

Taxonomic Review of the Tribe Campsomerini (Scoliinae, Scoliidae, Hymenoptera) in Korea

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ABSTRACT

Six Korean species of the tribe Campsomerini are taxonomically reviewed: *Campsomeriella annulata*, *Megacampsomeris grossa matsumurai*, *M. prismatica*, *M. uchidai*, *M. schulthessi*, *M. stoetzneri*. Of these, *M. grossa matsumurai* and *M. stoetzneri* are new to Korea. A key to Korean genera and species, diagnostic characteristics and digital images are also provided.

Key words: Campsomerini, Scoliidae, taxonomy, Korea

INTRODUCTION

The family Scoliidae is a group of fossorial solitary aculeate wasps, containing about 300 species worldwide with predominantly tropical distribution (Gupta and Jonathan, 2003). The members of the family are known to be ectoparasitoids of larvae of *Anomala* and *Phyllophaga* (Scarabaeidae, Coleoptera) in Far Eastern Asia (Uchida, 1936; Iwata, 1976).

Scoliidae currently includes three subfamilies, i.e. Archaeoscoliinae, Proscoliinae and Scoliinae (Rasnitsyn, 1977; Day et al., 1981; Brothers and Finnamore, 1993; Rasnitsyn, 1993). Campsomerini is one of two tribes of the subfamily Scoliinae including another tribe Scoliini. Korean species of Campsomerini are easily distinguished from Scoliini by the presence of two submarginal cells and two recurrent veins (of which second recurrent vein always running from subdiscoidal to cubital vein) in forewing (Fig. 1A).

Up to date, four species of Campsomerini have been known from Korea (Betrem, 1928, 1941; Uchida, 1933, 1936; Kim, 1970, 1980; Tsuneki, 1972; Lelej, 1995; Gupta and Jonathan, 2003; Terayama and Nagase, 2007). In the present study, revised taxonomic information of Korean Campsomerini is provided: a key to the six Korean species including two newly recorded species and diagnostic characteristics of each species supplemented by digital images.

MATERIALS AND METHODS

All the specimens used in this study are housed in the Insect Diversity Laboratory, Hanseo University.

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Terminology for body structure primarily follows Kromvein (1978) and Gupta and Jonathan (2003). Antennae were measured in profile as in Fig. 1Q-T.

As to previously described species and subspecies, references to the original publication of valid names are provided, together with type information.

Abbreviations for provincial names are as follows: [SL] Seoul, [GW] Gangwon-do, [GG] Gyeonggi-do, [CN] Chungcheongnam-do, [CB] Chungcheongbuk-do, [JB] Jeollabuk-do, [JN] Jeollanam-do, [GB] Gyeongsangbuk-do, [GN] Gyeongsangnam-do, [JJ] Jeju-do.

SYSTEMATIC ACCOUNTS

Order Hymenoptera

¹*Family Scoliidae

²*Subfamily Scoliinae

³*Tribe Campsomerini

Key to the Korean genera and species of the tribe Campsomerini

(Male of *Megacampsomeris stoetzneri* unknown)

1. In females, uppermost horizontal face of upper metapleral plate demarcated from the lateral face by a distinct carina (Fig. 1B, arrow). In males, head broader than high in frontal view; basal sloping face of sternum II short, and in profile the sternum evenly rounded basally without angle (Fig. 1C). [Genus *Campsomeriella* Betrem] In females, apical one-third of forewing (striolate region without veins) distinctly fuscous. In males, almost entire faces of pronotum, scutellum and metanotum yellow (Fig. 2B). In both sexes, body, except for the last two

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- metasomal segments with black hairs, with entirely whitish to whitish yellow hairs. *C. annulata annulata* (Fabricius)
- In females, transition between horizontal face and lateral face of upper metapleural plate not carinate, gradual or at most weakly edged. In males, head not broader than high in frontal view; basal sloping face of sternum II longer, and in profile the anterior sloping area and following horizontal face well-demarcated, often the transition angled, with a small median tubercle (Fig. 1D); scutellum and metanotum without marking. In both sexes, body hairs at least in head and mesosoma golden yellow, yellowish brown or reddish brown [Genus *Megacampsomeris* Betrem] 2
 - 2. Females (antenna 12-segmented, and metasoma 6-segmented). 3
 - Males (antenna 13-segmented, and metasoma 7-segmented). 7 - 3. Almost entire face of front, vertex and mesoscutum with dense (almost touching one another) punctures regularly set (Fig. 1F). Face, vertex, pronotum and scutellum mainly being covered with golden reddish slant and appressed hairs. Metasomal terga I-III with a pair of narrow apical bands (Fig. 2C). *M. stoetznerei* (Betrem)
 - Front and vertex with very sparse to moderate punctures, without dense and regular punctures (Fig. 1E, G-J). Face, vertex, pronotum, scutellum and dorsomedian propodeal area mainly with long erect golden yellow, or yellowish brown, or reddish hairs. Metasoma without maculation, or at most terga II-IV with apical bands sometimes shortly interrupted in the middle. 4 - 4. Mesoscutum with a submedian elevated area well-outlined in its lateral and posterior margins; the area almost impunctate to very sparsely punctuate (Fig. 1G). Hairs on front, vertex, pronotum, scutellum, metanotum and dorsomedian propodeal area reddish or reddish brown. Metasomal terga II-III with apical bands (Fig. 2D). *M. schulthessi* (Betrem)
 - Submedian part of mesoscutum at most evenly swollen, not well-outlined (Fig. 1M). Hairs on corresponding parts golden yellow to yellowish brown. Metasoma without maculation. 5 - 5. Mesoscutum not swollen, and without distinct smooth area, at most its submedian punctures slightly sparser than remaining part (Fig. 1N). Apical hair fringes of terga I-IV short and creamy white in color (Fig. 2F). *M. grossa* (Fabricius)
 - Mesoscutum often swollen, and with smooth area (at least the punctures very sparser) submedially (Fig. 1P).

- Apical fringes of terga longer and yellowish to yellowish brown. 6
- 6. The area below anterior ocellus broadly smooth, with sparse punctures, and complete frontal fissure well discernible (Fig. 1I). Almost entire dorsolateral prepodeal face densely punctuate, without broad smooth and polished part. Dorsomedian propodeal face and posteromedian propodeal face not clearly demarcated, without transitional edge; uppermost part of the latter face with a few punctures. *M. prismatica* (Smith)

 - The area below anterior ocellus with dense punctures, if any the frontal fissure interrupted (Fig. 1J). Basal inner part of dorsolateral prepodeal face broadly impunctate and polished (Fig. 1K). Dorsomedian propodeal face and posteromedian propodeal face somewhat clearly demarcated by weak edge; the latter face almost completely impunctate. *M. uchidai* (Betrem)

- 7. Antenna shorter and stouter: the last segment about twice as long as broad; flagellum not distinctly crenulate (Fig. 1Q). Mesoscutum submedially with a well outlined elevated area very sparsely punctuate. *M. schulthessi* (betrem)

 - Antenna longer and slenderer: the last segment more than three times as long as broad; at least last four segment crenulate. Mesoscutum without the well outlined elevated area, at most corresponding part evenly swollen and partially smooth. 8

- 8. Mesoscutum with dense punctures throughout the face, without discernible smooth area (Fig. 1O). Metasomal tergum V with plentiful whitish yellow hairs in apical part. *M. grossa* (Fabricius)

 - Mesoscutum often evenly swollen submedially, and at least with a submedian smooth area. Metasomal tergum V with black hairs. 9

- 9. Last antennal segment longer, approximately 3.5 times as long as broad, and 1.3 times as long as penultimate segment segments IX-XIII distinctly crenulate (Fig. 1S). Entire dorsolateral prepodeal face densely punctate. *M. prismatica* (Smith)

 - Last antennal segment shorter, approximately 3.0 times as long as broad, and almost as long as penultimate segment; segments IV-XIII distinctly crenulate (Fig. 1T). Basal inner part of dorsolateral prepodeal face often broadly impunctate and polished. *M. uchidai* (Betrem)

Korean taxa of the Tribe Campsomerini

¹*Genus *Campsomeriella* Betrem
Campsomeriella Betrem, 1941: 86, as subgenus of genus

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Campsomeris Guérin; Brtrem, 1967: 25-29, elevated to generic level. Type species: *Scolia thoracia* Fabricius, 1787.

¹**Campsomeriella annulata annulata* (Fabricius)
(Figs. 1B, 1C, 1I, 1L and 2A, 2B)

Tiphia annulata Fabricius, 1793: 225, ♀, China (Copenhagen Mus.).

Elis annulata: Okamoto, 1924: 205.

Campsomeris (Dielis) annulata: Betrem, 1928: 94-95; Betrem, 1941: 97-99.

Campsomeris annulata: Uchida, 1933: 256; Ishikawa, 1965: 287-289; Kim, 1970: 529-530.

Campsomeris (Campsomeriella) annulata: Tsuneki, 1972: 18-19; Kim, 1980: 78-79.

Campsomeriella annulata: Terayama and Nagase, 2007: 8 (in key), 9 (in key), 11; Yamane, 1999: 396-397.

Campsomeriella (Annulimeris) annulata annulata: Gupta and Jonathan, 2003: 53-57.

Diagnosis. Female. Body length 14-23 mm. Frontal spatium distinctly defined posteriorly by a somewhat curved weak groove. Lateral carina of propodem ending the level of spiracle, not extending to margin of lateral face. Posteromedian margin of propodeal dorsum weakly tuberculate. Clypeus, front and vertex largely impunctate (Fig. 1E); mesosutum sparsely (in its median part) to moderately punctuate (Fig. 1L); scutellum almost impunctate except for marginal part; metanotum sparsely punctate. Body completely black. Body hairs pale yellow.

Male. Body length 12-19 mm. Antennal segment not distinctly crenulate; last segment 2.5 times as long as broad. Following parts or markings yellow: posterior margin of pronotal dorsum, outer faces of fore and mid tibiae, basitarsus of foreleg, last tarsal segment of foreleg metasomal terga I-VI with apical bands, somewhat regular apical bands of metasomal terga I-V, and a pair of apical linear markings in sterna II-IV.

Specimens examined. [SL] 30 ♀ ♀, Uidong, 5.v.1961 (Jae); 3 ♀ ♀, Hongneung, 21.vi.1961 (Lee); 6 ♂ ♂, Anamdong, 1.viii.1970 (Kim); 1 ♀, Mt. Cheonggyesan, 9.x.1973 (Sim); 15.vi.1977 (Yoon) [GG] 11 ♀ ♀, Anyang, 8.viii.1955 (Kim); 12 ♂ ♂, 27.viii.1955 (Ryu); 2 ♀ ♀, Paldang, 5.x.1962 (Chun); 1 ♀, Moonsan, 9.x.1972 (Kim); 1 ♀, Pocheon, Seondanri, iv.1974 (collector not written); 1 ♀, Aengmubong, 16.vi.1974 (Son); 2 ♀ ♀, Namhansanseong, 13.vi.1975 (collector not written); 4 ♀ ♀, Wangbangsan, 5.vi.1977 (Cheong); 1 ♀, Gwangmyeong-si, 7.vi.1986 (collector not written) [GW] 5 ♂ ♂, Mt. Taibaeksan, 5.viii.1961 (Kim); 8 ♀ ♀,

6.viii. (Kim); 3 ♂ ♂, Naeseorak, 5.viii.1963 (collector not written); 3 ♂ ♂, Gangchon, 27.vii.1974 (Hwang); 1 ♀, 4.vi.1977 (Lim) [GN] 5 ♂ ♂, Tongyeong-gun, 21.vii.1978 (Yoon); 1 ♀, Tongyeong-gun, Yeonhwado, 19.vii.1978 (Nam); 1 ♂, Hapcheon, Gaheui, 17.viii.1986 (C.Y.J.) [GB] 2 ♂ ♂, Moonkyeongsaejae, 11.vii.1978 (Yoon); 1 ♀, Chilgok-gun, Noseok-myeon, 8.vi.1986 (collector not written) [CN] 7 ♀ ♀, Hongseong, 19.viii.1961 (Park); 1 ♀, Cheongweon-gun, Eunnam-myeon, 4.v.1979 (Choi) [CB] 1 ♀, Mt. Wolaksan, 12.vi.1987 (Lee) [JN] 2 ♀ ♀, Is. Wando, 23.IV.1961 (Park) [JJ] 2 ♀ ♀, Chujagundo, Yeopdo, 3 ♂ ♂, 9.viii.1969 (Park); 4 ♂ ♂, Chujagundo, Sangdo, 7.viii.1969 (Ro); 1 ♀, Chujagundo, Hado, 10.viii.1969 (Ro); 2 ♂ ♂, Sangchujado, 15.vii.1985 (Yoon); 9 ♀ ♀, Mt. Hallasan, 4.viii.1972 (Kim); 4 ♂ ♂, Chungmoon-ri, 4.viii.1972 (collector not written); 1 ♂, Donbiri, 4.viii.1972 (Kim); 1 ♀, Seongpanak, 19.v.1988 (Lee); 1 ♀, Cheonjiyeon, 5.v.1989 (Kim).

Distribution. India, Indonesia, Malayasia, philippines, Myanmar, Nepal, Taiwan, China, Korea, Japan.

²*Genus *Megacampsomeris* Betrem

Megacampsomeris Betrem, 1928: 138, as subgenus of genus *Campsomeris* Guérin; Betrem and Bradley, 1972: 164, elevated generic level. Type species: *Tiphia grossa* Fabricius, 1804.

³**Megacampsomeris (Megacampsomeris) stoetznerei*
Betrem (Figs. 1F and 2C)

Campsomeris (Megacampsomeris) stoetznerei Betrem, 1928: 139, ♀, "Kwanhsin, Szetchwan, China" (coll. Schulthessi).

Diagnosis. Female. Combination of characteristics mentioned in the key is unique in this species. Body length 22 mm. Clypeus medially largely impunctate. Hairs on propodeum and metasoma, except for last two segments, pale yellow to creamy white. Median impunctate line present from scutellum, through metanotum to posterior margin of propodeal dorsum where ending small tubercle. The transition between dorsal face and posterior face of propodeum weakly carinate. Lateral carina short, not exceeding the spiracle and lacking in propodeal area. Metasomal cuticle largely tinged with reddish black.

Male. Unknown.

Specimens examined. [CN] 1 ♀, Chungcheongnam-do, Taean-gun, Weonbuk-myeon, 22.v.2003, collector not written; 2 ♀ ♀, Chungcheongnam-do, Taean-gun, Sindu-ri, 3.vi.2003, J.C. Shon.

Distribution. China, Korea (new record), Japan, Taiwan.

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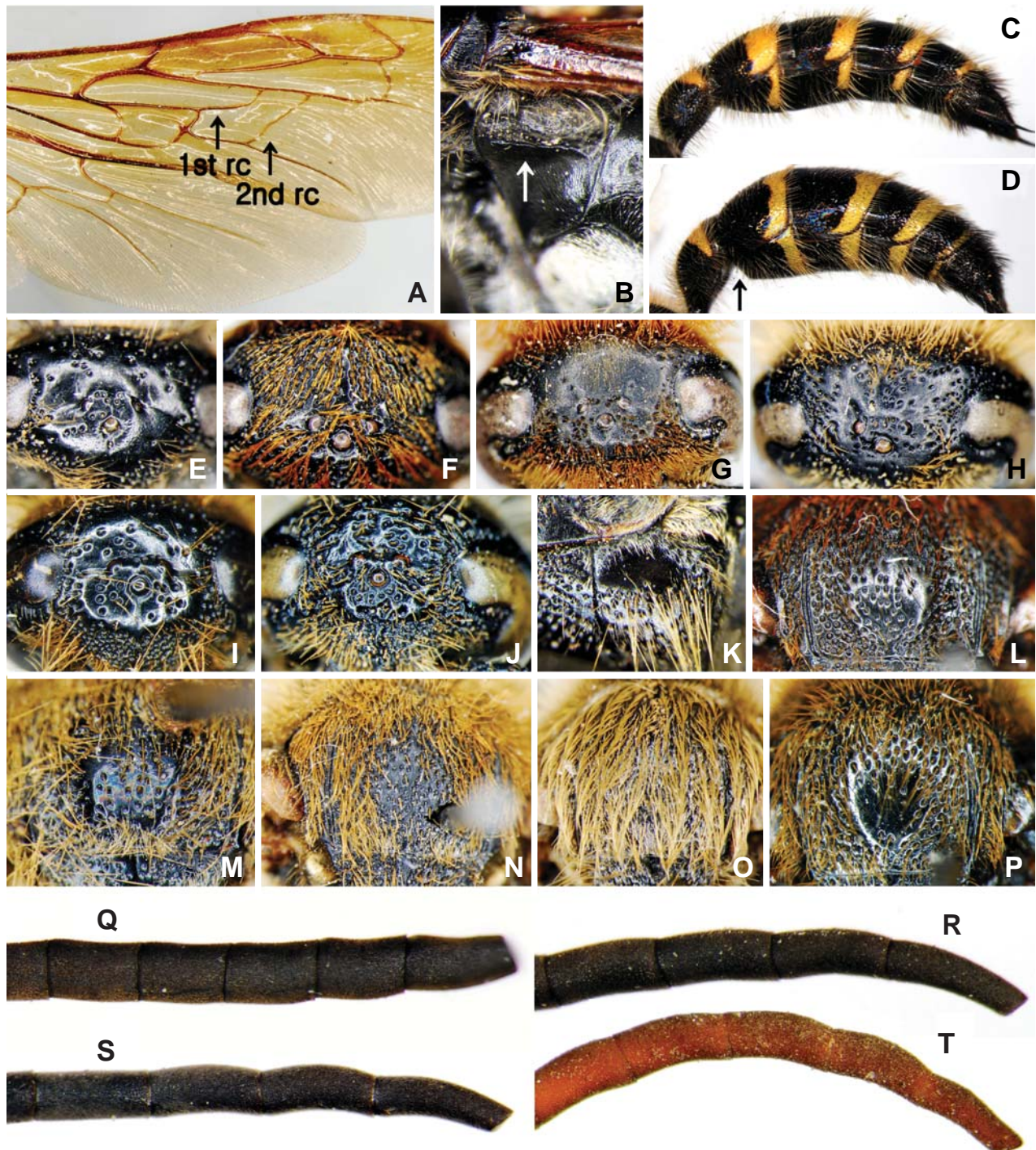


Fig. 1. External morphology of Korean species of Campsomerini. A, wing with two recurrent veins (1st rc : 1st recurrent vein; 2nd rc : 2nd recurrent vein); B, upper plate of metapleuron with a distinct carina (arrow); C, metasoma in profile (*C. annulata*, male); D, metasoma in profile (*M. prismatica*, male); E, vertex of *C. annulata*, female; F, vertex of *M. stoetzneri*, female; G, vertex of *M. schulthessi*, female; H, vertex of *M. grossa*, female; I, vertex of *M. prismatica*, female; J, vertex of *M. uchida*, female; K, smooth part of dorsolateral propodeal area in *M. uchida*, female; L, mesoscutum of *C. annulata*, female; M, mesoscutum of *M. schulthessi*, female; N, mesoscutum of *M. grossa*, female; O, mesoscutum of *M. grossa*, male; P, mesoscutum of *M. prismatica*, female; Q, antennal flagellum of *M. schulthessi*, male; R, antennal flagellum of *M. grossa*, male; S, antennal flagellum of *M. prismatica*, male; T, antennal flagellum of *M. uchida*, male.

¹**Megacampsomeris schulthessi* Betrem
(Figs. 1G, 1M, 1Q and 2D, 2E)

Campsomeris schulthessi Betrem, 1928: 139, ♀, “Kwanhsin, Szetchwan, China” (coll. Schulthessi); Kim, 1970: 531.

Campsomeris (Megacampsomeris) schulthessi f. *shiotsuensis* Uchida, 1933: 255, ♀, “Shiotsu”, Korea (typedepository uncertain); Betrem, 1941: 52 (in key), 63.

Campsomeris grossa (Fabricius) f. *shiotsuensis* Uchida, 1936: 47.

Campsomeris (Megacampsomeris) schulthessi: Kim, 1980: 82.

Megacampsomeris schulthessi: Terayama and Nagase, 2007: 8 (in key), 9 (in key), 13.

Diagnosis. Female. Larger species, body length 25-33 mm. Clypeus with parallel longitudinal ridges in its larger median part. Front and vertex except for posterior declivity face characteristically almost impunctate (Fig. 1G). Lateral carina of propodeum extending margin of lateral face, and strongly developed especially in propodeal area. Posteromedian margin of propodeal dorsum weakly tuberculate. The apical bands of metasoma mentioned in the key is the unique characteristic features of this species; other body parts immaculate.

Male. Body length 19-25 mm. Of the Korean *Megacampsomeris*, this species easily distinguished by the shortest antenna as mentioned in the key. Posteromedian margin of propodeal dorsum weakly tuberculate. Metasomal terga V-VII only with black hairs and bristles. Following parts or markings yellow: basolateral marginal parts of clypeus, linear markings along lower inner eye margins, and somewhat regular apical bands of metasomal terga I-VI (sometimes narrow apical band also in terga V).

Specimens examined. [GG] 1♂, Paldang, 30.v.1965 (J.L. Lee); ♂, Neungnae, 6.v.1989 (LSR) [GW] 2♂♂, Cheongpyeong, 5.v.1989 (E.M. Lee); 3♂♂, Daeseongri, 27.v.1987 (K.J. Lim) [CN] ♀, Taean-gun, Nam-myeon, Mongsan 1-ri, 31.v.1991 (T.H. Kang); 1♂, Seosan-shi, Haemi-myeon, Mt. Gayasan, 4.v.1995 (J.J. Park); 1♀, 4♂♂, Taean-gun, Nam-myeon, Mongdaepogu, 30.v.2003 (S.S. Ryu); 1♀, Taean-gun, Nam-myeon, Mongdaepogu, 20.v.2007 (S.P. Han). [GN] 1♀, Gyeongnam, collecting date and collector not written; ♀, Namhae, Songjeong, 1990, collector not written.

Distribution. China, Korea, Japan.

²**Megacampsomeris grossa matsumurai* Betrem
(Figs. 1H, 1N, 1O, 1R and 2F, 2G)

Campsomeris matsumurai Betrem, 1941: 54 (in key), 66-67,

♀, Hokkaido, Japan (type not designated).

Diagnosis. Female. Larger species, body length 25-32 mm. Clypeus medially largely impunctate. Front and vertex largely impunctate, with partial patch of punctures (Fig. 1H). Hairs on head and mesosoma brownish yellow; apical hair fringes of terga I-IV creamy white in color. Body completely black.

Male. The last antennal segment about 3.5 times as long as broad (Fig. 1R); apical four segments distinctly crenulate. Mesosoma being covered with golden yellow hairs and punctures, without discernable smooth area; metasomal tergum V with both whitish yellow and black hairs. Following parts or markings yellow: madibular base, linear marking along lower eye margin, somewhat regular apical bands in terga I-V, and a pair of or linear apical markings in sterna II-V.

Specimens examined. [GG] 1♂, Gwangleung, 20.viii.1956 (collector not written); 1♀, Yongin-shi, Baekam-myeon, Jangpyeong-ri, Hantaek garden, 5.ix.2001 (Y.B. Lee) [CN] 3♀♀, Seongjeong-ri, Jeoneui-myeon, Yeongi-gun, 22.viii.2002 (J.S. Lee) [GB] 1♂, Uljin-gun, Wangpicheon, Gusan 3-ri, 21.viii.2002 (J.K. Choi); 1♂, Uljin-gun, Wangpicheon, Songbang, 22.viii.2002 (J.K. Choi).

Distribution. Korea (new record), Japan.

Remark. Okamoto (1924: 204-205) listed one female specimen collected in Jeju island under the name of “*Elis grossa* Fabricius” of which justification is now impossible, and any other later authors has not paid attention it. My specimens in this study indicate the Korean form is ssp. *matsumurai* characterized with creamy white hair fringes in terga I-IV.

³**Megacampsomeris prismatica* Smith
(Figs. 1D, 1I, 1P, 1S and 2H, 2I)

Scolia prismatica Smith, 1855: 102, ♀, Shanghai, China (British Mus.).

Campsomeris prismatica: Uchida, 1933: 253; Uchida, 1936: 52-53; Kim, 1970: 531.

Campsomeris (Megacampsomeris) prismatica: Betrem, 1928: 152-153; Betrem, 1941: 55 (in key), 58 (in key), 78-79; Tsuneki, 1972: 5-6; Kim, 1980: 80-81; Lelej, 1995: 195 (in key).

Megacampsomeris prismatica: Gupta and Jonathan, 2003: 80 (in key), 81 (in key), 99-102; Terayama and Nagase, 2007: 9 (in key), 10 (in key), 12-13.

Diagnosis. Female. Body length 17-27 mm. Clypeus largely impunctate medially; front and vertex with moderate punctures. Head and mesosoma with brownish yellow to reddish brown hairs; metasomal segments I-IV with golden yellow

¹*배벌, ²*긴배벌, ³*금테줄배벌

hairs; segments V-VI only with black hairs and bristles. Body completely immaculate.

Male. Body length 13-24 mm. Lower area of anterior ocellus with very sparse to moderate punctures. Following parts or markings yellow: basolateral parts of clypeus (median part of clypeus largely black), basal half of mandible, a pair of triangular markings on pronotal dorsum, somewhat regular apical bands on metasomal terga I-IV, outer face of fore coxa, linear markings on femora of all legs, and outer faces of fore and mid tibiae.

Specimens examined. [SL] 1♂, Ahasan, 12.ix.1971 (Park); 2♂♂, Yongmasan, 12.ix.1971 (Ryu); 1♀, Bukhansanseong, 16.ix.1971 (Park); 1♂, Mt. Cheonggyesan, 16.ix.1973 (Kim); 1♀, 7.vi.1986 (Chang); 25.v.1987 (Yoon); 1♀, Uidong, 14.vi.1981 (Lee); 1♀, Bulamsan, 4.vi.1983 (Kim) [GG] 1♀, Paldang, 5.v.1961 (Shin); 1♀, 14.v.1961 (Choi); 54♀♀, 6♂♂, ditto, 5.x.1962 (Lee); 1♀, ditto, 30.v.1965 (Lee); 2♀♀, Mt. Cheonmasan, 27.v.1962 (Lee); 1♀, ditto, 16.ix.1962 (Ahn); 2♀♀, ditto, 21.v.1963 (Lee); 3♂♂, ditto, 16.ix.1963 (Ryu); 1♀, ditto, 2.vi.1968 (Ryu); 5♀♀, ditto, 27.vi.1969 (collector not written); 1♀, ditto, 10.ix.1972 (Ryu); 1♂, ditto, 11.ix.1973 (Kim); 1♂, ditto, 19.vii.1979 (collector not written); 1♂, ditto, 12.x.1980 (collector not written); 2♀♀, ditto, 18.vi.1983 (Lim); 5♀♀, Paju, Mt. Godaisan, 31.viii.1967 (Kim); 1♀, Aimubong, 9.v.1971 (Park); 4♀♀, ditto, 6.vi.1973 (Park); 2♀♀, Bokwangsa, 6.vi.1973 (Ryu); 1♀, ditto, 26.v.1979 (Park); 1♀, Byeocje, 17.ix.1972 (Kim); 1♂, Moonsan, 8.x.1972 (Kim); 2♀♀, Mt. Yongmoonsan, 19.v.1973 (Cho); 1♀, ditto, 13.vi.1983 (Lee); 22♀♀, Pocheon-si, Mt. Wangbangsan, 6.vi.1975 (Lee); 4♀♀, ditto, 8.vi.1977 (Ro); 1♀, Gwangleung, 22.v.1983 (Jin); 1♀, ditto, 11.vii.1983 (collector not written); 1♀, ditto, 16.vi.1978 (Lee); 3♂♂, ditto, 21.x.1980 (Byun); 1♀, Mt. Geumdansan, 31.v.1981 (Kim); 1♀, Mt. Kwanaksan, 6.v.1981 (Kang); 4♂♂, Is. Cheongrado, 3.x.1988 (Kim); 3♀♀, Yeongjongdo, 3.x.1988 (Kim) [GW] 2♂♂, Naiseolak, 6.viii.1963 (collector not written); 2♀♀, Yanggu, Gunyang-ri, 4.vi.1967 (Kim); 1♀, Hwacheon, 12.vi.1968 (Kim); 4♀♀, Yanggu, Gwangchiryeong, 15.vi.1968 (Kim); 1♂, Sokeumgang, 17.ix.1971 (Lee); 1♂, Yanggu, Bangsan-myeon Omi-ri, 6.x.1972 (collector not written); 4♂♂, ditto, 8.x.1978 (Lee); 1♀, Goseong-gun, Hol-ri, Hyangnobong, 27.ix.1972 (collector not written); 1♂, ditto, 29.ix.1972 (collector not written); 1♀, Yangyang, Naksansa, 8.vi.1974 (Moon); 1♀, Mt. Seolaksan, Biryong Fall, 8.vi.1974 (Moon); 1♀, Gangchon, 22.v.1977 (Lee); 5♀♀, Baikdamsa, vi.1979 (Kim) [CB] 2♀♀, Mt. Wolaksan, 30.v.1986 (Yoon); 1♀, Chungju, 5.v.1986 (Yoon) [CN] 1♀, Mt. Gyeryongsan, 5.viii.1973 (Han); 1♂, ditto, 5.viii.

1973 (Nam); 1♀, Mt. Kyeryongsan, Gapsa, 26.v.1974 (Ahn) [GB] 1♀, Moonkyeongsaejae, 9.vii.1977 (Song); 6♀♀, Mt. Sobaeksan, 5.vi.1981 (Shin); 2♂♂, Kyeongsan-si, Yeongnam Univ., 27.viii.1986 (collector not written); 1♀, ditto, 24.v.1988 (Kim) [GN] 1♂, Hapcheon, Mt. Gayasan, 5.viii.1960 (Kim); 2♀♀, Hapcheon, Haeinsa, 15.v.1989 (Kim); 1♀, Hadong-gun, Hwangye-myeon, Ssangyesa, 5.vi.1977 (Cheong); 1♀, Hadong-gun, Hwangye-myeon, Dae-seong-ri, 29.ix.1987 (collector not written); 1♀, Hadong-gun, Cheongam-myeon, Pyeongchon-ri, 17.ix.1987 (collector not written); 2♀♀, Samcheong-gun, Samjang-myeon, Naewon-ri, Naewonsa, 22.ix.1987 (collector not written); 1♀, Hamyang-gun, Aneui-myeon, Sangwon-ri, 24.ix.1987 (collector not written) [JN] 1♀, Mt. Chogyesan, 25.v.1988 (Park); 1♀, Mt. Wolchulsan, 26.vii.1988 (Kim); 1♀, Mt. Jirisan, Cheoneunsa, 6.v.1977 (Park); 1♂, Mt. Jogyesan, Seonamsa, 7.viii.1976 (Nam) [JJ] 1♀, Muljangol, 7.v.1983 (Kim); 2♀♀, Cheonjiyeon, 5.v.1989 (Kim).

Distribution. India, Indonesia, Malaysia, Myanmar, Nepal, Taiwan, China, Korea, Japan.

¹¹**Megacampsomeris uchidai* (Betrem)(Figs. 1J, 1T)

Campsomeris (*Megacampsomeris*) *prismatica*: Betrem, 1928: 152-153 (in part).

Campsomeris (*Megacampsomeris*) *uchidai* Betrem, 1941: 55 (in key), 58 (in key), 81-83, ♀♂, (type not designated); Tsuneki, 1972: 6-7.

Megacampsomeris uchidai: Terayama and Nagase, 2007: 9 (in key), 10 (in key), 13.

This species is very similar to *C. prismatica* in many aspects. Tsuneki (1972) and Suda (2008) carefully compared these two species. In addition to the characteristics mentioned in the key, following characteristics might be highly helpful in separating this species from *C. prismatica* of which corresponding characteristics is given in parenthesis in case of necessity.

Female. Body length 15-23 mm. Submedian smooth area of mesoscutum smaller than the tegula (at least the area as large as tegula). Posterior part of dorsomedian propodeal area more sparsely punctuate (densely punctuate), and without tubercle (with a pair of small tubercles in posteromedian margin of dorsomedian propodeal area). Outer face of hind femur with smaller punctuate area confined to upper marginal part so larger median part smooth (extensively punctate, the median smooth area smaller). Spurs of hind tibia pale brown (blackish brown or deep brown).

Male. Body length 13-21 mm. Area below anterior ocellus with denser punctures, frontal fissure often interrupted

¹*우찌다베벌 (신칭)



Fig. 2. General habitus of Korean species of Campsomerini. A, *C. annulata*, female; B, *C. annulata*, male; C, *M. stoetzneri*, female; D, *M. schulthessi*, female; E, *M. schulthessi*, male; F, *M. grossa*, female; G, *M. grossa*, male; H, *M. prismatica*, female; I, *M. prismatica*, male.

(the area with sparser punctures). Sternum I medially not swollen, in profile almost straight (swollen, and convex in profile). Clypeal maculation more extensive, posteromedian part black (often median part largely black). Almost entire face of antennal flagellum reddish brown (largely blackish).
Specimens examined. [SL] 2 ♀♀, Dongguleung, 22.ix.1957 (D.S. Cha); 5 ♀♀, Ui-dong, 1.vi.1961 (W.J. Kim) [GG] 82 ♀♀, 4 ♂♂, Paldang, 5.x.1962 (J.S. Park); 6 ♀♀, Mt. Godaesan, 31.viii.1967 (J.K. Oh); 1 ♀, Namhansanseong, 16.ix.1971 (K.W. Park); 1 ♀, Byeokje, 17.ix.1972 (J.I. Kim).

Distribution. Korea, Japan, Taiwan.

ACKNOWLEDGEMENTS

The author wishes to thank Dr. J.W. Lee (Yeungnam Univ.) and Dr. S.H. Lee (Seoul Nat'l Univ.) for kindly making their collections available to me. This work was supported by the Korean Research Foundation grant (KRF-2006-353-C0042).

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Received February 18, 2009
Accepted March 12, 2009