov. of Russia.

*Biology.* Host unknown. Flight period from March to July.

***Barycnemis punctifrons* Horstmann, 1981 (Figs 4, 25)**

*Material.* 23 ♀ and 5 ♂ examined. Russia: Moskow (Chelyuskintsy), Chita Prov. (Karymskoe; Adrianovka), Primorskiy Terr. (Pozhicha; Spassk-Dal'niy). Czech Republic (Stav, env. Jičín; Bohemia, valley of Lužnice River, Klokočí). Hungary (Szalafő). Latvia (Bausk). Ukraine: Zakarpatskaya Prov. (Rakhov), L'vov Prov. (Tukhol'skiy Pass), Ternopol' Prov. ("Medobory" Nature Reserve). Georgia (Borjomi, Bakuriani). Kazakhstan: Eastern Kazakhstan Prov. (Leninogorsk, Ivanovskiy Mts.).

*Distribution.* Ireland, Denmark, Germany, Austria, Czech Republic (Šedivý, 1989), Poland, Slovakia, Hungary, Romania, Bulgaria (Kolarov, 1987), \*Latvia, \*Ukraine, \*Georgia, Russia (european part, \*south of Siberia and \*Far East), \*Kazakhstan. — Trans-Palaearctic species.

*Biology.* Host unknown. Flight period from June to September.

***Barycnemis suspecta* Khalaim, sp. n. (Fig. 26)**

*Diagnosis.* The new species is similar to *B. punctifrons*, but differs in having the flagellar segments longer, the first segment of hind tarsus almost as long as hind tibia (Fig. 26), the first metasomal segment slender, and the ovipositor sheath longer.

*Description.* Female. Head roundly narrowed behind eyes in dorsal view; temple distinctly shorter than eye width. Antenna with 28–30 segments, all flagellar segments elongate. Mandible punctate on its basal half, upper tooth distinctly longer than lower tooth. Clypeus smooth, sparsely punctate on its upper half. Malar space about 0.8 times as long as basal width of mandible. Face and frons densely and distinctly punctate, smooth between punctures and dull. Vertex and temple finely punctate (punctures on temple sparser), smooth and shining.

Mesonotum densely and finely punctate, mainly finely granulate. Mesopleuron and mesosternum mostly coarsely punctate, smooth and shining. Sternaulus slightly upcurved anteriorly, about 0.7 times as long as mesopleuron. Dorsolateral area of propodeum distinctly punctate, almost entirely smooth and shining (very finely granulate posteriorly); transverse carina indistinct medially; basal longitudinal furrow very weak, as long as apical area; apical area punctato-rugulose. Propodeal spiracle adjacent pleural carina.

Second recurrent vein postfurcal, unpigmented on its anterior part. Width of pterostigma shorter than first abscissa of radial vein. Metacarp not reaching apex of fore wing.

Legs (especially hind) robust. Hind femur 2.5 times as long as broad, distinctly longer than hind tibia (Fig. 26); hind tibia somewhat longer than first segment of hind tarsus (Fig. 26). Spurs of hind leg thick, strongly curved.

First metasomal segment smooth dorsally and basolaterally, striate laterally before glymma. Glymma moderately large, situated hardly beyond the middle of first tergite. Thyridia deep, almost 3.0 times as long as wide. Ovipositor relatively slender and long, its sheath distinctly longer than first tergite and hind tibia.

Body black. Palpi, mandible (except for teeth), lower half of clypeus, tegula and legs yellow to brownish yellow (hind coxa darkened). Pterostigma brown. Metasoma behind first segment yellow to yellow-brown and with dark spots dorsally.

Body length about 6.5 mm; fore wing length 4.25 mm; head width 1.05 mm; mesosoma length 2.1 mm, width 0.93 mm; hind femur length 1.0 mm, broad 0.4 mm; hind tibia length 0.78 mm; first segment of hind tarsus length 0.7 mm; first tergite length 1.0 mm, posterior width 0.29 mm; second tergite length 0.71 mm; ovipositor sheath 1.36 mm.

Male unknown.

*Material.* Holotype: ♀, Georgia, Tsagveri, 12 IX 1982 (Dbar) (ZISP). Paratypes. Georgia, Borzhomi, Bakuriani, forest, 11 VIII 1981 (Gurasashvili), 1 ♀ (ZISP).

*Distribution.* Georgia.

***B. harpura* species group**

***Barycnemis alpina* (Strobl, 1901)**

*Material.* Austria: "St. Peter/Ahrntal, Südtirol 2200m, K/26.8.67 Haeselbarth", 1 ♀ (HORSTM); "Obertauern 5a/26 2050 m 11.8.1959 Haeselbarth", 1 ♂ (HORSTM).

*Distribution.* Sweden, Switzerland, Italy, Austria, Bulgaria (Kolarov, 1987). — European, predominantly mountain species; occurs above forest border in the Alps (Horstmann, 1981).

*Biology.* Host unknown. Flight period from July to August.

### ***Barycnemis deserta* Schwarz, 2003**

*Material.* Austria. "A, S [Salzburg], Hohe Tauern, Edelweißpitze, 47°07' N, 12°49' E, 2500–2570 m, 11.8.2000, Martin Schwarz" 1 ♀, 2 ♂ (paratypes; 1 ♀, 1 ♂ — ZISP, 1 ♂ — SCHWRZ); "A, S, Hohe Tauern, Edelweißpitze, 47°07' N, 12°49' E, 2450–2570 m, 10.9.2000, Martin Schwarz", 1 ♀ (paratype, SCHWRZ). Russia. Krasnoyarsk Terr., Dudinka, 17th km, Kosaya River, willows, 23 VII 1988 (Kasparyan), 1 ♀ (paratype, ZISP).

*Distribution.* Sweden, Austria (Alps), Russia (Krasnoyarsk Terr.).

*Biology.* Host unknown. Flight period from July to September.

*Remarks.* In the revision of European tersilochines, Horstmann (1981) determined some specimens from Northern Europe as *B. linearis* Ashm. (described from Canada). Later he revised the types of the Nearctic species (Horstmann, 2001) and indicated that European material belongs to another species. Schwarz (2003) described this species as new from Austria, Sweden and Krasnoyarsk Territory of Russia.

### ***Barycnemis dissimilis* (Gravenhorst, 1829) (Fig. 8)**

*Material.* 61 ♀ examined. Russia: Krasnodar Terr. (Sochi, Lazarevskoe), Stavropol' Terr. (Essentuki, Podkumok), Kabardino-Balkaria (Elbrus Mt., Terskop, 2400 m), Buryatia (Kudara-Somon; Selenduma, valley of Selenga River), Chita Prov. (50 km N Kalga, Kozlovo; 40 km SW Chita, station Ingoda; 18 km N Konduy, 900 m), Khabarovsk Terr. (Khehtsir; Vysokogornyy), Primorskiy Terr. (Novokachalinsk; Kamen'-Rybolov; Spassk-Dal'niy; 20 SW Spassk-Dal'niy, Malye Klyuchi; 20 km SE Spassk-Dal'niy, Evseevka; 15 km SW Partizansk, Lozovy Mts; Anisimovka, Khualaza Mt., 1200 m; 15 km SE Slavyanka, Ryazanovka; Vladivostok, Sedanka). Ukraine: Zakarpatskaya Prov. (7 km S Rakhov, Kostylevka; Carpathian Nature Reserve, 450–700 m). Georgia (env. Akhaltsikhe, Khagi; 15 km S Akhaltsikhe, Uraveli; Kazbegi, 2300 m; Bakuriani, 2000 m). Mongolia: Eastern Aimag (30 km ENE Tsagan-Ula Mt., Modon-Obo Mt.), Khentey Aimag (15 km S Tsenkher-Mandal).

*Distribution.* France, Netherlands, Germany, Switzerland, Italy, Austria, Poland, Hungary, Romania, Greece (Kolarov, 1989), \*Ukraine, \*Georgia, \*Mongolia, \*Russia (european part, Caucasus, south of Siberia and Far East). — Trans-Palaearctic species.

*Biology.* Host unknown. Flight period from July to October.

### ***Barycnemis harpura* (Schrank, 1802)**

*Material.* Over 600 ♀ and ♂ examined. Russia: Murmansk Prov., Karelia, Arkhangel'sk, Kaliningrad, Leningradskaya, Novgorod and Yaroslavl' Prov., Dagestan, Severnaya Osetia, Voronezh, Volgograd and Tyumen' Prov. (Krasnoseł'kup, Taz River), Yakutia (Yakutsk; Zhigansk; Nazimovo; Khaptagay), Khabarovsk and Primorskiy Terr., Sakhalin I., Magadan Prov. (50 km N Seymchan), Kuril Is (Ekarma, Onekotan, Urup, Kharimkotan, Matua and Kunashir Islands), Kamchatka Prov. (Uzon Volcano). Czech Republic. Hungary. Bulgaria. Lithuania. Belarus. Moldova. Ukraine. Georgia. Armenia. Kazakhstan. Mongolia.

*Distribution.* Holarctic species, pancontinental and rather common in the Palaearctic Region.

*Biology.* Host unknown. Flight period from June to October.

### ***Barycnemis tobiasi* Khalaim, sp. n. (Figs 2, 7, 32)**

*Diagnosis.* The new species is similar to *B. dissimilis* and *B. deserta*, but differs in having the hind femur broader, and distance between eye and lateral ocellus great in lateral view (Fig. 7). *B. tobiasi* sp. n. additionally differs from *B. dissimilis* in having the dorsolateral area of propodeum smooth, and from *B. deserta* in having the malar space shorter.

*Description.* Female. Head strongly narrowed behind eyes in dorsal view (Fig. 2); temple somewhat shorter than eye width (Fig. 2). Antenna with 21–24 segments, all flagellar segments elongate. Upper tooth of mandible longer than lower tooth. Clypeus smooth, indistinctly punctate. Malar space almost half as long as basal width of mandible. Face finely granulate. Frons longer than clypeus and face combined, very finely granulate, impunctate. Vertex and temple smooth, impunctate.

Mesonotum finely granulate dorsally and smooth laterally. Mesopleuron and mesosternum smooth and shining, impunctate. Sternaulus narrow and linear, extending along entire length of mesopleuron. Dorsolateral area of propodeum mostly smooth, sometimes with sparse indistinct punctures. Basal longitudinal furrow rugulose (sometimes very shallow), about 1.5 times as long as apical area. Apical area irregularly rugulose. Propodeal spiracle adjacent pleural carina.

Second recurrent vein strongly postfurcal, almost entirely unpigmented. Width of pterostigma subequal to first abscissa of radial vein. Metacarp not reaching apex of fore wing.

Legs (especially hind) robust. Hind femur 2.8–3.0 times as long as broad, longer than hind tibia; hind tibia shorter than first tarsal segment.

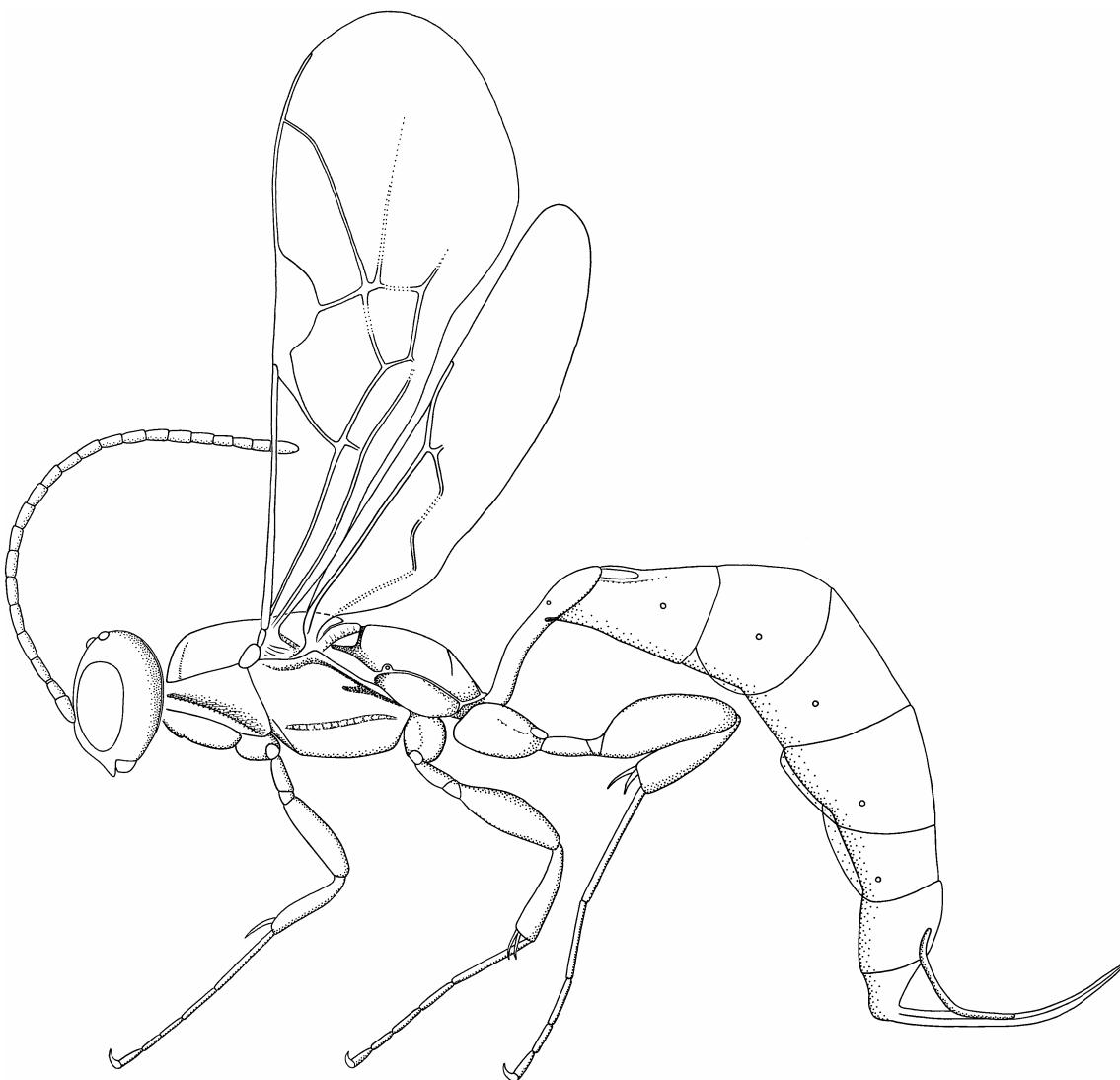
First metasomal segment slender and very long, entirely smooth. Glymma small, situated far beyond the middle of first tergite. Thyridia about 3.0 times as long as wide. Ovipositor slender and upcurved, its sheath somewhat shorter than first tergite.

Body black. Palpi, mandible (except for teeth apically), tegula and legs yellow-brown. Antenna basally and lower clypeus dark brown. Mid and hind coxae darkened (hind coxa almost black). Pterostigma brown. Metasoma behind first segment brown to dark brown.

Body length about 4.0 mm; fore wing length 2.0 mm; head width 0.56 mm; mesosoma length 1.2 mm, width 0.44 mm; hind femur length 0.5 mm, broad 0.18 mm; hind tibia length 0.4 mm; first segment of hind tarsus length 0.46 mm; first tergite length 0.7 mm, posterior width 0.14 mm; second tergite length 0.43 mm; ovipositor sheath 0.57 mm.

Male unknown.

*Material*. Holotype: ♀, Russia, Kuril Is., Kunashir I., 5 km N Golovnina Volcano, oak-forest, glades, 25 VII 1981 (Belokobylskij) (ZISP). Paratypes. Russia: Buryatia, 13 km E Kudara-Somon, Dungay, forest, 9 VIII 1970



**Fig. 32.** *Barycnemis tobiasi* sp. n.

(Kasparyan), 1 ♀ (ZISP); Sakhalin I., Novoalexandrovsk, 7 IX 1973 (Kasparyan), 1 ♀ (ZISP); Kuril Is, Kunashir I., Sernovodsk, 15 VII 1973 (Kasparyan), 1 ♀ (ZISP); Kunashir I., Golovnina Volkano, Goryachee Lake, mixed forest, 28 VII 1981 (Belonobylskij), 1 ♀ (ZISP); Kunashir I., same locality, on herbs and bushes, 18 VIII 1988 (Basarukhin), 1 ♀ (SIZK); Kunashir I., Kislyy stream, glades, 4 VIII 1988 (Kotenko), 2 ♀ (SIZK); Kunashir I., Alekhino, 14 VIII 1988 (Basarukhin), 1 ♀ (SIZK); Shikotan I., Shikotan Mt., Malokuril'skoe, 21 VI 1973 (Kerzhner), 1 ♀ (ZISP); Shikotan I., 5 km S Krabozavodsk, 15 VIII 1973 (Kasparyan), 1 ♀ (ZISP); Shikotan I., Tserkovnaya Bay, 16 VIII 1973 (Kasparyan), 1 ♀ (ZISP).

*Distribution.* Russia (Buryatia and south of Far East).

*Etymology.* This species is named in honour of Dr. V.I. Tobias, a well-known specialist on Bracidae and my colleague.

### Genus *Epistathmus* Förster, 1869

Type species: *Epistathmus crassicornis* Horstmann, 1971.

Only one Palaearctic species is known.

#### *Epistathmus crassicornis* Horstmann, 1971

*Material.* 18 ♀ and 97 ♂ examined. Russia: Murmansk Prov. (Khibiny Mts, Kirovsk; Imandra Lake, Monchegorsk; Imandra Lake, Vite-Guba), Karelia (Virandozero; "Vodlozerskiy" National Park), Arkhangel'sk Prov. (24 km SE Arkhangel'sk), Kaliningrad Prov. (Ryabinovka), Leningradskaya Prov. (Kameshki; Kobralovo-Semrino; Druzhnaya Gorka), Novgorod Prov. (20 km NW Pestovo), Smolensk Prov. ("Smolenskoe Poozerye" National Park, Przheval'skoe), Irkutsk Prov. (32 km S Irkutsk, Dachnoe), Khabarovsk Terr. (Udyl' Lake), Primorskiy Terr. (25 km SE Ussuriysk, Kamenushka; Anisimovka, Khualaza Mt., 1200 m; Ussuriyskiy Nature Reserve). Czech Republic: Bohemia (Šumava National Park). Poland (Hajnówka). Finland (Parkano). Lithuania: Alytus (Žuvinto Nature Reserve), Rokiškis, Radviliškis (Bargailiai; Praviršulis Nature Reserve), Kaunas (Pavejuonis), Varėna, Akmenė. Ukraine: Volynsk Prov. (Kovel' Distr., Lyubcha Lake), Crimea (E Chatyr-Dag Mts, Angarskiy Pass, Sosnovka). Georgia (Abkhazia, env. Pitsunda, Lidzava; Kazbegi, 2600 m).

*Distribution.* Ireland, Finland, France, Germany, Denmark, Switzerland, North Italy, Austria, Czech Republic (Šedivý, 1989), Poland, Latvia, \*Lithuania, \*Ukraine, \*Georgia, Russia (european part, \*south of Siberia and \*Far East). — Trans-Palaearctic species.

*Biology.* Host unknown. Flight period from June to September (mostly from July to August).

### Genus *Spinolochus* Horstmann, 1971

Type species: *Thersilochus laevifrons* Holmgren, 1860.

Small Holarctic genus which includes one Palaearctic and one Nearctic (U.S.A.) species (Torger森, 1973).

#### *Spinolochus laevifrons* (Holmgren, 1860)

*Material.* 31 ♀ and 5 ♂ examined. Russia: Karelia ("Vodlozerskiy" National Park, Kolgostrov I.), Arkhangel'sk Prov. (23 km NNE Onega), Kaliningrad Prov. (Courish spit, Rybachy), Leningradskaya Prov. (Roshchino; Solnechnoe; station Ladoga Lake), Novgorod Prov. (20 km NW Pestovo), Pskov Prov. (23 km SE Sebezh), Voronezh Prov. (Voronezh Nature Reserve; Voronezh; Ramon'; Khoper Nature Reserve, Varvarino), Primorskiy Terr. (20–25 km ESE Spassk-Dal'niy, Siniy Mts; Krasnoarmeysk Distr., Mel'nichnoe), Kuril Is (Onekotan I., Terrasnyy Cape; Paramushir I., Severo-Kuril'sk). Lithuania: Varėna, Vilnius. Ukraine: Lugansk Prov. (Derkul River, Nizhnyaya Ilenka). Kyrgyzstan: Issyk Kul' Prov. (Barskaun Canyon).

*Distribution.* Ireland, Sweden, Netherlands, Germany, Denmark, Poland, Bulgaria (Kolarov, 1987), \*Lithuania, \*Ukraine, \*Russia (european part and south of Far East), \*Kyrgyzstan. — Trans-Palaearctic species.

*Biology.* Host unknown. Flight period from May to September (mostly from June to August).

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