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BRACONIDAE (HYMENOPTERA) FROM KOREA XXIII. SUBFAMILIES AGATHIDINAE AND ALYSIINAE*

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Seventy-five specimens belonging to two subfamilies, Agathidinae and Alysiinae, all collected in Korea are treated in the present article. This braconid material contains four agathidine and twenty-six alysiine (dacnusine) species already known, and ten newly described alysiine (1 *Alysia* and 9 *Chorebus*) species. The previously described taxa are listed with their full locality etc. data while the new species are described and their taxonomic relatedness discussed. With 128 original line drawings.

Key words: Korea, braconids, faunistic data, descriptions of the new species, nearest allies

INTRODUCTION

The species of the two braconid subfamilies, Agathidinae and Alysiinae, are based on a total of 75 specimens (Agathidinae 7 and Alysiinae 68) representing 4 species of Agathidinae and 36 species of Alysiinae. From among the 36 alysiines 10 species proved to be new to the science. They are as follows: (Alysiini:) *Alysia ponerola* sp. n. and (Dacnusini:) *Chorebus bermus* sp. n., *Ch. cubiculus* sp. n., *Ch. ebedus* sp. n., *Ch. fumoala* sp. n., *Ch. ilvus* sp. n., *Ch. occultus* sp. n., *Ch. senes* sp. n., *Ch. subcubicus* sp. n., *Ch. voltor* sp. n. The majority of the known species is new to the fauna of Korea. The agathidine species were identified with the help of NIXON's (1986) and SIMBOLOTTI and VAN ACHTERBERG's (1992, 1999); the alysiine species by using TOBIAS's (1986: 100–231, 1998: 299–411) and BELOKOBYLSKIJ's (1998: 170–191) books.

FAUNISTIC LIST

In this chapter the four known agathidinae and the twenty-six alysiine (dacnusine) species are listed complete with the localities giving only the locality numbers, more detailed information is presented in the nine papers referred to in PAPP (2007). Below are the two localities which were not included previously:

* Zoological Collectings by the Hungarian Natural History Museum in Korea, No. 148.

No. 494. Korea, Kangvon province, Samil-po Inlet, 13 October 1978, leg. A. VOJNITS et L. ZOMBORI. – Collecting material fom under stones.

No. 1002. Korea, Ryang province, Sam-ji-yon, 5 June 1985, leg. A. VOJNITS et L. ZOMBORI. – Water sample taken from a small lake some 450 m from the hotel.

AGATHIDINAE

Agathis fuscipennis (ZETTERSTEDT, 1838) – 1 ♂: No. 376 (as *A. genalis* TELENGA det. SHARKEY in PAPP 2003: 123).

Agathis nigra NEES, 1812 – 2 ♀♀ +2 ♂♂: No. 680 (as *A. genalis* TELENGA det. SHARKEY in PAPP 2003: 123).

Bassus cingulipes (Nees, 1812) – 1 ♀ (in Zoological Institute, Warszawa): Onpho, Chongijn, 16 VIII 1959, leg. PISARSKI et PRÓSZÝNSKI. – Widely distributed in the western Palaearctic Region. New to the fauna of Korea.

Bassus peniculus Sharkey, 1996 – 1 ♂: Dephun ad Kujang-dong, 4 IX 1959, leg. PISARSKI. – Described from Japan and Far East of Asiatic Russia. – The Korean male represents an albanic form: ground color of body yellowish brown with few black(ish) pattern. New to the fauna of Korea.

ALYSIINAE: DACNUSINI

Chorebus (Stiphrocera) agraules (NIXON,1945) – 2 ♀♀: No. 376. – Until now known from England, Germany, Hungary and European Russia. New to the fauna of Korea.

Chorebus (Stiphrocera) albipes (HALIDAY, 1839) – 1 ♀: Prov. Kangwon, Mt Kumgang, 25 IX 1994, leg. MÉSZÁROS et ZOMBORI.

Chorebus (Stiphrocera) alecto (MORLEY, 1924) – 1 ♀: No. 288. – Distributed in the Palaearctic Region, nearest to Korea known in Far East of Asiatic Russia (TOBIAS 1998: 376). New to the fauna of Korea.

Chorebus (Stiphrocera) andizhanicus (TOBIAS, 1966) – 1 ♂: No. 225. 1 ♀: No. 381. – Hitherto known in three countries: Uzbeghistan (locus typicus) and Mongolia. New to the fauna of Korea.

Chorebus (Stiphrocera) avestus (NIXON, 1944) – 1 ♀: No. 920. – In the western Palaearctic Region widely distributed (SHENEFELT 1974: 1039, TOBIAS 1986: 193). New to the fauna of Korea.

Chorebus (Stiphrocera) dagda (NIXON, 1943) – 1 ♂: No. 281. – In Europe found in eight countries, nearest to Korea in Ukraine. New to the fauna of Korea.

Chorebus (Stiphrocera) endymion GRIFFITHS, 1967 – 1 ♂: No. 374. 1 ♂: No 376. – Described from Germany, reported from Far East of Asiatic Russia. New to the fauna of Korea.

Chorebus (Stiphrocera) enephes (NIXON, 1945) – 1 ♂: No. 305. 1 ♂: No. 376. – In Europe known in five countries: Great Britain, Sweden, Germany, Poland and Hungary; not yet recorded from Russia. New to the fauna of Korea.

Chorebus (Stiphrocera) ergias (NIXON, 1945) – 2 ♀♀: No. 281. 2 ♂♂: No.282. – Described from Sweden, reported from Hungary. New to the fauna of Korea.

Chorebus (Stiphrocera) flavipes (GOUREAU, 1851) – 1 ♂: No. 376. – Widely distributed in the Palaearctic Region, nearest to Korea known in Mongolia and Far East of Asiatic Russia. New to the fauna of Korea.

Chorebus (Stiphrocera) ganesus (NIXON, 1945) – 1 ♀: No. 281. 1 ♀: No. 374. – Known sporadically in Sweden, Germany and Russia, nearest to Korea in Far East of Asiatic Russia. New to the fauna of Korea.

Chorebus (Stiphrocera) granulosus TOBIAS, 1998 – 1 ♀: No. 230. – Described from and hitherto known only from Far East of Asiatic Russia. New to the fauna of Korea.

Chorebus (Stiphrocera) lar (MORLEY, 1924) – 2 ♂♂: No. 164. 2 ♂: No. 175. 1 ♂: No. 225. 1 ♀: No. 331. 1 ♀: No. 698. – Widely though sporadically distributed in the Palaearctic Region (TOBIAS 1998: 357). New to the fauna of Korea.

Chorebus (Stiphrocera) nanus (NIXON, 1943) – 1 ♀: No. 317. 1 ♀: No. 347. – In Europe known in eight countries (SHENEFELT 1974: 1056, PAPP 2005*b*: 146). New to the fauna of Korea.

Chorebus (Stiphrocera) ninellus (NIXON, 1945) – 1 ♀: No. 381. – Distributed in Europe (England, Sweden, Germany, European Russia) and Asiatic Russia (Primorski krai, Sakhalin). New to the fauna of Korea.

Chorebus (Stiphrocera) ovalis (MARSHALL, 1896) – 1 ♀: No. 281. 1 ♀: No. 282. 1 ♀: 293. – In Europe widely though less frequently distributed. Reported from Asiatic Russia (TOBIAS 1998: 375). New to the fauna of Korea.

Chorebus (Stiphrocera) peremtor TOBIAS, 1998 – 1 ♂: No. 282. 1 ♀ + 1 ♂: No. 293. 1 ♀: No. 374. – Described recently from Asiatic Russia (Primorski krai). New to the fauna of Korea.

Chorebus (Stiphrocera) pseudomisellus GRIFFITHS, 1968 – 1 ♀: No. 439. – Described from Germany, reported from Hungary and Far East of Asiatic Russia. New to the fauna of Korea.

Chorebus (Stiphrocera) spenceri GRIFFITHS, 1964 – 1 ♀ + 1 ♂: No. 193. – Sporadically known in England, Scotland, Hungary and European Rusia (Leningrad district). New to the fauna of Korea.

Chorebus (Stiphrocera) thisbe (NIXON, 1937) – 1 ♂: No. 376. – In Europe known from four countries: England, Germany, Switzerland and European Russia. New to the fauna of Korea.

Chorebus (Stiphrocera) tumidus (TOBIAS, 1966) – 1 ♀: No. 494. – Distributed in Turkmenia and Mongolia. New to the fauna of Korea.

Chorebus (Stiphrocera) turcomanus (TOBIAS, 1966) – 1 ♀: No. 288. – Described from Turkmenia (TOBIAS 1966: 125), reported from Hungary (PAPP 2005*b*: 147). New to the fauna of Korea.

Chorebus (Chorebus) uliginosus (HALIDAY, 1839) – 1 ♂: No. 1000. 1 ♀: No. 1002. – Reported recently from Korea (PAPP 2007: 9).

Chorebus (Stiphrocera) veratri GRIFFITHS, 1968 – 1 ♀: No. 376. – Described from Germany (GRIFFITHS 1968*a*: 32), reported from the Asiatic Russia (Kamchatka, Primorski krai; TOBIAS 1998: 371). New to the fauna of Korea.

Chorebus (Phaenolexis) xiphidius GRIFFITHS, 1967 – 1 ♀: No. 274. 1 ♂: No. 376. – Reported recently from Korea (PAPP 2007: 9).

Dacnusa (Dacnusa) maculipes THOMSON, 1895 – 1 ♀: No. 196. – Frequent to common in the Palaearctic Region.

DESCRIPTIONS OF THE NEW SPECIES

One alysiine and nine dacnusine species are described, their nearest allies and taxonomic places are presented. In the descriptions the following abbreviations are applied (after VAN ACHTERBERG 1993: 5):

Fore wing venation – *m–cu* = transverse medio-cubital or recurrent vein, *r* = transverse radial vein or the first section of the radial vein, *1–R1* = first section of the metacarpal vein, *2–SR* = first

transverse cubital vein, *3–SR* = second section of the radial vein, *CU1b* = second short section of the subdiscoidal vein, *SR1* = third section of the radial vein.

Alysia (Anarcha) ponerola sp. n. ♀
(Figs 1–11)

Material examined (2 ♀♀) – Female holotype: Korea, prov. South Pyongan, Pyongyan, swept from grass in a city park, 4 August 1971, leg. S. HORVATOVICH et J. PAPP (loc. no. 137). One female paratype: Korea, prov. Pyongan, (Mt.) Lyong-ak san, 14 km W from Pyongyan, 11 August 1971, leg. S. HORVATOVICH et J. PAPP (loc. no. 160). – Holotype is in good condition: (1) glued on a pointed card by its mesosternum, (2) left flagellum deficient, i.e. with 18 flagellomeres. Paratype is in fairly good condition: (1) mounted similar to the holotype, (2) right flagellum deficient, i.e. with 10 flagellomeres, (3) right fore (except coxa) and right middle legs missing.

Holotype and paratype are deposited in the Hungarian Natural History Museum (Department of Zoology), Budapest, Hym. Typ. Nos 11378 (holotype) and 11379 (paratype).

Etymology – The species name "ponerola" is the abbreviated form of poneareola, referring to the propodeum areolated on its hind half (Fig. 7).

Description of the female holotype. – Body 3 mm long. Antenna nearly twice longer than body and with 33 antennomeres. First flagellomere long, nine times as long as broad apically and 1.7 times longer than second flagellomere (Fig. 1). – Head in dorsal view less transverse, almost 1.6 times as broad as long (Fig. 2, see arrows), eye 2.4 times as long as temple, temple rounded, occiput weakly excavated. Eye in lateral view 1.3 times as high as wide and almost twice (or 1.9 times) wider than temple, temple evenly broad beyond eye (Fig. 3, see arrows). Mandible 1.65 times as long below as broad between upper and lower teeth, upper tooth less long, middle tooth pointed (Fig. 4). Tentorial pits nearer to compound eye than to each other. Head polished.

Mesosoma in lateral view 1.5 times as long as high, polished. Pronope absent. Notaulix evenly deep and crenulated, almost reaching mesoscutal dimple (Fig. 5). Precoxal sulcus fairly wide and crenulated, hind margin of mesopleuron also crenulated (Fig. 6). Propodeum carinated: with a medio-transverse carina, hind half of propodeum with five areolae, transverse carina anteriorly with a median small areola emitting anteriorly a medio-longitudinal carina, areola itself parallel-sided (Fig. 7). – Hind femur 4.5 times as long as broad distally (Fig. 8). Hind basitarsus as long as tarsomeres 2–3 + half of 4th combined.

Fore wing as long as body. Pterostigma (Fig. 9) cuneiform, seven times as long as wide, issuing *r* distally from its middle, *r* a bit shorter than width of pterostigma; *1–R1* somewhat longer than pterostigma. Second submarginal cell fairly long, *2–SR* 1.1 times as long as *3–SR*, *SR1* 3.7 times longer than *3–SR* and reaching tip of wing. Vein *m–cu* just antefurcal. Firs subdiscal cell closed distally.

First tergite (Fig. 10) twice as long as broad behind, moderatley and evenly broadening posteriorly, pair of spiracles before middle of tergite, laterope fairly deep, tergite posteriorly striated. Second tergite trapezeform, almost twice wider behind than long, together with further tergites polished. Ovipositor sheath short, as long as hind basitarsus.

Ground colour of body brown. Scape and pedicel yellow, flagellum darkening brownish yellow to greyish brown, flagellomeres 20–30 white, apical flagellomere brown. Head brownish yellow; mandible, labrum and palpi straw yellow. Mesosoma brown, propodeum dark brown. First tergite blackish, other tergites blackish brown, last three tergites yellowish. Legs yellow, coxae + trochan-

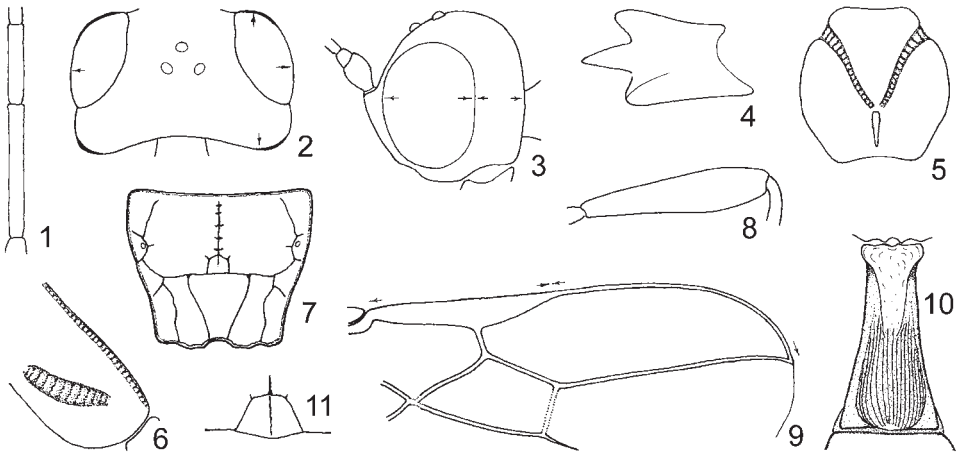
ters pale yellow, hind tibia and tarsus faintly brownish fumous. Wings hyaline, pterostigma and veins brownish.

Description of the female paratype. – Similar to the holotype. Body 2.8 mm long. Antenna with 32 antennomeres. Head in dorsal view 1.5 as broad as long. Small areola of transverse carina (on propodeum) with diverging sides (Fig. 11). Hind femur 4.1 times as long as broad distally. Pterostigma eight times as long as wide, *2–SR* 1.2 times as long as *3–SR*.

Male and host unknown.
Distribution: Korea.

The new species, *Alysia (Anarcha) ponerola*, is nearest to *A. (A.) mogol* BELOKOBYLSKIJ (1998: 176) viewing their light coloured body, smooth face, short ovipositor sheath and long hind femur; the two species are distinguished by the following features:

1 (2) Head in dorsal view transverse (Fig. 6 in BELOKOBYLSKIJ 1998: 176), almost 1.9 times as broad as long. First tergite broadening posteriorly, 1.2 times as long as broad behind (Fig. 10 l.c.). Fore wing: second submarginal cell less long, *2–SR* 1.6–1.7 times as long as *3–SR* (Fig. 9 l.c.). First flagellomere 3.8 times as long as broad apically and 1.1 times longer than second flagellomere (Fig. 8 l.c.), antenna with 30 antennomeres. Hind femur 5.5 times as long as broad distally. Upper tooth of mandible long (Fig.



Figs 1–11. *Alysia (Anarcha) ponerola* sp. n. (1–10: holotype, 11: paratype): 1 = flagellomeres 1–2, 2 = head in dorsal view, 3 = head in lateral view, 4 = mandible, 5 = mesoscutum, 6 = mesopleuron with precoxal sulcus, 7 = propodeum, 8 = hind femur, 9 = distal part of right fore wing, 10 = first tergite, 11 = small areola of propodeum

7 l.c.). Head yellow, flagellum (supposedly) unicoloured brown. 2.8 mm. – Asiatic Russia: Chita Region *A. (A.) mogol* BELOKOBYLSKIJ, 1998

2 (1) Head in dorsal view less transverse, 1.5 times as boad as long (Fig. 2, see arrows). First tergite weakly broadening posteriorly, twice as long as broad behind (Fig. 10). Fore wing: second submarginal cell long, *2–SR* 1.1–1.2 times longer than *3–SR* (Fig. 9). First flagellomere nine times as long as broad apically and 1.7 times longer than second flagellomere (Fig. 1), antenna with 32–33 antennomeres. Hind femur 4.1–4.5 times as long as broad distally (Fig. 8). Upper tooth of mandible less high (Fig. 4). Head yellowish brown, flagellum darkening yellow to brown, penultimate ten flagellomeres white. 2.8–3 mm. – Korea **A. (A.) ponerola** sp. n.

Chorebus (Etriptes) bermus sp. n. ♀
(Figs 12–18)

Material examined (1 ♀) – Female holotype: Korea, prov. Ryang, Chann-pay plateau, (Mt.) Pektu san, Mu-do-bong, 2100–2200 m, 25 July 1975, leg. J. PAPP et A. VOJNITS (loc. no. 288). – Holotype is in good condition: glued on a pointed card by its left half mesosternum. Holotype is deposited in the Hungarian Natural History Museum (Department of Zoology), Budapest, Hym. Typ. No. 11380.

Etymology – The new species received the phantasy name “bermus”.

Description of the female holotype.– Body 1.9 mm long. Antenna nearly 1.5 times as long as body and with 27 antennomeres. First flagellomere four times and penultimate flagellomere clearly twice as long as broad. – Head in dorsal view transverse (Fig. 12), 1.8 times as broad as long, eye 1.35 times longer than temple, temple rounded, occiput excavated. Eye in lateral view just less than twice as high as wide, temple beyond eye as wide as eye and ventrally narrowing. Mandible 1.4 times as long as broad between upper and lower teeth, teeth 1 and 2 fairly large, tooth 3 small (Fig. 13). Head polished.

Mesosoma in lateral view 1.4 times as long as high, polished. Notaulix indistinct. Mesoscutum antero-laterally hairpunctured. Prescutellar dimple short and linearform. Propodeum rugose, hairy, posteriorly densely hairy. Hairy rosette of metapleuron weakly distinct. Precoxal sulcus narrow, subcrenulate. – Hind coxa rugo-rugulose (Fig. 14). Hind femur five times as long as broad (Fig. 15). Hind tibia and tarsus equal in length.

Fore wing slightly longer than body. Pterostigma (Fig. 16) eleven times as long as wide, parallel-sided, *r* 1.4 times longer than width of pterostigma; *1–R1* 0.6 times as long as pterostigma, *3–SR + SR1* ending before tip of wing. First subdiscal cell open distally, i.e. short *CU1b* missing (Fig. 17, see arrow).

First tergite (Fig. 18) 1.8 times as long as broad behind and parallel-sided; pair of spiracles before middle of tergite, pair of basal keels less distinct; tergite rugose, hairy, posteriorly with denser hairs. Other tergites polished. Hypopygium pointed, ovipositor sheath as long as second tarsomere of hind tarsus.

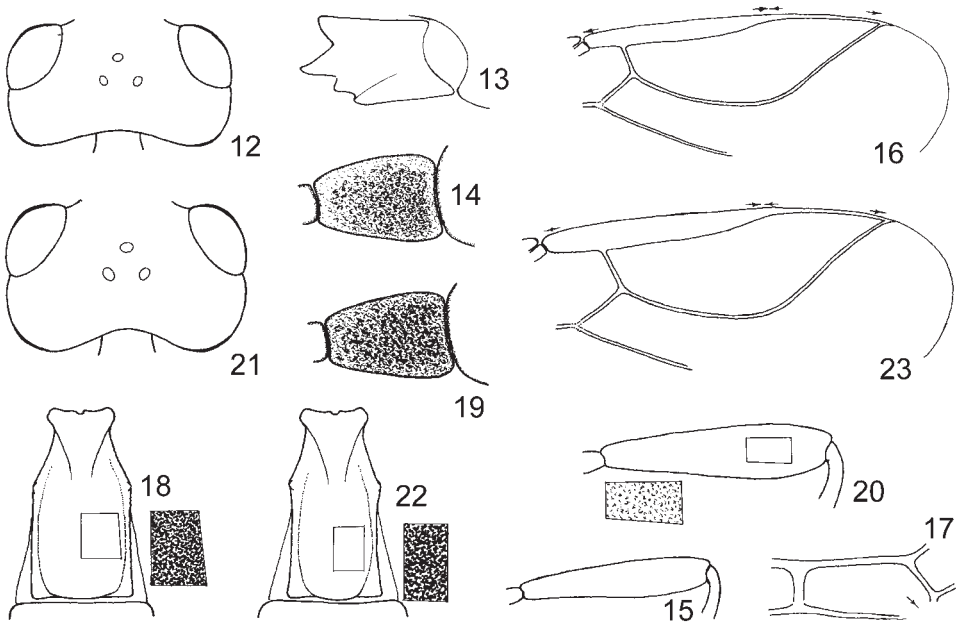
Antenna brown, scape + pedicel and first flagellomere basally yellowish. Head, mesosoma and first tergite black, rest of metasoma dark brown. Palpi brownish yellow. Legs brownish yellow, hind coxa brown. Wings hyaline, pterostigma and veins light brown.

Male and host unknown.

Distribution: Korea.

The new species, *Chorebus (Etriptes) bermus*, is nearest to *Ch. (E.) subasper* GRIFFITHS (GRIFFITHS 1968*b*: 72; TOBIAS 1998: 354) considering their common feature: the sculptured hind coxa; they are separated by the features keyed:

1 (2) Hind coxa densely rugose (Fig. 19). Hind femur 4.2 times as long as broad distally and its outer side roughened (Fig. 20). Head in dorsal view 1.65–1.7 times as broad as log, eye somewhat protruding (Fig. 21). First tergite twice as long as broad behind and somewhat broadening posteriorly, roughly rugose (Fig. 22). Mesoscutum densely punctate. Vein *r* twice as long as width of pterostigma (Fig. 23). Hind femur reddish yellow. Body strong, ♀: 2.3–3 mm. – Poland, Hungary, Asiatic Russia: Kuril Islands
C. (E.) subasper GRIFFITHS, 1968



Figs 12–23. 12–18. *Chorebus (Etriptes) bermus* sp. n.: 12 = head in dorsal view, 13 = mandible, 14 = hind coxa, 15 = hind femur, 16 = distal part of right fore wing, 17 = first subdiscal cell of right fore wing, 18 = first tergite with indication of its sculpture. – 19–23. *C. (E.) subasper* GRIFFITHS: 19 = hind coxa, 20 = hind femur with indication of its sculpture, 21 = head in dorsal view, 22 = first tergite with indiction of its sculpture, 23 = distal part of right fore wing

2 (1) Hind coxa rugo-rugulose (Fig. 14). Hind femur five times as long as broad distally and its outer side smooth (Fig. 15). Head in dorsal view 1.8 times as broad as long, eye not protruding (Fig. 12). First tergite 1.8 times as long as broad behind and parallel-sided, rugose (Fig. 18). Mesoscutum smooth, shiny, antero-laterally hair-punctured. Vein *r* 1.4 times as long as width of pterostigma (Fig. 16). Hind femur yellow. Body gracile, ♀: 1.9 mm. – Korea **C. (E.) bermus** sp. n.

Chorebus (Stiphrocera) cubiculus sp. n. ♀
(Figs 24–31)

Material examined (1 ♀) – Female holotype: Korea, Tesson, 35 km SW Pyongyan, water-basin, swept from grass, 4 July 1977, leg. O. DELY et Á. DRASKOVITS (loc. no. 343). – Holotype is in good condition: (1) glued on a pointed card by its hind part of mesosternum and hind pair of coxae, (2) right fore wing distally and longitudinally somewhat creased. Holotype is deposited in the Hungarian Natural History Museum (Department of Zology), Budapest, Hym. Typ. No. 11381.

Etymology – The species name "cubiculus" refers to the cubicformed head.

Description of the female holotype. – Body 2.2 mm long. Antenna one-sixth longer than body and with 27 antennomeres. First flagellomere 3.2 times and penultimate flagellomere 2.7 times as long as broad. – Head in dorsal view cubicform (Fig. 24), 1.53 times as broad (between temples) as long, temple just longer than eye, temple a bit swollen, occiput excavated. Eye in lateral view almost twice as high as wide, temple 1.2 times wider than eye and beyond eye narrowing ventrally. Inner margin of eyes slightly converging ventrally, face quadrate: slightly wider above than high (Fig. 25). Mandible broad, 1.3 times as long medially as broad between upper and lower teeth, second and fourth teeth pointed (Fig. 26). Head polished.

Mesosoma in lateral view elongated, 1.6 times as long as high, polished. Notaulix feebly distinct on declivous part of mesoscutum; prescutellar dimple linearform; mesoscutum evenly hairy. Precoxal sulcus narrow, subcrenulated. Propodeum rugose, with hairs on its postero-lateral part. Hairy rosette of mesopleuron less distinct. – Hind femur 3.8 times as long as broad distally (Fig. 27). Hind tarsus somewhat longer than hind tibia.

Fore wing as long as body. Pterostigma (Fig. 28) ten times as long as wide, parallel-sided, *r* somewhat longer than width of pterostigma; *1–R1* 0.6 times as long as pterostigma (Fig. 28, see arrows), *3–SR + SR1* ending before tip of wing, marginal cell narrow. First subdiscal cell closed, i.e. *CU1b* present though feebly sclerotized (Fig. 29, see arrow).

First tergite (Fig. 30) 1.3 times as long as broad behind, evenly broadening posteriorly, pair of basal keels not meeting and reaching middle of tergite; tergite with a few striates, interstriations rather transversely rugulose, bare. Second tergite medially subgranulate, otherwise together with further tergites polished. Hypopygium less pointed, ovipositor sheath short (Fig. 31).

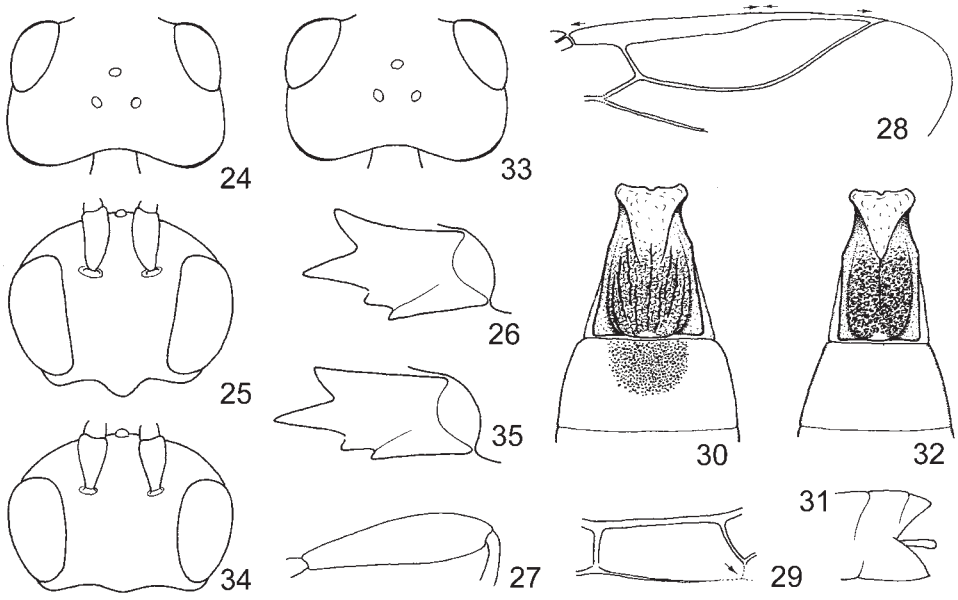
Scape and pedicel brownish yellow, flagellum brown to dark brown. Head and mesosoma black. Mandible ochre, palpi yellowish. Tegula brownish yellow. First tergite black with rusty tint, metasoma beyond first tergite ochre yellow, hind tergites darkening brownish. Legs deep yellow, fifth tarsomere brown to dark brown. Wings hyaline, pterostigma and veins light brown.

Male and host unknown.
Distribution: Korea.

The new species, *Chorebus (Stiphrocera) cubiculus*, is nearest to *Ch. (St.) diremtus* (NEES) (TOBIAS 1986: 187, 1998: 358) viewing their common features as the cubicform head and elongate mesosoma, however, the two species are different by the following features:

1 (2) First tergite more broadening posteriorly, 1.3 times as long as broad behind; second tergite medially subgranulate (Fig. 30). Temple in dorsal view a bit swollen (Fig. 24). Inner margin of eyes converging ventrally, face somewhat wider above than high (Fig. 25). Mandible broad, 1.3 times as long medially as broad between upper and lower teeth (Fig. 26). Hind leg entirely yellow. Metasoma beyond first tergite ochre yellow, hind tergites darkening brownish. ♀: 2.2 mm. – Korea **C. (S.) cubiculus** sp. n.

2 (1) First tergite less broadening posteriorly, 1.8–2 times as long as broad behind; second tergite polished (Fig. 32). Temple in dorsal view not swollen (Fig. 33). Inner margin of eyes either just converging ventrally or parallel, face distinctly wider than high (Fig. 34). Mandible less broad, 1.8–2 times



Figs 24–35. 24–31. *Chorebus (Stiphrocera) cubiculus* sp. n.: 24 = head in dorsal vie, 25 = head in frontal view, 26 = mandible, 27 = hind femur, 28 = distal part of right fore wing, 29 = first subdiscal cell of right fore wing, 30 = tergites 1–2, 31 = hind end of female metasoma. – 32–35. *C. (S.) diremtus* (NEES): 32 = tergites 1–2, 33 = head in dorsal view, 34 = head in frontal view, 35 = mandible

as long medially as broad between upper and lower teeth (Fig. 35). Hind leg brown, tibia and tarsus brownish yellow. Metasoma beyond first tergite dark brown to blackish, tergites 2–3(–4) feebly with rusty suffusion. ♀: 1.8–2.2 mm. – Palaearctic Region *C. (S.) diremtus* (NEES, 1834)

The new species runs to *Ch. (St.) cubocephalus* (TELENGA) (TOBIAS 1998: 358) by their cubicformed head and elongate mesosoma, however, they are distinguished by a few features keyed:

1 (2) Temple in dorsal view swollen, i.e. head between temples a bit broader than between eyes (Fig. 24). First tergite 1.3 times as long as broad behind, evenly broadening posteriorly; second tergite antero-medially subgranulate (Fig. 30). Pterostigma parallel-sided, *1–R1* 0.6 times as long as pterostigma (Fig. 28). Ovipositor sheath short, clearly shorter than second tarsomere of hind leg (Fig. 31). Legs deep yellow. ♀: 2.2 mm. – Korea **C. (S.) cubiculus** sp. n.

2 (1) Temple in dorsal view not swollen, i.e. temple "parallel-sided" (Fig. 128). First tergite 1.6–1.7 times as long as broad behind, less evely broadening posteriorly; second tergite polished (Fig. 127). Pterostigma cuneiform, *1–R1* 0.5 times as long as pterostigma (Fig. 126, see arrows). Ovipositor sheath long, as long as second tarsomere of hind leg. Legs brown to dark brown. ♀: 1.6–2.5(–2.8) mm. – Palaearctic Region (=*Dacnusa cyclops* NIXON, 1937) *C. (S.) cubocephalus* (TELENGA, 1934)

Chorebus (Etriptes) ebedus sp. n. ♀
(Figs 36–43)

Material examined (2 ♀♀) – Female holotype: Korea, (Mt.) Pektu san, Explosion lake, swept from grass, 2000–2500 m, 18 July 1977, leg. O. DELY et Á. DRASKOVITS (loc. no. 369). One female paratype: Korea, prov. Ryang, Sam-ji-yon, park, taken at light at night, leg. A. VOJNITS et L. ZOMBORI (loc. no. 1005). – Holotype and paratype are in good condition: (1) glued on a pointed card by the mesosternum, (2) right pterostigma of the paratype somewhat thickening basally and distally (abnormal?). Holotype and paratype are deposited in the Hungarian Natural History Museum (Department of Zoology), Budapest, Hym. Typ. Nos 11382 (holotype) and 11383 (paratype).

Etymology – The new species received the phantasy name "ebedus".

Description of the female holotype. – Body 2.4 mm long. Antenna longer than body and with 33 antennomeres. First flagellomere 3.6 times and penultimate flagellomere 1.8 times as long as broad. – Head in dorsal view transverse (Fig. 36), almost 1.9 times as broad as long, eye nearly 1.3 times as long as temple, temple rounded, occiput excavated. Inner margin of eyes somewhat converging ventrally (cf. Fig. 25). Eye in lateral view 1.6 times as high as wide and 1.6 times wider than tem-

ple, temple beyond eye evenly broad. Mandible (Fig. 37) 1.8 times as long medially as broad between upper and lower teeth, lower teeth 3–4 equally large, second tooth pointed, upper tooth small. Head polished.

Mesosoma in lateral view 1.4 times as long as high, polished. Notaulix faintly distinct on fore declivous part of mesoscutum. Precoxal sulcus narrow and weakly crenulate (Fig. 38). Mesoscutum and scutellum hairy. Propodeum rugose, lacking pubescence. Metapleuron with less distinct rosette-form hairs. – Hind coxa rugulose as in Fig 39. Hind femur almost evenly broadening distally, 4.5 times longer than broad (Fig. 40). Hind tibia one-fourth longer than hind tarsus; hind basitarsus just shorter than hind tarsomeres 2–3 combined.

Fore wing clearly longer than body. Pterostigma (Fig. 41) narrow, 1.4 times as long as wide, issuing *r* basally, *r* twice longer than width of pterostigma. *1–R1* 0.66 times as long as pterostigma, *3–SR + SR1* approaching tip of wing (Fig. 41, see arrows). First subdiscal cell closed, though *CU1b* weakly sclerotized (Fig. 42, see arrow).

First tergite (Fig. 43) evenly broadening posteriorly, 1.4 times as long as broad behind, pair of spiracles before middle of tergite, basal pair of keels meeting and continuing in a median keel posteriorly, keel rather weak; tergite evenly rugose with diffuse hairs. Second tergite basally with weak striation (Fig. 43), otherwise together with further tergites polished. Ovipositor sheath in lateral view short, somewhat longer than basitarsus of hind leg.

Antenna and body black, metasoma beyond first tergite with weak rusty suffusion. Mandible brownish yellow, palpi pale yellow. Legs brownish yellow, tibiae 1–2 apically weakly, tarsi 1–2 slightly more darkening; hind tibia apically and entire tarsus dark fumous, hind coxa brown. Wings faintly fumous, pterostigma and veins light opaque brown.

Description of the female paratype. – Similar to the female holotype. Body 2.6 mm long. Inner margin of eyes parallel. Pair of spiracles near to middle of first tergite.

Male and host unknown.

Distribution: Korea.

The new species, *Chorebus (Etriptes) ebedus*, runs to *Ch. (E.) talaris* (HALIDAY) with the help of TOBIAS's key (1986: 173, 1998: 354) considering their common feature: hind coxa more or less rugose (Fig. 39); the two species are distinguished by the features keyed:

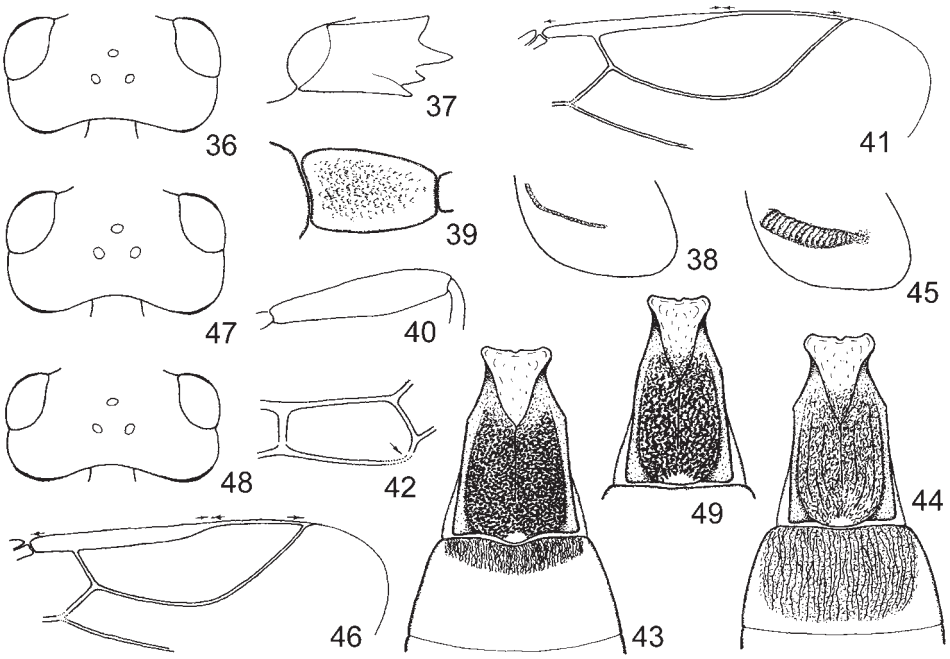
1 (2) Second tergite almost entirely striate; first tergite 1.6 times as long as broad behind, rugulose-subrugulose with striate elements (Fig. 44). Precoxal sulcus wide, crenulated (Fig. 45). Fore wing: *1–R1* short, 0.5 times as long as pterostigma (Fig. 46). Temple slightly less rounded and a bit longer than eye; head in dorsal view 1.7–1.8 times as broad as long (Fig. 47). Legs yellow. ♀: 2.5–3 mm. – Europe, Asiatic Russia: Far East
C. (E.) talaris (HALIDAY, 1839)

2 (1) Second tergite only basally striate; first tergite 1.4 times as long as broad behind, rugose (Fig. 43). Precoxal sulcus narrow, weakly crenulated (Fig. 38). Fore wing: *1–R1* 0.66 times as long as width of pterostigma (Fig. 41). Temple slightly more rounded and as long as eye; head in dorsal view 1.9

times as broad as long (Fig. 36). Legs brownish yellow with much dark pattern. ♀: 2.4–2.6 mm. – Korea **C. (E.) ebedus** sp. n.

Disregarding the weak sculpture of hind coxa the new species runs to *Ch. (St.) knautiae* GRIFFITHS (GRIFFITHS 1967: 572; TOBIAS 1998: 381), the two species are differing as follows:

1 (2) Second tergite entirely smooth, polished. Temple in dorsal view more rounded, eye slightly bulging; head transverse, twice broader than long (Fig. 48). First tergite 1.6 times as long as broad behind, rather longitudinally rugose (Fig. 49). Propodeum hairy, metapleuron with somewhat more distinct rosette-form hairs. Antenna with 38–41 antenomeres. Tegula yellow. ♀: 2.1–2.8 mm. – Poland, England, Romania, Asiatic Russia: Far East
C. (S.) knautiae GRIFFITHS, 1967



Figs 36–49. 36–43. *Chorebus (Etriptes) ebedus* sp. n.: 36 = head in dorsal view, 37 = mandible, 38 = lower half of mesopleuron, 39 = hind coxa, 40 = hind femur, 41 = distal part of right fore wing, 42 = first subdiscal cell of right fore wing, 43 = tergites 1–2. – 44–47. *C. (E.) talaris* (HALIDAY): 44 = tergites 1–2, 45 = lower half of mesopleuron, 46 = distal part of right fore wing, 47 = head in dorsal view. – 48–49. *C. (S.) knautiae* GRIFFITHS: 48 = head in dorsal view, 49 = first tergite

2 (1) Second tergite basally striate (Fig. 43). Temple in dorsal view rounded, eye not bulging; head slightly less transverse, 1.9 times as broad as long (Fig. 36). First tergite 1.4 times as long as broad behind, rugose (Fig. 43). Propodeum bare, metapleuron with somewhat less distinct rosetteform hairs. Antenna with 33 antennomeres. Tegula brown. ♀: 2.4–2.6 mm. – Korea
C. (E.) ebedus sp. n.

Chorebus (Phaenolexis) fumoala sp. n. ♀
(Figs 50–58)

Material examined (2 ♀♀) – Female holotype and one female paratype: Korea, prov. South Pyongan, (Mts) De-sang san, 12 km NE from Pyongyan, 18 July 1975, leg. J. PAPP et A. VOJNITS (loc. no. 267). – Holotype is in fairly good condition: (1) glued on a pointed card by the mesosternum, (2) tarsomeres 2–5 of fore left leg missing, (3) left flagellum deficient, present 28 flagellomeres, (4) right fore wing apically creased and slightly torned. Paratype is in less good condition: (1) mounted like the holotype, (2) head glued separately on the card. Holotype and paratype are deposited in the Hungarian Natural History Museum (Department of Zoology), Budapest, Hym. Typ. Nos 11384 (holotype) and 11385 (paratype).

Etymology – The species name "fumoala" refers to the brownish fumous colour of the wings.

Description of the female holotype. – Body 3.5 mm long. Antenna somewhat longer than body and with 41 antennometes. First flagellomere three times and penultimate flagellomere 1.7 times as long as broad. – Head in dorsal view transverse (Fig. 50), 1.8 times as broad as long, eye 1.5 times longer than temple, temple moderately rounded, occiput excavated. Eye in lateral view 1.7 times as high as wide and just wider than temple (Fig. 51). Mandible broad, a bit longer than broad between upper and lower teeth, first and second teeth pointed, 4th tooth somewhat retracted (Fig. 52). Head polished.

Mesosoma in lateral view elongated, 1.5 times as long as high, polished. Notaulix distinct, evenly deep, smooth (Fig. 53). Mesoscutal dimple short lineraform. Tuft of hairs (or pubescence) restricted antero-laterally on mesoscutum (Fig. 53). Propodeum and metapleuron pubescent. – Hind femur thick, 3.3 times as long as broad distally (Fig. 54). Hind basitarsus 1.75 times longer than second tarsomere (Fig. 55).

Fore wing as long as body. Pterostigma cuneiform, six times as long as wide, *r* a bit longer than width of pterostigma; *1–R1* 0.6 times as long as length of pterostigma, i.e. *3–SR + SR1* approaching tip of wing (Fig. 56, see arrows). First subdiscal cell closed distally, i.e. *CU1b* present.

First tergite (Fig. 57) 1.25 times as long as broad behind, evenly broadening posteriorly, pair of spiracles before middle of tergite, pair of basal keels meeting and reaching middle of tergite; rugose and fairly hairy with apical tufts. Further tergites polished. Hypopygium pointed, ovipositor sheath thick and as long as hind tarsomeres 1–2 combined (Fig. 58).

Scape and pedicel brownish yellow, flagellum dark brown, ventrally faintly brownish. Palpi yellow, mandible rusty brown. Head, mesosoma and first tergite black, rest of metasoma dark rusty, tergites laterally with brownish yellow maculae. Hypopygium apically yellowish to yellow, ovipositor sheath dark rusty brown. Fore leg yellow, fifth tarsomere brown; middle leg brownish yellow,

tarsus fumous; hind leg rusty brown, tibia + tarsus dark rusty brown. Wings evenly brownish fumous, pterostigma light brown, veins brown to light brown.

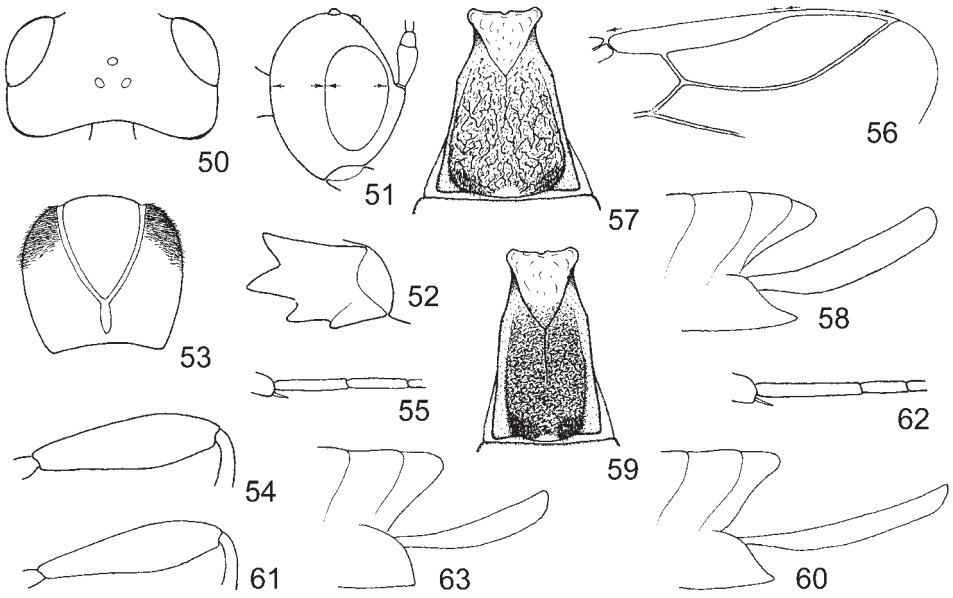
Description of the female paratype. – Similar to the female holotype. Body 3.5 mm long. Head in dorsal view 1.7 times as broad as long. Hind femur 3.1 times as long as broad distally. First tergite 1.4 times as long as broad behind. Legs yellow, hind tibia + tarsus brownish fumous.

Male and host unknown.

Distribution: Korea.

The new species, *Chorebus (Phaenolexis) fumoala*, is nearest to *Ch. (Ph.) stenocera* (THOMSON); see TOBIAS's keys l986: 197 and 1998: 386, the new species differs from THOMSON's species by the following features:

1 (2) Notaulix distinct, mesoscutum bare and polished, tuft of hairs restricted antero-laterally (Fig. 53). Antenna with 41 antennomeres. First tergite somewhat more broadening posteriorly, 1.25 times as long as broad behind (Fig. 57). Ovipositor sheath in lateral view thick (Fig. 58). Hind femur relatively thick, 3.3 times as long as broad distally (Fig. 54). Wings brownish fumous. ♀: 3.5 mm. – Korea **C. (P.) fumoala** sp. n.



Figs 50–63. 50–58. *Chorebus (Phaenolexis) fumoala* sp. n.: 50 = head in dorsal view, 51 = head in lateral view, 52 = mandible, 53 = mesoscutum, 54 = hind femr, 55 = tarsomeres 1–2 of hind leg, 56 = distal part of right fore wing, 57 = first tergite, 58 = hind end of female metasoma. – 59–61. *C. (P.) stenocera* (THOMSON): 59 = first tergite, 60 = hind end of female metasoma, 61 = hind femur. – 62–63. *C. (P.) nomia* (NIXON): 62 = tarsomeres 1–2 of hind leg, 63 = hind end of female metasoma

2 (1) Notaulix indistinct, mesoscutum entirely hairy (cf. Fig. 30 in GRIFFITHS 1964: 912). Antenna with 29–32 antennomeres. First tergite somewhat less broadening posteriorly, 1.8 times as long as boad behind (Fig. 59). Ovipositor sheath in lateral view thin (Fig. 60). Hind femur relatively thin, 3.8 times as long as broad distally (Fig. 61). Wings subhyaline. ♀: 3–3.2 mm. – Sweden, Russia, Azerbaidjan, Kazakhstan
C. (P.) stenocera (THOMSON, 1895)

The new species is also near to *Ch. (Ph.) nomia* (NIXON) (NIXON 1937: 43, 1944: 106; TOBIAS 1998: 387), the two species are distinguished as follows:

1 (2) Notaulix distinct, mesoscutum bare and polished, tuft of hairs restricted antero-laterally (Fig. 53). Hind leg: basitarsus short, 1.75 times as long as second tarsomere (Fig. 55). Ovipositor sheath in lateral view thick and long (Fig. 58). Wings brownish fumous. Hind tibia and tarsus dark rusty brown. ♀: 3.5 mm – Korea **C. (P.) fumoala** sp. n.

2 (1) Notaulix indistinct, mesoscutum nearly entirely hairy. Hind leg: basitarsus long, 2.2 times as long as second tarsomere (Fig. 62). Ovipositor sheath in lateral view less thick and less long (Fig. 63). Wings subhyaline. Hind tibia and tarsus yellow, hind tibia apically and tarsus entirely faintly fumous. ♀: 2.5–3 mm. – Palaearctic Region *C. (P.) nomia* (NIXON, 1937)

Chorebus (Stiphrocera) ilvus sp. n. ♀
(Figs 64–73)

Material examined (2 ♀♀) – Female holotype: Korea, prov. Ryang, Chann-pay plateau, Sam-zi-yan, 1700 m, 24–25 July 1975, leg. J. PAPP et A. VOJNITS (loc. no. 289). One female paratype: Korea, (Mt.) Pektu san, lakeshore before Sam-zi-yan Hotel, swept from grass, 19 July 1977, leg. O. DELY et Á. DRASKOVITS (loc. no. 376). – Holotype and paratype are in good condition: (1) glued on a pointed card by their mesosternum and hind coxae, (2) right fore wing of the holotype slightly creased, (3) left fore tarsomeres 4–5 glued separately close below trochanters of left middle leg. Holotype and paratype are deposited in the Hungarian Natural History Museum (Department of Zoology), Budapest, Hym. Typ. Nos 11386 (holotype) and 11387 (paratype).

Etymology – The new species received the phantasy name “ilvus”.

Description of the female holotype. – Body 2.2 mm long. Antenna 1.6 times longer than body and with 35 antennomeres. First flagellomere five times and penultimate flagellomere twice as long as broad. – Head in dorsal view transverse (Fig. 64), 1.6 times as broad as long, eye somewhat longer than temple, temple slightly swollen, occiput excavated. Eye in lateral view 1.8 times as high as wide and

as wide as temple, temple beyond eye evenly wide (Fig. 65, see arrows). Mandible broad, somewhat longer than broad between upper and lower teeth, second tooth less large (Fig. 66). Head polished.

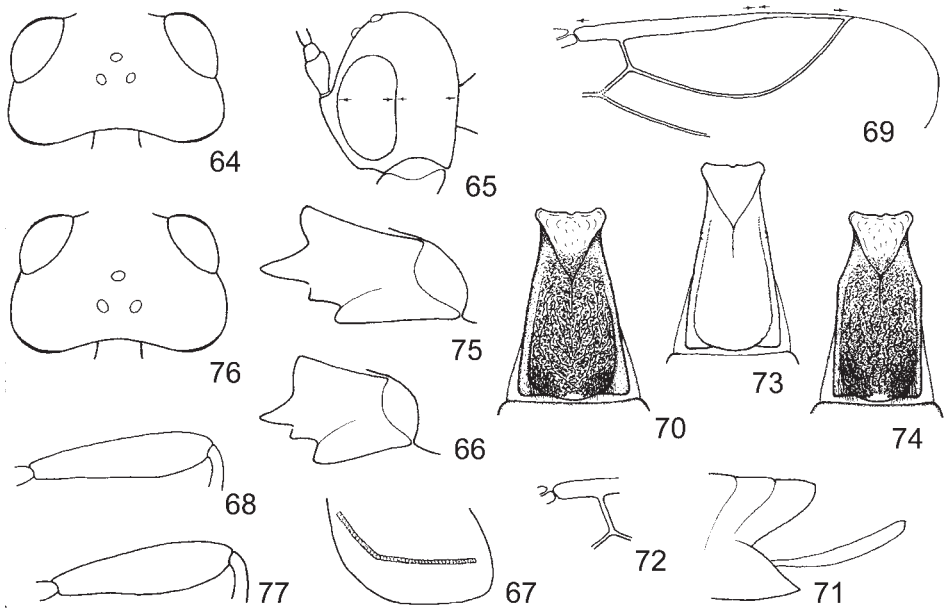
Mesosoma in lateral view 1.4 times as long as high, polished. Notaulix indistinct. Prescutellar dimple shallow and narrow linearform. Precoxal sulcus narrow, deep, finely crenualted (Fig. 67). Propodeum pubescent, metapleural rosette formed by pubescence; propodeum densely rugose. – Hind femur 4.1 times as long as broad distally, less thick (Fig. 68). Hind tibia as long as tarsus.

Fore wing somewhat longer than body. Pterostigma ten times as long as wide, parallel-sided and *r* somewhat longer than width of pterostigma; *1–R1* half as long as length of pterostigma (Fig. 69, see arrows), *3–SR + SR1* ending before tip of wing. First discoidal cell closed, i.e vein *CU1b* sclerotized.

First tergite (Fig 70) 1.3 times as long as broad behind and evenly broadening posteriorly, pair of basal keels meeting before middle of tergite, tergite hairy and at hind with tuft of hairs; tergite rugose with much striate elements. Further tergites polished. Hypopygium large and pointed, ovipositor sheath as long as hind basitarsus, i.e. projecting upwards beyond end of metasoma (Fig. 71).

Scape, pedicel and flagellomeres 1–2 brownish yellow, flagellum dark brown. Body brownish black, metasoma with feeble rusty suffusion. Mandible deep yellow, palpi pale yellow, tegula and parategula brownish yellow. Legs yellow, coxae vivid yellow, telotarsi brown. Wings subhyaline, ptersotigma and veins light brown.

Description of the female paratype. – Similar to the female holotype. Body 2 mm long. Right antenna with 33 and left antenna with 34 antennomeres. Vein *r* almost twice longer than width of



Figs 64–77. 64–73. *Chorebus (Stiphrocera) ilvus* sp. n.: 64 (64–71: holotype, 72–73: paratype): 64 = head in dorsal view, 65 = head in lateral view, 66 = mandible, 67 = lower half of mesopleuron, 68 = hind femur, 69 = distal part of right fore wing, 70 = first tergite, 71 = hind end of female metasoma, 72 = proximal part of pterostigma and *r*, 73 = first tergite. — 74–77. *C. (S.) fallax* (NIXON): 74 = first tergite, 75 = mandible, 76 = head in dorsal view, 77 = hind femur

pterostigma (Fig. 72). Hind femur four times as long as broad distally. First tergite 1.6 times as long as broad behind (Fig. 73). Coxae yellow.

Male and host unknown.

Distribution: Korea.

The new species, *Chorebus (Stiphrocera) ilvus*, is nearest to *Ch. (St.) fallax* (NIXON) (NIXON 1937: 45, TOBIAS 1986: 189) viewing their common features as the swollen temple and ovipositor sheath projecting beyond end of metasoma; the two species are distinguished by the following features:

1 (2) First tergite beyond pair of spiracles parallel-sided, rugose with distinct striate elements (Fig. 74). Mandible 1.3–1.7 times longer than broad between upper and lower teeth (Fig. 75). Eye in dorsal view shorter than temple, latter somewhat more swollen (Fig. 76). Hind femur thick, 3.8 times as long as broad distally (Fig. 77). Hind coxa brownish. Body strong, ♀: 2.7–3 mm. – England, Sweden, Germany, Hungary
C. (S.) fallax (NIXON, 1937)

2 (1) First tergite evenly broadening posteriorly, rugose with less distinct striate elements (Fig. 70). Mandible broad, somewhat longer than broad between upper and lower teeth (Fig. 66). Eye in dorsal view longer than temple, latter less swollen (Fig. 64). Hind femur less thick, 4.1 times as long as broad distally (Fig. 68). Hind coxa vivid yellow. Body gracile, ♀: 2–2.2 mm. – Korea **C. (S.) ilvus** sp. n.

Chorebus (Stiphrocera) occultus sp. n. ♀
(Figs 78–86)

Material examined (1 ♀) – Female holotype: Korea, Sa-Gam, 30–40 km N of Pyongyan, environs waterbasin, swept from grass, 5 July 1977, leg. O. DELY et Á. DRASKOVITS (loc. no. 346). – Holotype is in good condition: (1) glued on a pointed card by its mesosternum and hind pair of coxae, (2) tarsomeres 2–5 of left middle leg missing. Holotype is deposited in the Hungarian Natural History Museum (Department of Zoology), Budapest, Hym. Typ. No. 11388.

Etymology – The new species received the phantasy name “occultus”.

Description of the female holotype. – Body 2.1 mm long. Antenna nearly 1.5 times longer than body and with 38 antennomeres. First flagellomere four times and penultimate flagellomere 2.5 times as long as broad, flagellum attenuating. – Head in dorsal view 1.9 times as broad as long, temple a bit longer than eye, temple somewhat swollen, occiput excavated (Fig. 78). Eye in lateral view almost 1.7 times as high as wide and temple a bit wider than eye, temple ventrally narrowing (Fig. 79). Inner margin of eyes slightly converging ventrally. Mandible somewhat longer than broad between upper and lower teeth, upper tooth less large (Fig. 80). Head polished.

Mesosoma in lateral view 1.25 times as long as high, polished. Notaulix anteriorly distinct, deep, crenulated (Fig. 81), otherwise mesoscutum smooth and shiny, prescutellar dimple linearform, fore half of mesoscutum hairy. Propodeum hairy (not pubescent), hairy rosette of metapleuron less distinct. Precoxal sulcus wide, rugulose (Fig. 82). – Hind femur 4.5 times as long as broad distally (Fig. 83). Hind tibia slightly longer than hind tarsus.

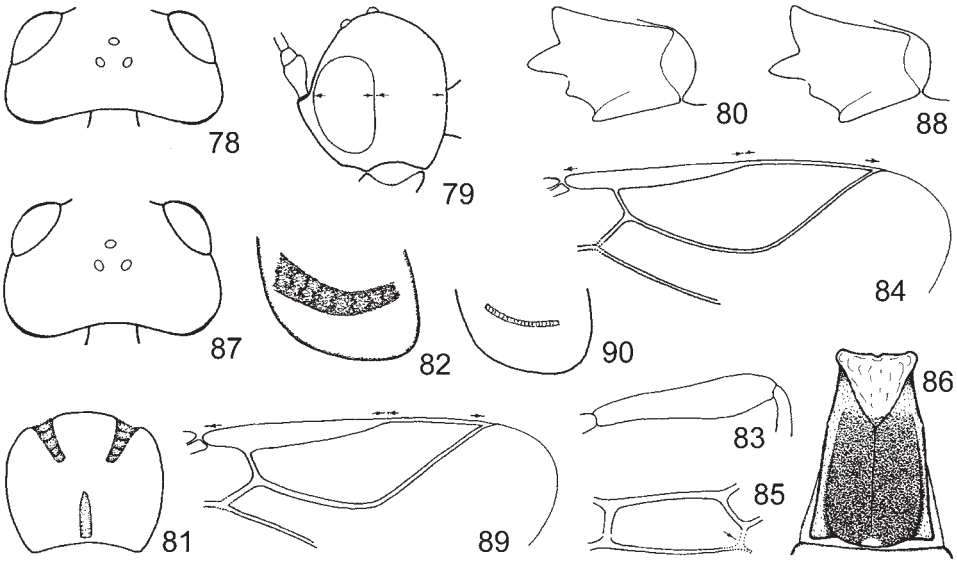
Fore wing about as long as body. Pterostigma cuneiform, ten times as long as wide, distally narrowing, *r* 1.5 times longer than width of pterostigma, *1–R1* 0.7 times as long as pterostigma, *3–SR + SR1* ending before tip of wing (Fig. 84, see arrows). First subdiscal cell virtually open, i.e. *CU1b* very weakly sclerotized (Fig. 85, see arrow).

First tergite (Fig. 86) almost 1.5 times as long as broad behind, evenly broadening posterilorly, pair of basal keels meeting medially and reaching hind end of tergite, with fine granular sculpture, bare. Other tergites polished. Hypopygium pointed, ovipositor sheath short, as long as second tarsomere of hind tarsus.

Scape, pedicel and first flagellomere ochre, flagellum dark brown. Head and mesosoma black, metasoma brown, first tergite black with faint rusty suffusion, hind tergites weakly darkening brownish. Tegula black, parategula brownish. Legs yellow, hind tibia + tarsus dark fumous. Wings subhyaline, pterostigma and veins brownish.

Male and host unknown.

Distribution: Korea.



Figs 78–90. 78–86. *Chorebus (Stiphrocera) occultus* sp. n.: 78 = head in dorsal view, 79 = head in lateral view, 80 = mandible, 81 = mesoscutum, 82 = lower half of mesopleuron, 83 = hind femur, 84 = distal part of right fore wing, 85 = first subdiscal cell of right fore wing, 86 = first tergite. — 87–90. *C. (S.) lissopleuris* TOBIAS: 87 = head in dorsal view, 88 = mandible, 89 = distal part of right fore wing, 90 = lower half of mesopleuron

The new species, *Chorebus (Stiphrocera) occultus*, runs to *Ch. lissopleuris* TOBIAS with the help of TOBIAS's key (1998: 358) considering their bare propodeum, large mandible and swollen temple; the two species are distinguished by the following features:

1 (2) Head in dorsal view less transverse, 1.6 times as broad as long, temple 1.4–1.5 times longer than eye (Fig. 87). Upper tooth of mandible large (Fig. 88). Fore wing: *1–R1* short, 0.5–0.6 times as long as pterostigma, pterostigma wide: seven times as long as wide (Fig. 89, see arrows). Antenna with 23–28 antennomeres. Notaulix shallow and narrow anteriorly. Precoxal sulcus narrow, subcrenulated (Fig. 90). Legs yellow. ♀: 1.3–2 mm. – Asiatic Russia: Primorski krai, Korea
C. (S.) lissopleuris TOBIAS, 1998

2 (1) Head in dorsal view transverse, 1.9 times as broad as long, temple a bit longer than eye (Fig. 78). Upper tooth of mandible less large (Fig. 80). Fore wing: *1–R1* long, 0.72 times as long as pterostigma, pterostigma narrow: ten times as long as wide (Fig. 84, see arrows). Antenna with 38 antennomeres. Notaulix deep and wide anteriorly. Precoxal sulcus wide, rugulose (Fig. 82). Legs brownish yellow. ♀: 2.1 mm. – Korea
C. (S.) occultus sp. n.

Chorebus (Stiphrocera) senes sp. n. ♀♂
(Figs 91–97, 104)

Material examined (3 ♀♀ + 1 ♂) – Female holotype: Korea, prov. Gang-von, district On-dzong, (Mts) Kum-gang san, along (brook) Ok-ru dong, 250–300 m, 7 August 1975, leg. J. PAPP et A. VOJNITS (loc. no. 324). 1 ♀ + 1 ♂ paratypes: Korea, prov. Gang-von, district On-dzong, (Mts) Kum-gang san, near Go-song Hotel, 6–8 August 1975, leg. J. PAPP et A. VOJNITS (loc. no. 326). 1 ♀ paratype: Korea, Sa-Gam, 30–40 km N of Pyongyan, netting the grass in the wood at waterbasin, 5 July 1977, leg. O. DELY et Á. DRASKOVITS (loc. no. 347). – Holotype is in good condition: glued on a pointed card. 2 ♀♀ and 1 ♂ paratypes are also in good condition: (1) glued on a pointed card, (2) one female from loc. 326: right middle tibia + tarsus missing, (3) right hind wing came off adhered to fore wing. Holotype and three paratypes (2 ♀♀ + 1 ♂) are deposited in the Hungarian Natural History Museum (Dept. Zoology), Budapest, Hym. Typ. Nos 11389 (holotype) and 11390–11392 (paratypes).

Etymology – The new species received the phantasy name "senes".

Description of the female holotype. – Body 2.8 mm. Antenna nearly twice longer than body and with 41 antennomeres. First flagellomere 4.5 times and penultimate flagellomere twice as long as broad; flagellum attenuating. – Head in dorsal view transverse (Fig. 91), twice as broad as long, temple slightly shorter than eye, occiput weakly excavated. Eye in lateral view clearly 1.7 times as high as wide, temple just wider than eye; clypeus less projecting in profile (Fig. 92, see arrow). Mandible a

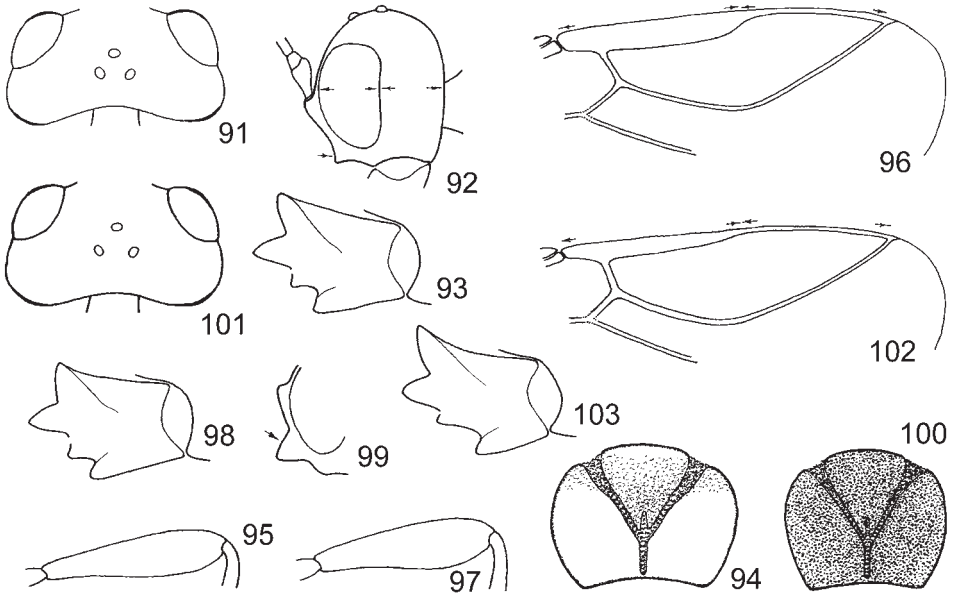
bit longer than broad between upper and lower teeth, its upper tooth rather rounded, second and lower (or fourth) teeth pointed (Fig. 93). Head polished, face laterally subrugulose.

Mesosoma in lateral view 1.4 times as long as high, polished. Notaulix distinct, subcrenulated, reaching linearform and less deep prescutellar dimple; middle lobe of mesoscutum very finely granulose, otherwise mesoscutum smooth and shiny (Fig. 94). Mesopleuron granulose, precoxal sulcus wide and crenulate. Propodeum rugose, bare, only its latero-posterior part hairy. Metapleuron with rosetteform pubescence. – Hind femur 4.1 times as long as broad distally (Fig. 95). Hind tibia and tarsus equal in length. Hind basitarsus nearly twice as long as second tarsomere.

Fore wing somewhat longer than body. Pterostigma wide, seven times as long as broad, *r* just longer than width of pterostigma; *1–R1* one-fifth shorter than length of pterostigma (Fig. 96, see arrows), i.e. *3–SR + SR1* approaching tip of wing. First subdiscal cell closed: *CU1b* present.

First tergite (Fig. 104) 1.6 times as long as broad behind, evenly broadening posteriorly, pair of spiracles before middle of tergite, pair of basal keels less distinct and meeting medially; rugulose with striate elements. Tergites 2–3 fused, second tergite somewhat longer than third tergite, together with further tergites polished. Ovipositor sheath short, in lateral view as long as second tarsomere of hind tarsus.

Scape and pedicel yellowish brown, flagellum darkening light brown to brown. Head dark brown, temple with faint rusty tint. Mesosoma brownish black. First tergite brown, rest of metasoma reddish yellow, posteriorly with brownish suffusion. Mandible brownish yellow, labrum pale straw yellow. Legs yellow, hind femur brownish yellow, hind tibia and tarsus brown.



Figs 91–103. 91–97. *Chorebus (Stiphrocera) senes* sp. n. (91–96: holotype, 97: paratype): 91 = head in dorsal view, 92 = head in lateral view, 93 = mandible, 94 = mesoscutum, 95 = hind femur, 96 = distal part of right fore wing, 97 = hind femur. — 98–101. *Chorebus (Stiphrocera) coxator* (THOMSON): 98 = mandible, 99 = clypeus in lateral view, 100 = mesoscutum, 101 = head in dorsal view. – 102–103. *C. (S.) granulosus* TOBIAS: 102 = distal part of right fore wing, 103 = mandible

Description of the two female paratypes. – Similar to the female holotype. Body 2.8–3 mm long. Antenna with 40 and 42 antennomeres. Hind femur 3.8 times as long as broad distally (1 ♀, Fig. 97). First tergite 1.5 times as long as broad behind (1 ♀). Hind coxa basally just brownish.

Description of the male paratype. – Similar to the female types. Body 2.8 mm long. Antenna with 42 antennomeres. Femora 1–2 with weak brownish suffusion.

Host unknown.

Distribution: Korea.

The new species, *Chorebus (Stiphrocera) senes*, runs to *Ch. (St.) coxator* (THOMSON) and *Ch. (St.) granulosus* TOBIAS with the help of TOBIAS's keys (1986: 183, 1998: 358). The common feature of the three species is the granulose mesoscutum and mesopleuron. The distinctive features of the three species are as follows:

1.) The distinction of *Ch. coxator* and *Ch. senes*:

1 (2) First tergite 1.25–1.3 times as long as broad behind, logitudinally striate, interstriations rugulo-subrugulose; pair of spiracles nearly to the middle (Fig. 105). Upper tooth of mandible pointed, lower (or fourth) tooth rounded (Fig. 98). Clypeus in lateral view more projecting (Fig. 99, see arrow). Mesoscutum evenly granulose (Fig. 100). Head in dorsal view 1.8 times as broad as long (Fig. 101). Antenna with 29–35 antennomeres. Coxae more or less brownish to brown. ♀♂: 2.4–2.8 mm. – Sporadic in the Palaearctic Region *C. (S.) coxator* (THOMSON, 1895)

2 (1) First tergite 1.6 times as long as broad behind, densely rugulose with striate elements; pair of spiracles clearly before the middle (Fig. 104). Upper tooth of mandible slightly less pointed (Fig. 93). Clypeus in lateral view less projecting (Fig. 92, see lower arrow). Mesoscutum anteriorly faintly subgranulose (Fig. 94). Head in dorsal view twice as broad as long (Fig. 91). Antenna with 37–42 antennomeres. Coxae yellow. ♀♂: 2.8–3 mm. – Korea **Chorebus (Stiphrocera) senes** sp. n.

2.) The distinction of *Ch. granulosus* and *Ch. senes*:

1 (2) First tergite 1.8–2 times longer than broad behind, rugulose with scrobiculate elements (Fig. 106). Pterostigma narrow, ten times as long as wide, veins somewhat thick (Fig. 102). Head in dorsal view 1.8 times as broad as long, temple slightly longer than eye (cf. Fig. 101). First (or upper) tooth pointed, second tooth of mandible slightly less pointed (Fig. 103). Metasoma beyond first tergite dark rusty. ♀: 2.3 mm. – Asiatic Russia: Primorski krai *C. (S.) granulosus* TOBIAS, 1998

2 (1) First tergite 1.5–1.6 times longer than broad behind, rugulose with striate elements (Fig. 104). Pterostigma wide, seven times as long as wide, veins thin (Fig. 96). Head in dorsal view twice as broad as long, temple slightly shorter than eye (Fig. 91). First (or upper) tooth less large, second tooth of mandible slightly more pointed (Fig. 93). Metasoma beyond first tergite rusty (1 ♂) or reddish yellow (♀) with more or less brownish suffusion. ♀♂: 2.8–3 mm. – Korea **C. (S.) senes** sp. n.

Chorebus (Chorebus) subcubicus sp. n. ♀
(Figs 107–112, 115–116)

Material examined (1 ♀) – Female holotype: Korea, (Mt.) Pektu san, swept in grass before Sam-zi-yan Hotel at the lake shore, 19 July 1977, leg. O. DELY et Á. DRASKOVITS (loc. no. 376). – Holotype is in good condition: glued on a pointed card by its mesosternum. Holotype is deposited in the Hungarian Natural History Museum (Department of Zoology), Budapest, Hym. Typ. No. 11393.

Etymology – The new species received the name "subcubicus" referring to its cubicform head (Fig. 107).

Description of the female holotype. – Body 2 mm long. Antenna as long as body and with 22 antennomeres. First flagellomere 3.4 times and penultimate flagellomere 2.2 times as long as broad. – Head in dorsal view subcubic (Fig. 107), almost 1.6 times as broad between temples as long, temple swollen and 1.5 times longer than eye, occiput weakly excavated. Eye in lateral view almost 1.8 times as high as wide, temple a bit wider than eye. Inner margin of eyes (in frontal view) clearly converging ventrally (Fig. 108). Mandible just twice as long medially as broad between upper and lower teeth, second tooth large and pointed (Fig. 109). Head polished.

Mesosoma in lateral view 1.6 times as long as high. Pronotum, mesoscutum (Fig. 110) and mesopleuron granulate, dull to subshiny. Scutellum polished. Notaulix indistinct, prescutellar dimple present as a very fine linear sulcus (Fig. 110). Propodeum hairy, along fore margin and between pair of tubercules pubescent. – Hind femur 4.5 times as long as broad distally (Fig. 111). Hind tibia and tarsus less thin, i.e. realtively thick (Fig. 111).

Fore wing somewhat longer than body. Pterostigma (Fig. 115) cuneiform, ten times longer than wide, issuing *r* near to its middle, *r* slightly longer than width of pterostigma; *1–R1* 0.65 times as long as pterostigma, i.e. *3–SR + SR1* evenly curved and approaching tip of wing (Fig. 115). First subdiscal cell closed distally as in Fig. 112 (see arrow).

First tergite (Fig. 116) just longer than broad behind, clearly broadening posteriorly, pair of spiracles before middle of tergite, pair of keels meeting basally and continuing in a median keel beyond middle of tergite; tergite longitudinally striate without anastomoses. Other tergites polished. Hypopygium pointed, ovipositor sheath short, as long as second tarsomere of hind tarsus.

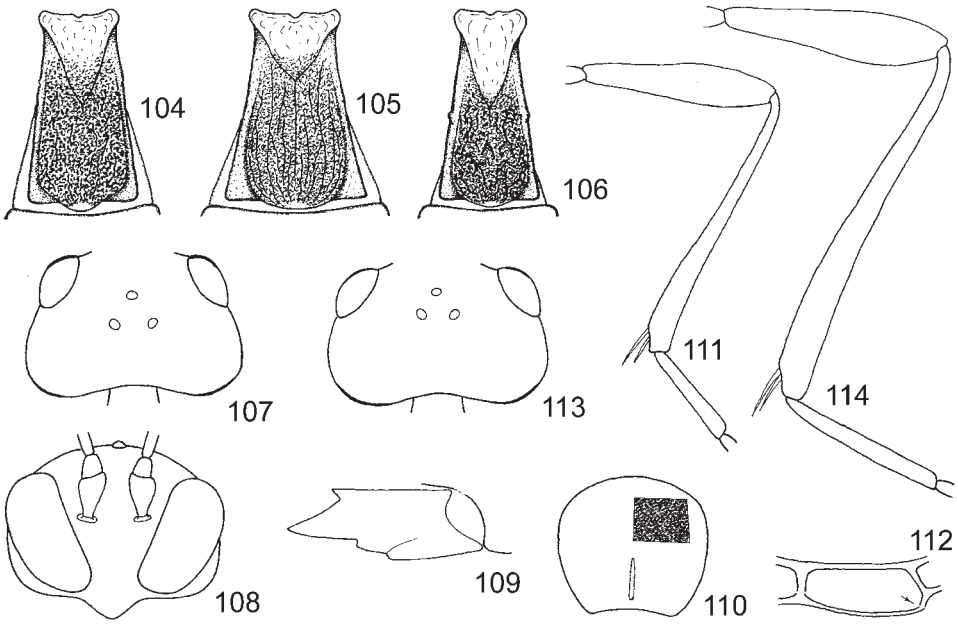
Antenna blackish, body black, second tergite with faint rusty tint. Mandible and palpi yellow. Hypopygium brownish. Legs yellow, all tarsi and tibiae 2–3 brownish fumous, hind coxa on its basal half brown. Wings hyaline, pterostigma and veins opaque brownish.

Male and host unknown.

Distribution: Korea.

The new species, *Chorebus (Chorebus) subcubicus*, runs to *Ch. (Ch.) scabrifossa* STELFOX with the help of TOBIAS's key (1986: 203, 1998: 408) and STELFOX's original description (1957: 115). The two species are similar to each other (sculptured mesosoma, more or less broadening temple, dark corporal colour), however, they are distinguished by the following features:

1 (2) Inner margin of eyes (in frontal view) converging (Fig. 108). Temple in dorsal view more swollen, head virtually less transverse (Fig. 107). Fore wing: *1–R1* short, 0.6 times as long as pterostigma, i.e. *3–SR + SR1* approaching tip of wing (Fig. 115). First tergite less broadening posteriorly, with less dense striation and no anastomoses; second tergite polished (Fig. 116). Antenna with 22 antennomeres. Hind femur less broadening distally, hind tibia and basitarsus less thin, hind basitarsus less than half as long as tibia (Fig. 111). ♀: 2 mm. – Korea **C. (C.) subcubicus** sp. n.



Figs 104–114. 104. *Chorebus (Stiphrocera) senes* sp. n.: first tergite. – 105. *C. (S.) coxator* (THOMSON): first tergite. – 106. *C. (S.) granulosus* TOBIAS: first tergite. – 107–112. *C. (C.) subcubicus* sp. n.: 107 = head in dorsal view, 108 = head in frontal view, 109 = mandible, 110 = mesoscutum with indication of its sculpture, 111 = hind femur, tibia and basitarsus, 112 = first subdiscal cell of right fore wing. – 113–114 = *C. (C.) scabrifossa* STELFOX: 113 = head in dorsal view, 114 = hind femur, tibia and basitarsus

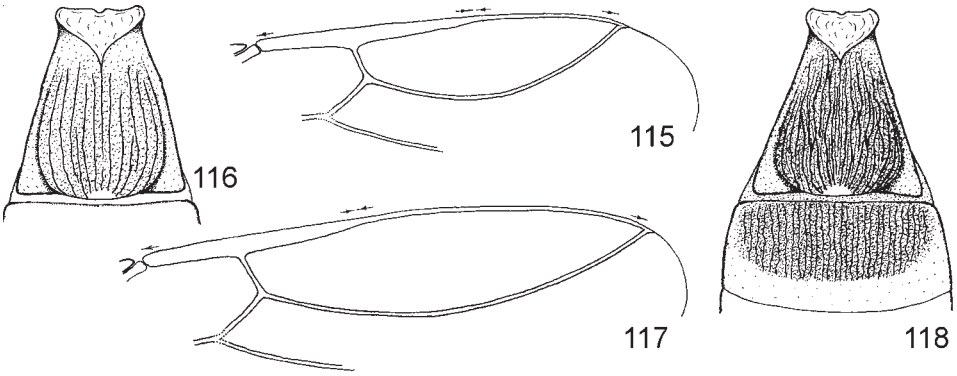
2 (1) Inner margin of eyes (in frontal view) parallel as usually (cf. Fig. 34). Temple in dorsal view less swollen, head virtually more transverse (Fig. 113). Fore wing: *1–R1* long, longer than pterostigma, i.e. *3–SR + SR1* reaching tip of wing (Fig. 117, see arrows). First tergite somewhat more broadening posteriorly, with dense striation and a few anastomoses; second tergite longitudinally striolate (Fig. 118). Antenna 25–29 antennomeres. Hind femur somewhat more broadening distally, hind tibia and basitarsus thin, basitarsus nearly half as long as tibia (Fig. 114). ♀: 2.5–3.2 mm. – Ireland, Romania, Russia (European part, Far East: Primorski krai
C. (C.) scabrifossa STELFOX, 1957

Chorebus (Stiphrocera) voltor sp. n. ♀
(Figs 119–125)

Material examined (1 ♀) – Female holotype: Korea, prov. Ryang, Hyesan, hotel garden, 23 August 1971, leg. S. HORVATOVICH et J. PAPP (loc. no. 193). – Holotype is in good condition: (1) glued on a pointed card at the pair of hind coxae, (2) left middle tibia + tarsus glued separately. Holotype is deposited in the Hungarian Natural History Museum (Department of Zoology), Budapest, Hym. Typ. No. 11394.

Etymology – The new species received the phantasy name "voltor".

Description of the female holotype. – Body 1.9 mm long. Antenna long, nearly twice longer than body and with 30 antennomeres. First flagellomere four times and penultimate flagellomere 3.6 times as long as broad, flagellum just attenuating. – Head in dorsal view cubic, 1.4 times as broad as long, eye a bit shorter than temple, temple slightly broadening (Fig. 119), occiput excavated. Eye in



Figs 115–118. 115–116. *Chorebus (Chorebus) subcubicus* sp. n.: 115 = distal part of right fore wing, 116 = first tergite. – 117–118. *C. (C.) scabrifossa* STELFOX: 117 = distal part of right fore wing, 118 = first tergite

lateral view 1.5 times as high as wide, temple a bit wider than eye, ventral half of temple narrowing (Fig. 120). Inner margin of eyes ventrally slightly converging (Fig. 121). Mandible 1.5 times as long medially as broad between upper and lower teeth, second tooth pointed, lower (or fourth) tooth somewhat retracted (Fig. 122). Head polished.

Mesosoma in lateral view elongate, 1.5 times as long as high, polished. Notaulix distinct though shallow, narrow and smooth, reaching lineraform and deep prescutellar dimple (cf. Fig. 100). Propodeum rugose and with less visible hairs (i.e. without pubescence). Hairy rosette of mesopleuron weakly distinct. – Hind femur 3.8 times as long as broad distally (Fig. 123). Hind tarsus somewhat longer than hind tibia.

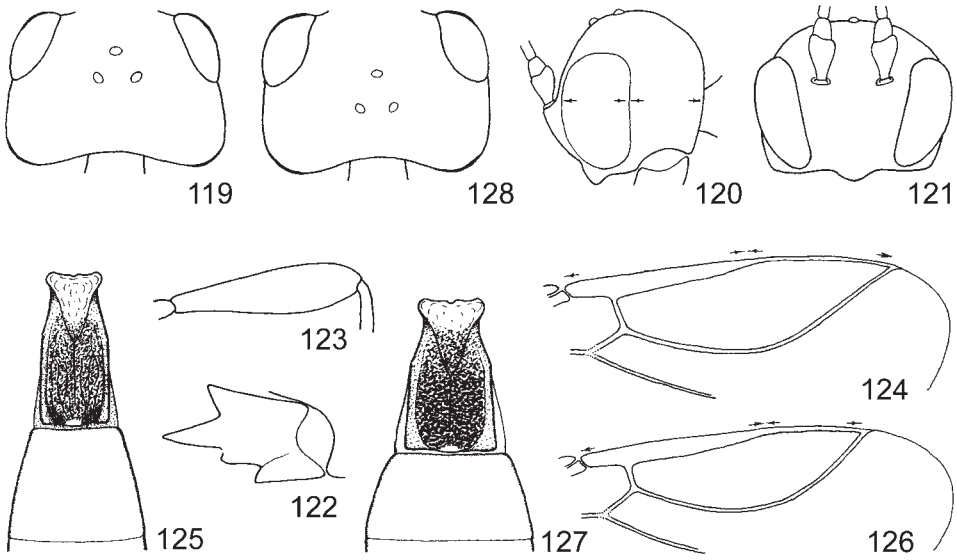
Fore wing as long as body. Pterostigma eight times as long as wide, distally slightly narrowing, issuing *r* clearly proximally from its middle, *1–R1* somewhat shorter then pterostigma (Fig. 124, see arrows), *r* a bit longer than width of pterostigma, *3–SR + SR1* ending before tip of wing. First subdiscal cell closed distally, i.e. *CU1b* weakly sclerotized.

First tergite (Fig. 125) long, 2.1 times as long as broad behind, beyond pair of spiracles parallel-sided, pair of spiracles near before middle of tergite, pair of basal keels meeting medially; tergite bare, apically with tuft of hairs; rugo-rugulose with striate elements. Other tergites polished. Second tergite trapezeform, slightly broader behind than long medially. Hypopygium pointed, ovipositor sheath in lateral view as long as second tarsomere of hind tarsus.

Scape, pedicel and first flagellomere yellow, rest of flagellum somewhat darkening yellowish brown to brown. Head, mesosoma and first tergite black, rest of metasoma yellow, hind tergites darkening brown. Mandible yellowish brown, palpi pale yellow. Legs yellow, fifth tarsomeres of legs faintly brownish. Wings hyaline, pterostigma and veins opaque light brownish.

Male and host unknown.

Distribution: Korea.



Figs 119–128. 119–125. *Chorebus (Stiphrocera) voltor* sp. n.: 119 = head in dorsal view 120 = head in lateral view, 121 = head in frontal view, 122 = mandible, 123 = hind femur, 124 = distal part of right fore wing, 125 = tergites 1–2. — 126–128. *Chorebus (Stiphrocera) cubocephalus* (TELENGA): 126 = distal part of right fore wing, 127 = tergites 1–2, 128 = head in dorsal view

The new species, *Chorebus (Stiphrocera) voltor*, is nearest to *Ch. cubocephalus* TELENGA (TELENGA 1934: 114, TOBIAS 1986: 187, 1998: 358) considering their cubicform head (Figs ll9, 128), however, the females of the two species are distinguished by a few features keyed:

1 (2) Fore wing: pterostigma twice longer than *1–R1* (Fig. 126, see arrows). First tergite relatively broad, 1.6 times as long as broad behind and slightly broadening posteriorly; second tergite transverse, almost twice broader than long (Fig. 127). Temple in dorsal view not broadening, i.e. "parallel"-sided (Fig. 128). Metasoma dark brown to black, with very faint to faint rusty suffusion of variable extent. ♀: 1.6–2.5 mm. – Palaearctic Region
C. (S.) cubocephalus (TELENGA, 1934)

2 (1) Fore wing: pterostigma somewhat longer than *1–R1* (Fig. 124, see arrows). First tergite relatively narrow, 2.1 times as long as broad behind and parallel-sided; second tergite trapezeform, slightly broader behind than long (Fig. 125). Temple in dorsal view slightly broadening (Fig. 119). Metasoma yellow, apically darkening brownish, first tergite black. ♀: 1.9 mm. – Korea **C. (S.) voltor** sp. n.

The new species is similar to *Chorebus (Stiphrocera) cubiculus* sp. n. viewing their cubicform head, they are dintingushed by the following features:

1 (2) First tergite broad, 1.3 times as long as broad behind, evenly broadening posteriorly; second tergite transverse, antero-medially subgranulate (Fig. 30). Head in dorsal view slightly less cubicform, 1.5 times as broad as long (Fig. 24). Pterostigma parallel-sided (Fig. 28). Antenna with 27 antennomeres. ♀: 2.2 mm. – Korea **C. (S.) cubiculus** sp. n.

2 (1) First tergite narrow, 2.1 times as long as broad behind, beyond spiracles parallel-sided; second tergite trapezeform and entirley polished (Fig. 125). Head in dorsal view slightly more cubicform, 1.4 times as broad as long (Fig. 119). Pterostigma narrowing distally (Fig. 124). Antenna with 30 antennomeres. ♀: 1.9 mm. – Korea **C. (S.) voltor** sp. n.

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