

Redescription of a Korean Histerid Beetle, *Saprinus (Saprinus) aeneolus* Marseul, 1870 (Coleoptera, Histeridae) from the Collection of the National Taiwan University, Taipei, Taiwan

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Abstract. *Saprinus (Saprinus) aeneolus* MARSEUL, 1870 is redescribed with useful characteristics for taxonomy.

Thanks to Professor Chiun-Cheng KO, Mr. Shih-Pi KAO and Dr. Jhih-Rong LIAO, of the Department of Entomology, National Taiwan University, Taipei, Taiwan, I had an opportunity to examine a series of specimens of Korean histerid beetles preserved in the university collection (ÔHARA, 2016). I also found two specimens of *Saprinus (Saprinus) aeneolus*, in the collection: this species has not yet been redescribed with detail illustrations and photos. Herein, the redescription of the species is provided with useful characteristics for the taxonomy of *Saprinus* in general: the female genital organ is illustrated for the first time. I also wish to thank Dr. T. LACKNER for critical reading for this paper and Mr. N. KIKUCHI for taking the photograph.

Abbreviation: *Measurements*. Measurements of certain body parts are given in text in the order of range (all in mm). Abbreviations used in the measurements and description are as follows: M: male, F: female, PPL: length between anterior angles of pronotum and apex of pygidium, PEL: length



Fig. 1. *Saprinus (Saprinus) aeneolus*, habitus, dorsal view, photo by Mr. N. KIKUCHI. [Male, MO-17-001].

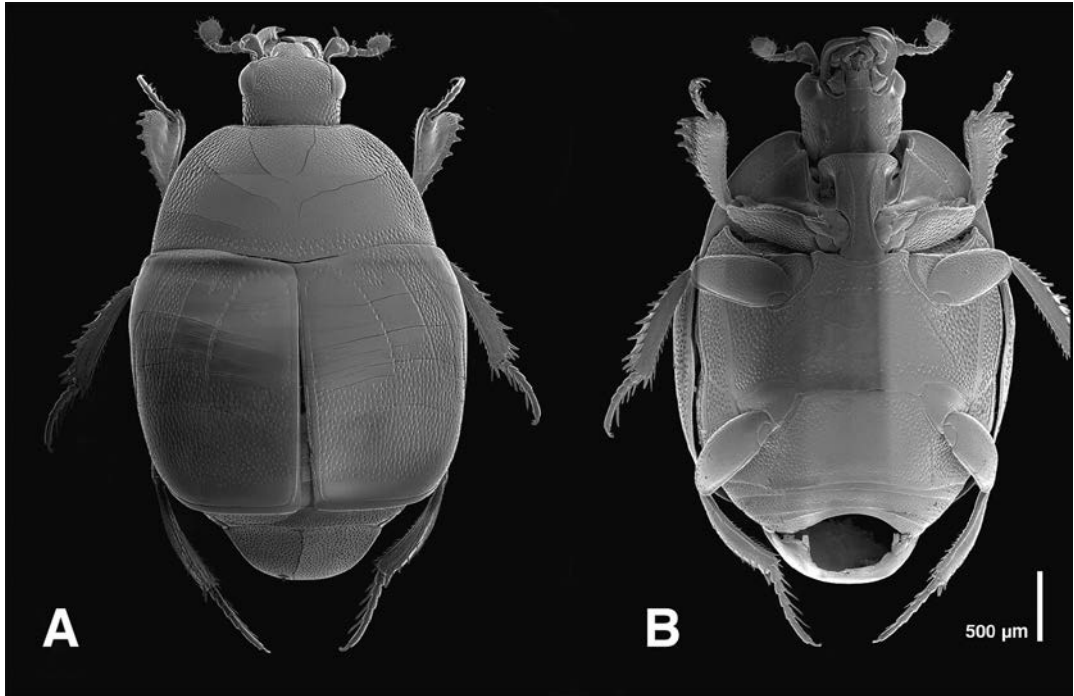


Fig. 2. *Saprinus (Saprinus) aeneolus*. — A, Habitus, dorsal view; B, ditto, ventral view. [Male, MO-17-001].

between anterior angles of pronotum and apices of elytra, APW: width between anterior angles of pronotum, PPW: width between posterior angles of pronotum, PL: length of pronotum along midline, EL: length of elytron along sutural line, EW: maximal width between outer margins of elytra, ProW: maximal width of propygidium, ProL: length of propygidium, PyL: length of pygidium, PTL: length of protibia, MSTL: length of mesotibia, M TTL: length of metatibia. See also ÔHARA (1994: 8, fig. 2). *Localities*. North Korea: HB: Hamgyongbuk-do. South Korea: IC: Incheon-gwangyeoksi, GW: Gangwon-do, GG: Gyeonggi-do, GB: Gyeongsangbuk-do, JN: Jeollanam-do.

Family **Histeridae**

Subfamily **Saprininae**

Saprinus (Saprinus) aeneolus MARSEUL, 1870

[Figs. 1–5]

Saprinus aeneolus MARSEUL, 1870: 111 [China: Shanghai]; KIM *et al.*, 1994: 136 [Korea]; KIM & LIM, 1997: 61 [IC, GW, GG, GB, JN].

Saprinus (Saprinus) aeneolus: MAZUR, 1976: 705 [Korea]; 1984: 46; 1997: 219; 2011: 187 [China: Shanghai; Asia from Asia Minor to China; Korea; N. India]; HONG & LEE, 2014: 36 [listed].

Saprinus schmidianus REITTER, 1887: 218 [Oasis Tscherschen, Oasis Nia and Keria, in Central-Asien], synonymized by DAHLGREN, 1967: 214.

Saprinus turkestanicus SCHMIDT in HEYDEN & KRAATZ, 1886: 185 [Namagan, Turkestan]; KRZYZHANOVSKIJ & REICHARDT, 1976: 178 [male genitalia figured], synonymized by DAHLGREN, 1967: 214.

Saprinus aeneus turkestanicus: REICHARDT, 1941: 251.

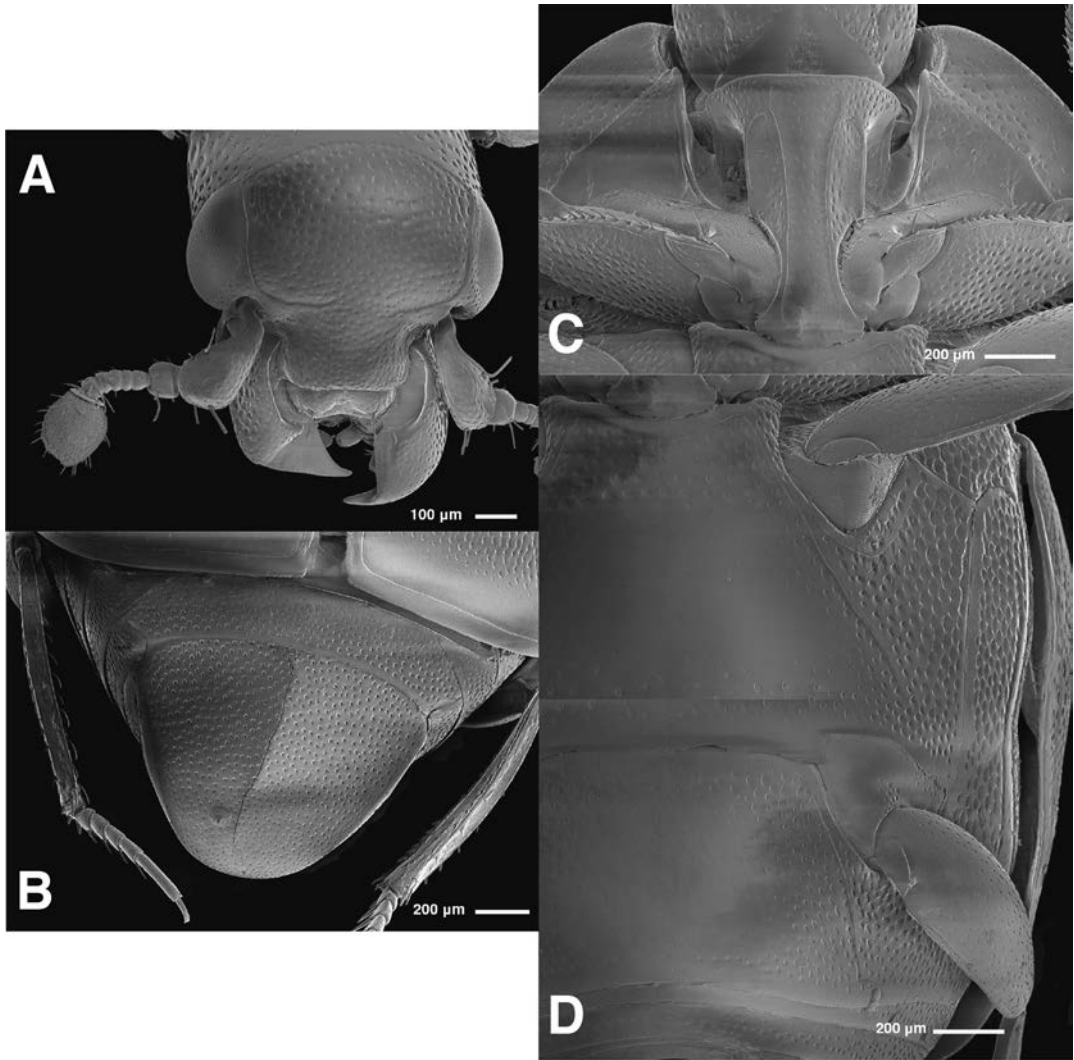


Fig. 3. *Saprinus (Saprinus) aeneolus*. — A, Head, frontal view; B, pygidia, caudal view; C, prosternum, ventral view; D, meso- and metaventrite and first abdominal sternum, ventral view. [Male, MO-17-001].

Saprinus aeneolus turkestanicus: MAZUR, 1976: 705.

Specimens examined. 1 female, Hokusamen (Puksam-m), Chilgok County, Gyeongsangbuk-do, South Korea (韩国慶尚北道漆谷郡北三面), 9.VI.1933, A. UMENO & K. YAMAUCHI, determined by COOMAN as *Saprinus aeneus* (12255011220069) [MO-15-009]; 1 male, Gozan, Kainei (= Hoeryon City), Hamgyeongbuk-do, North Korea (北朝鮮咸鏡北道会寧市), 10.VII.1934, H. ARAKI, determined by COOMAN as *Saprinus aeneus* (12255011220153) [MO-17-001].

Redescription. Body (Fig. 1A, 2A, B) broadly oval, convex. Body length (M: n = 1; F: n = 1): PPL, M 3.40, F 3.50, PEL, M 2.98, F 2.98, APW, M 0.96, F 0.96, PPW, M 2.26, F 2.30, PL, M 1.20, F 1.20, EL, M 1.78, F 1.78, EW, M 2.54, F 2.45, ProW, M 1.44, F 1.49, ProL, M 0.29, F 0.24, PyL, M 1.01, F 1.01, PTL, M 0.77, F 0.77, MSTL, M 0.91, F 0.86, MTTL, M 1.01, F 0.96. Cuticle shiny and black with brownish luster; apex of elytron broadly with reddish-brown. Scapus and funicle of anten-

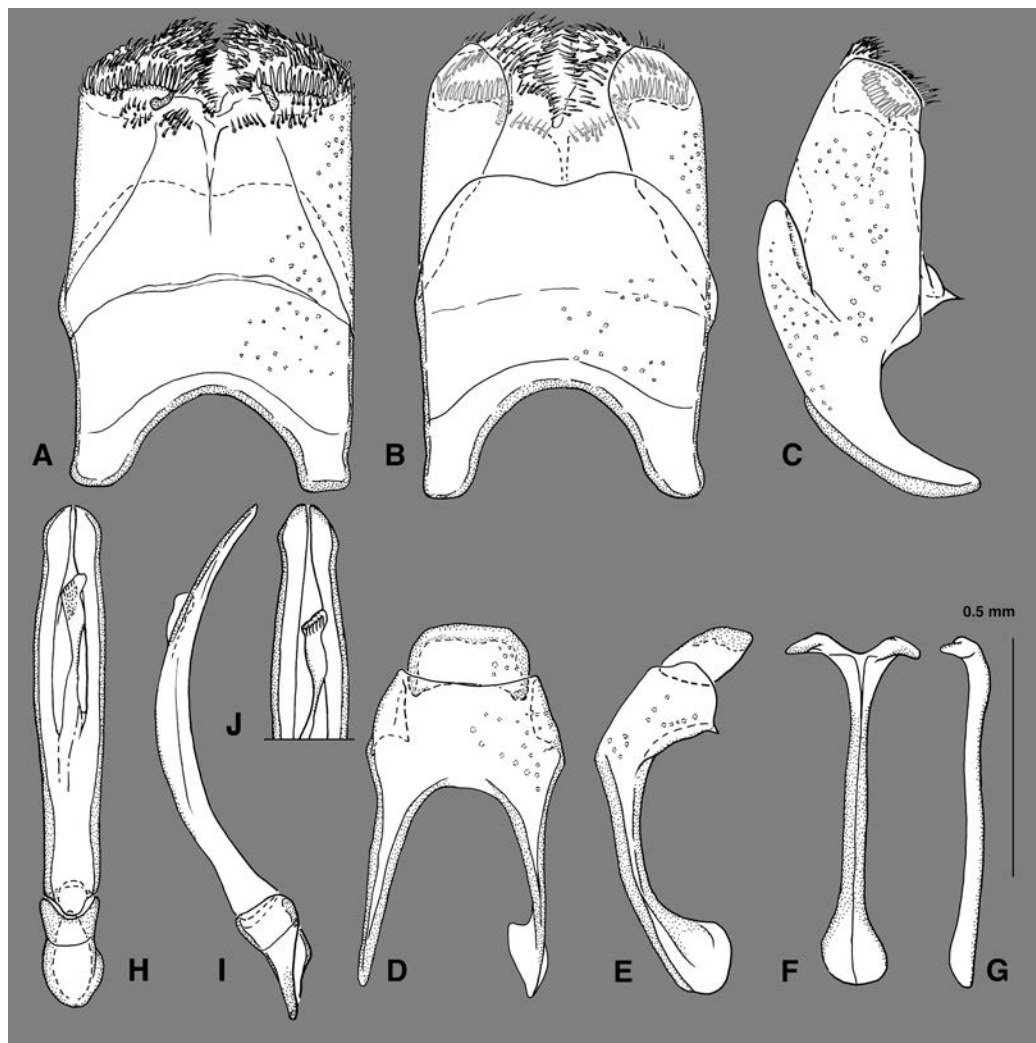


Fig. 4. *Saprinus (Saprinus) aeneolus*, male genitalia. — A, Eighth tergite and sternum, ventral view; B, ditto, dorsal view; C, ditto, lateral view; D, 9th and 10th tergites, dorsal view; E, ditto, lateral view; F, 9th sternum (spicules), dorsal view; G, ditto, lateral view; H, aedeagus, dorsal view; I, ditto, lateral view; J, apical part of aedeagus, oblique caudal view. [MO-17-001].

nae, mandibles and tarsi dark rufopiceous.

Frontal stria (Fig. 3A) slightly marked and interrupted on median one-third, united laterally with supraorbital stria. Disc of front densely punctate, the punctures separated by their own to twice their diameter, the punctures becoming denser and finer apically. Epistoma convex, more densely punctured. Labrum deeply longitudinally depressed medially. Mandibles densely and finely punctate.

Pronotal sides evenly arcuate and convergent. Apical angles obtuse. Marginal pronotal stria thin, slightly carinate at sides and complete laterally and anteriorly. Disc nearly smooth, very finely and sparsely punctate, the punctures becoming denser, larger and deeper laterally, especially at antero-lateral part where they are separated by 0.1 times to twice their diameter. There are also two to

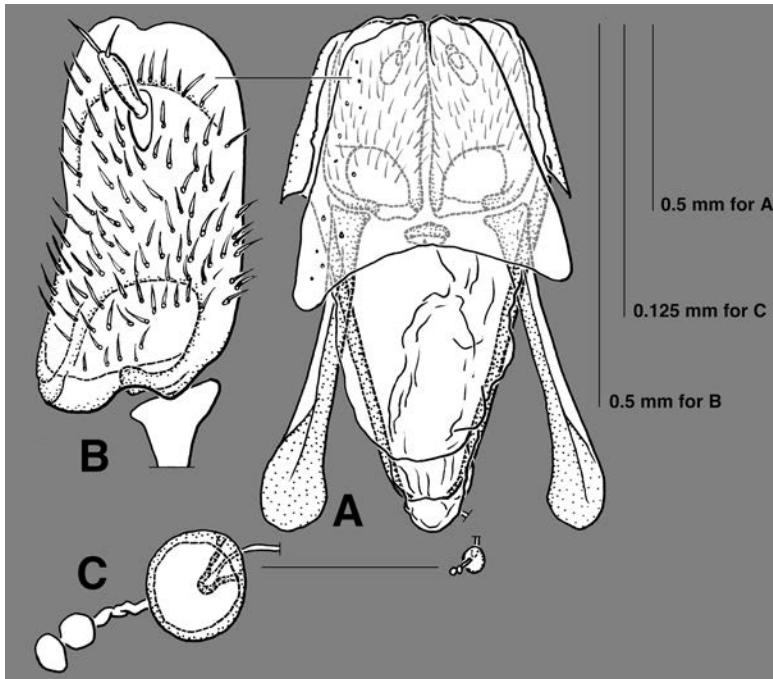


Fig. 5. *Saprinus (Saprinus) aeneolus*. — A, Female genitalia, dorsal view; B, coxite, ventral view; C, spermatheca and spermathecal gland. [MO-15-009].

three irregular rows of coarse punctures along the pronotal base; a small foveiform elongate puncture being present in front of scutellum. Pronotal epipleura slightly concave, covered with coarse punctures, the punctures separated by their own diameter.

Epipleura of elytra even, sparsely covered with fine, elongate punctures. Marginal epipleural stria distinctly impressed and complete, stopping short of elytral apex, not united with marginal elytral stria. Marginal elytral stria complete, prolonged onto elytral apex as apical elytral stria, united with sutural elytral stria. External subhumeral stria (Fig. 2A) wanting; internal one present as a short line on medial one-fourth. Oblique humeral stria impressed and present on basal two-thirds. First to 4th striae crenate and impressed; 1st one present on about basal two-fifths; 2nd one on basal half; 3rd one shortly present on basal one-seventh; 4th one present on basal half and sparsely crenate, its basal end inwardly hamate and united with sutural elytral stria. Sutural elytral stria complete, finely crenate and hamate outwardly at base; its apical end united with marginal elytral stria. Surface of elytra densely covered with oval punctures, separated by half to twice their diameter; the following area (without coarse punctures) sparsely covered with microscopic punctures: scutellar area (basal half of interstices between sutural elytral stria and 4th dorsal elytral stria), basal medio-basal two-sevenths of interstices among 2nd and 4th dorsal elytra striae and rather broad lateral and apical elytral marginal areas.

Propygidium (Fig. 3B) short, disc covered with ocelloid punctures, separated by their own to twice their diameter. Interspaces very finely and transversely shagreened. Pygidium feebly convex, evenly covered with ocelloid punctures, separated by their own to three times their diameter, the punctuation becoming finer apically.

Anterior margin of median portion of prosternum (Fig. 3C) straight; marginal prosternal stria short and carinate, present only on median one-third. Prosternal keel moderately convex, sparsely

covered with fine punctures. Descending lateral prosternal striae strongly carinate, on basal fourth sinuate slightly, the apical apex of the stria feebly curved inwards. Carinal prosternal striae complete, very weakly divergent posteriorly and anteriorly, its outer sides carinate.

Anterior margin of mesoventrite (Fig. 3D) weakly emarginated medially; marginal mesoventral stria carinate, crenate and complete. Mesoventral disk of male covered with coarse, round and deep punctures which are separated by their own to three times their diameters; interspace among the punctures with alutaceous ground microsculptures; mesoventral disk of female sparsely clothed with fine punctures. Meso-metaventral suture (Fig. 3D) indicated by a strongly crenate line with large, coarse and deep round punctures. Intercostal disk of metaventricle feebly convex medially: median area very sparsely clothed with fine punctures, except a transverse apical band of two or three irregular rows of coarse oval punctures. Lateral metaventral stria carinate, extending obliquely and posteriorly on about basal three-fourths. Lateral metaventral disk densely covered with setiferous, large and shallow punctures separated by 0.2–0.6 times their diameter, the punctures becoming sparser and smaller medially: interspaces among the punctures with alutaceous microsculptures. Metepisternum densely covered with large, elongate and deep punctures which are separated by about half of their diameter.

Intercostal disc of 1st abdominal sternum (Fig. 3D) striate laterally, the striae slightly shortened at apex and bent outwardly; punctures fine and very sparse on middle, and becoming denser and coarser outwards and separated five times to twice of their diameter.

Number of denticles and setae of tibiae exhibit sexual differences: protibia with six (M), nine (F) denticles on outer margin and four denticles on apical margin, 20 setae on outer dorsal row, 16 (M), 15 (F) setae on median dorsal row, 12 (M), 13 (F) setae on inner margin, and eleven (M), five (F) denticles on middle ventral row. Mesotibiae with ten denticles on outer margin, nine (M), ten (F) setae on outer dorsal row, eleven (M), eight (F) setae on inner margin, and seven (M), six (F) denticles on middle ventral row. Metatibiae with six denticles on outer margin, eleven (M), ten (F) setae on outer dorsal row and 15 (M), 11 (F) on inner margin, and four denticles on middle ventral row.

Male genitalia (Fig. 4A–G): apical part of 8th sternum densely furnished with short setae. Basal piece (phallobase) short: ratio in length of parameres to basal piece about 4.38. Female: spermatheca as shown in Fig. 5.

Distribution. North Korea (HB) and South Korea (GW, GG, IC, GB, JN); Asia from Asia Minor to China, northern India.

要 約

大原昌宏： *Saprinus (Saprinus) aeneolus* MARSEUL, 1870 の再記載 (鞘翅目エンマムシ科)。 —— 台湾大学に所蔵された朝鮮半島産 2 個体の標本に基づき、 *Saprinus (Saprinus) aeneolus* MARSEUL, 1870 の再記載をおこない、標徴形質の図を付した。

References

- DAHLGREN, G., 1967. Beiträge zur Kenntnis der Gattung *Saprinus* (Col. Histeridae). *Opuscula entomologica*, **32**: 213–224.
- HEYDEN, L., & G. KRAATZ, 1886. IX. Beiträge zur Coleopteren-Fauna von Turkestan, namentlich des Altai-Gebirges, unter Beihilfe der Herren Dr. CANDÈZE, GANGLBAUER, Dr. STIERLIN und WEISE. *Deutsche entomologische Zeitschrift*, **30**: 177–194.
- HONG, K. J., & S. H. LEE, 2014. National List of Species of Korea “Insect” (Coleoptera II). 657 pp. National Institute of Biological Resources, Incheon. (In Korean.)
- KIM, J.-I., & E.-J. LIM, 1997. Fauna of Korean Histeridae (Coleoptera). *Entomological Research Bulletin, Seoul*, **23**: 59–76.
- KIM, J. I., Y. J. KWON, J. C. PAEK, S. M. LEE, S. R. AHN, H. C. PARK & H. Y. CHU, 1994. Order 23. Coleoptera. pp. 117–214. *In*

- The Entomological Society of Korea and Korean Society of Applied Entomology (ed.), *Checklist of Insects from Korea*. 744 pp. Seoul, Kon-Kuk University Press. (In Korean, with English abstract).
- KRYZHANOVSKIJ, O. L., & A. N. REICHARDT, 1976. Zhuki nadsemejstva Histeroidea (semejstva Shpaeritidae, Histeridae, Synteliidae). Fauna SSSR, Zhestkokrylye, V. vyp. 4, 434 pp. Leningrad.
- MARSEUL, S. A., 1870. Descriptions d'espèces nouvelles d'Histérides. *Annales de la Société entomologique de Belgique*, **13** (1869–1870): 55–158.
- MAZUR, S., 1976. Notes on the genus *Saprinus* ERICHSON (Col., Histeridae). *Polskie Pismo Entomologiczne*, **46**: 703–720.
- MAZUR, S., 1984. A world catalogue of Histeridae. *Polskie Pismo Entomologiczne*, **54** (3–4): 1–376.
- MAZUR, S., 1997. A World Catalogue of the Histeridae. *Biologica Silesiae*. 373 pp. Wrocław.
- MAZUR, S., 2011. A Concise Catalogue of the Histeridae (Insecta: Coleoptera). 332 pp. Warsaw University of Life Science – SGGW Press, Warsaw.
- ÔHARA, M., 1994. A revision of the superfamily Histeroidea of Japan (Coleoptera). *Insecta matsumurana, Sapporo*, (n. ser.), (51): 1–283.
- ÔHARA, M., 2016. Records of Korean histerid beetles (Coleoptera) from the collection of the National Taiwan University, Taipei, Taiwan. *Elytra, Tokyo*, (n. ser.), **6**: 163–164.
- REICHARDT, A. N., 1941. Sem. Sphaeritidae i Histeridae (chast' 1). Fauna SSSR, Nasekomye zhestkokrylye, V, 3. xiii+419 pp. Moskva-Leningrad.
- REITTER, E., 1887. Insecta in itinere Cl. N. PRZEWALSKII in Asia Centrali novissime lecta. VI. Clavicornia, Lammelicornia et Serricornia. *Horae Societatis Entomologicae Rossicae*, **21**: 201–234.

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