

Taxonomic Study on the Tribe Quediini (Coleoptera, Staphylinidae) from Korea

Young Bok Cho

(Natural History Museum, Hannam University, Taejeon, 300-791, Korea)

ABSTRACT

The tribe Quediini from Korea is examined. One new species, *Velleius circumipectus*, and one new subspecies, *Quedius japonicus sachonensis*, are described, and four species, *Heterothops rotundiceps*, *Q. japonicus* (s. str.), *Q. simulans*, and *V. setosus*, are recorded firstly in Korea. As a result, Korean fauna of the tribe Quediini comprises 10 species and one subspecies belonging to three genera.

Key words: Taxonomy, Quediini, Staphylinidae, Coleoptera, Korea

INTRODUCTION

The tribe Quediini belongs to the subfamily Staphylininae and is a large group represented by many genera and a very large number of species in all zoogeographic regions. This tribe is characterized by the anterior angles of pronotum on underside considerably projecting beyond the anterior margin of prosternum, epipleura of pronotum strongly inflexed toward the underside of pronotum, their interior marginal line not visible in lateral view, and the presence of the infraorbital ridge on underside of head which is usually complete, but rarely more or less reduced (Cameron, 1932; Lohse, 1964; Smetana, 1971a).

The tribe Quediini were investigated well in some regions. For instances, about 131 species were recorded from the Nearctic region, mainly by Smetana (1971a-b, 1973, 1976a, 1978a, 1981), about 296 from the Europe in part of the Palearctic region (Lohse, 1964; Coiffait, 1978), and in the east Asia, 24 from the Siberia (Bolov, 1969; Potozkaja, 1975; Smetana, 1976b, 1978b), 52 from Japan (Shibata, 1984; Naomi, 1986; Watanabe, 1986, 1987), and 12 from China (Wu, 1937; Li, 1992). By the way, only 5 species of 3 genera were recorded from Korea so far and the previous works were merely the preliminary check lists (Baek, 1985; Yuh *et al.*, 1985; Kim *et al.*, 1994).

In this paper, adding one new species, one new subspecies, and four unrecorded species, the Korean fauna of this tribe increases to 10 species and one subspecies, belonging to three genera. Unfortunately, among them, three species, *Quedius praviceps* Sharp, *Q. praeditus* Sharp, and *Velleius pectinatus* Sharp, are not confirmed in this study.

Keys of Korean genera and species, and illustrations of the examined male genitalia are provided for identifications of species.

For the study of Korean fauna, The provinces are divided into four subdivisions as follows:

1. North; North Korea.
2. Central; Kyonggi-do (including Seoul), Kangwon-do, Chungchungbuk-do, and Chungchungnando.
3. South; Chollapuk-do, Chollanam-do, Kyoungsangbuk-do, and Kyoungsangnam-do.
4. Cheju-do (Cheju Island).

The type materials treated in this paper are preserved in Natural History Museum, Hannam University, Korea (HNUNM).

SYSTEMATIC ACCOUNTS

Tribe Quediini Ganglbauer, 1895 왕눈이반날개족

Quediini Ganglbauer, 1895, p. 378 (cited from Smetana, 1971a)

Key to genera of tribe Quediini from Korea

1. Fourth to 10th segments of antennae simple 1
— Fourth to 10th segments of antennae serrate or pectinate *Velleius*
2. Apical segment of maxillary palp sublate *Heterothops*
— Apical segment of maxillary palp not sublate *Quedius*

Genus *Heterothops* Stephens, 1832 아기방패반날개속

Heterothops Stephens, 1832, p. 256 (cited from Blackwelder, 1952).

Type species. *Staphylinus binotatus* Gravenhorst, 1802

Key to species of genus *Heterothops* from Korea

1. Eyes of moderate size, the length ratio between eye and temple 12 : 7; basal area of aedeagus large (Fig. 1A) *H. cognatus*
— Eyes large, the length ratio between eye and temple 7 : 2; basal area of aedeagus moderate (Fig. 2A) *H. rotundiceps*

Heterothops cognatus Sharp, 1874 아기방패반날개 (Fig. 1)

Heterothops cognatus Sharp, 1874, p. 20; Bernhauer and Schubert, 1916, p. 412; Adachi, 1957, p. 180; Watanabe and Shibata, 1972, p. 65; Shibata, 1984, p. 116; Baek, 1985, p. 13; Watanabe, 1985, p. 307, pl. 54, fig. 3; Yuh et al., 1985, p. 249; Kim et al., 1994, p. 143; Li, 1992, p. 54.

Diagnosis. Body length 4.5-5.5 mm, head and pronotum with ground sculptures, head black, pronotum piceous black, and elytra reddish black with yellowish posterial margins. Length ratio between eye and temple 12 : 7. Antennae, palpi and legs reddish brown. Pronotum broader than head in width, narrowing to anterior, and anterior middle area with one pair punctures. Elytra fine and more or less dense punctures with a long yellowish hairs.

Male genitalia: basal area of median lobe very large, later-middle sides parallel, gradually tapering from subapex to apex (Fig. 1A). Tip of apex of median lobe acute. Internal sac of median lobe with 3 pairs of elongate sclerotized structures (Fig. 1C).

Type locality. Japan.

Specimens examined. Chungchungnam-do: 1 ex., Taejon, Mt. Kyejoksan, 14 Oct. 1995, Y.B. Cho; 2 ex., Kapsa Temple, 11 Jul. 1986, Y.B. Cho; Kyoungsangpuk-do: 5 ex., Andong, Nokjonmyon, Yean-ri, 17 Jul. 1986, Y.B. Cho; 4 ex., Chilgok-gun, Dongmyoung, 23 Jul. 1986, Y.B. Cho; 1 ex., Bumaegi, 25 Jul. 1986, Y.B. Cho; 1 ex., Mt. Chuwangsan, 28 Jun, 1987, Y.B. Cho; Kyoungsangnam-do: 6 ex., Sachon-gun, Suchong, 10 Jun. 1986, K.S. Lee; 24 ex., Sacheon-gun, Sanam, 20 Jun. 1986, K.S. Lee; Cheju-do: Seogwipo, 12 ex., 16 May 1985, K.S. Lee; 19 ex., 18 Jun. 1985, K.S. Lee; 7 ex., 20 Mar. 1986, K.S. Lee; 18 ex., 26 Sep. ? K.S. Lee; 3 ex., Seogwipo, Donnaeko, 10, Oct. 1985, K.S. Lee; 1 ex., Seogwipo, Kasi-ri, 16 May 1985, K.S. Lee.

Distribution. Korea (Central, South, Chejudo), Japan (Hokkaido, Honshu, Shikoku, Kyushu), and China.

***Heterothops rotundiceps* Sharp, 1889** 큰눈아기방패반날개(신칭) (Fig. 2)

Heterothops rotundiceps Sharp, 1889, p. 35 (cited from Shibata, 1984); Bernhauer and Schubert, 1916, p. 413; Adachi, 1957, p. 180; Watanabe and Shibata, 1972, p. 65; Shibata, 1984, p. 116; Watanabe, 1985, p. 307, pl. 54, fig. 4.

Diagnosis. Body length 4.5-5.0 mm, head black and clearly darker than pronotum shown piceous black, elytra reddish brown. Eyes very large, Length ratio between eye and temple 7 : 2.

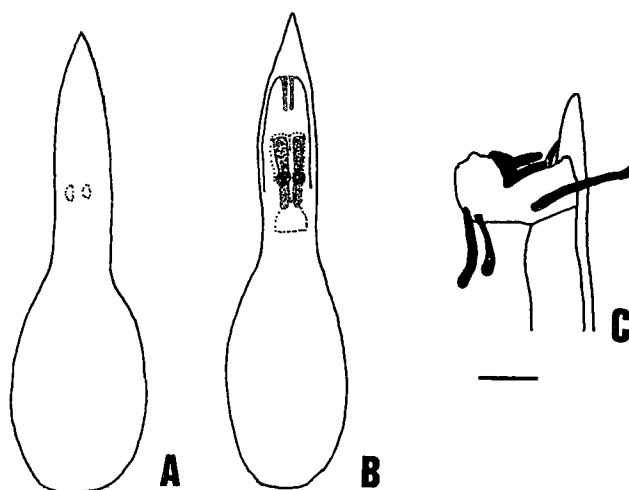


Fig. 1. Aedeagus of *Heterothops cognatus*: A, ventral view; B, dorsal view; C, Internal sac in lateral view. (scale: 0.1 mm for A and B).

Male genitalia: median lobe elongate and narrow, lateral middle sides subparallel, gradually narrowing from subapex to apex (Fig. 2A). Internal sac of median lobe with three pairs sclerotized structures (Fig. 2B).

Type locality. Japan (Nikko, Kiga).

Specimens examined. 1 ♂, Kyoungsangpuk-do, Mt. Kayasan, Haeinsa Temple, 4 Oct. 1986, Y.B. Cho; 2 ♀♀, Kyoungsangnam-do, Andong, Nokjon-myon, 17 Jul. 1986, Y. B. Cho.

Distribution: Korea (South; new record), and Japan (Hokkaido, Honshu, Shikoku, Kyushu).

Remarks. This species is very close to *H. cognatus* but can be distinguished by very large eyes and elongated median lobe.

Genus *Quedius* Stephens, 1832 왕눈이반날개속

Quedius Stephens, 1832, p. 214 (cited from Smetana, 1971a).

Type species. *Staphylinus tristis* Gravenhorst, 1802

Key to subgenera of genus *Quedius* from Korea

1. Eyes small, pronotum explanate laterally *Microsaurus*
— Eyes large, pronotum not explanate laterally 2
2. Labrum entire, definitely not bilobed *Quedius* s. str.
— Labrum bilobed 3
3. Scutellum closely and coarsely punctured; eyes extremely large *Indoquedius*
— Scutellum without punctures *Quedionuchus*

***Quedius (Quedionuchus) japonicus japonicus* Sharp, 1874** 빨간딱지왕눈이반날개 (신칭)
(Fig. 3)

Quedius japonicus Sharp, 1874, p. 26; Watanabe, 1985, p. 309, pl. 54, fig. 18.

Quedius (Quedionuchus) japonicus: Bernhauer and Schubert, 1916, p. 424; Adachi, 1957, p. 179; Shibata, 1984, p. 131; Watanabe and Shibata, 1965, p. 322.

Diagnosis. Body length 6.0-6.5 mm, piceous black, head more darker than pronotum, head and pronotum with ground sculptures. Antennae, palpi, and legs reddish brown, first three segments of antennae darker than the rest. Elytra reddish.

Male genitalia: median lobe elongate, and broadly and shallowly emarginated in lateral middle portion (Fig. 3A). Subapex of paramere slightly broadened and narrowed gradually to apex. Tip of apex of paramere slightly obtused. Paramere bended slightly like arrow, that is, not straight in lateral view (Fig. 3B). Sensory tubercles underside of paramere two rows along the sides (Fig. 3C). Apex of paramere a little longer than apex of median lobe.

Type locality. Japan (Hiogo, Nagasaki).

Specimens examined. Cheju-do: 1 ♀, Seogwipo, 28 Nov. 1984, K.S. Lee; 1 ♂, 22 Aug. 1985, K.S. Lee.

Distribution. Korea (Chejudo; new record), and Japan (Hokkaido, Honshu, Kyushu, Shikoku).

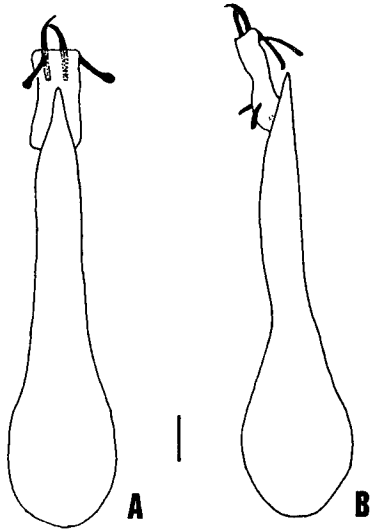


Fig. 2. Aedeagus of *Heterothops rotundiceps*: A, ventral view; B, lateral view. (scale: 0.1 mm).

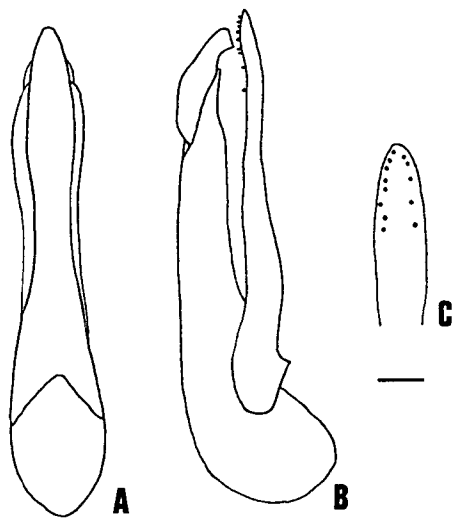


Fig. 3. Aedeagus of *Quedius japonicus japonicus*: A, ventral view; B, lateral view; C, underside of paramere. (scale: 0.1 mm for A and B).

***Quedius (Quedionuchus) japonicus sachonensis* n. subsp.** 황딱지왕눈이반날개 (신칭)
(Fig. 4)

Description. Body length 5.5-5.9 mm, piceous black, shining, head darker than pronotum. Ground sculptures on surface of head and pronotum. Antennae and palpi, and legs reddish brown. Elytra brownish yellow to yellow.

Head. head length a little larger than head width (HL : HW = 39 : 34), four punctures transversely between eyes, in which 2 near eyes and 2 in middle area. Eyes much larger than temples as 19 : 7. The length ratio of first three segments of antennae 10 : 5 : 8.

Pronotum. PL : PW = 45 : 50, narrowing to anterior, sides broadly rounded.

Scutellum. piceous black without punctures.

Elytra. Two rows of punctures on elytron, in which one row of 6-7 punctures along suture line and other row of 9-10 punctures in lateral sides. Besides small punctures scattered on surface.

Abdomen. Piceous black, more or less dense and fine punctures with piceous black pubescences.

Male genitalia: median lobe elongate and narrow, lateral middle portion slightly narrowing, median lobe more or less broader than paramere (Fig. 4A). Sensory tubercles underside of paramere two rows along sides but the upper sensory tubercles slightly smaller than the behind ones, with hairs on apex (Fig. 4C). Apex of internal sac sclerotized and divided into two branches (Fig. 4D).

Type series. Holotype, ♂, Korea: Kyongsangnam-do, Sachon-gun, Kuam-myon, 16 Mar. 1986, K.S. Lee. Paratypes, 1 ♂, 2 ♀♀, same data with holotype; 1 ♂, same locality, 5 Mar. 1986, K.S. Lee.

Distribution. Korea (South).

Remarks. This subspecies is distinguished from *Q. japonicus* (s. str.) by the sensory tubercles

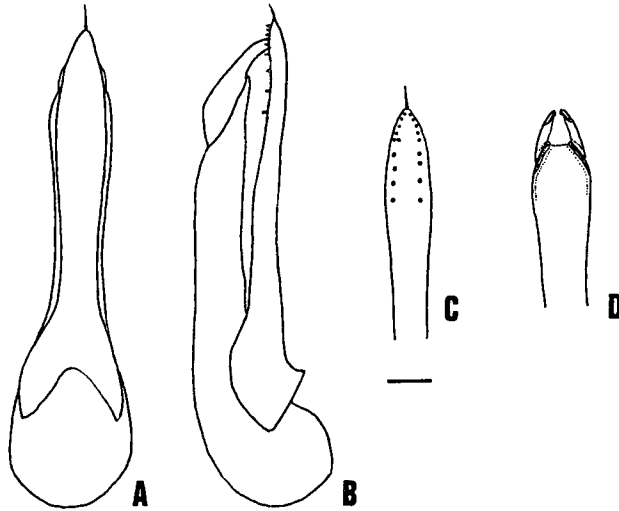


Fig. 4. Aedeagus of *Quedius japonicus sachonensis* n. subsp.: A, ventral view; B, lateral view; C, underside of paramere; D, apical view of median lobe (paramere removed). (scale: 0.1 mm for A and B).

underside of paramere clearly divided into two groups, (that is, the upper side smaller than the behind, and more regularly arranged) and the apex of paramere is slightly narrower and sharper. The color of Elytra in *Q. japonicus* (s. str.) is mostly reddish whilst that of *Q. japonicus sachonensis* is variable from brownish yellow to yellow. Antennae of this subspecies is more darker than *Q. japonicus* (s. str.), and the first three segments of antennae in the latter are clearly darker than the rest while those of *Q. japonicus sachonensis* do not show any difference from the rest segments.

Considering from the external form of body and the aedeagus shape, this subspecies have relative differences with *Q. japonicus* (s. str.), even with some distinct characters from the color of elytra, and the sensory tubercles underside of paramere. So I treat this subspecies in subspecies level but not in species level after the critical discussion of this matter through individual letter with Dr. Naomi working on this taxon, of Natural History Museum and Institute, Chiba, Japan.

Etymology. The scientific name of this subspecies is derived from the locality name, Sachon, where the specimens were collected.

***Quedius (Microsaurus) simulans* Sharp, 1874 검은왕눈이반날개(신칭) (Fig. 5)**

Quedius simulans Sharp, 1874, p. 25; Watanabe, 1985, p. 309, pl. 4, fig. 15; Li, 1992, p. 55.

Quedius (Microsaunus) simulans: Bernhauer and Schubert, 1916, p. 434; Adachi, 1957, p. 179; Watanabe and Shibata, 1965, p. 321; Shibata, 1984, p. 125.

Daignosis. Body length 7.5-9.0 mm, black, shining. Antennae, palpi, and legs reddish brown, median area between eyes impunctated. Pronotum with dorsal rows of 1+3 punctures. Elytra and scutellum relatively dense punctures with brownish pubescences.

Male genitalia: aedeagus large and lateral middle sides slightly narrowed (Fig. 5A). Paramere elongate, basal area very broadened. Numerous sensory tubercles arranged along sides, 8 hairs in apex area (Fig. 5C).

Type locality. Japan.

Specimen examined. 1 ♂, Cheju-do, Seogwipo, 12 Dec. 1984, K.S. Lee.

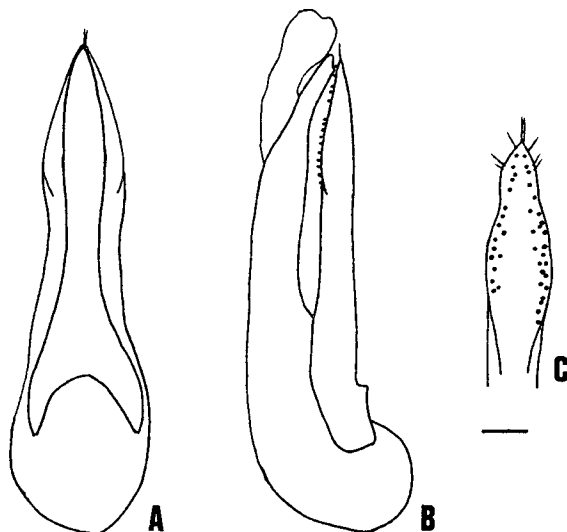


Fig. 5. Aedeagus of *Quedius simulans*: A, ventral view; B, lateral view; C, underside of paramere. (scale: 0.12 nm for A and B).

Distribution. Korea (Cheju-do; new record), Japan (Hokkaido, Honshu, Kyushu), and China.

***Quedius (s. str.) parviceps* Sharp, 1874** 잔머리왕눈이반날개

Quedius parviceps Sharp, 1874, p. 25; Watanabe, 1985, p. 310, pl. 54, fig. 22; Bernhauer and Schubert, 1916, p. 430; Kim *et al.*, 1994, p. 143.

Quedius (Quedius) parviceps: Adachi, 1957, p. 179; Shibata, 1984, p. 133; Baek, 1985, p. 13.

Diagnosis. Body length 11.0-12.0 mm, black, shining. Head very narrow, not half as broad as pronotum, with two punctures on the front between eyes, and with a few others along inner margin and at the back of the eyes. Antennae piceous black, rather long and slender, scarcely at all thickened towards the extremity, all joints longer than broad, the third much longer than the second. Maxillary palpi piceous black, their last joint long and slender, paler than the rest. Pronotum about as long as broad, greatly rounded at sides and much narrowed in front, near the front on each side the middle with a series of five punctures. Scutellum impunctate. Elytra rather longer than pronotum, moderately closely punctured. Legs piceous black, the tarsi dusky reddish. (modified from Sharp, 1874).

Type locality. Japan.

Distribution. Korea, and Japan (Honshu, Shikoku, Kyushu)

***Quedius (Indoquedius) praeditus* Sharp, 1889** 홍다리왕눈이반날개

Quedius praeditus Sharp, 1889, p. 29 (cited from Shibata, 1984); Watanabe, 1985, p. 310, pl. 54, fig. 24; Li, 1992, p. 55.

Quedius (Raphirus) praeditus: Bernhauer and Schubert, 1916, p. 431; Adachi, 1957, p. 179.

Quedius (Indoquedius) praeditus: Cameron, 1932, p.301; Shibata, 1984, p. 138; Baek, 1985, p. 13; Yuh *et al.*, 1985, p. 249; Kim *et al.*, 1994, p. 143.

Diagnosis. Body length 9.0-12.0 mm, black, shining. Eyes very large. Antennae, palpi, and legs

reddish brown, Elytra and scutellum with small and dense punctures. (modified from Watanabe, 1985).

Type locality. Japan (Miyanoshta).

Distribution. Korea, Japan (Hokkaido, Honshu, Shikoku), and China.

Genus *Velleius* Mannerheim, 1830 빛수염날반개속

Velleius Mannerheim, 1830, p. 16 (cited from Naomi, 1986).

Type species. *Staphylinus dilatatus* Fabricius, 1787

Key to species of genus *Velleius* from Korea

1. Third segment of antennae elongate and more than 1.6 times as long as 2nd, apex of paramere incised 2
 — Third segment of antennae robust and about 1.5 times as long as 2nd, apex of paramere not incised *V. pectinatus*
2. Fourth to 10th segments of antennae each with an anterior projection weakly incised at apical margin; elytral epipleuron with yellowish spot 3
 — Fourth to 10th segments of antennae each with an anterior projection deeply incised at apical margin; elytral epipleuron with yellowish at least on anterior 2/3 *V. setosus*
3. 10th segment of antennae very weakly incised *V. dilatatus*
 — 10th segment of antennae moderately incised *V. circumpectus* n. sp.

***Velleius pectinatus* Sharp, 1874** 빛수염날반개

Velleius pectinatus Sharp, 1874, p. 24; Bernhauer and Schubert, 1916, p. 415; Mochizuki and Tsunekawa, 1937, p. 78; Mochizuki and Masui, 1939, p. 57; Narita, 1939, p. 46; Adachi, 1957, p. 180; Kim, 1978, p. 51; Shibata, 1984, p. 118; Baek, 1985, p. 13; Watanabe, 1985, p. 307, pl. 54, fig. 5; Naomi, 1986, p. 244, fig. 3(A-B); Kim *et al.*, 1994, p. 143.

Diagnosis. Body length 14.0-23.0 mm, entirely black, without yellowish spots on elytral humeri. Fourth to 10th segments of antennae each with an anterior projection deeply incised at apical margin.

Male genitalia: median lobe nearly symmetrical, median lobe rounded at apex, paramere narrower at apex than median lobe, extending just to the apex of median lobe, underside of paramere with small black sensory tubercles at apical part in a pair of irregular lines (modified from Naomi, 1986).

Type locality. Japan (Higgo, Nagasaki).

Distribution. Korea, and Japan (Hokkaido, Honshu, Shikoku, Kyushu).

***Velleius dilatatus* (Fabricius, 1787)** 큰빛수염날반개 (Fig. 6)

Staphylinus dilatatus Fabricius, 1787, p. 220 (cited from Naomi, 1986).

Velleius dilatatus: Sharp, 1874, p. 23; Bernhauer and Schubert, 1916, p. 416; Adachi, 1957, p. 180; Lohse, 1964, p. 205, fig. 103; Coiffait, 1978, p. 285, fig. 57(A-E); Shibata, 1984, p. 117; Watanabe, 1985, p. 54, fig. 6; Baek, 1985, p. 13; Yuh *et al.*, 1985, p. 249; Naomi, 1986, p. 242, fig. 2(A-C); Kim *et al.*, 1994, p. 143.

Diagnosis. Body length 14.5-24.0 mm, piceous black, head and pronotum reddish black.

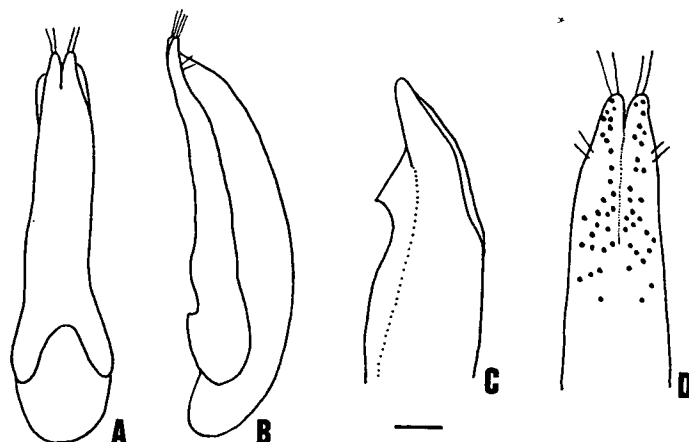


Fig. 6. Aedeagus of *Velleius dilatatus*: A, ventral view; B, lateral view; C, apical median lobe in lateral view (paramere removed); D, underside of paramere. (scale: 0.3 mm for A and B).

Antennae, palpi, and legs piceous black. Elytral epipleuron with yellowish spot.

Male genitalia: aedeagus slightly asymmetric, anterior portion more or less broader than paramere (Fig. 6A). Subapex of median lobe projected dorsally but evenly narrowing (Fig. 6C). Apex of paramere with 2 pairs setae in each lobe and narrowly incised in anterior median margin (Fig. 6D). Sensory tubercles underside of paramere arranged irregularly.

Type locality. Halae saxorum.

Specimens examined. 1 ♂, Chungchungnam-do, Kumsan-gun, Poseoksa Temple, 27 Jun. 1986, H.Y. Yang; 1 ♀, Chungchungbuk-do, Okchon-gun, Guil-ri, 20 Jun. 1986, Y.B. Cho.

Distribution. Korea (Central), Japan (Hokkaido, Honshu, Kyushu), China, and Europe.

***Velleius circumipectus* n. sp.** 우리빛수염반날개(신칭) (**Fig. 7**)

Description. Body length 18.5 mm, body black and dull shining, head and pronotum piceous black but pronotum more paler than head, palpi and legs piceous black, elytral epipleura with yellowish spot in humeral area.

Head. HL : HW = 45 : 56, suborbicular with very minute sculptures on surface, two large punctures in upper and behind site of each eye in dorsal view. Eye slightly longer than temple (20 : 17). First three segments of antennae black and length ratio of those 11 : 6 : 11, and 4th to 10th segments each with an anterior projection distinct but not deep incision and reddish black with gradually pale toward last segments which are yellowish red. Labrum moderately emarginated in median anterior area. Length ratio of 2nd, 3rd, and 4th segment of maxillary palp 8 : 6 : 8, last segment baculiform. Length ratio of 1st to 3rd segments 5 : 5 : 7, 2nd and 3rd segments weakly dilated apically.

Pronotum. PL : PW = 67 : 89, dorsal rows of 1+1 punctures. Evenly and broadly rounded in lateral and posterior. Lateral and posterior margins with a few of blackish long setae. Minute sculptures much weaker than those of head.

Scutellum. Posterior angle obtusely rounded with minute sculptures and somewhat dense black hairs.

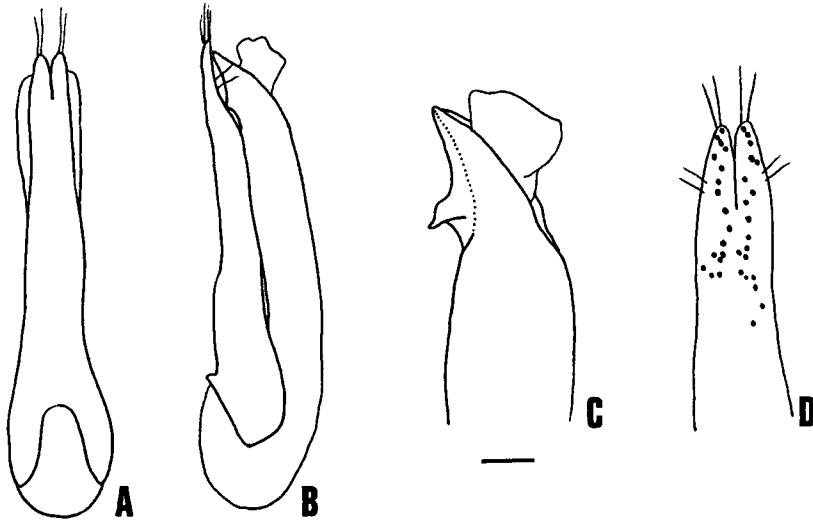


Fig. 7. Aedeagus of *Velleius circumipectus* n. sp.: A, ventral view; B, lateral view; C, apical median lobe in lateral view (paramere removed); D, underside of paramere. (scale: 0.3 mm for A and B).

Elytra. Narrower than pronotum, very close black hairs and minute sculptures on surface. Lateral and posterial margins with black long setae.

Abdomen. Elongate, more or less close and small punctures with hairs, and lateral and posterial margins with blackish long setae. Eight sternum emarginated broadly and not deeply. Nine sternum asymmetrical with broad and shallow emargination at median posterial margin.

Male genitalia: median lobe slightly asymmetric with small basal area (Fig. 7A). The subapex of median lobe projected dorsally but not evenly narrowing in lateral view (Fig. 7C). Paramere little longer than median lobe, somewhat broader than median lobe in basal area but in anterior area more narrower. Apex of paramere narrowly and deeply incised and each lobe with two pairs of setae (Fig. 7D). Sensory tubercles underside of paramere arranged irregularly.

Type series. Holotype, ♂, Korea: Chugchungnam-do, Kumsan-gun, Poseoksa Temple, 27. Jun. 1986, J.S. Lee.

Remarks. This species is similar to *V. dilatatus* (Fabricius, 1787) from Korea, Japan, China, and Europe but can be separated by fourth to 10th segments of antennae more deeply incised, and body shape more elongated. The subapex of median lobe is quiet different.

Etymology. The scientific name of this species is derived from the round shape of pronotum.

***Velleius setosus* Sharp, 1889** 큰황점빛수염반날개(신칭) (**Fig. 8**)

Velleius setosus Sharp, 1889, p. 29 (cited from Naomi, 1986); Bernhauer and Schubert, 1916, p. 416; Adachi, 1957, p. 180; Shibata, 1984, p. 119; Watanabe, 1985, p. 307, pl. 54, fig. 7; Naomi, 1986, p. 243, fig. 2(D-F).

Diagnosis. Body length 12.5-19.0 mm, black. Antennae, palpi, legs piceous black. Elytral epipleuron yellowish at least on anterior two third. Fourth to 10th segments each with an anterior projection deeply incised at apical margin.

Male genitalia: median lobe slightly asymmetric (Fig. 8A). Projection of subapex of median lobe

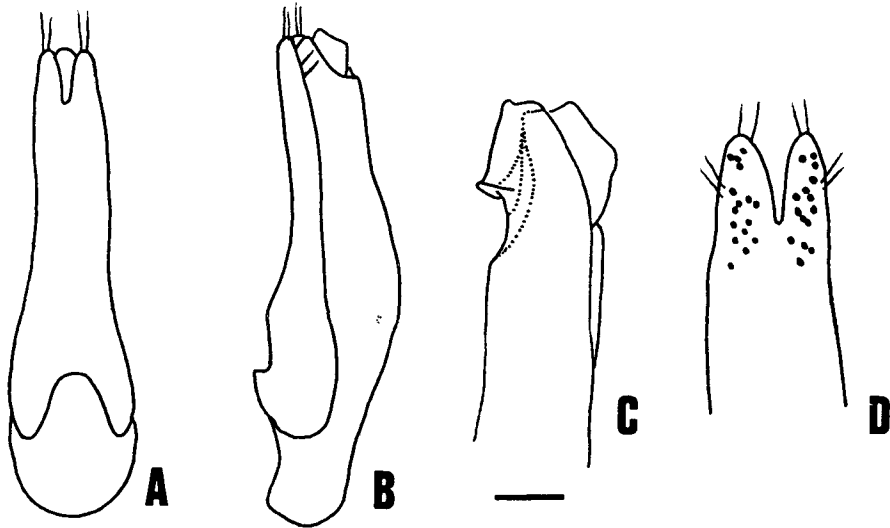


Fig. 8. Aedeagus of *Velleius setosus*: A, ventral view; B, lateral view; C, apical median lobe in lateral view (paramere removed); D, underside of paramere. (scale: 0.3 mm for A and B).

semiround shape and flat in the behind surface (Fig. 8C). Apex of paramere deeply and narrowly emarginated, two pairs setae in each branch (Fig. 8D). Sensory tubercles underside of paramere arranged irregularly.

Type locality. Japan (Junsai).

Specimen examined. 1 ♂, Chollapuk-do, Mt. Teokyusan, 5 Aug. 1986, J.S. Lee.

Distributions. Korea (South; new record), and Japan (Hokkaido, Honshu, Shikoku, Kyushu).

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한국산 왕눈이반날개족(딱정벌레목, 반날개과)의 분류학적 연구

조 영 복

(한남대학교 자연사박물관)

요 약

한국산 왕눈이반날개족에 대한 재검토 결과, 3속 10종 1아종으로 밝혀졌다. 이들 중, *Velleius circumipectus*는 신종, *Quedius japonicus sachonensis*는 신아종이었으며, *Heterothops rotundiceps*, *Q. japonicus* (s. str.), *Q. simulans*, 및 *V. setosus*는 한국산 미기록종이었다.