SYNONYMY OF *PHANEROTA APPENDICULATA* AND *P. INSIGNIVENTRIS* (COLEOPTERA: STAPHYLINIDAE: ALEOCHARINAE), AND FIRST RECORD OF *P. APPENDICULATA* IN KOREA

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Phanerota appendiculata (Motschulsky) was first described as *Gyrophaena appendiculata* (Motschulsky, 1858). Later, Cameron (1934) proposed the new subgenus *Acanthophaena* under *Gyrophaena* Mannerheim, based on male characters of abdominal sternite V with lateral margins expanded as a lamelliform process, and with a short mesosternal process. In 1939, Cameron redescribed *G.* (*A.*) *appendiculata* with 2 new species, including *G. insigniventris*. However, Seevers (1951) recognized that the placement of *Acanthophaena* under *Gyrophaena* was not correct. Finally, Ashe (1984) presented evidence that *Acanthophaena* should be treated as a subgenus of *Phanerota* Casey.

While studying Korean *Gyrophaena*, we found a species with a very unusual body form. After detailed comparisons with many syntypes of *Gyrophaena*, the species was identified as *Phanerota appendiculata*. In addition, syntypes of *P. insigniventris* were very similar to *P. appendiculata*. Diagnostic characteristics (structures of antennae, tergite VIII, median lobe, and paramere) of *P. insigniventris* were not sufficient to maintain the separation of *P. insigniventris* and *P. appendiculata*. Therefore, after studying 3 specimens of *P. insigniventris* and 59 specimens of *P. appendiculata*, we synonymize *P. insigniventris* under *P. appendiculata* and report *P. appendiculata* for the first time in Korea.

PHANEROTA APPENDICULATA (MOTSCHULSKY)

Gyrophaena appendiculata Motschulsky, 1858: 228; Cameron, 1934: 23; 1939: 60.

Phanerota appendiculata: Ashe, 1984: 238.

Gyrophaena insigniventris Cameron, 1939: 60. **New synonym**

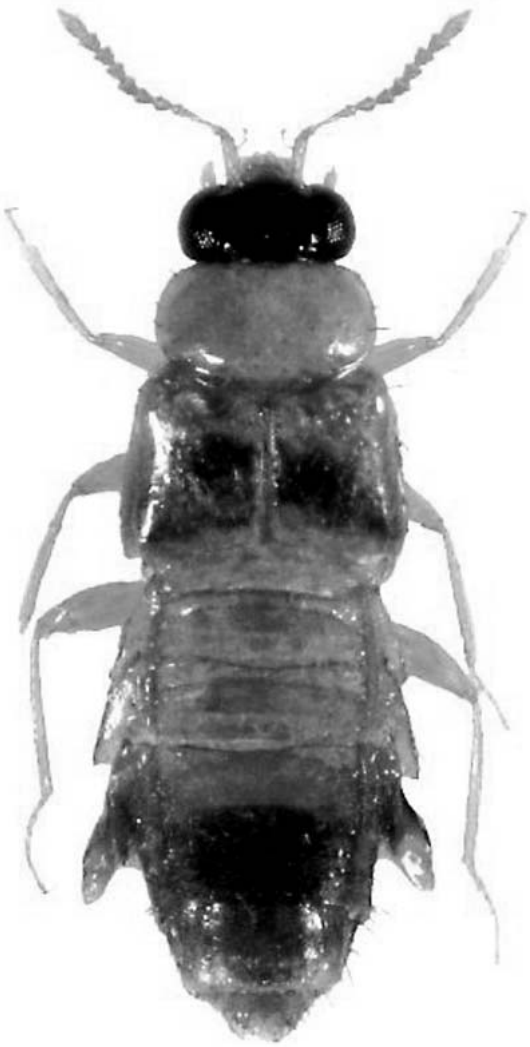

Fig. 1. Habitus. *Phanerota appendiculata*, male, 3.8 mm.

Description. Body length 3.2-3.8 mm. Body (Fig. 1) flattened dorsoventrally. Color usually brown, head and tergites V-VI dark brown. Body surface glossy and slightly pubescent. Head about 1.7 × wider than long. Surface glossy with some macrosetae. Eyes extremely large, occupying most of lateral margin of head, eyes coarsely faceted. Infraorbital carina well developed. Antenna (Fig. 2A) pubescent. Antennomere 4 about 1.8 × longer than wide, 5-7 about 1.1 × longer than wide, 8-10 as long as wide. Labrum transverse, major setae distinct. Tip of lacinia with well developed spore brush. Mandible not bifid, strongly curved ventrally, patch of denticles present on ventral molar region. Labium with ligula entire, protruded, more or less pointed. Labial palpi with 2 articles. Pronotum slightly transverse, broadly oval, about 1.5 × wider than long. Surface with fine punctures, macrosetae scattered at side. Hy-

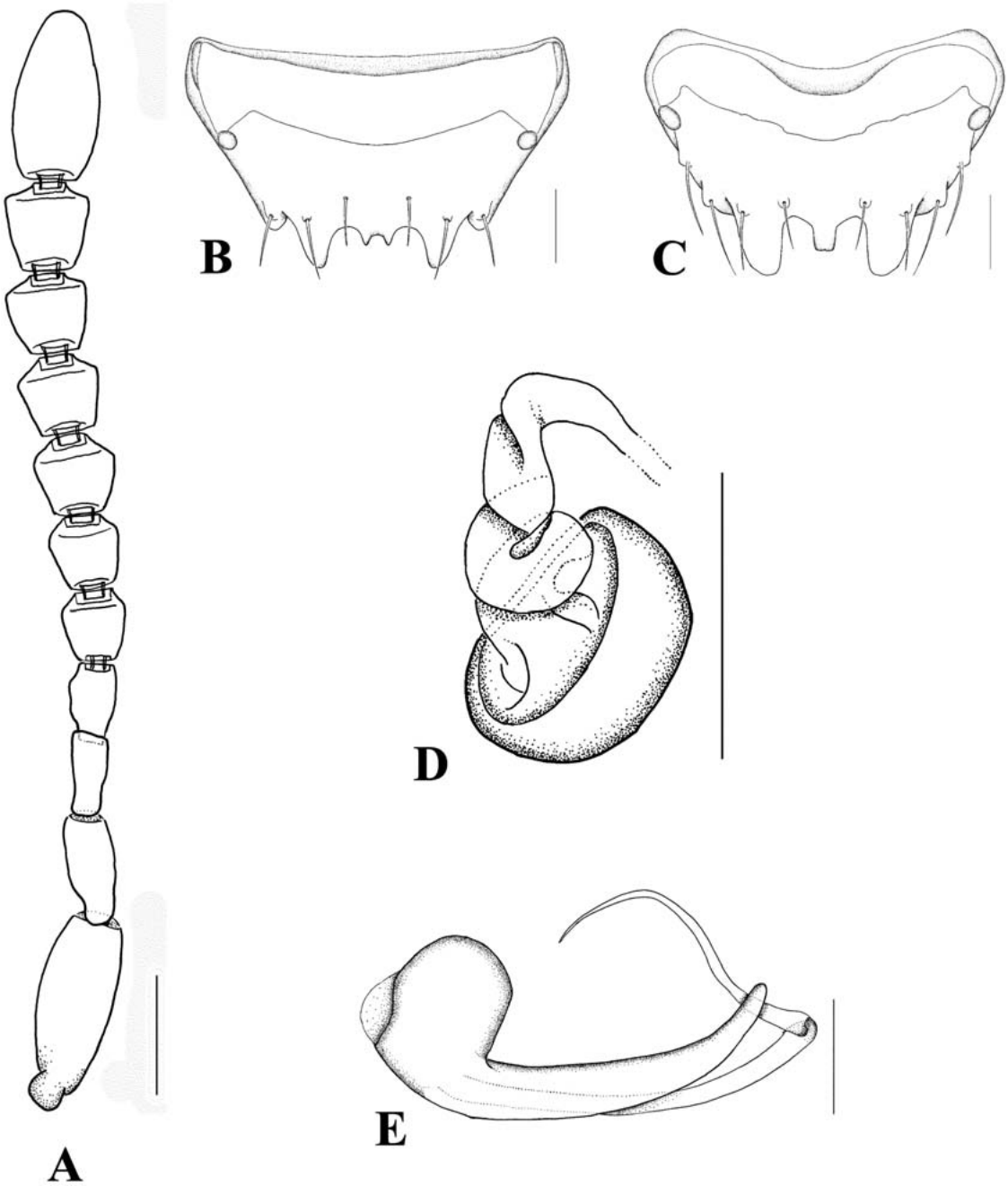

Fig. 2. *Phanerota appendiculata*, A: antenna, ventral aspect; B: female tergite VIII, ventral aspect; C: male tergite VIII, ventral aspect; D: spermatheca, lateral aspect; E: median lobe, lateral aspect. Scale bars = 0.1 mm.

pomera visible in lateral aspect. Elytra about 1.6 × longer than wide, outer apical angles slightly sinuated. Surface glossy and macrosetae scattered at side. Mesosternal process with medial longitudinal carina extended to middle of mesocoxal cavity. Coxae widely separated. Tarsal formula 4-4-5. Abdominal tergites II-VII with macrosetae scattered at side. Male tergites III-V transversely impressed, tergite VII with 6 tubercles on hind margin. Male tergite VIII (Fig. 2C) with 3 processes, median one small, lateral ones large. Female tergite VIII (Fig. 2B) with 4 processes, inner ones small and acute at apex. Male with abdominal sternite V with each lateral mar-

gin expanded lamelliform process. Median lobe (Fig. 2E) long, slender and spine-like; flagellum long, slender and more or less whip-like in lateral aspect. Spermatheca (Fig. 2D) with neck elongate and coiled proximal to plate-like flange.

Materials Examined. Syntype, 3, labeled as follows: Nilambur, Madras, S. N. Chatterjee, *Gyrophaena insigniventris* Cam. Type, M. Cameron, Bequest. B. M. 1955-147. Singapore, 1♂, Bukit Panjang, Singapore, Dr. Cameron, *Gyrophaena appendiculata* Motschulsky, M. Cameron, Bequest. B. M. 1955-147; 2♀, Chungnam National Univ., Gung-dong, Yuseong-gu, Daejeon-city, Chungnam Province, Korea, 13.vii.2006, SJ Park, HW Kim, YH Kim, *ex* mushroom; 12♂♀, Gapsa, Gyeryongsan, Gongju-city, Chungnam Province, Korea, 2.vii.2000, MH Kim, *ex* mushroom; 14♂♀, same data as former except for 12.vii.2000 (2♂, on slide); 9♂♀, same data as former except for 30.vii.2002; 2♂, same data as former except for Sangsin-ri, Banpo-myeon, 26.viii.2001; 3♂♀, Gwangdeoksan, Gwangdeok-ri, Gwangdeok-myeon, Cheonan-city, Chungnam Province, Korea, 22.vii.2000, MH Kim, *ex* mushroom; 1♂, Secheon park, Sikjangsan, Seocheon-dong, Jung-gu, Daejeon-city, Chungnam Province, Korea, 5.viii.2000, MH Kim, *ex* mushroom; [GG] 10♂♀, Girisan, Hyeondeok-myeon, Pyeongtaek-city, Gyeonggi Province, Korea, 28.vi.2006, SJ Park, HW Kim, YH Kim, *ex* mushroom (3♂1♀, on slide).

Distribution. Korea, China, Japan, and India.

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Summary

A taxonomic study of *Phanerota appendiculata* (Motschulsky) in Korea is presented. The genus and species are recognized for the first time in Korea. *Phanerota insigniventris* (Cameron) is synonymized under *P. appendiculata*. A habitus illustration and line drawings of diagnostic characters are provided.

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