

A Species of the Genus *Parapyxidicerus* Sawada, 1964 (Coleoptera: Staphylinidae) new to Korea

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한국산 멧개미사돈속(딱정벌레목: 반날개과)의 미기록종 보고

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ABSTRACT: The pselaphine beetle, tribe Bythinoplectini is recorded from Korea for the first time, represented by a single species, *Parapyxidicerus carinatus* Sawada, 1964 previously only known from Japan. Three specimens were collected in northern part of South Korea (Gyeonggi and Gangwon Provinces) by sifting leaf litter near stream. Illustrations of a habitus, diagnostic characteristics of the tribe, genus and species, and distributional map are provided.

Key words: New record, Pselaphinae, Euplectitae, Taxonomy, Korea

초 록: 개미사돈아과의 미기록종인 멧개미사돈(*Parapyxidicerus carinatus* Sawada, 1964)(신칭)을 한국에서 처음으로 보고하며 이들이 속한 한국 미기록속 Bythinoplectini에 대해 함께 보고한다. 털어잡기 방법으로 세 개체의 표본이 경기도와 강원도의 물가에서 확보되었다. 정확한 동정을 위해 외형과 진단형질의 사진 그리고 분포지도를 함께 제공한다.

검색어: 미기록종, 개미사돈아과, 곤봉개미사돈상속, 한국

The supertribe Bythinoplectitae was separated from supertribe Faronitae (Newton and Thayer, 1995). Subsequently, it was transferred into the supertribe Euplectitae as the tribe Bythinoplectini (Chandler, 2001b). This tribe is one of the largest group of pselaphine beetles, and members eat collembolans or smaller arthropods in leaf litter (Chandler, 2001a). Four Euplectitae species, *Euplectus gibbipalpis* Löbl, 1975, *Leptoplectus vagans* Löbl, 1975, *Philoscotus coreanus* Nomura and Lee, 1993 and *Philoscotus rostralis* Nomura, 1988, are currently recorded in Korean peninsula, and this is fifth species of Korean Euplectitae species. In this paper, the pselaphine beetle, tribe Bythi-

noplectini is recorded from Korea for the first time, represented by a single species, *Parapyxidicerus carinatus*, previously only known from Japan (Sawada, 1964). Diagnosis of the tribe, genus and species are provided.

Materials and Methods

Three specimens were collected in northern part of South Korea (Gyeonggi and Gangwon Provinces) by sifting leaf litter near stream. The images of habitus and diagnostic characters were taken by DM1000 LED optical microscope (Leica) using Las V4.12 (Leica) and Zerene Stacker (Zerene Systems) software to take multi-focus images. The specimens are deposited in National Institute of Biological Resources (NIBR) and Chungbuk National University Insect Collection (CBNUIC).

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Received June 16 2020; Revised October 14 2020

Accepted November 2 2020

Systematic Accounts

Family Staphylinidae Latreille, 1802 반날개과
 Subfamily Pselaphinae Latreille, 1802 개미사돈아과
 Supertribe Euplectitae Streubel, 1839 곤봉개미사돈상족

Tribe Bythinoplectini Schaufuss, 1890 흑곤봉개미사돈족
 (신칭)

Diagnosis. The tribe Bythinoplectini can be separated by the following combination of characters: labrum smaller than 1/2 of head wide, ventral head with deep subantennal excavation

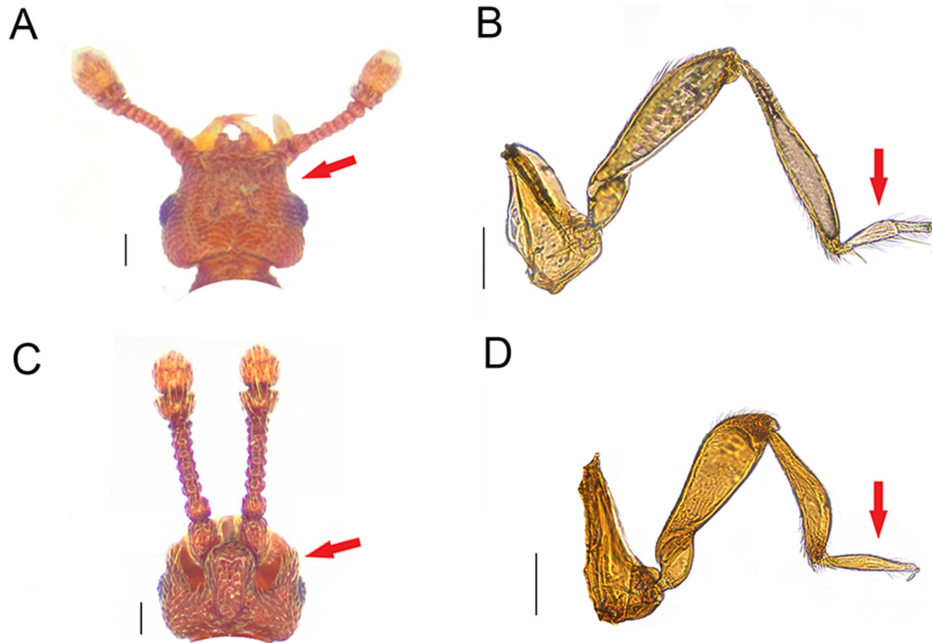


Fig. 1. (A) dorsal head of *Euplectus* sp. (B) hind leg of *Euplectus* sp. (C) dorsal head of *Parapyxidicerus carinatus*. (D) hind leg of *Zethopsus* sp. Scale bars = 0.1 mm.

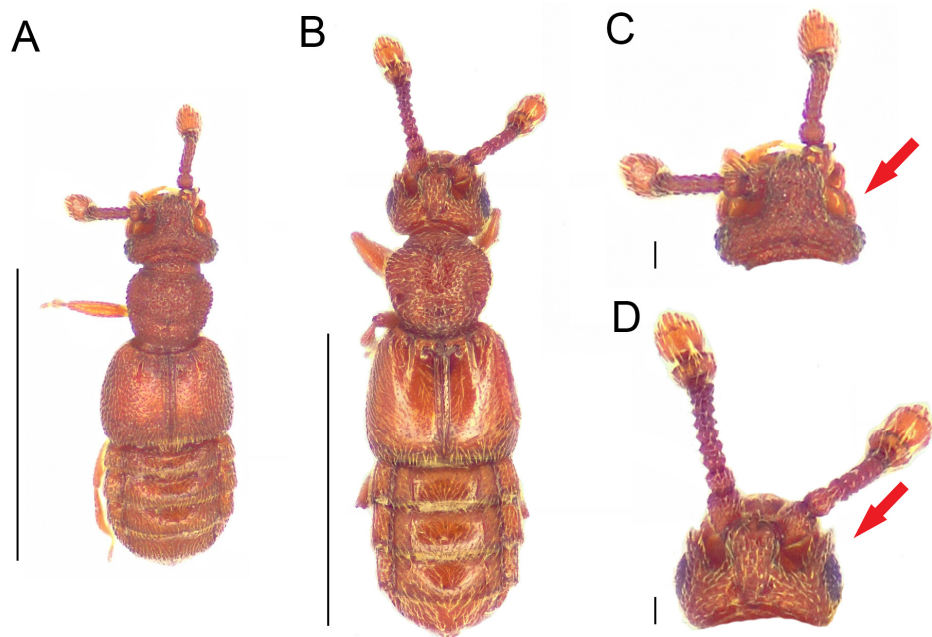


Fig. 2. Habitus. (A) *Zethopsus* sp. (Bythinoplectina). (B) *Parapyxidicerus carinatus* (Pyxidicerina). Head (dorsal). (C) *Zethopsus* sp. (Bythinoplectina). (D) *Parapyxidicerus carinatus* (Pyxidicerina). Scale bars, 1 mm (A-B); 0.1 mm (C-D).

(Fig. 1C, arrow), tarsi 3-3-3 with minute tarsomeres 1 and 3 (Fig. 1D, arrow).

Subtribe Pyxidicerina Raffray, 1904 멧개미사돈아족(신칭)

Diagnosis. The tribe Bythinoplectini includes two subtribes, Bythinoplectina and Pyxidicerina. They are easily separated by lateral head margins. Bythinoplectina has fully opened lateral head margins (Fig. 2C, arrow), but Pyxidicerina has semi-opened lateral head margins (Fig. 2D, arrow).

Genus *Parapyxidicerus* Sawada, 1964 멧개미사돈속(신칭)

Type species: *Parapyxidicerus carinatus* Sawada, 1964

Diagnosis. The genus *Parapyxidicerus* can be distinguished from other Bythinoplectini genera by coarsely punctate head, pronotum and antennomere 10 (Fig. 3A, D) and clearly visible eleven antennomeres (Fig. 3B).

***Parapyxidicerus carinatus* Sawada, 1964 멧개미사돈(신칭) (Fig. 3)**

Parapyxidicerus carinatus Sawada, 1964: 11 (original description); Coulon, 1989: 69 (revision, aedeagus illustration);

Löbl and Smetana, 2013: 378 (catalog).

Diagnosis of Male. Body length 1.5-2.0 mm, reddish brown with yellow setae. Head slightly narrowed than pronotum with well-developed eyes (Fig. 3A, D). Interantennal bridge of head narrower than 1/3 of head wide (Fig. 3A, D). Antennae with eleven antennomeres, 10 and 11 clubed (Fig. 3B). Mandible curved and acute apically (Fig. 3E). Maxillary palpomere 3 and 4 swollen (Fig. 3C). Pronotum as long as wide, widest at 1/3 level of pronotum (Fig. 3A). Elytra longer than pronotum with two basal foveae (Fig. 3A). First three visible abdominal tergites with clear lateral margins and well-developed paratergites (Fig. 3A). Aedeagus strongly chitinized and asymmetrical (Fig. 3F).

Female unknown.

Materials examined: 3♂, Korea: Gyeonggi Prov., Jingwang-dong, Eunpyeong-gu, Seoul, 08 VII 2019, 37°38'37"N 126°57'04"E, 180 m, leaf litter & deadwood debris near stream, Yeon-Jae Choi, Ji-Won Kang (NIBR); 3♂, Korea: Gyeonggi Prov., Ui-dong, Gangbuk-gu, Seoul, 23 VIII 2019, 37°39'33.5"N 126°59'22.8"E, 348 m, leaf litter & soil & deadwood debris, Yeon-Jae Choi, Tae-Yeong Jang (CBNUIC); 1♂, Korea: Gangwon Prov., Yangyang-ri, Seo-myeon, 38°4'40.0"N 128°29'51.0"E,

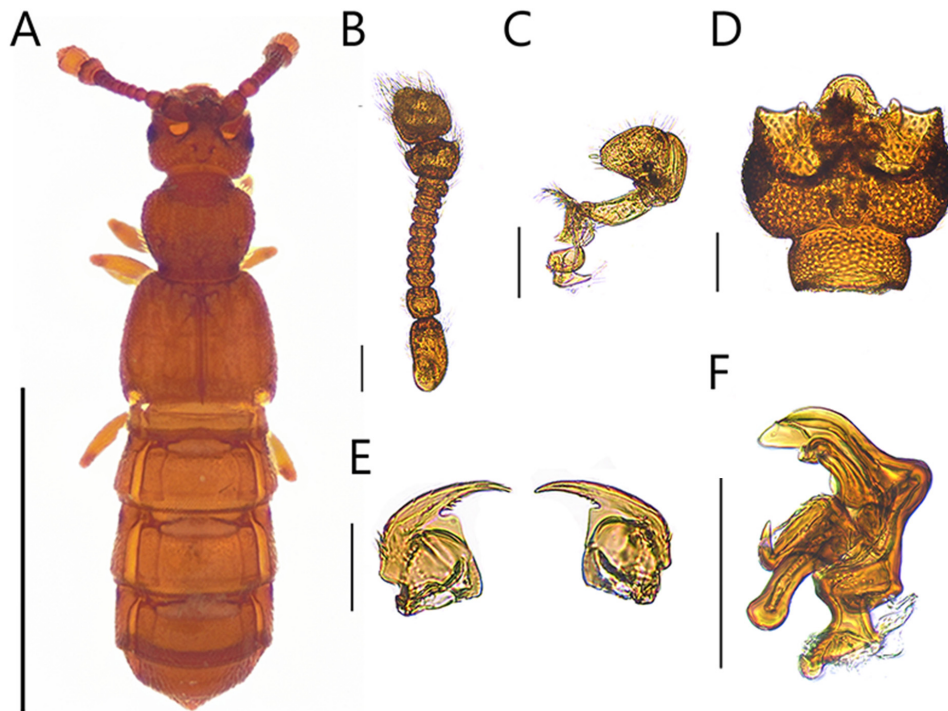


Fig. 3. *Parapyxidicerus carinatus*. (A) habitus. (B) antenna. (C) maxillary palpi. (D) dorsal head. (E) mandibles. (F) aedeagus. Scale bar, 1 mm (A); 0.1 mm (B-F).

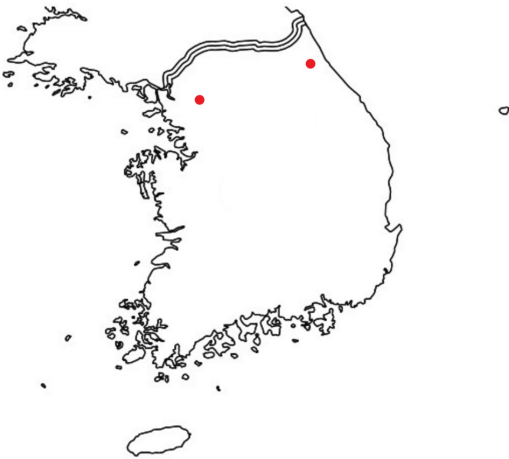


Fig. 4. Distributions of *Parapyxidicerus carinatus* (red dots).

210 m, 6 V 2019, J.-S. Park, leaf litter near dried stream (CBNUIC).

Distribution. Korea (new record), Japan.

Remarks. All specimens of this species were collected by leaf, soil or deadwood debris litter near stream.

Acknowledgements

This work was supported by a grant from the National Institute of Biological Resources (NIBR), funded by the Ministry of Environment (MOE) of the Republic of Korea (NIBR201902108).

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박종석: 충북대, 교수; 실험설계 및 논문 작성

모든 저자는 원고를 읽고 투고에 동의하였음.

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